

Draft Final Report

East Contra Costa Regional Fee Program Update

Prepared for:
East Contra Costa Regional Fee &
Financing Authority

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FEHR  PEERS

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1. Introduction

Background

The East Contra Costa Regional Fee and Financing Authority (ECCRFFA or the Authority) is a regional planning agency charged with funding regional transportation improvement projects in eastern Contra Costa County with revenue from the Authority's regional transportation demand impact mitigation (RTDIM) fees. The Authority's jurisdiction includes the eastern portion of the County, including unincorporated areas and the Cities of Antioch, Brentwood, Oakley, and Pittsburg. The Authority's boundaries are shown in **Figure 1**.

The Authority first implemented a transportation development impact fee program in 1994. The fee was calculated to reflect new development's proportional share of the cost of various regional transportation improvements, such as the State Route (SR) 4 Bypass and the widening of SR 4 through Pittsburg and Antioch. The Authority conducted an update of the fee program in 2001 to help fund an expanded list of regional transportation improvements. In the summer of 2005, the Authority completed a comprehensive update of its RTDIM fee program. In June 2005, the ECCRFFA Board approved the *East Contra Costa Regional Fee Program Update Final Report* (the "2005 Report") prepared by Fehr & Peers, and each of the five member jurisdictions adopted an updated set of fees pursuant to that report.

Since that time, the fees have been adjusted annually to reflect changes in construction costs. Beginning in 2008-2009, a fee rebate program was established in response to the economic downturn. The fee rebate has been reduced over time, but the Authority has continued to implement a 15% fee rebate since January 1, 2017. Periodic program assessments have been completed and documented over the past several years to evaluate the progress of the program in funding and delivering projects on the project list. In 2020, the program was updated to include a project that would involve the extension of Sand Creek Road westward to a new intersection with Deer Valley Road in Antioch (documented in a report called *East Contra Costa Regional Fee Program Update Final Report* dated October 2020 and referred to here as the "2020 Report").

Purpose

Since the current project list was defined in the 2005 nexus study and updated in 2020, the member agencies have conducted planning work and defined investment priorities to accommodate the ongoing population and employment growth that continues to occur in East County. The purpose of this report is to evaluate the addition of 18 projects to the ECCRFFA program that have been provided by the member agencies as being recommended through recent East County planning processes, and to determine new development's proportional share of the cost of these additional projects.



Study Area

As shown on **Figure 1**, ECCRFFA's jurisdiction area includes certain unincorporated areas of eastern Contra Costa County, as well as the Cities of Antioch, Brentwood, Oakley, and Pittsburg.

Study Process

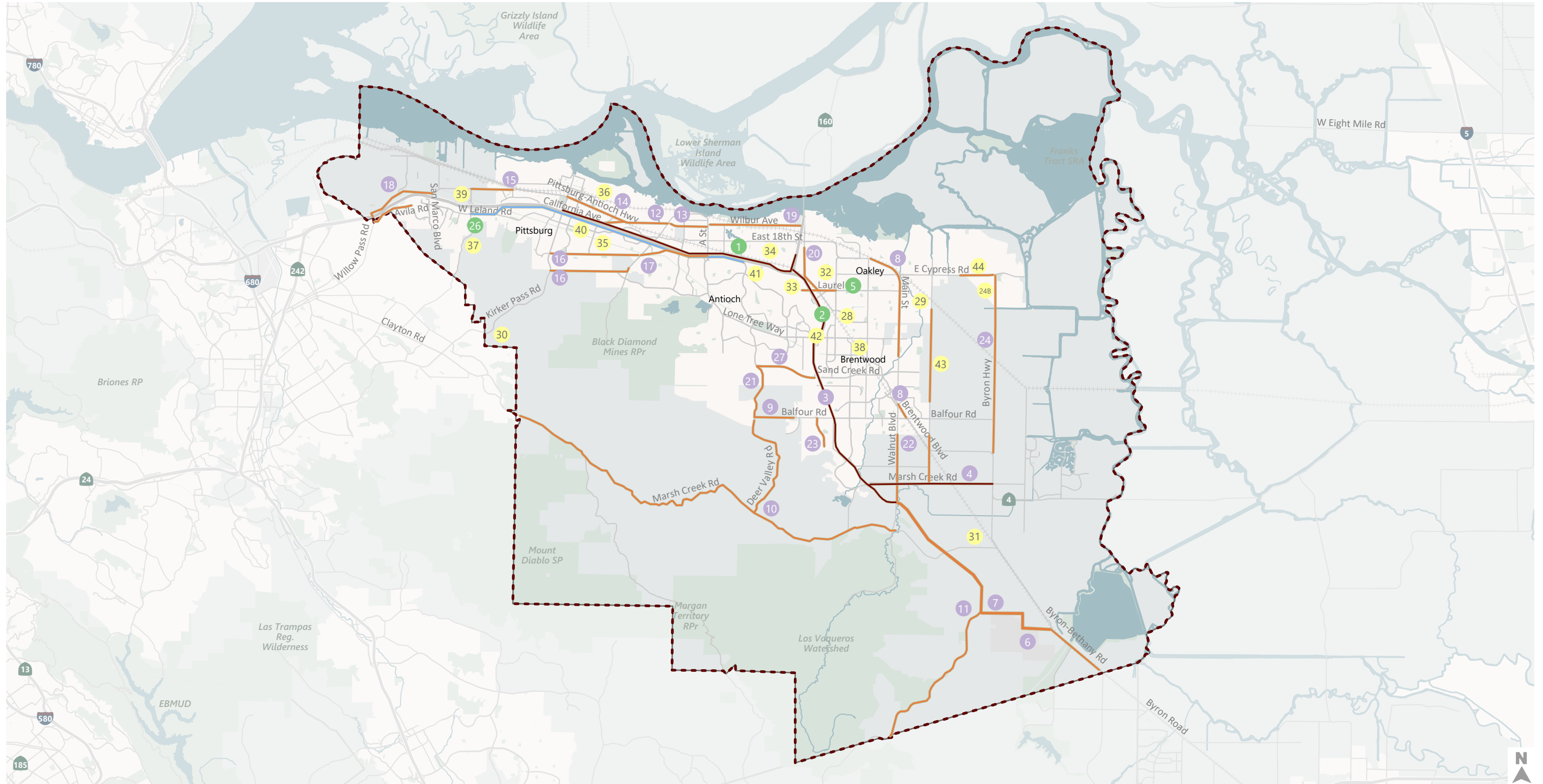
This study was developed under the direction of ECCRFFA staff and with input from staff from each of the member agencies. This study follows the same technical methods and procedures as were used in the 2005 and 2020 Reports. The intent is to maintain the existing structure of the ECCRFFA program; therefore, those prior reports remain the best source of detailed information about the nexus analysis for the existing program. The focus of this current analysis is to determine new development's proportional share of the cost of the proposed additional 18 projects, as well as to incorporate updated cost information regarding all the projects on the current ECCRFFA project list.

Organization of the Report

After this introductory section, the report contains four additional sections:

- *Section 2 – Program Information and Project List* describes the background of the fee program, the current fee amounts, and the list of projects proposed to be included in the program.
- *Section 3 – Growth Projections* documents the amount of growth anticipated in East County through the planning horizon that would be subject to the fee.
- *Section 4 – Nexus Analysis and Fee Calculations* describes the results of the nexus analysis for the new projects and calculates the fee amounts using the updated information presented in the report.
- *Section 5 – Summary of Required Program Elements* describes how the information in this report satisfies the requirements of the Mitigation Fee Act (AB 1600).





Other Projects Not Mapped (Location Not Defined)

- 25 East County Express Bus (Jurisdiction: Tri-Delta Transit)
- 42 Brentwood Intermodal: Co-sponsored, supported, and/or partially funded by CCTA. (Jurisdiction: Brentwood)

- Project Type**
- Freeway Improvements
 - Arterial Improvements
 - Regional Transit Improvements
 - East Contra Costa County Fee Boundary

- Project Type**
- Completed Project
 - Planned Project
 - Proposed Project



Figure 1

2. Program Information and Project List

The existing ECCRFFA program authorizes ECCRFFA’s member agencies to charge RTDIM fees on new development within ECCRFFA’s jurisdiction. The current schedule of ECCRFFA fees is shown in **Table 1**.

The existing ECCRFFA program generates RTDIM fee revenue that can be used to fund new development’s proportional share of any of the 27 transportation improvement projects listed in the 2020 Report. Those projects include freeway and regional transit improvements as well as projects along major arterial roadways that connect different parts of the East County region. See Figure 1 for a map of the project locations, and **Table 2** contains a description of each project along with its current status and estimated cost.

For those projects that have been completed, the cost shown on Table 2 reflects the actual cost of that project at completion. For projects yet to be completed, the cost shown on Table 2 reflects the estimated cost to complete the project. In many cases, these estimates were drawn from the 2020 Report and indexed to current dollars by applying an annual construction cost index, consistent with the process used to index the ECCRFFA fee amounts each year. In a few cases, the project sponsors were able to provide a more recent cost estimate, which was incorporated into Table 2.

Table 1: Current ECCRFFA Fees (as of January 2024)

Land Use Category	Unit	Fee per Unit	ECCRFFA Fee Rebate	Fee Less ECCRFFA Fee Rebate
Single-Family	DU	\$28,313	15%	\$24,066
Multi-Family	DU	\$17,380	15%	\$14,773
Commercial	Sq. Ft.	\$2.35		\$2.35
Office	Sq. Ft.	\$2.04		\$2.04
Industrial	Sq. Ft.	\$2.04		\$2.04
Other	Peak Hour Trip	\$28,313		\$28,313

Notes: DU = Dwelling Unit. For projects that do not fit in one of the general land use categories above, the fee is assessed on the basis of the number of peak hour vehicle trips estimated to be generated by that project.

Source: Contra Costa County.



Table 2: ECCRFFA Project List, Existing and Proposed

#	Project	Description/Project Limits	Sponsor	Total Cost (\$ Million)	Status
Existing Program, Freeway Improvements					
1	SR 4 Freeway widening	Railroad Avenue to Loveridge Road, widen to 8 lanes	CCTA	\$ 101.0	Completed
		Loveridge interchange	CCTA	\$ 157.8	Completed
		Loveridge to Bypass (8 lanes to Hillcrest, 6 lanes to Bypass)	CCTA	\$ 374.7	Completed
		Hillcrest interchange expansion	CCTA	\$ 10.0	Completed
2	SR 4 Bypass Segment 1	Phase 1, 6 lanes to Laurel, interchanges at Laurel Rd and Lone Tree	Bypass Authority	\$ 113.7	Completed
		Phase 2, SR 160 interchange	Bypass Authority	\$ 50.1	Completed
		Laurel interchange, phase 2	Bypass Authority	\$ 1.0	Completed
3	SR 4 Bypass Segment 2	Phase 1, 2 lanes	Bypass Authority	\$ 33.3	Completed
		Phase 2, 4 lanes, Sand Creek Road to Balfour Road	Bypass Authority	\$ 16.0	Completed
		Widen to 6 lanes, Laurel Road to Sand Creek Road	Bypass Authority	\$ 39.9	
		Sand Creek interchange and 4 lanes, Laurel to Sand Creek	Bypass Authority	\$ 43.8	Completed
4	SR 4 Bypass Segment 3	Balfour to Marsh Creek (2 lanes) plus Marsh Creek east-west connector	Bypass Authority	\$ 77.8	Completed
		Marsh Creek to Vasco, 2 lanes	Bypass Authority	\$ 12.6	Completed
		Segment 3, widen to 4 lanes, and Balfour interchange Phase 2	Bypass Authority	\$ 81.1	
		Balfour interchange Phase 1	Bypass Authority	\$ 58.0	Completed
		Marsh Creek interchange	Bypass Authority	\$ 51.2	
		Vasco interchange	Bypass Authority	\$ 42.7	
Existing Program, Arterial Improvements					
5	Laurel Road extension	SR4 Bypass to Empire, 6 lanes	Bypass Authority	\$ 22.6	Completed
6	SR 239/84 Connector	Vasco Road – Byron Highway Connector ¹	CCTA	\$ 161.0	Environmental Phase in Progress
7	SR 239	Corridor study and preliminary design (no construction costs)	CCTA	\$ 101.0	Environmental Phase in Progress



Table 2: ECCRFFA Project List, Existing and Proposed

#	Project	Description/Project Limits	Sponsor	Total Cost (\$ Million)	Status
8	SR 4 (Main St or Brentwood Blvd) widening	Close gaps and create consistent four-lane arterial between Fifth Street and Delta Road in Oakley, and between Chestnut Street and Balfour Road in south Brentwood	Oakley, Brentwood	\$ 24.5	Partially Completed
9	Balfour Road widening	Deer Valley to Brentwood city limits, widen to 4 lanes	County	\$ 14.2	
10	Marsh Creek Road/Deer Valley Road Safety Enhancements	Marsh Creek: Walnut Boulevard to Clayton City Limits; Deer Valley: Balfour Road to Marsh Creek Road	County	\$ 29.3	
11	Route 84/Vasco Road	Widen to 4 lanes to County line	County	\$ 317.0	
12	Pittsburg-Antioch Highway	Widen to 4 lanes, Auto Center Drive to Loveridge	Antioch, Pittsburg	\$ 55.9	
13	Ninth and Tenth Streets	Couplet improvements, A St to L St	Antioch	\$ 9.6	
14	California Avenue	Widen to 4 lanes, Railroad to Loveridge	Pittsburg	\$ 6.6	Partially Completed
15	Willow Pass Road	Widen to 4 lanes, Range to Loftus and Bailey to city limits	Pittsburg, County	\$ 14.7	
16	James Donlon Blvd Extension (formerly Buchanan Bypass) or Buchanan Road Improvements	New 2- to 4-lane arterial, Somersville to Kirker Pass Road Improve traffic flow between Railroad Avenue and Somersville Road	Pittsburg	\$ 115.6	Design in Progress (for James Donlon Blvd Extension)
17	West Tregallas/Fitzuren	Widen to 4 lanes, Lone Tree to Buchanan	Antioch	\$ 53.3	
18	West Leland Road or Evora Road	Extend as a 4-lane arterial, Santa Teresa Drive to Avila Road ²	Pittsburg	\$ 33.4	
		Willow Pass Rd (BP) to Willow Pass Rd (Concord), widen to 4 lanes	County		
19	Wilbur Avenue	Widen to 4 lanes, Minaker Drive to SR 160	Antioch, County	\$ 42.7	
20	Neroly Road	Widen to 4 lanes, Oakley Rd to Laurel Rd	Oakley	\$ 10.6	
21	Deer Valley Road	Widen to 4 lanes, Sand Creek Road to Balfour Road	Antioch, County	\$ 31.2	
22	Walnut Boulevard	Widen to 4 lanes, Brentwood city limits to SR 4 Bypass	County	\$ 29.5	



Table 2: ECCRFFA Project List, Existing and Proposed

#	Project	Description/Project Limits	Sponsor	Total Cost (\$ Million)	Status
23	John Muir Parkway	<i>New Roadway between Balfour Road and Fairview Avenue</i>	<i>Brentwood</i>	\$ 17.7	<i>ECCRFFA commitment completed</i>
24	Byron Highway	Safety Improvements between Delta Road and SR 4	County	\$ 20.0	
27	Sand Creek Road	Extension of 4-lane roadway between SR 4 and Deer Valley Road	Antioch	\$ 38.2	
Existing Program, Regional Transit Projects					
25	East County Express Bus	Planning and design of regional rapid bus program	Tri-Delta Transit	\$ 9.1	
26	Commuter Rail	<i>eBART extension to Antioch</i>	<i>CCTA</i>	<i>\$ 513.0</i>	<i>Completed</i>
Proposed Projects for Updated Program					
24B	Byron Highway Extension	Extend road between Delta Road and Rock Slough Bridge	Oakley	\$ 26.6	
28	Empire Avenue Widening and Rail Crossing	Construct four-lane arterial and railroad overcrossing, between Wicklow Way and Neroly Road	Oakley	\$ 45.5	
29	Laurel Road Extension	Extend Laurel Road as a four-lane arterial from Teton Road to Sellers Avenue	Oakley	\$ 42.0	
30	Kirker Pass Road Truck Climbing Lane	Construct a southbound truck climbing lane along Kirker Pass Road	County	\$ 38.6	
31	Camino Diablo Safety Improvements	Safety improvements between Vasco Road and Byron Highway	County, CCTA	\$ 7.4	
32	Slatten Ranch Road Extension, South Segment	New 4-lane roadway from Wicklow Street to Wild Horse Road	Antioch	\$ 28.0	
33	Slatten Ranch Road Extension, North Segment	New 4-lane roadway from Wild Horse Road to existing terminus at the Antioch BART station	Antioch	\$ 17.3	
34	Viera Avenue Extension	New 2-lane roadway from Oakley Road to Slatten Ranch Road	Antioch	\$ 10.9	
35	Standard Oil Avenue	New 2-lane road from Delta Fair Boulevard to James Donlon Boulevard	Pittsburg	\$ 16.6	
36	Loveridge Road Improvements	Widened sidewalks and improved bicycle facilities between SR 4 and Pittsburg-Antioch Highway	Pittsburg	\$ 3.0	



Table 2: ECCRFFA Project List, Existing and Proposed

#	Project	Description/Project Limits	Sponsor	Total Cost (\$ Million)	Status
37	Bailey Road Improvements	Between Southern City Limits and West Leland Road, add turn lanes, sidewalks, and intersection upgrades	Pittsburg	\$ 62.1	
38	Lone Tree Way Rail Crossing	Union Pacific undercrossing widened from Fairview Avenue to Gann Street	Brentwood	\$ 32.8	
39	SR-4 Operational Improvement Project	Improve operations along SR 4 between 0.3 miles west of the SR 4/SR 242 interchange to the Bailey Road interchange.	CCTA	\$ 177.0	Environmental Phase in Progress
40	SR-4 Integrated Corridor Management	East County share (i.e., one-half the total cost) of Countywide SR-4 ICM development.	CCTA	\$ 10.0	Concept of Operations in Progress
41	High-Capacity Transit from Antioch BART to Brentwood	Express bus along SR 4 between Antioch and Brentwood	CCTA	\$ 14.1	
42	Brentwood Intermodal	Park and ride lot south of the Lone Tree Way/SR-4 interchange, adjacent to a future BART station	Brentwood	\$ 11.6	
43	Sellers Avenue Safety Improvements	Upgrade Sellers Avenue to current design standards between Delta Road and Chestnut Road, and between Main Canal and Marsh Creek Road	County	\$ 27.2	
44	East Cypress Rd Improvement	Construction of East Cypress Road as a 4-lane arterial on a new alignment between Jersey Island Rd and Bethel Island Rd, with the existing East Cypress Rd alignment preserved for local access	Oakley	\$20.0	
SUM				\$ 3,526.0	

Notes:

1. In the 2005 Report, the description of project #6 was "Armstrong Road Extension, 2 lanes (formerly Byron Airport Road). Since the 2005 Report was completed, further environmental and preliminary design work has been conducted on this project and the SR 239/84 Connector has now been named the "Vasco Road – Byron Highway Connector", so for clarity and to reflect current conditions that is the terminology that is now being used for Project #6.
2. In the 2005 Report, the description of project #18 was to "Extend West Leland Road from San Marco to Avila Road". Since the 2005 Report was completed, a portion of the West Leland Road extension has been constructed and West Leland now terminates at Santa Teresa Drive. Therefore, for clarity and to reflect current conditions, the description of project #18 is now shown as Extend West Leland from Santa Teresa Drive to Avila Road.

Source: ECCRFFA, CCTA, Contra Costa County, Cities of Antioch, Brentwood, Oakley, and Pittsburg.



3. Growth Projections

An important element of every fee calculation is the estimate of future growth in the fee area. As part of this update, the current land use files available from the Contra Costa Transportation Authority (CCTA) travel demand model were reviewed. These files contain projections of the amount of residential and employment growth that is anticipated to occur in East County. CCTA completed an update of the travel model and developed a new set of land use files that reflect the totals from the Association of Bay Area Governments (ABAG) Projections 2017 publication, which is the most current set of regional growth projections available for the CCTA travel model.

The first step in the process was to identify which of the model’s traffic analysis zones (TAZs) are within ECCRFFA’s jurisdiction. The ECCRFFA jurisdictional boundary was available as a GIS file and was overlaid with the CCTA TAZ structure to identify the TAZs that are located within ECCRFFA’s jurisdiction. For those TAZs that are only partially within ECCRFFA’s jurisdiction, the TAZ was included in the calculation only if more than 50% of the TAZ land area was within ECCRFFA’s jurisdiction.

The next step was to tabulate the total amount of households and employment in the ECCRFFA TAZs, as shown in **Table 3**. The year 2023 is used as the baseline and the year 2040 is the horizon year. The employment categories shown are those that have historically been used in prior nexus studies for the ECCRFFA program and are used here for consistency with the existing fee program. **Table 4** shows a summary of these growth projections for East County.

Table 3: Projected Land Use in East County

Jurisdiction	Year 2023 ¹					Year 2040				
	Employment			Residential Units		Employment			Residential Units	
	Service	Retail	Other	Single Family	Multi-family	Service	Retail	Other	Single Family	Multi-family
Antioch	6,285	8,135	8,431	28,534	7,791	7,587	9,923	10,280	31,808	10,425
Brentwood	2,271	2,949	3,239	16,236	1,981	2,901	3,321	3,833	20,037	2,555
Oakley	1,244	1,416	2,004	10,861	2,277	1,944	1,762	2,494	13,411	3,836
Pittsburg	4,490	4,650	7,563	15,230	7,717	5,952	5,660	8,129	18,953	11,557
Unincorporated East County	1,548	3,140	5,409	16,252	3,640	2,798	3,643	4,815	18,657	4,685
Total East County	15,838	20,290	26,646	87,113	23,406	21,182	24,309	29,551	102,866	33,058

¹2023 land use was derived by a linear interpolation between the 2020 and 2040 land use data provided by CCTA in March 2019. Note: Relationship between land use categories in the model and the fee program were assumed to be: Retail=Commercial; Service=Office; and Other=Industrial, Manufacturing, Agriculture and other land use categories included in the CCTA model. Source: ECCRFFA, CCTA, Fehr & Peers.



Table 4: East County Growth Projections Summary

Land Use Type	2023 Base Year	2040 Projection	Growth	Percentage Growth
Population	358,182	421,603	63,421	18%
Residential Units	110,519	135,924	25,405	23%
Employment	62,774	75,042	12,268	20%
Service Population ¹	420,956	496,645	75,689	18%

1: Service population is defined as the sum of residents and employees.
 Source: ECCRFFA, CCTA, Fehr & Peers

Dwelling Unit Equivalent Factors

It is common in many fee programs to convert the projected growth into a standard unit of measurement called the dwelling unit equivalent (DUE), in order to account for the fact that different types of development have different travel characteristics. The factors used to convert the future land use numbers into DUEs are shown in **Table 5**. These factors have been developed following the same structure established in the 2005 and 2020 Reports; the values in each column have been updated to reflect the most current data available. These DUE conversion factors involve the following elements: land use-specific PM peak hour trip rates from *ITE Trip Generation*, 11th Edition; estimates of the percent new trips from SANDAG *Brief Guide of Vehicular Traffic Generation Rates (2002)*; and average trip lengths from the 2012 California Household Travel Survey for census tracts within ECCRFFA’s jurisdiction.



Table 5: DUE Conversion Factors

Land Use Category	Unit	PM Peak Trip Rate ¹	% New Trips ²	Average Trip Length (miles) ³	PM Peak VMT per Unit ⁴	DUE per Unit ⁵
Housing						
Single Family ^a	Dwelling Unit	0.94	100	7.8	7.3	1.00
Multi-Family ^b	Dwelling Unit	0.51	100	7.8	4.0	0.54
Employment						
Commercial ^c	1,000 square feet	3.40	45	6.0	9.1	1.25
Office ^d	1,000 square feet	1.44	75	13.8	14.9	2.03
Industrial ^e	1,000 square feet	0.65	80	13.8	7.2	0.98

- The average PM peak hour (between 4 and 6 PM) trip rate was taken from the ITE *Trip Generation Manual*, 11th Edition, for the following land use codes:
 - Single Family Detached - Code 210
 - Multifamily Housing (Low Rise) - Code 220
 - Shopping Center - Code 820
 - General Office - Code 710
 - General Light Industrial - Code 110
- Taken from the SANDAG Brief Guide of Vehicular Traffic Generation Rates, April 2002.
- Average trip lengths for the East County area as derived from 2012 California Household Travel Survey Data. For single family and multifamily housing, used travel survey data for all home-based trip purposes. For commercial uses, used data for home-based shopping purpose. For office and industrial uses, used data for all work-related trips.
- Calculated as: PM Peak Trip Rate * % New Trips * Average Trip Length.
- DUE per Unit is calculated by normalizing the PM Peak VMT for each category such that the single-family residential category is assigned a DUE of 1.00. This is accomplished by dividing the PM Peak VMT for each category by the PM Peak VMT of the single-family residential category. So, for example, the DUE per Unit for the Multi-family category is calculated as $4.0 / 7.3 = 0.54$.

Source: ECCRFFA, Fehr & Peers.

Projected Growth in East County

Forecasted growth in East Contra Costa County is shown in **Table 6** in absolute numbers of new jobs and residential units, and then those numbers are converted to DUEs. The total number of new DUEs projected in the 17 years from 2023 to 2040 is 27,935. As a point of comparison, in the 2005 Report the amount of growth projected over the 20-year period from 2005 to 2025 was approximately 42,000 DUEs. This result is an indication that the East County area is moving closer to a build-out condition, as the amount of future growth begins to moderate.



Table 6: Forecasted Growth in East Contra Costa County (2023 to 2040)

Jurisdiction	Estimated Growth (2023 to 2040)					Estimated Growth in DUEs (2023 to 2040)					Total DUEs
	Employment			Residential Units		Employment DUEs			Residential DUEs		
	Retail	Service	Other	Single Family	Multi-family ⁴	Office ¹	Commercial ²	Industrial ³	Single Family	Multi-family ⁴	
Antioch	1,302	1,788	1,849	3,274	2,634	811	999	724	3,274	1,429	7,237
Brentwood	630	372	594	3,801	574	393	208	232	3,801	311	4,945
Oakley	700	346	490	2,550	1,559	436	193	192	2,550	846	4,217
Pittsburg	1,462	1,010	566	3,723	3,840	911	564	221	3,723	2,083	7,503
Unincorporated East County	1,250	503	0	2,405	1,045	779	281	0	2,405	567	4,032
Total East County	5,344	4,019	3,499	15,753	9,652	3,330	2,246	1,369	15,753	5,237	27,935

Relationship between land use categories in the model and the fee program were assumed to be: Retail=Commercial; Service=Office; and Other=Industrial, Manufacturing, Agriculture and other land use categories included in the CCTA model.

- Office DUE conversion assumes 275 square feet per employee and a DUE per thousand square feet of 2.03. $DUE = EMP * 0.275 * 2.03$
- Commercial DUE conversion assumes 500 square feet per employee and a DUE per thousand square feet of 1.25. $DUE = EMP * 0.500 * 1.25$
- Industrial DUE conversion assumes 400 square feet per employee and a DUE per thousand square feet of 0.98. $DUE = EMP * 0.400 * 0.98$
- The multifamily units were multiplied by a DUE of 0.54.

Source: ECCRFFA, Fehr & Peers.



4. Nexus Analysis and Fee Calculations

Existing Deficiencies

One of the key functions of a fee program is to charge fees to new development in order to fund new development's proportional share of transportation improvements needed to serve the demand and impacts generated by that new development. The purpose of an impact fee is not to correct existing deficiencies, which should be funded through other revenue sources. Therefore, in order to add the 18 proposed projects to the program, it is necessary to determine whether there are existing deficiencies in the roadway network that may be related to or affected by those proposed projects.

The *East County Action Plan for Routes of Regional Significance* report (the most recent version was prepared in 2023 and is available at https://ccta.net/wp-content/uploads/2023/03/Draft-East-County-Action-Plan_03-13-23.pdf) has been used to identify potential deficiencies across the facilities affected by the proposed new projects. This report designates routes of regional significance throughout East Contra Costa County and sets performance measures, or Regional Transportation Objectives (RTOs), for each one.

Of the 18 proposed additional projects, 13 are located on a roadway identified as a Route of Regional Significance. Based on the RTO values presented for each facility in the report, only one of these facilities, State Route 4 (SR-4), does not currently meet its RTO. More specifically, for the RTO called Buffer Index, which measures the variability in travel time, the target was set at 0.5 and the observed value for SR-4 in the eastbound direction during the PM peak was measured at 0.75, thus exceeding the target. Proposed projects #39 and #40 are located along SR-4, and an existing deficiency reduction of 50% was applied to these projects' cost before including them in the fee calculations.

Proportional Cost Allocation

As described previously, the purpose of this study is to evaluate the incorporation of the proposed 18 new projects into the ECCRFFA fee program. As such, the focus here is on defining the proportion of the costs of these projects that could be included in the program. No changes are being made to the cost proportions included in the program for any of the projects that are already part of the existing ECCRFFA fee program. **Table 7** includes the total cost of each project, as well as the portion of that cost that is considered eligible for inclusion in the fee program, sometimes referred to as the "nexus percentage".

Projects in Existing Program

For all of the projects currently in the existing ECCRFFA program, the nexus percentages have been taken directly from the 2005 and 2020 Reports. For most projects, the nexus percentage is 100% based on the conclusions from the 2005 Report. There are a few exceptions, as follows:



- Projects that address existing deficiencies (Project #16 Buchanan Bypass/James Donlon Blvd Extension): The cost share attributed to new traffic is included in the fee program. In the case of Project #16, that percentage was determined to be 68% in the 2005 Report.
- Projects that involve transit or safety enhancements (Project #10 Marsh Creek/Deer Valley Rd safety enhancements, #24 Byron Highway safety enhancements, #25 East County Express Bus): The cost share proportional to new development's share of total future population is included in the fee program. At the time of the 2005 Report, that value was 33%.
- Projects that are designed to serve both local access to adjacent development areas and regional travel demand (Project #27 Sand Creek Road extension): The Sand Creek Road extension would be a four-lane road that will serve as local access for the planned development areas in southern Antioch located on either side of Sand Creek Road, and would also fill a gap in east-west connectivity for regional travel needs between Antioch, Brentwood, and surrounding communities. The cost of constructing the project elements needed to serve local access are excluded from the fee program, and the remaining project costs that are regional in nature are included. In the case of Project #27, the regional project elements included the center median and one lane of travel in either direction, while the local portion included all other cost elements (one lane in either direction, retaining walls, landscaping, most grading and utilities); the regional percentage was determined to be 31% in the 2020 Report.

Proposed New Projects

For the proposed new projects, the nexus percentages have been determined based on similar considerations as were applied to the existing projects.

- Projects that address existing deficiencies (Project #39 SR-4 Operational Improvement Project, and #40 SR-4 Integrated Corridor Management): As described above, these projects have been identified as being located on a facility with an existing deficiency and have been assigned a percentage of 50%.
- Projects that involve transit or safety enhancements (Project #31 Camino Diablo safety improvements, #36 Loveridge Road improvements, #41 High-capacity Transit from Antioch to Brentwood, #42 Brentwood Intermodal, and #43 Sellers Avenue safety improvements): The cost share proportional to new development's share of total future population is included in the fee program. Because these projects are being newly added to the program, the share of total future population must be calculated based on current data about existing population and projections of future growth. Per the 2023-2040 growth projections shown in Table 4, that value is 18%.
- Projects that are designed to serve both local access to adjacent development areas and regional travel demand (Project #24B Byron Highway extension, #28 Empire Avenue widening and rail crossing, #29 Laurel Road extension, #32 Slatten Ranch Road extension (South segment), #33 Slatten Ranch Road extension (North segment), and #34 Viera Avenue extension): The projects listed here are similar to Project #27, Sand Creek Road extension, in that these projects propose to construct a four-lane roadway that will provide local access to adjacent planned development areas and would also serve regional travel between East County communities. The cost of



constructing the project elements needed to serve local access needs should be excluded from the fee program, and the remaining project costs that are regional in nature should be included. These projects do not have sufficiently detailed cost estimates to identify the precise costs of each element and separate them between local and regional components; however, the basic elements of these projects are anticipated to be very similar to the elements of Project #27, Sand Creek Road extension, in that the project elements that serve regional needs will include a center median and one lane of travel in either direction, while the project elements that serve local needs will be one travel lane in either direction, retaining walls, landscaping, most grading and utilities. Therefore, the regional nexus percentage of 31% determined in the 2020 Report for Project #27, Sand Creek Road extension, has been applied here.

- All other new projects (Project #30 Kirker Pass and South Hess Road, #35 Standard Oil Avenue, #37 Bailey Road, #38 Lone Tree Way, #44 East Cypress Road): The nexus percentage for these projects was determined by applying the CCTA travel demand model for the year 2040 and using a “select link” procedure to track the usage of each facility by travelers making regional trips in East County. A “regional” trip is defined as a trip that begins and/or ends within East County and that crosses at least one jurisdictional boundary. For instance, a trip between Oakley and Pittsburg, or a trip between Antioch and Walnut Creek, or a trip between Brentwood and Livermore, are all examples of “regional” trips. The percentage of regional trips is different for each of these five project locations but is always greater than 80%, which indicates that these facilities are primarily used for regional travel.

Table 7: Projects and Fee Contribution Amounts

#	Project	Description/ Project Limits	Sponsor	Total Cost (\$ Million)	% Eligible for Future Fee Contribution	Future Potential Fee Contribution (\$ million)
Existing Program, Freeway Improvements						
1	SR 4 Freeway widening	<i>Railroad Avenue to Loveridge Road, widen to 8 lanes</i>	<i>CCTA</i>	<i>\$ 101.0</i>		
		<i>Loveridge interchange</i>	<i>CCTA</i>	<i>\$ 157.8</i>		
		<i>Loveridge to Bypass (8 lanes to Hillcrest, 6 lanes to Bypass)</i>	<i>CCTA</i>	<i>\$ 374.7</i>		
		<i>Hillcrest interchange expansion</i>	<i>CCTA</i>	<i>\$ 10.0</i>		
2	SR 4 Bypass Segment 1	<i>Phase 1, 6 lanes to Laurel, interchanges at Laurel Rd and Lone Tree</i>	<i>Bypass Authority</i>	<i>\$ 113.7</i>		
		<i>Phase 2, SR 160 interchange</i>	<i>Bypass Authority</i>	<i>\$ 50.1</i>		
		<i>Laurel interchange, phase 2</i>	<i>Bypass Authority</i>	<i>\$ 1.0</i>		
3	SR 4 Bypass Segment 2	<i>Phase 1, 2 lanes</i>	<i>Bypass Authority</i>	<i>\$ 33.3</i>		



#	Project	Description/ Project Limits	Sponsor	Total Cost (\$ Million)	% Eligible for Future Fee Contribution	Future Potential Fee Contribution (\$ million)
		<i>Phase 2, 4 lanes, Sand Creek Road to Balfour Road</i>	<i>Bypass Authority</i>	\$ 16.0		
		Widen to 6 lanes, Laurel Road to Sand Creek Road	Bypass Authority	\$ 39.9	100%	\$ 39.9
		<i>Sand Creek interchange and 4 lanes, Laurel to Sand Creek</i>	<i>Bypass Authority</i>	\$ 43.8		
4	SR 4 Bypass Segment 3	<i>Balfour to Marsh Creek (2 lanes) plus Marsh Creek east-west connector</i>	<i>Bypass Authority</i>	\$ 77.8		
		<i>Marsh Creek to Vasco, 2 lanes</i>	<i>Bypass Authority</i>	\$ 12.6		
		Segment 3, widen to 4 lanes, and Balfour interchange Phase 2	Bypass Authority	\$ 81.1	100%	\$ 81.1
		<i>Balfour interchange Phase 1</i>	<i>Bypass Authority</i>	\$ 58.0		
		Marsh Creek interchange	Bypass Authority	\$ 51.2	100%	\$ 51.2
		Vasco interchange	Bypass Authority	\$ 42.7	100%	\$ 42.7
Existing Program, Arterial Improvements						
5	Laurel Road extension	<i>SR4 Bypass to Empire, 6 lanes</i>	<i>Bypass Authority</i>	\$ 22.6		
6	SR 239/84 Connector	Vasco Road – Byron Highway Connector	CCTA	\$ 161.0	100%	\$ 161.0
7	SR 239	Corridor study and preliminary design (no construction costs)	CCTA	\$ 101.0	100%	\$ 101.0
8	SR 4 (Main St or Brentwood Blvd) widening	Close gaps and create consistent four-lane arterial between Fifth Street and Delta Road in Oakley, and between Chestnut Street and Balfour Road in south Brentwood	Oakley, Brentwood	\$ 24.5	100%	\$ 24.5
9	Balfour Road widening	Deer Valley to Brentwood city limits, widen to 4 lanes	County	\$ 14.2	100%	\$ 14.2
10	Marsh Creek Road/Deer Valley Road Safety Enhancements	Marsh Creek: Walnut Boulevard to Clayton City Limits; Deer Valley: Balfour Road to Marsh Creek Road	County	\$ 29.3	33%	\$ 9.7



#	Project	Description/ Project Limits	Sponsor	Total Cost (\$ Million)	% Eligible for Future Fee Contribution	Future Potential Fee Contribution (\$ million)
11	Route 84/Vasco Road	Widen to 4 lanes to County line	County	\$ 317.0	100%	\$ 317.0
12	Pittsburg-Antioch Highway	Widen to 4 lanes, Auto Center Drive to Loveridge	Antioch, Pittsburg	\$ 55.9	100%	\$ 55.9
13	Ninth and Tenth Streets	Couplet improvements, A St to L St	Antioch	\$ 9.6	100%	\$ 9.6
14	California Avenue	Widen to 4 lanes, Railroad to Loveridge	Pittsburg	\$ 6.6	100%	\$ 6.6
15	Willow Pass Road	Widen to 4 lanes, Range to Loftus and Bailey to city limits	Pittsburg, County	\$ 14.7	100%	\$ 14.7
16	James Donlon Blvd Extension (formerly Buchanan Bypass)	New 2- to 4-lane arterial, Somersville to Kirker Pass Road	Pittsburg	\$ 115.6	68%	\$ 78.6
	or Buchanan Road Improvements	Improve traffic flow between Railroad Avenue and Somersville Road				
17	West Tregallas/Fitzuren	Widen to 4 lanes, Lone Tree to Buchanan	Antioch	\$ 53.3	100%	\$ 53.3
18	West Leland Road	Extend as a 4-lane arterial, Santa Teresa Drive to Avila Road	Pittsburg	\$ 33.4	100%	\$ 33.4
	or Evora Road	Willow Pass Rd (BP) to Willow Pass Rd (Concord), widen to 4 lanes	County			
19	Wilbur Avenue	Widen to 4 lanes, Minaker Drive to SR 160	Antioch, County	\$ 42.7	100%	\$ 42.7
20	Neroly Road	Widen to 4 lanes, Oakley Rd to Laurel Rd	Oakley	\$ 10.6	100%	\$ 10.6
21	Deer Valley Road	Widen to 4 lanes, Sand Creek Road to Balfour Road	Antioch, County	\$ 31.2	100%	\$ 31.2
22	Walnut Boulevard	Widen to 4 lanes, Brentwood city limits to SR 4 Bypass	County	\$ 29.5	100%	\$ 29.5
23	John Muir Parkway	<i>New Roadway between Balfour Road and Fairview Avenue</i>	<i>Brentwood</i>	<i>\$ 17.7</i>		
24	Byron Highway	Safety Improvements between Delta Road and SR 4	County	\$ 20.0	33%	\$ 6.7
27	Sand Creek Road	Extension of 4-lane roadway between SR 4 and Deer Valley Road	Antioch	\$ 38.1	31%	\$ 11.8



#	Project	Description/ Project Limits	Sponsor	Total Cost (\$ Million)	% Eligible for Future Fee Contribution	Future Potential Fee Contribution (\$ million)
Existing Program, Regional Transit Projects						
25	East County Express Bus	Planning and design of regional rapid bus program	Tri-Delta Transit	\$ 9.1	33%	\$ 3.0
26	Commuter Rail	<i>eBART extension to Antioch</i>	CCTA	\$ 513.0		
Proposed Projects for Updated Program						
24B	Byron Highway Extension	Extend road between Delta Road and Rock Slough Bridge	Oakley	\$ 26.6	31%	\$ 8.3
28	Empire Avenue Widening and Rail Crossing	Construct four-lane arterial and railroad overcrossing, between Wicklow Way and Neroly Road	Oakley	\$ 45.5	31%	\$ 14.1
29	Laurel Road Extension	Extend Laurel Road as a four-lane arterial from Teton Road to Sellers Avenue	Oakley	\$ 42.0	31%	\$ 13.0
30	Kirker Pass Road Truck Climbing Lane	Construct a southbound truck climbing lane along Kirker Pass Road	County	\$ 38.6	96%	\$ 37.1
31	Camino Diablo Safety Improvements	Safety improvements between Vasco Road and Byron Highway	County, CCTA	\$ 7.4	18%	\$ 1.3
32	Slatten Ranch Road Extension, South Segment	New 4-lane roadway from Wicklow Street to Wild Horse Road	Antioch	\$ 28.0	31%	\$ 8.7
33	Slatten Ranch Road Extension, North Segment	New 4-lane roadway from Wild Horse Road to existing terminus at the Antioch BART station	Antioch	\$ 17.3	31%	\$ 5.4
34	Viera Avenue Extension	New 2-lane roadway from Oakley Road to Slatten Ranch Road	Antioch	\$ 10.9	31%	\$ 3.4
35	Standard Oil Avenue	New 2-lane road from Delta Fair Boulevard to James Donlon Boulevard	Pittsburg	\$ 16.6	100%	\$ 16.6
36	Loveridge Road Improvements	Widened sidewalks and improved bicycle facilities between SR 4 and Pittsburg-Antioch Highway	Pittsburg	\$ 3.0	18%	\$ 0.5
37	Bailey Road Improvements	Between Southern City Limits and West Leland Road, add turn lanes, sidewalks, and intersection upgrades	Pittsburg	\$ 62.1	97%	\$ 60.2



#	Project	Description/ Project Limits	Sponsor	Total Cost (\$ Million)	% Eligible for Future Fee Contribution	Future Potential Fee Contribution (\$ million)
38	Lone Tree Way Rail Crossing	Union Pacific undercrossing widened from Fairview Avenue to Gann Street	Brentwood	\$ 32.8	82%	\$ 26.9
39	SR-4 Operational Improvement Project	Improve operations along SR 4 between 0.3 miles west of the SR 4/SR 242 interchange to the Bailey Road interchange.	CCTA	\$ 177.0	50%	\$ 88.5
40	SR-4 Integrated Corridor Management	East County share (i.e., one-half the total cost) of Countywide SR-4 ICM development.	CCTA	\$ 10.0	50%	\$ 5.0
41	High-Capacity Transit from Antioch BART to Brentwood	Express bus along SR 4 between Antioch and Brentwood	CCTA	\$ 14.1	18%	\$ 2.5
42	Brentwood Intermodal	Park and ride lot south of the Lone Tree Way/SR-4 interchange, adjacent to a future BART station	Brentwood	\$ 11.6	18%	\$ 2.1
43	Sellers Avenue Safety Improvements	Upgrade Sellers Avenue to current design standards between Delta Road and Chestnut Road, and between Main Canal and Marsh Creek Road	County	\$ 27.2	18%	\$ 4.9
44	East Cypress Rd Improvement	Construction of East Cypress Road as a 4-lane arterial along a new alignment between Jersey Island Rd and Bethel Island Rd, with the existing East Cypress Rd alignment preserved for local access	Oakley	\$20.0	96%	\$ 19.3
SUM				\$ 3,526.0		\$ 1,547.8

Notes: Projects shown in *italics* have been completed, so no future fee contributions are anticipated.
 Source: ECCRFFA.

Fee Calculations and Application

Table 8 displays the calculated maximum impact fees based on this nexus analysis. These fees have been calculated based on the complete list of projects as shown in **Table 7**. The total potential future fee contribution toward all the projects shown in Table 7 (\$1,547,8 million) has been divided by the total



number of future Dwelling Unit Equivalent (DUEs) expected in East County as shown in Table 6 (27,935 DUEs), to calculate the resulting maximum fee per DUE of \$55,406. These calculations represent new development's proportional share of the cost of both the existing ECCRFFA projects that are yet to be completed and the proposed new projects, as determined by this study.

The new maximum fees shown here are substantially higher than the current ECCRFFA fees as were shown in Table 1. This outcome is similar to prior ECCRFFA nexus studies, in that the ECCRFFA Board has typically chosen to impose fees at a level lower than the maximum fees calculated through a nexus analysis. The ECCRFFA program has not generally been intended to serve as the sole source of funding for the projects within the program, but rather as one of several funding sources that can be combined to deliver projects.

The ECCRFFA Board periodically prepares and adopts a strategic transportation improvement plan that defines the priorities for expenditure of ECCRFFA funds over the upcoming five-year period. This strategic plan takes into account other sources of funds that may become available for each project. One potential source of funds for some projects is the local transportation impact fee established by the local agency; in some cases, elements of a project listed in Table 2 may also appear in a local agency's fee program. If such a project becomes a priority for ECCRFFA funds as reflected in the ECCRFFA strategic transportation improvement plan, then there is coordination between ECCRFFA and the local agency to ensure that the two programs are being applied in a complementary fashion, which may necessitate adjustments to the local fee program.

Table 8: New Maximum Fee Calculations

Land Use Category	New Maximum Fee
Single-Family Residential (dwelling unit)	\$55,406
Multi-Family Residential (dwelling unit)	\$30,061
Commercial (square foot)	\$69.1
Office (square foot)	\$112.6
Industrial (square foot)	\$54.2
Other (per peak hour trip)	\$55,406

Source: Fehr & Peers.



5. Summary of Required Program Elements

This report has provided a detailed discussion of the elements of the East Contra Costa Regional Transportation Impact Fee program and explained the analytical techniques used to develop this nexus study. The report addresses the following fee program elements required by the Mitigation Fee Act (Government Code Section 66000 et seq), as summarized below.

Fundamental Nexus Requirements

Section 66001 contains several fundamental requirements that an agency must document when establishing or imposing an impact fee.

1. *Identifying the purpose of the fee*

The ECCRFFA program is established for the purpose of supporting regional public infrastructure improvements and facilities needed to mitigate the traffic-related impacts of new development in eastern Contra Costa County.

2. *Identifying how the fee will be used and the facilities to be funded through the fee*

The fee is used to help fund capital improvement projects that will accommodate future transportation needs throughout the ECCRFFA area. Table 2 identifies the projects eligible to be funded through the fee.

3. *Determining a reasonable relationship between the fee's use and the type of development on which the fee is imposed*

As described in this report, different types of development generate traffic with different characteristics. The calculations presented in Table 5 account for these characteristics by calculating the travel-related characteristics of different land use types. These considerations account for the differential impacts on the transportation system generated by different development types.

4. *Determining a reasonable relationship between the need for the public facility and the type of development on which the fee is imposed*

The need for the facilities listed in Table 2 has been established through local and regional planning processes prepared by the Contra Costa Transportation Authority and the ECCRFFA member agencies.



5. *Determining a reasonable relationship between the amount of the fee and the cost of the public facility (or portion of facility) attributable to new development*

Section 4 of this report describes the calculations applied to determine the cost of the public facility that is attributable to new development in the ECCRFFA area, accounting for the effects of existing deficiencies. Thus, a reasonable effort has been made to quantitatively establish the relationship between the fees charged in the ECCRFFA program and the costs of public improvements attributable to new development within eastern Contra Costa County.

Additional Elements

Due to recent changes in state legislation, Section 66016.5 now defines several additional elements beyond the fundamental nexus requirements that have historically been part of the Mitigation Fee Act. These additional elements include the following:

- *If a nexus study supports the increase of an existing fee, review the assumptions of the nexus study supporting the original fee and evaluate the amount of fees collected under the original fee.*

As expected, the proposal to add 18 new projects to the program does result in an increased maximum fee calculated through this nexus analysis process. However, the intent is not to impose an increased fee, but rather to modify and update the list of capital improvement projects that would be considered eligible to receive ECCRFFA funds. As described in Section 1 of this report, the ECCRFFA program has been in place for many years and has been updated several times, most recently in 2020. All of the updates have maintained the same program structure as was initially established, and assumptions about future growth and future capital improvements have been updated each time using the most current data available. Further, ECCRFFA periodically conducts a “program assessment” to review the fee program’s assumptions and evaluate its progress. The most recent program assessment was just recently completed and is attached as an appendix to this report. The assessment concluded that the program structure has remained stable, the estimated costs of the projects in the program have remained in line with expectations, and the growth projections used in the fee calculations continue to be reasonable. The total amount of fees collected through the ECCRFFA program from inception are approximately \$491 million.

- *Calculate a fee imposed on a housing development project proportionately to the square footage of proposed units of the development, or explain why that would not be an appropriate metric for calculating fees.*

The ECCRFFA fees on housing developments have always been calculated based on the type of unit, with one fee level for single-family units and a different (lower) fee level for multi-family units. This has been a common practice for most fee programs around the state for many years.



In the case of ECCRFFA, this practice aligns with the methods used by the member agencies in calculating their own local transportation impact fees, which are also imposed based on the type of unit. (All of the ECCRFFA member agencies except the City of Antioch have local fee programs to fund local transportation improvements, which are charged in addition to the ECCRFFA fees.) In addition, this practice aligns with the data that is readily available about the transportation impacts of housing developments; industry-standard reference documents about the trip generation rates, trip lengths, and pass-by/diverted trip characteristics of new development projects present that data either for all types of housing units combined or for a few different types of housing units, and do not typically present that data based on the unit size. Examples of data sources routinely used to support fee calculations include the *ITE Trip Generation Manual*, the *ITE Trip Generation Handbook*, the *SANDAG Brief Guide of Vehicular Traffic Generation Rates*, and the California Household Travel Survey.

The Mitigation Fee Act requires that there be a demonstrated relationship between the fee being charged to a new development and the level of demand that development places on public facilities and services. As described previously, the calculations presented in Table 5 account for these characteristics by calculating the travel-related characteristics of different land use types. These considerations account for the differential impacts on the transportation system generated by different development types. There is no available reference document that directly links trip generation rates to the square footage of a housing unit. Given the lack of readily available reference data about how the size of a housing unit might be related to the demand that unit would place on the transportation system, some agencies in California have undertaken statistical analyses to attempt to better understand that relationship.

Several of these recent statistical analyses have found limited information available from which to derive conclusions. The analyses cite some sources of information that link trip generation rates to the number of people living in a housing unit, although those sources often present values that are averaged over large geographic areas and the results can differ substantially; for example, some analyses cite the 2017 National Household Travel Survey which indicates that a 4-person household in California generates 12.6 daily trips, while others cite a 2012 national report on *Travel Demand Forecasting: Parameters and Techniques* that indicates a 4-person household generates 16.1 daily trips. These analyses then estimate the relationship between the number of people living in a house and the square footage of the house using US Census data, and then combine those factors to estimate trip generation rates by house size.

An alternative approach has been taken in Western Riverside County, where an analysis was done based on actual trip generation rates and house size data collected from residential neighborhoods throughout that region. This locally-specific analysis found that single-family house size explained approximately one-half of the variation in trip generation rates, while the other half of the variation was related to other economic and demographic factors such as household income, number of residents with jobs, number of school-age children in the household, number of vehicles owned by the residents, and other factors. In addition, the



relationship between single-family house size and trip generation rates was found to hold only for houses up to 2,500 square feet; for larger houses, the statistical relationship was much less strong. No statistically significant relationship was found for multi-family developments.

In light of the lack of consistent and available sources of data to support conclusions about how housing units of varying sizes affect the transportation system, ECCRFFA has determined that square footage is not currently an appropriate metric to use in calculating fees on residential developments, nor is there substantial evidence that the current method of calculating fees is disproportionate to a residential development's effects on the transportation system.

Finally, the ECCRFFA Board has adopted a policy related to setting fees for Accessory Dwelling Units (ADUs), which are relatively small units located on a parcel already occupied by a primary dwelling unit. Per the policy (<https://www.eccrffa.org/wp-content/uploads/2024/05/ECCRFFA-Policy-for-Accessory-Dwelling-Units-ADUs.pdf>), ADUs are either exempt from ECCRFFA fees or are charged a reduced fee, depending on the size of the unit. Notwithstanding the lack of data on the relationship between housing unit size and effects on the transportation system, discussed above, this ECCRFFA policy is consistent with state ADU law. This ECCRFFA policy supports smaller developments and, in conjunction with a fee structure that is not disproportionate to a residential development's effect on the transportation system, ensures smaller developments are not charged disproportionate fees.

- *In large jurisdictions, adopt a capital improvement plan as a part of the nexus study.*

For this purpose, a large jurisdiction is defined as a county with a population of at least 250,000 and all the cities within that county, so the ECCRFFA area would meet the definition of a large jurisdiction.

ECCRFFA does not function as a direct project sponsor, but instead provides funds to the agencies that deliver capital improvement projects in eastern Contra Costa County. ECCRFFA regularly prepares and updates a strategic transportation improvement plan that describes the planned expenditure of ECCRFFA funds on specific projects over the coming five-year period (the current ECCRFFA strategic transportation improvement plan can be found at <https://www.eccrffa.org/documents/>). In addition, all of the ECCRFFA member agencies and project sponsors regularly prepare their own capital improvement plans to guide the expenditure of funds on capital improvements within their jurisdictions. For a particular project to receive ECCRFFA funds, that project must be reflected in the ECCRFFA strategic transportation improvement plan and must also be included in the project sponsor's capital improvement plan.



Appendix A: 2024 Program Assessment



Memorandum

Date: May 8, 2024
To: Dale Dennis, Program Manager, East Contra Costa Regional Fee & Financing Authority
From: Julie Morgan and Bruno Lertora, Fehr & Peers
Subject: **Assessment of the East Contra Costa Regional Transportation Impact Fee Program**

1001-1655.03

Background

The East Contra Costa Regional Fee & Financing Authority (ECCRFFA) oversees a regional development impact fee program that generates funds to support the construction of capital improvements to the regional transportation system in eastern Contra Costa County. In the summer of 2005, the ECCRFFA Board approved a comprehensive nexus study called the East Contra Costa Regional Fee Program Update Final Report, referred to here as the "2005 Report". All ECCRFFA member jurisdictions adopted an updated set of fees pursuant to that report.

Since that time, the fees have been adjusted annually to reflect changes in construction costs. Beginning in 2008-2009, a fee rebate program was established in response to the economic downturn. The fee rebate has been reduced over time, but the Authority has continued to implement a 15% fee rebate since January 1, 2017. The latest update of the project list was approved in October 2020, and was documented in a report called East Contra Costa Regional Fee Program Update Final Report referred to here as the "2020 Report".

Periodic program assessments have been conducted and documented over the years, the most recent being completed in 2017, to evaluate the progress of the program in funding and delivering projects on the project list. This memorandum is a new program assessment, building upon the most recent assessment from 2017 and incorporating current information to the extent available.

Capital Projects and Delivery Status

The current ECCRFFA program includes a list of 27 capital projects that are eligible for funding through fee revenues. Table 1 presents the list of capital projects, the estimated cost of each project, and its current status. For those projects that are completed or under construction, the



total project cost shown in the table is the actual cost for that project. For those projects yet to be constructed, the total cost shown is based on the cost estimate presented in the 2020 Report, plus a cost escalation factor of 0.375 to bring the 2020 cost estimates up to year 2023 dollars.

Assessment:

- Significant progress has been made in delivering the capital projects on the list. Several major projects have been completed and others are in various stages of being designed, constructed, or closed out.
- Per the information provided, ECCRFFA is still committed to delivering the program of projects identified in the 2020 Report.
- The actual costs of the capital projects on the list have generally remained relatively consistent with the cost estimates presented in the 2005 Report. At the time of the 2005 Report, the total aggregate cost of the full list of capital projects was \$1.69 billion. The construction cost escalation factor between 2005 and 2023 is 1.004; applying that factor to the total cost from 2005 equates to \$3.39 billion in 2023 dollars. The current estimate of project costs shown in Table 1 (excluding project #27, which was not part of the 2005 Report) is \$2.9 billion; it is logical that this value would be lower than the fully escalated cost, because some of the projects were completed years ago and the costs of those projects shown in Table 1 have been fixed at their actual values and have not been escalated to current dollars.

Development Patterns and Fee Expectations

Both the 2005 Report and the 2020 Report addressed a 21-year planning period, from 2005 to 2025 and from 2020 to 2040, respectively. These reports included projections of future population and employment growth throughout the East County area for that planning period, which were used in calculating an appropriate fee per unit of new development. Table 2 shows a comparison between these projections. As seen on this table, the 2020-2040 projected employment growth in East County is around 30 percent of what was projected in 2005, while the projected residential growth is very similar in both cases. Table 2 also presents an updated growth projection between 2023 and 2040 that results from interpolating the 2020 Report projections to the current year.

Table 3 shows the fee amounts that are currently levied on new development in East County. Applying the current fee amounts to the updated growth projections, and accounting for the ongoing 15% fee discount that is being applied, results in an estimate of total fee revenue over the 2023-2040 time period of about \$533 million (in current year dollars). For reference, Table 3 also shows the total fee revenues that have been collected from the inception of the program through 2023, at about \$491 million.



Assessment:

- The 2005 Report estimated fee revenue of \$406.5 million (in 2005 dollars) over the 21-year planning horizon of that study, or an average of approximately \$19 million per year. The updated projections from 2023 to 2040 indicate revenues of approximately \$29 million (in current dollars) annually going forward.

Program Funding Status

The fee revenues generated by the ECCRFFA program are one of several funding sources that are used to support regional transportation improvements. The 2005 Report included a discussion of the broader funding picture for the full ECCRFFA program; this included known and anticipated revenues from the fee program, the countywide sales tax program (at that time, Measure C and Measure J), regional fund sources such as RM2, state sources such as the STIP, and other funding programs. The conclusion of the 2005 Report was that the majority of the project funding had been identified, but there remained a shortfall of approximately \$390 million (in 2005 dollars). The 2017 program assessment concluded that the program's shortfall was approximately \$552 million (in 2017 dollars).

Table 4 provides an updated picture of the funding status of the projects included in the ECCRFFA program. The table includes an accounting of fee revenues already collected and those anticipated, known funding that has already been used to support or is committed to specific projects, and funds that are available for programming through the Measure J Strategic Plan Update. Taken together, the program is now anticipated to have a shortfall of approximately \$601 million (in current dollars). Converting that number to 2005 dollars would result in a shortfall estimate of \$300 million, indicating that the overall program shortfall has decreased in real terms compared to the original calculation of \$390 million in 2005.

Assessment:

- Fee revenue collections have been strong during periods of relatively high economic activity, and the region has successfully attracted funding from other sources. In constant dollars, the program shortfall has declined compared with what was predicted in the 2005 Report.

Conclusions

This memo has presented a basic assessment of the status of the ECCRFFA program. Based on the information presented here, the program has been tracking well compared to the expectations from the 2005 and 2020 Reports. Substantial progress has been made on project delivery and the region remains committed to the list of capital projects. The region has successfully attracted funds from other sources for many of its projects.



Table 1: ECCRFFA Project List

Number	Project	Description/Project Limits	Jurisdiction	Total Cost (\$ million)	Potential or Actual Fee Contribution (\$ million)	Status
1	SR 4 Freeway widening	Railroad Avenue to Loveridge Road, widen to 8 lanes	CCTA	\$101.0	\$2.0	Completed
		Loveridge interchange	CCTA	\$157.8		Completed
		Loveridge to Bypass (8 lanes to Hillcrest, 6 lanes to Bypass)	CCTA	\$374.7		Completed
		Hillcrest interchange expansion	CCTA	\$10.0		Completed
2	SR 4 Bypass Segment 1	Phase 1, 6 lanes to Laurel, interchanges at Laurel Rd and Lone Tree	Bypass Authority	\$113.7	\$88.7	Completed
		Phase 2, SR 160 interchange	Bypass Authority	\$50.1	\$0.2	Completed
		Laurel interchange, phase 2	Bypass Authority	\$1.0	\$1.0	Completed
3	SR 4 Bypass Segment 2	Phase 1, 2 lanes	Bypass Authority	\$33.3	\$33.3	Completed
		Phase 2, 4 lanes, Sand Creek Road to Balfour Road	Bypass Authority	\$16.0		Completed
		Widen to 6 lanes, Laurel Road to Sand Creek Road	Bypass Authority	\$39.9	\$39.9	
		Sand Creek interchange and 4 lanes, Laurel to Sand Creek	Bypass Authority	\$43.8	\$5.8	Completed
4	SR 4 Bypass Segment 3	Balfour to Marsh Creek (2 lanes) plus Marsh Creek east-west connector	Bypass Authority	\$77.8	\$77.8	Completed
		Marsh Creek to Vasco, 2 lanes	Bypass Authority	\$12.6	\$12.6	Completed
		Segment 3, widen to 4 lanes, and Balfour interchange Phase 2	Bypass Authority	\$81.1	\$81.1	
		Balfour interchange Phase 1	Bypass Authority	\$58.0	\$28.0	Completed
		Marsh Creek interchange	Bypass Authority	\$51.2	\$51.2	
		Vasco interchange	Bypass Authority	\$42.7	\$42.7	



5	Laurel Road extension	SR4 Bypass to Empire, 6 lanes	Bypass Authority	\$22.6	\$22.6	Completed
6	SR 239/84 Connector	Armstrong Road extension, 2 lanes (formerly Byron Airport Road)	County	\$161.0	\$161.0	Environmental Phase in Progress
7	SR 239	Corridor study and preliminary design (no construction costs)	County	\$101.0	\$101.0	Environmental Phase in Progress
8	SR 4 (Main St or Brentwood Blvd) widening	Vintage Pkwy in Oakley to Marsh Creek bridge in Brentwood and from Chestnut Street to Balfour Road in south Brentwood, 4 lanes	Oakley, Brentwood	\$24.5	\$24.5	Partially Completed
9	Balfour Road widening	Deer Valley to Brentwood city limits, widen to 4 lanes	County	\$14.2	\$14.2	
10	Marsh Creek Road/Deer Valley Road Safety Enhancements	Marsh Creek: Walnut Boulevard to Clayton; Deer Valley: Balfour Road to Marsh Creek Road	County	\$29.3	\$9.7	
11	Route 84/Vasco Road	Widen to 4 lanes to County line	County	\$317.0	\$317.0	
Northern Parallel Arterials						
12	Pittsburg-Antioch Highway	Widen to 4 lanes, Somersville to Loveridge	Antioch, Pittsburg	\$55.9	\$55.9	
13	Ninth and Tenth Streets	Couplet improvements, A St to L St	Antioch	\$9.6	\$9.6	
14	California Avenue	Widen to 4 lanes, Railroad to Loveridge	Pittsburg	\$6.6	\$6.6	Partially Completed
15	Willow Pass Road	Widen to 4 lanes, Range to Loftus and Bailey to city limits	Pittsburg, County	\$14.7	\$14.7	
Southern Parallel Arterials						
16	James Donlon Blvd Extension (formerly Buchanan Bypass)	New 4-lane arterial (perhaps 2 lanes, depending on study results)	Pittsburg	\$115.6	\$78.6	Design in Progress (for James Donlon Blvd Extension)
	or Buchanan Road	Widen to 4 lanes, Railroad to Somersville	Pittsburg			
17	West Tregallas/Fitzuren	Widen to 4 lanes, Lone Tree to Buchanan	Antioch	\$53.3	\$53.3	



18	West Leland Road	Extend, San Marco to Avila Road (Concord)	Pittsburg	\$33.4	\$33.4	
	or Evora Road	Widen to 4 lanes, Willow Pass (BP) to Willow Pass (Concord)	County			
Regional Arterial Projects						
19	Wilbur Avenue	Widen to 4 lanes, Minaker Drive to SR 160	Antioch, County	\$42.7	\$42.7	
20	Neroly Road	Widen to 4 lanes, Oakley Rd to Laurel Rd	Oakley	\$10.6	\$10.6	
21	Deer Valley Road	Widen to 4 lanes, Antioch city limits to Balfour Road	County	\$31.2	\$31.2	
22	Walnut Boulevard	Widen to 4 lanes, Brentwood city limits to SR 4 Bypass	County	\$29.5	\$29.5	
23	John Muir Parkway	New Roadway between Balfour Road and Fairview Avenue	Brentwood	\$17.7	\$3.6	<i>ECCRFFA commitment completed</i>
24	Byron Highway	Safety Improvements between Delta Road and SR 4	County	\$20.0	\$6.7	
27	Sand Creek Road	Extension of 4-lane roadway between SR 4 and Deer Valley Road	Antioch	\$38.1	\$11.8	
Regional Transit Projects						
25	East County Express Bus		Tri-Delta Transit	\$9.1	\$3.0	
26	Commuter Rail		CCTA	\$513.0	\$38.0	<i>Completed</i>
TOTAL				\$2,935.3	\$1,543.5	

Table 2: East County Growth Projections

	Growth Projections from 2005-2025 (from 2005 Report)	Growth Projections from 2020-2040 (from 2020 Report)	Updated Projections from 2023-2040
New Households	29,293	29,889	25,406
New Jobs	50,971	15,132	12,862



Table 3: ECCRFFA Fee Revenues

ECCRFFA Fee Schedule (2024)	
Single-Family Residential (per DU, accounting for 15% fee rebate)	\$24,066
Multi-Family Residential (per DU, accounting for 15% fee rebate)	\$14,773
Commercial (per SF)	\$2.35
Office (per SF)	\$2.04
Industrial (per SF)	\$2.04
Anticipated Fee Revenues	(\$ million)
Total Estimated ECCRFFA Revenue at Full Fees, 2023-2040	\$624.7
Fee Revenues Foregone Due to 15% Discount, 2023-2040	\$92.1
Total Future Fee Revenues Anticipated, 2023-2040	\$532.6
ECCRFFA Fees Collected, Inception – 2023	\$491.0
Total Fee Revenues, Inception through 2040	\$1,023.6



Table 4: ECCRFFA Program Funding Considerations

Program Funding Sources		(\$ million)
Total Program Cost		\$2,935.3
Total Future Fee Revenues Anticipated, 2023-2040		\$532.6
Fees Already Collected, Inception through 2023		\$491.0
Measure J Funds - 2022 Strategic Plan Update (James Donlon Extension - \$7.3M)		\$7.3
Other Known Funds (see below)		\$1,303.6
Total Funding		\$2,334.5
Total Surplus/Deficit		(\$600.8)
Other Known Funds for Specific Projects		(\$ million)
Railroad Avenue Interchange		\$101.0
Loveridge Road Interchange		\$157.8
SR 4, Somersville to SR4 Bypass		\$374.7
eBART Extension to Hillcrest Avenue		\$475.0
SR160/SR4 Connectors		\$49.9
SR 4 Bypass Segments 1 and 3		\$25.0
Sand Creek Interchange and Widening from Laurel to Sand Creek Road		\$49.2
Balfour Road Interchange and Widening from Sand Creek to Balfour		\$46.0
Future RM3 funds: Byron Airport Connector (\$10M) and Vasco Road Improvements (\$15M)		\$25.0
TOTAL		\$1,303.6