ATTACHMENT 1

GCG
GOODWIN CONSULTING GROUP

CITY OF RANCHO CORDOVA
TRANSPORTATION DEVELOPMENT IMPACT FEE PROGRAM
NEXUS STUDY

ADMINISTRATIVE DRAFT

January 14, 2013

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CITY OF RANCHO CORDOVA
TRANSPORTATION DEVELOPMENT
IMPACT FEE PROGRAM NEXUS STUDY

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PURPOSE OF TDIF PROGRAM NEXUS STUDY

As new development continues within the City of Ranch Cordova ("City"), new or expanded backbone transportation improvements will be required to meet the demands of future development. The proposed Transportation Development Impact Fee ("TDIF") Program will fund roadway improvements, transit improvements, bikeways, and walkways that will be needed to mitigate the impacts of new development in the City. The City is updating its TDIF Program, which was adopted in 2005, to incorporate a portion of the updated facilities and costs from the City's Transportation Capital Improvement Program ("CIP"). The CIP was prepared by DKS Associates and is included as Appendix B of this report. The updated CIP and TDIF will ensure compliance with the City's General Plan, which sets forth a series of focused goals regarding the type of transportation system that is needed to serve the City's residents and employees.

The City retained Goodwin Consulting Group, Inc. to prepare this TDIF Program Nexus Study ("Nexus Study"). The updated TDIF will be established by the Rancho Cordova City Council through the adoption of a fee resolution and minor changes to the municipal code through an ordinance amendment. The TDIF Program is compliant with the requirements set forth in the Mitigation Fee Act, also known as AB 1600, and ensures that a nexus exists between future development in the City and (i) the use and need of the proposed transportation improvements, and (ii) the amount of transportation impact fees assigned to future land uses. This Nexus Study demonstrates that a reasonable relationship exists between the development impact fee to be levied on each type of land use and the cost of the facilities attributable to that land use.

RELATIONSHIP AMONG THE GENERAL PLAN TRANSPORTATION SYSTEM, CIP, & TDIF PROGRAM

The General Plan transportation system ("GP Transportation System") identifies all transportation improvements needed through buildout of the City's General Plan and identifies the gross cost of each improvement. However, not all of the facilities in the GP Transportation System are needed to serve projected development through 2035. The CIP included as Appendix B of this report identifies the facilities that the City and DKS Associates determined are needed based on estimated 2035 traffic demands.

Not all of the facilities in the CIP are needed because of increased demand for transportation improvements generated by existing and projected development in the City. Certain facilities, or components of facilities, are included in the CIP but excluded from the TDIF Program because the facilities are sized to accommodate regional trips that neither begin nor end within the City ("thru trips"). In addition, other transportation improvements excluded from the TDIF Program include "non-capacity" roadway improvements (e.g., streetscape improvements), pavement maintenance and pedestrian ADA implementation. Furthermore, a portion of the cost of certain facilities in the TDIF Program will be funded from sources other than the TDIF Program because the improvement (i) remedies an existing deficiency, (ii) is expected to be partially funded in existing County fee programs, or (iii) is expected to be partially funded by other sources. The gross TDIF Program cost was also reduced by (i) a project cost deduction and (ii) fees collected between July 2003 and January 2007 to fund transportation improvements, producing a net cost to be applied to future development in the TDIF Program.

TDIF SUMMARY

The detailed information presented in this report has been used to determine the TDIF that will be collected from new development for transportation improvements that will be needed to accommodate increased traffic volumes as growth in the City continues. Table ES-1 below identifies the updated TDIF for the major land use categories identified by the City. Specialized land uses may have unique trip generation rates, and the City will calculate the appropriate fee for these land uses based on the estimated trips the land use will generate.

TABLE ES-1
CITY OF RANCHO CORDOVA
TDIF PROGRAM
TDIF BY LAND USE

Land Use	TDIF[1]
Residential	
Single Family Detached, greater than 1,200 sq. ft.	$15,499 *per Unit*
Single Family Detached, less than or equal to 1,200 sq. ft.	$13,639 *per Unit*
Single Family Attached	$13,639 *per Unit*
Multi-Family	$10,849 *per Unit*
Non-Residential	
Commercial	$18.82 *per SF*
Office	$16.40 *per SF*
Industrial	$6.96 *per SF*
Miscellaneous	
Church	$10.15 *per SF*
Gasoline/Service Station	$20,341 *per Position*
Hotel/Motel	$9,115 *per Room*
Mobile Home Park	$8,082 *per Unit*

[1] *Includes a 3.75% fee to fund the City's program management and administration costs related to the TDIF Program.*

FEE ADJUSTMENTS

The TDIF will be adjusted in future years to reflect revised facility standards, receipt of funding from alternative sources (e.g., state or federal grants), revised costs, or changes in demographics or land use. In addition to such adjustments, in January of each calendar year, the TDIF for each type of development will automatically be adjusted by the average increase, if any, in the 20-city Construction Cost Index (CCI) and the San Francisco CCI as reported in the Engineering News Record. Fee credits and reimbursements will be available as part of the TDIF Program for eligible facilities that meet City standards.

I. INTRODUCTION

The City of Rancho Cordova ("City") is located in the eastern central portion of Sacramento County along Highway 50, neighboring the cities of Sacramento and Folsom. On July 1, 2003, Rancho Cordova incorporated and became the seventh city in Sacramento County. At the time of incorporation, the City assumed full responsibility for a variety of municipal facilities and services, including long-range and current planning for land uses and development projects as well as for facilities required to serve such projects. In 2005, the City enacted its first citywide impact fee program to fund transportation projects that would be needed to serve new development within the City.

On June 26, 2006, the City adopted its first General Plan to serve as the blueprint for future growth and development in the City. The adopted General Plan includes a circulation element that identifies all transportation facility needs anticipated in the City. The General Plan process spanned over two years and included over 50 public meetings and workshops to define local concerns and the means to address the issues of interest to Rancho Cordova's residents, businesses and decision makers.

After adoption of the General Plan, the City retained DKS Associates ("DKS") to prepare a General Plan transportation system ("GP Transportation System") based on the adopted General Plan as well as a transportation capital improvement program to identify those improvements required to serve development through 2035 ("CIP"). The resulting study prepared by DKS, *Transportation CIP and Development Impact Fee Program* ("DKS Report"), is attached herein as Appendix B. This updated Transportation Development Impact Fee Program ("TDIF Program") incorporates the analysis and results from the DKS Report.

PURPOSE OF TDIF PROGRAM NEXUS STUDY

As growth within the City continues, new or expanded backbone transportation improvements, including roadway, transit, bicycle and pedestrian facilities, will be required to meet the demands of future development. The updated CIP and TDIF will ensure compliance with the City's General Plan, which sets forth a series of focused goals regarding the type of transportation system necessary to serve the City's residents and employees.

The City retained Goodwin Consulting Group, Inc. to prepare this TDIF Program Nexus Study ("Nexus Study"). The updated TDIF will be established by the Rancho Cordova City Council through the adoption of a fee resolution and minor changes to the municipal code through an ordinance amendment. The TDIF Program is compliant with the requirements set forth in the Mitigation Fee Act, also known as AB 1600, and ensures that a nexus exists between future development in the City and (i) the use and need of the proposed transportation improvements, and (ii) the amount of transportation impact fees assigned to future land uses. This Nexus Study demonstrates that a reasonable relationship exists between the development impact fee to be levied on each type of land use and the cost of the facilities attributable to that land use.

IMPACT FEE NEXUS REQUIREMENTS (AB 1600)

Assembly Bill (AB) 1600, which was enacted by the State of California in 1987, created Section 66000 et. seq. of the Government Code. AB 1600 requires that all public agencies satisfy the following requirements when establishing, increasing, or imposing a fee as a condition of approval for a development project:

1. Identify the purpose of the fee.
2. Identify the use to which the fee will be put.
3. Determine how there is a reasonable relationship between:
    A. The fee's use and the type of development project on which the fee is imposed.
    B. The need for the public facility and the type of development project on which the fee is imposed.
    C. 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.

The assumptions, methodology, facility needs, costs, and cost allocation factors that were used to establish the nexus between the TDIF and the development on which it will be levied are summarized in the subsequent sections of this report and in the DKS Report. A summary of the specific nexus findings made in this report is provided in Section VI below.

ORGANIZATION OF REPORT

The remainder of this report has been organized into the following sections:

Section II. Discusses the land use categories to be used in the application of the fees as well as other land use assumptions used in the fee calculation. A summary of the City's land use model is also provided in this section.

Section III. Discusses the methodology used to determine the facilities included in the GP Transportation System, the CIP, and the TDIF Program.

Section IV. Identifies the cost of facilities in the CIP that are included in the TDIF Program, and explains how the costs assigned to new development were determined from the TDIF Program costs.

Section V. Discusses the methodology used to calculate the TDIF for each of the primary land uses anticipated to develop in the City.

Section VI. Presents the nexus findings related to the TDIF Program and a summary of the TDIF for each detailed land use.

Section VII. Summarizes components of the ongoing administration of the TDIF Program, including fee adjustments and exemptions, fee credits and reimbursements, and implementation of the program.

II. LAND USES

LAND USE ASSUMPTIONS

The City's Planning Department created an i-PLACE^{3}S (**I**nternet-based **PLA**nning for **C**ommunity **E**nergy, **E**conomic, and **E**nvironmental **S**ustainability) land use model to survey existing land uses within the current City limits and the larger General Plan Planning Area. The model also projected future growth through 2035 and at buildout of the General Plan. The resulting land use estimates and projections are incorporated in the DKS Report and used to develop the City's GP Transportation System and CIP. The land use estimates and projections also serve as the basis for determining which improvements are included the TDIF Program and which improvements are attributable to new growth. A summary of the i-PLACE^{3}S model and its associated assumptions is provided below.

i-PLACE^{3}S

i-PLACE^{3}S is a geographic information system ("GIS") software tool developed by the State of California Energy Commission in partnership with the Oregon Department of Energy and the Washington State Energy Office. The system was originally designed to help jurisdictions enhance the sustainability of their communities, but in recent years, as the software has been further developed and refined, local and regional agencies have been using it to evaluate growth scenarios and the associated impacts.

i-PLACE^{3}S is unique from other GIS mapping tools (including the City's existing GIS system) in that the data is dynamic. When land use categories are applied to a parcel, development characteristics, including dwelling units per acre and employees per acre, are also applied. i-PLACE^{3}S then runs a detailed set of calculations on every parcel in the project to determine the total number of dwelling units, jobs per sector, and building square footage by sector. Because i-PLACE^{3}S is geographically based, data can be summarized for sub-areas within a planning area.

Assumptions and Components of the i-PLACE^{3}S Model

Parcel-based Planning

The 2007 i-PLACE^{3}S land use model was based on the most recent parcel data for the City and the larger General Plan planning area that were available from Sacramento County in January 2007. Utilizing this base geometry, City staff modified the parcels to include recently approved tentative parcel maps for larger development projects (e.g., Sunridge Park and The Preserve). The intent of these changes was to provide a greater level of detail from which to estimate land use assumptions based on recent City approvals.

Land Use Typologies

When assumptions are placed on a parcel, it is done by using a development "Place Type". Place Types are created from a detailed set of assumptions that include the following:

- Percent of development type by sector (i.e., residential, retail/commercial, office, industrial, public, and other)
- Square footage by sector – the average dwelling unit size per Place Type or average number of square feet of building area per employee
- Parking ratios per 1,000 square feet or per dwelling unit
- Parking distribution (e.g., number of levels and location)
- Landscaping and setback requirements as a percentage of the site area
- Square feet per parking space, including drive aisles
- Residential type
- Average lot size for single-family detached lots
- Maximum height in stories

When i-PLACE^{3}S calculates the resulting development potential (e.g., residential density or employment intensity) of a Place Type, it creates a maximum intensity. As City staff applies the Place Types to parcels, development percentages that reduce the maximum intensity of a category to a likely level are used.

For parcels where more than one Place Type could or should be used, a blended Place Type has been created. Blended Place Types are made up of percentages of development Place Types (i.e., 10% parks, 60% Low Density Residential, 30% Commercial Mixed Use). Development percentages similar to those used for development Place Types have also been applied.

Constraints

The impact of environmental and physical constraints on potential development has also been taken into account as projections have been made. i-PLACE^{3}S includes a constraint function that will hold out a given percentage of land from a geographic area. City staff has estimated this percentage based on previous mapping efforts and studies and has applied them based on the General Plan planning areas. Constraints have been applied only within those Planning Areas that do not have completed detailed mapping or for which a completed detailed land plan was not available at the time the General Plan was under development.

Traffic Analysis Zones – Role in Traffic Modeling and Creating 2035 Data

While the land use model is a parcel-based model, data is summarized based on Traffic Analysis Zones ("TAZ"). Once in this format, the data from the land use mode can be imported into the regional traffic model. The TAZs for the City were provided by Fehr and Peers in 2004 as part of development of the General Plan.

The TAZs also provide a basis for adjustment of the buildout model to an earlier benchmark year. Percent reductions, based on land use type (e.g., residential, retail/commercial, office, and industrial), are applied to each TAZ to reduce the development potential to the 2035 benchmark

year. The percent reductions are calibrated to the existing conditions model for each TAZ. Growth is then extrapolated out from the existing conditions benchmark in five-year increments to buildout based on an average of 1,780 dwelling units per year. Non-residential development follows a similar growth curve; however, the start of non-residential growth is delayed a few years to allow residential uses an opportunity to form a basis for supporting non-residential uses.

Because the percent reduction method provides benchmark year "buildout" data by land use type summarized by TAZ, development that is identified within TAZs that cross jurisdictional boundaries (City/County) must be split between the jurisdictions (i.e., parcel data have been summarized to a larger TAZ level and now must be split between the two jurisdictions). To accomplish this, an analysis of the full buildout data is conducted to see what percentage of the development occurs within each jurisdiction. Those percentages are then applied to the benchmark year data and used to create a summary by jurisdiction (City/County).

Residential Product Types

The i-PLACE^{3}S model generally groups residential development into two categories – detached and attached. These are overarching categories that include a variety of product types from typical single family detached homes to attached townhomes and condominiums to apartments to residential units in a vertical mixed use project. Based on the Place Type assumptions, residential development within these two categories can be further described below.

Detached Residential: Includes all single family detached units that are located within conventional single family developments, typically one residential unit per lot.

Attached Residential: Includes all single family attached units and multi-family units. Single family attached units comprise single family dwellings that share a common exterior wall and typically includes duplexes, condos, and townhomes, but only to a maximum of 18 units per acre. Multi-family units comprise apartments, apartment-style condos, residential development that is part of a "town center" or "village center" development, and residential that is part of an office development (e.g., condos or penthouses in multi-story office buildings).

Existing Conditions

City staff has surveyed the existing conditions of the City and General Plan area as described below:

- April–June 2004: Review of existing land uses within the City
- October–November 2004: Review of existing land uses within the City's Sphere of Influence
- April 2005: Review of existing land uses in Rosemont, Larchmont, and Gold River
- January 2007: Field survey of new growth areas, review of aerial photography in the built areas of the City, and review of building permit data for new home construction.

In addition, the Sacramento Area Council of Governments ("SACOG") has supplied information on existing land uses in portions of the General Plan planning area that have not been surveyed in detail by staff (e.g., Jackson Planning Area, Grant Line South Planning Area, East Planning

Area). City staff has reviewed the SACOG data and compared it to the latest aerial photography on record to make it as accurate as possible.

Based on this collected data, an existing conditions model is created in i-PLACE^{3}S. This is a parcel-based model that attributes existing development (e.g., dwelling units and square footage) to each parcel within the study area.

Buildout and 2035 Benchmark Year

The i-PLACE^{3}S model is based on buildout of the General Plan. It looks at the full extent of urban development across the entire General Plan planning area, including both areas within and just outside of the City. In addition to providing City-wide data on development within the City, this practice provides contextual land use information for the surrounding unincorporated area.

While the 2007 land use model is generally the same as the General Plan model, there were two areas of the City where staff made adjustments, consistent with the General Plan, based on recent planning efforts. These are described below in detail.

Redevelopment Areas

In redevelopment areas of the City (e.g., Folsom Boulevard, Capital Center Business Park, and Sunrise Boulevard), the General Plan model was utilized as a base but was supplemented by updated zoning information from the Folsom Boulevard Specific Plan and 2006 General Plan Implementation Rezoning (November 2006) which included the creation of several new mixed use districts and the rezoning of over 200 parcels within the Folsom Boulevard, Sunrise Boulevard, and Zinfandel Drive/Downtown Rancho Cordova areas.

New Growth Areas

The land use model that covers new growth areas of the City is based on a combination of approved and pending development plans, consistent with the development potential outlined in the General Plan. Because the 2007 i-PLACE^{3}S model utilizes a more detailed parcel data set than the General Plan model, several land plans were updated with more detailed information. Table II.1 below lists the new growth project areas and the corresponding land plan used for the 2007 i-PLACE^{3}S land use model:

Table II.1
New Growth Project Areas and Land Use Plans

Project	Land Plan Used
Westborough	December 2004 map provided by Fehr & Peers, as provided by GenCorp, consistent with General Plan
Glenborough	Consistent with the adopted General Plan
Rio del Oro	February 2005 draft Specific Plan Land Use Map; consistent with the General Plan
Suncreek	Consistent with General Plan
Sunridge East	Approved land plan (February 2006 edition)
Sunridge Park	Approved land plan (June 2006)
Sunridge (all others)	Consistent with the General Plan's parcel-specific designations and updated to reflect approved tentative maps
The Arboretum	Consistent with the General Plan

Land Use Summary

Using the i-PLACE^{3}S land use model, the City's Planning Department estimates that, as of January 1, 2007, there are approximately 24,500 residential units and approximately 19.9 million square feet of retail/commercial, office, and industrial uses in the City. Existing residential development is comprised of 14,387 single family detached units, 3,757 single family attached units, and 10,069 multifamily units; existing non-residential development is comprised of 3.8 million square feet of retail/commercial, 9.5 million square feet of office, and 6.6 million square feet of industrial uses.

The Planning Department projects that approximately 49,800 additional residential units and 14.8 million square feet of retail/commercial, office, and industrial land uses remain to be developed in the City through 2035. Trip generation factors were applied to this projected growth to calculate the number of dwelling unit equivalents (DUEs) that would impact and, therefore, contribute to the cost of new roadway improvements. Table 17 in the DKS Report, included as Appendix B of this Nexus Study, shows the total DUE calculation.

In all, total development in the City is expected to grow to approximately 74,300 residential units and 34.7 million square feet of non-residential land uses through 2035.

TDIF PROGRAM LAND USE CATEGORIES

The Mitigation Fee Act requires that a reasonable relationship exist between the need for public facilities and the type of development on which an impact fee is imposed. General and detailed land use categories have been defined in order to distinguish between the number of trips generated by residents and employees associated with various types of land use. Existing and projected land uses generated by the i-PLACE^{3}S model are classified by general land use types (e.g., single family detached, single family attached, multi-family, retail/commercial, office, and industrial), which are incorporated in the DKS Report and serve as the basis for the cost per dwelling unit equivalent calculation included in this Nexus Study. However, detailed land use categories, as defined below, have been established for purposes of implementing the TDIF Program. These categories have been created to differentiate specific impacts from each detailed land use on transportation facilities. For example, residential land use categories are defined based on characteristics related to unit type (e.g., detached and attached) and unit size as discussed further below.

Data from the American Housing Survey and SACOG implies an indirect relationship between the size of a housing unit and the number of trips generated by a housing unit. The data indicates a negligible difference in trip generation for medium to large single family homes; however, a significant reduction in overall trip generation applies to homes that are 1,200 square feet or less. Based on these findings, a 1,200 square feet cutoff is used to delineate between residential land uses for purposes of this Nexus Study. Specifically, the American Housing Survey for the Sacramento region suggests a proportional relationship between the square footage of a dwelling unit and the number of persons residing in that unit – generally, persons per unit increases as the size of a residential unit increases. In addition, data on travel characteristics from SACOG's 2000 Household Travel Survey suggests a proportional relationship between the number of persons in a home and the number of trips generated by that household, namely that trips per household increase as persons per household increase. Based on combined data from these two sources, it can be concluded that the average number of trips generated per day is proportionally related to the number of people living in the dwelling unit, which is generally related to the size of the dwelling unit.

A TDIF has been calculated per dwelling unit for residential land uses and per square-foot of building space for most non-residential land use categories. Exceptions in the non-residential land use categories include the following: (i) gasoline/service stations for which impacts are calculated per vehicle position; (ii) mobile home parks impacts for which impacts are calculated per dwelling unit, and (iii) hotels and motels for which impacts are calculated per room. Specifically, the following detailed land use categories are identified for purposes of the TDIF Program:

Single Family Detached, greater than 1,200 sq. ft.: Includes all single family detached residential units with more than 1,200 square feet of living area based on the square footage reflected on the building permit issued for construction of the unit.

Single Family Detached, 1,200 sq. ft. or less: Includes all single family detached residential units with 1,200 square feet or less of living area based on the square footage reflected on the building permit issued for construction of the unit.

Single Family Attached: Includes the following:

- All units within a structure that has 2-4 attached units, whether such units are all offered for rent or for sale to individual owners.
- All units within a structure that has 5 or more attached units that (i) are available for sale to individual owners, and (ii) have a living area greater than 1,200 square feet.

Multi-Family: Includes the following:

- All units within a structure that has 5 or more units, all of which are offered for rent to the general public.
- All units within a structure that has 5 or more attached units that (i) are available for sale to individual owners, and (ii) have living areas less than or equal to 1,200 square feet.

Retail/Commercial: Includes, but is not limited to, retail stores, clothing stores, book stores, video rental stores, drug stores, professional services (e.g., barber shops, dry cleaners), restaurants, supermarkets, hospitals, movie theaters, appliance and electronics stores, home supply stores, tire stores, auto parts stores, and other businesses providing auto-related products and services.

Office: Includes, but is not limited to, buildings in which professional, banking, insurance, real estate, administrative or in-office medical or dental activities are conducted.

Industrial: Includes, but is not limited to, all forms of industrial, manufacturing, and warehousing land uses. Specific portions of any building space within this category that are used distinctly for retail/commercial sales, office space, or other such specific use may be charged the representative fees according to use. Remaining portions of the building will be charged fees on the industrial rate.

Miscellaneous: Includes churches, gas stations, hotels/motels, and mobile home parks.

City staff will make the final determination as to which land use category a particular development type will be assigned. Staff will determine the land use category that corresponds most directly to the development or, alternatively, can determine that none of the land use categories in this Nexus Study adequately correspond to the development in question and may work in conjunction with other members of City staff to determine the applicable fee amounts based on trip DUE factors.

III. GP TRANSPORTATION SYSTEM AND CIP

As discussed above, the City's General Plan sets forth a variety of goals and policies related to the City's transportation network. The Circulation Element of the General Plan identifies the long-range transportation system that is needed to accommodate travel demand at full buildout of the City. Detailed analysis was conducted to identify traffic volumes and patterns in order for the engineers to determine the size, configuration, and approximate cost of the needed transportation improvements. The result of this effort is the City's GP Transportation System, which identifies improvements that will be part of the City's comprehensive circulation system at buildout of the City.

Transportation improvements in the GP Transportation System were subsequently categorized as either CIP improvements (i.e., improvements required to serve development through 2035) or post-CIP improvements (i.e., improvements required to serve development beyond 2035). Those included in the CIP were further scrutinized to determine which improvement costs, or portion thereof, are attributable to existing development and projected future growth in the City by 2035, and which costs are **not** attributable to development in the City. Non-city costs include improvements attributable to demand from regional trips that neither begin nor end within the City ("thru trips").

Only costs attributable to existing and projected land uses in the City are included in the TDIF Program. These costs are further delineated between costs associated with new growth and costs related to existing growth. Costs associated with new growth are further reduced by approximately $196 million to account for outside funding for several roadway projects, as discussed in detail in Section IV below. The resulting net cost is used to calculate the TDIF. The City will need to find alternate funding sources to finance those costs related to existing deficiencies, non-city costs, and all other costs that are not included in the TDIF calculation.

GP TRANSPORTATION SYSTEM AND RELATED COSTS

The list of improvements included in the GP Transportation System was compiled using information contained in the General Plan Circulation Element, including the Roadway System and Sizing Map, Bikeway and Trails Map, and the Transit System Map. The goal of the GP Transportation System is to provide transportation facilities needed in order to support development at full buildout of the City.

Costs for transportation improvements included in the GP Transportation System were primarily developed by City staff and its consultants and are included in the DKS Report attached herein as Appendix B. Total transportation improvement costs equal approximately $2.2 billion, which include costs related to the construction and/or improvement of roadway segments, intersections, freeway interchanges, signal system, pavement maintenance, transit facilities, bikeways and walkways, and pedestrian ADA improvements.

CIP AND RELATED COSTS

The list of transportation improvements included in the CIP is based on a 2035 roadway needs analysis and findings from the City's master plan efforts on the transit, bikeways, and pedestrian elements of the transportation system. The resulting CIP includes transportation facilities needed to accommodate projected growth within the City through 2035.

The 2035 roadway needs analysis tested the demand for each of the planned long-range improvements under the City's 2035 development forecasts and was guided by the level of service policy in the General Plan. The General Plan requires level of service (LOS) D conditions on all roadways and intersections unless maintaining this standard would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. While the volume/capacity (v/c) ratio for LOS D conditions on roadways and intersections ranges from 0.80 to 0.90, the City requires that roadway or intersection improvements be constructed if the roadway or intersection has a projected v/c ratio of 0.85 or greater. The midpoint (0.85) of the v/c ratio range for LOS D conditions is used in the roadway analysis for various reasons. Primarily, the midpoint was used because of the margin of error associated with long-range development and travel forecasts, and to ensure that a roadway or intersection is improved before substantial congestion occurs.

Table III.1 below provides a summary of the general transportation categories and associated costs included in the GP Transportation System and CIP, as determined by DKS. As shown in this table, total CIP costs are more than $1.8 billion, and make up more than 82% of the GP Transportation System costs.

Table III.1
Transportation Improvement Costs
GP Transportation System, CIP, and Post-CIP Improvements

Transportation Improvements	GP Transportation System Costs	CIP Costs	Post-CIP Costs
Roadway Segments	$913,128,500	$821,044,680	$92,083,820
Intersections	$426,188,450	$354,173,450	$72,015,000
Freeway Interchanges	$199,295,500	$199,295,500	$0
Signal System	$53,775,000	$53,775,000	$0
Pavement Maintenance	$80,495,000	$80,495,000	$0
Transit Facilities	$344,996,000	$158,696,000	$186,300,000
Bikeways and Walkways	$86,614,000	$54,114,000	$32,500,000
Pedestrian ADA Improvements	$30,700,000	$30,700,000	$0
Subtotal	$2,135,192,450	$1,752,293,630	$382,898,820
Project Contingency (4%)	$85,407,698	$70,091,745	$15,315,953
Total Transportation Costs	**$2,220,600,148**	**$1,822,385,375**	**$398,214,773**

RELATIONSHIP AMONG THE GP TRANSPORTATION SYSTEM, CIP, & TDIF PROGRAM

The GP Transportation System identifies all transportation improvements needed through buildout of the City's General Plan and identifies the gross cost of each improvement. However, not all of the facilities in the GP Transportation System are needed to serve projected development through 2035. The CIP included as Appendix B of this report identifies the facilities that the City and DKS determined are needed based on estimated 2035 traffic demands.

Not all of the facilities in the CIP are needed because of increased demand for transportation improvements generated by existing and projected development in the City. Certain facilities, or components of facilities, are included in the CIP but excluded from the TDIF Program because the facilities are sized to accommodate thru trips. In order to determine which facilities are needed because of thru trips, DKS conducted a supplemental roadway segment analysis that excluded all thru trips. If the analysis identified an improvement in the CIP as necessary even after thru trips were removed, then the total cost of the improvement was included in the TDIF Program. However, if it was determined that a reduced roadway improvement would operate at an acceptable level if it were not for the impact of thru trips, then only the cost of the reduced improvement was included in the TDIF Program.

Other transportation improvements excluded from the TDIF Program include "non-capacity" roadway improvements (e.g., streetscape improvements), pavement maintenance and pedestrian ADA implementation. Table III.2 below contains a summary of the general transportation categories and associated costs included in the CIP, as well as a breakdown of the CIP costs that are included in and excluded from the TDIF Program. Section IV below provides additional details about the specific facility costs that will be funded through the TDIF Program, including amounts attributable to existing development and future development.

Table III.2
Transportation Improvement Costs
CIP, TDIF Program, and Non-TDIF Program

Transportation Improvements	CIP Costs	Total TDIF Program Costs	Non-TDIF Program Costs
Roadways, Intersections, Interchanges and Signal System	$1,428,288,630	$1,286,360,650	$141,927,980[1]
Pavement Maintenance	$80,495,000	$0	$80,495,000
Transit Facilities	$158,696,000	$158,696,000	$0
Bikeways and Walkways	$54,114,000	$54,114,000	$0
Pedestrian ADA Improvements	$30,700,000	$0	$30,700,000
Subtotal	$1,752,293,630	$1,499,170,650	$253,122,980
Project Contingency (4%)	$70,091,745	$59,966,826	$10,124,919
Total Costs	**$1,822,385,375**	**$1,559,137,476**	**$263,247,899**

[1] *Includes $17.8 million for roadway improvements needed to accommodate growth in thru trips and $124.2 million for non-capacity roadway improvements.*

IV. TDIF PROGRAM

Transportation improvements included in the TDIF Program are differentiated between improvements attributable to existing development and improvements required to serve new development through 2035. Improvements attributable to new development were further evaluated to determine if outside funding sources might be available to offset their costs. For purposes of calculating the TDIF, the City is assuming that approximately $196 million in outside funding may be received to offset costs associated with new development. In addition, the City applied a 10% reduction, totaling approximately $103.9 million, to the total TDIF Program cost of approximately $1.04 billion to reflect a level of uncertainty in the scope and cost estimates of certain improvement projects. As a result, the net cost of transportation improvements to be funded through the TDIF Program is approximately $934.9 million. Table IV.1 below summarizes the total costs included in the TDIF Program, costs related to existing deficiencies or anticipated to be funded by other sources, and the net cost included in the TDIF Program.

Table IV.1
TDIF Program Improvement Costs

TDIF Program Improvements	Total TDIF Program Costs	City Obligation	Net TDIF Program Costs
Roadways, Intersections, Interchanges and Signal System	$1,286,360,650	$413,290,792[1]	$873,069,858
Transit Facilities	$158,696,000	$64,906,664	$93,789,336
Bikeways and Walkways	$54,114,000	$22,132,626	$31,981,374
Subtotal	$1,499,170,650	$500,330,082	$998,840,568
Project Contingency (4%)	$59,966,826	$20,013,203	$39,953,623
Total Costs	**$1,559,137,476**	**$520,343,285**	**$1,038,794,191**
Project Cost Deduction (10%)			**($103,879,419)**
Net TDIF Program Cost			**$934,914,772**

[1] *Includes $196 million for roadway improvements that is attributable to new development but assumed to be covered by outside funding sources. The remaining portion is comprised of $209.1 million for existing roadway and intersection deficiencies and $22.0 million for existing signal system deficiencies.*

TDIF FACILITY CATEGORIES

Following is a summary of each transportation category in the TDIF Program as well as a description of the method used to allocate costs between existing and new development. The allocation method ensures that new development is allocated only that portion of the total

improvement costs that is associated with demand from new development, less any cost anticipated to be funded by an alternate source. As discussed further below, a portion of the facility costs will not be funded by TDIF revenues, because the improvement either remedies an existing deficiency or is anticipated to be funded by another source. The City will need to find alternate funding sources for all costs not included in the TDIF Program.

Roadway, Intersections, Interchanges and Signal System Improvements

Roadway, intersection, interchange, and signal system improvements included in the TDIF Program were identified to meet the City's level of service policy based on 2035 travel demand levels after subtracting thru trips, as determined by DKS. Of those improvements included in the TDIF Program, DKS conducted a supplemental analysis to determine which costs are attributable to new development in the City through 2035 and which costs are related to an existing deficiency. Almost $1.3 billion of roadway, intersection, interchange, and signal improvement costs are included in the TDIF Program, of which approximately $873.1 million is allocated to new development in the City through 2035. As discussed above, this cost is net of approximately $196 million that is anticipated to be covered by outside funding sources, as identified in the *Costs excluded from the Net TDIF Program* subsection of this Nexus Study.

DKS employed two methodologies to determine the roadway, intersection, interchange, and signal system improvements that are allocated to existing and new development. The first method is employed to apportion costs for all roadway improvements except those along Sunrise Boulevard ("Sunrise Complex") and Zinfandel Drive ("Zinfandel Complex"); the second method is used to apportion costs for the Sunrise and Zinfandel Complexes. A discussion of each method is provided below.

All Improvements Other Than the Sunrise and Zinfandel Complexes

For all improvements except the Sunrise and Zinfandel Complexes, DKS employed the following criteria to apportion costs:

(1) For a roadway, intersection, interchange, or signal system improvement that currently operates at a level of service (LOS) D or better conditions, but would operate at LOS E or F conditions under the 2035 traffic demand without thru trips, the entire cost of the improvement is allocated to future development; and

(2) For a roadway, intersection, interchange, or signal system improvement that currently operates at LOS E or F, the portion of the cost allocated to future development is equal to the percent of total cost that is needed to return the improvement to existing congestion levels. The percentage allocated to future development is based on the formula below, which is equal to the percentage change of the total change in volume/capacity (v/c) ratio due to the improvement needed to return the v/c ratio to current levels.

$$\% = \frac{A - B}{A - C}$$

The terms above have the following meanings:

% = the portion of the facility cost allocated to future development
A = v/c ratio of the facility (without any improvements) under 2035 traffic demand without thru trips
B = v/c ratio of the facility under current traffic demand
C = v/c ratio of the improved facility under 2035 traffic demand without thru trips

For example, if the v/c ratio of a two-lane roadway currently equals 0.94 (LOS E conditions) and its v/c ratio under the 2035 traffic demand without thru trips is estimated at 1.24 (LOS F conditions) without any improvements and at 0.62 if the roadway is widened to four lanes, then the portion of the total cost allocated to future development would be 48%, as shown below.

$$\frac{\mathbf{1.24 - 0.94}}{\mathbf{1.24 - 0.62}} = \mathbf{48\%}$$

Sunrise and Zinfandel Complexes

Various improvements along Sunrise Boulevard and Zinfandel Drive are referred to as the Sunrise Complex and Zinfandel Complex, respectively. Improvements along each of these two roadways are grouped together and referred to as a "complex" due to the close proximity of intersections along each corridor. The Sunrise Complex comprises a grade-separated "thru-traffic bypass" between US 50 and Gold Country Boulevard. The Zinfandel Complex includes at-grade intersection improvements, which comprise additional turning and through lanes at White Rock Road and Zinfandel Drive, as well as widening of the US 50 overcrossing from six to eight lanes.

While existing and future v/c ratios could be determined for all remaining roadway improvements, v/c ratios could not be determined for the Sunrise and Zinfandel Complexes due to the magnitude of and uncertainty related to these facilities. Consequently, DKS developed an alternate methodology to allocate costs for the complexes between existing development and future development. For the Sunrise and Zinfandel Complexes, the portion of the cost allocated to future development is based on the percentage of total 2035 vehicle trips using these roadway segments that are from new development in the City, as calculated by DKS.

Costs Excluded from the Net TDIF Program

As discussed above, the Net TDIF Program cost excludes approximately $71.1 million for roadway improvements attributable to future development but for which alternate funding sources are anticipated. A brief description of these costs is provided below.

- While new development's fair share of the Sunrise Complex was estimated at 44.3% (approximately $131.5 million), the City has decided to allocate $50 million, which is equal to the amount that Sacramento County has included in their fee program. The City will work with Sacramento County and SACOG to fund the remaining costs for this

regional facility. The revised allocation reduces new development's share of the Sunrise Complex improvement costs by approximately $81.5 million.

- The DKS analysis indicates the need for left-turn grade separations at both the Sunrise Boulevard/Douglas Road intersection and the Sunrise Boulevard/International Drive intersection, plus a full urban interchange at the Sunrise Boulevard/White Rock Road intersection. However, the City has decided to reduce new development's share of funding for these three intersections to an equivalent cost for at-grade improvements. The revised allocation reduces new development's share of intersection improvements by approximately $71.3 million.

- The General Plan downgraded Folsom Boulevard from 6-lanes to a 4-lane arterial. To minimize the impact and improve levels of service, the General Plan identifies aggressive operational improvements on Folsom Boulevard. The CIP includes light rail transit grade separations at four locations along Folsom Boulevard. These grade separations would not benefit light rail trains, since crossing gates allow trains to travel across those roadways without delay, but would mitigate traffic congestion along Folsom Boulevard. While new development could be allocated almost all of the $87.5 million cost for those intersection improvements, the City has decided to reduce new development's share to 50% of the total cost, thereby reducing the cost included in the TDIF by about $43.7 million.

Transit Improvements

Transit improvements included in the TDIF Program comprise bus lanes, bus stations, street cars, shuttles, light rail facilities, and maintenance facilities. Total transit costs included in the TDIF Program exceed $158.7 million, of which approximately $93.8 million are attributable to new development through 2035 and, therefore, are used to derive the TDIF. Transit improvement costs are allocated using the number of "person trips" associated with existing development (2007 person trips) and new development (2007-2035 person trips) as a percent of total person trips in 2035.

DKS estimated travel demand through 2035 using SACOG's travel demand model. The model estimates trip generation in "person trips" on various transportation modes (e.g., roadway facilities, transit services, and bike and pedestrian facilities) based on land use and demographic assumptions (e.g., residential units, non-residential square feet, persons per residential unit, and square feet per employee). The resulting percentage distribution of person trips for all transportation nodes for existing person trips and new person trips is 40.9% and 59.1%, respectively.

Bikeway and Walkway Improvements

The TDIF Program includes various bikeways and walkways, including Class I and Class II system connections and a Class I system of canal and roadway bike trail crossings. The total cost of bikeway and walkway improvements included in the TDIF Program exceeds $54.1 million, of which approximately $32.0 million is attributable to new development through

2035 and used in the calculation of the TDIF. Bikeway and walkway improvement costs are also allocated using the number of "person trips" associated with existing development (2007 person trips) and new development (2007-2035 person trips) as a percent of total person trips in 2035.

Similar to the method used to allocate transit improvement costs, DKS used the growth in person trips for all transportation nodes to allocate costs for bikeways and walkways between existing development and future development. The resulting percentage distribution of existing person trips and new person trips for bikeway and walkway costs is the same as the distribution for transit costs, which is 40.9% to existing development and 59.1% to future development through 2035.

OTHER ADJUSTMENTS TO COSTS INCLUDED IN TDIF PROGRAM

The City considered other obligations that could result in a deficiency in the TDIF Program, including costs to administer and update the TDIF Program, and improvement costs that could not be anticipated at the early facility planning stages. In addition, the City determined the current balance in the impact fee account that is available to offset facility costs included in the CIP. In total, the City included the following items in the calculation of the TDIF:

Project Contingency

A 4% contingency has been added to the net TDIF Program cost to pay for costs associated with changes in project scopes, alternative nexus-based projects, unforeseen and unbudgeted construction expenses, and other project related expenses. The 4% contingency will be managed at the City's sole discretion and will be first prioritized for regional projects being delivered by the City. In total, the net cost included in the TDIF Program was increased by $40.0 million to mitigate the risk of under-funding improvements in the program. This upward adjustment results in a revised cost of $1.04 billion.

Project Cost Deduction

The City applied a 10% reduction to the total TDIF Program cost of approximately $1.04 billion to reflect a level of uncertainty in the scope and cost estimates of certain improvement projects. The resulting impact to the net cost included in the TDIF Program was a reduction of approximately $103.9 million, which reduced the amount funded by the TDIF Program to approximately $934.9 million.

Fund Balances

The City collected approximately $33.1 million in fees from existing development between July 2003 and January 2007, which will be applied to the net TDIF Program costs. Subtracting this amount from the adjusted cost identified above results in the total net cost of $901.8 million which has been factored into the TDIF calculation discussed in Section VI below.

V. FEE METHODOLOGY

When impact fees are calculated, an analysis must be presented in enough detail to demonstrate that a logical and thorough consideration was applied in the process of determining how the fee relates to the impacts from new development. Various findings pursuant to AB 1600 must be made to ensure that there is a reasonable relationship between the fee and the development on which that impact fee will be levied. The following section of the report outlines the methodology used in this Nexus Study to calculate the TDIF.

FEE METHODOLOGY

The method used to calculate the TDIF ensures that each land use category funds its equitable share of transportation improvements based on projected impacts residents and employees will have on the improvements. The transportation improvements included in the TDIF Program are designed based on future demand projections through 2035. The City and its consultants analyzed transportation facilities identified in the City's General Plan and various master plans in order to identify future facility needs both at buildout of the General Plan area and through 2035. Following is a summary of the steps used to calculate the TDIF:

Step 1. Determine the cost per dwelling unit equivalent (DUE), which is calculated in Table 18 of the DKS Report and summarized in Table V.1 below. The following steps summarize how the cost per DUE is derived:

Step 1a. Determine the transportation improvements needed to serve full buildout of the General Plan area (i.e., GP Transportation System).

Step 1b. Identify existing development and estimate future growth projections through 2035.

Step 1c. Determine the transportation improvements needed to serve existing and future development anticipated within the City through 2035 and estimate the total cost of those improvements.

Step 1d. Determine that portion of the cost for which future growth will be responsible.

Step 1e. Subtract revenues, if any, anticipated from alternative funding sources to identify the net facilities cost to be allocated to future development.

Step 1f. Based on projections of residential units and non-residential square feet through 2035, and applying an estimate of vehicle-miles of travel (VMT), calculate a

dwelling unit equivalent (DUE) factor for each land use category. For each general land use type, a VMT amount is calculated using assumptions of average trip rates, average trip lengths, and the percentage of new trips (as opposed to pass-by or diverted trips) associated with each land use type.

Step 1g. Estimate the DUEs generated from future development by multiplying the number of projected residential units and non-residential square feet by the assigned trip DUE factors.

Step 1h. Divide the net facilities cost allocated to future development by the total DUEs generated from future development to calculate the cost per DUE for future development.

Step 2. Multiply the cost per trip from Step 1 by the DUE factor for each detailed land use type to determine the TDIF for each category.

Step 3. Increase the TDIF by 3.75% for program management and administrative costs, as explained further in Section VII below.

Table V.1 below identifies the figures used in the calculation described above. Additional details regarding the TDIF calculation are included in Section VI of this report.

Table V.1
Cost per DUE Calculation

Improvement Type	Cost Allocated to New Development
Roadway, Intersections, Interchanges and Signal System	$873,069,858
Transit Facilities	$93,789,336
Bikeways and Walkways	$31,981,374
Project Contingency (4%)	$39,953,623
Total Transportation Cost Allocated to New Development	$1,038,794,191
Less: Project Cost Deduction (10%)	($103,879,419)
Less: Fees Collected by the City from July 2003 to January 2007	($33,143,248)
Net Cost Allocated to Future Development	$901,771,524
Total Growth in DUEs from 2007- 2035	60,364
Cost per DUE	**$14,939**
Program Management and Administration (3.75%)	$560
Total Cost per DUE	**$15,499**

TRIP DUE FACTORS

As discussed in prior sections, new development leads to an increased demand for transportation facilities. For purposes of this TDIF Program, this added demand is measured by the amount of vehicle trip miles generated from new development during an average weekday. By allocating costs to each land use category based on its anticipated demand for transportation facilities, this Nexus Study ensures that each land use category will fund its fair share of the required facilities. Table A-1 in Appendix A provides a breakdown of trip generation information by land use, including the number of daily trips per land use, the average length of each trip, and the percentage of trips that are considered new trips instead of pass-by trips.

The trip generation associated with each land use is based on weekday trip rates. The weekday trips are shown per-unit for residential development and per-thousand square feet for non-residential development, with the exceptions noted above for gasoline/service stations, mobile home parks, and hotels/motels. The trips generated by non-residential land uses are weighted by the "Percent New Trips" column in Table A-1 to reflect the fact that some stops made at these locations are pass-by trips rather than trip-ends. For example, a resident may stop at a gas station on the way home from work. The stop at the gas station represents a stop on the way to the resident's final destination (his/her house), and is therefore not counted as an additional trip. The "New Trip" percentages are factored into the trip calculation, along with the average distance of the trip, to generate a DUE factor for each land use.

A DUE is a factor that quantifies different land use types in terms of their equivalence to a specific type of dwelling unit – for purposes of this Nexus Study, a single family detached unit with more than 1,200 square feet of living area is assigned a DUE factor of 1.0. The DUE factor for each of the other land use categories is determined based on the average weekday vehicle trip miles expected for the land use category relative to the trip miles for a single family detached unit that is larger than 1,200 square feet.

For example, a single family detached unit greater than 1,200 square feet is assumed to have 48.81 weekday vehicle trip miles per unit (9.57 weekday trips per unit multiplied by 5.1 miles per trip multiplied by 100% new trips). Conversely, a single family detached unit that is 1,200 square feet or less with an average weekday trip rate of 8.45 trips per unit, an average trip length of 5.1 miles, and 100% new trips would generate 43.10 trip miles. By dividing 43.10 by 48.81, a DUE factor of 0.88 is calculated for the residential unit that is 1,200 square feet or less.

As discussed previously, single family detached units are differentiated by size because of the implied relationship between the size of a dwelling unit and the number of trips generated. Similarly, the square footage of units within the Single Family Attached and Multi-family categories are incorporated in the TDIF Program. Table A-1 in Appendix A shows the calculation of DUE factors for each detailed land use type. The DUE factors are summarized below:

- 1.00 per single family detached unit greater than 1,200 square feet
- 0.88 per single family detached unit less than or equal to 1,200 square feet

- 0.88 per unit within the Single Family Attached category
- 0.70 per unit within the Multi-family category
- 1.21 per thousand square feet for Retail/Commercial land uses
- 1.06 per thousand square feet for Office land uses
- 0.45 per thousand square feet for Industrial land uses
- 0.66 per thousand square feet for Church land uses
- 1.31 per vehicle position for Gasoline/Service Station land uses
- 0.59 per room for Hotel/Motel land uses
- 0.52 per unit for Mobile Home Park land uses

The City will determine the appropriate trip DUE factors for other land uses that may develop within the City that are not shown in Table A-1.

VI. TDIF NEXUS FINDINGS AND SUMMARY

The prior sections of this Nexus Study identify facilities that are included in the City's GP Transportation System, CIP and TDIF Program, summarize the associated facility costs, delineate costs that will be incurred to mitigate impacts from new development, quantify projected land uses, and identify traffic generation factors for various land use categories. All of this information is used in this section to determine the TDIF that must be collected from new development to provide funding for improvements that will be needed to accommodate increased traffic volumes as growth in the City continues.

Future development within the City will increase the demand for transportation improvements needed to serve the growing population. The City analyzed this demand and identified roadway and intersection improvements needed to accommodate the increased traffic volumes. The City also identified transit and bikeway and walkway improvements needed to accommodate increased demand from projected development through 2035; these facilities along with roadway and intersection improvements are identified above in Section IV. The quantities, size, and costs of these facilities were calculated and allocated to future development projected through 2035 based on a nexus methodology outlined in Section V. The TDIF calculated in this section is used to pay the costs of these facilities and meets the AB 1600 nexus requirement, as outlined below.

Purpose of Fee
The purpose of the TDIF is to fund roadway, transit, bicycle and pedestrian facilities that will be needed to mitigate the impacts of new development within the City through 2035.

Use of Fee
TDIF revenue will fund a fair-share portion of the costs of improving and constructing roadway, transit, bicycle, and pedestrian facilities attributable to future development through 2035. These facilities and their costs are summarized in Section IV and identified in Appendix B of this report.

Reasonable Relationship Between the Fee's Use and the Type of Development
New development in the City will generate residents and employees who will demand additional roadway, transit, bicycle and pedestrian improvements. These transportation improvements will be funded by TDIF revenue from both residential and non-residential development in the City. Consequently, the cost of these facilities is allocated to both residential and non-residential development in the City.

Reasonable Relationship Between the Need for the Facility and the Type of Development
New residential and non-residential development will generate additional residents and employees in the City that will increase the demand for transportation facilities. Existing transportation facilities cannot provide adequate circulation, transit, and bicycle and pedestrian facilities for the increased population, and, therefore, new roadway, transit, bicycle and pedestrian facilities will be needed.

Reasonable Relationship Between the Amount of the Fee and the Cost of the Facility
The TDIF Program provides funding for transportation improvements needed to serve future development in the City through 2035. These improvements, as described in the DKS Report included in Appendix B, have been determined to be attributable to future development in the City through 2035. The relationship between the amount of the fee and the portion of the facilities cost attributable to the development type is based on trip DUEs. All future residents and employees benefit from transportation improvements funded through the TDIF Program. As such, a fair-share portion of the cost of these facilities has been allocated to residential and non-residential development based on an estimate of the number of trip DUEs anticipated in the City through 2035. Facilities to cure existing deficiencies or for which alternate funding sources are anticipated are excluded from the TDIF calculation.

TDIF SUMMARY

Using the data set forth in prior sections of this report, and applying the steps identified in Section V above, the following fees have been determined:

TABLE VI.1
CITY OF RANCHO CORDOVA
TDIF PROGRAM
TDIF BY LAND USE

Land Use	TDIF[1]
Residential	
Single Family Detached, greater than 1,200 sq. ft.	$15,499 *per Unit*
Single Family Detached, less than or equal to 1,200 sq. ft.	$13,639 *per Unit*
Single Family Attached	$13,639 *per Unit*
Multi-Family	$10,849 *per Unit*
Non-Residential	
Commercial	$18.82 *per SF*
Office	$16.40 *per SF*
Industrial	$6.96 *per SF*
Miscellaneous	
Church	$10.15 *per SF*
Gasoline/Service Station	$20,341 *per Position*
Hotel/Motel	$9,115 *per Room*
Mobile Home Park	$8,082 *per Unit*

[1] *Includes a 3.75% fee to fund the City's program management and administration costs related to the TDIF Program.*

Fees are identified above for the major land use categories identified by the City. Specialized land uses may have unique trip generation rates, and the City will calculate the appropriate fee for these land uses based on the estimated trips the land use will generate.

VII. ONGOING ADMINISTRATION OF THE TDIF PROGRAM

ADMINISTRATION FEE

To defray the City's costs associated with administering the TDIF, including program management of CIP projects, project scope refinements, updating engineering studies, tracking fee credits and reimbursements, updating the Nexus Study, and any other necessary studies in support of the TDIF Program, the City will levy and collect an administration charge equal to 3.75% of the total fees. The program administration fee must be paid at building permit issuance, or as designated by the City, and cannot be credited through a fee credit or reimbursement agreement.

TDIF ADJUSTMENTS

The TDIF will be adjusted in future years to reflect revised facility standards, receipt of funding from alternative sources (e.g., state or federal grants), revised costs, or changes in demographics or land use. In addition to such adjustments, in January of each calendar year, no later than January 15, the TDIF for each type of development will automatically be adjusted by the average increase, if any, in the 20-city Construction Cost Index (CCI) and the San Francisco CCI as reported in the Engineering News Record (ENR) for the twelve-month period ending October of the prior year. For example, the adjustment for January 2014 will be determined by applying the following steps.

Step 1: Determine the "mean" CCI for October 2013 by calculating the average of the 20–city CCI and the San Francisco CCI by referring to the October 2013 issue of the ENR.

Step 2: Determine the "mean" CCI for October 2012 by calculating the average of the 20–city CCI and the San Francisco CCI by referring to the October 2012 issue of the ENR.

Step 3: Compute the adjustment factor by dividing the "mean" CCI determined in Step 1 by the "mean" CCI determined in Step 2.

Step 4: The TDIF for January 2014 shall be calculated by multiplying the adjustment factor, as calculated in Step 3, by the TDIF in place prior to the annual adjustment. However, the TDIF for January 2014 shall equal the TDIF in place prior to the annual adjustment if the adjustment factor determined in Step 3 equals less than 1.0.

As discussed in Section V, the fee categories summarized in the prior section may not be applicable to specialized development projects in the City. For example, development of a cemetery, golf course, and/or stadium would not fall under one of these categories. Other examples of specialized development projects are projects that increase trip generation rates, but

do not include building square footage, such as a parking lot expansion. For specialized development projects, the City staff will review traffic generation rates applicable to the specialized development and decide on an applicable fee.

Certain redevelopment projects may also be eligible for a fee adjustment. If, for example, a project applicant demolishes an existing 10,000 square foot building and rebuilds a 20,000 square foot building of the same land use, the applicant may be eligible for a waiver of 50% of the TDIF. If a redevelopment project results in a change of land use on a particular parcel, City staff will determine the appropriate TDIF adjustment to reflect the different trip characteristics of the original and new land uses. The City will review redevelopment requests for fee adjustments on a case-by-case basis. If the previously built structure has been vacant for more than five years, the parcel will be treated as if it was undeveloped, and no such adjustment will be applied.

TDIF CREDITS AND REIMBURSEMENTS

The City established a set of policies and procedures regarding fee credits and reimbursements. These policies are codified in Ordinance No. 33-2005 ("Ordinance"), which was adopted by the City Council on December 19, 2005. The Ordinance added Chapter 16.84 to the Rancho Cordova Municipal Code. Among other things, the Ordinance specifies that the City may authorize and issue a credit toward the construction of any transportation facilities in order of "priority". In other words, developers who construct "priority" facilities will likely receive credits or reimbursements ahead of those developers who construct "non-priority" facilities. For purposes of this Nexus Study, "priority" facilities are those facilities as determined by the City Engineer to avoid substantial congestion levels on key roadways.

TDIF EXEMPTIONS

All determinations regarding the exemptions provided in this section will be made by the City Manager or his/her designee. Generally, the following uses will be exempt from payment of the TDIF:

Public Agencies

All federal and state agencies, public school districts, and the City will be exempt from the TDIF. Other non-City public agencies will be subject to payment of the TDIF; however, the City may choose to waive some or all of the TDIF in certain cases.

Replacement/Reconstruction

a. Any replacement or reconstruction (no change in use) of any residential unit that is damaged or destroyed as a result of fire, flood, explosion, wind, earthquake, riot, or other calamity, or act of God shall be exempt from the TDIF. However, if the residential unit(s) replaced or reconstructed exceeds the documented total number of units of the damaged/destroyed residential structure, the excess units are subject to the TDIF.

b. Any replacement or reconstruction (no change in use) of any non-residential structure that is damaged or destroyed as a result of fire, flood, explosion, wind, earthquake, riot, or other calamity, or act of God shall be exempt from the TDIF. However, if the building replaced or reconstructed exceeds the documented total floor area of the damaged/destroyed building, the excess square footage is subject to the TDIF.

   If a residential and/or non-residential structure is replaced with an alternative land use, such as replacing an office building with a retail building, then City staff will determine the appropriate TDIF adjustment to reflect the different trip characteristics of the original and new land uses.

Additions/Alterations/Modifications/Temporary Facilities

a. Additions that increase the living area of a residential unit to more than 1,200 square feet.

b. Additions to single family residential structures provided no change in use occurs and a second full kitchen is not added.

c. Additions to multi-family residential structures that are not part of a mixed use type project provided no change in use occurs and no additional units result.

d. Supporting use square footage in multi-family projects, such as the office and recreation areas required to directly serve the multi-family project. The residential unit fee will provide the full mitigation required in multi-family projects.

e. Non-habitable residential structures such as decks, pools, pool cabanas, sheds, garages, etc.

f. Construction of a granny unit that does not have a full kitchen.

g. Mobile or manufactured homes with no permanent foundation.

FEE IMPLEMENTATION

According to the California Government Code, prior to levying a new fee or increasing an existing fee, an agency must hold at least one open and public meeting. At least ten days prior to this meeting, the agency must make data on infrastructure costs and funding sources available to the public. Notice of the time and place of the meeting, and a general explanation of the matter, are to be published in accordance with Section 6062a of the Government Code, which states that publication of notice shall occur for ten days in a newspaper regularly published once a week or more. The City may then adopt the new fees at the second reading.

APPENDIX A:

TDIF Tables

Table A-1
City of Rancho Cordova
Trip DUE Calculation

Land Use	Weekday Trip Rate	Trip Length (Miles)	Percent New Trips	Vehicle Mile Trips (VMT)	Trip DUE Factors
Residential					
Single Family Detached, greater than 1,200 sq. ft.[1]	9.57 per unit	5.1	100%	48.81	1.00
Single Family Detached, less than or equal to 1,200 sq. ft.[2]	8.45 per unit	5.1	100%	43.09	0.88
Single Family Attached[3]	8.45 per unit	5.1	100%	43.09	0.88
Multi-Family[4]	6.72 per unit	5.1	100%	34.27	0.70
Non-Residential					
Commercial	42.94 per KSF	2.3	60%	59.26	1.21
Office	11.01 per KSF	5.1	92%	51.66	1.06
Industrial	4.96 per KSF	4.8	92%	21.90	0.45
Miscellaneous					
Church	9.11 per KSF	3.9	90%	31.98	0.66
Gasoline/Service Station	168.56 per position	1.9	20%	64.05	1.31
Hotel/Motel	6.90 per room	6.4	65%	28.70	0.59
Mobile Home Park	4.99 per unit	5.1	100%	25.45	0.52

[1] Includes all single family detached residential units with more than 1,200 square feet of living area based on the square footage reflected on the building permit issued for construction of the unit.

[2] Includes all single family detached residential units with 1,200 square feet or less of living area based on the square footage reflected on the building permit issued for construction of the unit.

[3] Includes (i) all attached units within a structure comprising 2-4 units, regardless of ownership status, and (ii) all attached units within a structure comprising 5 or more units that are greater than 1,200 SF and are available for sale.

[4] Includes (i) all attached units within a structure comprising 5 or more units that are solely available for rent, and (ii) all attached units structure comprising 5 or more units that are 1,200 SF or less and are available for sale.

Source: City of Rancho Cordova; DKS Associates; Goodwin Consulting Group, Inc. *01/14/2013*

Table A-2
City of Rancho Cordova
TDIF Calculation

Assumptions:

Cost per new Trip DUE (per DKS Report) **$14,939**

TDIF Calculation

	Cost per New Trip DUE	Trip DUE	Administration Component	Impact Fee
Residential				
Single Family Detached, greater than 1,200 sq. ft.[1]	$14,939	1.00 per unit	3.75%	$15,499 per unit
Single Family Detached, less than or equal to 1,200 sq. ft.[2]	$14,939	0.88 per unit	3.75%	$13,639 per unit
Single Family Attached[3]	$14,939	0.88 per unit	3.75%	$13,639 per unit
Multi-Family[4]	$14,939	0.70 per unit	3.75%	$10,849 per unit
Non-Residential	**New Trip DUE**	**Trip DUE**		
Commercial	$14,939	1.21 per KSF	3.75%	$18.82 per sf
Office	$14,939	1.06 per KSF	3.75%	$16.40 per sf
Industrial	$14,939	0.45 per KSF	3.75%	$6.96 per sf
Miscellaneous				
Church	$14,939	0.66 per KSF	3.75%	$10.15 per sf
Gasoline/Service Station	$14,939	1.31 per position	3.75%	$20,341 per position
Hotel/Motel	$14,939	0.59 per room	3.75%	$9,115 per room
Mobile Home Park	$14,939	0.52 per unit	3.75%	$8,082 per unit

[1] Includes all single family detached residential units with more than 1,200 square feet of living area based on the square footage reflected on the building permit issued for construction of the unit.

[2] Includes all single family detached residential units with 1,200 square feet or less of living area based on the square footage reflected on the building permit issued for construction of the unit.

[3] Includes (i) all attached units within a structure comprising 2-4 units, regardless of ownership status, and (ii) all attached units within a structure comprising 5 or more units that are greater than 1,200 SF and are available for sale.

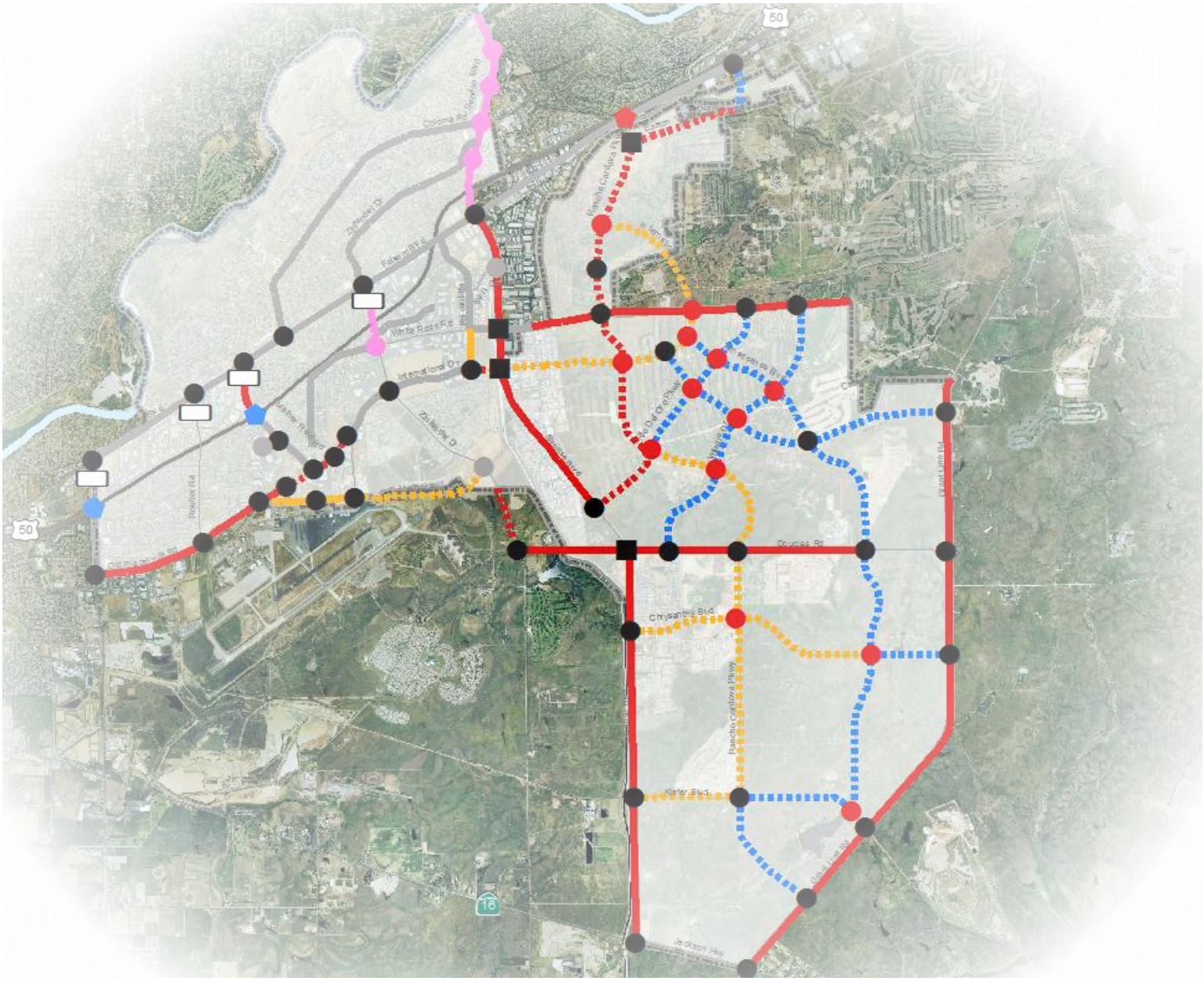
[4] Includes (i) all attached units within a structure comprising 5 or more units that are solely available for rent, and (ii) all attached units structure comprising 5 or more units that are 1,200 SF or less and are available for sale.

Source: City of Rancho Cordova; DKS Associates; Goodwin Consulting Group, Inc. *01/14/2013*

APPENDIX B:

DKS Report:
2035 Transportation CIP and
Development Impact Fee Program

TRANSPORTATION CIP AND DEVELOPMENT IMPACT FEE PROGRAM



Prepared for:

CITY OF RANCHO CORDOVA

Prepared by:

DKS Associates
TRANSPORTATION SOLUTIONS

December 2012

DKS Associates
TRANSPORTATION SOLUTIONS

Table of Contents

Executive Summary

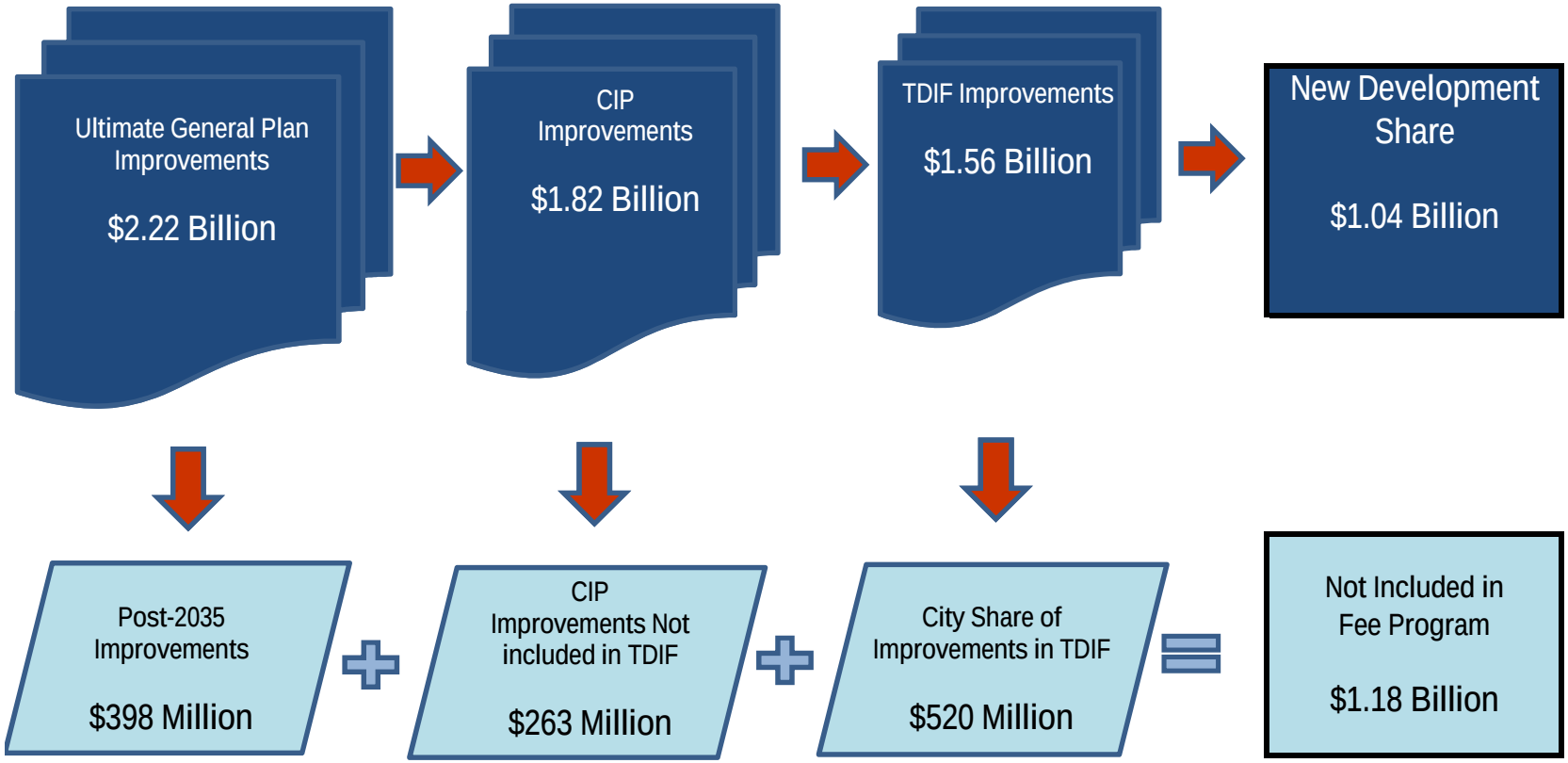
The City of Rancho Cordova's Capital Improvement Program (CIP) identifies major roadway, transit, bicycle and pedestrian facilities that are needed to accommodate projected travel demand through 2035. Between 2007 and 2035, housing units and employment in the City are expected to grow by 204 percent and 95 percent, respectively. The CIP is intended to identify infrastructure projects that will serve existing community needs, and future needs associated with development.

The City has various methods for financing the transportation improvements in the CIP. One of the key methods is the Transportation Development Impact Fee (TDIF) Program. The intent of the fee program is to provide an equitable means of ensuring that future development contributes their fair share of transportation improvements so that the City's quality of life can be maintained.

The TDIF Program does not include funding for post-2035 transportation improvements and for some of the improvements in the CIP. The transportation elements and the costs that are included and excluded from the TDIF Program are shown in Figure 1 and Table 1, and can be summarized as follows:

- The ultimate transportation improvements needed to accommodate full build out of the General Plan is projected to cost about $2.2 billion.
- The needs analysis determined that about $398 million of roadway, transit and bikeway improvements may not be required until after 2035.
- The CIP analysis determined that about $1.43 billion in roadways, intersections, interchanges and signal system improvements would be required to meet the City's level of service policy under 2035 travel demand levels
- The roadway and intersection improvements included in the TDIF Program were identified to meet the City's level of service policy under 2035 travel demand levels after "thru trips" (those with neither trip end within the City) were subtracted from the traffic demand. The TDIF Program excluded about $17.8 million in roadway improvements that were determined to accommodate the growth in thru trips.
- The TDIF Program also does not include about $235 million in "non-capacity" roadway improvements (such as streetscape improvements), pavement maintenance and pedestrian ADA implementation.
- A four percent program contingency has been applied to the total CIP costs and the costs allocated to the TDIF Program. The program contingency is intended to cover project scope changes, alternative nexus-based projects, unforeseen and unbudgeted construction expenses, and other project related expenses.

Figure 1
Project Costs Allocated to New Development



December 2012

Table 1
Summary of Costs in CIP and TDIF Program

	Costs
Ultimate General Plan Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,592,387,000
Transit	$344,996,000
Bikeways	$86,614,000
Pedestrian Facilities and ADA Implementation	$30,700,000
Pavement Maintenance	$80,495,000
Project Contingency	$85,408,000
Total	**$2,220,600,000**
Post-2035 Improvements	
Roadways, Intersections, Interchanges and Signal System	$164,098,000
Transit	$186,300,000
Bikeways	$32,500,000
Project Contingency	$15,316,000
Total	**$398,214,000**
CIP Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,428,289,000
Transit	$158,696,000
Bikeways	$54,114,000
Pedestrian Facilities and ADA Implementation	$30,700,000
Pavement Maintenance	$80,495,000
Project Contingency	$70,092,000
Total	**$1,822,386,000**
CIP Improvements not included in TDIF Program	
Roadway Improvements Needed to Accommodate Growth in Thru Trips	$17,764,000
Non-Capacity Roadway Improvements	$124,164,000
Pavement Maintenance	$80,495,000
Pedestrian Facilities and ADA Implementation	$30,700,000
Project Contingency	$10,125,000
Total	**$263,248,000**
TDIF Program Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,286,361,000
Transit	$158,696,000
Bikeways	$54,114,000
Project Contingency	$59,967,000
Total	**$1,559,138,000**

Source: DKS Associates, 2012

The City will need to secure funding for those projects excluded from the TDIF Program as well as for its share of existing deficiencies and for "existing development's" share of transit, pedestrian and walkway improvements. The City has also decided to reduce the developer-funded portion of the following major improvements:

- While new development's fair share of improvements to Sunrise Boulevard north of US 50 (the "Sunrise Complex" described in Section 3.3) was estimated at 44 percent (about $131.5 million), the City has decided to allocate $50 million, which is the equivalent amount that Sacramento County has included in their fee program. The City will work with Sacramento County and SACOG to fund the remaining costs for this regional facility. The revised allocation reduces new development's share of the Sunrise improvements by about $81.5 million.
- The analysis indicates the need for left-turn grade separations at both the Sunrise Boulevard/Douglas Road intersection and the Sunrise Boulevard/International Drive intersection, plus a full urban interchange at the Sunrise Boulevard/White Rock Road intersection. The City has decided to reduce new development's share of funding for these three intersections to an equivalent cost of at-grade improvements. The revised allocation reduces new development's share of intersection improvements by about $71.3 million.
- The City General Plan downgraded Folsom Boulevard from 6-lanes to a 4-lane arterial. To minimize the impact and improve levels of service, the General Plan identifies aggressive operational improvements on Folsom Boulevard. The CIP includes light rail transit grade separations at four locations along Folsom Boulevard. These grade separations would not benefit light rail trains, since crossing gates allow trains to travel across those roadways without delay, but would mitigate traffic congestion along Folsom Boulevard. While new development could be charged for nearly all of the $87.5 million cost for those intersection improvements, the City has decided to reduce new development's share to 50 percent of the total cost, thereby reducing new development's share of the improvements by about $43.7 million.

To reduce the developer-funded portion of these key projects, the City needs to secure an additional $196 million in outside funding.

Table 2 shows that of the total $1.56 billion in transportation improvements that are included in the TDIF Program, the City's obligation would be about $520 million while about $1.04 billion was allocated to new development in TDIF Program.

Fees are differentiated by the type of development and relative demands on the transportation system. In the allocation of costs, each development type is assigned a "dwelling unit equivalent" or "DUE" rate. DUE's measure how the trip-making characteristics of a land use type compares to a single-family residential unit. The "cost per DUE" is the development fee for a single family home and fees for other land uses are calculated using DUE ratios.

Table 2
Allocation of Costs of TDIF Program Improvements

Transportation Element	Cost Allocation		
	City Obligation	New Development	Total
Roadways, Intersections, Interchanges and Signal System	$413,290,792	$873,069,858	$1,286,360,650
Transit	$64,906,664	$93,789,336	$158,696,000
Bikeways	$22,132,626	$31,981,374	$54,114,000
Project Contingency	$20,013,203	$39,953,623	$59,966,826
Total	**$520,343,285**	**$1,038,794,191**	**$1,559,137,476**

Source: DKS Associates, 2012

Table 3 summarizes the elements and costs that are funded by the TDIF Program and the estimated "cost per DUE".

Table 3
Estimated Cost per DUE – TDIF Program Update

Elements of TDIF Program	Cost Allocated to New Development in TDIF Program
Roadways, Intersections, Interchanges and Signal System	$873,069,858
Transit	$93,789,336
Bikeways	$31,981,374
Project Contingencies	$39,953,623
Total	**$1,038,794,191**
Project Cost Deduction (10%)	$103,879,419
Total with Cost Reduction	**$934,914,772**
Fees Collected by City from July 2003 to January 2007	$33,143,248
Total Remaining Costs Funded by TDIF	**$901,771,524**
Total Growth in DUEs	60,364
Cost per DUE	**$14,939**
Administrative Cost (3.75%) per DUE	$560
Total Fee per DUE	$15,499

[1] The City has decided to apply a ten (10) percent reduction in the overall total project cost that has been allocated to new development, primarily to reflect some uncertainty in the definition and cost estimates of some improvement projects

Source: DKS Associates, 2012

The estimated cost per DUE is based on conceptual definitions and preliminary engineering of the improvement projects and then planning-level cost estimates. The cost estimates were originally prepared in 2004/2005 and have been updated to reflect the most current unit cost data available.

After discussions with representatives of the building industry, the City staff has concluded that there is some uncertainty in the definition and cost estimates of some improvement projects. Therefore, they have decided to apply a ten (10) percent reduction in the overall total improvement cost estimate that has been allocated to new development to reflect that uncertainty.

1.0 Introduction

The City of Rancho Cordova's Capital Improvement Program (CIP) includes the improvements to the City's major roadway, transit, bicycle and pedestrian facilities that are needed to accommodate projected 2035 travel demand. The City has various methods for financing the transportation improvements in the CIP. One of the key methods is the Transportation Development Impact Fee (TDIF) Program.

The TDIF Program collects funds from new development in the City to finance the portion of the transportation improvements that result from the travel demand generated by new development in the City through 2035. Fees are differentiated by the type of development in relationship to their relative impacts on the transportation system. The intent of the fee program is to provide an equitable means of ensuring that future development contributes their fair share of transportation improvements so that the City's General Plan Circulation policies and quality of life can be maintained.

When the City incorporated in July 2003, the City inherited fee programs established by Sacramento County. In 2005, the City established the costs of the roadways in the City's General Plan and prepared a Nexus Study that resulted in implementation of the City's current transportation impact fee program which replaced the outdated County roadway fee.

The City has determined that an update to the TDIF Program is necessary for the following reasons:

- Since 2005, the City has been preparing Master Plans that identify the transit, bicycle, and pedestrian infrastructure improvements that are necessary to meet the goals of the General Plan and long-range travel demands in the City. The latest projects and costs identified in those efforts were used in the updated fee estimates documented in this report.
- In February 2007, the City Planning Department released new long-range (2035) development forecasts for the City. Those development forecasts were used by DKS to conduct a long-range roadway needs analysis.
- The City determined that a re-evaluation of the definitions and cost estimates for improvement projects should be conducted to ensure a sound basis for the fee program. The cost estimates originally prepared in 2004/2005 have been updated to reflect the most current unit cost data available.
- The City determined that some adjustments should be made to the methods used to determine how much of the CIP cost should be allocated to new development, including the removal of "thru" vehicle trips to identify the capacity need that need development would help fund.

This report documents the methodology and assumptions used to estimate updated cost per DUE that will be used for updated traffic impact fee rates.

2.0 Development Forecasts

The transportation needs and fee allocation for this update of the TDIF Program are based on 2035 development forecasts prepared by the City's Planning Department and released in February 2007. Table 4 shows the estimated housing and jobs in the City for 2007 and 2035 and the growth over that 28-year period. Between 2007 and 2035, housing units and employment in the City are expected to grow by 204 percent and 95 percent, respectfully.

The definitions of the residential and non-residential uses are provided in the Nexus Study for the TDIF Program prepared by Goodwin Consulting Group.

For non-residential uses, fees are based on the square footage of a building while the travel demand model uses jobs to determine the trips generated by non-residential uses. Therefore, both the estimated number of jobs and building square footage by type is shown in Table 4.

Table 4
Summary of Development Forecasts

Land use	Units	2007	2035	Growth 2007 to 2035
Residential				
Singe-Family Detached	Dwelling Unit	14,384	36,014	21,630
Singe-Family Attached	Dwelling Unit	3,757	22,516	18,759
Multi-Family	Dwelling Unit	6,308	15,762	9,454
Total	**Dwelling Unit**	**24,449**	**74,292**	**49,843**
Non-Residential				
Retail	jobs	7,603	12,225	4,622
Office	jobs	34,703	77,321	42,618
Industrial	jobs	7,541	7,904	363
Total	**jobs**	**49,847**	**97,450**	**47,603**
Retail	Square feet	3,801,000	6,112,000	2,311,000
Office	Square feet	9,479,000	21,262,000	11,783,000
Industrial	Square feet	6,636,000	7,351,000	716,000
Total	**Square feet**	**19,916,000**	**34,725,000**	**14,810,000**

Source: City of Rancho Cordova Planning Department

3.0 Transportation Improvements

The Circulation Element of the General Plan identifies the long-range transportation system that is needed to accommodate travel demand at full build out of the City. The ultimate General Plan transportation system is outlined in following exhibits in the Circulation Element:

- The Roadway System and Sizing Map
- The Bikeway and Trails Map
- The Transit System Map

Over the last five years, the City has been evaluating the timing of the transportation improvements in the General Plan. That effort has resulted in the following:

- **Core Backbone Improvements –** The City has identified a priority set of improvements that will be needed in the short-term to avoid substantial congestion levels on key roadways.
- **CIP –** This report summarizes the transportation analyses that have defined the transportation improvements that are needed to accommodate projected growth by 2035, including a new long-range roadway needs analysis and the findings from the City's Master Plan efforts on the transit, bikeways, and pedestrian elements of the transportation system.
- **Post-2035 Improvements –** This report also summarizes those portions of the ultimate General Plan transportation system that are not likely to be needed until after 2035.

Table 5 summarizes the elements and costs that are contained in the City's ultimate General Plan transportation system and the Capital Improvement Program that is described in this report. This section describes the transportation analysis that determined the improvement projects that would be included in the CIP as well as those that would be funded in the TDIF Program.

3.1 Roadway Segment Capacity Needs

The roadway needs analysis started with the "Roadway System and Sizing" map in the General Plan that identifies the ultimate roadway needs at full build out of the City. The 2035 travel demand forecasts were prepared using SACOG's regional travel demand model with more detailed traffic analysis zones (TAZs) and roadway and transit networks within the City and surrounding areas. An iterative analysis was conducted to test the need for each of the planned long-range improvements under the City's latest 2035 development forecasts.

The roadway capacity needs analysis was guided by the level of service policy in the Circulation Element of the General Plan, which calls for maintaining LOS D conditions on all roadways and intersections unless maintaining this standard would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. The level of service analysis used in both the General Plan and CIP analyses is based on the volume to capacity (v/c) ratio on roadways and intersections.

Typically, the v/c ratio for LOS D conditions on arterial and collector roadways ranges from 0.80 to 0.90. Due to the margin of error in travel forecasting and to ensure that a roadway is improved before substantial congestion occurs, the City has indicated that a roadway widening is required if the roadway segment has a projected v/c ratio of 0.85 or greater.

However, the maximum number of lanes on a roadway segment would not exceed the number of lanes allowed in the General Plan "Roadway System and Sizing", which limits the maximum number lanes on most arterial roadways to 6 lanes and limits Folsom Boulevard to 4 lanes. With those limits, the City recognizes that LOS D conditions may not be met on some portions of Sunrise Boulevard and Folsom Boulevard.

Table 5
Summary of Long-Range Transportation Needs

Transportation Element	Estimated Costs: Ultimate General Plan Improvements	Estimated Costs: CIP
Roadway, Intersection and Interchange Improvements		
Roadway Segments	$913,128,500	$821,044,680
Intersections	$426,188,450	$354,173,450
Freeway Interchanges	$199,295,500	$199,295,500
Signal System	$53,775,000	$53,775,000
Pavement Maintenance	$80,495,000	$80,495,000
Subtotal	**$1,672,882,450**	**$1,508,783,630**
Transit, Bikeway and Pedestrian Facilities		
Transit	$344,996,000	$158,696,000
Bikeways and Walkways	$86,614,000	$54,114,000
Pedestrian ADA Improvements	$30,700,000	$30,700,000
Subtotal	**$462,310,000**	**$243,510,000**
Project Contingency (4%)	$85,407,698	$70,091,745
Total	**$2,220,600,148**	**$1,822,385,375**

Source: DKS Associates, 2012

The capacities by roadway type listed in the 2006 EIR for City of Rancho Cordova's General Plan were used for the roadway segment needs analysis. Table 6 summarizes the roadway capacity improvements, forecasted average daily traffic (ADT), and level of service analysis. The roadway needs analysis indicates that about 74 miles of roadway would need to be widened, extended or created by 2035 to accommodate growth and meet the General Plan LOS policy.

Figure 2 shows the General Plan Roadway Sizing for each roadway segment in Table 6 while Figure 3 shows the CIP roadway sizing.

3.2 Roadway Segment Needs for TDIF Program

The City needs to construct or widen a roadway to accommodate future development. Much of the increase in traffic demand would result from growth within the City, but some of the growth in traffic would be from "thru" vehicle trips that have neither end of the trip within the

City. To define the roadway and intersection improvements that would be included in the TDIF Program, the roadway segment analysis was performed a second time with the growth in "thru trips" removed. The revised roadway system needs analysis with thru trips removed is also summarized in Table 6.

For the purpose of the TDIF Program, if it was determined that the 2035 roadway improvement would still be needed with the growth in thru trips removed, then the TDIF Program would be required to pay for the entire 2035 improvement. However, if it was determined that a reduced roadway improvement would operate at acceptable levels, then the TDIF Program would only include the cost of the reduced improvement.

3.3 Intersection Capacity Needs

The analysis used to identify the required number of intersection turn lanes was based on Sacramento County's Traffic Impact Guidelines (that were also used in recent EIRs for the City) and involves the Circular 212 methodology with the County's "critical movement" capacities.

Typically, the v/c ratio for LOS D conditions for a signalized intersection ranges from 0.80 to 0.90. Due to the margin of error in travel forecasting and to ensure that a roadway is improved before substantial congestion occurs, the City has indicated that an intersection improvement is required if the v/c ratio is 0.85 or greater without the improvement.

The number of through lanes at most intersections was determined by the required number of lanes on the adjacent roadway segments. When the number of lanes would change at an intersection, because roadway segments on either side of the intersection require a different number of lanes, then an intersection analysis was preformed to determine the number of through lanes required at the intersection. New two-lane roads were assumed to have a single left and a single right turn lane at an intersection approach while new four and six lane roads were assumed to have a double left and a single right turn lane at an intersection approach. At intersections where the General Plan calls for urban interchanges to replace surface street intersections, an intersection analysis was performed to see if an interchange or a left-turn grade separation was required under 2035 traffic volumes.

Table 7 summarizes the 2035 intersection improvement needs and resulting levels of service. Figure 4 shows the location of each intersection in Table 7.

The General Plan and 2035 roadway needs analysis indicate the need for a series of capacity improvements along Zinfandel Drive and Sunrise Boulevard in the form of roadway widening, at-grade intersection improvements, and grade separations. Due to the close spacing of intersections along these two corridors, the TDIF combines these individual projects into groups referred to as "complexes".

Table 6
Summary of 2035 Roadway Improvement Needs Analysis

ID #	Roadway	Segment		Travel Lanes				ADT			LOS		
		From	To	2005	General Plan Roadway Sizing[1]	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2005	2035	2035 Without Thru Trips	2005	2035	2035 Without Thru Trips
1	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	-	6		4	-	30,900	27,700		A	C
2		Rancho Cordova Pkwy	Centennial Dr	-	4	2		-	3,300	3,300		A	A
3		Centennial Dr	Americanos Blvd	-	4	2		-	4,400	4,400		A	A
4		Americanos Blvd	White Rock Rd	-	4	2		-	10,100	10,100		A	A
7		Easton Valley Pkwy	Folsom Blvd	-	2	2		-	1,800	1,700		A	A
8	Villagio Dr	Douglas Rd	Rancho Cordova Pkwy	-	2			-	15,800	13,800		D	C
9		Rancho Cordova Pkwy	Centennial Dr	-	2			-	10,300	8,400		A	A
10		Centennial Dr	Americanos Blvd.	-	2			-	6,400	4,700		A	A
11		Americanos Blvd	White Rock Rd.	-	2			-	7,700	5,800		A	A
19	Easton Valley Pkwy	Rancho Cordova Pkwy	Rio Del Oro	-	6			-	48,800	43,700		E	D
24.1	Centennial Dr	International Dr	Rio Del Oro	-	4	2		-	9,100	8,100		A	A
24.2		Rio Del Oro Pkwy	Villagio Dr	-	4	2		-	8,600	7,600		A	A
24.3		Villagio Dr	Americanos Blvd	-	4	2		-	11,000	9,700		B	A
24.4		Americanos Blvd	Grant Line	-	4	2		-	12,000	9,200		B	A
25	Americanos Blvd	Kiefer Blvd	Chrysanthy Blvd.	-	4	2		-	12,900	12,700		C	C
26		Chrysanthy Blvd	Douglas Rd	-	4	2		-	5,500	5,300		A	A
27		Douglas Rd	Centennial Dr	-	4	2		-	9,900	9,400		A	A
28		Centennial Dr	Villagio Dr	-	4	2		-	10,100	8,400		A	A
29		Villagio Dr	Rio Del Oro	-	4	2		-	12,900	11,300		C	B
30		Rio Del Oro	International Dr	-	4	2		-	11,100	9,500		B	A
39	Bradshaw Rd	International Dr (Old Placerville)	US 50-Interchange	6	6			47,100	62,700	34,300	D	F	B
40		US 50-Interchange	Folsom Blvd.	6	6			22,600	29,300	23,900	A	A	B
45	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	-	4			-	10,100	10,100	-	A	A
46		Rancho Cordova Pkwy	Americanos Rd	-	4			-	17,200	17,200	-	A	A
47		Americanos Rd	Grant Line Rd	-	4	2		-	10,800	10,800	-	B	B
52	Coloma Rd	Folsom Blvd	Sunrise Blvd	4	4			21,400	24,700	23,100	A	B	B
54.1	Douglas Rd	Eagles Nest Rd	West City Limit	2	6			6,000	40,500	34,600	A	C	B
55		West City Limit	Sunrise Blvd.	2	6			6,000	37,600	32,200	A	B	A
56		Sunrise Blvd	Villagio Dr	2	6			6,000	35,000	32,000	A	B	B
57		Villagio Dr	Rancho Cordova Pkwy	2	6			3,800	32,900	31,200	A	B	A
58		Rancho Cordova Pkwy	Americanos Rd.	2	6		4	3,000	25,900	24,200	A	A	B
59		Americanos Rd	Grant Line Rd.	2	6	4		2,300	19,300	17,300	A	A	A
73	Femoyer St	Mather Blvd	International Dr	-	4	2		-	1,500	1,400		A	A

Table 6
Summary of 2035 Roadway Improvement Needs Analysis

ID #	Roadway	Segment		Travel Lanes				ADT			LOS		
		From	To	2005	General Plan Roadway Sizing[1]	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2005	2035	2035 Without Thru Trips	2005	2035	2035 Without Thru Trips
79	Folsom Blvd	Bradshaw Rd	Routier Rd	4	4			27,100	41,800	40,600	C	F	F
80		Routier Rd	Mather Field Rd	4	4			30,000	41,400	39,600	D	F	E
81		Mather Field Rd	Coloma Rd	4	4			33,500	34,100	32,000	E	E	D
82		Coloma Rd	Zinfandel Dr	4	4			26,100	26,600	26,500	C	C	C
83		Zinfandel Dr	Kilgore Rd	4	4			20,000	16,500	16,500	A	A	A
84		Kilgore Rd	Sunrise Blvd	4	4			17,000	23,100	23,100	A	B	B
85		Sunrise Blvd	Mercantile Dr	4	4			13,300	12,100	12,000	A	A	B
86		Mercantile Dr	Rancho Cordova Pkwy	4	4			13,300	6,500	6,200	A	A	A
87		Rancho Cordova Pkwy	Rio Del Oro	4	4			13,300	14,000	13,800	A	A	C
93	Grant Line Rd	Jackson Hwy	Rancho Cordova Pkwy	2	6		4	7,600	34,600	21,900	A	B	B
94		Rancho Cordova Pkwy	Kiefer Blvd.	2	6		4	7,600	32,000	19,100	A	A	A
95		Kiefer Blvd	Chrysanthy Blvd	2	6		4	7,400	31,000	18,700	A	A	A
96		Chrysanthy Blvd	Douglas Rd	2	6		4	9,600	39,100	26,400	A	B	B
97		Douglas Rd	Centennial Dr	2	6			8,000	44,500	31,800	A	D	A
98		Centennial Dr	City Limit	2	6			8,000	59,300	38,200	A	F	C
103	Old Placerville Rd	Bradshaw Rd	Routier Rd	2	6			20,300	70,200	50,200	F	F	E
104		Routier Rd	McCuen	4	6			13,100	67,200	48,900	A	F	E
105	International Dr	Old Placerville at McCuen	International at Airpark	-	6			-	35,200	34,000		B	B
106		McCuen / Airpark	Zinfandel	4	6			12,000	51,100	48,600	A	E	E
109		Zinfandel Dr	Kilgore Rd.	6	6			6,800	53,600	51,500	A	E	E
110		Kilgore Rd	Sunrise Blvd.	-	6			-	55,900	53,700	-	F	E
111		Sunrise Blvd	Rancho Cordova Pkwy	-	4			-	19,500	17,700	-	A	A
111		Sunrise Blvd	Rancho Cordova Pkwy	-	4			-	19,500	17,700	-	A	A
112		Rancho Cordova Pkwy	Old International	-	4		2	-	16,600	14,800	-	A	D
113		Centennial Dr	Americanos Blvd	-	4		2	-	12,100	11,200	-	A	B
114		Americanos Blvd	White Rock Rd	-	4			-	17,900	15,500	-	A	A
115		White Rock Rd	From White Rock Rd. / City Limit	-	4		2	-	16,200	13,100	-	A	C
116		City limit	Rancho Cordova Pkwy	-	6	4	2	-	18,300	14,600	-	A	D
116		Rancho Cordova Pkwy	Folsom South Canal	-	2			-	13,400	12,500	-	C	B
116		Folsom South Canal	Mercantile	-	2			-	13,400	12,500	-	C	B
124	Jackson Hwy	Sunrise Blvd	Grant Line Rd.	2	6	4		15,400	24,700	15,900	D	B	A

Table 6
Summary of 2035 Roadway Improvement Needs Analysis

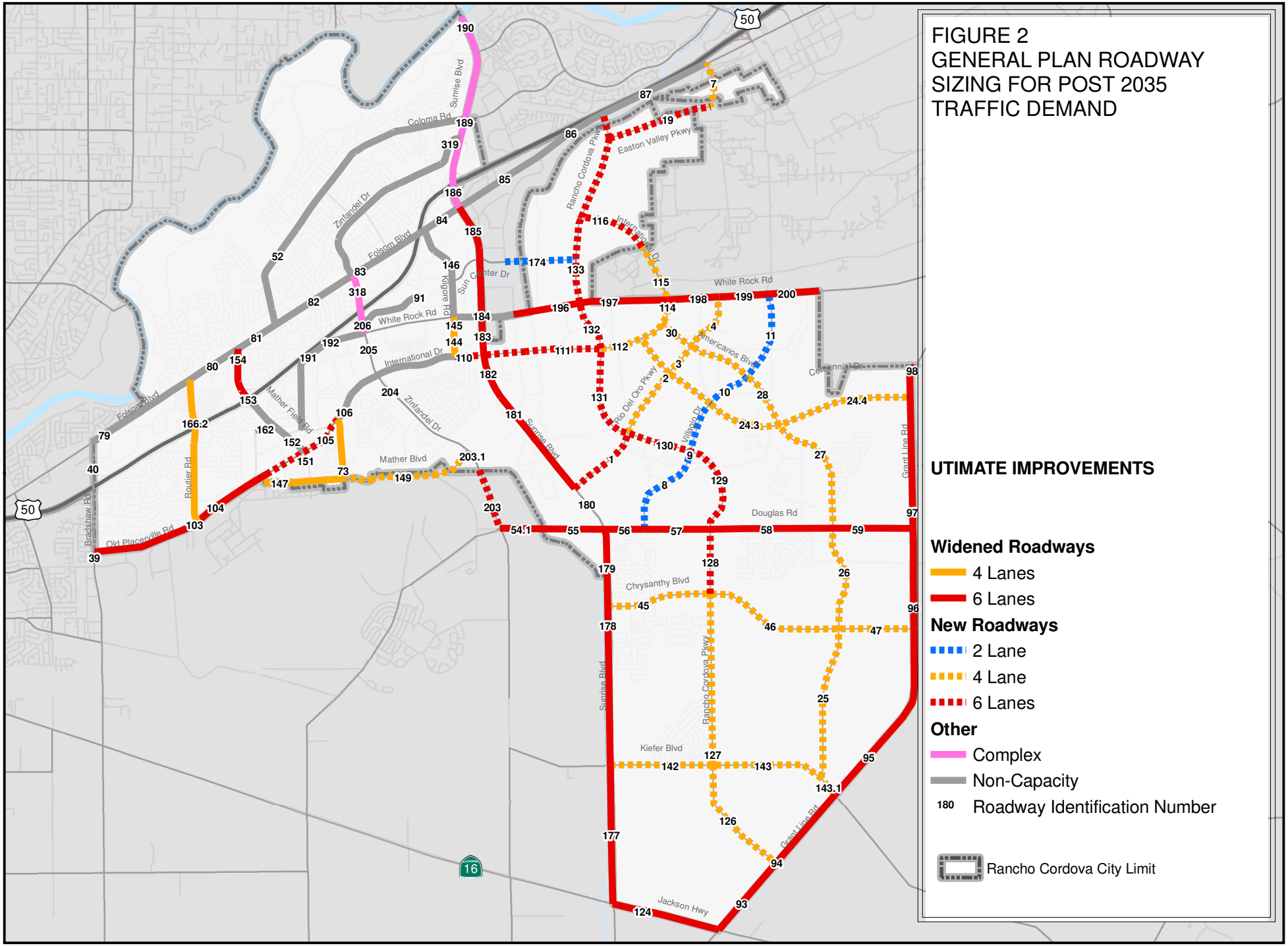
ID #	Roadway	Segment		Travel Lanes				ADT			LOS		
		From	To	2005	General Plan Roadway Sizing[1]	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2005	2035	2035 Without Thru Trips	2005	2035	2035 Without Thru Trips
126	Rancho Cordova Pkwy	Grant Line Rd	Kiefer Blvd.	-	4	2		-	2,500	2,400	-	A	A
127		Kiefer Blvd	Chrysanthy Blvd.	-	4			-	16,900	16,700	-	A	A
128		Chrysanthy Blvd	Douglas Rd.	-	6	4		-	28,700	28,500	-	C	C
129		Douglas Rd	Villagio Dr	-	6	4		-	17,400	17,200	-	A	A
130		Villagio Dr	Rio Del Oro Pkwy	-	6	4		-	16,900	16,700	-	A	A
131		Rio Del Oro Pkwy	International Dr.	-	6			-	37,900	34,500	-	C	B
132		International Dr	White Rock Rd.	-	6		4	-	32,400	29,200	-	B	D
133		White Rock Rd	International Dr.	-	6			-	46,400	42,900	-	D	C
134		International Dr	Easton Valley Pkwy	-	6			-	56,900	51,000	-	F	E
142	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	-	4			-	8,800	8,600	-	A	A
143		Rancho Cordova Pkwy	Americanos Rd.	-	4	2		-	12,500	12,300	-	B	B
143		Americanos Blvd	Grant Line Rd.	-	4	2		-	11,600	11,200	-	B	B
144	Kilgore Rd	International Dr	White Rock Rd.	4	4			8,600	13,600	13,500	A	A	A
145		White Rock Rd	Sun Center Dr.	2	2			8,300	11,100	11,100	A	B	B
146		Sun Center Dr	Folsom Blvd.	2	2								
147	Mather Blvd	McCuen (International)	Whitehead (Mather Field Rd.)		4			-	34,000	16,000		E	A
148		Whitehead (Mather Field Rd.)	Femoyer St.		4			-	20,000	17,000		A	A
149		Femoyer St	Zinfandel Dr.		4			-	21,300	18,300		A	A
151	Mather Field Rd	(Von Kaman /Whitehead) - Mather Blvd	McCuen		4			-	14,200	11,000		A	B
152		Peter A. McCuen Blvd	Rockingham Rd.		6			-	51,100	46,600		E	D
153		Rockingham Rd	US 50-Interchange	6	6			33,700	62,400	51,800	B	F	E
154		US 50-Interchange	Folsom Blvd.	4	6		4	26,400	30,100	29,200	C	A	D
162	Rockingham Dr	Mather Blvd. (Old Placerville Rd.)	Mather Field Rd.	4	4			-	19,700	13,400		A	A
166	Routier Rd	Old Placerville Rd. (International Dr.)	Hwy. 50	2	4	2		-	9,400	9,000		A	A
166		At Hwy 50	Routier Road at Hwy 50	2	4	2		-	8,700	8,400		A	A
166		Hwy 50	Folsom	2	4	2		-	8,700	8,400		A	A
173	Sun Center Dr	Sunrise Blvd	Folsom South Canal / City Limit	2	2			-	12,800	12,800		C	C
177	Sunrise Blvd	Jackson Hwy	Kiefer Blvd.	2	6			16,500	42,700	38,800	E	C	C
178		Kiefer Blvd	Chrysanthy Blvd.	2	6			18,000	40,100	35,700	F	C	B
179		Chrysanthy Blvd	Douglas Rd.	2	6			20,000	46,000	41,700	F	D	C

Table 6
Summary of 2035 Roadway Improvement Needs Analysis

ID #	Roadway	Segment		Travel Lanes				ADT			LOS		
		From	To	2005	General Plan Roadway Sizing[1]	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2005	2035	2035 Without Thru Trips	2005	2035	2035 Without Thru Trips
180	Sunrise Blvd	Douglas Rd	Rio Del Oro	4	6			25,500	53,600	46,800	C	E	D
181		Rio Del Oro	Fitzgerald Rd.	4	6			25,500	42,900	39,300	C	C	C
182		Fitzgerald Rd	International Dr. (Monier)	4	6			25,500	54,600	51,000	C	F	E
183		International Dr. (Monier)	White Rock Rd.	4	6			25,500	58,300	54,000	C	F	F
184		White Rock Rd	Sun Center Dr.	6	6			37,200	44,200	39,800	B	D	C
185		Sun Center Dr	Folsom Blvd.	6	6			57,400	70,300	65,600	F	F	F
186		Folsom Blvd	US 50-Interchange	6	6			52,100	70,200	65,800	E	F	F
187		US 50-Interchange	Zinfandel Dr.	6	6			80,000	106,500	95,400	F	F	F
188		Zinfandel Dr	Coloma Rd.	6	6			82,400	100,700	89,800	F	F	F
189		Coloma Rd	Gold Country Blvd.	6	6			80,300	100,300	89,900	F	F	F
190		Gold Country Blvd	American River / Planning Boundary	6	6			84,200	98,500	83,700	F	F	F
191	White Rock Rd	International Dr	Capitol Center Drive.	2	4			14,000	37,000	36,900	C	F	F
192		Capitol Center Drive	Zinfandel Dr.	2	4			14,000	30,500	30,400	C	D	D
193		Zinfandel Dr	Kilgore Rd.	6	6			17,900	26,700	25,100	A	A	B
194		Kilgore Rd	Sunrise Blvd.	6	6			25,400	36,000	34,000	A	B	B
195		Sunrise Blvd	Luyung / City Limit	2	6			13,200	40,300	36,800	C	C	B
196		Luyung / City Limit	Rancho Cordova Pkwy	2	6			8,800	42,500	39,700	A	C	C
197		Rancho Cordova Pkwy	International	2	6		4	6,000	32,300	29,100	A	A	D
198		International Dr	Rio Del Oro Pkwy	2	6		4	6,000	35,000	29,000	A	B	D
199		Rio Del Oro Pkwy	Villagio Dr	2	6		4	6,000	32,900	27,000	A	B	C
200		Villagio Dr	City Limit	2	6		4	6,000	34,000	27,300	A	B	C
203.0	Zinfandel Dr	Douglas Rd	Villages of Zinfandel / City Limit	-	6			-	37,900	34,500	-	C	B
203.1		Villages of Zinfandel / City Limit	North Mather Blvd.	-	6			-	37,900	34,500	-	C	B
204		North Mather Blvd	International Dr.	-	6			-	55,800	55,100	-	F	F
205		International Dr	White Rock Rd.	6	6			19,700	26,700	25,800	A	A	C
206		White Rock Rd	US 50-Interchange[2]	6	6			41,900	61,700	58,900	C	F	F
207		Olson Dr	Folsom Blvd.	4	4			22,700	27,600	27,600	B	C	C
208		Folsom Blvd	Sunrise Blvd.	2	2			7,100	13,200	13,200	A	C	C

[1] Ultimate roadway travel lanes defined in the "Roadway System and Sizing" map in the General Plan. See Figure 2.
[2] Ultimate improvement does not assume Zinfandel Complex which would provide an acceptable LOS

Source: DKS Associates, 2008



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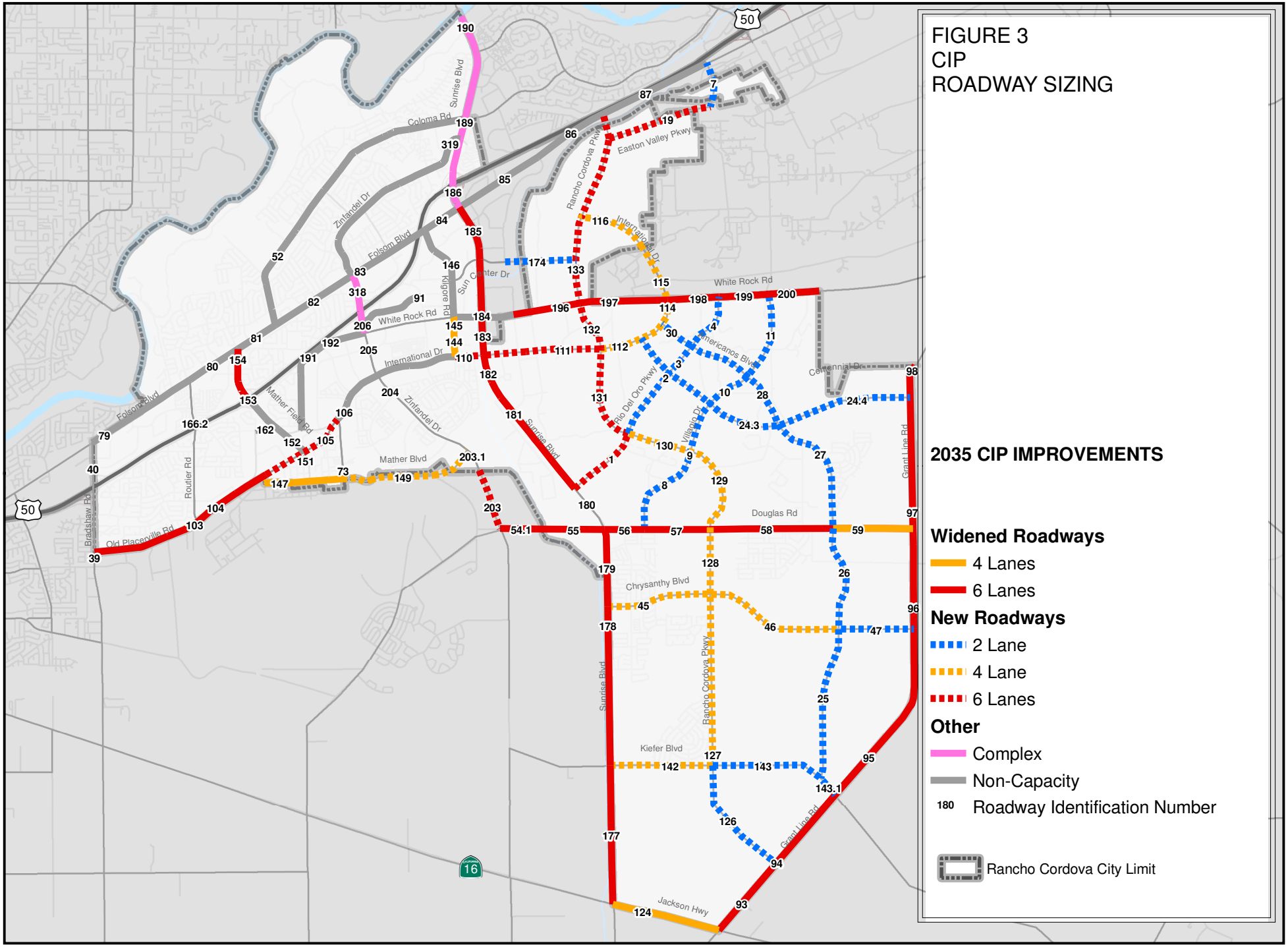

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Table 7
Intersection Lane Requirements from 2035 Needs Analysis

Project ID NO	Intersection[1]	General Plan Roadway Sizing	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2035		2035 Without Thru Trips	
					LOS[2]	V/C[2]	LOS[2]	V/C[2]
209	Rio del Oro Pkwy / Sunrise Blvd	6 x 6 Tee		4 x 6 Tee	C	0.746	C	0.701
210	Rio del Oro / Rancho Cordova Pkwy	6 x 6 New	4 x 4 New					
211	Rio del Oro Pkwy / International Dr	4 x 4 New	2 x 2 New					
212	Rio del Oro Pkwy / Americanos Rd	4 x 4 New	2 x 2 New					
213	Rio del Oro Pkwy / White Rock Rd	4 x 6	2 x 4		C	0.728	B	0.641
217	Villagio Dr / Douglas Rd	4 x 6 Tee	2 x 6 Tee	2 x 4 Tee	A	0.571	A	0.572
218	Villagio Dr / Rancho Cordova Pkwy	4 x 6 New	2 x 4 New					
219	Villagio Dr / International Dr	4 x 4 New	2 x 2 New					
220	Villagio Dr / Americanos Blvd	4 x 4 New	2 x 2 New					
221	Villagio Dr / White Rock Rd	4 x 6	2 x 4		C	0.705	A	0.501
226	Easton Valley Pkwy / Rancho Cordova Pkwy	Urban Interchange			**F[1]**	**1.287**	**F[1]**	**1.197**
230.1	7th at Folsom Blvd	4 x 4 Tee	2 x 4 Tee					
230.2	Centennial Dr / International Dr	4 x 4 Tee	2 x 4 Tee	2 x 2 Tee				
230.3	Centennial Dr / Americanos Blvd	4 x 4	2 x 2 New					
230.4	Centennial Dr / Grant Line Rd	4 x 2 x 6 x 6	2 x 6		C	0.77	A	0.485
231	Americanos Blvd / Kiefer Blvd	4 x 4 Tee New	2 x 2 Tee New		A	0.541	A	0.541
232	Americanos Blvd / Chrysanthy Blvd	4 x 4 New	2 x 2 New		B	0.604	B	0.604
233	Americanos Blvd / Douglas Rd	4 x 6	2 x 4		B	0.615	A	0.572
234	Americanos Blvd / International Dr	4 x 4 New	2 x 4					
240	Bradshaw Rd / Old Placerville Rd	6 x 6 Tee			**F**	**1.534**	**F**	**1.074**
245	Chrysanthy Blvd / Sunrise Blvd	4 x 6		2 x 6	B	0.618	B	0.618
246	Chrysanthy Blvd / Rancho Cordova Pkwy	4 x 4 x 4 x 6 New	4 x 4	2 x 4	C	0.706	C	0.706
247	Chrysanthy Blvd / Grant Line Rd	4 x 2 x 6 x 6	2 x 6	2 x 4	A	0.542	A	0.577
251	Coloma Rd / Sunrise Blvd	Sunrise Complex			**F[1]**	**1.027**	**E[1]**	**0.955**

Table 7
Intersection Lane Requirements from 2035 Needs Analysis

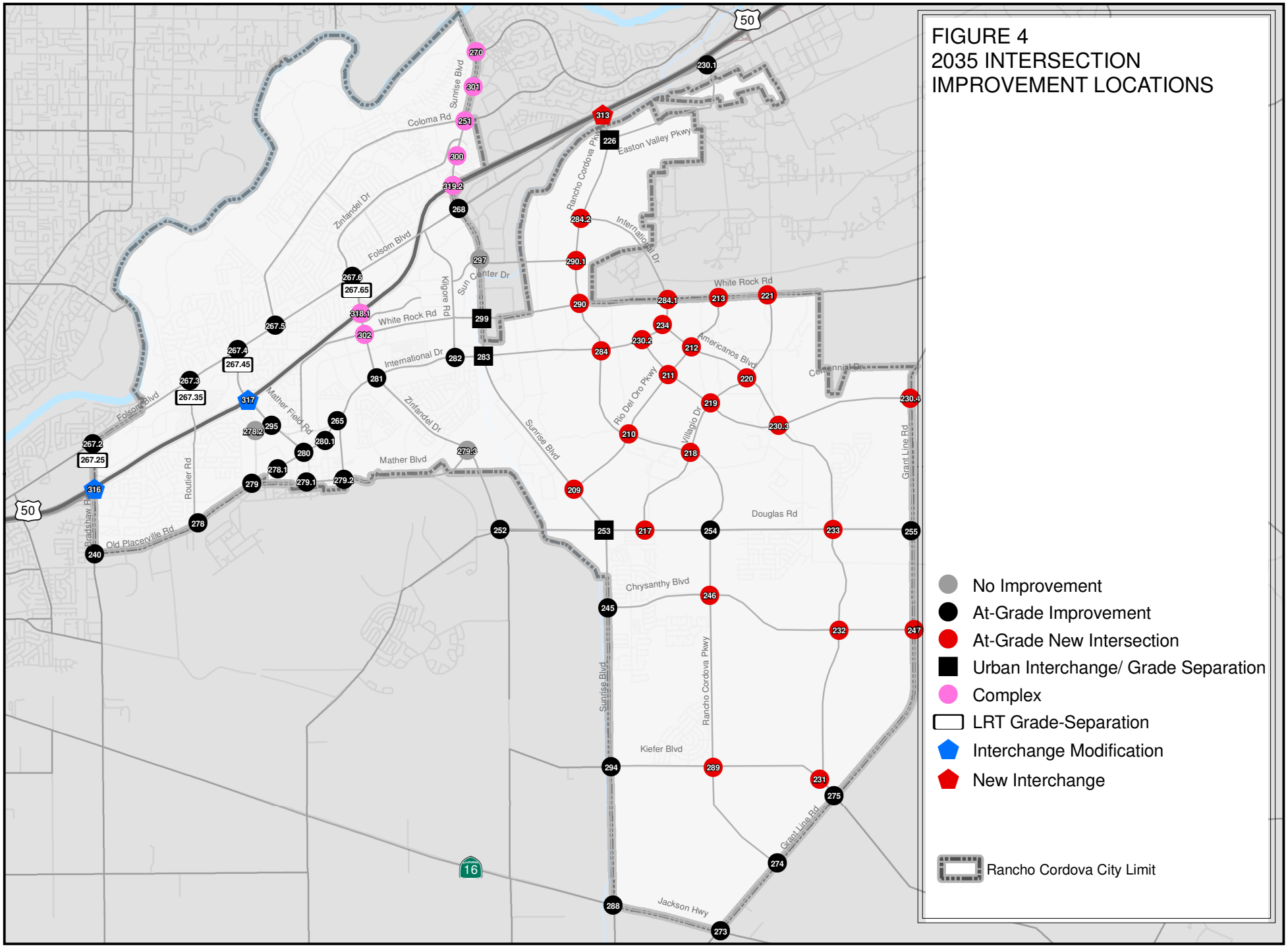
Project ID NO	Intersection[1]	General Plan Roadway Sizing	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2035		2035 Without Thru Trips	
					LOS[2]	V/C[2]	LOS[2]	V/C[2]
253	Douglas Rd / Sunrise Blvd	Urban Interchange	Left turn Separation	Left turn Separation	**E[1]**	**0.93**	D	0.847
254	Douglas Rd / Rancho Cordova Pkwy	6 x 6	6 x 4	4 x 4	C	0.706	C	0.766
255	Douglas Rd / Grant Line Rd	4 x 6		4 x 4	B	0.698	B	0.679
265	Femoyer St / International Dr	4 x 6						
267.2	Folsom Blvd / Bradshaw Rd	4 x 6			B	0.687	B	0.687
267.3	Folsom Blvd / Routier Rd	4 x 6	4 x 2		D	0.870	D	0.826
267.4	Folsom Blvd / Mather Field Rd	4 x 6		4 x 4	**E**	**0.995**	**E**	**0.945**
267.5	Folsom Blvd / Coloma Rd	4 x 4 Tee						
267.6	Folsom Blvd / Zinfandel Dr	4 x 4			B	0.639	B	0.601
268	Folsom Blvd / Sunrise Blvd	Enhanced at Grade			**F**	**1.016**	**E**	**0.934**
270	Gold Country Blvd / Sunrise Blvd	Sunrise Complex			**F[1]**	**1.007**	**E[1]**	**0.927**
273	Grant Line Rd / Jackson Hwy	6 x 6	6 x 4	4 x 4	D	0.804	C	0.755
274	Grant Line Rd / Rancho Cordova Pkwy	6 x 4 Tee	6 x 2	4 x 2	A	0.437	A	0.499
275	Grant Line Rd / Kiefer Blvd.	6 x 4 Tee	6 x 2	4 x 2	B	0.606	B	0.613
278	Old Placerville Rd / Routier Rd	6 x 6	6 x 2					
278.1	Old Placerville (International) / Peter McCuen extension	6 x 4 x 6 Tee						
278.2	Old Placerville Rd / Rockingham	At Ultimate						
279	International Dr (Old Placerville Rd) / Mather Blvd	6 x 4			**F**	**1.18**	**F**	**1.015**
279.1	Mather Blvd / Mather Field Rd	4 x 4						
279.2	Mather Blvd / Femoyer St	4 x 4 x 4 x 2						
279.3	Mather Blvd / Zinfandel Dr	At Ultimate						
280	International Dr. (Peter A McCuen Blvd.) / Mather Field Rd	6 x 6						

Table 7
Intersection Lane Requirements from 2035 Needs Analysis

Project ID NO	Intersection[1]	General Plan Roadway Sizing	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2035		2035 Without Thru Trips	
					LOS[2]	V/C[2]	LOS[2]	V/C[2]
280.1	International Dr / Peter McCuen extension	4 x 6 x 6 Tee						
281	International Dr. / Zinfandel Dr	6 x 6			**F**	**1.208**	**F**	**1.208**
282	International Dr / Kilgore Rd	6 x 4						
283	International Dr / Sunrise Blvd.	Urban Interchange	Left turn Separation	Left turn Separation	**F[1]**	**1.104**	**F[1]**	**1.005**
284	International Dr / Rancho Cordova Pkwy	6 x 4 x 6 x 6 New	4 x 6		C	0.799	C	0.735
284.1	International Dr / White Rock Rd	4 x 6 x 6 x 6 New	4 x 6	2 x 4	B	0.665	C	0.753
284.2	International Dr / Rancho Cordova Pkwy	6 x 6 Tee New	2 x 6		D	0.829	C	0.730
288	Jackson Hwy / Sunrise Blvd	6 x 6	4 x 6		D	0.813	C	0.740
289	Rancho Cordova Pkwy / Kiefer Blvd	4 x 4	2 x 2		A	0.554	A	0.554
290	Rancho Cordova Pkwy / White Rock Rd	Enhanced at Grade			D	0.871	D	0.810
290.1	Rancho Cordova Pkwy at Sun Center	6 x 2 Tee						
294	Kiefer Blvd / Sunrise Blvd	4 x 6			C	0.795	C	0.795
295	Mather Field Rd / Rockingham Rd	6 x 4						
297	Sun Center Dr / Sunrise Blvd	At Ultimate						
299	Sunrise Blvd / White Rock Rd.	Urban Interchange			**E[1]**	**0.939**	D[1]	0.854
300	Sunrise Blvd / Zinfandel Dr	Sunrise Complex			**E[1]**	**0.924**	**E[1]**	**0.924**
301	Sunrise Blvd / Gold Express Dr	Sunrise Complex						
302	White Rock Rd / Zinfandel Dr	Part of 318.1			**F[1]**	**1.327**	**F[1]**	**1.327**

[1] See Figure 4 for location of intersection improvements
[2] The volume/capacity and LOS reflect an analysis of at-grade improvements. An acceptable LOS would be provided by a grade separation.

Source: DKS Associates, 2012



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Zinfandel Complex

The Zinfandel Complex includes at-grade intersection improvements including additional turning and through lanes at White Rock Road and Zinfandel Drive, as well as widening of the US50 over crossing from six to eight lanes.

Sunrise Complex

The portion of Sunrise Boulevard between US 50 and Fair Oaks Boulevard is one of the highest volume roadways in the Sacramento region. It carries regional as well as local traffic and thus needs a regional solution. The City's General Plan Circulation Element indicates the need for two partial grade-separated intersections and two full grade-separated urban interchanges along Sunrise Boulevard between US 50 and Gold Country Boulevard. The City has had discussions with Sacramento County about improvements to the Sunrise Boulevard corridor. Alternative concepts include auxiliary lanes, a "thru-traffic bypass", grade separations, Bus Rapid Transit (BRT), Intelligent Transportation Systems (ITS), or any combination of these measures to reduce traffic congestion along Sunrise Boulevard. For the TDIF Program, the assumed improvement is a grade-separated "thru-traffic bypass" between US 50 and north of Gold Country Boulevard.

3.4 Intersection Needs for TDIF Program

The City needs to construct or widen intersections to accommodate future development. Much of the increase in traffic demand would result from growth within the City, but some of the growth in traffic would be from "thru" vehicle trips that have neither end of the trip within the City. To define the intersection improvements that would be included in the TDIF Program, the intersection analysis was preformed a second time with the growth in thru trips removed. The revised intersection needs analysis with thru trips removed is also summarized in Table 7.

For the purpose of the TDIF Program, if it was determined that the 2035 intersection improvement was still needed with the growth in thru trips removed, then the TDIF Program would be required to pay for the entire 2035 improvement. However, if it was determined that a reduced intersection improvement would operate at acceptable levels, then the TDIF Program would include only the cost for the reduced improvement.

The roadway needs analysis indicates that nine intersections would operate at LOS F conditions in 2035 with the roadway widening in the TDIF Program. These intersections are listed in Table 7. These intersection LOS calculations do not take into account grade separations – including urban interchanges, left-turn grade separations and grade separations for light-rail tracks over major roadways near their intersection with Folsom Boulevard. An analysis of 2035 peak hour conditions indicates that significant reductions in congestion could be achieved at about eight of those intersections through the addition of grade separations and these improvements are included in the TDIF Program.

3.5 Existing LOS Deficiencies

Roadway Segments Deficiencies

An analysis of existing traffic demand shows that about five miles of roadways in the City of Rancho Cordova currently operate at LOS E or F conditions. The locations and volume-to-capacity ratio of roadways with "existing LOS deficiencies" are summarized below:

- Sunrise Boulevard – American River to Gold Country Boulevard (1.56)
- Sunrise Boulevard – Gold Country Boulevard to Coloma Road (1.54)
- Sunrise Boulevard – Coloma Road to Zinfandel Drive (1.53)
- Sunrise Boulevard – Zinfandel Drive to U.S. 50 Interchange (1.48)
- Sunrise Boulevard – U.S. 50 Interchange to Folsom Boulevard (0.96)
- Sunrise Boulevard –Folsom Boulevard to Sun Center Drive (1.06)
- Sunrise Boulevard – Douglas Road to Chrysanthy Boulevard (1.11)
- Sunrise Boulevard – Chrysanthy Boulevard to Kiefer Boulevard (1.00)
- Sunrise Boulevard – Kiefer Boulevard to SR-16 (0.92)

The General Plan calls for a maximum of six lanes on the City's busiest arterial roadways. Some of these roadways already have six lanes. Many two or four lane arterials could be widened under the CIP, but some roadway segments would operate at LOS E or F conditions in 2035 with the maximum of lanes allowed under the General Plan. For 2035 traffic demand, about nine miles of roadway that would operate at LOS E or F conditions even with the maximum of lanes allowed under the General Plan.

Intersection Deficiencies

There are five intersections that currently operate at LOS E or F conditions and are thus existing deficiencies. These intersections are listed in Table 8.

Table 8
Existing Intersection Deficiencies

Project ID No.	North-South Street	East-West Street	Level of Service	Volume/Capacity
251	Sunrise Boulevard	Coloma Road	E	0.96
267.4	Mather Field Road	Folsom Boulevard	E	0.99
270	Sunrise Boulevard	Gold Country Blvd	F	1.02
273	Grant Line Road	Jackson Road	F	1.04
288	Sunrise Boulevard	Jackson Road	E	0.97

Source: DKS Associates, 2012

3.6 Transit Facilities

Transit improvements identified in the Capital Improvement Program are directly tied to recommendations from the City of Rancho Cordova Transit Master Plan approved by City Council in September of 2006. Since the adoption of the Master Plan, an implementation

strategy has been initiated and refinements to Bus Rapid Transit (BRT) Routes have been identified. The transit capital improvements included in the Transit Master Plan are supported by SACOG and have been included in the 2035 Metropolitan Transportation Plan.

BRT routes within the City include a Sunrise Corridor alignment which will follow the alignment of the City's General Plan Signature Route along Rancho Cordova Parkway south of Highway 50. A second east-west route along Old Placerville Road, International Drive and White Rock Road will parallel Highway 50 to the south. Exclusive lanes have been set aside between the Sunrise LRT station and the Sunrise Bridge over the American River.

Twenty station sites have been identified along the Signature Corridor, five of which will be Regional Transit centers providing travel information services, fare purchase centers and other transit supportive amenities. An additional 6 BRT stations will be provided along BRT Corridors that are not co-aligned with the Signature Route. Four station rehabilitation projects have also been identified along Regional Transit's Gold Line and new stations sites are proposed at Horn Road and Mine Shaft Road.

Streetcars have been identified as an appropriate technology for the 18 mile long Signature Route, however only a 4.7 mile streetcar loop thorough the downtown area is conceived for the 2035 horizon year. The remainder of the Signature Route will be served by rubber tire vehicles.

The CIP and the TDIF Program include capital costs for transit but not cost for operations and maintenance. Funding transit O&M costs is a considerable challenge.

3.7 Bikeways and Walkways

ADA Implementation and Sidewalk Gap Program projects are identified in the City's ADA Transition Plan and in the Draft Pedestrian Master Plan. The ADA Transition Plan was approved by City Council in 2005. The pedestrian appurtenances CIP item is intended as a placeholder for the purpose of retrofitting pedestrian facility concepts in the City's General Plan. Bike Trails and Canal & Roadway Trail Crossing items have been identified in the on going Bicycle Master Plan effort.

4.0 Improvement Costs

4.1 Roadway Improvements

Capital costs for roadway, intersection, and interchange projects in the TDIF Program are shown in Tables A-1 and A-2 of Appendix A. These cost estimates were developed based on standard unit costs for the various improvements identified in the circulation element of the *City of Rancho Cordova General Plan* adopted in June 2006. Some individual project estimates were subsequently refined by City staff based on specific information, such as cost estimates for projects currently being designed by other engineering firms. The costs shown herein are only those considered for inclusion in the impact fee program ("fee" portion) and, in general, do not include roadway and intersection frontage improvements considered to be the obligation of the adjacent land owner ("development" portion).

4.2 Transit Improvements

HDR prepared cost estimates for the streetcar vehicles, streetcar track work and the transit maintenance facility as part of the City's Transit Master Plan. URS ROW unit costs were used for transit station and maintenance facility lands, and URS pavement unit costs were used for the BRT bus lanes on the Sunrise Corridor. Costs for bus shuttles, light rail stations, light rail station upgrades, BRT stations and Signature Route stations are based on consultation with Sacramento Regional Transit and other local service providers. Table 9 summarizes the costs for transit improvements.

Table 9
Summary of Transit Improvement Costs

Project ID No	Facility	Description	Cost
304	Transit Facilities, Bus Lanes and Stations	Sunrise Corridor (RCP south of Douglas Road) Exclusive Bus Lanes, Median Stations, Regional Stations and BRT Stations	$60,136,000
305	City Transit System, Street Cars, Shuttles and Transit Facilities	Transit Maintenance Facility, Streetcar Track Work, Streetcar Vehicles, Bus Shuttles	$87,950,000
305.1	Completion of Signature Route - Post 2035	Street car technology on remaining 11 miles of Signature Route	$186,300,000
306	Transit Facilities, Light Rail	Light Rail station Upgrades and New Light Rail Stations	$10,610,000
		Total	**$344,996,000**

Source: City of Rancho Cordova

Table 9 includes capital costs for transit but not cost for operations and maintenance.

4.3 Bikeway and Walkway Improvements

Costing information for the ADA Transition Plan and the Sidewalk Gap Program were prepared by MIG and Dowling Associates, Inc. respectively. Costs for grade separations were prepared by Parsons Brinkerhoff, and costing for the bicycle trail connections and pedestrian appurtenances are based on planning estimates prepared by other local jurisdictions. Table 10 summarizes the costs for bikeway and pedestrian improvements

Table 10
Summary of Bicycle and Pedestrian Improvement Costs

Project ID No	Facility	Description	Cost
303	Pedestrian Facilities and ADA Implementation	Implementation of ADA Transition Plan, Sidewalk Gap Program and Pedestrian Appurtenances	$30,700,000
307	Canal and Roadway Bike Trail Crossings	Class I system over and under crossings	$42,500,000
307.1	Vision Crossings - Post 2035	Remaining over and under crossings	$27,500,000
308	Bike Trails	Class I and Class II system connections	$11,614,000
308.1	Vision Bike Trails - Post 2035	Trail completion and connections	$5,000,000
		Total	**$117,314,000**

Source: City of Rancho Cordova

5.0 Basis for Allocating Improvement Costs

The basis for allocating the cost of transportation improvements for the TDIF program update is summarized in Table 11 and is discussed in the following sections.

5.1 Roadway Capacity Improvements

The improvements included in the TDIF Program Update were identified to meet the City's level of service policy under 2035 travel demand levels after "thru trips" (those with neither trip end within the City) were subtracted from the traffic demand. Roadway capacity improvements were limited by the maximum number of lanes allowed under the General Plan.

Tables A-1 and A-2 in Appendix A list each of the roadway and intersections requiring improvements under the General Plan and show the description and costs of: 1) the ultimate improvements, 2) the CIP improvements needed to accommodate 2035 traffic volumes and 3) the improvements in the Fee Program.

For a roadway that currently operates at LOS D or better conditions but that would operate at LOS E or F conditions under "2035 traffic demand without thru trips", the entire cost of the capacity improvement was allocated to the TDIF Program. The cost of the capacity improvement allocated to the TDIF does not include the following:

- Roadway frontage improvements (i.e. curb travel lane, bike lane, curb and gutter plus sidewalk) where development is expected to occur

- Portion of cross-section on roadways along jurisdictional boundaries that was assumed to be improved by Sacramento County

For existing deficiencies (roadways that currently operate at LOS E or F), the cost of the improvement that is allocated to the TDIF program is equal to the percent of total cost that is needed to return the roadway to existing congestion levels. This allocation is equal to the percentage of the total change in volume/capacity (v/c) ratio (due to the improvement) that is needed to return the v/c ratio to current levels.

For example, the v/c ratio of a two-lane roadway currently equals 0.94 (LOS E conditions) and its v/c ratio under "2035 traffic demand without thru trips", is estimated at 1.24 (LOS F conditions) without any improvements and at 0.62 if the roadway is widened to four lanes. The cost allocated to the TDIF program for this example is calculated as follows:

(1.24 – 0.94) / (1.24 – 0.62) = 48%.

Under this example, the City will need to secure funding for the remaining 52% of the cost of this improvement from other sources.

Table 11
Basis of Cost Allocation – TDIF Program Update

Improvement Type	Facility Type	Basis for Allocating Cost to Transportation Development Impact Fee Program
Capacity Improvements on roadways and intersections	Roadway that currently operates at LOS D or better conditions and would operate at LOS E or F conditions in 2035	Full implementation cost
	Existing Deficiencies - Roadway that currently operates at LOS E or F conditions and would operate at LOS E or F conditions in 2035	Cost that is needed to bring roadway to existing congestion level based on: Percentage of the total change in volume/capacity (v/c) ratio due to the improvement that is needed to return the v/c ratio to current levels For the Sunrise and Zinfandel Complexes, the cost allocated to the TDIF Program is based on the percentage of total 2035 vehicle trips using these roadway segments that are from new development in the City
Transit Improvements	Portion of Transit Master Plan needed by 2035	Costs are spilt between existing and new development based on: 2007 to 2035 growth in total person trips generated in the City as a percent of total 2035 person trips
Walkway/Bikeway Improvements	Portion of Draft Pedestrian Master Plan and General Plan. Bike Trails needed by 2035	

Source: DKS Associates, 2012

For the Zinfandel Complex, the cost allocated to the TDIF Program is based on the percentage of total 2035 vehicle trips using Zinfandel between White Rock Road and US 50 that are from new development in the City.

The portion of Sunrise Boulevard between US 50 and Fair Oaks Boulevard carries regional as well as local traffic and thus needs a regional solution. While new development's fair share of improvements to that section of Sunrise Boulevard (the "Sunrise Complex" described in Section 3.3) was estimated at 44 percent (about $131.5 million), the City has decided to allocate $50 million, which is the equivalent amount that Sacramento County has included in their fee program. The City will work with Sacramento County and SACOG to fund the remaining costs for this regional facility.

Table 12 summarizes how the costs of the 2035 improvements on roadway and intersections that are existing deficiencies were allocated to new development in the TDIF Program.

Tables A-1 and A-2 in Appendix A show the cost allocated to new development in the City through the Fee Program for each roadway and intersection.

5.2 Transit Improvements

SACOG's travel demand model is multimodal and estimates travel demand through the following basic steps:

- It estimates trip generation in "person trips" based on the number of households and their demographics and the number of jobs by type in each traffic analysis zone (TAZ).
- It estimates the origins and destinations of each person trip based on travel time during four periods of a day.
- It estimates the travel mode that would be used by each person trip based on the available transit services and roadway facilities and on general characteristics of bike and pedestrian facilities in an area
- It assigns transit trips by route and vehicle trips by roadway based on estimated travel time during four periods of a day.

New development's "fair share" of transit improvements is based on the estimated growth in daily "person trips" generated by development in the City between 2007 to 2035 growth as a percent of total 2035 person trips. The growth in person trips Citywide is as follows:

Existing (2007) person trips	40.9%
2007 to 2035 person trips	59.1%
Total	100.0%

Table 13 shows the allocation of transit improvements in the CIP to the TDIF Program.

Table 12
Existing Deficiencies

Project ID NO	Segment / Intersection	Description of Improvement	Fee Portion	Volume/Capacity			Percent Allocation			Cost Allocated to New Growth in Fees
				Existing	2035 without Improvement	2035 with Improvement	Existing	Growth	Method[1]	
Segment Improvements - Sunrise Blvd										
177	Jackson Hwy to Kiefer Blvd	Widen to 6 Lanes	$9,893,000	0.92	2.37	0.79	8.0%	92.0%	1	$9,105,267
178	Kiefer Blvd to Chrysanthy Blvd	Widen to 6 Lanes	$11,895,000	1.00	2.23	0.74	17.3%	82.7%	1	$9,833,398
179	Chrysanthy Blvd to Douglas Rd	Widen to 6 Lanes	$6,398,000	1.11	2.56	0.85	15.2%	84.8%	1	$5,424,391
Intersection Improvements										
267.4	Folsom / Mather Field	4 x 6 Intersection	$2,232,000	0.99	1.14	1.00	0.0%	100.0%	1	$2,232,000
273	Grant Line Rd / Jackson Hwy	6 x 6 Intersection	$2,603,000	1.04	2.45	0.80	14.5%	85.5%	1	$2,224,382
288	Jackson Hwy / Sunrise Blvd	6 x 6 Intersection	$5,552,000	0.97	2.02	0.90	6.3%	93.8%	1	$5,205,000
Sunrise and Zinfandel Complexes										
318.1	Zinfandel Complex		$48,603,000				45.1%	54.9%	2	$26,683,047
319.2	Sunrise Complex		$298,832,000				55.7%	44.3%	2	$132,382,576
		Total	**$386,008,000**						**Total**	**$193,090,061**

[1] Allocation Method

1) Percentage of the total change in volume/capacity (v/c) ratio due to the improvement that is needed to return the v/c ratio to current levels
2) Percentage of total 2035 vehicle trips using these roadway segments that are from new development in the City

Source: DKS Associates, 2012

Table 13 Allocation of CIP Transit Improvements		
	Cost	**Percent**
Transit Improvements in TDIF Program		
City Obligation	$64,906.664	40.9%
New Development's Share	$93,789,336	59.1%
Total	**$158,696,000**	**100.0%**
Transit Improvements Not Included in TDIF Program		
Post-2035 Improvements in Transit Master Plan	$186,300,000	
Ultimate General Plan Transit System		
Total	**$344,996,000**	
Source: DKS Associates, 2012		

5.3 Bikeway and Walkway Improvements

New development's "fair share" of walkway and bikeway improvements is based on the estimated growth in daily "person trips" generated by development in the City between 2007 to 2035 growth as a percent of total 2035 person trips. The cost of improvements to meet ADA requirements is not included in the Fee Program.

Table 14 shows the allocation of walkway and bikeway improvements in the CIP to the TDIF Program.

Table 14 Allocation of CIP Walkway and Bikeway Improvements		
	Improvements	
	Cost	**Percent**
Bikeway Improvements in TDIF Program		
City Obligation	$22,132,626	40.9%
New Development's Share	$31,981,374	59.1%
Total	**$54,114,000**	**100.0%**
Bikeway and Pedestrian Improvements Not Included in TDIF Program		
Post-2035 Walkway and Bikeway Improvements	$32,500,000	
Pedestrian Facilities and ADA Implementation	$30,700,000	
Ultimate General Plan System		
Total	**$117,314,000**	
Source: DKS Associates, 2012		

5.4 Program Contingency

A four percent (4%) program contingency has been applied to the total costs allocated to the TDIF Program Update. The program contingency will be managed at the City's sole discretion to cover project scope changes, alternative nexus-based projects, unforeseen and unbudgeted construction expenses, and other project related expenses. The program contingency will be first prioritized for regional projects being delivered by the City.

5.5 Improvements and Elements Not Included in TDIF Fee Program

The TDIF Program does not include funding for a number of roadway improvements in the CIP and for roadway maintenance. The City will need to secure funding for those projects as well as for its share of existing deficiencies and its share of transit, pedestrian and walkway improvements. The transportation improvements and costs not allocated to new development in the TDIF Program are summarized below.

Roadways, intersections and interchanges:

The TDIF Program does not include the "ultimate" roadway, intersection and interchange improvements that are needed post-2035. These are estimated to cost about $164 million. An estimated $124 million in CIP roadway projects that are non-capacity improvements were not included in the TDIF Program.

The TDIF Program also does not include those CIP improvements that are not warranted when "thru trips" (those with neither the origin nor destination of the trip in the City) are subtracted from the travel demand. These are estimated to cost about $17.8 million.

The City has also decided to reduce the developer-funded portion of the following major improvements:

- While new development's fair share of improvements to Sunrise Boulevard north of US 50 (the "Sunrise Complex" described in Section 3.3) was estimated at 44 percent (see Table 12) or about $131.5 million), the City has decided to allocate $50 million, which is the equivalent amount that Sacramento County has included in their fee program. The City will work with Sacramento County and SACOG to fund the remaining costs for this regional facility. The revised allocation reduces new development's share of the Sunrise improvements by about $81.5 million.
- The analysis indicates the need for left-turn grade separations at both the Sunrise Boulevard/Douglas Road intersection and the Sunrise Boulevard/International Drive intersection, plus a full urban interchange at the Sunrise Boulevard/White Rock Road intersection. The City has decided to reduce new development's share of funding for these three intersections to an equivalent cost of at-grade improvements. The revised allocation reduces new development's share of intersection improvements by about $71.3 million.

- The City General Plan downgraded Folsom Boulevard from 6-lanes to a 4-lane arterial. To minimize the impact and improve levels of service, the General Plan identifies aggressive operational improvements on Folsom Boulevard. The CIP includes grade separations for the light rail tracks over four major roadways near their intersection with Folsom Boulevard: Bradshaw Road, Routier Road, Mather Field Road and Zinfandel Road. These grade separations would not benefit light rail trains since crossing gates allow trains to travel across those roadways without delay. The over-crossings are needed to mitigate traffic congestion at four intersections along Folsom Boulevard. While new development could be charged for nearly all of the $87.5 million cost for those intersection improvements, the City has decided to reduce new development's share to 50 percent of the cost of those improvements. The revised allocation reduces new development's share of intersection improvements by about $43.7 million.

To reduce the developer-funded portion of these key projects, the City needs to secure an additional $196.5 million in outside funding.

Pavement Maintenance

The TDIF Program also does not include an estimated $80.5 million for pavement maintenance.

Transit:

The TDIF Program does not include completion of the last 13.3 miles of street car technology on the 18-mile Signature Route estimated at $186.3 million.

The CIP includes capital costs for transit but not cost for operations and maintenance.

Bikeway and Walkways

The TDIF Program does not include the ten "Vision" grade separations, estimated at $27.5 million which were assumed to be post-2035 improvements. The Trail Completion and Connections, that has a "placeholder" estimate of $5 million, was also not included in the TDIF Program. The total cost of the "Vision Bike and Pedestrian System" not included in the TDIF Program is $32.5 million including contingencies. Some of these improvements will require purchase of right-of-way but the cost of right-of-way for the post-2035 bike and pedestrian improvements were not included in the above cost estimates.

The TDIF Program also does not include walkway improvements needed to satisfy ADA sidewalk gap and pedestrian appurtenances requirements estimated to cost $30.7 million. In addition to the grade separations that are part of the City's CIP, developers will be constructing about $92 million in grade separations and bike trail construction along the trail system.

Summary

Table 15 summarizes the transportation elements and costs not allocated to new development in the TDIF Program.

Table 15
Cost Not Allocated to New Development in TDIF Program

	Costs
Post-2035 Improvements	
Roadways, Intersections and Interchanges	$164,098,000
Transit	$186,300,000
Bikeway and Walkway	$32,500,000
Project Contingency	$15,316,000
Subtotal	**$398,214,000**
CIP Improvements not Included in TDIF Program	
Roadway Improvements needed to Accommodate Growth in Thru Trips	$17,764,000
Non-Capacity Roadway Improvements	$124,164,000
Pavement Maintenance	$80,495,000
Pedestrian Facilities and ADA Implementation	$30,700,000
Project Contingency	$10,125,000
Subtotal	**$263,248,000**
City Obligation to Improvements in TDIF Program	
Existing Roadway and Intersection Deficiencies	$209,082,000
Reductions in Development Funding for Key Projects	$196,535,000
Signal System	$21,994,000
Transit Improvements	$64,907,000
Bikeway Improvements	$22,133,000
Project Contingency	$20,586,000
Subtotal	**$535,237,000**
Total	**$1,196,699,000**

Source: DKS Associates, 2012

6.0 Methodology for Calculating Fees

6.1 Dwelling Unit Equivalents

In the allocation of costs to various types of developments, each development type is assigned a "dwelling unit equivalent" or "DUE" rate. DUE's are numerical measures of how the trip-making characteristics of a land use type compares to a single-family residential unit. A single-family residential unit is assigned a DUE of 1. Land uses which have greater overall traffic impacts than single-family residential units are assigned values greater than 1, while land uses with lower overall traffic impacts are assigned values less than 1.

DUE's were developed by comparing both the trip generation and trip length characteristics of various land uses to those of the single-family residential units. The DUE's reflect the relative daily trips generated by each general land use type in the travel demand model. Also considered in the calculation of DUE's are "percent new" trips since some of the vehicles attracted to non-residential uses would have been on the roadway system regardless of the presence of the traffic generator. Average trip lengths for the remaining "primary" trips generated by a development were then utilized to better reflect overall impact of longer trips on the City's roadway system.

The DUE rates were thus based on estimates of the average daily vehicle-miles of travel (VMT) generated by each general land use type. The DUE rates used to estimate the fees are shown in Table 16. Thus, 1,000 square feet of retail development is estimated to have a traffic impact on the City's roadway system which is 1.21 times that of a single-family detached residential unit.

Table 16
DUE Rates

Land Use Category[1]	Daily Trip Rate per Unit[2]	Unit	Trip Length (miles)	Percent New trips	VMT per Unit	DUE per Unit
Singe-Family Detached	9.57	Dwelling Unit	5.1	100	48.81	1.00
Singe-Family Attached	8.45		5.1	100	43.09	0.88
Multi-Family	6.72		5.1	100	34.27	0.70
Retail	42.94	1,000 Square Feet	2.3	60	59.26	1.21
Office	11.01		5.1	92	51.66	1.06
Industrial	4.96		4.8	92	21.90	0.45

[1] The definitions of the residential and non-residential uses are provided in the Nexus Study for the TDIF Program prepared by Goodwin Consulting Group.

[2] ITE Trip Generation 7th Edition

Source: DKS Associates, 2012

Table 17 shows the estimated growth in DUEs in the City between 2007 and 2035.

Table 17
Growth in Citywide DUEs

Land Use Category	Units	Growth in Units 2007 to 2035	DUE Rate per Unit[2]	Growth in DUEs 2007 to 2035
Singe-Family Detached	Dwelling Unit	21,630	1.00	21,630
Singe-Family Attached		18,759	0.88	16,508
Multi-Family		9,454	0.70	6,618
Retail	1,000 Sq Ft	2,311	1.21	2,796
Office		11,783	1.06	12,490
Industrial/Other		716	0.45	322
			Total	**60,364**

Source: DKS Associates, 2012

6.2 Fees Calculation

Table 18 summarizes the costs allocated to the TDIF Program Update and the resulting costs per DUE.

After discussions with representatives of the building industry, the City staff has concluded that there is some uncertainty in the definition and cost estimates of some improvement projects. Therefore, they have decided to apply a ten (10) percent reduction in the overall total project cost that has been allocated to new development to reflect that uncertainty.

Since its incorporation in 2003, the City has been collecting fees for projects on the TDIF Program list. While a number of improvement projects are currently under construction, none of those projects have been fully reimbursed or accepted. The City has collected about $33.1 million, which was subtracted from the $1.3 billion in costs that were allocated to be funded by new development in the TDIF Program.

The City needs to maintain the fee program, which includes financial records, updates to the program, etc. A 3.75 percent administrative cost was estimated to pay for on-going maintenance costs.

Table 18
Estimated Cost per DUE – TDIF Program Update

Elements of TDIF Program	Cost Allocated to New Development in TDIF Program
Roadways, Intersections, Interchanges and Signal System[1]	$873,069,858
Transit[2]	$93,789,336
Bikeways[3]	$31,981,374
Project Contingencies[4]	$39,953,623
Total	**$1,038,794,191**
Project Cost Deduction (10%)[5]	$103,879,419
Total with Cost Reduction	**$934,914,772**
Fees Collected by City from July 2003 to January 2007	$33,143,248
Total Remaining Costs Funded by TDIF	**$901,771,524**
Total Growth in DUEs	60,364
Cost per DUE	**$14,939**
Administrative Cost (3.75%) per DUE	$560
Total Fee per DUE	$15,499

[1] See Tables A-1 and A-2 in Appendix A for summary of costs allocated to TDIF Program
[2] See Table 13 for summary of costs of transit improvements allocated to TDIF Program
[3] See Table 14 for summary of costs of bikeway and pedestrian improvements allocated to TDIF Program
[4] See Section 5.4 for summary of contingencies allocated to TDIF Program
[1] The City has decided to apply a ten (10) percent reduction in the overall total project cost that has been allocated to new development, primarily to reflect some uncertainty in the definition and cost estimates of some improvement projects

Source: DKS Associates, 2012

DKS Associates
TRANSPORTATION SOLUTIONS

Appendix A

Detailed Cost Allocation for Roadway and Intersection Improvements

Table A-1
Summary of Roadway Segment Improvements and Costs in TDIF Program

Project ID NO	Roadway	Segment		Description of Ultimate Improvement (General Plan Roadway Sizing)	2035 CIP Lanes Based on Needs Analysis (Blank = Same as Ultimate)	Revised Lanes for Fees without Thru Trips (Blank = Same as 2035 Needs)	Estimated Cost (without frontage improvements)			Notes	Cost Allocation		
		From	To				Ultimate Improvement	2035 CIP	Description for Fees		City Obligation for Existing	New City Development	Total
Roadway Improvements													
1.0	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	New 6 Lanes		4	$3,026,000	$3,026,000	$2,614,000		$0	$2,614,000	$2,614,000
2.0		Rancho Cordova Pkwy	Centennial Dr	New 4 Lanes	2		$2,134,000	$1,076,250	$1,076,250		$0	$1,076,250	$1,076,250
3.0		Centennial Dr	Americanos Blvd	New 4 Lanes	2		$1,067,000	$369,000	$369,000		$0	$369,000	$369,000
4.0		Americanos Blvd.	White Rock Rd.	New 4 Lanes	2		$1,667,000	$677,000	$677,000		$0	$677,000	$677,000
7.0		Easton Valley Pkwy	Folsom Blvd	New 4 Lanes	2		$9,064,000	$4,123,000	$4,123,000		$0	$4,123,000	$4,123,000
8.0	Villagio Dr	Douglas Rd	Rancho Cordova Pkwy	New 2 Lanes			$0	$0	$0	Not in fees	$0	$0	$0
9.0		Rancho Cordova Pkwy	Centennial Dr	New 2 Lanes			$0	$0	$0		$0	$0	$0
10.0		Centennial Dr	Americanos Blvd	New 2 Lanes			$0	$0	$0		$0	$0	$0
11.0		Americanos Blvd	White Rock Rd.	New 2 Lanes			$0	$0	$0		$0	$0	$0
19.0	Easton Valley Pkwy	Rancho Cordova Pkwy	Rio Del Oro Pkwy	New 6 Lanes			$2,813,000	$2,813,000	$2,813,000		$0	$2,813,000	$2,813,000
24.1	Centennial Dr	International Dr	Rio Del Oro Pkwy	New 4 Lanes	2		$867,000	$400,000	$400,000		$0	$400,000	$400,000
24.2		Rio Del Oro Pkwy	Villagio Dr	New 4 Lanes	2		$1,200,000	$554,000	$554,000		$0	$554,000	$554,000
24.3		Villagio Dr	Americanos Blvd	New 4 Lanes	2		$1,801,000	$830,000	$830,000		$0	$830,000	$830,000
24.4		Americanos Blvd	Grant Line Rd	New 4 Lanes	2		$4,622,000	$2,333,000	$2,333,000		$0	$2,333,000	$2,333,000
25.0	Americanos Blvd	Kiefer Blvd	Chrysanthy Blvd.	New 4 Lanes	2		$5,356,000	$2,472,000	$2,472,000		$0	$2,472,000	$2,472,000
26.0		Chrysanthy Blvd.	Douglas Rd.	New 4 Lanes	2		$3,468,000	$1,476,000	$1,476,000		$0	$1,476,000	$1,476,000
27.0		Douglas Rd	Centennial Dr	New 4 Lanes	2		$4,545,000	$2,564,000	$2,564,000		$0	$2,564,000	$2,564,000
28.0		Centennial Dr	Villagio Dr	New 4 Lanes	2		$1,888,000	$769,000	$769,000		$0	$769,000	$769,000
29.0		Villagio Dr	Rio Del Oro	New 4 Lanes	2		$2,001,000	$769,000	$769,000		$0	$769,000	$769,000
30.0		Rio Del Oro	International Dr.	New 4 Lanes	2		$1,067,000	$308,000	$308,000		$0	$308,000	$308,000
39.0	Bradshaw Rd	Old Placerville Rd	US 50-Interchange	At Ultimate			$0	$0	$0		$0	$0	$0
40.0		US 50-Interchange	Folsom Blvd	At Ultimate			$0	$0	$0		$0	$0	$0
45.0	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$3,068,000	$3,068,000	$3,068,000		$0	$3,068,000	$3,068,000
46.0		Rancho Cordova Pkwy	Americanos Blvd	New 4 Lanes			$3,962,000	$3,962,000	$3,962,000		$0	$3,962,000	$3,962,000
47.0		Americanos Blvd	Grant Line Rd	New 4 Lanes	2		$2,001,000	$1,415,000	$1,415,000		$0	$1,415,000	$1,415,000
52.0	Coloma Rd	Folsom Blvd	Sunrise Blvd	Improve Pavement			$5,553,000	$5,553,000	$0	Not in fees	$0	$0	$0
54.1	Douglas Rd	Eagles Nest Rd	West City Limit	Formerly part of 312.3			$3,222,000	$3,222,000	$3,222,000		$0	$3,222,000	$3,222,000
55.0		West City Limit	Sunrise Blvd.	Widen to 6 Lanes			$15,948,000	$15,948,000	$15,948,000		$0	$15,948,000	$15,948,000
56.0		Sunrise Blvd	Villagio Dr	Widen to 6 Lanes		4	$1,040,000	$1,040,000	$734,000		$0	$734,000	$734,000
57.0		Villagio Dr	Rancho Cordova Pkwy	Widen to 6 Lanes			$2,698,000	$2,698,000	$2,698,000		$0	$2,698,000	$2,698,000
58.0		Rancho Cordova Pkwy	Americanos Blvd	Widen to 6 Lanes		4	$5,828,000	$5,828,000	$4,411,000		$0	$4,411,000	$4,411,000
59.0		Americanos Blvd	Grant Line Rd	Widen to 6 Lanes	4		$4,491,000	$4,446,000	$4,446,000		$0	$4,446,000	$4,446,000
73.0	Femoyer St	Mather Blvd	International Dr	Widen/New 4 Lanes	2		$2,472,000	$1,029,000	$1,029,000		$0	$1,029,000	$1,029,000
79.0	Folsom Blvd	Bradshaw Rd	Routier Rd.	Improvements			$17,019,000	$17,019,000	$0	Not in fees	$0	$0	$0
80.0		Routier Rd	Mather Field Rd.	Improvements			$8,370,000	$8,370,000	$0		$0	$0	$0
81.0		Mather Field Rd	Coloma Rd.	Improvements			$6,417,000	$6,417,000	$0		$0	$0	$0
82.0		Coloma Rd	Zinfandel Dr.	Improvements			$12,957,000	$12,957,000	$0		$0	$0	$0
83.0		Zinfandel Dr	Kilgore Rd.	Improvements			$11,180,000	$11,180,000	$0		$0	$0	$0
84.0		Kilgore Rd	Sunrise Blvd.	Improvements			$7,254,000	$7,254,000	$0		$0	$0	$0
85.0		Sunrise Blvd	Mercantile Dr.	Improvements			$13,671,000	$13,671,000	$0		$0	$0	$0
86.0		Mercantile Dr	Rancho Cordova Pkwy	Improvements			$9,765,000	$9,765,000	$0		$0	$0	$0
87.0		Rancho Cordova Pkwy	Rio Del Oro Pkwy	Improvements			$18,414,000	$18,414,000	$0		$0	$0	$0
91.0	Gold Center Dr	Zinfandel Dr	Prospect Park Dr (East)	Pavement			$429,000	$429,000	$0				
93.0	Grant Line Rd	Jackson Hwy	Rancho Cordova Pkwy	Widen to 6 Lanes Exprwy		4 (2 Sac Co)	$4,556,000	$1,171,980	$845,640	Excludes County funding	$0	$845,640	$845,640
94.0		Rancho Cordova Pkwy	Kiefer Blvd.	Widen to 6 Lanes Exprwy		4 (2 Sac Co)	$4,934,000	$1,302,200	$939,600		$0	$939,600	$939,600
95.0		Kiefer Blvd	Chrysanthy Blvd.	Widen to 6 Lanes Exprwy		4 (2 Sac Co)	$16,452,000	$2,962,505	$2,137,590		$0	$2,137,590	$2,137,590
96.0		Chrysanthy Blvd	Douglas Rd.	Widen to 6 Lanes Exprwy		4 (2 Sac Co)	$5,124,000	$1,367,310	$986,580		$0	$986,580	$986,580
97.0		Douglas Rd	Centennial Dr	Widen to 6 Lanes Exprwy			$5,867,000	$1,920,745	$1,499,780		$0	$1,499,780	$1,499,780
98.0		Centennial Dr	City Limit	Widen to 6 Lanes Exprwy			$841,000	$585,990	$457,560		$0	$457,560	$457,560

Table A-1
Summary of Roadway Segment Improvements and Costs in TDIF Program

Project ID NO	Roadway	Segment		Description of Ultimate Improvement (General Plan Roadway Sizing)	2035 CIP Lanes Based on Needs Analysis (Blank = Same as Ultimate)	Revised Lanes for Fees without Thru Trips (Blank = Same as 2035 Needs)	Estimated Cost (without frontage improvements)			Notes	Cost Allocation		
		From	To				Ultimate Improvement	2035 CIP	Description for Fees		City Obligation for Existing	New City Development	Total
103.0	Old Placerville Rd	Bradshaw Rd	Routier Rd.	Widen to 6 Lanes Exprwy			$26,541,000	$26,541,000	$26,541,000		$0	$26,541,000	$26,541,000
104.0		Routier Rd	McCuen	Widen to 6 Lanes Exprwy			$23,968,000	$23,968,000	$23,968,000		$0	$23,968,000	$23,968,000
105.0	International Dr	McCuen	Airpark	New 6 Lanes Exprwy			$28,145,000	$28,145,000	$28,145,000		$0	$28,145,000	$28,145,000
106.0		Airpark	Zinfandel Dr.	Non Capacity			$1,068,000	$1,068,000	$0	Not in fees	$0	$0	$0
107.0		White Rock Rd	Femoyer St.	Not Used			$0	$0	$0		$0	$0	$0
108.0		Femoyer St	Zinfandel Dr.	Not Used			$0	$0	$0		$0	$0	$0
109.0		Zinfandel Dr	Kilgore Rd.	Non Capacity			$1,399,000	$1,399,000	$0	Not in fees	$0	$0	$0
110.0		Kilgore Rd	Sunrise Blvd.	6 Lanes New			$16,756,000	$16,756,000	$16,756,000		$0	$16,756,000	$16,756,000
111.0		Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$43,400,000	$43,400,000	$43,400,000		$0	$43,400,000	$43,400,000
111.0		Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$0	$0	$0		$0	$0	$0
112.0		Rancho Cordova Pkwy	Centennial Dr	New 4 Lanes		2	$1,400,000	$1,260,000	$581,000		$0	$581,000	$581,000
113.0		Centennial Dr	Americanos Blvd	New 4 Lanes		2	$560,000	$560,000	$258,000		$0	$258,000	$258,000
114.0		Americanos Blvd	White Rock Rd.	New 4 Lanes			$700,000	$280,000	$280,000		$0	$280,000	$280,000
115.0		White Rock Rd	City Limit	New 4 Lanes		2	$3,603,000	$3,603,000	$2,018,000		$0	$2,018,000	$2,018,000
116.0		City limit	Rancho Cordova Pkwy	New 6 Lanes	4	2	$3,475,000	$3,002,000	$1,681,000		$0	$1,681,000	$1,681,000
116.1		Rancho Cordova Pkwy	Folsom South Canal	No Fee Work			$0	$0	$0		$0	$0	$0
116.2		Folsom South Canal	Mercantile Dr.				$3,480,000	$3,480,000	$3,480,000		$0	$3,480,000	$3,480,000
124.0	Jackson Hwy	Sunrise Blvd	Grant Line Rd.	Widen to 6 Lanes Exprwy	4		$12,207,000	$6,103,000	$6,103,000	Excludes County funding	$0	$6,103,000	$6,103,000
126.0	Rancho Cordova Pkwy	Grant Line Rd	Kiefer Blvd.	New 4 Lanes	2		$5,117,000	$1,901,000	$1,901,000		$0	$1,901,000	$1,901,000
127.0		Kiefer Blvd	Chrysanthy Blvd.	New 4 Lanes			$5,845,000	$6,061,000	$6,061,000		$0	$6,061,000	$6,061,000
128.0		Chrysanthy Blvd	Douglas Rd.	New 6 Lanes	4		$2,334,000	$1,734,000	$1,734,000		$0	$1,734,000	$1,734,000
129.0		Douglas Rd	Villagio Dr	New 6 Lanes	4		$4,152,000	$4,084,000	$4,084,000		$0	$4,084,000	$4,084,000
130.0		Villagio Dr	Rio Del Oro Pkwy	New 6 Lanes	4		$3,026,000	$2,042,000	$2,042,000		$0	$2,042,000	$2,042,000
131.0		Rio Del Oro Pkwy	International Dr.	New 6 Lanes			$4,255,000	$3,972,000	$3,972,000		$0	$3,972,000	$3,972,000
132.0		International Dr	White Rock Rd.	New 6 Lanes		4	$1,513,000	$1,513,000	$1,307,000		$0	$1,307,000	$1,307,000
133.0		White Rock Rd	International Dr.	New 6 Lanes Exprwy			$5,362,000	$5,362,000	$5,362,000		$0	$5,362,000	$5,362,000
134.0		International Dr	Easton Valley Pkwy	New 6 Lanes Exprwy			$993,000	$993,000	$993,000		$0	$993,000	$993,000
142.0	Kiefer Blvd	Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$3,171,000	$3,171,000	$3,171,000		$0	$3,171,000	$3,171,000
143.0		Rancho Cordova Pkwy	Americanos Blvd	New 4 Lanes	2		$4,465,000	$1,595,000	$1,595,000		$0	$1,595,000	$1,595,000
143.1		Americanos Blvd	Grant Line Rd.	New 4 Lanes	2		$734,000	$338,000	$338,000		$0	$338,000	$338,000
144.0	Kilgore Rd	International Dr	White Rock Rd.	Widen to 4 Lanes			$819,000	$819,000	$819,000		$0	$819,000	$819,000
145.0		White Rock Rd	Sun Center Dr.	Improve Pavement			$191,000	$191,000	$0	Not in fees	$0	$0	$0
146.0		Sun Center Dr	Folsom Blvd.	Improve Pavement			$381,000	$381,000	$0		$0	$0	$0
147.0	Mather Blvd	McCuen (International)	Whitehead (Mather Field)	Widen to 4 Lanes			$10,319,000	$10,319,000	$10,319,000		$0	$10,319,000	$10,319,000
148.0		Whitehead (Mather Field)	Femoyer St.	Widen to 4 Lanes			$6,561,000	$6,561,000	$6,561,000		$0	$6,561,000	$6,561,000
149.0		Femoyer St	Zinfandel Dr.	New 4 Lanes			$5,867,000	$5,867,000	$5,867,000		$0	$5,867,000	$5,867,000
151.0	Mather Field Rd	(Von Kaman & Whitehead) - Mather Blvd	McCuen	Improve 2 Way Couplet			$476,000	$476,000	$0	Not in fees	$0	$0	$0
152.0		McCuen Blvd	Rockingham Rd.	Non Capacity			$444,000	$444,000	$0		$0	$0	$0
153.0		Rockingham Rd	US 50-Interchange	Non Capacity			$430,000	$430,000	$0	Not in fees	$0	$0	$0
154.0		US 50-Interchange	Folsom Blvd.	Widen to 6 Lanes		4	$1,167,000	$1,167,000	$0		$0	$0	$0
162.0	Rockingham Rd	Mather Blvd. (Old Placerville Rd.)	Mather Field Rd.	Improve Pavement Only			$1,915,000	$1,915,000	$0	Not in fees	$0	$0	$0
166.0	Routier Rd	Old Placerville Rd	Hwy. 50	Widen to 4 Lanes	2		$3,096,000	$0	$0		$0	$0	$0
166.1		At Hwy 50	At Hwy 50	Widen Structure to 4 Lanes	2		$5,040,000	$0	$0		$0	$0	$0
166.2		Hwy 50	Folsom	Widen to 4 Lanes	2		$1,285,000	$0	$0		$0	$0	$0
172.0	Sun Center Dr	Kilgore Rd	Sunrise Blvd.	At Ultimate			$0	$0	$0		$0	$0	$0
173.0		Sunrise Blvd	Folsom South Canal / City Limit	New Canal Crossing (Post 2035)			$14,016,000	$0	$0	Not in fees	$0	$0	$0

Table A-1
Summary of Roadway Segment Improvements and Costs in TDIF Program

Project ID NO	Roadway	Segment From	Segment To	Description of Ultimate Improvement (General Plan Roadway Sizing)	2035 CIP Lanes Based on Needs Analysis (Blank = Same as Ultimate)	Revised Lanes for Fees without Thru Trips (Blank = Same as 2035 Needs)	Estimated Cost (without frontage improvements) Ultimate Improvement	2035 CIP	Description for Fees	Notes	Cost Allocation City Obligation for Existing	New City Development	Total
177.0	Sunrise Blvd	Jackson Hwy	Kiefer Blvd.	Widen to 6 Lanes			$6,430,000	$6,430,000	$6,430,000	Excludes assumed County funding	$514,400	$5,915,600	$6,430,000
178.0		Kiefer Blvd	Chrysanthy Blvd.	Widen to 6 Lanes			$7,732,000	$7,732,000	$7,732,000		$1,337,636	$6,394,364	$7,732,000
179.0		Chrysanthy Blvd	Douglas Rd.	Widen to 6 Lanes			$4,159,000	$4,159,000	$4,158,700		$632,122	$3,526,578	$4,158,700
180.0		Douglas Rd	Rio Del Oro Pkwy	No Fee Work			$0	$0	$0		$0	$0	$0
181.0		Rio Del Oro Pkwy	Fitzgerald Rd.	Widen to 6 Lanes			$3,043,000	$3,043,000	$3,043,000		$0	$3,043,000	$3,043,000
182.0		Fitzgerald Rd	International Dr. (Monier)	6 Lane Special			$3,402,000	$3,402,000	$3,402,000		$0	$3,402,000	$3,402,000
183.0		International Dr. (Monier)	White Rock Rd.	6 Lane Special			$2,042,000	$2,042,000	$2,042,000		$0	$2,042,000	$2,042,000
184.0		White Rock Rd	Sun Center Dr.	6 Lane Special			$5,508,000	$5,508,000	$5,508,000		$0	$5,508,000	$5,508,000
185.0		Sun Center Dr	Folsom Blvd.	6 Lane Special			$3,862,000	$3,862,000	$3,862,000		$0	$3,862,000	$3,862,000
186.0		Folsom Blvd	US 50-Interchange	All work contained in 319.1			$0	$0	$0	Existing deficiency	$0	$0	$0
187.0		US 50-Interchange	Zinfandel Dr.	All work contained in 319.1			$0	$0	$0		$0	$0	$0
188.0		Zinfandel Dr	Coloma Rd.	All work contained in 319.1			$0	$0	$0		$0	$0	$0
189.0		Coloma Rd	Gold Country Blvd.	6 Lane Special			$2,415,000	$2,415,000	$2,415,000		$1,291,472	$1,123,528	$2,415,000
190.0		Gold Country Blvd	American River	6 Lane Special			$987,000	$987,000	$987,000		$588,158	$398,842	$987,000
191.0	White Rock Rd	International Dr	Capitol Center Drive.	Improve Pavement Only			$1,173,000	$1,173,000	$0	Not in fees	$0	$0	$0
192.0		Capitol Center Drive	Zinfandel Dr.	Improve 4 Lanes add Median			$509,000	$509,000	$0		$0	$0	$0
193.0		Zinfandel Dr	Kilgore Rd.	At Ultimate			$0	$0	$0		$0	$0	$0
194.0		Kilgore Rd	Sunrise Blvd.	Improve 6 Lanes add Median			$709,000	$709,000	$709,000		$0	$709,000	$709,000
195.0		Sunrise Blvd	Luyung / City Limit	Improve 6 Lanes add Median			$1,241,000	$1,241,000	$679,000	$562K for pavement rehab not in fees	$0	$679,000	$679,000
196.0		Luyung / City Limit	Rancho Cordova Pkwy	Widen to 6 Lanes			$2,099,000	$2,099,000	$2,099,000		$0	$2,099,000	$2,099,000
197.0		Rancho Cordova Pkwy	International	Widen to 6 Lanes		4	$3,674,000	$3,674,000	$3,174,000		$0	$3,174,000	$3,174,000
198.0		International Dr	Rio Del Oro Pkwy	Widen to 6 Lanes		4	$1,787,000	$1,688,000	$1,458,000		$0	$1,458,000	$1,458,000
199.0		Rio Del Oro Pkwy	Villagio Dr	Widen to 6 Lanes		4	$2,681,000	$2,184,000	$1,887,000		$0	$1,887,000	$1,887,000
200.0		Villagio Dr	City Limit	Widen to 6 Lanes		4	$1,936,000	$1,787,000	$1,544,000		$0	$1,544,000	$1,544,000
203.0	Zinfandel Dr	Douglas Rd	City Limit	Formerly part of 312.3			$5,923,000	$5,923,000	$5,923,000		$0	$5,923,000	$5,923,000
203.1		City Limit	North Mather Blvd.	At Ultimate			$0	$0	$0		$0	$0	$0
204.0		North Mather Blvd	International Dr.	At Ultimate			$0	$0	$0		$0	$0	$0
205.0		International Dr	White Rock Rd.	At Ultimate			$0	$0	$0		$0	$0	$0
206.0		White Rock Rd	US 50-Interchange	All work contained in 318.1			$0	$0	$0		$0	$0	$0
207.0		US 50-Interchange	Folsom Blvd.	Widen to 6 Lanes			$4,046,000	$4,046,000	$0	Not in fees	$0	$0	$0
208.0		Folsom Blvd	Sunrise Blvd.	Sidewalk Improvements			$541,000	$541,000	$0		$0	$0	$0
COMPLEXES													
318.1	Zinfandel Drive	White Rock Road	US-50 Interchange	Zinfandel Dr Complex			$48,603,000	$48,603,000	$48,603,000	Existing deficiency	$21,931,152	$26,671,848	$48,603,000
319.2	Sunrise Blvd	Folsom Boulevard	Fair Oaks Boulevard	Sunrise Blvd. Complex			$298,832,000	$298,832,000	$298,832,000	Existing deficiency	$248,832,000	$50,000,000	$298,832,000
						Total	**$913,129,000**	**$821,044,980**	**$685,771,700**		**$275,126,940**	**$410,644,760**	**$685,771,700**
											40.1%	59.9%	100.0%

Source: DKS Associates, 2012

Table A-2
Summary of Intersection and Interchange Improvements and Costs in TDIF Program

Project ID NO	Intersection	Description of Ultimate Improvement	2035 CIP Lanes Based on Needs Analysis (Blank = Same as Ultimate)	Revised Lanes for Fees without Thru Trips (Blank = Same as 2035 Needs)	Estimated Cost			Notes	Cost Allocation		
					Ultimate Improvement	2035 CIP	Description for Fees		City Obligation	New City Development	Total
Intersections											
209.0	Rio del Oro Pkwy / Sunrise Blvd	6 x 6 Tee		4 x 6 Tee	$1,410,000	$1,410,000	$1,410,000		$0	$1,410,000	$1,410,000
210.0	Rio del Oro Pkwy / Rancho Cordova Pkwy	6 x 6 New	4 x 4 New		$2,094,000	$1,932,000	$1,932,000		$0	$1,932,000	$1,932,000
211.0	Rio del Oro Pkwy / International Dr	4 x 4 New	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
212.0	Rio del Oro Pkwy / Americanos Rd	4 x 4 New	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
213.0	Rio del Oro Pkwy / White Rock Rd	4 x 6	2x4		$2,393,000	$1,191,000	$1,191,000		$0	$1,191,000	$1,191,000
217.0	Villagio Dr / Douglas Rd	4 x 6 Tee	2 x 6 Tee	2 x 4 Tee	$1,667,000	$1,318,000	$853,000		$0	$853,000	$853,000
218.0	Villagio Dr / Rancho Cordova Pkwy	4 x 6 New	2 x 4 New		$2,232,000	$1,031,000	$1,031,000		$0	$1,031,000	$1,031,000
219.0	Villagio Dr / International Dr	4 x 4 New	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
220.0	Villagio Dr / Americanos Blvd	4 x 4 New	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
221.0	Villagio Dr / White Rock Rd	4 x 6	2 x 4		$1,394,000	$1,025,000	$1,025,000		$0	$1,025,000	$1,025,000
226.0	Easton Valley Pkwy / Rancho Cordova Pkwy	Urban Interchange			$42,720,000	$42,720,000	$42,720,000		$0	$42,720,000	$42,720,000
230.1	7th at Folsom Blvd	4 x 4 Tee	2 x 4 Tee		$0	$0	$0	Not in City	$0	$0	$0
230.2	Centennial Dr / International Dr	4 x 4 Tee	2 x 4 Tee	2 x 2 Tee	$1,259,000	$813,000	$0		$0	$0	$0
230.3	Centennial Dr / Americanos Blvd	4 x 4	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
230.4	Centennial Dr / Grant Line Rd	4 x 2 x 6 x 6	2 x 6		$1,721,000	$1,721,000	$1,721,000		$0	$1,721,000	$1,721,000
231.0	Americanos Blvd / Keifer Blvd	4 x 4 Tee New	2 x 2 Tee New		$1,259,000	$0	$0		$0	$0	$0
232.0	Americanos Blvd / Chrysanthy Blvd	4 x 4 New	2 x 2 New		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
233.0	Americanos Blvd / Douglas Rd	4 x 6	2 x 4		$2,071,000	$870,000	$870,000		$0	$870,000	$870,000
234.0	Americanos Blvd / International Dr	4 x 4 New	2 x 4		$1,932,000	$1,031,000	$1,031,000		$0	$1,031,000	$1,031,000
240.0	Bradshaw Rd / Old Placerville Rd	6 x 6 Tee		4 x 6 Tee	$650,000	$650,000	$0	Existing deficiency; no improvement necessary without thru trips	$0	$0	$0
245.0	Chrysanthy Blvd / Sunrise Blvd	4 x 6		2 x 6	$2,510,000	$2,510,000	$1,719,000		$0	$1,719,000	$1,719,000
246.0	Chrysanthy Blvd / Rancho Cordova Pkwy	4 x 4 x 4 x 6 New	4 x 4	2 x 4	$2,212,000	$2,212,000	$1,310,000		$0	$1,310,000	$1,310,000
247.0	Chrysanthy Blvd / Grant Line Rd	4 x 2 x 6 x 6	2 x 6	2 x 4	$1,436,000	$1,436,000	$1,025,000		$0	$1,025,000	$1,025,000
251.0	Coloma Rd / Sunrise Blvd	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
252.0	Douglas Rd/Zinfandel (was part of 312.3)	4x6			$3,534,000	$3,534,000	$3,534,000		$0	$3,534,000	$3,534,000
253.0	Douglas Rd / Sunrise Blvd	Urban Interchange	Lt Turn Separation	Lt Turn Separation	$50,123,000	$19,480,000	$2,603,000	Developer funded portion reduced to cost of 6x6 at-grade improvement	$16,877,000	$2,603,000	$19,480,000
254.0	Douglas Rd / Rancho Cordova Pkwy	6 x 6	6 x 4	4 x 4	$3,116,000	$2,908,000	$2,608,000		$0	$2,608,000	$2,608,000
255.0	Douglas Rd / Grant Line Rd	4 x 6		4 x 4	$1,192,100	$1,192,100	$1,192,100	Excludes assumed portion funded by Co	$0	$1,192,100	$1,192,100
265.0	Femoyer St / International Dr	4 x 6			$1,627,000	$1,627,000	$1,627,000		$0	$1,627,000	$1,627,000
267.2	Folsom Blvd / Bradshaw Rd	4 x 6			$2,232,000	$2,232,000	$2,232,000		$0	$2,232,000	$2,232,000
267.3	Folsom Blvd / Routier Rd	4 x 6	4 x 2		$1,932,000	$1,031,000	$1,031,000		$0	$1,031,000	$1,031,000
267.4	Folsom Blvd / Mather Field Rd	4 x 6		4 x 4	$2,232,000	$2,232,000	$1,932,000	Existing deficiency	$552,552	$1,379,448	$1,932,000
267.5	Folsom Blvd / Coloma Rd	4 x 4 Tee			$1,259,000	$1,259,000	$1,259,000		$0	$1,259,000	$1,259,000
267.6	Folsom Blvd / Zinfandel Dr	4 x 4			$1,932,000	$1,932,000	$1,932,000		$0	$1,932,000	$1,932,000
268.0	Folsom Blvd / Sunrise Blvd	Enhanced at Grade			$2,000,000	$2,000,000	$2,000,000		$0	$2,000,000	$2,000,000
270.0	Gold Country Blvd / Sunrise Blvd	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
273.0	Grant Line Rd / Jackson Hwy	6 x 6	6 x 4	4 x 4	$833,350	$833,350	$833,350	Excludes assumed portion funded by Co	$120,836	$712,514	$833,350
274.0	Grant Line Rd / Rancho Cordova Pkwy	6 x 4 Tee	6 x 2	4 x 2	$1,667,000	$1,481,000	$1,070,000		$0	$1,070,000	$1,070,000
275.0	Grant Line Rd / Keifer Blvd.	6 x 4 Tee	6 x 2	4 x 2	$1,716,000	$1,531,000	$1,120,000	Excludes assumed portion funded by Co	$0	$1,120,000	$1,120,000
278.0	Old Placerville Rd / Routier Rd	6 x 6	6 x 2		$4,555,000	$3,764,000	$3,764,000		$0	$3,764,000	$3,764,000
278.1	Old Placerville / McCuen extension	6 x 4 x 6 Tee			$7,448,000	$7,448,000	$7,448,000		$0	$7,448,000	$7,448,000
278.2	Old Placerville Rd / Rockingham	At Ultimate			$0	$0	$0		$0	$0	$0
279.0	International Dr / Mather Blvd	6 x 4			$2,232,000	$2,232,000	$2,232,000		$0	$2,232,000	$2,232,000
279.1	Mather Blvd / Mather Field Rd	4 x 4			$8,278,000	$8,278,000	$8,278,000		$0	$8,278,000	$8,278,000
279.2	Mather Blvd / Femoyer St	4 x 4 x 4 x 2			$8,143,000	$8,143,000	$8,143,000		$0	$8,143,000	$8,143,000

Table A-2
Summary of Intersection and Interchange Improvements and Costs in TDIF Program

Project ID NO	Intersection	Description of Ultimate Improvement	2035 CIP Lanes Based on Needs Analysis (Blank = Same as Ultimate)	Revised Lanes for Fees without Thru Trips (Blank = Same as 2035 Needs)	Estimated Cost			Notes	Cost Allocation		
					Ultimate Improvement	2035 CIP	Description for Fees		City Obligation	New City Development	Total
279.3	Mather Blvd / Zinfandel Dr	At Ultimate			$0	$0	$0		$0	$0	$0
280.0	International Dr. / Mather Field Rd	6 x 6			$15,287,000	$15,287,000	$15,287,000		$0	$15,287,000	$15,287,000
280.1	International Dr / McCuen extension	4 x 6 x 6 Tee			$9,001,000	$9,001,000	$9,001,000		$0	$9,001,000	$9,001,000
281.0	International Dr. / Zinfandel Dr	6 x 6			$0	$0	$0		$0	$0	$0
282.0	International Dr / Kilgore Rd	6 x 4			$1,135,000	$1,135,000	$1,135,000		$0	$1,135,000	$1,135,000
283.0	International Dr / Sunrise Blvd.	Urban Interchange	Lt Turn Separation	Lt Turn Separation	$50,123,000	$19,480,000	$4,681,000	Developer funded portion reduced to cost of 6x6 at-grade improvement	$14,799,000	$4,681,000	$19,480,000
284.0	International Dr / Rancho Cordova Pkwy	6 x 4 x 6 x 6 New	4 x 6		$2,232,000	$2,232,000	$2,232,000		$0	$2,232,000	$2,232,000
284.1	International Dr / White Rock Rd	4 x 6 x 6 x 6 New	4 x 6	2x4	$2,365,000	$2,365,000	$1,164,000		$0	$1,164,000	$1,164,000
284.2	International Dr / Rancho Cordova Pkwy	6 x 6 Tee New	2 x 6		$1,627,000	$1,442,000	$1,442,000		$0	$1,442,000	$1,442,000
288.0	Jackson Hwy / Sunrise Blvd	6 x 6	4 x 6		$7,103,000	$7,103,000	$7,103,000	Existing deficiency	$447,489	$6,655,511	$7,103,000
289.0	Rancho Cordova Pkwy / Keifer Blvd	4 x 4	2 x 2		$1,932,000	$1,763,000	$1,763,000		$0	$1,763,000	$1,763,000
290.0	Rancho Cordova Pkwy / White Rock Rd	Enhanced at Grade			$7,403,000	$7,403,000	$7,403,000		$0	$7,403,000	$7,403,000
290.1	Rancho Cordova Pkwy at Sun Center	6 x 2 Tee			$1,278,000	$1,278,000	$1,278,000		$0	$1,278,000	$1,278,000
294.0	Keifer Blvd / Sunrise Blvd	4 x 6			$2,476,000	$2,476,000	$2,476,000		$0	$2,476,000	$2,476,000
295.0	Mather Field Rd / Rockingham Rd	6 x 4			$0	$0	$0		$0	$0	$0
297.0	Sun Center Dr / Sunrise Blvd	At Ultimate			$0	$0	$0		$0	$0	$0
299.0	Sunrise Blvd / White Rock Rd.	Urban Interchange			$50,123,000	$50,123,000	$50,123,000	Developer funded portion reduced to cost of at-grade improvement	$39,623,000	$10,500,000	$50,123,000
300.0	Sunrise Blvd / Zinfandel Dr	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
301.0	Sunrise Blvd / Gold Express Dr	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
302.0	White Rock Rd. / Zinfandel Dr.	Contained in 318.1			$0	$0	$0		$0	$0	$0
267.25	Bradshaw Rd	LRT Grade Sep			$12,500,000	$12,500,000	$12,500,000	Developer funded portion reduced from nexux-based calcualtion	$43,750,000	$43,750,000	$87,500,000
267.35	Routier Rd	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000				
267.45	Mather Field Rd	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000				
267.65	Zinfandel Dr	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000				
Interchanges											
313.0	Rancho Cordova Parkway /US 50	New Interchange			$116,895,500	$116,895,500	$116,895,500		$0	$116,895,500	$116,895,500
316.0	Bradshaw Rd. / US 50	Interchange Mod			$41,200,000	$41,200,000	$41,200,000		$0	$41,200,000	$41,200,000
317.0	Mather Field Rd / US 50	Interchange Mod			$41,200,000	$41,200,000	$41,200,000		$0	$41,200,000	$41,200,000
				Total Intx	**$625,483,950**	**$553,468,950**	**$515,137,950**		**$116,169,877**	**$430,644,073**	**$546,813,950**
				Total Roads	**$913,129,000**	**$821,044,980**	**$685,771,700**		21.2%	78.8%	100.0%
				Grand Total	**$1,538,612,950**	**$1,374,513,930**	**$1,200,909,650**				

Source: DKS Associates, 2012