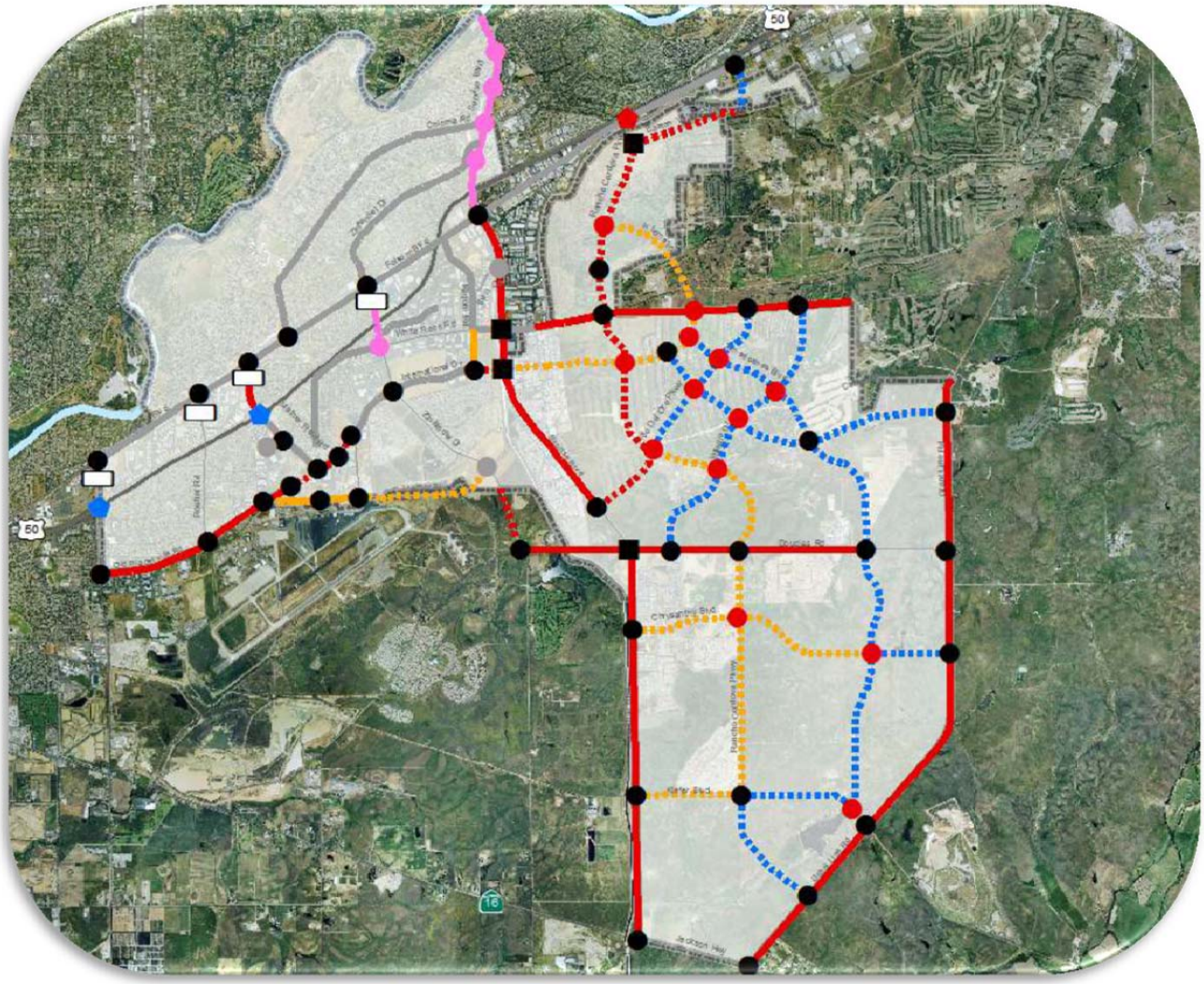
Update to the 2035 Transportation CIP and the Nexus Study for the Development Impact Fee Program



Prepared for:

CITY OF RANCHO CORDOVA

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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 were projected 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.

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a Nexus Study that resulted in implementation of the City's first transportation impact fee program which replaced the outdated County roadway fee.

In 2012 the City determined that an update to the TDIF Program was necessary and a new Nexus Study with updated fee rates was prepared in December 2012. The updated TDIF Program was then approved by the City Council in January 2013.

Over the last year, the City has had additional discussions with representatives of the building industry who are concerned about the magnitude of current fee rates. The City first explored a shorter horizon for the fee program as well as potential changes in the methodologies used to allocate costs and calculate fees. After an analysis of those strategies, the City determined that modifications to the horizon or to methodologies were not warranted. However, during 2013, the City has conducted a thorough review of 1) the definition of the improvement projects and 2) the estimated costs of the improvements. That effort has resulted in a modest reductions in the cost per DUE and fee rates from those approved in January 2013. It has also given City staff confidence that the updated project definitions and cost estimates are sound.

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 $2 billion.
- The needs analysis determined that about $341 million of roadway, transit and bikeway improvements may not be required until after 2035.

Figure 1
Project Costs Allocated to New Development

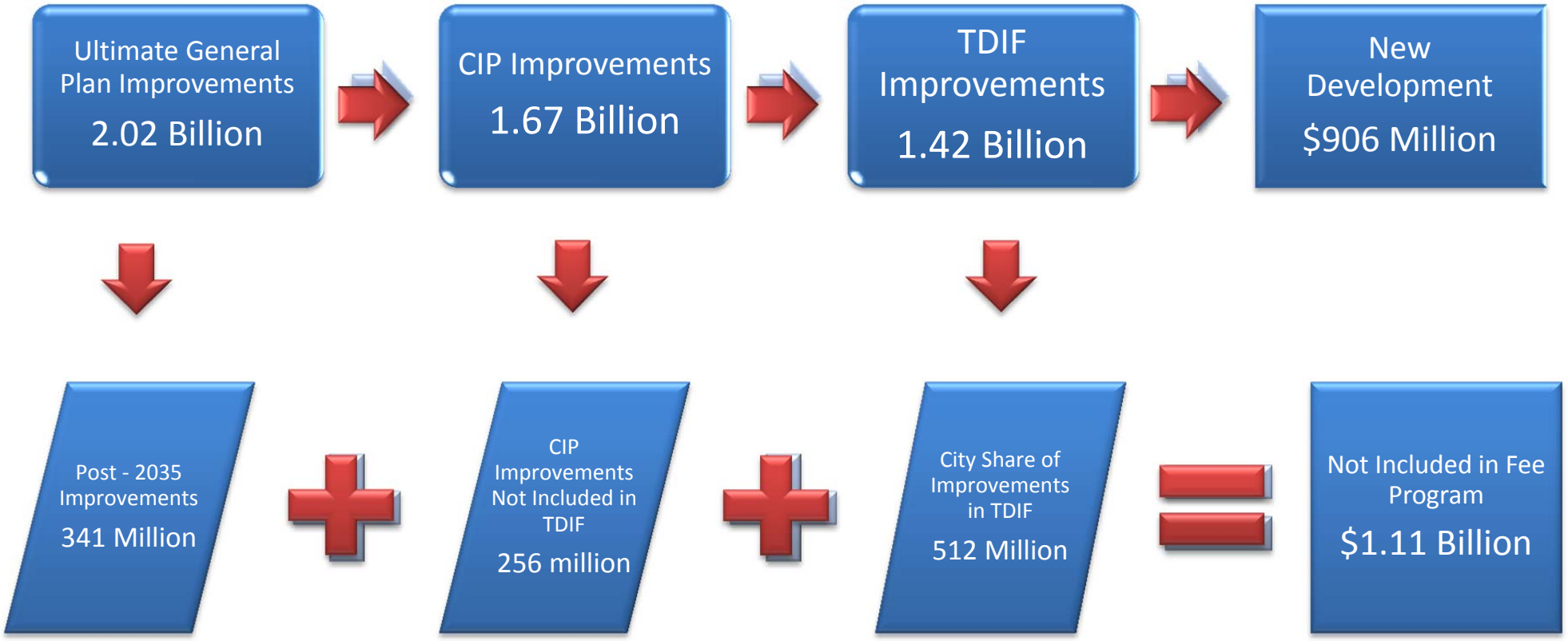


Table 1
Summary of Costs in CIP and TDIF Program

	Costs
Ultimate General Plan Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,354,728,000
Transit	$366,496,000
Bikeways	$115,622,000
Pedestrian Facilities and ADA Implementation	$20,500,000
Pavement Maintenance	$80,495,000
Project Contingency	$77,514,000
Total	**$2,015,355,000**
Post-2035 Improvements	
Roadways, Intersections, Interchanges and Signal System	$119,631,000
Transit	$186,300,000
Bikeways	$22,250,000
Project Contingency	$13,127,000
Total	**$341,308,000**
CIP Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,235,373,000
Transit	$180,196,000
Bikeways	$93,372,000
Pedestrian Facilities and ADA Implementation	$20,500,000
Pavement Maintenance	$80,495,000
Project Contingency	$64,397,000
Total	**$1,674,333,000**
CIP Improvements not included in TDIF Program	
Roadway Improvements Needed to Accommodate Growth in Thru Trips	$12,514,000
Non-Capacity Roadway Improvements	$118,686,000
Pavement Maintenance	$80,495,000
Bikeways	$14,370,000
Pedestrian Facilities and ADA Implementation	$20,500,000
Project Contingency	$9,863,000
Total	**$256,428,000**
TDIF Program Improvements	
Roadways, Intersections, Interchanges and Signal System	$1,104,173,000
Transit	$180,196,000
Bikeways	$79,002,000
Project Contingency	$54,535,000
Total	**$1,417,906,000**

Source: DKS Associates, 2013

- The CIP analysis determined that about $1.24 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 $12.5 million in roadway improvements that were determined to accommodate the growth in thru trips.
- The TDIF Program also does not include about $220 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.

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 $56.5 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 $182 million in outside funding.

Table 2 shows that of the total $1.42 billion in transportation improvements that are included in the TDIF Program, the City's obligation would be about $512 million while about $906 million 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	$360,132,202	$744,041,370	$1,104,173,572
Transit	$95,686,400	$84,509,600	$180,196,000
Bikeways	$36,747,200	$42,254,800	$79,002,000
Project Contingency	$19,702,632	$34,832,231	$54,534,863
Total	**$512,268,434**	**$905,638,000**	**$1,417,906,435**

Source: DKS Associates, 2012

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

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 then refined/updated in 2012 for the TDIF Program adopted in January 2013. For this update of the TDIF, the descriptions of the improvement projects were reviewed and refined as necessary and costs have again updated to reflect the most current unit cost data available.

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	$744,041,370
Transit	$84,509,600
Bikeways	$42,254,800
Project Contingencies	$34,832,231
Total	**$905,638,000**
Fees Collected by City from July 2003 to January 2007	$33,143,248
Total Remaining Costs Funded by TDIF	**$872,494,752**
Total Growth in DUEs	60,364
Cost per DUE	**$14,454**
Administrative Cost (3.75%) per DUE	$542
Total Fee per DUE	**$14,996**

Source: DKS Associates, 2012

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 first transportation impact fee program which replaced the outdated County roadway fee.

In 2012 the City determined that an update to the TDIF Program was necessary for the following reasons:

- Since 2005, the City had 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 updated fee estimates.
- In February 2007, the City Planning Department released new long-range (2035) development forecasts for the City. Those development forecasts were used to conduct a long-range roadway needs analysis.
- The City re-evaluated the definitions and cost estimates for a number of improvement projects that were originally prepared in 2004/2005.
- The City made some adjustments 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.

A Nexus Study with updated fee rates was prepared in December 2012 and an updated TDIF Program was then approved by the City Council in January 2013.

Over the past year, the City has worked with representatives of the building industry to explore a shorter horizon for the TDIF Program as well as potential changes in the methodologies used to allocate costs and calculate fees. After technical work was performed and analysis of these strategies was evaluated, it was jointly determined by City staff and developer representatives that the efforts did not achieve desired objectives, including a reduction in the fees. Because of the uncertainty of where development would occur, there

was also no certainty to the development community that all projects necessary to support development would be included in the fee program without a significant increase in fees.

As a result, it was jointly determined that the fee program update should be restored back to the longer development horizon with a renewed focus on project scoping and costs. The City retained Wood Rodgers to update the roadway and intersection cost estimates with current 2013 construction costs for use in this fee program update. Using the 2013 unit costs provided by Wood Rodgers, the City also conducted a thorough review of the definition of the improvement projects and applied the updated unit costs. That effort has resulted in a further reduction to the cost per DUE and the fee rates from those approved in January 2013.

This report documents the methodology and assumptions used to update the Nexus Study for the TDIF Program

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. Appendix A describes the assumptions and methodology used to prepare those development forecasts. Table 4 shows the estimated housing and jobs in the City for 2007 (the Base Year for this update of the TDIF Program) 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.

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				
Single-Family Detached	Dwelling Unit	14,384	36,014	21,630
Single-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 six 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 the 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 a roadway widening is required if the roadway segment has a projected v/c ratio of 0.9 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	$837,230,948	$780,136,838
Intersections	$323,721,607	$261,461,476
Freeway Interchanges	$140,000,000	$140,000,000
Signal System	$53,775,000	$53,775,000
Pavement Maintenance	$80,495,000	$80,495,000
Subtotal	**$1,435,222,555**	**$1,315,868,314**
Transit, Bikeway and Pedestrian Facilities		
Transit	$366,496,000	$180,196,000
Bikeways and Walkways	$115,622,000	$93,372,000
Pedestrian ADA Improvements	$20,500,000	$20,500,000
Subtotal	**$502,618,000**	**$294,068,000**
Project Contingency (4%)	**$77,513,622**	**$64,937,453**
Total	**$2,015,354,177**	**$1,674,333,766**

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 roadways 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. 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 an intersection improvement is required if the v/c ratio is 0.9 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 performed 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 City recognizes that future detailed analyses may indicate that either less or more turn lanes may be appropriate at some intersections but the CIP analysis provides a good foundation for the determination of the system-wide roadway improvement costs.

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
20		Rio Del Oro	Hazel Avenue		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	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	4		-	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	-	6			-	34,100	32,500	-	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			6,000	32,300	29,100	A	A	A
198		International Dr	Rio Del Oro Pkwy	2	6			6,000	35,000	29,000	A	B	A
199		Rio Del Oro Pkwy	Villagio Dr	2	6			6,000	32,900	27,000	A	B	A
200		Villagio Dr	City Limit	2	6			6,000	34,000	27,300	A	B	A
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, 2013

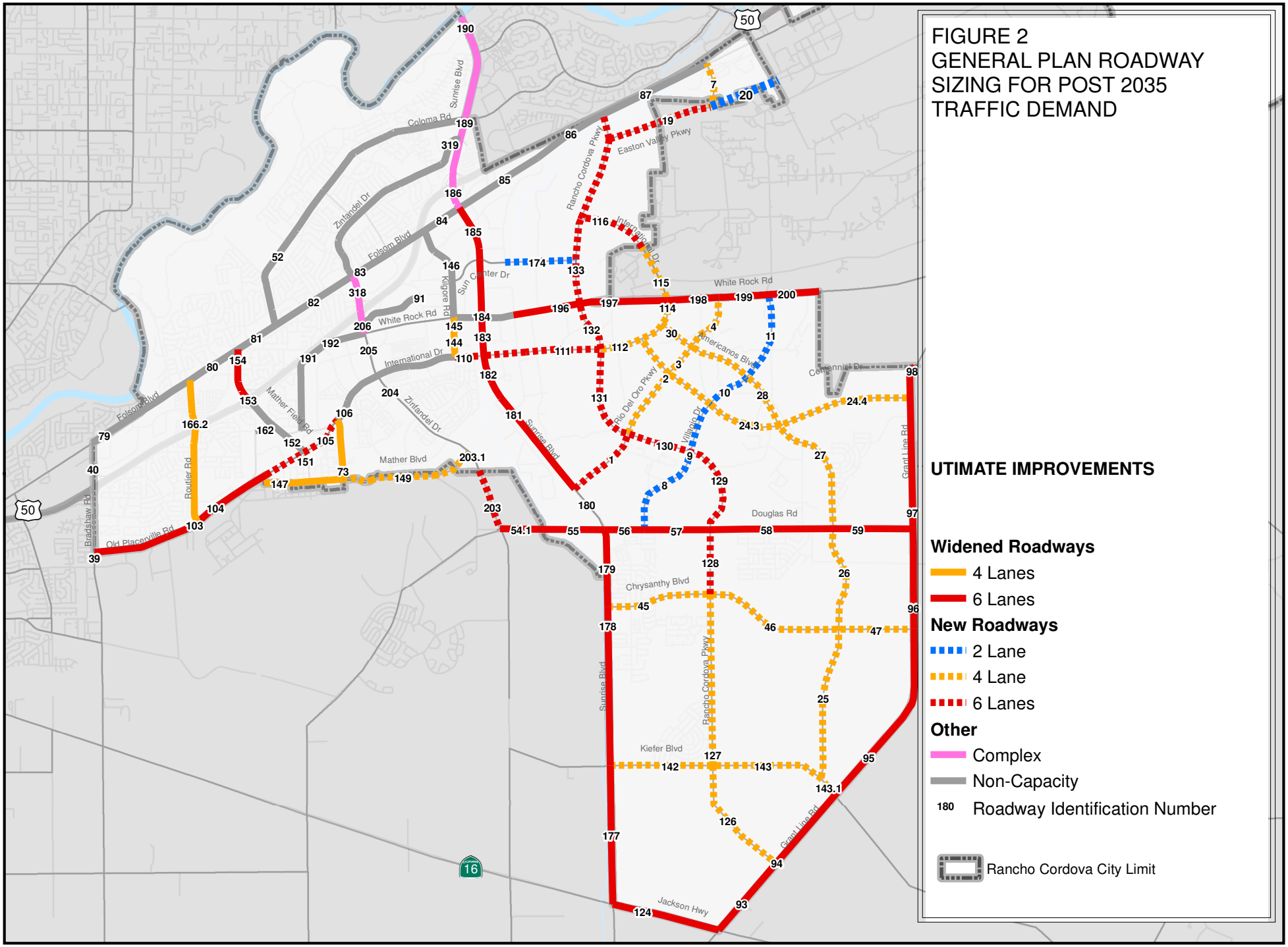


FIGURE 2
GENERAL PLAN ROADWAY SIZING FOR POST 2035 TRAFFIC DEMAND
UTIMATE IMPROVEMENTS
Widened Roadways
4 Lanes
6 Lanes
New Roadways
2 Lane
4 Lane
6 Lanes
Other
Complex
Non-Capacity
180 Roadway Identification Number
Rancho Cordova City Limit
Sunrise Blvd
Coloma Rd
Zinfandel Dr
Folsom Blvd
Kilgore Rd
Sun Center Dr
Rancho Cordova Pkwy
Easton Valley Pkwy
International Dr
White Rock Rd
Americanos Blvd
Cemennial Dr
Grant Line Rd
Rio Del Oro Pkwy
Villagio Dr
Mather Field Rd
Mather Blvd
Routier Rd
Bradshaw Rd
Old Placerville Rd
Douglas Rd
Chrysanthy Blvd
Kiefer Blvd
Jackson Hwy
50
16

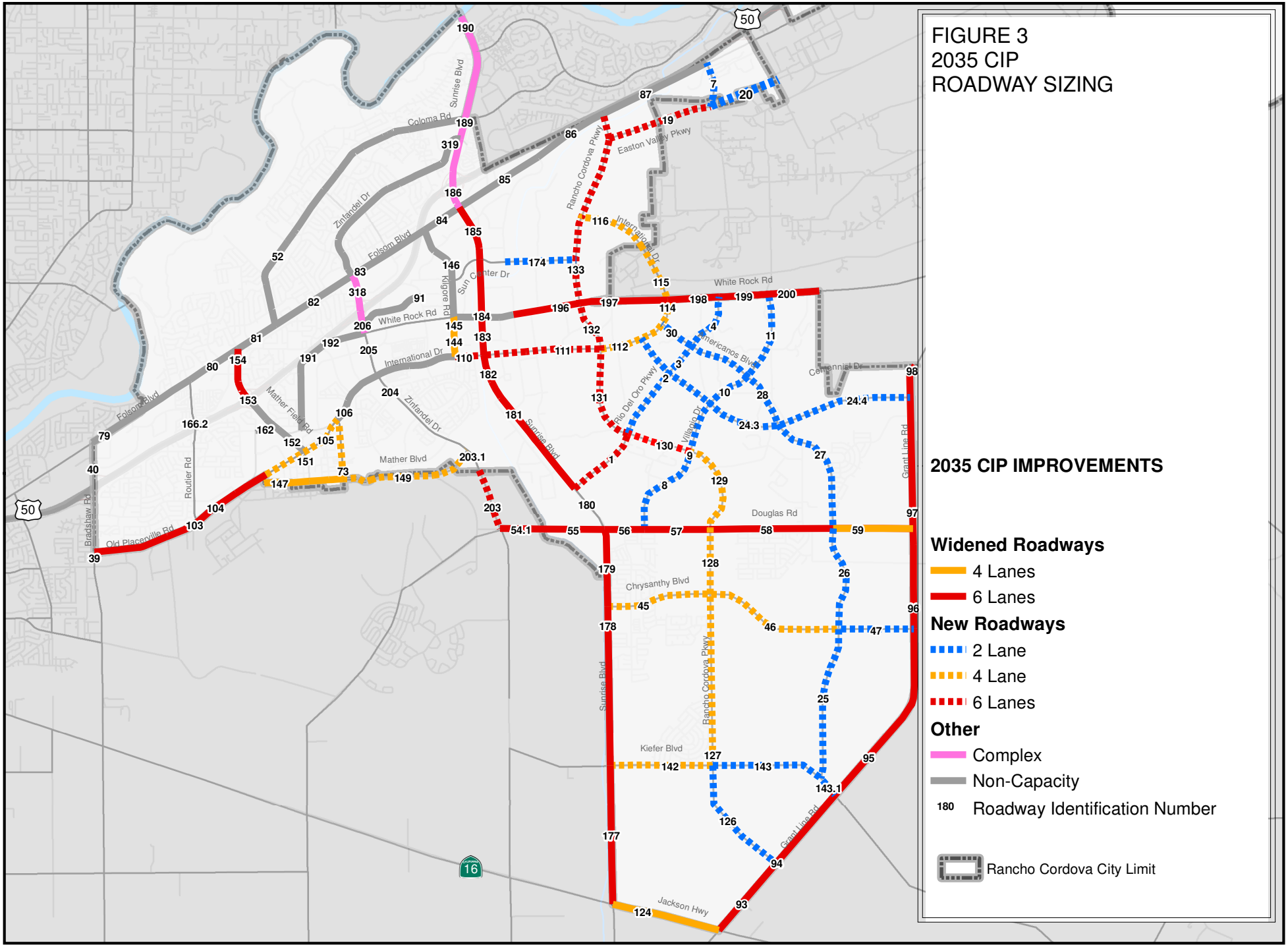


FIGURE 3
2035 CIP
ROADWAY SIZING
2035 CIP IMPROVEMENTS
Widened Roadways
4 Lanes
6 Lanes
New Roadways
2 Lane
4 Lane
6 Lanes
Other
Complex
Non-Capacity
180 Roadway Identification Number
Rancho Cordova City Limit
Sunrise Blvd
Coloma Rd
Zinfandel Dr
Folsom Blvd
Kilgore Rd
Sun Center Dr
Rancho Cordova Pkwy
Easton Valley Pkwy
International Dr
White Rock Rd
Americanos Blvd
Cemennial Dr
Rio Del Oro Pkwy
Villagio Dr
Grant Line Rd
Mather Field Rd
Mather Blvd
Routier Rd
Bradshaw Rd
Old Placerville Rd
Douglas Rd
Chrysanthy Blvd
Kiefer Blvd
Jackson Hwy
50
16

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

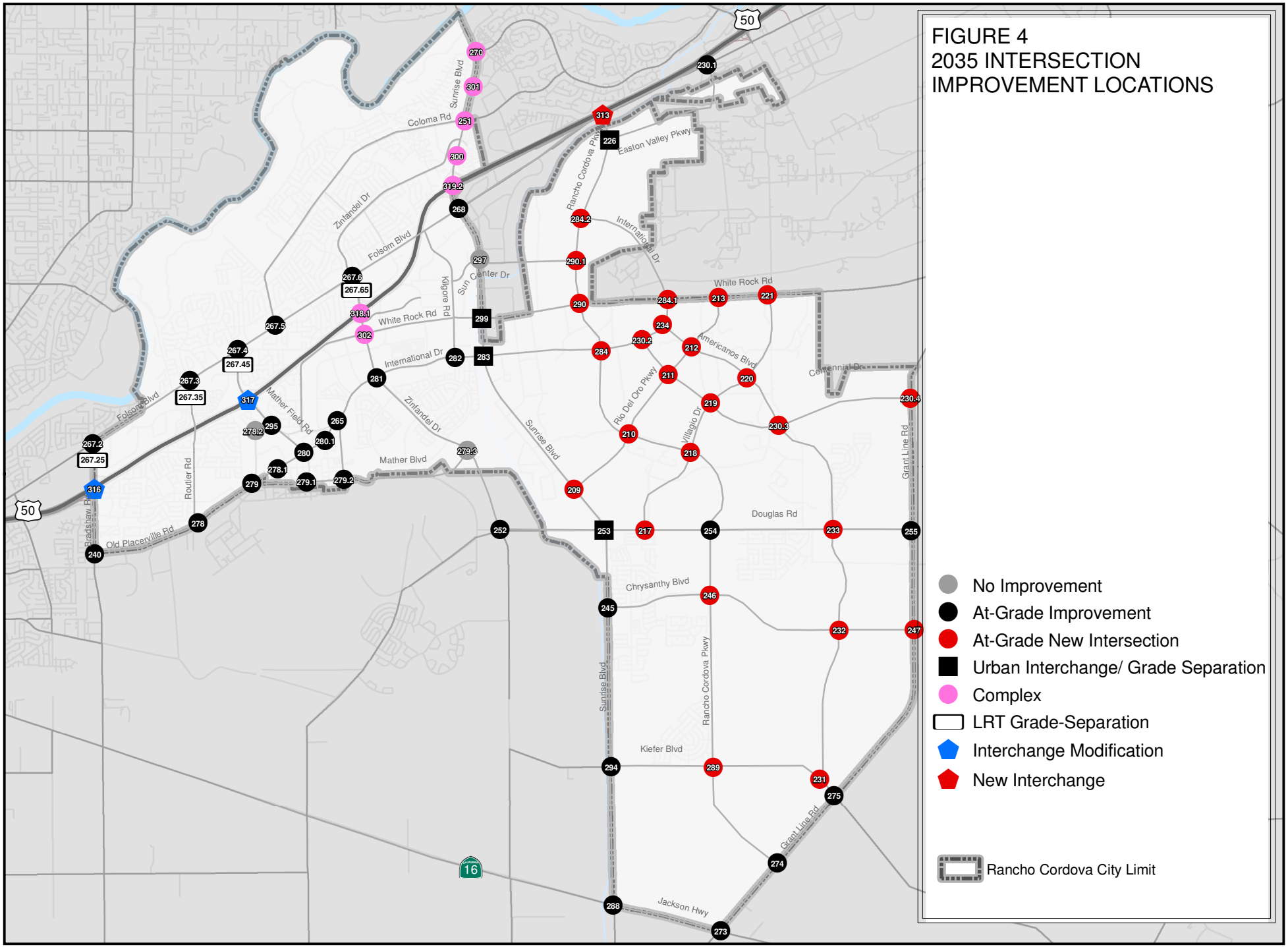
Project ID NO	Intersection[1]	General Plan Roadway Sizing	Revised 2035 Need	Revised Need 2035 Without Thru Trips	2035		2035 Without Thru Trips	
					LOS[2]	V/C[2]	LOS[2]	V/C[2]
253	Douglas Rd / Sunrise Blvd	Urban Interchange	Left turn Separation	Left turn Separation	**E[1]**	**0.93**	D	0.847
254	Douglas 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] The volume/capacity and LOS reflect an analysis of at-grade improvements. An acceptable LOS would be provided by a grade separation.
[2] See Figure 4 for location of intersection improvements

Source: DKS Associates, 2012



DKS Associates
TRANSPORTATION SOLUTIONS

Zinfandel Complex

The Zinfandel Complex includes at-grade intersection improvements including additional turning at intersections along Zinfandel Drive, as well as widening of Zinfandel Drive to accommodate additional through lanes on some segments from south of White Rock Road to Folsom Boulevard. It also includes some modifications to the existing interchange at US 50.

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 City's CIP, the assumed improvement concept 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 performed 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 separating various movements and these improvements are included in the TDIF Program.

3.5 Existing LOS Deficiencies

Roadway Segments Deficiencies

An analysis of traffic demand in the 2007 Base Year of this update of the TDIF Program shows that about five miles of roadways in the City of Rancho Cordova operated 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)

Since 2007, Sunrise Boulevard has been widened and thus no longer is an existing deficiency. The 2007 "Base Year" for the TDIF Program remains for this 2013 update of the Program. By maintaining this Base Year, future development will help fund improvements that have already been constructed (such as the widening of Sunrise Boulevard) and that now have excess capacity that can be utilized by future development.

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.

A BRT route will be built along the Sunrise Corridor between the Sunrise RT light rail station and the American river connecting to an exclusive lane built on the Sunrise Bridge over the River. The Rancho Cordova Transit Signature Route will be implemented on Rancho Cordova Parkway with shared lanes and using enhancements such as transit signal priority. 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 until streetcar expansion becomes feasible.

Twenty station sites have been identified along the Signature Route, five of which will be Regional Transit Centers providing travel information services, fare purchase centers and other transit supportive amenities. 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.

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 is identified in the City's ADA Transition Plan which was approved by City Council in 2005. The 2011 Council Approved Bicycle Master Plan and Pedestrian Master Plan guide the requirements for cycling and walking facilities.

4.0 Improvement Costs

4.1 Roadway Improvements

Capital costs for roadway, intersection, and interchange projects in the TDIF Program are shown in Tables B-1 and B-2 of Appendix B. These cost estimates were developed based on updated standard unit costs prepared by Wood Rogers. The methodology used to prepare these unit costs is described in Appendix C. Some individual project costs for improvements that have already been constructed were provided by City staff. The costs shown herein are only those considered for inclusion in the impact fee program and do not include roadway and intersection frontage improvements considered to be the obligation of the adjacent land owner.

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 2006 Transit Master Plan. URS right-of-way 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 provides 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 BRT, Transit Stations, Promenade Transit Lanes	$81,616,000
305	City Transit System, Street Cars, Shuttles and Transit Facilities	Transit Maintenance Facility, Streetcar (Stage 1 & 2 only), Streetcar Vehicles, Bus Shuttles	$87,970,000
305.1	Completion of Signature Route - Post 2035	Street car technology on remaining 13.3 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	**$366,496,000**

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 was prepared by MIG Associates, Inc. The bicycle and pedestrian system costs are based on the Rancho Cordova 2011 Bicycle Master Plan and 2011 Pedestrian Master Plan, prepared by PMC. The City is currently in the process of updating the Bicycle Master Plan and has added new bicycle system improvements that were not considered in the 2011 Bicycle Master Plan. Table 10 provides 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	$20,500,000
307	Grade Separations (Bike Bridges)	Class I system over and under crossings	$51,650,000
307.1	Vision Bridges - Post 2035	Remaining over and under crossings	$14,370,000
307.2	Feasibility Locations		$22,25000
308	Routes and Connections	Infill trails and gaps east of Sunrise Blvd	$27,352,000
		Total	**$136,122,000**

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 B-1 and B-2 in Appendix B 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 B-1 and B-2 in Appendix B 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 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	$9,679,000	0.92	2.37	0.79	8.0%	92.0%	1	$8,904,680
178	Kiefer Blvd to Chrysanthy Blvd	Widen to 6 Lanes	$7,732,000	1.00	2.23	0.74	17.3%	82.7%	1	$6,394,364
179	Chrysanthy Blvd to Douglas Rd	Widen to 6 Lanes	$4,158,700	1.11	2.56	0.85	15.2%	84.8%	1	$3,526,578
Intersection Improvements										
267.4	Folsom / Mather Field	4 x 6 Intersection	$1,547,000	0.99	1.14	1.00	0.0%	100.0%	1	$1,547,000
273	Grant Line Rd / Jackson Hwy	6 x 6 Intersection	$833,350	1.04	2.45	0.80	14.5%	85.5%	1	$712,514
288	Jackson Hwy / Sunrise Blvd	6 x 6 Intersection	$8,872,000	0.97	2.02	0.90	6.3%	93.7%	1	$8,313,064
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	**$380,257,050**						**Total**	**$188,463,823**

[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, 2013

Table 13 shows the nexus-based allocation of transit improvement costs in the TDIF Program, which yields about $106 million allocated to new development and results in about $1,764 per DUE for transit improvements. The City has decided that a lower level of transit funding of $1,400 per DUE from new development is appropriate, which would generate about $84.5 million and require the City to seek additional funding from other sources.

Table 13
Allocation of CIP Transit Improvements

	Cost	Percent
Nexus-Based Allocation of Transit Improvements in TDIF Program		
City Obligation	$73,700,164	40.9%
New Development's Share	$106,495,836	59.1%
Total	**$180,196,000**	**100.0%**
Selected Allocation of Transit Improvements in TDIF Program[1]		
City Obligation	$95,686,400	53.1%
New Development's Share[1]	$84,509,600	46.9%
Total	**$180,196,000**	**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	**$366,496,000**	

[1] Selected allocation results in $1,400 per DUE in transit funding for new development, which is less than the nexus-based allocation.

Source: DKS Associates, 2013

5.3 Bikeway and Walkway Improvements

The costs of three elements shown in Table 10 were not included in the Fee Program: 1) improvements to meet ADA requirements, 2) post-2035 "vision" bike bridges and 3) the "feasibility locations" category of bike bridges. Table 14 shows the allocation of walkway and bikeway improvements to the TDIF Program. Like transit improvements, the nexus-based allocation of the remaining $79 million of walkway and bikeway improvements to new development 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. This allocation yields about $46.7 million to new development, or about $773 per DUE. The City has decided that a lower level of transit funding of $700 per DUE from new development is appropriate, which would generate about $42.3 million.

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.

Table 14
Allocation of CIP Walkway and Bikeway Improvements

	Improvements	
	Cost	**Percent**
Nexus-Based Allocation of Bikeway Improvements in TDIF Program		
City Obligation	$32,311,818	40.9%
New Development's Share	$46,690,182	59.1%
Total	**$79,002,000**	**100.0%**
Selected Allocation of Bikeway Improvements in TDIF Program[1]		
City Obligation	$36,747,200	62.9%
New Development's Share[1]	$42,254,800	37.1%
Total	**$79,002,000**	**100.0%**
Bikeway and Pedestrian Improvements Not Included in TDIF Program		
Post-2035 Walkway and Bikeway Improvements	$22,250,000	
Pedestrian Facilities and ADA Implementation	$20,500,000	
Ultimate General Plan System		
Total	**$117,314,000**	

[1] Selected allocation results in $700 per DUE in transit funding for new development, which is less than the nexus-based allocation.

Source: DKS Associates, 2012

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 $120 million. An estimated $119 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 $12.5 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 $56.5 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 $182 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 (bike bridges), estimated at $22.2 million, which were assumed to be post-2035 improvements. The "feasibility locations" category of bike bridges, estimated at about $14.4 million is needed by 2035 but was not included in the TDIF Program. The TDIF Program also does not include walkway improvements needed to satisfy ADA sidewalk gap and pedestrian appurtenances requirements estimated to cost $20.5 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	$119,631,000
Transit	$186,300,000
Bikeway and Walkway	$22,250,000
Project Contingency	$13,127,000
Subtotal	**$341,308,000**
CIP Improvements not Included in TDIF Program	
Roadway Improvements needed to Accommodate Growth in Thru Trips	$12,514,000
Non-Capacity Roadway Improvements	$118,686,000
Pavement Maintenance	$80,495,000
Bikeways	$14,370,000
Pedestrian Facilities and ADA Implementation	$20,500,000
Project Contingency	$9,863,000
Subtotal	**$256,428,000**
City Obligation to Improvements in TDIF Program	
Existing Roadway and Intersection Deficiencies	$191,385,718
Reductions in Development Funding for Key Projects	$146,752,484
Signal System	$21,994,000
Transit Improvements	$95,686,400
Bikeway Improvements	$36,747,200
Project Contingency	$19,703,000
Subtotal	**$512,268,802**
Total	**$1,109,717,802**

Source: DKS Associates, 2013

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
Single-Family Detached	9.57	Dwelling Unit	5.1	100	48.81	1.00
Single-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 Appendix A
[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 which is calculated by applying the DUE per unit rates in Table 16 to the estimated development growth shown in Table 4.

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**
Single-Family Detached	Dwelling Unit	21,630	1.00	21,630
Single-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 new development in the TDIF Program and the resulting costs per DUE.

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]	$744,041,370
Transit[2]	$84,509,600
Bikeways[3]	$42,254,800
Project Contingencies[4]	$34,832,231
Total	$905,638,000
Fees Collected by City from July 2003 to January 2007	$33,143,248
Total Remaining Costs Funded by TDIF	**$872,494,752**
Total Growth in DUEs	60,364
Cost per DUE	**$14,454**
Administrative Cost (3.75%) per DUE	$542
Total Fee per DUE	**$14,996**

[1] See Tables B-1 and B-2 in Appendix B 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

Source: DKS Associates, 2013

The 2007 "Base Year" for the TDIF Program remains for this 2013 update of the Program, including the definition of existing improvements. By maintaining this Base Year, future development will help fund improvements that have already been constructed (such as the widening of Sunrise Boulevard from White Rock Road to Kiefer Boulevard) and that now have excess capacity that can be utilized by future development.

7.0 TDIF Nexus Findings

A nexus analysis has been prepared on the City's TDIF Program in accordance with the procedural guidelines established in AB1600 which is codified in California Government Section 66000 *et seq*. These code sections set forth the procedural requirements for establishing and collecting various development impact fees. These procedures require that "a reasonable relationship or nexus must exit between a governmental exaction and the purpose of the condition." Specifically, each local agency imposing a fee must:

- Identify the purpose of the fee;
- Identify how the fee is to be used;
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed; and,
- Demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or potion of the public facility attributable to the development on which the fee is imposed.

The prior sections of this report identify the facilities that are included in the City's General Plan and updated CIP and TDIF Program, summarize the updated costs of those facilities and show how shares of those costs were allocated to new development to mitigate its transportation impacts. All of that information is used in this section to demonstrate that the resulting fees meet the AB 1600 nexus requirements, as outlined below.

7.1 Purpose of Fees

The purpose of the TDIF Program is to fund improvements to the County's major roadway, transit, bicycle and pedestrian facilities needed to accommodate travel demand generated by new land development in the City through 2035.

The TDIF Program will help meet the City's General Plan policies including maintaining adequate levels of service and safety for roadway facilities. New development in the City will increase the demand for all modes of travel (including walking, biking, transit, automobile and truck/goods movement) and thus the need for improvements to transportation facilities. The TDIF Program will help fund transportation facilities necessary to accommodate residential and non-residential development in the City.

7.2 Use of Fees

The fees from new development in the TDIF Program will be used to fund additions and improvements to the transportation system needed to accommodate future travel demand resulting from residential and non-residential development. The TDIF Program will help fund improvements to roadways (include the widening or extensions of arterial and collector roadways and intersection improvements) transit facilities, bikeways and walkways. The transportation improvements wholly or partially funded by the program are described in more detail in **Section 4.**

7.3 Relationship between use of Fees and Type of Development

Fee revenues generated by the TDIF Program will be used to develop the transportation improvements as outlined in **Section 4**. New development in the City will generate resident and employees who will demand new and expanded roadway, transit, bicycle and pedestrian facilities. All of these improvements increase the capacity of those segments of the transportation system affected by new development. The results of the transportation modeling analysis summarized in this report demonstrates that new development, both new residential and non-residential uses, will benefit from these improvements by improving service above levels that would occur if these improvements were not completed. Consequently, the cost of transportation improvements is allocated to both residential and non-residential development in the City.

7.4 Relationship between Need for Facility and Type of Development

The projected residential and non-residential development described in **Section 3** will add to the incremental need for transportation facilities by increasing the amount of demand on the transportation system. The transportation improvements outlined in **Section 4** are required to minimize the degradation in current levels of service caused by new development.

7.5 Relationship between Amount of Fees and the Cost of Facility Attributed to Development upon which Fee is Imposed

Construction of necessary transportation improvements will directly serve residential and non-residential development within the City and will directly benefit new development. The basis for allocating improvement costs to development is described in **Section 6**.

To define the required roadway and intersection improvements that would be included in the TDIF Program, the roadway segment and intersection level of service (LOS) analysis was performed first with total 2035 travel demand and then a second time with the growth in "thru trips" removed. 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, the TDIF Program would only include the cost of the reduced improvement.

For existing deficiencies (roadways or intersections 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

The fee that a developer pays for a new residential unit or commercial building varies by the type of development based on its impact on the transportation system. Each development type is assigned a "dwelling unit equivalent" or "DUE" rate based on its estimated vehicle-miles of travel (VMT) per unit of development.

DUE's are numerical measures of how the trip-making characteristics of a land use type compares to a single-family residential unit. 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. Also considered in the calculation of DUE's are "percent new" trips. The DUE rates were thus based on estimates of the average daily vehicle-miles of travel (VMT) generated by each land use type.

8.0 On-Going Administration of the TDIF Program

8.1 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.

8.2 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, the TDIF for each type of development will automatically be adjusted by the increase, if any, in the 20-city Construction Cost Index (CCI) as reported in the Engineering News Record for the twelve- month period ending October of the prior year. For example, the adjustment for January 2015 will be determined by calculating the increase, if any, from October 2013 to October 2014 in the 20-city CCI.

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.

8.3 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.

8.4 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.
c. 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.

8.5 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.

The nexus-based calculation of fee per Dwelling Unit Equivalent (DUE) documented in Sections 1 through 6 is based on general land use categories (single family, multi-family, retail, office, and industrial) which are the categories used in the transportation forecasting process. When a developer gets a building permit and pays fees, a more specific land use is known and the number of DUEs for some specific land use will be based on specific DUE rates for that category. Those DUE rates are based on estimates of the average vehicle-miles of travel (VMT) generated on an average weekday for each land use type. Table 19 shows the calculation of DUE factors for each detailed land use type.

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 19.

Table 19
Detailed DUE Rates

Land Use	Weekday trip Rate	Trip Length (miles)	Percent New Trips	Vehicle Miles of Travel (VMT)	Due Rate
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	9.11per 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.

Appendix A

Land Use and Development Assumptions For CIP and TDIF Program

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 this 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 A-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 A-1 New Growth Project Area 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
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
Source: City of Rancho Cordova	

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 this report 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) 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, Includes all single family detached residential units with 1,200

1,200 sq. ft. or less: 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 a living area less than 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.

Appendix B

Detailed Cost Allocation for Roadway and Intersection Improvements

December 2013

Table B-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	Estimated Cost 2035 CIP	Estimated Cost Description for Fees	Notes	Cost Allocation City Obligation for Existing	Cost Allocation New City Development	Cost Allocation Total
Roadway Improvements													
1	Rio Del Oro Pkwy	Sunrise Blvd	Rancho Cordova Pkwy	New 6 Lanes		4	$2,582,000	$2,582,000	$2,134,000		$0	$2,134,000	$2,134,000
2		Rancho Cordova Pkwy	Centennial Dr	New 4 Lanes	2		$1,975,000	$1,545,000	$1,545,000		$0	$1,545,000	$1,545,000
3		Centennial Dr	Americanos Blvd	New 4 Lanes	2		$677,000	$530,000	$530,000		$0	$530,000	$530,000
4		Americanos Blvd.	White Rock Rd.	New 4 Lanes	2		$1,241,000	$971,000	$971,000		$0	$971,000	$971,000
7		Easton Valley Pkwy	Folsom Blvd	New 4 Lanes	2		$4,559,000	$4,350,000	$4,350,000		$0	$4,350,000	$4,350,000
8	Villagio Dr	Douglas Rd	Rancho Cordova Pkwy	New 2 Lanes			$0	$0	$0	Not in fees	$0	$0	$0
9		Rancho Cordova Pkwy	Centennial Dr	New 2 Lanes			$0	$0	$0		$0	$0	$0
10		Centennial Dr	Americanos Blvd	New 2 Lanes			$0	$0	$0		$0	$0	$0
11		Americanos Blvd	White Rock Rd.	New 2 Lanes			$0	$0	$0		$0	$0	$0
19	Easton Valley Pkwy	Rancho Cordova Pkwy	Rio Del Oro Pkwy	New 6 Lanes			$2,466,000	$2,466,000	$2,466,000		$0	$2,466,000	$2,466,000
20		Rio Del Oro Pkwy	Hazel Ave	New 6 Lanes			$3,434,000	$3,434,000	$3,434,000			$3,434,000	$3,434,000
24.1	Centennial Dr	International Dr	Rio Del Oro Pkwy	New 4 Lanes	2		$734,000	$574,000	$574,000		$0	$574,000	$574,000
24.2		Rio Del Oro Pkwy	Villagio Dr	New 4 Lanes	2		$1,016,000	$795,000	$795,000		$0	$795,000	$795,000
24.3		Villagio Dr	Americanos Blvd	New 4 Lanes	2		$1,524,000	$1,192,000	$1,192,000		$0	$1,192,000	$1,192,000
24.4		Americanos Blvd	Grant Line Rd	New 4 Lanes	2		$3,217,000	$3,217,000	$3,217,000		$0	$3,217,000	$3,217,000
25	Americanos Blvd	Kiefer Blvd	Chrysanthy Blvd.	New 4 Lanes	2		$4,013,000	$3,276,000	$3,276,000		$0	$3,276,000	$3,276,000
26		Chrysanthy Blvd.	Douglas Rd.	New 4 Lanes	2		$2,709,000	$2,119,000	$2,119,000		$0	$2,119,000	$2,119,000
27		Douglas Rd	Centennial Dr	New 4 Lanes	2		$4,182,000	$3,408,000	$3,408,000		$0	$3,408,000	$3,408,000
28		Centennial Dr	Villagio Dr	New 4 Lanes	2		$1,411,000	$1,104,000	$1,104,000		$0	$1,104,000	$1,104,000
29		Villagio Dr	Rio Del Oro	New 4 Lanes	2		$1,411,000	$1,104,000	$1,104,000		$0	$1,104,000	$1,104,000
30		Rio Del Oro	International Dr.	New 4 Lanes	2		$564,000	$441,000	$441,000		$0	$441,000	$441,000
39	Bradshaw Rd	Old Placerville Rd	US 50-Interchange	At Ultimate			$0	$0	$0		$0	$0	$0
40		US 50-Interchange	Folsom Blvd	At Ultimate			$0	$0	$0		$0	$0	$0
45	Chrysanthy Blvd	Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$2,596,000	$2,596,000	$2,596,000		$0	$2,596,000	$2,596,000
46		Rancho Cordova Pkwy	Americanos Blvd	New 4 Lanes			$3,449,000	$3,449,000	$3,449,000		$0	$3,449,000	$3,449,000
47		Americanos Blvd	Grant Line Rd	New 4 Lanes	2		$2,596,000	$2,031,000	$2,031,000		$0	$2,031,000	$2,031,000
52	Coloma Rd	Folsom Blvd	Sunrise Blvd	Improve Pavement			$4,988,000	$4,988,160	$0	Not in fees	$0	$0	$0
54.1	Douglas Rd	Eagles Nest Rd	West City Limit	Formerly part of 312.3			$2,843,000	$2,843,000	$2,843,000		$0	$2,843,000	$2,843,000
55		West City Limit	Sunrise Blvd.	Widen to 6 Lanes			$15,802,000	$15,802,000	$15,802,000		$0	$15,802,000	$15,802,000
56		Sunrise Blvd	Villagio Dr	Widen to 6 Lanes		4	$1,040,000	$1,040,000	$734,000		$0	$734,000	$734,000
57		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		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		Americanos Blvd	Grant Line Rd	Widen to 6 Lanes	4		$5,202,000	$4,446,000	$4,446,000		$0	$4,446,000	$4,446,000
73	Femoyer St	Mather Blvd	International Dr	Widen/New 4 Lanes			$2,120,000	$1,210,000	$1,210,000		$0	$1,210,000	$1,210,000
79	Folsom Blvd	Bradshaw Rd	Routier Rd.	Improvements			$17,019,000	$17,019,000	$0	Not in fees	$0	$0	$0
80		Routier Rd	Mather Field Rd.	Improvements			$8,370,000	$8,370,000	$0		$0	$0	$0
81		Mather Field Rd	Coloma Rd.	Improvements			$6,417,000	$6,417,000	$0		$0	$0	$0
82		Coloma Rd	Zinfandel Dr.	Improvements			$12,957,000	$12,957,000	$0		$0	$0	$0
83		Zinfandel Dr	Kilgore Rd.	Improvements			$11,180,000	$11,180,000	$0		$0	$0	$0
84		Kilgore Rd	Sunrise Blvd.	Improvements			$7,254,000	$7,254,000	$0		$0	$0	$0
85		Sunrise Blvd	Mercantile Dr.	Improvements			$13,671,000	$13,671,000	$0		$0	$0	$0
86		Mercantile Dr	Rancho Cordova Pkwy	Improvements			$9,765,000	$9,765,000	$0		$0	$0	$0
87		Rancho Cordova Pkwy	Rio Del Oro Pkwy	Improvements			$18,414,000	$18,414,000	$0		$0	$0	$0
91	Gold Center Dr	Zinfandel Dr	Prospect Park Dr (East)	Pavement			$429,000	$429,000	$0			$0	$0
93	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		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		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		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		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		Centennial Dr	City Limit	Widen to 6 Lanes Exprwy			$841,000	$585,990	$457,560		$0	$457,560	$457,560

Table B-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	Old Placerville Rd	Bradshaw Rd	Routier Rd.	Widen to 6 Lanes Exprwy			$19,262,000	$19,262,000	$19,262,000		$0	$19,262,000	$19,262,000
104		Routier Rd	McCuen	Widen to 6 Lanes Exprwy			$16,676,000	$16,676,000	$16,676,000		$0	$16,676,000	$16,676,000
105	International Dr	McCuen	Airpark	New 6 Lanes Exprwy			$17,571,000	$17,571,000	$17,571,000		$0	$17,571,000	$17,571,000
106		Airpark	Zinfandel Dr.	Non Capacity			$1,068,000	$1,068,000	$0	Not in fees	$0	$0	$0
107		White Rock Rd	Femoyer St.	Not Used			$0	$0	$0		$0	$0	$0
108		Femoyer St	Zinfandel Dr.	Not Used			$0	$0	$0		$0	$0	$0
109		Zinfandel Dr	Kilgore Rd.	Non Capacity			$1,399,000	$1,399,000	$0	Not in fees	$0	$0	$0
110		Kilgore Rd	Sunrise Blvd.	6 Lanes New			$13,815,721	$13,815,721	$13,815,721		$0	$13,815,721	$13,815,721
111		Sunrise Blvd	Rancho Cordova Pkwy	New 4 Lanes			$30,950,000	$30,950,000	$30,950,000		$0	$30,950,000	$30,950,000
112		Rancho Cordova Pkwy	Centennial Dr	New 4 Lanes		2	$1,066,527	$1,066,527	$834,341		$0	$834,341	$834,341
113		Centennial Dr	Americanos Blvd	New 4 Lanes		2	$474,000	$474,000	$371,000		$0	$371,000	$371,000
114		Americanos Blvd	White Rock Rd.	New 4 Lanes			$237,000	$237,000	$237,000		$0	$237,000	$237,000
115		White Rock Rd	City Limit	New 4 Lanes		2	$3,558,000	$2,941,000	$2,038,000		$0	$2,038,000	$2,038,000
116		City limit	Rancho Cordova Pkwy	New 6 Lanes	4	2	$2,965,000	$2,451,000	$1,698,000		$0	$1,698,000	$1,698,000
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	Jackson Hwy	Sunrise Blvd	Grant Line Rd.	Widen to 6 Lanes Exprwy	4		$3,586,000	$3,586,000	$3,586,000	Excludes County funding	$0	$3,586,000	$3,586,000
126	Rancho Cordova Pkwy	Grant Line Rd	Kiefer Blvd.	New 4 Lanes	2		$3,273,000	$2,560,000	$2,560,000		$0	$2,560,000	$2,560,000
127		Kiefer Blvd	Chrysanthy Blvd.	New 4 Lanes			$6,061,000	$6,061,000	$6,061,000		$0	$6,061,000	$6,061,000
128		Chrysanthy Blvd	Douglas Rd.	New 6 Lanes	4		$1,734,000	$1,734,000	$1,734,000		$0	$1,734,000	$1,734,000
129		Douglas Rd	Villagio Dr	New 6 Lanes	4		$3,499,000	$3,499,000	$3,499,000		$0	$3,499,000	$3,499,000
130		Villagio Dr	Rio Del Oro Pkwy	New 6 Lanes	4		$1,667,000	$1,667,000	$1,667,000		$0	$1,667,000	$1,667,000
131		Rio Del Oro Pkwy	International Dr.	New 6 Lanes			$3,387,000	$3,387,000	$3,387,000		$0	$3,387,000	$3,387,000
132		International Dr	White Rock Rd.	New 6 Lanes		4	$1,290,000	$1,290,000	$1,067,000		$0	$1,067,000	$1,067,000
133		White Rock Rd	International Dr.	New 6 Lanes Exprwy			$4,572,000	$4,572,000	$4,572,000		$0	$4,572,000	$4,572,000
134		International Dr	Easton Valley Pkwy	New 6 Lanes Exprwy			$847,000	$847,000	$847,000		$0	$847,000	$847,000
142	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		Rancho Cordova Pkwy	Americanos Blvd	New 4 Lanes	2		$2,674,000	$2,158,000	$2,158,000		$0	$2,158,000	$2,158,000
143.1		Americanos Blvd	Grant Line Rd.	New 4 Lanes	2		$621,000	$486,000	$486,000		$0	$486,000	$486,000
144	Kilgore Rd	International Dr	White Rock Rd.	Widen to 4 Lanes			$693,000	$693,000	$693,000		$0	$693,000	$693,000
145		White Rock Rd	Sun Center Dr.	Improve Pavement			$169,000	$169,000	$0	Not in fees	$0	$0	$0
146		Sun Center Dr	Folsom Blvd.	Improve Pavement			$338,000	$338,000	$0		$0	$0	$0
147	Mather Blvd	McCuen (International)	Whitehead (Mather Field)	Widen to 4 Lanes			$7,050,000	$7,050,000	$7,050,000		$0	$7,050,000	$7,050,000
148		Whitehead (Mather Field)	Femoyer St.	Widen to 4 Lanes			$4,502,000	$4,502,000	$4,502,000		$0	$4,502,000	$4,502,000
149		Femoyer St	Zinfandel Dr.	New 4 Lanes			$5,714,000	$5,714,000	$5,714,000		$0	$5,714,000	$5,714,000
151	Mather Field Rd	(Von Kaman & Whitehead) - Mather Blvd	McCuen	Improve 2 Way Couplet			$422,000	$422,000	$0	Not in fees	$0	$0	$0
152		McCuen Blvd	Rockingham Rd.	Non Capacity			$428,000	$428,000	$0		$0	$0	$0
153		Rockingham Rd	US 50-Interchange	Non Capacity			$463,000	$463,000	$0	Not in fees	$0	$0	$0
154		US 50-Interchange	Folsom Blvd.	Widen to 6 Lanes		4	$1,527,000	$1,527,000	$0		$0	$0	$0
162	Rockingham Rd	Mather Blvd. (Old Placerville Rd.)	Mather Field Rd.	Improve Pavement Only			$1,428,000	$1,428,000	$0	Not in fees	$0	$0	$0
166	Routier Rd	Old Placerville Rd	Hwy. 50	Widen to 4 Lanes	2		$2,705,000	$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		$998,000	$0	$0		$0	$0	$0
172	Sun Center Dr	Kilgore Rd	Sunrise Blvd.	At Ultimate			$0	$0	$0		$0	$0	$0
173		Sunrise Blvd	Folsom South Canal / City Limit	New Canal Crossing (Post 2035)			$10,555,000	$0	$0	Not in fees	$0	$0	$0

Table B-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	Sunrise Blvd	Jackson Hwy	Kiefer Blvd.	Widen to 6 Lanes			$10,364,000	$10,364,000	$9,679,000	Excludes assumed County funding	$774,320	$8,904,680	$9,679,000
178		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		Chrysanthy Blvd	Douglas Rd.	Widen to 6 Lanes			$4,158,700	$4,158,700	$4,158,700		$632,122	$3,526,578	$4,158,700
180		Douglas Rd	Rio Del Oro Pkwy	No Fee Work			$0	$0	$0		$0	$0	$0
181		Rio Del Oro Pkwy	Fitzgerald Rd.	Widen to 6 Lanes			$3,275,000	$3,275,000	$3,275,000		$0	$3,275,000	$3,275,000
182		Fitzgerald Rd	International Dr. (Monier)	6 Lane Special			$2,966,000	$2,966,000	$2,966,000		$0	$2,966,000	$2,966,000
183		International Dr. (Monier)	White Rock Rd.	6 Lane Special			$1,711,000	$1,711,000	$1,711,000		$0	$1,711,000	$1,711,000
184		White Rock Rd	Sun Center Dr.	6 Lane Special			$4,983,000	$4,983,000	$4,983,000		$0	$4,983,000	$4,983,000
185		Sun Center Dr	Folsom Blvd.	6 Lane Special			$3,236,000	$3,236,000	$3,236,000		$0	$3,236,000	$3,236,000
186		Folsom Blvd	US 50-Interchange	All work contained in 319.1			$0	$0	$0	Existing deficiency	$0	$0	$0
187		US 50-Interchange	Zinfandel Dr.	All work contained in 319.1			$0	$0	$0		$0	$0	$0
188		Zinfandel Dr	Coloma Rd.	All work contained in 319.1			$0	$0	$0		$0	$0	$0
189		Coloma Rd	Gold Country Blvd.	6 Lane Special			$2,023,000	$2,023,000	$2,023,000		$1,082,305	$940,695	$2,023,000
190		Gold Country Blvd	American River	6 Lane Special			$1,020,000	$1,020,000	$1,020,000		$607,920	$412,080	$1,020,000
191	White Rock Rd	International Dr	Capitol Center Drive.	Improve Pavement Only			$979,000	$979,000	$0	Not in fees	$0	$0	$0
192		Capitol Center Drive	Zinfandel Dr.	Improve 4 Lanes add Median			$425,000	$425,000	$0		$0	$0	$0
193		Zinfandel Dr	Kilgore Rd.	At Ultimate			$0	$0	$0		$0	$0	$0
194		Kilgore Rd	Sunrise Blvd.	Improve 6 Lanes add Median			$534,000	$534,000	$534,000		$0	$534,000	$534,000
196		Sunrise Blvd	Rancho Cordova Pkwy	Widen to 6 Lanes			$4,197,000	$4,197,000	$4,197,000		$0	$4,197,000	$4,197,000
197		Rancho Cordova Pkwy	City Limit	Widen to 6 Lanes			$12,926,000	$12,926,000	$12,926,000		$0	$12,926,000	$12,926,000
203	Zinfandel Dr	Douglas Rd	City Limit	Formerly part of 312.3			$4,816,000	$4,816,000	$4,816,000		$0	$4,816,000	$4,816,000
203.1		City Limit	North Mather Blvd.	At Ultimate			$0	$0	$0		$0	$0	$0
204		North Mather Blvd	International Dr.	At Ultimate			$0	$0	$0		$0	$0	$0
205		International Dr	White Rock Rd.	At Ultimate			$0	$0	$0		$0	$0	$0
206		White Rock Rd	US 50-Interchange	All work contained in 318.1			$0	$0	$0		$0	$0	$0
207		US 50-Interchange	Folsom Blvd.	Widen to 6 Lanes			$0	$0	$0	Not in fees	$0	$0	$0
208		Folsom Blvd	Sunrise Blvd.	Sidewalk Improvements			$541,000	$541,000	$0		$0	$0	$0
						Total	**$486,949,948**	**$429,855,838**	**$302,690,512**		**$4,434,303**	**$298,256,209**	**$302,690,512**
COMPLEXES													
318.1	Zinfandel Drive	White Rock Road	US-50 Interchange	Zinfandel Dr Complex			$51,449,000	$51,449,000	$51,449,000	Existing deficiency	$24,776,152	$26,672,848	$51,449,000
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

Source: DKS Associates, 2012

Table B-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	Rio del Oro Pkwy / Sunrise Blvd	6 x 6 Tee		4 x 6 Tee	$1,174,000	$1,174,000	$1,117,000		$0	$1,117,000	$1,117,000
210	Rio del Oro Pkwy / Rancho Cordova Pkwy	6 x 6 New	4 x 4 New		$1,854,000	$1,624,000	$1,624,000		$0	$1,624,000	$1,624,000
211	Rio del Oro Pkwy / International Dr	4 x 4 New	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
212	Rio del Oro Pkwy / Americanos Rd	4 x 4 New	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
213	Rio del Oro Pkwy / White Rock Rd	4 x 6	2x4		$1,055,000	$847,000	$847,000		$0	$847,000	$847,000
215	Rio del Oro Pkwy / Easton Valley Pkwy	4 x 6 New			$1,620,000	$0	$0			$0	$0
216	Rio del Oro Pkwy / Folsom Blvd	4 x 4			$1,138,000	$0	$0			$0	$0
217	Villagio Dr / Douglas Rd	4 x 6 Tee	2 x 6 Tee	2 x 4 Tee	$1,404,000	$1,336,000	$1,149,000		$0	$1,149,000	$1,149,000
218	Villagio Dr / Rancho Cordova Pkwy	4 x 6 New	2 x 4 New		$1,620,000	$1,412,000	$1,412,000		$0	$1,412,000	$1,412,000
219	Villagio Dr / International Dr	4 x 4 New	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
220	Villagio Dr / Americanos Blvd	4 x 4 New	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
221	Villagio Dr / White Rock Rd	4 x 6	2 x 4		$888,000	$680,000	$680,000		$0	$680,000	$680,000
226	Easton Valley Pkwy / Rancho Cordova Pkwy	Urban Interchange			$30,400,000	$30,400,000	$30,400,000		$0	$30,400,000	$30,400,000
227	Easton Valley Pkwy / Hazel Ave	Partial Grade Separation			$0	$0	$0			$0	$0
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	$1,138,257	$1,445,126	$988,710		$0	$988,710	$988,710
230.3	Centennial Dr / Americanos Blvd	4 x 4	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
230.4	Centennial Dr / Grant Line Rd	4 x 2 x 6 x 6	2 x 6		$1,900,000	$1,790,000	$1,790,000		$0	$1,790,000	$1,790,000
231	Americanos Blvd / Keifer Blvd	4 x 4 Tee New	2 x 2 Tee New		$1,138,000	$989,000	$989,000		$0	$989,000	$989,000
232	Americanos Blvd / Chrysanthy Blvd	4 x 4 New	2 x 2 New		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
233	Americanos Blvd / Douglas Rd	4 x 6	2 x 4		$1,459,000	$1,251,000	$1,251,000		$0	$1,251,000	$1,251,000
234	Americanos Blvd / International Dr	4 x 4 New	2 x 4		$1,547,000	$1,445,000	$1,445,000		$0	$1,445,000	$1,445,000
240	Bradshaw Rd / Old Placerville Rd	6 x 6 Tee		4 x 6 Tee	$1,383,000	$1,383,000	$0	Existing deficiency; no improvement necessary without thru trips	$0	$0	$0
245	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	Chrysanthy Blvd / Rancho Cordova Pkwy	4 x 4 x 4 x 6 New	4 x 4	2 x 4	$1,826,000	$1,826,000	$1,692,000		$0	$1,692,000	$1,692,000
247	Chrysanthy Blvd / Grant Line Rd	4 x 2 x 6 x 6	2 x 6	2 x 4	$1,505,000	$1,505,000	$1,406,000		$0	$1,406,000	$1,406,000
251	Coloma Rd / Sunrise Blvd	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
252	Douglas Rd/Zinfandel (was part of 312.3)	4x6			$3,004,000	$3,004,000	$3,004,000		$0	$3,004,000	$3,004,000
253	Douglas Rd / Sunrise Blvd	Urban Interchange	Lt Turn Separation	Lt Turn Separation	$19,480,000	$2,603,000	$2,603,000	Developer funded portion reduced to cost of 6x6 at-grade improvement	$0	$2,603,000	$2,603,000
254	Douglas Rd / Rancho Cordova Pkwy	6 x 6	6 x 4	4 x 4	$2,530,000	$2,415,000	$2,415,000		$0	$2,415,000	$2,415,000
255	Douglas Rd / Grant Line Rd	4 x 6		4 x 4	$1,557,000	$1,557,000	$1,484,000	Excludes assumed portion funded by Co	$0	$1,484,000	$1,484,000
265	Femoyer St / International Dr	4 x 6			$1,364,000	$1,364,000	$1,364,000		$0	$1,364,000	$1,364,000
267.2	Folsom Blvd / Bradshaw Rd	4 x 6			$1,620,000	$1,620,000	$1,620,000		$0	$1,620,000	$1,620,000
267.3	Folsom Blvd / Routier Rd	4 x 6	4 x 2		$1,620,000	$1,412,000	$1,412,000		$0	$1,412,000	$1,412,000
267.4	Folsom Blvd / Mather Field Rd	4 x 6		4 x 4	$1,620,000	$1,620,000	$1,547,000	Existing deficiency	$0	$1,547,000	$1,547,000
267.5	Folsom Blvd / Coloma Rd	4 x 4 Tee			$1,138,000	$1,138,000	$1,138,000		$0	$1,138,000	$1,138,000
267.6	Folsom Blvd / Zinfandel Dr	4 x 4			$1,547,000	$1,547,000	$1,547,000		$0	$1,547,000	$1,547,000
268	Folsom Blvd / Sunrise Blvd	Enhanced at Grade			$2,000,000	$2,000,000	$2,000,000		$0	$2,000,000	$2,000,000
270	Gold Country Blvd / Sunrise Blvd	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
273	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	Grant Line Rd / Rancho Cordova Pkwy	6 x 4 Tee	6 x 2	4 x 2	$1,054,000	$1,321,000	$1,149,000		$0	$1,149,000	$1,149,000
275	Grant Line Rd / Keifer Blvd.	6 x 4 Tee	6 x 2	4 x 2	$1,198,000	$1,385,000	$1,198,000	Excludes assumed portion funded by Co	$0	$1,198,000	$1,198,000
278	Old Placerville Rd / Routier Rd	6 x 6	6 x 2		$3,031,000	$2,717,000	$2,717,000		$0	$2,717,000	$2,717,000
278.1	Old Placerville / McCuen extension	6 x 4 x 6 Tee			$5,201,000	$5,201,000	$5,201,000		$0	$5,201,000	$5,201,000
278.2	Old Placerville Rd / Rockingham	At Ultimate			$0	$0	$0		$0	$0	$0

Table B-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	International Dr / Mather Blvd	6 x 4			$1,620,000	$1,620,000	$1,620,000		$0	$1,620,000	$1,620,000
279.1	Mather Blvd / Mather Field Rd	4 x 4			$5,351,000	$5,351,000	$5,351,000		$0	$5,351,000	$5,351,000
279.2	Mather Blvd / Femoyer St	4 x 4 x 4 x 2			$5,480,000	$5,480,000	$5,480,000		$0	$5,480,000	$5,480,000
279.3	Mather Blvd / Zinfandel Dr	At Ultimate			$0	$0	$0		$0	$0	$0
280	International Dr. / Mather Field Rd	6 x 6			$9,994,000	$9,994,000	$9,994,000		$0	$9,994,000	$9,994,000
280.1	International Dr / McCuen extension	4 x 6 x 6 Tee			$6,168,000	$6,168,000	$6,168,000		$0	$6,168,000	$6,168,000
281	International Dr. / Zinfandel Dr	6 x 6			$0	$0	$0		$0	$0	$0
282	International Dr / Kilgore Rd	6 x 4			$524,000	$524,000	$524,000		$0	$524,000	$524,000
283	International Dr / Sunrise Blvd.	Urban Interchange	Lt Turn Separation	Lt Turn Separation	$50,123,000	$19,480,000	$19,480,000	Developer funded portion reduced to cost of 6x6 at-grade improvement	$15,666,000	$3,814,000	$19,480,000
284	International Dr / Rancho Cordova Pkwy	6 x 4 x 6 x 6 New	4 x 6		$1,739,000	$1,739,000	$1,739,000		$0	$1,739,000	$1,739,000
284.1	International Dr / White Rock Rd	4 x 6 x 6 x 6 New	4 x 6	2x4	$1,146,000	$1,146,000	$857,000		$0	$857,000	$857,000
284.2	International Dr / Rancho Cordova Pkwy	6 x 6 Tee New	2 x 6		$1,390,000	$1,289,000	$1,289,000		$0	$1,289,000	$1,289,000
288	Jackson Hwy / Sunrise Blvd	6 x 6	4 x 6		$9,139,000	$9,005,000	$8,872,000	Existing deficiency	$558,936	$8,313,064	$8,872,000
289	Rancho Cordova Pkwy / Keifer Blvd	4 x 4	2 x 2		$1,547,000	$1,347,000	$1,347,000		$0	$1,347,000	$1,347,000
290	Rancho Cordova Pkwy / White Rock Rd	Enhanced at Grade			$6,003,000	$6,003,000	$6,003,000		$0	$6,003,000	$6,003,000
290.1	Rancho Cordova Pkwy at Sun Center	6 x 2 Tee			$1,015,000	$1,015,000	$1,015,000		$0	$1,015,000	$1,015,000
294	Keifer Blvd / Sunrise Blvd	4 x 6			$1,864,000	$1,864,000	$1,864,000		$0	$1,864,000	$1,864,000
295	Mather Field Rd / Rockingham Rd	6 x 4			$0	$0	$0		$0	$0	$0
297	Sun Center Dr / Sunrise Blvd	At Ultimate			$0	$0	$0		$0	$0	$0
299	Sunrise Blvd / White Rock Rd.	Urban Interchange			$19,480,000	$10,500,000	$10,500,000	Developer funded portion reduced to cost of at-grade improvement	$0	$10,500,000	$10,500,000
300	Sunrise Blvd / Zinfandel Dr	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
301	Sunrise Blvd / Gold Express Dr	Sunrise Viaduct			$0	$0	$0	Existing deficiency	$0	$0	$0
302	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	$6,250,000	$6,250,000	$12,500,000
267.35	Routier Rd	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000		$12,500,000	$12,500,000	$25,000,000
267.45	Mather Field Rd	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000		$12,500,000	$12,500,000	$25,000,000
267.65	Zinfandel Dr	LRT Grade Sep			$25,000,000	$25,000,000	$25,000,000		$12,500,000	$12,500,000	$25,000,000
				Total Ints	**$323,721,607**	**$261,461,476**	**$257,427,060**		**$60,095,772**	**$197,331,288**	**$257,427,060**
Interchanges											
313	Rancho Cordova Parkway /US 50	New Interchange			$110,000,000	$110,000,000	$110,000,000		$0	$110,000,000	$110,000,000
316	Bradshaw Rd. / US 50	Interchange Mod			$10,000,000	$10,000,000	$10,000,000		$0	$10,000,000	$10,000,000
317	Mather Field Rd / US 50	Interchange Mod			$20,000,000	$20,000,000	$20,000,000		$0	$20,000,000	$20,000,000
				Total Intx	**$140,000,000**	**$140,000,000**	**$140,000,000**		**$0**	**$140,000,000**	**$140,000,000**

Source: DKS Associates, 2012

Appendix C

Improvement Cost Estimation Methodology

December 2013

WOOD RODGERS

TECHNICAL MEMORANDUM

TO: City of Rancho Cordova

FROM: Mark Rayback P.E., Project Manager
Steven Robinson P.E., Project Engineer

DATE: December 6, 2013

SUBJECT: Rancho Cordova Fee Program 2013 Update: Unit Cost and Cost Estimate Methodology

Wood Rodgers was tasked by the City of Rancho Cordova (City) to update the roadway and intersection cost estimates with current 2013 construction costs for use in the 2013 Fee Program update. This memorandum summarizes the methodology used to develop the item unit costs and cost estimates.

UNIT COSTS

The City provided Wood Rodgers with cost estimates and bid results (dated between March 2011 and March 2013) from 14 different projects located in the Sacramento area. These 14 projects consisted of a wide range of project types, including the Suncreek and Cordova Hills Specific Plans, various County of Sacramento roadway improvement projects, a City of Folsom landscaping project, and the State Route 99/Elverta Road interchange. Using a construction item list that was consistent with previous cost assumptions, along with a few new items needed for phasing purposes, Wood Rodgers extracted the unit costs from the provided bids and cost estimates and compiled them into a single spreadsheet. This spreadsheet is provided in Attachment 1. Not every bid and estimate had every construction item, so only those items that were in the bid and estimate are included in the spreadsheet. Also, the costs were provided in a variety of different price per units. For example, within the 14 bids/estimates, Aggregate Base was priced per Square Foot, per Cubic Yard, and per Ton. To be consistent, each cost was converted into the same price per unit as those used in the City's previous unit cost evaluation.

For each item, the minimum, maximum, and average unit cost was calculated from the compiled costs. Some of the costs from the bids and estimates were significantly higher or lower than the overall average unit cost. These costs were considered to be outside of the reasonable cost range for the item, and were removed from the unit cost calculations. These values are shown in red in Attachment 1. Comparing the minimum, maximum, and average unit costs, Wood Rodgers used its engineering judgment to determine a unit cost for each construction item. These costs are shown in Attachment 1 under the column "Proposed Unit Cost." Costs were included for items both within the Fee portion and the Developer portion of the roadways and intersections.

UNIT COSTS FROM OTHER SOURCES

A few costs could not be directly determined from the provided cost estimates and bid results because they were either not provided, or insufficient information was available to compare (e.g. a different cost breakdown was used, only one cost was available, etc.). For these few items, Wood Rodgers used costs from other recent project estimates Wood Rodgers has prepared and recent Caltrans bid results to develop a unit cost.

The unit cost for storm drain system was developed assuming a storm drain main of 24-inch reinforced concrete pipe at $85 per linear foot, 2 drain inlets (DI) at a cost of $2,500 each, 12-inch lateral pipes at $70 per linear foot (assumed 60-foot wide road), and one manhole at $4,000, all of which occurs over 500 feet of roadway.

($85/Ft 24" Pipe x 500 Ft + $2,500 x 2 DI + $70/Ft 12" Pipe x 60 Ft + $4,000 Manhole) / 500 Ft ≈ $112 per foot

Only two cost estimates included costs for frontage street lighting, and Wood Rodgers believes both to be low. Based on several roadway projects Wood Rodgers has recently been involved with, we have found street lights to cost between $5,000 and $7,000 each. City street lighting standards require street lights to be spaced approximately 180 feet apart. At this spacing, 10 street lights will be needed for every 1,000 feet of road (5 each side).

($5,000 x 10 Street Lights) / 1,000 feet = $50 per foot

The cost for Storm Water Pollution Prevention Plan (SWPPP) was always a lump sum cost in the bids/estimates, which was of little use in establishing a unit cost. The City's 2007 unit cost evaluation had a price of $9 per linear foot. However, new regulations put in place since 2007 have increased the cost of implementing a SWPPP. It is difficult to put an overall price on a SWPPP, as every project will have different requirements and costs. However, it is Wood Rodgers judgment that the new regulations could double the cost of implementing a SWPPP from what it would have cost before, hence the proposed unit price of $18 per linear foot.

ROADWAY COST ESTIMATES

The City provided Wood Rodgers the roadway segment calculation spreadsheet used in the 2007 unit cost evaluation. This spreadsheet was set up to calculate the Fee and Developer funded portions of the cost per foot of a typical 2-lane, 4-lane, and 6-lane roadway section. Using this spreadsheet as a template, Wood Rodgers created new 4-lane and 6-lane roadway sections based on possible phased construction per DKS Associates new future traffic demand model. New quantities were calculated for each new phase, and the updated 2013 item unit costs were applied to calculate an overall roadway cost per linear foot. Asphalt concrete and aggregate base thicknesses were assumed to be the same as those used in 2007. The new detailed phased roadway cost calculations are shown in Attachment 2 and are highlighted in blue. Wood Rodgers also updated the unit costs for the roadway sections that widen or rehabilitate an existing road, but did not modify the quantities. These are also shown in Attachment 2 but are not highlighted.

DEVELOPER FUNDED PORTION

Consistent with the assumptions used in the previous cost evaluation, it was assumed that the Developer funded portion of the roadway consists of the outside frontage landscaping, curb, gutter, sidewalk, and street lighting. Also included is the outside 15 feet of roadway, consisting of any asphalt concrete, aggregate base, striping, and storm drainage. The Developer funded portion includes all excavation and clearing and grubbing required between the right of way line and the outside 15 feet of roadway. It is assumed that the Developer will be responsible for drain inlets and storm drain laterals between the drain inlet and main storm drain pipe. Since the cost of drain inlets and laterals is small compared to the cost of the main pipe on a per foot basis (the main pipe is assumed to be within the Fee portion of the roadway), the Developer's portion of the storm drain cost has been set at $12 per foot. The Developer funded portion of the SWPPP is assumed to be 50 percent of the total SWPPP cost when roadwork is required by both the City (Fee) and the Developer on the same phase. The Developer is assumed to cover the entire cost of the storm drain system and SWPPP when no City (Fee) work is required, such as on 2-lane roads.

FEE FUNDED PORTION

The Fee funded portion of the roadway consists of all roadway and features not included in the Developer funded portion, which includes the No. 1 lanes and median on a 4-lane roadway, and the No. 1 and No. 2 lanes and median on a 6-lane roadway. Included in this work is the roadway excavation and clear and grubbing for those lanes and median, asphalt concrete (AC), aggregate base (AB), median curb, temporary and permanent median landscaping, striping, and remaining storm drain system not included in the Developer funded portion. The Fee funded portion of the SWPPP is assumed to be 50 percent of the total SWPPP cost when roadwork is required by both the City (Fee) and the Developer on the same phase. However, the Fee is assumed to pay the entire SWPPP cost during any phase that does not include Developer work. Also included in the Fee funded portion is an item for signal interconnect. Unless otherwise noted in Attachment 2, a 20 percent contingency is included on all roadway sections that involve widening to cover stage construction/traffic handling and any unknown costs that may arise from widening an existing road.

ROADWAY PHASING

It is assumed that if a roadway is phased (i.e. only partially built at first and then widened in the future), the outside lanes would be constructed first, with the inside lane(s) constructed in the future. This results in the Developer funded portion of the roadway always being constructed under Phase 1. This also requires that the storm drain system always be constructed under Phase 1, as the gutter and DI's installed by the Developer need the main storm drain pipe to drain to. It is also assumed that signal interconnect is installed in Phase 1, as most if not all major intersections will be signalized in the first phase.

When a roadway is phased, the Fee funded portion will include a two foot wide inside paved shoulder and AC dike to separate the roadway from the median. Median area intended to be converted to roadway in a future phase will be minimally landscaped with temporary plants and/or ground cover. The portion of the median that is intended to always be median (permanent) will be landscaped with permanent plants and ground cover.

For each future phase, the temporary median being converted to roadway will require excavation, clearing and grubbing, AC, AB, striping of the new lane, and median curb if it is the final phase or AC dike if it is not. A new SWPPP is also assumed to be required at full cost to the Fee. A 20 percent contingency is included on all future phases to cover stage construction/traffic handling and any unknown costs that may arise from widening an existing road.

INTERSECTION COST ESTIMATES

The intersection cost estimates were developed to provide a single total cost for each intersection configuration. Intersection costs include any and all features on each leg of the roadway within 450 feet of the center of the intersection. Similar to the roadway estimates, a spreadsheet was set up to calculate the Fee and Developer funded portions for each intersection configuration per DKS Associates new future traffic demand model. Phased construction of the intersection has been considered, and it is assumed that no intersection would ever have more than two construction phases. New quantities were calculated for up to two phases for each intersection configuration, and the updated 2013 item unit costs were applied to calculate a total intersection cost. The detailed intersection cost calculations are shown in Attachment 3. Based on direction from the City, it is assumed that only a 4x4 intersection or 4x4 Tee intersection would have right turn lanes with "pork chop" raised median islands. No other configuration would have such islands.

DEVELOPER FUNDED PORTION

Consistent with the assumptions used in the previous cost evaluation, it is assumed that the Developer funded portion of the intersection consists of the outside frontage landscaping, curb, gutter, sidewalk (see Fee Funded Portion for exception), and street lighting. Also included is the outside 15 feet of roadway, consisting of any asphalt concrete, aggregate base, striping, and storm drainage. The Developer funded portion includes all excavation and clearing and grubbing required between the right of way line and the outside 15 feet of roadway. It is assumed that the Developer will be responsible for drain inlets and storm drain laterals between the drain inlet and main storm drain pipe. Since the cost of drain inlets and laterals is small compared to the cost of the main pipe on a per foot basis (the main pipe is assumed to be within the Fee funded portion of the roadway), the Developer funded portion of the storm drain cost is set at $12 per foot. The Developer funded portion of the SWPPP is assumed to be 50 percent of the total SWPPP cost when roadwork is required by both the City (Fee) and the Developer on the same phase. The Developer is assumed to cover the entire cost of the storm drain system and SWPPP when no City (Fee) work is required, such as on 2-lane roads.

FEE FUNDED PORTION

The Fee funded portion of the intersection consists of all construction items not included in the Developer funded portion. Included in this work is the roadway excavation and clearing and grubbing for the inside lanes and median, AC, AB, median curb, temporary and permanent median landscaping, striping, and remaining storm drain system not included in the Developer funded portion. Also included is the curb, gutter, and sidewalk at the curb returns, plus 25 feet in

either direction. The Developer funded portion does not include this 70± feet of hardscape. The "pork chop" raised median islands on 4x4 intersections are also included in the Fee funded portion. The Fee funded portion of the SWPPP is assumed to be 50 percent of the total SWPPP cost when roadwork is required by both the City (Fee) and the Developer on the same phase. However, the Fee is assumed to pay the entire SWPPP cost during any phase that does not include Developer work. Also included in the Fee funded portion is an item for signal interconnect and all traffic signal costs.

INTERSECTION PHASING

It is assumed that if an intersection is phased, the outside lanes would be constructed first, with the inside lane(s) constructed in the future. This results in the Developer funded portion of the intersection always being constructed under Phase 1. This also requires that the storm drain system always be constructed under Phase 1, as the gutter and DI's installed by the Developer need the main storm drain pipe to drain to. It is also assumed that signal interconnect and traffic signal is installed in Phase 1, as it is expected that most if not all major intersections will be signalized in the first Phase.

When an intersection is phased, the Fee funded portion will include a two foot wide inside paved shoulder and AC dike on the travel lanes approaching the intersection to separate the roadway from the median. Median area intended to be converted to roadway in a future phase will be minimally landscaped with temporary plants and/or ground cover. The portion of the median that is intended to always be median (permanent) will be landscaped with permanent plants and ground cover.

For each future phase, the temporary median being converted to roadway will require excavation, clearing and grubbing, AC, AB, striping of the new lane, and median curb if it is the final phase or AC dike if it is not. A new SWPPP is also assumed to be required at full cost to the Fee. It is also assumed that any future phase will require signal modification to accommodate the additional travel lanes (e.g. extending a mast arm, adding or moving a signal head, etc.), so a signal modification cost is included. A 20 percent contingency is included on all future phases to cover stage construction/traffic handling and any unknown costs that may arise from widening an existing road.

ATTACHMENTS

Attachment 1 – Unit Cost Comparison
Attachment 2 – Roadway Segment Cost Estimates
Attachment 3- Intersection Cost Estimates

ATTACHMENT 1

UNIT COST COMPARISON

ATTACHMENT 1

UNIT COST AND COST ESTIMATE METHODOLOGY

ITEM	UNIT	CALTRANS/ WR	SUNCREEK SP (MACKAY & SOMPS)	COUNTY OF SACRAMENTO WHITE ROCK ROAD WIDENING APRIL 2012			COUNTY OF SACRAMENTO ELVERTA INTERCHANGE APRIL 2012					COUNTY OF SACRAMENTO FAIR OAKS BLVD AT MARCONI AVE IMPROVEMENT FEBRUARY 2012								
			Estimate	Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7	Bid 8	Bid 9
Clearing and Grubbing	SF	$0.10	$0.10																	
Roadway Excavation	CY	$12.00	$5.00	$1.00	$10.00	$17.00	$8.50	$18.00	$8.00	$15.00	$11.00									
6" Asphalt Concrete	SF	$3.50	$3.24	$3.64	$3.38	$3.56	$2.60	$2.52	$2.91	$3.56	$3.29	$3.87	$3.56	$3.87	$5.04	$5.42	$4.49	$5.46	$5.73	$7.17
6.5" Asphalt Concrete	SF	$3.75	$3.51	$3.93	$3.65	$3.85	$2.80	$2.72	$3.14	$3.85	$3.56	$4.19	$3.85	$4.19	$5.44	$5.86	$4.86	$5.90	$6.20	$7.74
14" Aggregate Base	SF	$1.30	$1.61	$1.65	$1.36	$1.10	$1.12	$1.08	$1.53	$1.59	$1.72	$2.78	$2.97	$2.54	$4.24	$8.06	$5.09	$5.60	$6.62	$6.79
16" Aggregate Base	SF	$1.50	$1.84	$1.88	$1.54	$1.25	$1.27	$1.23	$1.74	$1.81	$1.98	$3.16	$3.38	$2.89	$4.82	$9.16	$5.79	$6.36	$7.52	$7.71
AC Dike (Type A)	LF	$3.00		$2.00	$4.00	$4.50														
Curb & Gutter (Type 2)	LF	$24.00	$18.00									$39.80	$24.00	$41.00	$23.10	$18.50	$31.00	$16.00	$37.00	$31.00
Curb (Type 3)	LF	$16.00	$14.00									$17.00	$18.00	$22.00	$18.90	$17.00	$23.00	$18.00	$27.00	$22.00
Curb (Type 4)	LF	$16.00	$13.00	$9.00	$12.00	$25.00						$12.50	$16.00	$13.00	$21.50	$12.00	$11.00	$13.00	$18.00	$20.00
Thermoplastic Striping	LF	$0.75		$1.00	$0.90	$0.80	$0.75	$1.00	$0.75	$0.88	$0.75	$1.05	$1.00	$1.50	$1.35	$1.26	$1.27	$1.23	$1.56	$1.16
Storm Drain (2 DI,MH & DI lead @ 500', 1lf 24"D/lf Road)	LF	$100.00	$100.00	$116.00	$118.00															
Median Landscaping and Irrigation (Permanent)	SF	$7.00	$4.00																	
Median Landscaping (Temporary)	SF	$3.00																		
Median PCC Island	SF	$6.75		$8.00																
Sidewalk (7' wide)	SF	$6.75	$4.00	$8.00								$6.15	$6.50	$8.00	$4.50	$3.30	$8.50	$4.00	$6.00	$6.50
Frontage Landscaping	SF	$7.00	$4.50																	
Frontage Street Lighting (Cost per LF of Road)	LF	$50.00	$25.00																	
New Traffic Signal (Cost per Leg)	EA	$50,000.00		$53,000.00	$55,000.00	$50,000.00														
Modify Traffic Signal (Cost per Leg)	EA																			
Traffic Signal Interconnect	LF	$12.00	$6.00																	
SWPPP	LF	$18.00																		

ITEM	UNIT	COUNTY OF SACRAMENTO FREEDOM PARK DRIVE APRIL 2011			COUNTY OF SACRAMENTO AUBURN BLVD JULY 2011		COUNTY OF SACRAMENTO EL CAMINO AVE NOVEMBER 2012			COUNTY OF SACRAMENTO MARCONI AVE STREET AND SIDEWALK IMPROVEMENT JANUARY 2013									
		Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7	Bid 8	Bid 9	Bid 10
Clearing and Grubbing	SF																		
Roadway Excavation	CY	$10.00	$35.00	$56.00															
6" Asphalt Concrete	SF	$3.49	$4.65	$4.42	$6.28	$3.49													
6.5" Asphalt Concrete	SF	$3.77	$5.02	$4.77	$6.78	$3.77													
14" Aggregate Base	SF	$1.87	$2.97	$2.54	$5.68	$3.82	$3.39	$3.39	$4.75	$2.37	$2.39	$3.31	$9.33	$2.12	$3.39	$4.66	$5.91	$4.66	$3.99
16" Aggregate Base	SF	$2.12	$3.38	$2.89	$6.46	$4.34	$3.86	$3.86	$5.40	$2.70	$2.71	$3.76	$10.61	$2.41	$3.86	$5.30	$6.72	$5.30	$4.53
AC Dike (Type A)	LF																		
Curb & Gutter (Type 2)	LF	$34.00	$22.00	$18.00	$16.80	$20.00	$23.00	$21.50	$24.70	$17.00	$21.80	$24.00	$19.50	$35.00	$19.60	$23.00	$44.70	$20.00	$32.00
Curb (Type 3)	LF	$19.00	$16.00	$12.00	$22.00	$45.00	$16.00	$16.00	$17.95	$8.00	$13.75	$28.00	$16.00	$25.00	$10.45	$17.00	$25.00	$22.00	$21.00
Curb (Type 4)	LF	$11.00	$16.00	$16.00	$10.36	$15.00	$16.00	$17.00	$17.70	$10.00	$17.20	$17.00	$17.50	$13.75	$10.45	$15.00	$13.50	$15.00	$13.00
Thermoplastic Striping	LF	$1.31	$0.81	$0.78	$1.60	$1.20	$1.26	$1.05	$1.39	$1.14	$1.21	$1.16	$0.98	$1.04	$1.23	$1.14	$1.26	$0.94	$1.43
Storm Drain (2 DI,MH & DI lead @ 500', 1lf 24"D/lf Road)	LF																		
Median Landscaping and Irrigation (Permanent)	SF																		
Median Landscaping (Temporary)	SF																		
Median PCC Island	SF																		
Sidewalk (7' wide)	SF	$6.50	$4.50	$4.75			$4.50	$5.00	$4.50	$3.50	$3.20	$6.30	$5.00	$6.50	$3.92	$7.00	$8.50	$5.00	$8.00
Frontage Landscaping	SF																		
Frontage Street Lighting (Cost per LF of Road)	LF																		
New Traffic Signal (Cost per Leg)	EA																		
Modify Traffic Signal (Cost per Leg)	EA	$43,300.00	$44,300.00	$44,300.00			$35,500.00	$37,875.00	$42,220.00	$35,060.00	$33,925.00	$39,250.00	$30,250.00	$31,750.00	$46,550.00	$32,500.00	$31,750.00	$29,750.00	$29,750.00
Traffic Signal Interconnect	LF																		
SWPPP	LF																		

ATTACHMENT 1

UNIT COST AND COST ESTIMATE METHODOLOGY

ITEM	UNIT	COUNTY OF SACRAMENTO GATEWAY 5 - DUDLEY BLVD IMPROVEMENTS MARCH 2011												CITY OF FOLSOM MADISON/GREENBACK MARCH 2013					COUNTY OF SACRAMENTO WATT AVE INTERCHANGE AUGUST 2012			COUNTY OF SACRAMENTO ORANGE GROVE AVE PED IMPROVEMENT AUGUST 2012				
		Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7	Bid 8	Bid 9	Bid 10	Bid 11	Bid 12	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5
Clearing and Grubbing	SF																									
Roadway Excavation	CY	$16.50	$15.00	$24.00	$12.90	$25.00	$35.25	$25.00	$23.00	$21.00	$28.00	$13.00	$20.70						$13.00	$5.00	$16.00					
6" Asphalt Concrete	SF	$3.06	$2.71	$2.91	$2.83	$3.29	$3.19	$3.16	$3.49	$3.41	$3.37	$3.18	$3.54						$3.22	$3.10	$3.25	$5.39	$4.65	$6.32	$5.81	$7.75
6.5" Asphalt Concrete	SF	$3.31	$2.93	$3.14	$3.06	$3.56	$3.44	$3.41	$3.77	$3.68	$3.64	$3.43	$3.82						$3.47	$3.35	$3.52	$5.82	$5.02	$6.82	$6.28	$8.37
14" Aggregate Base	SF	$2.43	$1.87	$6.36	$2.35	$2.54	$2.05	$2.54	$2.97	$3.05	$3.82	$3.22	$2.08						$1.44	$2.46	$2.12	$4.96	$3.82	$3.73	$3.39	$8.48
16" Aggregate Base	SF	$2.76	$2.12	$7.23	$2.67	$2.89	$2.33	$2.89	$3.38	$3.47	$4.34	$3.66	$2.36						$1.64	$2.80	$2.41	$5.64	$4.34	$4.24	$3.86	$9.64
AC Dike (Type A)	LF																		$3.00	$2.65	$3.00					
Curb & Gutter (Type 2)	LF	$18.90	$15.00	$13.50	$16.20	$15.00	$19.50	$17.00	$14.00	$17.70	$16.00	$16.00	$23.75						$18.00	$25.00	$16.00					
Curb (Type 3)	LF	$13.80	$15.00	$9.50	$11.40	$11.00	$10.30	$15.90	$9.50	$11.00	$21.00	$13.00	$20.50						$15.00	$24.00	$15.00					
Curb (Type 4)	LF	$12.80	$10.00	$8.50	$9.00	$8.40	$13.20	$11.00	$8.50	$9.00	$11.00	$10.00	$11.80						$11.00	$9.00	$10.00					
Thermoplastic Striping	LF	$0.64	$1.40	$0.56	$0.63	$0.56	$0.52	$0.52	$0.56	$0.59	$0.57	$0.67	$0.54						$1.17	$1.05	$1.17	$1.65	$1.25	$1.15	$1.00	$0.90
Storm Drain (2 DI,MH & DI lead @ 500', 1lf 24"D/lf Road)	LF																		$111.00	$97.00	$173.00					
Median Landscaping and Irrigation (Permanent)	SF																									
Median Landscaping (Temporary)	SF													$1.35	$1.25	$1.30	$1.50	$1.32								
Median PCC Island	SF													$9.25	$16.00	$21.00	$13.80	$13.00								
Sidewalk (7' wide)	SF	$3.90	$4.25	$2.80	$3.50	$3.50	$6.40	$3.00	$3.00	$3.75	$4.00	$3.31	$4.15						$3.00	$4.00	$3.00	$5.70	$9.00	$5.50	$6.00	$4.00
Frontage Landscaping	SF																									
Frontage Street Lighting (Cost per LF of Road)	LF																									
New Traffic Signal (Cost per Leg)	EA																									
Modify Traffic Signal (Cost per Leg)	EA																									
Traffic Signal Interconnect	LF																									
SWPPP	LF																									

ITEM	UNIT	COUNTY OF SACRAMENTO FEMOYER STREET INTERSECTION MARCH 2013							CORDOVA HILLS SPA (MACKAY & SOMPS)	MIN	AVERAGE	MAX	PROPOSED UNIT COST	2007 UNIT COSTS
		Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7						
Clearing and Grubbing	SF								$0.18	$0.10	$0.13	$0.18	**$0.10**	$0.10
Roadway Excavation	CY								$30.00	$5.00	$16.31	$35.25	**$12.00**	$15.00
6" Asphalt Concrete	SF	$2.91	$3.10	$3.68	$3.41	$3.35	$4.26	$3.56	$4.20	$2.52	$3.28	$3.87	**$3.25**	$3.35
6.5" Asphalt Concrete	SF	$3.14	$3.35	$3.98	$3.68	$3.62	$4.60	$3.85	$4.55	$2.72	$3.55	$4.19	**$3.50**	$3.60
14" Aggregate Base	SF	$1.36	$1.70	$1.87	$2.29	$1.53	$2.09	$1.70	$3.92	$1.08	$2.40	$3.99	**$1.75**	$2.25
16" Aggregate Base	SF	$1.54	$1.93	$2.12	$2.60	$1.74	$2.37	$1.93	$4.48	$1.23	$2.74	$4.53	**$2.00**	$2.60
AC Dike (Type A)	LF									$2.00	$3.16	$4.50	**$3.00**	
Curb & Gutter (Type 2)	LF	$15.00	$10.30	$23.00	$24.00	$30.80	$26.50	$28.50	$25.00	$10.30	$19.85	$34.00	**$20.00**	$20.00
Curb (Type 3)	LF									$9.50	$14.60	$19.00	**$14.00**	$14.00
Curb (Type 4)	LF	$9.00	$10.00	$7.50	$8.50	$9.25	$8.25	$10.50		$7.50	$12.22	$18.00	**$12.00**	$14.00
Thermoplastic Striping	LF	$1.03	$0.92	$1.05	$0.90	$0.92	$0.82	$1.10	$2.00	$0.52	$1.03	$2.00	**$1.25**	$1.40
Storm Drain (2 DI,MH & DI lead @ 500', 1lf 24"D/lf Road)	LF									$97.00	$107.00	$118.00	**$110.00**	$123.00
Median Landscaping and Irrigation (Permanent)	SF								$6.00	$4.00	$5.67	$7.00	**$6.00**	$5.00
Median Landscaping (Temporary)	SF									$1.25	$1.62	$3.00	**$3.00**	$3.00
Median PCC Island	SF									$6.75	$12.54	$21.00	**$15.00**	
Sidewalk (7' wide)	SF	$3.00	$5.75	$5.00	$6.00	$7.20	$3.80	$6.50	$6.00	$2.80	$5.14	$9.00	**$6.00**	$5.60
Frontage Landscaping	SF									$4.50	$5.75	$7.00	**$6.00**	$5.00
Frontage Street Lighting (Cost per LF of Road)	LF								$13.00	$25.00	$37.50	$50.00	**$50.00**	$23.00
New Traffic Signal (Cost per Leg)	EA								$75,000.00	$50,000.00	$56,600.00	$75,000.00	**$55,000.00**	$75,000.00
Modify Traffic Signal (Cost per Leg)	EA								$37,500.00	$29,750.00	$36,795.88	$46,550.00	**$37,500.00**	$50,000.00
Traffic Signal Interconnect	LF								$13.00	$6.00	$10.33	$13.00	**$12.00**	$25.00
SWPPP	LF									$18.00	$18.00	$18.00	**$18.00**	$9.00

ATTACHMENT 2

ROADWAY SEGMENT COST ESTIMATES

FEE or CITY PORTION

SPECIAL SECTIONS

M — **Construct Median Improvements**

	Quantity	Unit	$/unit	$
Import Fill	0.3	cy	$15.00	$4.50
Minor Excavation & Saw cut	1	sf	$20.00	$20.00
Med Landscape	13	sf	$6.00	$78.00
Curb (Type 3)	2	lf	$14.00	$28.00
SWPPP	1	lf	$18.00	$18.00
Subtotal				**$148.50**
				20%
*Unit Price Increase for Type of Work			**Total**	**$178.20**

C&G — **Curb & Gutter**

Construct 4ft bike lane, C & G, sidewalk and landscaping (one side) per unit price below.

		Quantity	Unit	$/unit	$
	Excavation	0.5	cy	$12.00	$6.00
Depth of AC	6.5	4	sf	$3.50	$22.00
Depth of AB	16			$2.00	
	Curb & Gutter (Type 2)	1	lf	$20.00	$20.00
	Clear & Grub	22	sf	$0.10	$2.20
	SWPPP	1	lf	$18.00	$18.00
	Sidewalk	7	sf	$6.00	$42.00
	Drainage	1	lf	$12.00	$12.00
	Street Lights	1	lf	$25.00	$25.00
	Landscape	8	sf	$6.00	$48.00
	Subtotal				**$195.20**
					20% *
*Unit Price Increase for Type of Work				**Total**	**$234.24**

GRANT LINE — 4 Lane Ultimate; 2 Lanes constructed in City R/W (one side) per unit price below (No Phasing).

Fee

		Quantity	Unit	$/unit	$
	Excavation	5	cy	$12.00	$60.00
Depth of AC	10	39	sf	$5.40	$333.45
Depth of AB	25			$3.15	
	Striping	3	lf	$1.25	$3.75
	Clear & Grub	100	sf	$0.10	$10.00
	SWPPP	1	lf	$9.00	$9.00
	Signal Interconect	1	lf	$6.00	$6.00
	Subtotal				**$422.20**
					20%
Contengency included to cover stage construction costs and unknowns.				**Total**	**$506.64**

JACKSON — 4 Lane Ultimate; 2 Lanes constructed in City R/W (one side) per unit price below (No Phasing).

Fee

		Quantity	Unit	$/unit	$
	Excavation	3	cy	$12.00	$36.00
Depth of AC	10	20	sf	$5.40	$171.00
Depth of AB	25			$3.15	
	Striping	3	lf	$1.25	$3.75
	Clear & Grub	25	sf	$0.10	$2.50
	SWPPP	1	lf	$9.00	$9.00
	Signal Interconect	1	lf	$6.00	$6.00
	Subtotal				**$228.25**
					20%
Contengency included to cover stage construction costs and unknowns.				**Total**	**$273.90**

DEVELOPER PORTION

No Developer Work

JACKSON — 4 Lane Ultimate; 2 Lanes constructed in City R/W (one side) per unit price below (No Phasing).

Fee

		Quantity	Unit	$/unit	$
	Excavation	3	cy	$12.00	$36.00
Depth of AC	10	20	sf	$5.40	$171.00
Depth of AB	25			$3.15	
	Striping	3	lf	$1.25	$3.75
	Clear & Grub	35	sf	$0.10	$3.50
	Sidewalk	7	sf	$6.00	$42.00
	Curb and Gutter (Type 2)	1	lf	$20.00	$20.00
	Frontage Landscape	8	sf	$6.00	$48.00
	Drainage	1	lf	$56.00	$56.00
	SWPPP	1	lf	$9.00	$9.00
	Signal Interconect	1	lf	$6.00	$6.00
	Street Lights	1	lf	$25.00	$25.00
	Subtotal				**$395.25**
					20%
Contengency included to cover stage construction costs and unknowns.				**Total**	**$474.30**

2 LANE ULTIMATE

No Fee Work Associated with Section 101

101 — 2 Lane Ultimate; construct new 2 lane street, R/W line to R/W line.

Developer

		Quantity	Unit	$/unit	$
	Excavation	2.4	cy	$12.00	$28.80
Depth of AC	6	32.5	sf	$3.25	$162.50
Depth of AB	14			$1.75	
	Striping	3	lf	$1.25	$3.75
	Sidewalk	14	sf	$6.00	$84.00
	Clear & Grub	64	sf	$0.10	$6.40
	Curb & Gutter (Type 2)	2	lf	$20.00	$40.00
	Drainage	1	lf	$112.00	$112.00
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$517.45**
				Total	**$517.45**

101-B — 2 Lane Ultimate; construct new 2 lane street, r/w line to r/w line.

Developer

		Quantity	Unit	$/unit	$
	Cold Plane Pavement	32.5	sf	$0.25	$8.13
Depth of AC	2	32.5	sf	$1.30	$42.25
Depth of AB	0			$0.00	
	Striping	3	lf	$1.25	$3.75
	Sidewalk	14	sf	$6.00	$84.00
	Clear & Grub	30	sf	$0.10	$3.00
	Curb & Gutter (Type 2)	2	lf	$20.00	$40.00
	Drainage	1	lf	$112.00	$112.00
	SWPPP	1	lf	$18.00	$18.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$361.13**
					20%
				Total	**$433.35**

101-C — 2 lane ultimate; repave and restripe. Drainage and curb & gutter already exist.

Developer

		Quantity	Unit	$/unit	$
	Cold Plane Pavement	32.5	sf	$0.25	$8.13
Depth of AC	2	32.5	sf	$1.30	$42.25
Depth of AB	0			$0.00	
	Striping	3	lf	$1.25	$3.75
	SWPPP	1	lf	$18.00	$18.00
	Subtotal				**$72.13**
					30% *
				Total	**$93.76**

*Because this work is performed in an existing street location, traffic control will be necessary. In addition, the major items of work will be constucted in thin strips to maintain traffic flow which will result in higher unit costs.

FEE or CITY PORTION

4 LANE ULTIMATE

102-U

4 Lane Ultimate; 4 Lanes constructed per unit price below (No Phasing, 2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.7	cy	$12.00	$20.40
Depth of AC	6	24	sf	$3.25	$120.00
Depth of AB	14			$1.75	
	Striping	4	lf	$1.25	$5.00
	Med Landscape	13	sf	$6.00	$78.00
	Clear & Grub	38	sf	$0.10	$3.80
	Curb (Type 3)	2	lf	$14.00	$28.00
	Storm Drain Sys.	1	lf	$100.00	$100.00
	SWPPP	1	lf	$9.00	$9.00
	Signal Interconect	1	lf	$12.00	$12.00
	Subtotal				**$376.20**

Assumes 102 is constructed together with 104 and prior to 106

Total $376.20

102-P1

PHASE 1 - 4 Lane Ultimate; 2 Outside Lanes + median actually constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	0.25	cy	$12.00	$3.00
Depth of AC	6	4	sf	$3.25	$20.00
Depth of AB	14			$1.75	
	Striping	2	lf	$1.25	$2.50
	Med Landscape (Temporary)	20	sf	$3.00	$60.00
	Med Landscape	13	sf	$6.00	$78.00
	Clear & Grub	38	sf	$0.10	$3.80
	AC Dike (Type A)	2	lf	$3.00	$6.00
	Storm Drain Sys.	1	lf	$100.00	$100.00
	SWPPP	1	lf	$9.00	$9.00
	Signal Interconect	1	lf	$12.00	$12.00
	Subtotal				**$294.30**

Assumes 102 is constructed together with 104 and prior to 106

Total $294.30

102-P2

PHASE 2 - 4 Lane Ultimate; 2 Inside Lanes constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.4	cy	$12.00	$16.80
Depth of AC	6	20	sf	$3.25	$100.00
Depth of AB	14			$1.75	
	Striping	4	lf	$1.25	$5.00
	Clear & Grub	20	sf	$0.10	$2.00
	Curb (Type 3)	2	lf	$14.00	$28.00
	SWPPP	1	lf	$18.00	$18.00
	Subtotal				**$169.80**
					20%

Assumes 102 and 104 are constructed prior to 106

Contengency included to cover stage construction costs.

Total $203.76

102-Sunrise

4 Lane Ultimate; 2 Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	3	cy	$12.00	$36.00
Depth of AC	7	24	sf	$3.80	$144.00
Depth of AB	17			$2.20	
	Striping	4	lf	$1.25	$5.00
	Med Landscape	13	sf	$6.00	$78.00
	Clear & Grub	46	sf	$0.10	$4.60
	Curb (Type 3)	2	lf	$14.00	$28.00
	Storm Drain Sys.	1	lf	$100.00	$100.00
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Street Lights	0	lf	$50.00	$0.00
	Subtotal				**$425.60**

Assumes 102 is constructed prior to 104

Total $425.60

106

Section 106 (Fee) - 4 Lane Ultimate; Existing 2 Lanes upgraded by removing and replacing structural section and median added per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.8	cy	$12.00	$21.60
Depth of AC	6	24	sf	$3.25	$120.00
Depth of AB	14			$1.75	
	Striping	6	lf	$1.25	$7.50
	Med Landscape	13	sf	$6.00	$78.00
	Curb (Type 3)	2	lf	$14.00	$28.00
	Drainage	1	lf	$100.00	$100.00
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Subtotal				**$385.10**
					20%

Total $462.12

106-A

Section 106-A (Fee) - 4 Lane Ultimate; Existing 2 Lanes upgraded by cold planing 2" AC & repaving with 2" AC and median added per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Import fill for Median	0.3	cy	$15.00	$4.50
Depth of AC	2	24	sf	$1.30	$31.20
Depth of AB	0			$0.00	
	Striping	6	lf	$1.25	$7.50
	Med Landscape	13	sf	$6.00	$78.00
	Curb (Type 3)	2	lf	$14.00	$28.00
	Cold Plane Pavement	24	sf	$0.25	$6.00
	SWPPP	1	lf	$18.00	$18.00
	Subtotal				**$173.20**
					20%

Total $207.84

DEVELOPER PORTION

104-U

4 Lane Ultimate; 4 Lanes constructed per unit price below (No Phasing, 2 sides).

Developer

		Quantity	Unit	$/unit	$
	Excavation	2.8	cy	$12.00	$33.60
Depth of AC	6	30	sf	$3.25	$150.00
Depth of AB	14			$1.75	
	Striping	2	lf	$1.25	$2.50
	Frontage Landscape	16	sf	$6.00	$96.00
	Clear & Grub	66	sf	$0.10	$6.60
	Curb & Gutter (Type 2)	2	lf	$20.00	$40.00
	Sidewalk	14	sf	$6.00	$84.00
	Storm Drain Sys.	1	lf	$12.00	$12.00
	SWPPP	1	lf	$9.00	$9.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$483.70**

Assumes 104 is constructed together with 102

Total $483.70

104

PHASE 1 - 4 Lane Ultimate; 2 Outside Lanes + frontage actually constructed per unit price below (2 sides).

Developer

		Quantity	Unit	$/unit	$
	Excavation	2.8	cy	$12.00	$33.60
Depth of AC	6	30	sf	$3.25	$150.00
Depth of AB	14			$1.75	
	Striping	2	lf	$1.25	$2.50
	Frontage Landscape	16	sf	$6.00	$96.00
	Clear & Grub	66	sf	$0.10	$6.60
	Curb & Gutter (Type 2)	2	lf	$20.00	$40.00
	Sidewalk	14	sf	$6.00	$84.00
	Storm Drain Sys.	1	lf	$12.00	$12.00
	SWPPP	1	lf	$9.00	$9.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$483.70**

Assumes 104 is constructed together with 102

Total $483.70

104

PHASE 1 - 4 Lane Ultimate; 2 Outside Lanes + frontage actually constructed per unit price below (1 side).

Developer

		Quantity	Unit	$/unit	$
	Excavation	1.4	cy	$12.00	$16.80
Depth of AC	6	15	sf	$3.25	$75.00
Depth of AB	14			$1.75	
	Striping	1	lf	$1.25	$1.25
	Frontage Landscape	8	sf	$6.00	$48.00
	Clear & Grub	33	sf	$0.10	$3.30
	Curb & Gutter (Type 2)	1	lf	$20.00	$20.00
	Sidewalk	7	sf	$6.00	$42.00
	Storm Drain Sys.	1	lf	$6.00	$6.00
	SWPPP	1	lf	$4.50	$4.50
	Street Lights	1	lf	$25.00	$25.00
	Subtotal				**$241.85**

Assumes 104 is constructed together with 102

Total $241.85

No Developer Work

FEE or CITY PORTION

6 LANE ULTIMATE

103-U 6 Lane Ultimate; 6 Lanes constructed per unit price below (No Phasing, 2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	3.2 cy		$12.00	$38.40
Depth of AC	6.5	46 sf		$3.50	$253.00
Depth of AB	16			$2.00	
	Striping	6 lf		$1.25	$7.50
	Med Landscape	14 sf		$6.00	$84.00
	Clear & Grub	60 sf		$0.10	$6.00
	Curb (Type 3)	2 lf		$14.00	$28.00
	Storm Drain Sys.	1 lf		$100.00	$100.00
	SWPPP	1 lf		$9.00	$9.00
	Signal Interconect	1 lf		$12.00	$12.00
	Subtotal				**$537.90**

Assumes 103-U is constructed together with 105-U

Total $537.90

103-P1 PHASE 1 - 6 Lane Ultimate; 2 Outside Lanes + median actually constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	0.3 cy		$12.00	$3.60
Depth of AC	6.5	4 sf		$3.50	$22.00
Depth of AB	16			$2.00	
	Striping	2 lf		$1.25	$2.50
	Med Landscape	14 sf		$6.00	$84.00
	Med Landscape (Temporary)	21 sf		$3.00	$63.00
	Clear & Grub	60 sf		$0.10	$6.00
	AC Dike (Type A)	2 lf		$3.00	$6.00
	Storm Drain Sys.	1 lf		$100.00	$100.00
	SWPPP	1 lf		$9.00	$9.00
	Signal Interconect	1 lf		$12.00	$12.00
	Subtotal				**$308.10**

Assume 103-P1 is constructed at same time as 105 and prior to 103-P2

Total $308.10

103-P2 PHASE 2 - 6 Lane Ultimate; 2 Middle Lanes constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.5 cy		$12.00	$18.00
Depth of AC	6.5	22 sf		$3.50	$121.00
Depth of AB	16			$2.00	
	Striping	4 lf		$1.25	$5.00
	Clear & Grub	22 sf		$0.10	$2.20
	AC Dike (Type A)	2 lf		$3.00	$6.00
	SWPPP	1 lf		$18.00	$18.00
	Subtotal				**$170.20**

20%

Assume 103-P2 is constructed after 103-P1 and prior to 103-P3
Contengency included to cover stage construction costs.

Total $204.24

103-P3 PHASE 3 - 6 Lane Ultimate; 2 Inside Lanes constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.4 cy		$12.00	$16.80
Depth of AC	6.5	20 sf		$3.50	$110.00
Depth of AB	16			$2.00	
	Striping	4 lf		$1.25	$5.00
	Clear & Grub	20 sf		$0.10	$2.00
	Curb (Type 3)	2 lf		$14.00	$28.00
	SWPPP	1 lf		$18.00	$18.00
	Subtotal				**$179.80**

20%

Assume 103-P3 is constructed after 103-P2
Contengency included to cover stage construction costs.

Total $215.76

103-P1A PHASE 1 - 6 Lane Ultimate; 4 Outside Lanes + median actually constructed per unit price below (2 sides).

Fee

		Quantity	Unit	$/unit	$
	Excavation	1.8 cy		$12.00	$21.60
Depth of AC	6.5	26 sf		$3.50	$143.00
Depth of AB	16			$2.00	
	Striping	4 lf		$1.25	$5.00
	Med Landscape	14 sf		$6.00	$84.00
	Med Landscape (Temporary)	20 sf		$3.00	$60.00
	Clear & Grub	60 sf		$0.10	$6.00
	AC Dike (Type A)	2 lf		$3.00	$6.00
	Storm Drain Sys.	1 lf		$100.00	$100.00
	SWPPP	1 lf		$9.00	$9.00
	Signal Interconect	1 lf		$12.00	$12.00
	Subtotal				**$446.60**

Assume 103-P1A is constructed at same time as 105 and prior to 103-P3
Phase 2 is 103-P3

Total $446.60

103-Sunrise Section 103 (Fee) - 6 Lane Ultimate; 4 Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	5 cy		$12.00	$60.00
Depth of AC	7	46 sf		$3.80	$276.00
Depth of AB	17			$2.20	
	Striping	6 lf		$1.25	$7.50
	Med Landscape	13 sf		$6.00	$78.00
	Clear & Grub	68 sf		$0.10	$6.80
	Curb (Type 3)	2 lf		$14.00	$28.00
	Storm Drain Sys.	1 lf		$100.00	$100.00
	SWPPP	1 lf		$18.00	$18.00
	Signal Interconect	1 lf		$12.00	$12.00
	Subtotal				**$586.30**

Assume 103 is constructed prior to 105

Total $586.30

DEVELOPER PORTION

105-U 6 Lane Ultimate; 6 Lanes constructed per unit price below (No Phasing, 2 sides).

Developer

		Quantity	Unit	$/unit	$
	Excavation	2.8 cy		$12.00	$33.60
Depth of AC	6.5	30 sf		$3.50	$165.00
Depth of AB	16			$2.00	
	Striping	2 lf		$1.25	$2.50
	Frontage Landscape	16 sf		$6.00	$96.00
	Clear & Grub	66 sf		$0.10	$6.60
	Curb & Gutter (Type 2)	2 lf		$20.00	$40.00
	Sidewalk	14 sf		$6.00	$84.00
	Storm Drain Sys.	1 lf		$12.00	$12.00
	SWPPP	1 lf		$9.00	$9.00
	Street Lights	1 lf		$50.00	$50.00
	Subtotal				**$498.70**

Assumes 105-U is constructed together with 103-U

Total $498.70

105 PHASE 1 - 6 Lane Ultimate; 2 Outside Lanes + Frontage constructed per unit price below (2 sides).

Developer

		Quantity	Unit	$/unit	$
	Excavation	2.8 cy		$12.00	$33.60
Depth of AC	6.5	30 sf		$3.50	$165.00
Depth of AB	16			$2.00	
	Striping	2 lf		$1.25	$2.50
	Frontage Landscape	16 sf		$6.00	$96.00
	Clear & Grub	66 sf		$0.10	$6.60
	Curb & Gutter (Type 2)	2 lf		$20.00	$40.00
	Sidewalk	14 sf		$6.00	$84.00
	Storm Drain Sys.	1 lf		$12.00	$12.00
	SWPPP	1 lf		$9.00	$9.00
	Street Lights	1 lf		$50.00	$50.00
	Subtotal				**$498.70**

0%

Assume 105 is constructed at same time as 103

Total $498.70

105 6 Lane Ultimate; 2 Outside Lanes + Frontage constructed per unit price below (1 side).

Developer

		Quantity	Unit	$/unit	$
	Excavation	1.4 cy		$12.00	$16.80
Depth of AC	6.5	15 sf		$3.50	$82.50
Depth of AB	16			$2.00	
	Striping	1 lf		$1.25	$1.25
	Frontage Landscape	8 sf		$6.00	$48.00
	Clear & Grub	33 sf		$0.10	$3.30
	Curb & Gutter (Type 2)	1 lf		$20.00	$20.00
	Sidewalk	7 sf		$6.00	$42.00
	Storm Drain Sys.	1 lf		$6.00	$6.00
	SWPPP	1 lf		$4.50	$4.50
	Street Lights	1 lf		$25.00	$25.00
	Subtotal				**$249.35**

0%

Assume 105 is constructed at same time as 103

Total $249.35

105-Sunrise Section 105 (Developer) - 6 Lane Ultimate; 1 Lane, 1 bike lane, curb & gutter & sidewalk constructed on **one side only** per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	1.7 cy		$12.00	$20.40
Depth of AC	7	15 sf		$3.80	$90.00
Depth of AB	17			$2.20	
	Sidewalk	7 sf		$6.00	$42.00
	Med Landscape	8 sf		$6.00	$48.00
	Clear & Grub	30 sf		$0.10	$3.00
	Striping	2 lf		$1.25	$2.50
	Curb & Gutter (Type 2)	1 lf		$20.00	$20.00
	Drainage	1 lf		$12.00	$12.00
	SWPPP	1 lf		$18.00	$18.00
	Street Lights	1 lf		$50.00	$50.00
	Subtotal				**$305.90**

20%

Assume 105 constructed after 103

Total $367.08

FEE or CITY PORTION

107

Section 107 (Fee) - 6 Lane Ultimate; Existing 4 Lanes upgraded by removing and replacing structural section and median added per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	3.4	cy	$12.00	$40.80
Depth of AC	6.5	46	sf	$3.50	$253.00
Depth of AB	16			$2.00	
	Striping misc	6	lf	$1.25	$7.50
	Med Landscape	13	sf	$6.00	$78.00
	Curb (Type 3)	2	lf	$14.00	$28.00
	Drainage	1	lf	$100.00	$100.00
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$587.30**
					20%
				Total	**$704.76**

107-A

Section 107-A (Fee) - 6 Lane Ultimate; Existing 4 Lanes upgraded by cold planing 2" AC & repaving with 2" AC and median added per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Import fill for Median	0.3	cy	$15.00	$4.50
Depth of AC	2	46	sf	$1.30	$59.80
Depth of AB	0			$0.00	
	Striping misc	6	lf	$1.25	$7.50
	Med Landscape	13	sf	$6.00	$78.00
	Curb (Type 3)	2	lf	$14.00	$28.00
	Cold Plane Pavement	46	sf	$0.25	$11.50
	SWPPP	1	lf	$18.00	$18.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$257.30**
					20%
				Total	**$308.76**

INCREASE EXISTING STRUCTURAL SECTION (4 & 6 LANE) -- CITY OBLIGATION: NOT INCLUDED IN FEE

108

Section 108 (Fee) - Upgrade **4 Lane** street by removing and replacing structural section from median curb to gutter lip per unit price below. Assumes existing drainage in place.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4	cy	$12.00	$48.00
Depth of AC	6	54	sf	$3.25	$270.00
Depth of AB	14			$1.75	
	Striping misc	6	lf	$1.25	$7.50
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$405.50**
					20% *
				Total	**$486.60**

108-A

Section 108-A (Fee) - Upgrade **4 Lane** street by cold planing pavement and repaving from median curb to gutter lip. Assumes existing drainage in place.

Fee

		Quantity	Unit	$/unit	$
	Cold Plane Pavement	54	sf	$0.25	$13.50
Depth of AC	2	54	sf	$1.30	$70.20
Depth of AB	0			$0.00	
	Striping misc	6	lf	$1.25	$7.50
	SWPPP	1	lf	$18.00	$18.00
	Subtotal				**$109.20**
					30%
				Total	**$141.96**

109

Section 109 (Fee) - Upgrade **6 Lane** street by removing and replacing structural section from median curb to gutter lip per unit price below. Assumes existing drainage in place.

Fee

		Quantity	Unit	$/unit	$
	Excavation	5.6	cy	$12.00	$67.20
Depth of AC	6.5	76	sf	$3.50	$418.00
Depth of AB	16			$2.00	
	Striping misc	8	lf	$1.25	$10.00
	SWPPP	1	lf	$18.00	$18.00
	Signal Interconect	1	lf	$12.00	$12.00
	Street Lights	1	lf	$50.00	$50.00
	Subtotal				**$575.20**
					20% *
				Total	**$690.24**

109-A

Section 109-A (Fee) - Upgrade **6 Lane** street by cold planing pavement and repaving from median curb to gutter lip per unit price below. Assumes existing drainage in place.

Fee

		Quantity	Unit	$/unit	$
	Cold Plane Pavement	76	sf	$0.25	$19.00
Depth of AC	2	76	sf	$1.30	$98.80
Depth of AB	0			$0.00	
	Striping misc	8	lf	$1.25	$10.00
	SWPPP	1	lf	$18.00	$18.00
	Subtotal				**$145.80**
					30% *
				Total	**$189.54**

DEVELOPER PORTION

9350	35.41666667	
0.164705882		

NOTES:
P1 = Phase 1
P2 = Phase 2
P3 = Phase 3
U = Ultimate

ATTACHMENT 3

INTERSECTION COST ESTIMATES

FEE or CITY PORTION

4x4 LANE ULTIMATE INTERSECTION

4x4 — 4x4 Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	3671	cy	$12.00	$44,052.00
Depth of AC	6			$3.25	
Depth of AB	14	56550	sf	$1.75	$282,750.00
	Striping	6925	lf	$1.25	$8,656.25
	Med Landscape	22348	sf	$6.00	$134,088.00
	Clear & Grub	78900	sf	$0.10	$7,890.00
	Curb (Type 2)	272	lf	$20.00	$5,440.00
	Sidewalk	1632	sf	$6.00	$9,792.00
	Median PCC (Ped Island)	3190	sf	$15.00	$47,850.00
	Curb (Type 3)	3780	lf	$14.00	$52,920.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,031,238.25**

Assumes Fee is constructed together with Developer

Total $1,031,238.25

4x4 LANE ULTIMATE INTERSECTION - 2x2 LANE PHASE 1

2x2 — PHASE 1 - 4x4 Ultimate; 2x2 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1552	cy	$12.00	$18,624.00
Depth of AC	6			$3.25	
Depth of AB	14	22230	sf	$1.75	$111,150.00
	Striping	4450	lf	$1.25	$5,562.50
	Med Landscape (Temporary)	34320	sf	$3.00	$102,960.00
	Med Landscape	22348	sf	$6.00	$134,088.00
	Clear & Grub	78900	sf	$0.10	$7,890.00
	Curb (Type 2)	272	lf	$20.00	$5,440.00
	AC Dike (Type A)	3250	lf	$3.00	$9,750.00
	Sidewalk	1632	sf	$6.00	$9,792.00
	Median PCC (Ped Island)	3190	sf	$15.00	$47,850.00
	Curb (Type 3)	530	lf	$14.00	$7,420.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$898,326.50**

Assumes Fee is constructed together with Developer

Total $898,326.50

4x4 — PHASE 2 - Inside lanes added to 2x2 intersection to create 4x4 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2119	cy	$12.00	$25,428.00
Depth of AC	6			$3.25	
Depth of AB	14	34320	sf	$1.75	$171,600.00
	Striping	6925	lf	$1.25	$8,656.25
	Clear & Grub	34320	sf	$0.10	$3,432.00
	Curb (Type 3)	3250	lf	$14.00	$45,500.00
	SWPPP	1800	lf	$18.00	$32,400.00
	Traffic Signal Modification	4	leg	$12,000.00	$48,000.00
	Subtotal				**$335,016.25**
					20%

Assumes 2x2 is constructed prior to 4x4

Contengency included to cover stage construction costs

Total $402,019.50

4x4 LANE ULTIMATE INTERSECTION - 2x4 LANE PHASE 1

2x4 — PHASE 1A - 4x4 Ultimate; 2x4 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2611	cy	$12.00	$31,332.00
Depth of AC	6			$3.25	
Depth of AB	14	39390	sf	$1.75	$196,950.00
	Striping	1632	lf	$1.25	$2,040.00
	Med Landscape (Temporary)	17160	sf	$3.00	$51,480.00
	Med Landscape	22348	sf	$6.00	$134,088.00
	Clear & Grub	78900	sf	$0.10	$7,890.00
	Curb (Type 2)	272	lf	$20.00	$5,440.00
	AC Dike (Type A)	1625	lf	$3.00	$4,875.00
	Sidewalk	1632	sf	$6.00	$9,792.00
	Median PCC (Ped Island)	3190	sf	$15.00	$47,850.00
	Curb (Type 3)	2420	lf	$14.00	$33,880.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$963,417.00**

Assumes Fee is constructed together with Developer

Total $963,417.00

4x4 — PHASE 2A - Inside lanes added to 2x2 intersection to create 4x4 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1060	cy	$12.00	$12,720.00
Depth of AC	6			$3.25	
Depth of AB	14	17160	sf	$1.75	$85,800.00
	Striping	3463	lf	$1.25	$4,328.75
	Clear & Grub	17160	sf	$0.10	$1,716.00
	Curb (Type 3)	1625	lf	$0.00	$0.00
	SWPPP	900	lf	$18.00	$16,200.00
	Traffic Signal Modification	2	leg	$12,000.00	$24,000.00
	Subtotal				**$144,764.75**
					20%

Assumes 2x4 is constructed prior to 4x4

Contengency included to cover stage construction costs

Total $173,717.70

DEVELOPER PORTION

4x4 LANE ULTIMATE INTERSECTION

4x4 — 4x4 Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	4331	cy	$12.00	$51,972.00
Depth of AC	6			$3.25	
Depth of AB	14	67200	sf	$1.75	$336,000.00
	Striping	4880	lf	$1.25	$6,100.00
	Frontage Landscape	24330	sf	$6.00	$145,980.00
	Clear & Grub	125440	sf	$0.10	$12,544.00
	Curb (Type 2)	2825	lf	$20.00	$56,500.00
	Sidewalk	19650	sf	$6.00	$117,900.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$854,796.00**

Assumes Fee is constructed together with Developer

Total $854,796.00

4x4 LANE ULTIMATE INTERSECTION - 2x2 LANE PHASE 1

2x2 — PHASE 1 - 4x4 Ultimate; 2x2 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	4331	cy	$12.00	$51,972.00
Depth of AC	6			$3.25	
Depth of AB	14	67200	sf	$1.75	$336,000.00
	Striping	4880	lf	$1.25	$6,100.00
	Frontage Landscape	24330	sf	$6.00	$145,980.00
	Clear & Grub	125440	sf	$0.10	$12,544.00
	Curb (Type 2)	2825	lf	$20.00	$56,500.00
	Sidewalk	19650	sf	$6.00	$117,900.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$854,796.00**

Assumes Fee is constructed together with Developer

Total $854,796.00

4x4 LANE ULTIMATE INTERSECTION - 2x4 LANE PHASE 1

2x4 — PHASE 1A - 4x4 Ultimate; 2x4 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	4331	cy	$12.00	$51,972.00
Depth of AC	6			$3.25	
Depth of AB	14	67200	sf	$1.75	$336,000.00
	Striping	4880	lf	$1.25	$6,100.00
	Frontage Landscape	24330	sf	$6.00	$145,980.00
	Clear & Grub	125440	sf	$0.10	$12,544.00
	Curb (Type 2)	2825	lf	$20.00	$56,500.00
	Sidewalk	19650	sf	$6.00	$117,900.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$854,796.00**

Assumes Fee is constructed together with Developer

Total $854,796.00

FEE or CITY PORTION

4x4 LANE TEE ULTIMATE INTERSECTION

4x4 TEE 4x4 Tee Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2688	cy	$12.00	$32,256.00
Depth of AC	6	42413	sf	$3.25	$212,065.00
Depth of AB	14			$1.75	
	Striping	5194	lf	$1.25	$6,492.50
	Med Landscape	16761	sf	$6.00	$100,566.00
	Clear & Grub	59175	sf	$0.10	$5,917.50
	Curb (Type 2)	204	lf	$20.00	$4,080.00
	Sidewalk	1224	sf	$6.00	$7,344.00
	Median PCC (Ped Island)	1595	sf	$15.00	$23,925.00
	Curb (Type 3)	2703	lf	$14.00	$37,842.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$758,838.00**

Assumes Fee is constructed together with Developer — **Total $758,838.00**

4x4 LANE TEE ULTIMATE INTERSECTION - 2x2 LANE TEE PHASE 1

2x2 TEE PHASE 1 - 4x4 Tee Ultimate; 2x2 Tee Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1098	cy	$12.00	$13,176.00
Depth of AC	6	16673	sf	$3.25	$83,365.00
Depth of AB	14			$1.75	
	Striping	3338	lf	$1.25	$4,172.50
	Med Landscape (Temporary)	25740	sf	$3.00	$77,220.00
	Med Landscape	16761	sf	$6.00	$100,566.00
	Clear & Grub	59175	sf	$0.10	$5,917.50
	Curb (Type 2)	204	lf	$20.00	$4,080.00
	AC Dike (Type A)	2438	lf	$3.00	$7,314.00
	Sidewalk	1224	sf	$6.00	$7,344.00
	Median PCC (Ped Island)	1595	sf	$15.00	$23,925.00
	Curb (Type 3)	265	lf	$14.00	$3,710.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$659,140.00**

Assumes Fee is constructed together with Developer — **Total $659,140.00**

4x4 TEE PHASE 2 - Inside lanes added to 2x2 Tee intersection to create 4x4 Tee per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1590	cy	$12.00	$19,080.00
Depth of AC	6	25740	sf	$3.25	$128,700.00
Depth of AB	14			$1.75	
	Striping	5194	lf	$1.25	$6,492.50
	Clear & Grub	25740	sf	$0.10	$2,574.00
	Curb (Type 3)	2438	lf	$14.00	$34,132.00
	SWPPP	1350	lf	$18.00	$24,300.00
	Traffic Signal Modification	3	leg	$12,000.00	$36,000.00
	Subtotal				**$251,278.50**
					20%

Assumes 2x2 Tee is constructed prior to 4x4 Tee — **Total $301,534.20**

Contengency included to cover stage construction costs

4x6 LANE ULTIMATE INTERSECTION

4x6 4x6 Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	5244	cy	$12.00	$62,928.00
Depth of AC	6.5	73602	sf	$3.25	$368,010.00
Depth of AB	16			$1.75	
	Striping	8532	lf	$1.25	$10,665.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Curb (Type 3)	3080	lf	$14.00	$43,120.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,080,053.40**

Assumes Fee is constructed together with Developer — **Total $1,080,053.40**

DEVELOPER PORTION

4x4 LANE TEE ULTIMATE INTERSECTION

4x4 TEE 4x4 Tee Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3921	cy	$12.00	$47,052.00
Depth of AC	6	50400	sf	$3.25	$252,000.00
Depth of AB	14			$1.75	
	Striping	3735	lf	$1.25	$4,668.75
	Frontage Landscape	18848	sf	$6.00	$113,088.00
	Clear & Grub	95205	sf	$0.10	$9,520.50
	Curb (Type 2)	2194	lf	$20.00	$43,880.00
	Sidewalk	15263	sf	$6.00	$91,578.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$657,637.25**

Assumes Fee is constructed together with Developer — **Total $657,637.25**

4x4 LANE TEE ULTIMATE INTERSECTION - 2x2 LANE TEE PHASE 1

2x2 TEE PHASE 1 - 4x4 Tee Ultimate; 2x2 Tee Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3921	cy	$12.00	$47,052.00
Depth of AC	6	50400	sf	$3.25	$252,000.00
Depth of AB	14			$1.75	
	Striping	3735	lf	$1.25	$4,668.75
	Frontage Landscape	18848	sf	$6.00	$113,088.00
	Clear & Grub	95205	sf	$0.10	$9,520.50
	Curb (Type 2)	2194	lf	$20.00	$43,880.00
	Sidewalk	15263	sf	$6.00	$91,578.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$657,637.25**

Assumes Fee is constructed together with Developer — **Total $657,637.25**

4x6 LANE ULTIMATE INTERSECTION

4x6 4x6 Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5126	cy	$12.00	$61,512.00
Depth of AC	6.5	58926	sf	$3.25	$294,630.00
Depth of AB	16			$1.75	
	Striping	6072	lf	$1.25	$7,590.00
	Frontage Landscape	25176	sf	$6.00	$151,056.00
	Clear & Grub	115764	sf	$0.10	$11,576.40
	Curb (Type 2)	2788	lf	$20.00	$55,760.00
	Sidewalk	19544	sf	$6.00	$117,264.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$827,188.40**

Assumes Fee is constructed together with Developer — **Total $827,188.40**

FEE or CITY PORTION

4x6 LANE ULTIMATE INTERSECTION - 2x4 LANE PHASE 1

2x4 PHASE 1 - 4x6 Ultimate; 2x4 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2790	cy	$12.00	$33,480.00
Depth of AC	6.5	38268	sf	$3.25	$191,340.00
Depth of AB	16			$1.75	
	Striping	4744	lf	$1.25	$5,930.00
	Med Landscape (Temporary)	35334	sf	$3.00	$106,002.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	AC Dike (Type A)	3080	lf	$3.00	$9,240.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$941,322.40**

Assumes Fee is constructed together with Developer — **Total $941,322.40**

4x6 PHASE 2 - Inside lanes added to 2x4 intersection to create 4x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2454	cy	$12.00	$29,448.00
Depth of AC	6.5	35334	sf	$3.25	$176,670.00
Depth of AB	16			$1.75	
	Striping	8532	lf	$1.25	$10,665.00
	Clear & Grub	35334	sf	$0.10	$3,533.40
	Curb (Type 3)	3080	lf	$14.00	$43,120.00
	SWPPP	1800	lf	$18.00	$32,400.00
	Traffic Signal Modification	4	leg	$12,000.00	$48,000.00
	Subtotal				**$343,836.40**
					20%

Assumes 2x4 is constructed prior to 4x6 — **Total $412,603.68**

Contengency included to cover stage construction costs

4x6 LANE ULTIMATE INTERSECTION - 2x6 LANE PHASE 1

2x6 PHASE 1A - 4x6 Ultimate; 2x6 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4085	cy	$12.00	$49,020.00
Depth of AC	6.5	58810	sf	$3.25	$294,050.00
Depth of AB	16			$1.75	
	Striping	6956	lf	$1.25	$8,695.00
	Med Landscape (Temporary)	11174	sf	$3.00	$33,522.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	AC Dike (Type A)	1540	lf	$3.00	$4,620.00
	Curb (Type 3)	1540	lf	$14.00	$21,560.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,006,797.40**

Assumes Fee is constructed together with Developer — **Total $1,006,797.40**

4x6 PHASE 2A - Inside lanes added to 2x6 intersection to create 4x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1192	cy	$12.00	$14,304.00
Depth of AC	6.5	17160	sf	$3.25	$85,800.00
Depth of AB	16			$1.75	
	Striping	3376	lf	$1.25	$4,220.00
	Clear & Grub	17160	sf	$0.10	$1,716.00
	Curb (Type 3)	1540	lf	$14.00	$21,560.00
	SWPPP	900	lf	$18.00	$16,200.00
	Traffic Signal Modification	2	leg	$12,000.00	$24,000.00
	Subtotal				**$167,800.00**
					20%

Assumes 2x6 is constructed prior to 4x6 — **Total $201,360.00**

Contengency included to cover stage construction costs

DEVELOPER PORTION

4x6 LANE ULTIMATE INTERSECTION - 2x4 LANE PHASE 1

2x4 PHASE 1 - 4x6 Ultimate; 2x4 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5126	cy	$12.00	$61,512.00
Depth of AC	6.5	58926	sf	$3.25	$294,630.00
Depth of AB	16			$1.75	
	Striping	6072	lf	$1.25	$7,590.00
	Frontage Landscape	25176	sf	$6.00	$151,056.00
	Clear & Grub	115764	sf	$0.10	$11,576.40
	Curb (Type 2)	2788	lf	$20.00	$55,760.00
	Sidewalk	19544	sf	$6.00	$117,264.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$827,188.40**

Assumes Fee is constructed together with Developer — **Total $827,188.40**

4x6 LANE ULTIMATE INTERSECTION - 2x6 LANE PHASE 1

2x6 PHASE 1A - 4x6 Ultimate; 2x6 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5126	cy	$12.00	$61,512.00
Depth of AC	6.5	58926	sf	$3.25	$294,630.00
Depth of AB	16			$1.75	
	Striping	6072	lf	$1.25	$7,590.00
	Frontage Landscape	25176	sf	$6.00	$151,056.00
	Clear & Grub	115764	sf	$0.10	$11,576.40
	Curb (Type 2)	2788	lf	$20.00	$55,760.00
	Sidewalk	19544	sf	$6.00	$117,264.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$827,188.40**

Assumes Fee is constructed together with Developer — **Total $827,188.40**

FEE or CITY PORTION

4x6 LANE ULTIMATE INTERSECTION - 4x4 LANE PHASE 1

4x4 PHASE 1B - 4x6 Ultimate; 4x4 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4058	cy	$12.00	$48,696.00
Depth of AC	6.5	58435	sf	$3.25	$292,175.00
Depth of AB	16			$1.75	
	Striping	33622.5	lf	$1.25	$42,028.13
	Med Landscape (Temporary)	8870	sf	$3.00	$26,610.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	AC Dike (Type A)	1540	lf	$3.00	$4,620.00
	Curb (Type 3)	1540	lf	$14.00	$21,560.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,031,019.53**

Assumes Fee is constructed together with Developer — **Total $1,031,019.53**

4x6 PHASE 2B - Inside lanes added to 4x4 intersection to create 4x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1218	cy	$12.00	$14,616.00
Depth of AC	6.5	17535	sf	$3.25	$87,675.00
Depth of AB	16			$1.75	
	Striping	4353	lf	$1.25	$5,441.25
	Clear & Grub	17535	sf	$0.10	$1,753.50
	Curb (Type 3)	1540	lf	$14.00	$21,560.00
	SWPPP	900	lf	$18.00	$16,200.00
	Traffic Signal Modification	2	leg	$12,000.00	$24,000.00
	Subtotal				**$171,245.75**
					20%

Assumes 4x4 is constructed prior to 4x6 — **Total $205,494.90**

Contengency included to cover stage construction costs

4x6 LANE TEE ULTIMATE INTERSECTION

4x6 TEE 4x6 Tee Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4322	cy	$12.00	$51,864.00
Depth of AC	6.5	60806	sf	$3.25	$304,030.00
Depth of AB	16			$1.75	
	Striping	6822	lf	$1.25	$8,527.50
	Med Landscape	26632	sf	$6.00	$159,792.00
	Clear & Grub	75673	sf	$0.10	$7,567.30
	Curb (Type 2)	300	lf	$20.00	$6,000.00
	Sidewalk	1748	sf	$6.00	$10,488.00
	Curb (Type 3)	2321	lf	$14.00	$32,494.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$909,112.80**

Assumes Fee is constructed together with Developer — **Total $909,112.80**

4x6 LANE TEE ULTIMATE INTERSECTION - 2x4 LANE TEE PHASE 1

2x4 TEE PHASE 1 - 4x6 Tee Ultimate; 2x4 Tee Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2472	cy	$12.00	$29,664.00
Depth of AC	6.5	34174	sf	$3.25	$170,870.00
Depth of AB	16			$1.75	
	Striping	3771	lf	$1.25	$4,713.75
	Med Landscape (Temporary)	26632	sf	$3.00	$79,896.00
	Med Landscape	15816	sf	$6.00	$94,896.00
	Clear & Grub	75673	sf	$0.10	$7,567.30
	Curb (Type 2)	300	lf	$20.00	$6,000.00
	AC Dike (Type A)	2321	lf	$3.00	$6,963.00
	Sidewalk	1748	sf	$6.00	$10,488.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$739,408.05**

Assumes Fee is constructed together with Developer — **Total $739,408.05**

4x6 TEE PHASE 2 - Inside lanes added to 2x4 Tee intersection to create 4x6 Tee per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1850	cy	$12.00	$22,200.00
Depth of AC	6.5	26632	sf	$3.25	$133,160.00
Depth of AB	16			$1.75	
	Striping	6822	lf	$1.25	$8,527.50
	Clear & Grub	26632	sf	$0.10	$2,663.20
	Curb (Type 3)	2321	lf	$14.00	$32,494.00
	SWPPP	1350	lf	$18.00	$24,300.00
	Traffic Signal Modification	3	leg	$12,000.00	$36,000.00
	Subtotal				**$259,344.70**
					20%

Assumes 2x4 is constructed prior to 4x6 — **Total $311,213.64**

Contengency included to cover stage construction costs

DEVELOPER PORTION

4x4 LANE ULTIMATE INTERSECTION - 4x4 LANE PHASE 1

4x4 PHASE 1B - 4x6 Ultimate; 4x4 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5126	cy	$12.00	$61,512.00
Depth of AC	6.5	58926	sf	$3.25	$294,630.00
Depth of AB	16			$1.75	
	Striping	6072	lf	$1.25	$7,590.00
	Frontage Landscape	25176	sf	$6.00	$151,056.00
	Clear & Grub	115764	sf	$0.10	$11,576.40
	Curb (Type 2)	2788	lf	$20.00	$55,760.00
	Sidewalk	19544	sf	$6.00	$117,264.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$827,188.40**

Assumes Fee is constructed together with Developer — **Total $827,188.40**

4x6 LANE TEE ULTIMATE INTERSECTION

4x6 TEE 4x6 Tee Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.25	$225,990.00
Depth of AB	16			$1.75	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$628,977.10**

Assumes Fee is constructed together with Developer — **Total $628,977.10**

4x6 LANE TEE ULTIMATE INTERSECTION - 2x4 LANE TEE PHASE 1

2x4 TEE PHASE 1 - 4x6 Tee Ultimate; 2x4 Tee Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.25	$225,990.00
Depth of AB	16			$1.75	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$628,977.10**

Assumes Fee is constructed together with Developer — **Total $628,977.10**

FEE or CITY PORTION

6x6 LANE ULTIMATE INTERSECTION

6x6 6x6 Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	6625	cy	$12.00	$79,500.00
Depth of AC	6.5	95390	sf	$3.50	$524,645.00
Depth of AB	16			$2.00	
	Striping	8705	lf	$1.25	$10,881.25
	Med Landscape	17740	sf	$6.00	$106,440.00
	Clear & Grub	113125	sf	$0.10	$11,312.50
	Curb (Type 2)	416	lf	$20.00	$8,320.00
	Curb (Type 3)	3052	lf	$14.00	$42,728.00
	Sidewalk	2348	sf	$6.00	$14,088.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,235,714.75**

Assumes Fee is constructed together with Developer — **Total** **$1,235,714.75**

6x6 LANE ULTIMATE INTERSECTION - 4x4 LANE PHASE 1

4x4 PHASE 1 - 6x6 Ultimate; 4x4 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4190	cy	$12.00	$50,280.00
Depth of AC	6.5	60320	sf	$3.50	$331,760.00
Depth of AB	16			$2.00	
	Striping	6870	lf	$1.25	$8,587.50
	Med Landscape (Temporary)	35070	sf	$3.00	$105,210.00
	Med Landscape	17740	sf	$6.00	$106,440.00
	Clear & Grub	113125	sf	$0.10	$11,312.50
	Curb (Type 2)	416	lf	$20.00	$8,320.00
	AC Dike (Type A)	3052	lf	$3.00	$9,156.00
	Sidewalk	2348	sf	$6.00	$14,088.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,082,954.00**

Assumes Fee is constructed together with Developer — **Total** **$1,082,954.00**

6x6 PHASE 2 - Inside lanes added to 4x4 intersection to create 6x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2435	cy	$12.00	$29,220.00
Depth of AC	6.5	35070	sf	$3.50	$192,885.00
Depth of AB	16			$2.00	
	Striping	8705	lf	$1.25	$10,881.25
	Clear & Grub	35070	sf	$0.10	$3,507.00
	Curb (Type 3)	3052	lf	$14.00	$42,728.00
	SWPPP	1800	lf	$18.00	$32,400.00
	Traffic Signal Modification	4	leg	$12,000.00	$48,000.00
	Subtotal				**$359,621.25**
					20%

Assumes 4x4 is constructed prior to 6x6 — **Total** **$431,545.50**

Contengency included to cover stage construction costs

6x6 LANE ULTIMATE INTERSECTION - 4x6 LANE PHASE 1

4x6 PHASE 1 - 6x6 Ultimate; 4x6 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	5408	cy	$12.00	$64,896.00
Depth of AC	6.5	77855	sf	$3.50	$428,202.50
Depth of AB	16			$2.00	
	Striping	7788	lf	$1.25	$9,735.00
	Med Landscape (Temporary)	17535	sf	$3.00	$52,605.00
	Med Landscape	17740	sf	$6.00	$106,440.00
	Clear & Grub	113125	sf	$0.10	$11,312.50
	Curb (Type 2)	416	lf	$20.00	$8,320.00
	Curb (Type 3)	1526	lf	$14.00	$21,364.00
	AC Dike (Type A)	1526	lf	$3.00	$4,578.00
	Sidewalk	2348	sf	$6.00	$14,088.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,159,341.00**

Assumes Fee is constructed together with Developer — **Total** **$1,159,341.00**

6x6 PHASE 2 - Inside lanes added to 4x6 intersection to create 6x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1218	cy	$12.00	$14,616.00
Depth of AC	6.5	17535	sf	$3.50	$96,442.50
Depth of AB	16			$2.00	
	Striping	4353	lf	$1.25	$5,441.25
	Clear & Grub	17535	sf	$0.10	$1,753.50
	Curb (Type 3)	1526	lf	$14.00	$21,364.00
	SWPPP	900	lf	$18.00	$16,200.00
	Traffic Signal Modification	2	leg	$12,000.00	$24,000.00
	Subtotal				**$179,817.25**
					20%

Assumes 4x6 is constructed prior to 6x6 — **Total** **$215,780.70**

Contengency included to cover stage construction costs

DEVELOPER PORTION

6x6 LANE ULTIMATE INTERSECTION

6x6 6x6 Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5204	cy	$12.00	$62,448.00
Depth of AC	6.5	58332	sf	$3.50	$320,826.00
Depth of AB	16			$2.00	
	Striping	6050	lf	$1.25	$7,562.50
	Frontage Landscape	24825	sf	$6.00	$148,950.00
	Clear & Grub	114200	sf	$0.10	$11,420.00
	Curb (Type 2)	2745	lf	$20.00	$54,900.00
	Sidewalk	19248	sf	$6.00	$115,488.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$849,394.50**

Assumes Fee is constructed together with Developer — **Total** **$849,394.50**

6x6 LANE ULTIMATE INTERSECTION - 4x4 LANE PHASE 1

4x4 PHASE 1 - 6x6 Ultimate; 4x4 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5204	cy	$12.00	$62,448.00
Depth of AC	6.5	58332	sf	$3.50	$320,826.00
Depth of AB	16			$2.00	
	Striping	6050	lf	$1.25	$7,562.50
	Frontage Landscape	24825	sf	$6.00	$148,950.00
	Clear & Grub	114200	sf	$0.10	$11,420.00
	Curb (Type 2)	2745	lf	$20.00	$54,900.00
	Sidewalk	19248	sf	$6.00	$115,488.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$849,394.50**

Assumes Fee is constructed together with Developer — **Total** **$849,394.50**

6x6 LANE ULTIMATE INTERSECTION - 4x6 LANE PHASE 1

4x6 PHASE 1 - 6x6 Ultimate; 4x6 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5204	cy	$12.00	$62,448.00
Depth of AC	6.5	58332	sf	$3.50	$320,826.00
Depth of AB	16			$2.00	
	Striping	6050	lf	$1.25	$7,562.50
	Frontage Landscape	24825	sf	$6.00	$148,950.00
	Clear & Grub	114200	sf	$0.10	$11,420.00
	Curb (Type 2)	2745	lf	$20.00	$54,900.00
	Sidewalk	19248	sf	$6.00	$115,488.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$849,394.50**

Assumes Fee is constructed together with Developer — **Total** **$849,394.50**

FEE or CITY PORTION

6x6 LANE ULTIMATE INTERSECTION - 4x2 LANE PHASE 1

4x2 PHASE 1 - 6x6 Ultimate; 4x2 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2856	cy	$12.00	$34,272.00
Depth of AC	6.5	39211	sf	$3.50	$215,660.50
Depth of AB	16			$2.00	
	Striping	4744	lf	$1.25	$5,930.00
	Med Landscape (Temporary)	35334	sf	$3.00	$106,002.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	AC Dike (Type A)	3080	lf	$3.00	$9,240.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$966,434.90**

Assumes Fee is constructed together with Developer — **Total $966,434.90**

6x6 PHASE 2 - Inside lanes added to 4x2 intersection to create 6x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	2454	cy	$12.00	$29,448.00
Depth of AC	6.5	35334	sf	$3.50	$194,337.00
Depth of AB	16			$2.00	
	Striping	8526	lf	$1.25	$10,657.50
	Clear & Grub	35334	sf	$0.10	$3,533.40
	Curb (Type 3)	3052	lf	$14.00	$42,728.00
	SWPPP	1800	lf	$18.00	$32,400.00
	Traffic Signal Modification	4	leg	$12,000.00	$48,000.00
	Subtotal				**$361,103.90**
					20%

Assumes 4x2 is constructed prior to 6x6 — **Total $433,324.68**

Contengency included to cover stage construction costs

6x6 LANE ULTIMATE INTERSECTION - 6x2 LANE PHASE 1

6x2 PHASE 1C - 6x6 Ultimate; 6x2 Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4012	cy	$12.00	$48,144.00
Depth of AC	6.5	57769	sf	$3.50	$317,729.50
Depth of AB	16			$2.00	
	Striping	6299	lf	$1.25	$7,873.75
	Med Landscape (Temporary)	17404	sf	$3.00	$52,212.00
	Med Landscape	20972	sf	$6.00	$125,832.00
	Clear & Grub	94584	sf	$0.10	$9,458.40
	Curb (Type 2)	404	lf	$20.00	$8,080.00
	AC Dike (Type A)	1518	lf	$3.00	$4,554.00
	Sidewalk	2360	sf	$6.00	$14,160.00
	Storm Drain Sys.	1800	lf	$100.00	$180,000.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Signal Interconect	1800	lf	$12.00	$21,600.00
	Traffic Signal	4	leg	$55,000.00	$220,000.00
	Subtotal				**$1,025,843.65**

Assumes Fee is constructed together with Developer — **Total $1,025,843.65**

6x6 PHASE 2C - Inside lanes added to 6x2 intersection to create 6x6 per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1209	cy	$12.00	$14,508.00
Depth of AC	6.5	17404	sf	$3.50	$95,722.00
Depth of AB	16			$2.00	
	Striping	5046	lf	$1.25	$6,307.50
	Clear & Grub	17404	sf	$0.10	$1,740.40
	Curb (Type 3)	1518	lf	$14.00	$21,252.00
	SWPPP	900	lf	$18.00	$16,200.00
	Traffic Signal Modification	2	leg	$12,000.00	$24,000.00
	Subtotal				**$179,729.90**
					20%

Assumes 6x2 is constructed prior to 6x6 — **Total $215,675.88**

Contengency included to cover stage construction costs

6x6 LANE TEE ULTIMATE INTERSECTION

6x6 TEE 6x6 Tee Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4969	cy	$12.00	$59,628.00
Depth of AC	6.5	71543	sf	$3.50	$393,486.50
Depth of AB	16			$2.00	
	Striping	6529	lf	$1.25	$8,161.25
	Med Landscape	13305	sf	$6.00	$79,830.00
	Clear & Grub	84844	sf	$0.10	$8,484.40
	Curb (Type 2)	312	lf	$20.00	$6,240.00
	Curb (Type 3)	2289	lf	$14.00	$32,046.00
	Sidewalk	1761	sf	$6.00	$10,566.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$926,792.15**

Assumes Fee is constructed together with Developer — **Total $926,792.15**

DEVELOPER PORTION

6x6 LANE ULTIMATE INTERSECTION - 4x2 LANE PHASE 1

4x2 PHASE 1 - 6x6 Ultimate; 4x2 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5204	cy	$12.00	$62,448.00
Depth of AC	6.5	58332	sf	$3.50	$320,826.00
Depth of AB	16			$2.00	
	Striping	6050	lf	$1.25	$7,562.50
	Frontage Landscape	24825	sf	$6.00	$148,950.00
	Clear & Grub	114200	sf	$0.10	$11,420.00
	Curb (Type 2)	2745	lf	$20.00	$54,900.00
	Sidewalk	19248	sf	$6.00	$115,488.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$849,394.50**

Assumes Fee is constructed together with Developer — **Total $849,394.50**

6x6 LANE ULTIMATE INTERSECTION - 6x2 LANE PHASE 1

6x2 PHASE 1C - 6x6 Ultimate; 6x2 Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	5204	cy	$12.00	$62,448.00
Depth of AC	6.5	58332	sf	$3.50	$320,826.00
Depth of AB	16			$2.00	
	Striping	6050	lf	$1.25	$7,562.50
	Frontage Landscape	24825	sf	$6.00	$148,950.00
	Clear & Grub	114200	sf	$0.10	$11,420.00
	Curb (Type 2)	2745	lf	$20.00	$54,900.00
	Sidewalk	19248	sf	$6.00	$115,488.00
	Storm Drain Sys.	1800	lf	$12.00	$21,600.00
	SWPPP	1800	lf	$9.00	$16,200.00
	Street Lights	1800	lf	$50.00	$90,000.00
	Subtotal				**$849,394.50**

Assumes Fee is constructed together with Developer — **Total $849,394.50**

6x6 LANE TEE ULTIMATE INTERSECTION

6x6 TEE 6x6 Tee Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.50	$248,589.00
Depth of AB	16			$2.00	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$651,576.10**

Assumes Fee is constructed together with Developer — **Total $651,576.10**

FEE or CITY PORTION

6x2 LANE TEE ULTIMATE INTERSECTION

6x2 TEE 6x2 Tee Ultimate (No Phasing) constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	3313	cy	$12.00	$39,756.00
Depth of AC	6.5	47695	sf	$3.50	$262,322.50
Depth of AB	16			$2.00	
	Striping	4353	lf	$1.25	$5,441.25
	Med Landscape	8870	sf	$6.00	$53,220.00
	Clear & Grub	56563	sf	$0.10	$5,656.30
	Curb (Type 2)	208	lf	$20.00	$4,160.00
	Curb (Type 3)	1526	lf	$14.00	$21,364.00
	Sidewalk	1761	sf	$6.00	$10,566.00
	Storm Drain Sys.	900	lf	$100.00	$90,000.00
	SWPPP	900	lf	$9.00	$8,100.00
	Signal Interconect	900	lf	$12.00	$10,800.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$676,386.05**

Assumes Fee is constructed together with Developer — **Total** **$676,386.05**

6x6 LANE TEE ULTIMATE INTERSECTION - 6x2 LANE TEE PHASE 1

6x2 TEE PHASE 1 - 6x6 Tee Ultimate; 6x2 Tee Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	3825	cy	$12.00	$45,900.00
Depth of AC	6.5	55070	sf	$3.50	$302,885.00
Depth of AB	16			$2.00	
	Striping	5432	lf	$1.25	$6,790.00
	Med Landscape (Temporary)	15676	sf	$3.00	$47,028.00
	Med Landscape	13305	sf	$6.00	$79,830.00
	Clear & Grub	84844	sf	$0.10	$8,484.40
	Curb (Type 2)	312	lf	$20.00	$6,240.00
	Curb (Type 3)	1516	lf	$14.00	$21,224.00
	AC Dike (Type A)	758	lf	$3.00	$2,274.00
	Sidewalk	1761	sf	$6.00	$10,566.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$859,571.40**

Assumes Fee is constructed together with Developer — **Total** **$859,571.40**

6x6 TEE PHASE 2 - Inside lanes added to 6x2 Tee intersection to create 6x6 Tee per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	1089	cy	$12.00	$13,068.00
Depth of AC	6.5	15676	sf	$3.50	$86,218.00
Depth of AB	16			$2.00	
	Striping	2383	lf	$1.25	$2,978.75
	Clear & Grub	15676	sf	$0.10	$1,567.60
	Curb (Type 3)	758	lf	$14.00	$10,612.00
	SWPPP	450	lf	$18.00	$8,100.00
	Traffic Signal Modification	1	leg	$12,000.00	$12,000.00
	Subtotal				**$134,544.35**
					20%

Assumes 6x2 Tee is constructed prior to 6x6 Tee — **Total** **$161,453.22**

6x6 LANE TEE ULTIMATE INTERSECTION - 6x4 LANE TEE PHASE 1

6x4 TEE PHASE 1 - 6x6 Tee Ultimate; 6x4 Tee Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	4360	cy	$12.00	$52,320.00
Depth of AC	6.5	62775	sf	$3.50	$345,262.50
Depth of AB	16			$2.00	
	Striping	6070	lf	$1.25	$7,587.50
	Med Landscape (Temporary)	8768	sf	$3.00	$26,304.00
	Med Landscape	13305	sf	$6.00	$79,830.00
	Clear & Grub	84844	sf	$0.10	$8,484.40
	Curb (Type 2)	312	lf	$20.00	$6,240.00
	Curb (Type 3)	1526	lf	$14.00	$21,364.00
	AC Dike (Type A)	758	lf	$3.00	$2,274.00
	Sidewalk	1761	sf	$6.00	$10,566.00
	Storm Drain Sys.	1350	lf	$100.00	$135,000.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Signal Interconect	1350	lf	$12.00	$16,200.00
	Traffic Signal	3	leg	$55,000.00	$165,000.00
	Subtotal				**$888,582.40**

Assumes Fee is constructed together with Developer — **Total** **$888,582.40**

6x6 TEE PHASE 2 - Inside lanes added to 6x4 Tee intersection to create 6x6 Tee per unit price below.

Fee

		Quantity	Unit	$/unit	$
	Excavation	609	cy	$12.00	$7,308.00
Depth of AC	6.5	8768	sf	$3.50	$48,224.00
Depth of AB	16			$2.00	
	Striping	2177	lf	$1.25	$2,721.25
	Clear & Grub	8768	sf	$0.10	$876.80
	Curb (Type 3)	758	lf	$14.00	$10,612.00
	SWPPP	450	lf	$18.00	$8,100.00
	Traffic Signal Modification	1	leg	$12,000.00	$12,000.00
	Subtotal				**$89,842.05**
					20%

Assumes 6x2 Tee is constructed prior to 6x6 Tee — **Total** **$107,810.46**

DEVELOPER PORTION

6x2 LANE TEE ULTIMATE INTERSECTION

6x2 TEE 6x2 Tee Ultimate (No Phasing) constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.50	$248,589.00
Depth of AB	16			$2.00	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$45.34	$61,209.00
	SWPPP	1350	lf	$12.00	$16,200.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$700,635.10**

Assumes Fee is constructed together with Developer — **Total** **$700,635.10**

6x6 LANE TEE ULTIMATE INTERSECTION - 6x2 LANE TEE PHASE 1

6x2 TEE PHASE 1 - 6x6 Tee Ultimate; 6x2 Tee Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.50	$248,589.00
Depth of AB	16			$2.00	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$651,576.10**

Assumes Fee is constructed together with Developer — **Total** **$651,576.10**

6x6 LANE TEE ULTIMATE INTERSECTION - 6x4 LANE TEE PHASE 1

6x4 TEE PHASE 1 - 6x6 Tee Ultimate; 6x4 Tee Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
	Excavation	3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.50	$248,589.00
Depth of AB	16			$2.00	
	Striping	4532	lf	$1.25	$5,665.00
	Frontage Landscape	18942	sf	$6.00	$113,652.00
	Clear & Grub	86861	sf	$0.10	$8,686.10
	Curb (Type 2)	2162	lf	$20.00	$43,240.00
	Sidewalk	14795	sf	$6.00	$88,770.00
	Storm Drain Sys.	1350	lf	$12.00	$16,200.00
	SWPPP	1350	lf	$9.00	$12,150.00
	Street Lights	1350	lf	$50.00	$67,500.00
	Subtotal				**$651,576.10**

Assumes Fee is constructed together with Developer — **Total** **$651,576.10**

FEE or CITY PORTION

6x4 LANE TEE ULTIMATE INTERSECTION - 6x2 LANE TEE PHASE 1

6x2 TEE PHASE 1 - 6x4 Tee Ultimate; 6x2 Tee Outside Lanes + median actually constructed per unit price below.

Fee

		Quantity	Unit	$/unit	$
Excavation		3719	cy	$12.00	$44,628.00
Depth of AC	6.5	53547	sf	$3.50	$294,508.50
Depth of AB	16			$2.00	
Striping		5326	lf	$1.25	$6,657.50
Med Landscape (Temporary)		15921	sf	$3.00	$47,763.00
Med Landscape		15814	sf	$6.00	$94,884.00
Clear & Grub		74821	sf	$0.10	$7,482.10
Curb (Type 2)		300	lf	$20.00	$6,000.00
Curb (Type 3)		1494	lf	$14.00	$20,916.00
AC Dike (Type A)		759	lf	$3.00	$2,277.00
Sidewalk		1748	sf	$6.00	$10,488.00
Storm Drain Sys.		1350	lf	$100.00	$135,000.00
SWPPP		1350	lf	$9.00	$12,150.00
Signal Interconect		1350	lf	$12.00	$16,200.00
Traffic Signal		3	leg	$55,000.00	$165,000.00
Subtotal					**$863,954.10**

Assumes Fee is constructed together with Developer — **Total** **$863,954.10**

6x4 TEE PHASE 2 - Inside lanes added to 6x2 Tee intersection to create 6x4 Tee per unit price below.

Fee

		Quantity	Unit	$/unit	$
Excavation		1106	cy	$12.00	$13,272.00
Depth of AC	6.5	15921	sf	$3.50	$87,565.50
Depth of AB	16			$2.00	
Striping		1684	lf	$1.25	$2,105.00
Clear & Grub		15921	sf	$0.10	$1,592.10
Curb (Type 3)		759	lf	$14.00	$10,626.00
SWPPP		450	lf	$18.00	$8,100.00
Traffic Signal Modification		1	leg	$12,000.00	$12,000.00
Subtotal					**$135,260.60**
					20%

Assumes 6x2 Tee is constructed prior to 6x4 Tee — **Total** **$162,312.72**

DEVELOPER PORTION

6x2 TEE PHASE 1 - 6x4 Tee Ultimate; 6x2 Tee Outside Lanes + median actually constructed per unit price below.

Developer

		Quantity	Unit	$/unit	$
Excavation		3927	cy	$12.00	$47,124.00
Depth of AC	6.5	45198	sf	$3.50	$248,589.00
Depth of AB	16			$2.00	
Striping		4532	lf	$1.25	$5,665.00
Frontage Landscape		18942	sf	$6.00	$113,652.00
Clear & Grub		86861	sf	$0.10	$8,686.10
Curb (Type 2)		2162	lf	$20.00	$43,240.00
Sidewalk		14795	sf	$6.00	$88,770.00
Storm Drain Sys.		1350	lf	$12.00	$16,200.00
SWPPP		1350	lf	$9.00	$12,150.00
Street Lights		1350	lf	$50.00	$67,500.00
Subtotal					**$651,576.10**

Assumes Fee is constructed together with Developer — **Total** **$651,576.10**