

City of East Palo Alto  
Development Impact Fee Program  
NEXUS STUDY



Amended February 28, 2019

See Appendix M for list of amendments since original release in December 2018

*Cover Photo: East Palo Alto, Palo Alto Airport of Santa Clara County, Moffett Federal Airfield*

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City of East Palo Alto  
Development Impact Fee Program  
NEXUS STUDY

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Allocation Methods Technical Memorandum  
Amended February 28, 2019

Prepared for  
City of East Palo Alto  
Prepared by  
AECOM Sustainable Economics Group



## MISSION STATEMENT

*The City of East Palo Alto provides responsive, respectful, and efficient services to enhance the quality of life and safety of its multi-cultural community.*

Lisa Gauthier, Mayor

Regina Wallace Jones, Vice-Mayor

Ruben Abrica, Councilmember

Larry Moody, Councilmember

Carlos Romero, Councilmember

## TABLE OF CONTENTS

---

Executive Summary.....	1
1. Introduction.....	1
Purpose .....	1
Nexus Fee Background.....	2
2. Development Forecast.....	5
Demographic Projections.....	5
Development Projections.....	6
Projected Infrastructure Requirements.....	7
Ten-Year Capital Improvement Program (CIP).....	8
3. Impact Fee Summary .....	10
Infrastructure Categories.....	10
Impact Fee Zones.....	10
Impact Fees by Real Estate Product Types .....	11
Summary of Maximum Supportable Nexus Fees .....	11
Existing Development Impact Fees .....	12
Affordable Housing Fees .....	12
Quimby Act Fees.....	13
Storm Drainage Fees.....	13
Water Capacity.....	14
Summary of Affordable Housing, Quimby Act, Storm Drainage, and Water Capacity Estimated Fees .....	16
4. Detailed Calculations for Maximum Supportable Impact Fees .....	17
Parks and Trails.....	17
Purpose .....	17
Nexus Methodology.....	17
Public Facilities.....	19
Purpose .....	19
Nexus Methodology.....	20
Storm Drainage.....	21

Purpose .....	21
Nexus Methodology .....	22
Transportation Infrastructure .....	27
Purpose .....	27
Nexus Methodology .....	27
5. Additional Funding Sources and City Contributions .....	34
Required City Contribution .....	34
Committed City Funds .....	35
Option for Discounted Development Impact Fees .....	37
6. Administration and Implementation .....	38
Periodic Updates .....	38
Annual Escalation .....	38
Specialized Development Projects .....	38
Ongoing Administration .....	39
Fee Credits or Reimbursements .....	40
Impact Fee Deferral or Waiver .....	40

## LIST OF APPENDICES

---

Appendix A: Sources .....	42
Appendix B: Projects Eligible for Development Impact Fees .....	43
Appendix C: Demographic and Land Use Assumptions .....	46
Appendix D: Storm Drainage Factors .....	49
Appendix E: Transportation Factors .....	53
Appendix F: Water Capacity Factors .....	56
Appendix G: Maximum Development Impact Fee Revenue .....	58
Appendix H: Maximum Supportable Development Impact Fee Burdens .....	60
Appendix J: Sample Ordinances .....	63
Appendix K: Project Management Costs in CIP Documents .....	66
Appendix L: Comparison of Selected Cities' Impact Fees .....	68
Appendix M: Amendments Since Previous Release .....	73

**LIST OF FIGURES**

---

Summary Figure 1: Proportion of Funding by Source Based on Proposed Maximum Supportable Development Impact Fees.....2

Figure 1-1: Boundaries of East Palo Alto and the RBD .....2

Figure H-1: Proportion of Proposed Impact Fee Burden on Residential Development (Outside RBD) .....60

Figure H-2: Proportional Maximum Supportable Development Impact Fee Burden on Residential Development (within RBD only) .....61

Figure H-3: Proportional Maximum Supportable Development Impact Fee Burden on Non-Residential Development (Citywide).....62

Figure L-1: R2 Residential Prototype Features .....69

Figure L-2: O2 Office Prototype Features.....69

Figure L-3: Comparison of Impact Fees for Prototype Developments .....69

**LIST OF TABLES**

---

Summary Table 1: Summary of Maximum Supportable Development Impact Fees in East Palo Alto .....3

Summary Table 2: Existing Development Impact Fees.....4

Table 2-1: Population, Employment, and Service Population (2010 - 2040) .....6

Table 2-2: Development Projections for 25-Year Planning Horizon .....7

Table 2-3: Assumed Acreage to Dwelling Unit Ratios .....7

Table 2-4: Summary of Gross Project Costs .....8

Table 3-1: Summary of Proposed Maximum Supportable Development Impact Fees in East Palo Alto .....12

Table 3-2: Affordable Housing Commercial Linkage Fees (Resolution 379) .....13

Table 3-3: Housing Impact In-Lieu Fee (Resolution/Ordinance 4539).....13

Table 3-4: Water Capacity Fee Schedule (Citywide) (Effective August 1, 2018).....15

Table 3-5: Existing City Development Impact Fees in East Palo Alto .....16

Table 4-1: Parks and Trails Projects Qualifying for Impact Fees (\$1000s, \$2018).....18

Table 4-2: Maximum Impact Fee Nexus Calculation for Parks and Trails (Citywide).....19

Table 4-3: Public Facilities Projects Qualifying for Impact Fees (\$1,000s, \$2018).....20

Table 4-4: Maximum Impact Fee Nexus Calculation for Public Facilities (Citywide).....21

Table 4-5: Storm Drainage Projects Qualifying for Impact Fees (\$1,000s, \$2018).....24

Table 4-6: Maximum Impact Fee Nexus Calculation for Storm Drainage (outside RBD).....25

Table 4-7: Maximum Impact Fee Nexus Calculation for Storm Drainage (within RBD only) .....26

Table 4-8 Transportation Infrastructure Projects Qualifying for Impact Fees (\$1,000s, \$2018).....28

Table 4-9: Maximum Impact Fee Nexus Calculation for Transportation Infrastructure (Citywide).....30

Table 5-1: Share of Infrastructure Costs Borne by New and Existing Service Populations (\$2018) .....34

Table 5-2: Committed Funds and Sources by Infrastructure Category.....35

Table 5-3: Committed City Funds and Sources by Project (\$1,000s).....36



Table 5-4: City Contribution Requirement .....	37
Table A-1: Sources .....	42
Table B-1: Capital Improvement Project List Eligible for Impact Fees (\$1000s).....	43
Table C-1: Population and Employment Density Assumptions .....	46
Table C-2: Assumptions for Population, Employment, and Service Population Projections (2010 - 2040).....	47
Table C-3: Development and Land Use Assumptions for 25-Year and 50-80 Year Planning Horizons....	48
Table D-1: Impervious Factors for Storm Drainage Calculations.....	49
Table D-2: Impervious Acres Assumptions for Storm Drainage .....	51
Table D-3: Existing and New Impervious Acres of Development.....	52
Table E-1: City Trip Totals and Generation Rates (25-Year Planning Horizon).....	53
Table E-2: Transportation Trip Generation Calculations, PM Rate.....	54
Table E-3: C/CAG Congestion Management Plan Peak-Hour Trip Reduction Credit Rates of TDM Programs .....	55
Table F-1: Water Systems Pipelines and Cost.....	56
Table F-2: Water System Costs for Fee Recovery and Buy-In Cost per Unit .....	57
Table F-3: Cost of Water Supply for Growth.....	57
Table G-1: Maximum Impact Fee Revenue by Infrastructure Category .....	58
Table H-1: Proposed Maximum Supportable Development Impact Fee Burden on Residential Development (Outside RBD) .....	60
Table H-2: Maximum Supportable Development Impact Fee Burden on Residential Development (within RBD only).....	61
Table H-3: Maximum Supportable Development Impact Fee Burden on Non-Residential Development (Citywide).....	62
Table L-1: Prototype Features .....	68
Table L-2: Comparison of Impact Fees for Prototype Developments in Neighboring Cities.....	70

## LIST OF ACRONYMS

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ABAG	Association of Bay Area Governments
C/CAG	City/County Association of Governments
CIP	Capital Improvement Program
DEPLAN	Draft Engineering Plan for RBD
DU	Dwelling Unit
DUA	Dwelling Unit per Acre
EIR	Environmental Impact Report
EPASD	East Palo Alto Sanitary District
FAR	Floor-Area Ratio
FY	Fiscal Year
GPD	Gallons per Day
GSF	Gross Square Feet
HUD	U.S. Department of Housing and Urban Development
ITE	Institute of Transportation Engineers
NCHRP	National Cooperative Highway Research Program
PSF	Per Square Foot
R&D	Research and Development
RBD	Ravenswood Business District (Ravenswood/4 Corners Specific Plan Area)
RSP	Ravenswood/4 Corners TOD Specific Plan/Program EIR
SF	Square Foot
SDMP	Storm Drain Master Plan
STAG	State Tribal Assistance Grants
TDM	Transportation Demand Management
TIA	Transportation Impact Assessment
TOD	Transit-Oriented Development
VMT	Vehicle Miles Traveled

# Executive Summary

The purpose of this report is to provide the necessary technical documentation and nexus analyses supporting the adoption of a development impact fee program in East Palo Alto.

Impact fees aim to ensure that new development contributes a fair share of funding to infrastructure improvements, including parks and trails, public facilities, storm drainage, and transportation infrastructure. To enact a fee program, a city must demonstrate a reasonable and proportional relationship between the fee rate and the impact of anticipated development. This study provides the proof of a nexus between the infrastructure burdens of development growth and the fee exaction.

East Palo Alto's Capital Improvement Program (CIP) contains a list of infrastructure projects necessary to support anticipated new development over the next ten years. Development impact fees are based on the capital cost allocation of these infrastructure projects to new and existing development. Costs are allocated across five land use types (single-family housing, multi-family housing, office/research and development (R&D) space, industrial space, and retail space) based on a customized nexus such as service population, trip generation, and impervious acreage.

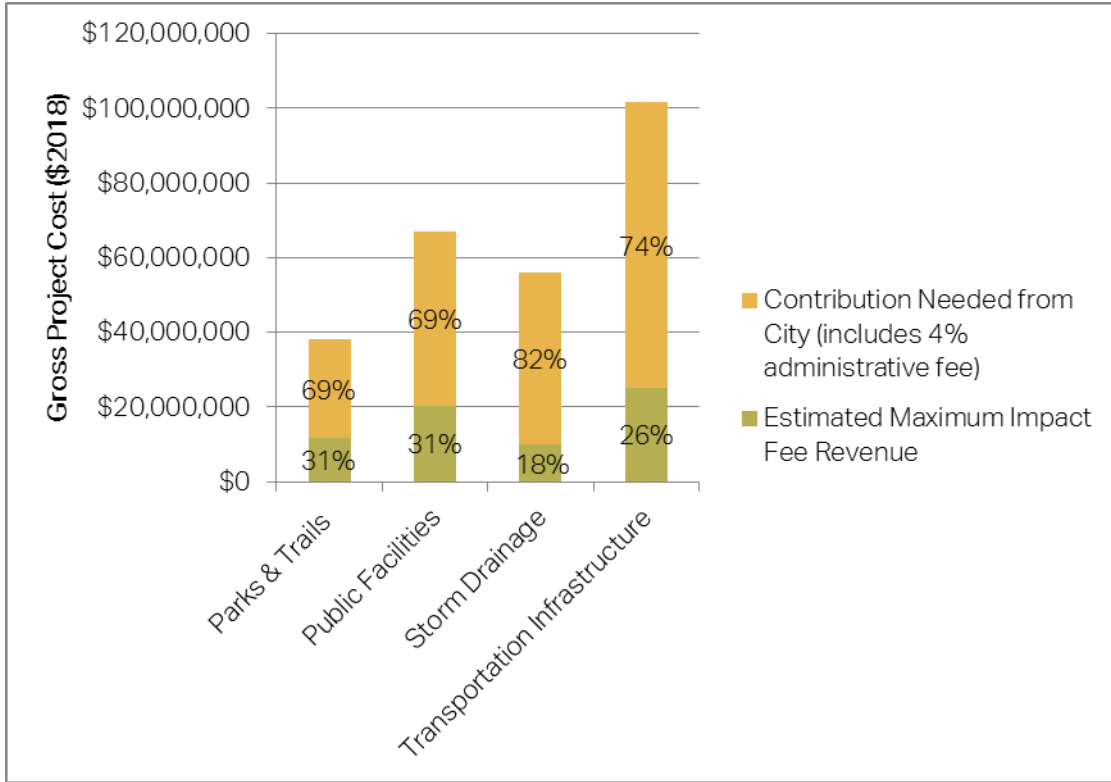
The total gross project infrastructure costs under consideration for impact fees are \$255,180,000. Based on the nexus analyses explained in this report:

- ◆ The City will fund 74 percent of these capital infrastructure costs (on behalf of the existing service population of East Palo Alto); and
- ◆ The maximum supportable development impact fee revenue will fund the remaining 26 percent of the capital infrastructure costs (on behalf of the projected future service population of East Palo Alto).

Development impact fees are evaluated for three zones: the City of East Palo Alto as a whole; the rezoned parcels within the Ravenswood Business District Specific Plan Area (RBD), a sub-district of the City; and the area of the City excluding the RBD. Citywide impact fees are based on three infrastructure categories: Parks and Trails, Public Facilities, and Transportation Infrastructure. Two different fees for the Storm Drainage impact category are evaluated, one for rezoned parcels within the RBD and the other for parcels outside the RBD.

Summary Figure 1 illustrates the proportion of funding by source based on proposed maximum supportable development impact fees for each of the four infrastructure categories.

**Summary Figure 1: Proportion of Funding by Source Based on Proposed Maximum Supportable Development Impact Fees**



Source: AECOM, 2019

Summary Table 1 and Summary Table 2, below, contain the maximum supportable development impact fees, as calculated by the nexus analysis, and a summary of existing development impact fees.

**Summary Table 1: Summary of Maximum Supportable Development Impact Fees in East Palo Alto**

Development Impact Fee	Single-Family <sup>3</sup>	Multi-Family	Office and R&D	Industrial	Retail
	(per DU)		(psf)		
<b>Parks &amp; Trails</b>					
Fee charged to development in City	\$4,133	\$2,847	\$1.15	\$0.46	\$0.77
<b>Public Facilities</b>					
Fee charged to development in City	\$7,248	\$4,993	\$2.01	\$0.81	\$1.34
<b>Transportation Infrastructure</b>					
Fee charged to development in City	\$2,358	\$1,775	\$7.33	\$4.77	\$13.30
	(per DU)	(per impervious acre)			
<b>Storm Drainage<sup>1</sup></b>					
Fee charged to development outside RBD	\$2,800	\$70,000	\$70,000	\$70,000	\$70,000
Fee charged to development within RBD	\$4,840	\$121,000	\$121,000	\$121,000	\$121,000
<b>Total Fees</b>					
Total fee charged to development outside RBD	\$16,539 <sup>1</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>
Total fee charged to development within RBD	\$18,579 <sup>1</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>

Source: AECOM, 2019

Notes:

DU = dwelling unit

Psf = per square foot

<sup>1</sup> Storm Drainage fees are based on a unit cost of impervious surface acre: \$70,000 per impervious acre for development outside the RBD and \$121,000 per impervious acre for development within the RBD. Storm Drainage fees for single-family residential development are estimated based on potential impervious surface area calculations (0.04 acres of impervious surface per representative Town House single-family dwelling unit). Actual fees for residential and non-residential development will be based on the project's impervious surface area at the rates of \$70,000 per impervious acre outside the RBD and \$121,000 per impervious acre within the RBD. See Chapter 4, Storm Drainage, for the methodology and calculations.

<sup>2</sup> Total fees for non-residential development vary based on both per square foot of development and the acres of impervious area created by the development. See note 1 for more information.

<sup>3</sup> The Single-Family land use category includes Town Houses.

**Summary Table 2: Existing Development Impact Fees**

Other City Fee Estimates (Non-Impact Fees)	Single-Family (per DU)	Multi-Family (per DU)	Office and R&D (psf)	Industrial (psf)	Retail (psf)
<b>Affordable Housing Commercial Linkage Fee</b>					
Citywide fee	\$0	\$0	\$10.72	\$0	\$0
<b>Housing Impact In-Lieu Fee</b>					
Citywide fee - Single Family Infill (psf)	\$36.22	0	n/a	n/a	n/a
Citywide fee - Town Houses (psf)	\$34.78	0	n/a	n/a	n/a
Citywide fee - Rental Units (psf)	n/a	\$25.35	n/a	n/a	n/a
RBD fee - Condos in RBD (psf)	n/a	\$50.58	n/a	n/a	n/a
Citywide fee - Condos NOT in RBD (psf)	n/a	\$67.62	n/a	n/a	n/a
<b>Quimby Act Fee</b>					
Citywide fee	Varies <sup>2</sup>	Varies <sup>2</sup>	n/a	n/a	n/a
<b>Storm Drainage Fee</b>					
Citywide fee	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>
<b>Water Capacity<sup>4</sup></b>					
Citywide fee	\$8,147	\$5,014	\$3.45 <sup>4</sup>	\$3.45 <sup>4</sup>	\$5.01 <sup>4</sup>

Source: City of East Palo Alto, AECOM, 2019

DU = dwelling unit

Psf = per square foot

Notes:

<sup>1</sup> Non-residential fees are a minimum of \$575 per year.

<sup>2</sup> Quimby fees can include park land dedication acreage or park-in-lieu fees. Quimby park dedication requirements and park-in-lieu fees do not pertain to rental apartments where no subdivision of land or air space is involved. Quimby fees only apply to single-family/town house subdivisions and multi-family condo projects.

<sup>3</sup> East Palo Alto currently levies storm drainage fees on all qualifying developments within the City; see Chapter 3: Storm Drainage Fees. These existing storm drainage fees are different from the proposed fees described in Chapter 4: Storm Drainage. The proposed new storm drainage fees would replace and supersede the existing storm drainage fees.

<sup>4</sup> Water Capacity fees for non-residential development are estimated based on potential water demand by project. Actual fees for non-residential development will be based on the project's unique water demand, based on meter size.

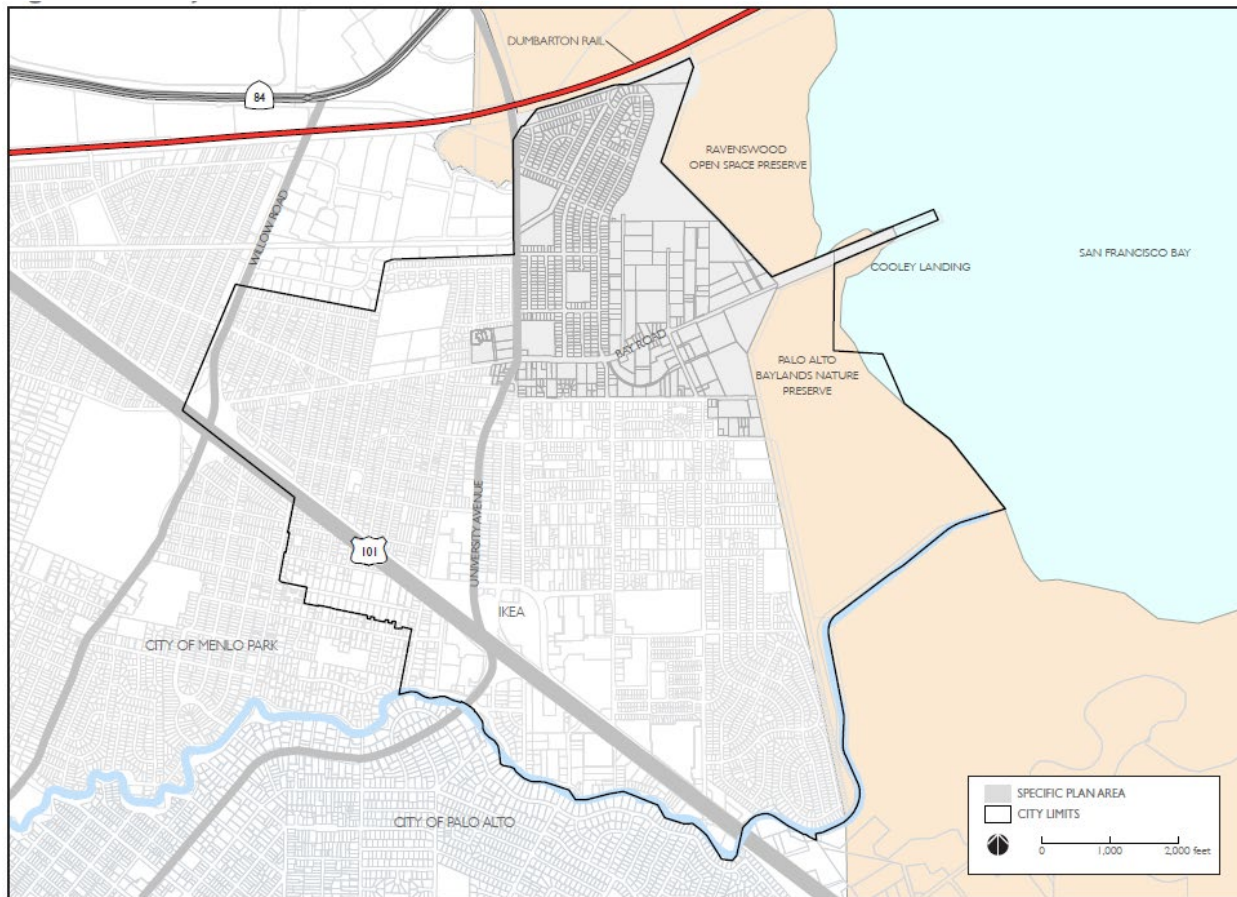
# 1. Introduction

## **PURPOSE**

The primary purpose of this report is to provide the necessary technical documentation and nexus analyses supporting the adoption of an impact fee program in East Palo Alto. The report presents development impact fees for three zones:

- The first zone is the entire City (Figure 1, City Limits). This zone includes fees for three infrastructure categories: Parks and Trails, Public Facilities, and Transportation Infrastructure.
- The second zone is the area of the City within the Ravenswood Business District (RBD) (Figure 1, Specific Plan Area). This zone is for Storm Drainage fees.
- The third zone is for the area of the City outside of the RBD. This zone is for Storm Drainage fees.

**Figure 1-1: Boundaries of East Palo Alto and the RBD**



Source: Ravenswood / 4 Corners TOD Specific Plan, 2013

Impact fees aim to ensure that new development contributes a fair share of funding to infrastructure improvements. To enact a fee program, a city must demonstrate a reasonable and proportional relationship between the fee rate and the impact of anticipated development.

This nexus study summarizes the impact fee program applicable to new development in the City of East Palo Alto. East Palo Alto anticipates significant population and employment growth between now and 2040, necessitating significant new infrastructure and public facilities to support new development. Codifying development impact fees in a nexus study will provide clarity regarding project development costs and will streamline fee allocation and fee collection, which will be particularly helpful for the City in light of extensive projected development. This nexus study also fulfills the policy directive (Policy UTIL-3.5) in the Ravenswood/4 Corners Transit-Oriented Development (TOD) Specific Plan (RSP) that the City prepare a nexus study to identify financing for infrastructure improvements within the RBD.

## **NEXUS FEE BACKGROUND**

City governments can charge development impact fees to developers, as a condition of development approval, to finance (or contribute to the financing of) infrastructure that the development requires. A



development impact fee is not a tax or special assessment, but rather a fee directly related to the cost of providing the public infrastructure needed to support that development. The fee amount must be reasonably related to the cost of the public infrastructure provided by the government collecting the fee; otherwise, the fee may be considered a special tax and subject to two-thirds voter approval. Thus, development impact fees may not be levied to pay for existing infrastructure deficiencies, unrelated to the impacts of new development.

A jurisdiction must legislatively adopt findings of a reasonable relationship between the purpose of the fee and the impact created by the new development, as well as a proportional relationship between the amount of the fee and the amount of the impact, before enacting a development impact fee program.

Although local governments began levying impact fees in the 1920s as a way to finance infrastructure, in 1987 the California legislature passed the Mitigation Fee Act (Assembly Bill 1600, or the Act) to establish the principles governing impact fee exactions and, to some extent, to codify existing constitutional requirements. The related Government Code Sections 66000-66025 establish legal requirements to implement a development fee program for fees that meet the terms of the Act. According to the Act, to establish a development fee program, a jurisdiction must legislatively accept a nexus study that identifies:

- ◆ the purpose of any fees;
- ◆ how fees will be used;
- ◆ a reasonable relationship between the fee-funded public infrastructure and the type of development paying the fee; and
- ◆ a proportional relationship between the amount of the fee and the amount of the impact, or demand created by the new development paying the fee.

Development impact fees are common among Californian cities and are a well-accepted way to fund a variety of public infrastructure such as roads, sewer and water facilities, and public facilities (park buildings, libraries, and fire protection services) to accommodate new development.

East Palo Alto does not currently have a standard, legislated impact fees structure. Instead, impact fees are negotiated on a case-by-case basis, an approach that is more vulnerable to legal challenge and is more staff-intensive to administer. Project-specific fees imposed on an ad hoc basis must be supported by project-specific analyses of a nexus between the fees exacted and the development, and by project-specific analyses of rough proportionality between the fees exacted and the impact of the development. Under this process, the burden of proof of nexus is the responsibility of the government and is labor intensive for City staff. In the event of a legal challenge, individual nexus justifications are scrutinized more stringently than generally applicable legislated fees.

In September 2012, East Palo Alto's City Council accepted the RSP, which proposes a framework for transforming 350 acres in northeast East Palo Alto into a new downtown. The RSP projects significant growth within the RBD in housing, employment, and non-residential space. This projected new growth

will require significant investment in new or upgraded infrastructure, including storm drainage, roads, parks, libraries, and community centers. Many of these improvements will benefit the entire City. Development impact fees will help fund this development-necessitated infrastructure. However, with the volume of projected growth, the current case-by-case approach to charging fees is impractical; a standard fee system is more appropriate. With high growth (and a large number of development applications), a systematic, fair, and proportional process for applying fees is more legally defensible, as well as much easier and faster to administer.

Given the legal risks and bureaucratic challenges of the current impact fees, and the adoption of an ambitious plan for accelerated development and growth, East Palo Alto commissioned this nexus study to codify their development impact fee program. A uniform and legally defensible impact fee program will better support the projected development program.

# 2. Development Forecast

Demographic projections and land uses drive the demand for city public improvements, because, in general, the more residents and/or employees, the higher the demand for city infrastructure and services. New development generates and accommodates the projected growth in population and employment and therefore is assigned the associated infrastructure costs for infrastructure that serves the increase in the local service population (see the demographic projections sub-section below for an explanation of service population). East Palo Alto is projected to experience significant population and employment growth, especially given the development plan for the RBD. The following section outlines the development growth assumptions and land use projections in East Palo Alto.

## **DEMOGRAPHIC PROJECTIONS**

Demographic projections include population and employment projections for East Palo Alto. A detailed discussion of projection methodology is included in AECOM's Task 1 & 2 technical memorandum. Table 2-1 shows the service population calculation based on population and employment projections. Service population is a relatively standardized concept in economic modeling that determines the level of capital infrastructure demand placed on a given infrastructure from additional development. A city's total service population is calculated as one times the resident population plus half of the employment population (2:1 ratio).

This approach evaluates infrastructure demand based on both place of residence and place of work. Under this model, resident-employees that both live and work in East Palo Alto are counted twice, once for their home location, and once for where they work. This methodology accounts for the infrastructure need generated both at their place of work and at their place of residence, such as required roadways near their home and near their office. While employees require similar types of capital improvements (roads, storm drains, etc.) as residents, the employee factor has been discounted by 50 percent, to half that of residents. This 2:1 ratio serves as the basis for the service population calculation. The ratio reflects a conservative approach to determining employee capital infrastructure demand.

**Table 2-1: Population, Employment, and Service Population (2010 - 2040)**

*	Zone	Growth (2010 – 2040)	Source/Calculation
<b>Resident Population</b>			
A	East Palo Alto	9,626	See Note 1
B	RBD	3,278	See Note 1
<b>Employment Population</b>			
C	East Palo Alto	6,009	See Note 1
D	RBD	3,545	See Note 1
<b>Service Population</b>			
E	East Palo Alto	12,631	A * 1 + C * 0.5 (see Note 2)
F	RBD	5,051	B * 1 + D * 0.5 (see Note 2)

Source: AECOM, 2016

Notes:

- 1 Resident and Employment Population growth projections calculated as part of AECOM's Task 1 & 2 deliverable memorandum. Sources include the City's General Plan Update.
- 2 Refer to the above Demographic Projections section for a more detailed explanation of service population. In brief, service population is a concept in economics that accounts for the infrastructure demand of both residents (at their place of residence) and employees (at their place of work). As a conservative approach, the infrastructure demand of employees is discounted by half.

## **DEVELOPMENT PROJECTIONS**

Development projections for East Palo Alto include both residential and non-residential square footage build-out forecasts, as shown in Table 2-2. Citywide projections for housing and non-residential built square footage are given for a 25-year planning horizon. With the detailed development analysis done for the RBD, development projections for the RBD include more detail, with housing forecasts by type (single-family or multi-family) and density, and non-residential forecasts by land acreage, built square footage, and floor-area ratio (FAR).

**Table 2-2: Development Projections for 25-Year Planning Horizon**

	RBD			City		
	Area	Quantity	Density (DUA)	Area	Quantity	Density (DUA)
<b>25-Year Planning Horizon</b>						
	<b>Acreage</b>	<b>DU</b>	<b>DUA</b>	<b>Acreage</b>	<b>DU</b>	<b>DUA</b>
Town Houses <sup>1</sup>	n/a	493	25	73	1,486	n/a
Multi-Family Housing	n/a	342	41	22	1,033	40
	<b>Land SF<sup>2</sup></b>	<b>Built SF<sup>2</sup></b>	<b>FAR</b>	<b>Land SF<sup>2</sup></b>	<b>Built SF<sup>2</sup></b>	<b>FAR</b>
Office / R&D	824,000	1,236,000	1.5 / 0.6	1,293,000	1,940,000	1.5 / 0.6
Industrial	335,000	268,000	0.8	335,000	268,000	0.8
Retail	112,000	112,000	1	333,000	333,000	1

Source: City of East Palo Alto, AECOM, 2016; Ravenswood / 4 Corners TOD Specific Plan, 2013.

Notes:

DU = dwelling unit

DUA = dwelling unit per acre

SF = Square foot

FAR = Floor area ratio

1 Town Houses are a subset of Single-Family Housing.

2 Square foot (SF) values are rounded to the nearest thousand.

Development projections rely on assumptions about the quantity of dwelling units (DU) per acre. As shown in Table 2-3, this study assumes there are 0.05 town houses per acre and 0.02 multi-family units per acre throughout the City, including in the RBD.

**Table 2-3: Assumed Acreage to Dwelling Unit Ratios**

Dwelling Unit	RBD	City	Source/Calculation
Town Houses	0.05	0.05	Acreage / Number (see Table 1-2)
Multi-Family Housing	0.02	0.02	Acreage / Number (see Table 1-2)

Source: AECOM, 2016

Notes:

Town Houses are a subset of Single-Family Housing.

## PROJECTED INFRASTRUCTURE REQUIREMENTS

The list of required infrastructure projects to support new development was developed through various adopted plans and programs, including East Palo Alto's adopted ten-year Capital Improvement Program (CIP), the RSP Environmental Impact Report (EIR), and the Draft Engineering Plan for the RBD (DEPLAN). Community amenity projects include the construction of parks, trails, and open space, the construction of public facilities (e.g., library, police department building, health clinic expansion), and the construction of pedestrian-friendly streetscape (e.g., sidewalks with lighting, trees, sidewalk furniture). Storm drainage infrastructure projects include installation of storm drain pipes, emergency water storage facilities, and new water sources (such as establishment of a groundwater well and well rehabilitation). Transportation Infrastructure includes the construction of new roads.

Table 2-4 summarizes the gross costs for infrastructure projects necessary to support new development in the City and the RBD that are considered for cost recovery through development impact fees. A detailed summary of the infrastructure projects is included in Appendix B: Projects Eligible for Development Impact Fees.

**Table 2-4: Summary of Gross Project Costs**

Infrastructure Category	Gross Project Cost (\$2018)	Subject to Citywide or RBD Impact Fees
Parks & Trails	\$37,190,000	Citywide
Public Facilities	\$65,218,000	Citywide
Storm Drainage	\$54,131,000	Citywide and RBD
Transportation Infrastructure	\$98,641,000	Citywide

Source: City of East Palo Alto, CIP, RSP, Bartle Wells Associates (2018)

*TEN-YEAR CAPITAL IMPROVEMENT PROGRAM (CIP)*

Since 2010, the City of East Palo Alto has undertaken annual capital planning to prioritize investments in capital projects. In June 2013, the City Council adopted the 2013/2014 ten-year CIP, which includes projects for water supply, water storage, parks and trails, and public facilities. This study refers to the updated CIP budget adopted by the City Council on June 21, 2016.<sup>1</sup> Costs reflect a 7.08 percent cost adjustment from \$2016 to \$2018 based on the Engineering News Report Construction Cost Index.

The CIP adopted in June 2016 includes costs originally reflected in the RSP. The East Palo Alto City Council adopted the associated Ravenswood Specific Plan program EIR on September 4, 2012.<sup>2</sup> The RSP and associated EIR identify many of the facilities required to support the development projected in the RBD, in particular traffic mitigations at various intersections, an arterial Loop Road connection to University Avenue, 30 acres of parks, five miles of new Class I trails, and public facilities.

Some of the projects in the CIP were influenced by the RBD DEPLAN. The DEPLAN represents the lowest-cost alternative for infrastructure engineering for the RBD. The Public Works and Transportation Commission and the Planning Commission each recommended the DEPLAN for adoption in December 2008 and February 2009, respectively. In April 2009, the East Palo Alto City Council adopted the DEPLAN as the basis of design for the Bay Road project. In 2013, Wilsey Ham updated the original DEPLAN cost estimates. The DEPLAN includes:

- ◆ A gravity storm drain system that flows to the O'Connor Pump Station via an existing drainage canal between Runnymede Avenue and the O'Connor Pumping station detention pond;
- ◆ A gravity sanitary sewer system that connects to the existing trunk line along the levee;
- ◆ A water distribution system of 12-inch force main pipes throughout the district;
- ◆ Trenched and buried electric and telecommunication utilities;
- ◆ Road work; and
- ◆ Streetscape improvements (based on the streetscape improvements built as part of Bay Road Phase I along Bay Road between University Avenue and Clarke Avenue).<sup>3</sup>

The total gross project infrastructure costs under consideration for impact fees are \$255,180,000.

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<sup>1</sup> The most recently adopted CIP is available online at <http://www.ci.east-palo-alto.ca.us/index.aspx?NID=490>.

<sup>2</sup> The documents are available online at <http://www.ci.east-palo-alto.ca.us/Archive.aspx?AMID=61>.

<sup>3</sup> The DEPLAN is available at <http://www.ci.east-palo-alto.ca.us/ArchiveCenter/ViewFile/Item/131>.

Based on the nexus analyses explained in this report:

- ◆ The City will fund 74 percent of these capital infrastructure costs (on behalf of the existing service population of East Palo Alto); and
- ◆ Development impact fee revenue will fund the remaining 26 percent of the capital infrastructure costs (on behalf of the projected future service population of East Palo Alto).

The capital infrastructure investments benefiting Citywide population are \$255,180,000, whereas the portion of capital investments benefiting the RBD service population specifically are \$18,511,000, or 7.3 percent of the total gross project infrastructure costs. Chapter 4: Storm Drainage explains the nexus methodology for calculating specific development impact fees for the RBD.

# 3. Impact Fee Summary

## **INFRASTRUCTURE CATEGORIES**

A nexus between development and impact fees will be determined for the following four infrastructure types:

- ◆ Parks and Trails
- ◆ Public Facilities
- ◆ Storm Drainage
- ◆ Transportation Infrastructure

These infrastructure elements were identified by the City as the four areas where development – Citywide and in the RBD – will require new capital investment. A detailed discussion of the impact fee determination for each infrastructure category is included in Chapter 4.

## **IMPACT FEE ZONES**

To properly apportion infrastructure costs to the associated benefit area, the nexus analysis considers three impact fee zones:

- ◆ one zone including the entire City
- ◆ one zone including only the RBD
- ◆ one zone including all of the City except the RBD.

Figure 1-1 contains a map of the City.

Three categories of infrastructure elements benefit the entire City. These infrastructure assets provide benefits to the entire community and therefore capital costs are shared Citywide. One infrastructure category, Storm Drainage, has separate benefits within the RBD and outside of it. Storm Drainage fees are therefore determined for the RBD and remainder of the city separately due to RBD-specific benefits of certain capital infrastructure projects. Development occurring on parcels rezoned as part of the RSP will pay this RBD Storm Drainage fee, with the exception of existing single-family zoning in the University Village neighborhood.<sup>4</sup>

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<sup>4</sup> Not all land area within the RBD was rezoned (Figure 1). RBD impact fees will not apply to the existing single-family zoning in the University Village neighborhood.



## *IMPACT FEES BY REAL ESTATE PRODUCT TYPES*

Impact fees vary by real estate product type, and this nexus considers five different land uses:

- ◆ Single-Family (residential)
- ◆ Multi-Family (residential)
- ◆ Office and R&D (non-residential)
- ◆ Industrial (non-residential)
- ◆ Retail (non-residential)

## **SUMMARY OF MAXIMUM SUPPORTABLE NEXUS FEES**

This nexus analysis first calculated the maximum supportable fees that the City of East Palo Alto could charge to development based on three types of proportional methodologies: increase in service population, increase in trip generation, and increase in impervious acres of new development. The maximum supportable nexus fees shown in Table 3-1 assume that development will pay fees to account for 100 percent of development's allocated share of infrastructure costs.

However, the City may choose to adopt a lower fee as appropriate to stimulate more development.

When existing or dedicated funding streams defray the infrastructure project cost, the nexus fees charged to a developer can be lower than the fees Table 3-1.

**Table 3-1: Summary of Proposed Maximum Supportable Development Impact Fees in East Palo Alto**

Development Impact Fee	Single-Family <sup>3</sup>	Multi-Family	Office and R&D	Industrial	Retail
	(per DU)		(psf)		
<b>Parks &amp; Trails</b>					
Fee charged to development in City	\$4,133	\$2,847	\$1.15	\$0.46	\$0.77
<b>Public Facilities</b>					
Fee charged to development in City	\$7,248	\$4,993	\$2.01	\$0.81	\$1.34
<b>Transportation Infrastructure</b>					
Fee charged to development in City	\$2,358	\$1,775	\$7.33	\$4.77	\$13.30
	(per DU)	(per impervious acre)			
<b>Storm Drainage<sup>1</sup></b>					
Fee charged to development outside RBD	\$2,800	\$70,000	\$70,000	\$70,000	\$70,000
Fee charged to development within RBD	\$4,840	\$121,000	\$121,000	\$121,000	\$121,000
<b>Total Fees</b>					
Total fee charged to development outside RBD	\$16,539 <sup>1</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>
Total fee charged to development within RBD	\$18,579 <sup>1</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>	Varies <sup>2</sup>

Source: AECOM, 2019

Notes:

DU = dwelling unit

Psf = per square foot

<sup>1</sup> Storm Drainage fees are based on a unit cost of impervious surface acre: \$70,000 per impervious acre for development outside the RBD and \$121,000 per impervious acre for development within the RBD. Storm Drainage fees for single-family residential development are estimated based on potential impervious surface area calculations (0.04 acres of impervious surface per representative Town House single-family dwelling unit). Actual fees for residential and non-residential development will be based on the project's impervious surface area at the rates of \$70,000 per impervious acre outside the RBD and \$121,000 per impervious acre within the RBD. See Chapter 4, Storm Drainage, for the methodology and calculations.

<sup>2</sup> Total fees for non-residential development vary based on both per square foot of development and the acres of impervious area created by the development. See note 1 for more information.

<sup>3</sup> The Single-Family land use category includes Town Houses.

## EXISTING DEVELOPMENT IMPACT FEES

In addition to the proposed development impact fees, the City has five existing development impact fees: an affordable housing commercial linkage fee, a housing impact in-lieu fee for new residential units, Quimby Act fees for recreation and open space, storm drainage impact fees, and water capacity impact fees.

### AFFORDABLE HOUSING FEES

The East Palo Alto City Council adopted affordable housing mitigation fees effective July 16, 2016.

Table 3-2 contains the Commercial Linkage Fees as of September 2018 based on the City's Resolution 379.

**Table 3-2: Affordable Housing Commercial Linkage Fees (Resolution 379)**

Development Type	Fee (psf) <sup>2</sup>
Office/R&D/Medical Office	\$10.72 <sup>1</sup>
Retail/Restaurants/Services	\$0
Hotel	\$0

Source: City of East Palo Alto, 2018

Notes:

1. The fee exempts single Office/R&D/Medical Office prototype projects that are 10,000 square feet or less. Single office projects are those that are a developer's sole project; a developer may not receive an exemption if they have multiple office projects that are each less than 10,000 square feet.
2. Fee amounts shall be adjusted annually by the City Manager's designee based on the percentage increase in the Consumer Price Index for All Urban Consumers for San Francisco, California or the Engineering News Record Construction Cost Index for San Francisco, California.

Table 3-3 contains the Housing Impact In-Lieu Fees as of September 2018 based on the City's Resolution/Ordinance 4539.

**Table 3-3: Housing Impact In-Lieu Fee (Resolution/Ordinance 4539)**

Development Location and Type	Single-Family (psf)	Multi-Family (psf)
Citywide fee - Single Family Infill	\$36.22	\$0
Citywide fee - Town Houses	\$34.78	\$0
Citywide fee - Rental Units	n/a	\$25.35
RBD fee - Condos in RBD	n/a	\$50.58
Citywide fee - Condos NOT in RBD	n/a	\$67.62

Source: City of East Palo Alto, 2018

### QUIMBY ACT FEES

East Palo Alto currently levies park and open space fees on residential development. The fees are authorized by the 1975 Quimby Act, as per California Government Code Section 66477 and Ordinance 145, adopted July 29, 1992. Quimby fees can include park land dedication acreage or park-in-lieu fees. The Project Parkland Dedication Requirement (a function of project population and the Parkland Dedication Standard) is multiplied by the site's land value to determine the Parkland fee.

Quimby park dedication requirements and in-lieu fees do not pertain to rental apartments where no subdivision of land or air space is involved. **Quimby Act fees only apply to single-family/town house subdivisions and multi-family condominium projects.** For non-residential development, this study establishes the nexus for an impact fee for parks and trails.

### STORM DRAINAGE FEES

East Palo Alto currently levies storm drainage fees on all qualifying developments within the City that involve new construction, expansion or remodeling where there is a measurable increase in the amount of impervious surface and potential stormwater runoff. The fees are calculated using the City's Storm Drainage Impact Fee Worksheet. The worksheet factors in the project's total acreage, the area's existing or proposed runoff coefficient ("C" values), and linear feet of street frontage.

The existing storm drainage fee consists of two components:

1. Project Contribution to the O'Conner Pump Station Improvement Project per the City's 2014 Stormwater Master Plan based on the net increase of impervious area on a project site; and
2. Project Contribution to storm drainage improvement projects in the City per the East Palo Alto Street and Drainage Dedication and Improvement Ordinance (Ordinance 241). The current Storm Drainage Fee is \$145 per linear foot of street frontage, with a possible credit available for storm drainage improvements installed by the property owner/developer.

#### *WATER CAPACITY*

The Water Capacity development impact fee for the City of East Palo Alto is already established. A comprehensive methodology and calculations are provided in a separate report issued by Bartle Wells Associates in 2018.

Effective August 1, 2018, development projects requesting a water connection to the City of East Palo Alto's water system are subject to payment of a Water Capacity Fee to the City to cover the cost of a water supply increase and future water system improvement projects (Resolution No. 5004).<sup>5</sup>

Table 3-4 contains the impact fee calculation and the maximum supportable impact fees for the components of the water capacity impact fee. Please see Appendix F: Water Capacity Factors for calculations and assumptions relevant to water capacity fee calculations.

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<sup>5</sup> See "Water Capacity Fees": <http://www.ci.east-palo-alto.ca.us/DocumentCenter/View/3863>

**Table 3-4: Water Capacity Fee Schedule (Citywide)  
(Effective August 1, 2018)**

		Average Water Demand (GPD)	Water Capacity Fee Components		
			Water System Buy-Ins	Water Supply for Growth	Total Water Capacity Fee
Unit Cost per gallons per day (GPD)			\$25.90	\$5.43	<b>\$31.33</b>
<b>Residential Water Capacity Fee</b> Fees applied per residential dwelling unit					
Single-Family/Townhouse		260	\$6,734	\$1,413	<b>\$8,147</b>
Multi-Family/Apartment		160	\$4,144	\$870	<b>\$5,014</b>
Accessory Dwelling Unit <sup>1</sup>		160	\$4,144	\$870	<b>\$5,014</b>
<b>Non-Residential Water Capacity Fee for Meters up to 2-inches</b> Fee applied based on meter size					
Meter Capacity (inch)	Capacity Ratio				
¾	1.00	380	\$9,842	\$2,065	<b>\$11,907</b>
1	1.67	633	16,403	3,442	<b>19,845</b>
1.5	3.33	1,267	32,807	6,884	<b>39,691</b>
2	5.33	2,027	52,491	11,014	<b>63,505</b>
<b>Non-Residential Water Capacity Fee for Connections with Larger Meters</b> Fee applied based on estimated water demand (\$ per GPD)					
Capacity Fee per GPD			\$25.90	\$5.43	<b>\$31.33</b>

Source: City of East Palo Alto, Bartle Wells Associates, 2018

Note:

<sup>1</sup> ONLY applies if a separate new meter will be installed to serve the unit.

Standard capacity fees are shown. City reserves the right to calculate alternative charges on a case-by-case basis to ensure charges reflect estimated water demand and/or recover the full cost of facilities benefitting new or expanded water service connections.

There are no additional water capacity impact fees for RBD development because there are no projected water capacity costs that benefit the RBD only. Development in the RBD will pay the citywide water capacity impact fee.

SUMMARY OF AFFORDABLE HOUSING, QUIMBY ACT, STORM DRAINAGE, AND WATER CAPACITY ESTIMATED FEES

This study presents estimates of existing impact fees (Table 3-5) to represent the full burden of all impact fees on development.

**Table 3-5: Existing City Development Impact Fees in East Palo Alto**

Other City Fee Estimates (Non-Impact Fees)	Single-Family (per DU)	Multi-Family (per DU)	Office and R&D (psf)	Industrial (psf)	Retail (psf)
<b>Affordable Housing Commercial Linkage Fee</b>					
Citywide fee	\$0	\$0	\$10.72	\$0	\$0
<b>Housing Impact In-Lieu Fee</b>					
Citywide fee - Single Family Infill (psf)	\$36.22	0	n/a	n/a	n/a
Citywide fee - Town Houses (psf)	\$34.78	0	n/a	n/a	n/a
Citywide fee - Rental Units (psf)	n/a	\$25.35	n/a	n/a	n/a
RBD fee - Condos in RBD (psf)	n/a	\$50.58	n/a	n/a	n/a
Citywide fee - Condos NOT in RBD (psf)	n/a	\$67.62	n/a	n/a	n/a
<b>Quimby Act Fee</b>					
Citywide fee	Varies <sup>2</sup>	Varies <sup>2</sup>	n/a	n/a	n/a
<b>Storm Drainage Fee</b>					
Citywide fee	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>	Varies <sup>3</sup>
<b>Water Capacity<sup>4</sup></b>					
Citywide fee	\$8,147	\$5,014	\$3.45 <sup>4</sup>	\$3.45 <sup>4</sup>	\$5.01 <sup>4</sup>

Source: City of East Palo Alto, AECOM, 2019

DU = dwelling unit

Psf = per square foot

Notes:

<sup>1</sup> Non-residential fees are a minimum of \$575 per year.

<sup>2</sup> Quimby fees can include park land dedication acreage or park-in-lieu fees. Quimby park dedication requirements and park-in-lieu fees do not pertain to rental apartments where no subdivision of land or air space is involved. Quimby fees only apply to single-family/town house subdivisions and multi-family condo projects.

<sup>3</sup> East Palo Alto currently levies storm drainage fees on all qualifying developments within the City; see Chapter 3: Storm Drainage Fees. These existing storm drainage fees are different from the proposed fees described in Chapter 4: Storm Drainage. The proposed new storm drainage fees would replace and supersede the existing storm drainage fees.

<sup>4</sup> Water Capacity fees for non-residential development are estimated based on potential water demand by project. Actual fees for non-residential development will be based on the project's unique water demand, based on meter size.

# 4. Detailed Calculations for Maximum Supportable Impact Fees

This chapter describes the nexus calculation for each infrastructure category and zone. For each fee calculation, four percent of the infrastructure construction cost is included to cover administrative services, as shown in the calculation tables. Administrative costs include City expenses to operate the impact fee program, generate annual reports, and perform updates to the nexus study every five years as required under AB 1600 (Chapter 6, Ongoing Administration contains more specifics about administrative requirements).

## **PARKS AND TRAILS**

### *PURPOSE*

Recreation and open space is a common, City-provided public amenity. East Palo Alto, like most cities, aims to provide adequate quality open space – through parks and trails – for the broader public health and quality of life of its citizens and workforce. In addition to providing opportunities for physical activity and interaction with the natural environment, East Palo Alto aims to conserve the natural open space resources in the city. The City aims to preserve and protect natural resources such as the Baylands, the shoreline, San Francisquito Creek, and significant tree stands through parks and trails projects. The Conservation and Open Space Element of East Palo Alto’s General Plan outlines these City goals and objectives.

### *NEXUS METHODOLOGY*

As new development occurs, it attracts new residents and employees, who, in turn, require new (or expanded and improved) open space. This relationship between new development, an influx of residents and workers, and an additional demand for parks and trails provides the nexus for an impact fee.

In recognition of this infrastructure need, the City of East Palo Alto included parks and trails projects in the CIP and RSP to augment open space in East Palo Alto. The CIP contains 10 parks and trails projects

that qualify for parks and trails nexus fees with a gross cost of approximately \$37.2 million. The projects include parks and new trails in the RBD, Cooley Landing, and Baylands Park.

The cost for this parks and trails infrastructure will be shared across the service population, since both residents and workers access parks and trails for recreation, commuting, and interaction with nature. With a small land area of just over two and a half square miles, *distribution* of parks, trails and public facilities within the City is largely an immaterial concern, since a park, trail or public facility anywhere within the City would generally be accessible to all residents and employees. Rather, the adequate *provision* of parks, trails, and public facilities is the primary infrastructure need. As a corollary, the network of parks, trails, and public facilities in East Palo Alto are a Citywide asset. Any parks, trails, and public facilities within the RBD benefit not just the RBD, but the rest of the City as well; any parks, trails, and public facilities outside of the RBD benefit not just the rest of the City, but the RBD as well. For this reason, impact fees for parks and trails will be charged Citywide, with new development paying its fair share.

Table 4-1 shows the parks and trails projects qualifying for impact fees.

**Table 4-1: Parks and Trails Projects Qualifying for Impact Fees (\$1000s, \$2018)**

Infrastructure Item	Source	Gross Project Cost
<b>Parks and Trails</b>		
PK-01 Cooley Landing Phases I-V	CIP	\$6,805
PK-04 Martin Luther King Jr Park Expansion & Improvements	CIP	\$493
PK-05 Joel Davis Park Improvements	CIP	\$284
PK-08 Jack Farrell Park Improvements	CIP	\$241
PK-09 Baylands Park	CIP	\$4,711
PK-10B Bell Street Park Improvements: Master Plan Implementation	CIP	\$428
PK-11 New Parks in Ravenswood 4 Corners	CIP	\$23,878
PK-13 Park Irrigation Upgrades	CIP	\$64
PK-14 Park Fitness Equipment Installation	CIP	\$86
PK-15 Cooley Landing Roadway Lighting	CIP	\$200
<b>SUBTOTAL: Parks and Trails</b>		<b>\$37,190</b>

Source: City of East Palo Alto, AECOM, 2019

The projected new service population by 2040 – a direct result of new development – represents 30 percent of the total service population in 2040, and will therefore account for 30 percent of the gross capital cost for parks and trails projects (approximately \$11.6 million, including a 4 percent administrative fee). To apportion the gross cost for which new development is responsible among commercial square footage, the \$11.6 million is divided by new service population and multiplied by the average commercial density (service population per square footage).

Table 4-2 shows the impact fee calculation and the maximum supportable impact fees for parks and trails infrastructure in the City.



**Table 4-2: Maximum Impact Fee Nexus Calculation for Parks and Trails (Citywide)**

*	Measure	Value	Source / Calculation
<b>Service Population</b>			
A	Total projected service population (2040)	42,111	Table C-2
B	Total new service population (2010-2040)	12,631	Table 2-1
C	New growth as % of total service population (2040)	30%	B / A
<b>Cost</b>			
D	Gross Project Cost (\$2018)	\$37,190,000	Table B-1
E	Cost attributable to new service population, with 4% administrative fee	\$11,601,000	C * D * 1.04
F	Unit cost for parks & trails infrastructure (\$ / service population)	\$918	E / B
<b>Residential Unit Conversions</b>			
G	Single-Family (service population / DU)	4.5	Table C-1
H	Multi-Family (service population / DU)	3.1	Table C-1
<b>Commercial Unit Conversions</b>			
I	Office + R&D (square footage / service population)	800	Table C-1
J	Industrial (square footage / service population)	2,000	Table C-1
K	Retail (square footage / service population)	1,200	Table C-1
<b>Residential Nexus Fee Maximums</b>			
Single-Family (\$/DU)		<b>\$4,133</b>	F * G
Multi-Family (\$/DU)		<b>\$2,847</b>	F * H
<b>Non-Residential Nexus Fee Maximums</b>			
Office + R&D (\$/SF)		<b>\$1.15</b>	F / I
Industrial (\$/SF)		<b>\$0.46</b>	F / J
Retail (\$/SF)		<b>\$0.77</b>	F / K

Source: AECOM, 2019

There are no additional parks and trails impact fees for RBD development because there are no projected parks and trails costs that benefit the RBD only. Development in the RBD will pay the Citywide parks and trails impact fee.

## **PUBLIC FACILITIES**

### *PURPOSE*

A rich civic realm includes the provision of a variety of public facilities, from public safety institutions such as police departments, to educational amenities such as libraries, to governance buildings such as City Hall, to quality of life services such as senior centers. The Land Use Element of East Palo Alto's General Plan explicitly states a goal to provide adequate public facilities and services for its residents and workforce.

*NEXUS METHODOLOGY*

As new development occurs, it attracts new residents and employees, who, in turn, require new (or expanded and improved upon) public facilities. This relationship between new development, an influx of residents and workers, and an additional demand for public facilities provides the nexus for an impact fee.

In recognition of this infrastructure need, the City of East Palo Alto included public facility projects in the CIP and RSP to augment public facilities in East Palo Alto. The CIP contains 11 projects qualifying for public facilities nexus fees, with a gross cost of approximately \$65.2 million. These projects include a new City Hall, police department building, community development building, senior center, and electric vehicle charging stations.

The cost for these public facilities will be shared across the service population, since both residents and workers use facilities such as police services and libraries. Impact fees are charged Citywide, on residential and non-residential development, with new development paying its fair share.

Table 4-3 shows the public facilities projects qualifying for impact fees.

**Table 4-3: Public Facilities Projects Qualifying for Impact Fees (\$1,000s, \$2018)**

Infrastructure Item	Source	Gross Project Cost
<b>Public Facilities</b>		
FA-01 Community Facilities & Parks Master Plan	CIP	\$109
FA-02 Community Development Building	CIP	\$107
FA-03 2277 University Avenue Building	CIP	\$12
FA-04 Senior Center Building	CIP	\$43
FA-05 Police Department Building	CIP	\$16,062
FA-06 Corporation Yard	CIP	\$109
FA-07 City Hall Purchase	CIP	\$21,415
FA-08 Council Chamber Accessibility Compliance (Media Center)	CIP	\$164
FA-09 New Facilities in Ravenswood Specific Plan Area	CIP	\$26,769
FA-10 Electric Vehicle Charging Stations	CIP	\$375
FA-11 City Facility Energy Upgrades	CIP	\$54
<b>SUBTOTAL: Public Facilities</b>		<b>\$65,218</b>

Source: City of East Palo Alto, AECOM, 2019

The new service population by 2040 – a direct result of new development – represents 30 percent of the total service population in 2040, and will therefore be responsible for 30 percent of the gross cost for public facilities projects (approximately \$20.3 million, including a 4 percent administrative fee). To apportion the gross cost for which new development is responsible among residential or commercial square footage, the per-person cost (\$20.3 million divided by new service population) is multiplied by average residential or commercial densities.

Table 4-4 shows the impact fee calculation and the maximum supportable impact fees for public facilities.

**Table 4-4: Maximum Impact Fee Nexus Calculation for Public Facilities (Citywide)**

*	Measure	Value	Source / Calculation
<b>Service Population</b>			
A	Total projected service population (2040)	42,111	Table C-2
B	Total new service population (2010-2040)	12,631	Table 2-1
C	New growth as % of total service population (2040)	30%	B / A
<b>Cost</b>			
D	Gross Project Cost (\$2018)	\$65,218,000	Table B-1
E	Cost attributable to new service population, with 4% administrative fee	\$20,344,000	C * D * 1.04
F	Unit cost for Public facilities (\$ / service population)	\$1,611	E / B
<b>Residential Unit Conversions</b>			
G	Single-Family (service population / DU)	4.5	Table C-1
H	Multi-Family (service population / DU)	3.1	Table C-1
<b>Commercial Unit Conversions</b>			
I	Office + R&D (square footage / service population)	800	Table C-1
J	Industrial (square footage / service population)	2,000	Table C-1
K	Retail (square footage / service population)	1,200	Table C-1
<b>Residential Nexus Fee Maximums</b>			
Single-Family (\$/DU)		<b>\$7,248</b>	F * G
Multi-Family (\$/DU)		<b>\$4,993</b>	F * H
<b>Non-Residential Nexus Fee Maximums</b>			
Office + R&D (\$/SF)		<b>\$2.01</b>	F / I
Industrial (\$/SF)		<b>\$0.81</b>	F / J
Retail (\$/SF)		<b>\$1.34</b>	F / K

Source: AECOM, 2019

There are no additional public facilities impact fees for RBD development because there are no projected public facilities costs that benefit the RBD only. Development in the RBD will pay the Citywide public facilities impact fee.

## **STORM DRAINAGE**

### *PURPOSE*

Storm drainage is critical infrastructure to prevent flooding of streets during rain events and is a common, City-provided public service. East Palo Alto aims to improve citywide storm drainage and provide adequate storm drainage for the City and for new development in the RBD, as stated in the policy directives of the RSP (Goal UTIL-3 and subsequent policies).

It is the stated intent of the City to require all development to connect to the City storm drainage system. In rare and unique cases, a development may propose the construction of a private and separate storm drainage system as part of the City entitlement process. Approval of a private system may occur, provided:

- ◆ The City Engineer, following the submittal of engineered plans and specifications along with pertinent analyses, has determined that the system is functional and will provide equal or greater protection to property and the general public than connection to the public storm drain system.
- ◆ The Applicant has obtained and provided evidence of the issuance of all necessary regulatory permits from the BCDC, Army Corp Engineers, Fish and Wildlife, and other regulatory agencies, copies of which must be are to be filed with the City Engineer.
- ◆ The conditions of approval shall include the recording of the following language on the title: "This property shall drain its storm drain runoff through the \_\_\_\_ outfall system. This property shall not drain into the City Storm Drain system. (If, at a future date, the property owner wants to connect to the City storm drain system, the property owner must seek and obtain approval from the City Engineer and pay storm drain impact fees, as determined in the development impact fee program.) The City Engineer may require plans, specifications and analyses of proposed connection. Following issuance of an Engineering Permit, the applicant shall be responsible for construction of connection and abandonment of existing facilities."
- ◆ The conditions of approval shall also include a requirement that the property owner enter into a hold harmless agreement in a form acceptable to the City Attorney. The agreement shall acknowledge that the property owner is responsible for maintaining all structures, conducting regular inspections, submitting inspection reports to the City and maintaining all permits. Further, the property owner is responsible for any and all fines and costs associated with non-compliance with permits or violation of the Clean Water Act.

### *NEXUS METHODOLOGY*

As new development occurs, it creates new impervious surfaces such as building roofs, roadways, parking lots, and pavement, which, in turn, require new, expanded, and/or improved storm drainage. Storm drainage infrastructure provides a public benefit in that it reduces the risk of flooding. This relationship between the impervious surface area of new development and an additional demand for storm drainage resulting from the new development activity provides the nexus for an impact fee. Impervious surfaces created by new development in the City and RBD will significantly increase runoff rates and volumes resulting from storm events when compared with existing land use conditions due to impervious surfaces. These runoff increases will require the construction of new storm drainage facilities and flow attenuating BMPs to serve the new development and retain adequate capacity in downstream facilities.

In recognition of this infrastructure need, the City of East Palo Alto included storm drainage projects in the CIP and the Storm Drainage Master Plan (SDMP). There are 10 projects qualifying for storm drainage nexus fees, with a gross cost of approximately \$54.1 million. These projects include storm drainage, flood control, and the implementation of 27 projects within the Storm Drainage Master Plan.

The costs for these storm drainage infrastructure projects will be shared across land use types, based on demand and usage, for which impervious acres are a proxy. The impervious acres of new development in the RBD and non-RBD area are based on the City's planning projections for new development and the SDMP. The SDMP, prepared by Schaaf & Wheeler, assigned impervious values to

different land uses by reviewing aerial imagery and calculating the imperviousness for each given land use. The gross project cost is divided by impervious acres of new development to arrive at a unit cost.

The existing acres of impervious area in both the RBD and non-RBD zones were estimated by applying the SDMP values to existing land use GIS data provided by the City.

Table D-2 and Table D-3 provide more detail on the impervious acres calculations and assumptions. The City assumes new development will be responsible for 108 impervious acres Citywide, with 47 of those impervious acres in the RBD and 61 of those impervious acres outside the RBD.

Table 4-5 shows storm drainage projects qualifying for impact fees.

**Table 4-5: Storm Drainage Projects Qualifying for Impact Fees (\$1,000s, \$2018)**

Infrastructure Item	Source	Gross Cost (\$1,000)	Benefit to non-RBD %	Cost to non-RBD Projects (\$1000)	Benefit to RBD %	Cost to RBD Projects (\$1000)
SD-02 Runnymede Storm Drain Project: Phase II	CIP	\$2,249	100%	\$2,249	0%	\$-
SP-02A SF Creek Flood Control Project: Bay to Highway 101	CIP	\$1,349	100%	\$1,349	0%	\$-
SP-02B SF Creek Flood Control Project: Upstream to Highway 101	CIP	\$214	100%	\$214	0%	\$-
SD-03 Repair of University Village Outfalls	CIP	\$262	100%	\$262	0%	\$-
SD-04 Street Sweeping Signage	CIP	\$80	100%	\$80	0%	\$-
SD-06 Storm Drainage Master Plan Implementation	CIP/SDMP <sup>1</sup>	\$38,537	79%	\$30,597	21%	\$7,940
Intermediate O'Connor PS Improvements <sup>2</sup>	SDMP <sup>1</sup>	\$622	50%	\$311	50%	\$311
Channel Improvement (Wilsey Ham)	SDMP <sup>1</sup>	\$1,338	100%	\$1,338	0%	\$-
O'Connor PS Improvement <sup>2</sup>	SDMP <sup>1</sup>	\$7,035	50%	\$3,517	50%	\$3,517
Bay Rd. Pump Station	SDMP <sup>1</sup>	\$5,140	20%	\$1,028	80%	\$4,112
Illinois-O'Connor Alt 2	SDMP <sup>1</sup>	\$5,932	100%	\$5,932	0%	\$-
Bell-Clarke Alt 2	SDMP <sup>1</sup>	\$2,784	100%	\$2,784	0%	\$-
Ralmar	SDMP <sup>1</sup>	\$782	100%	\$782	0%	\$-
Garden to Beach	SDMP <sup>1</sup>	\$1,167	100%	\$1,167	0%	\$-
Newbridge	SDMP <sup>1</sup>	\$1,124	100%	\$1,124	0%	\$-
Menalto and Green	SDMP <sup>1</sup>	\$610	100%	\$610	0%	\$-
Euclid-Bell	SDMP <sup>1</sup>	\$632	100%	\$632	0%	\$-
Weeks End	SDMP <sup>1</sup>	\$311	100%	\$311	0%	\$-
Purdue Ave. Alt 2	SDMP <sup>1</sup>	\$343	100%	\$343	0%	\$-
Camellia Dr.	SDMP <sup>1</sup>	\$493	100%	\$493	0%	\$-
Camellia to Azalia	SDMP <sup>1</sup>	\$589	100%	\$589	0%	\$-
Daphne to Jasmine	SDMP <sup>1</sup>	\$707	100%	\$707	0%	\$-
Notre Dame	SDMP <sup>1</sup>	\$750	100%	\$750	0%	\$-
System Cleaning	SDMP <sup>1</sup>	\$1,103	100%	\$1,103	0%	\$-
Kavanaugh Dr.	SDMP <sup>1</sup>	\$493	100%	\$493	0%	\$-
Donohoe	SDMP <sup>1</sup>	\$182	100%	\$182	0%	\$-
Glen Way	SDMP <sup>1</sup>	\$300	100%	\$300	0%	\$-
Manhattan	SDMP <sup>1</sup>	\$43	100%	\$43	0%	\$-
Michigane Ave.	SDMP <sup>1</sup>	\$118	100%	\$118	0%	\$-
Myrtle St.	SDMP <sup>1</sup>	\$214	100%	\$214	0%	\$-
Sage Larkspur	SDMP <sup>1</sup>	\$685	100%	\$685	0%	\$-
University Ave.	SDMP <sup>1</sup>	\$225	100%	\$225	0%	\$-
Weeks to Pulgas	SDMP <sup>1</sup>	\$4,818	100%	\$4,818	0%	\$-
SD-08 Trash Capture Device Installation	CIP	\$600	100%	\$600	0%	\$-
SD-09 Storm Water Resource Plan	CIP	\$54	100%	\$54	0%	\$-
SD-10 Fence Installation North of Ravenswood Business District	CIP	\$214	100%	\$214	0%	\$-
Storm Drainage Pipes in RBD	DEPLAN	\$10,572	0%	\$0	100%	\$10,572
<b>SUBTOTAL</b>		<b>\$54,131</b>	<b>66%</b>	<b>\$35,619</b>	<b>34%</b>	<b>\$18,511</b>

Source: City of East Palo Alto, AECOM, 2019

Notes:

<sup>1</sup> Storm Drainage Master Plan SD-06 Storm Drainage Master Plan Implementation costs appear in the Storm Drainage Master Plan, Alt 2, Table 6-6.

<sup>2</sup> As half of the O'Connor PS Improvements capital infrastructure specifically benefits the RBD, the share of costs are divided accordingly by 50%.

Table 4-6 shows the impact fee calculation and the maximum supportable impact fees for storm drainage outside of the RBD. The impact fee calculation is based on the total impervious surface area of the proposed development. To calculate a project's Storm Drainage impact fee, the developer would first determine the acres of impervious area represented by the project by summing building roof areas with area of pavement for parking lots, driveways, patios, pathways, etc. This total acreage of impervious would then be multiplied by the unit cost to determine the impact fee.

To implement this fee, the City will need to establish clear definitions of impervious surfaces, guidelines for calculation, a template to receive the calculations, and policy decisions about whether to accept proposed plans for creating permeable surfaces or credit a portion of the storm drainage fee back to the developers once the proposed surfaces are constructed.

**Table 4-6: Maximum Impact Fee Nexus Calculation for Storm Drainage (outside RBD)**

*	Measure	Value	Source / Calculation
<b>Impervious Acres</b>			
A	Existing impervious acres in 2013-2015 outside RBD	526	Table D-1, City land use data
B	Impervious acres (correlated to demand for storm drain infrastructure) outside RBD from new development	61	Table D-2, Table D-3
C	% Impervious acres due to new development	12%	B / A
<b>Cost</b>			
D	Gross Cost (\$2018)	\$35,619,000	Table B-1
E	Cost attributable to impervious acres of new development outside RBD, with 4% administrative fee	\$4,283,000	C * D * 1.04
F	Unit Cost for Storm Drainage Infrastructure (\$ / impervious acre outside RBD)	\$70,000	E / B
<b>Impervious Surface Areas</b>			
G	Building roof area (acres)	Varies <sup>1</sup>	Developer
H	Paved or impervious areas including parking lots, driveways, patios, etc. (acres)	Varies <sup>1</sup>	Developer
I	Total impervious surface area (acres)	Varies <sup>1</sup>	G+H
<b>Project Storm Drainage Impact Fee by Total Impervious Surface Area (outside RBD)</b>			
J	Storm Drainage Impact Fee	Varies <sup>1</sup>	F * I
<b>Storm Drainage Impact Fee – Sample Calculations (outside RBD)</b>			
K	If: 1 impervious acre	\$70,000	F * 1 acre
L	If: 0.5 impervious acre	\$35,000	F * 0.5 acres
M	If: 0.2 impervious acre	\$14,000	F * 0.2 acres
N	If: 0.1 impervious acre	\$7,000	F * 0.1 acres
O	If: 0.04 impervious acres (representative Town House dwelling unit)	\$2,800	F * 0.04 acres
P	If: 0.02 impervious acres (representative Multi-Family dwelling unit)	\$1,400	F * 0.02 acres

Source: AECOM, 2019

Notes:

<sup>1</sup> Storm Drainage fees are calculated by impervious surface area and therefore the project fees will vary on a project-by-project basis.

<sup>2</sup>See Appendix D for more information.

Since there are projected storm drainage costs that benefit the RBD only, the RBD will have a separate storm drainage impact fee. Table 4-7 shows the impact fee calculation and the maximum supportable impact fees for the storm drainage within the RBD.

**Table 4-7: Maximum Impact Fee Nexus Calculation for Storm Drainage (within RBD only)**

* Measure	Value	Source / Calculation
<b>Impervious Acres</b>		
A Existing impervious acres in 2013-2015 inside RBD	160	Table D-1, City land use data
B Impervious acres (correlated to demand for storm drain infrastructure) in RBD from new development	47	Table D-2, Table D-3
C % impervious acres due to new development	29%	B / A
<b>Cost</b>		
D Gross Cost (\$2018)	\$18,511,000	Table B-1
E Cost attributable to impervious acres of new development within RBD, with 4% administrative fee	\$5,657,000	$C * D * 1.04$
F Unit Cost for Storm Drainage Infrastructure (\$ / impervious acre within RBD)	\$121,000	E / B
<b>Impervious Surface Areas</b>		
G Building roof area (acres)	Varies <sup>1</sup>	Developer
H Paved or impervious areas including parking lots, driveways, patios, etc. (acres)	Varies <sup>1</sup>	Developer
I Total impervious surface area (acres)	Varies <sup>1</sup>	G+H
<b>Storm Drainage Impact Fee by Total Impervious Surface Area (RBD only)</b>		
J Storm Drainage Impact Fee	Varies <sup>1</sup>	$F * I$
<b>Storm Drainage Impact Fee – Sample Calculations (RBD only)</b>		
K If: 1 impervious acre	\$121,000	$F * 1 \text{ acre}$
L If: 0.5 impervious acre	\$60,500	$F * 0.5 \text{ acres}$
M If: 0.2 impervious acre	\$24,200	$F * 0.2 \text{ acres}$
N If: 0.1 impervious acre	\$12,100	$F * 0.1 \text{ acres}$
O If: 0.04 impervious acres (representative Town House dwelling unit)	\$4,840	$F * 0.04 \text{ acres}$
P If: 0.02 impervious acres (representative Multi-Family dwelling unit)	\$2,420	$F * 0.02 \text{ acres}$

Source: AECOM, 2019

Notes:

<sup>1</sup> Storm Drainage fees are calculated by impervious surface area and therefore the project fees will vary on a project-by-project basis.

<sup>2</sup>See Appendix D for more information.

An additional source of funding for Storm Drainage improvements that benefit existing populations would be an annual stormwater fee based on either the assumed or assessed impervious surface area within each city parcel. The City of Palo Alto has implemented a similar Stormwater Management Fee.



## **TRANSPORTATION INFRASTRUCTURE**

### *PURPOSE*

Transportation Infrastructure consists of City-provided public roads and multi-modal streetscape facilities. East Palo Alto aims to provide adequate roads for its citizens and workforce for general transportation and safety. In addition, constructing sidewalks with street trees, street lighting, benches, and street furniture improves safety, sidewalk space, pedestrian aesthetics, and active transportation. The RSP EIR explicitly states the City's goal to provide adequate road infrastructure, and the City's obligation to provide traffic mitigation measures through transportation infrastructure improvements. The Land Use Element of East Palo Alto's General Plan explicitly states an objective to strengthen the condition of streetscape and public areas with landscaping, signs, benches, and street lighting to produce a 'sense of place' and community in public streetscape. East Palo Alto aims to provide adequate transportation infrastructure for its citizens and workforce.

### *NEXUS METHODOLOGY*

The transportation infrastructure methodology was developed by Nelson\Nygaard for the City of East Palo Alto.

As new development occurs, it attracts new residents and employees, who, in turn, require new, expanded, and/or improved transportation infrastructure for road and sidewalk use by both residents and employees to walk, commute, and travel. This relationship between new development, an influx of residents and workers, and an additional demand for roads and sidewalks provides the nexus for an impact fee. The impact fees are calculated using a trip generation methodology, explained below.

In recognition of this infrastructure need, the City of East Palo Alto included transportation infrastructure projects in the CIP. The CIP contains 23 projects qualifying for transportation infrastructure fees with a gross project cost of approximately \$98.6 million. Projects qualifying for the transportation impact fee include all roadway and streetscape infrastructure projects as well as other transportation-related projects such as sidewalks and trails from the CIP.

The costs for these transportation projects will be shared across the new developments within the City, since all will benefit from them. There are no additional transportation infrastructure impact fees for RBD developments because there are no projected transportation infrastructure costs that benefit the RBD only. Development in the RBD will pay Citywide transportation impact fees.

Table 4-8 shows 23 transportation infrastructure projects qualifying for impact fees, with gross project costs of \$98,641,000.

**Table 4-8 Transportation Infrastructure Projects Qualifying for Impact Fees (\$1,000s, \$2018)**

Infrastructure Item	Source	Gross Project Cost
<b>Transportation</b>		
ST-01 Traffic & Transportation Master Plan	CIP	\$214
ST-03 Safe Routes to School: (Cycle 3)	CIP	\$621
ST-04A Street Light Upgrade Project: Neighborhood Req.	CIP	\$142
ST-04B Street Light Upgrade Project: Phase III	CIP	\$348
ST-05A Bay Road (Roadway & Downstream Improvements)	CIP	\$8,000
ST-05B Bay Road (Roadway & Downstream Improvements)	CIP	\$8,000
ST-06 Highway 101 Pedestrian -Bicycle Overcrossing	CIP	\$13,000
ST-08 University Avenue Resurfacing & Signal Upgrade	CIP	\$6,000
ST-09 Bicycle & Pedestrian Improvements	CIP	\$500
ST-10 New Sidewalks, Curbs, & Gutters	CIP	\$5,354
ST-12 Traffic Calming Program	CIP	\$1,208
ST-14 University Avenue Interchange	CIP	\$10,000
ST-15 Signage & Striping Improvements	CIP	\$535
ST-16 Euclid Avenue Tunnel Assessment & investigation	CIP	\$32
ST-17 New Loop Road	CIP	\$22,000
ST-18 Neighborhood Traffic & Transportation Plan	CIP	\$70
ST-19 Runnymede/University Ave Signal	CIP	\$535
ST-20 Pedestrian Accessibility Improvements	CIP	\$43
ST-21 Scofield Avenue Sidewalk Improvements	CIP	\$141
ST-22 Green Infrastructure Plan	CIP	\$402
PK-06 New Trails & Sidewalks in Ravenswood Specific Plan Area	CIP	\$16,062
PK-07 San Francisquito Creek Park/Trail	CIP	\$5,354
SP-10 Accessibility Study & Citywide Transition Plan	CIP	\$80
<b>SUBTOTAL: Transportation</b>		<b>\$98,641</b>

Source: City of East Palo Alto, AECOM, 2019

The methodology uses the Institute of Transportation Engineers' (ITE) Trip Generation Manual (9th edition) trip generation rates by land use as baseline. To align with East Palo Alto's unique land use and transportation conditions, this method applied three adjustments to the ITE model:

- ◆ The first adjustment compared ITE trip generation rates with a local, specialized travel demand model developed by San Mateo County's metropolitan planning organization, City/County Association of Governments of San Mateo County (C/CAG). The travel demand model, jointly run by C/CAG and the local transit agency VTA, incorporates local land use and transportation characteristics into its estimates and is considered more reliable locally than unadjusted ITE estimates. On a Citywide basis, the C/CAG 2040 model estimated just 76% of trips forecast by the ITE rates.
- ◆ The second adjustment removed internal trips from the trip generation, accounting for intrazonal trips and trips made by non-motorized modes. The percentage of internal trips considered are half of those indicated in the RSP (16% for residential uses, 1% for office, R&D, and industrial uses, and

22% for retail uses). These estimates also included a "retail pass-by" discount of 38%, assuming that 38% of trips entering and exiting retail uses were part of linked trips with multiple stops.

- ◆ The final adjustment made to the original ITE trip generation estimates was to factor in local transit trips. According to the City of East Palo Alto's General Plan, 6% of commute trips are made by public transit. Table E-1 includes more detailed information about the number of trips per residential dwelling unit and per non-residential square foot, based on the ITE handbook.

If a future development-specific traffic impact study demonstrates a different trip generation rate, the nexus fee can be modified. In this case, the nexus fee is calculated as the per-trip unit cost for transportation improvements multiplied by the trip generation rate for the particular development. In the absence of a traffic impact study, the nexus fee will apply.

Table 4-9 shows the impact fee calculation and the maximum supportable impact fees for transportation Citywide.

**Table 4-9: Maximum Impact Fee Nexus Calculation for Transportation Infrastructure (Citywide)**

* Measure	Value	Source/Calculation
<b>Transportation Impacts</b>		
A Total daily vehicle trips (2040)	124,453	Transportation Impact Analysis of East Palo Alto General Plan Update (2015)
B Existing daily vehicle trips (2015)	93,782	Transportation Impact Analysis of East Palo Alto General Plan Update (2015)
C Total new daily vehicle trips (2015 - 2040)	30,671	A-B
D Citywide new vehicle trip growth as % of total daily vehicle trips (2015)	25%	C/A
E Total new citywide PM peak hour vehicle trips	3,665	Nelson\Nygaard
F Percentage of new trips Citywide	100%	
<b>Development Forecast (2040)</b>		
G Townhouse (DU)	1,486	Table C-3
H Multi-Family (DU)	1,033	Table C-3
I Office + R&D (SF)	1,939,853	Table C-3
J Industrial (SF)	267,987	Table C-3
K Retail (SF)	333,406	Table C-3
<b>Cost</b>		
L Net cost included in Impact Fee (\$2018)	\$98,641,000	Table 4-8
M Cost attributable to new trips, with 4% administrative fee	\$25,282,063	$L * D * 1.04$
N Cost attributable to new trips outside RBD, with 4% administrative fee	\$25,282,063	$F * M$
O Unit cost per PM peak hour vehicle trip	\$6,898	N/E
<b>Residential Unit Conversion</b>		
P Townhouse (PM peak hour trips/DU)	0.34	Table E-3
Q Multi-Family (PM peak hour trips/DU)	0.26	Table E-3
<b>Commercial Unit Conversion</b>		
R Office + R&D (PM peak hour trips/KSF)	1.06	Table E-3
S Industrial (PM peak hour trips/KSF)	0.69	Table E-3
T Retail (PM peak hour trips/KSF)	1.93	Table E-3
<b>Residential Nexus Fee Maximums</b>		
Single-Family (\$/DU)	\$2,358	$O * (G * P) / G$
Multi-Family (\$/DU)	\$1,775	$O * (H * Q) / H$
<b>Non-Residential Nexus Fee Maximums</b>		
Office + R&D (\$/SF)	\$7.33	$O * (I * R) / I$
Industrial (\$/SF)	\$4.77	$O * (J * S) / J$
Retail (\$/SF)	\$13.30	$O * (K * T) / K$

Source: Nelson\Nygaard, 2018

There are no additional transportation impact fees for RBD development because there are no projected transportation costs that benefit the RBD only. Development in the RBD will pay the City transportation impact fee.

### Alternative Methodology

This study uses trip generation to determine transportation impact fees. An alternative methodology to determine impact fees assesses Vehicle Miles Traveled (VMT) linked to the developments. The VMT method would account for the trip length in addition to the number of trips generated. If there were existing data of trip generation by City zones and type of development, VMT would be a more accurate measure of evaluating the impact of new developments on the transportation network. However, given the lack of this information, the trip methodology explained above is considered appropriate to distribute the project costs among new developments.

### Fee Reduction for Qualifying Housing Developments

In 2008, the California State Legislature adopted AB 3005 (Gov. Code § 65460.1). This bill requires local agencies that impose transportation impact fees on housing developments in order to mitigate vehicular traffic impacts to reduce the impact fees for housing developments that generate fewer private vehicle trips and more transit and non-automobile trips. Specifically, to qualify for potential transportation impact fee reductions, housing developments must satisfy **all three** of the following characteristics:

- ◆ The housing development is located within one-half mile of a transit station and there is direct access between the housing development and the transit station along a barrier-free, walkable pathway not exceeding one-half mile in length.
- ◆ Convenience retail uses, including a store that sells food, are located within one-half mile of the housing development.
- ◆ The housing development provides either the minimum number of parking spaces required by the local ordinance, or no more than one onsite parking space for zero to two bedroom units, and two onsite parking spaces for three or more bedroom units, whichever is less.

The reasoning behind this bill is that developments satisfying these characteristics tend to generate fewer private vehicle trips and more transit and other non-auto trips. The exact reduction in impact fees is not set; rather, the bill states that impact fees will be set at a rate that reflects a lower rate of automobile trip generation associated with such housing developments in comparison with housing developments without these characteristics, unless the local agency adopts findings after a public hearing establishing that the housing development, even with these characteristics, would not generate fewer automobile trips than a housing development without those characteristics. AB 3005 does not apply to fees already adopted for housing developments located within areas covered by capital improvement plans for traffic facilities prior to January 1, 2009. This legislation is consistent with existing City policy.

### Fee Reduction for Transportation Demand Management Implementations

As specified in the San Mateo's County Congestion Management Plan, C/CAG requires that a plan to mitigate all new peak hour trips be included as a condition of the approval of development agreements.

Local jurisdictions will notify C/CAG at the beginning of the CEQA process of all development applications or land use policy changes (i.e., General Plan amendments) that are expected to generate a

net **100 or more peak period trips on the CMP network** (subtracting existing uses that are currently active), within ten days of completion of the initial study prepared under the California Environmental Quality Act (CEQA). Peak period includes 6:00 a.m. to 10:00 a.m. and 3:00 p.m. to 7:00 p.m. Examples of developments that would generate 100 peak period trips include 100 single-family dwelling units; 15,000 square feet of retail space; 50,000 square feet of office space; a 150-room hotel; or 100,000 square feet of light industrial space.

Local jurisdictions must ensure that the developer and/or tenants will mitigate all of the new peak hour trips generated by the project by selecting one or more of the options that follow. It is up to the local jurisdiction, working together with the project sponsor, to choose the methods that will be compatible with the intended purpose of the project. Additional measures may be proposed for consideration by C/CAG in advance of approving the project. The developer and/or tenants may use the following mechanisms to mitigate new peak hour trips:

- a. Reduce the scope of the project so that it will generate less than 100 peak hour trips.
- b. Build adequate roadway and/or transit improvements so that the added peak hour trips will have no measurable impact on the Congestion Management Program roadway network.
- c. Contribute an amount per peak hour trip to a special fund for improvements to the Congestion Management Program roadway network. This amount will be set annually by C/CAG based on a nexus test.
- d. Require the developer and all subsequent tenants to implement Transportation Demand Management programs that mitigate the new peak hour trips.

C/CAG has developed a methodology for mitigating peak hour congestion by awarding peak hour trip reduction "credits" on the condition that the agency/applicant implements one or more of a series of transportation demand management measures. A partial list of TDM programs eligible to receive peak trip reduction credits is shown in Appendix E: Transportation Factors.

Development projects that implement multiple TDM programs are awarded a maximum reduction factor according to analytical procedures established by the Bay Area Air Quality Management District (BAAQMD). A maximum reduction factor acts as a "cap" on combinations of TDM measures and is necessary to avoid double-counting of trip reductions. Maximum reduction factors are associated with distinct strategies of travel demand management, including transit measures, parking measures, and commute trip reduction measures. BAAQMD uses the following maximum reduction factor for travel demand management programs<sup>6</sup>:

- ◆ Transit measures: 10% maximum reduction factor
- ◆ Parking measures: 20% maximum reduction factor
- ◆ Commute trip reduction measures: 25% maximum reduction factor

Beyond the maximum reduction factors, the BAAQMD outlines a calculation to tabulate the impacts of combined TDM measures within a single category (e.g. parking, TDM, transit, etc.). Some TDM measures

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<sup>6</sup> Transportation Demand Management User's Guide, BAAQMD, Appendix B:

<http://www.baaqmd.gov/~media/files/planning-and-research/smart-growth/baaqmd-tdm-tool-users-guide.pdf>

may be more effective when implemented in combination with others. For example, short-term bicycle storage may incentivize more commuters to bike if accompanied by showers and lockers. However, when a combination of TDM measures are layered together in a project, the benefit of each additional TDM measure can be expected to diminish. The calculation for combined TDM measures within a single category is as follows:

$$\text{VMT reduction for category} = 1 - [(1-A) \times (1-B) \times (1-C)]$$

where A, B, and C = individual reduction percentages for the measure to be combined in a given category.

# 5. Additional Funding Sources and City Contributions

The section will consider the City's share of infrastructure costs and the impacts of committed funds already allocated to particular infrastructure projects.

## REQUIRED CITY CONTRIBUTION

The nexus analysis derives the maximum supportable development impact fees that may be charged based on development's identified impact on future infrastructure needs. Where development's fair share is a portion of the cost of new infrastructure, East Palo Alto's current service population is responsible for the remaining share. The City must furnish the cost of the existing service population's fair share.

Table 5-1 shows the infrastructure category, gross project cost in current year dollars, estimated maximum impact fee revenue (representing new development's fair share), and the required City contribution (representing the existing service population's fair share).

**Table 5-1: Share of Infrastructure Costs Borne by New and Existing Service Populations (\$2018)**

Infrastructure Item	Gross Project Cost	Estimated Maximum Impact Fee Revenue	Share of Capital Costs Borne by Max. Impact Fee Revenue	City Contribution Requirement <sup>1</sup>
Parks & Trails	\$37,190,000	\$11,689,000	31%	\$26,521,000
Public Facilities	\$65,218,000	\$20,498,000	31%	\$46,509,000
Storm Drainage	\$54,131,000	\$9,938,000	18%	\$45,961,000
Transportation Infrastructure	\$98,641,000	\$25,280,000	26%	\$76,295,000
<b>TOTAL</b>	<b>\$255,180,000</b>	<b>\$67,405,000</b>	<b>26%</b>	<b>\$195,286,000</b>

Source: City of East Palo Alto, AECOM, 2019

Notes:

All values are rounded to the nearest thousand.

<sup>1</sup> The City's required contribution represents the difference between the project cost and the estimated maximum impact fee revenue. Discrepancies between the project cost and impact fee revenue are due to rounding errors and the 4% administrative fee added to the City's required contribution.



## COMMITTED CITY FUNDS

As part of the City's required contribution, East Palo Alto has some monies already allocated to various infrastructure projects. As of September 2018, the City has already identified committed funds totaling \$45,240,000; this represents 17.7 percent of the total capital investments and 23 percent of the City's contribution requirement. These committed funds come from a variety of sources, including grants and federal funding.

Table 5-2 outlines the existing committed City funds as of September 2018.

**Table 5-2: Committed Funds and Sources by Infrastructure Category**

Infrastructure Category	Committed City Funds	Source of Committed Funds
Parks & Trails	\$5,259,000	Facebook Settlement, CIP Fund, General Fund, Water Fund
Public Facilities	\$207,000	General Fund, CIP Reserve
Storm Drainage	\$3,678,000	USEPA Grant, Proposition 1, Garbage Fund, CIP Reserve
Transportation Infrastructure	\$36,096,000	CalTrans Federal Grant, General Fund, FHWA Grant, Measure A, SMC Grant, NPDES

Source: City of East Palo Alto, 2018

Notes:

All values are rounded to the nearest thousand.

Table 5-3 specifies the sources and amounts of existing committed funds by infrastructure project. Fully funded projects are designated as having 100 percent of committed funds.

**Table 5-3: Committed City Funds and Sources by Project (\$1,000s)**

Infrastructure Project	Committed City Funds <sup>1</sup>	Source of Committed Funds (if Specified)
<b>Parks &amp; Trails</b>		
PK-01 Cooley Landing Phases I-V	\$5,155	
PK-08 Jack Farrell Park Improvements	\$40	General Fund
PK-13 Park Irrigation Upgrades	100%	
<b>Public Facilities</b>		
FA-04 Senior Center Building	100%	General Fund
FA-08 Council Chamber Accessibility Compliance (Media Center)	100%	CIP Reserve
<b>Storm Drainage</b>		
SD-02 Runnymede Storm Drain Project: Phase II	100%	
SP-02A SF Creek Flood Control Project: Bay to Highway 101	100%	
SD-04 Street Sweeping Signage	100%	
<b>Transportation</b>		
ST-03 Safe Routes to School: (Cycle 3)	\$621	
ST-04A Street Light Upgrade Project: Neighborhood Req.	\$142	
ST-04B Street Light Upgrade Project: Phase III	\$100	
ST-05A Bay Road (Roadway & Downstream Improvements)	\$5,000	CalTrans Federal Grant
ST-05B Bay Road (Roadway & Downstream Improvements)	\$5,000	
ST-06 Highway 101 Pedestrian -Bicycle Overcrossing	100%	General Fund
ST-08 University Avenue Resurfacing & Signal Upgrade	\$1,000	
ST-09 Bicycle & Pedestrian Improvements	100%	
ST-14 University Avenue Interchange	100%	FHWA Grant, Measure A
ST-18 Neighborhood Traffic & Transportation Plan	100%	
ST-19 Runnymede/University Ave Signal	100%	
ST-20 Pedestrian Accessibility Improvements	100%	
ST-22 Green Infrastructure Plan	\$5	NPDES
SP-10 Accessibility Study & Citywide Transition Plan	100%	

Source: City of East Palo Alto, 2018

Notes:

Discrepancies between committed City funds in Table 5-2 and Table 5-3 are due to variation in escalation rates for assumed project costs.

<sup>1</sup> Projects which already have funds fully secured are designed as having 100 percent of committed funds.

Table 5-4 shows the City's contribution requirement, reflecting an additional four percent for administrative fees. The City contribution represents the existing service population's fair share.

**Table 5-4: City Contribution Requirement**

Infrastructure Category	Gross Project Cost	City's Contribution Requirement <sup>1</sup>	Share of Capital Costs Borne by City	Outstanding City Contribution Requirement <sup>2</sup>
Parks & Trails	\$37,190,000	\$26,521,000	69%	\$21,262,000
Public Facilities	\$65,218,000	\$46,509,000	69%	\$46,302,000
Storm Drainage	\$54,131,000	\$45,961,000	82%	\$42,283,000
Transportation Infrastructure	\$98,641,000	\$76,295,000	74%	\$40,199,000
<b>TOTAL</b>	<b>\$255,180,000</b>	<b>\$195,286,000</b>	<b>74%</b>	<b>\$150,046,000</b>

Source: City of East Palo Alto, AECOM, Nelson\Nygaard, 2018

Notes:

All values are rounded to the nearest thousand.

<sup>1</sup> The City's Contribution Requirement represents the difference between the project cost and the estimated maximum impact fee revenue, plus 4% for administrative fees.

<sup>2</sup> The Outstanding City Contribution Requirement represents the City's Contribution – Committed Funds (see Table 5-4). A negative City Contribution Requirement represents potential excess contributions.

## **OPTION FOR DISCOUNTED DEVELOPMENT IMPACT FEES**

The development impact fees calculated in Chapter 4 (Detailed Calculations) represent the maximum supportable fee burden that could be charged to new development for which there is a reasonable and proportional relationship. However, East Palo Alto may choose to reduce the maximum supportable development impact fees in order to incentivize development, or certain types of development. Pro formas developed by AECOM and the City test sensitivity to impact fees on development and provide recommendations for finalized discounted impact fees.

Two approaches to fee discounting are the following:

1. Where committed funds exist for a particular infrastructure category in an amount above the City's required contribution, the City can remit a portion of development's burden. The 'excess' committed funds – i.e., those above the City's fair share – can be used to discount development's fair share, reducing development impact fees and reducing hindrance to development. That is, the fee discount is distributed evenly across all land uses.
2. Alternatively, the City could choose to distribute the fee discount unevenly across land uses by, for example, using the 'excess' monies to reduce the fees for non-residential uses only. This type of preferential fee discounting would incentivize certain development types over others.

When the City identifies additional committed funds, it could adjust development fees accordingly to account for its proportionate share of total infrastructure costs.

# 6. Administration and Implementation

There are several implementation and administration issues related to the nexus study and impact fees, including periodic updates, annual escalation factors, specialized development projects, ongoing administration, and fee credits or reimbursements. This chapter discusses these administrative items.

## **PERIODIC UPDATES**

The nexus study must be updated approximately every five (5) years to account for changes in the project list, the scope of projects, other funding sources, demographics, employee office density, and land use. The cost for regular updates is encapsulated in the four percent administrative fee added to each project.

## **ANNUAL ESCALATION**

The construction costs used to calculate infrastructure project costs (see Appendix B) are in current dollars, but every year, construction costs have generally increased. To account for this construction cost inflation, impact fees must be adjusted commensurately each year. As an escalation mechanism, impact fees will be increased each year by the change in the San Francisco Construction Cost Index (CCI) as reported in the Engineering News Record.

## **SPECIALIZED DEVELOPMENT PROJECTS**

Some specialized development projects may not fit within the land uses identified in this nexus study. Furthermore, some of the land uses might have significantly different impacts than the traditional land uses considered as part of this study. For example, the City study performed by Bartle Wells Associates provides separate fees for Water Capacity based on different land uses, including Restaurant / Food Preparation and Irrigation.

The nexus study also assumes an employment density for office space of one employee per 400 square feet of building space.<sup>7</sup> However, some technology and social media firms often utilize a higher

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<sup>7</sup> The 400 sf/employee assumption is consistent with calculations used by Raimi + Associates to create the 2015 General Plan Update (Water Supply Assessment), an adopted City study that aligns with water capacity projections. The transportation impact fee relies on another standard to estimate trip generation: ITE code

employment density of one employee for every 150 square feet of building space, thereby creating a higher service population for the project site. The higher employee density might have additional impacts that warrant a specialized analysis. Another example might be a building that generates a very different number of trips, based on an individualized traffic impact assessment, than the standard assumed in the nexus study based on the ITE manual. The City reserves the right to review land uses that have impacts that are different from industry standards relied upon in this nexus study and determine an applicable ad hoc fee via a Development Agreement.

## **ONGOING ADMINISTRATION**

The Government Code requires the City to report every year and every fifth year certain financial information regarding the fees. The City must make the following information from the previous fiscal year available within 180 days after the last day of that fiscal year.

- ◆ A brief description of the type of fee in the account or fund;
- ◆ The amount of the fee;
- ◆ The beginning and ending balance in the account or fund;
- ◆ The amount of the fee collected and the interest earned;
- ◆ An identification of each public improvement for which fees were expended and the amount of the expenditures;
- ◆ A description of each inter-fund transfer or loan made from the account and when it will be repaid; and
- ◆ Identification of any refunds made once it is determined that sufficient monies have been collected to fund all fee-related projects.

The City must make this information available for public review and present it at the next regularly scheduled public meeting not less than 15 days after this information is made available to the public.

For the fifth year following the first deposit into the account or fund, and every five years thereafter, the City must make the following findings with respect to any remaining funds in the fee account, regardless of whether those funds are committed or uncommitted.

- ◆ The purpose to which the fee is allocated;
- ◆ A reasonable relationship between the fee and the purpose for which it is charged;
- ◆ All sources and amounts of funding anticipated to fill any financing shortfalls;
- ◆ The approximate dates on which funding is expected to be deposited into the fee account.

The five-year report must be made public within 180 days after the end of the City's fiscal year, and must be reviewed at the next regularly scheduled public meeting. If the City does not disclose these

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710 which assumes 1.49 trips per 1000 sf. Potentially decreasing the density assumption from 400 sf/employee to 250 sf/employee increases the proposed maximum impact fees for non-RBD Office developments from \$10.50/sf to \$12.39/sf. This Study recommends that the City reassess density at the next Nexus Study update in approximately five years or as part of a future update or amendment to the General Plan or Ravenswood/4 Corners Specific Plan.

findings, the law may require that the City refund the money, on a prorated basis, to the then current-record owners of the development project.

## **FEE CREDITS OR REIMBURSEMENTS**

The City may provide fee credits to developers who dedicate land or construct facilities. Fee credits may be provided up to the planned cost of the improvement cited in the improvement plan, subject to periodic inflation adjustments or the actual cost paid by the developer, whichever is lower. Prior to approving a credit for work constructed by the developer, the City Engineer shall approve the plans to ensure consistency with the City's engineering, design, and planning standards. For construction cost overruns, only that amount shown in the applicable improvement plan, subject to periodic inflation adjustments, should be credited. The City will evaluate the appropriate fee credit or reimbursement based on the value of the dedication or improvement. Fee credits will be determined by the City on a case-by-case basis and through a development agreement.

## **IMPACT FEE DEFERRAL OR WAIVER**

The City might find it advantageous to defer or waive fees for economic or policy reasons.

Typically, impact fees are paid prior to receiving the building permit, which represents a significant expense in the project prior to the project generating revenue. Cities occasionally allow developers to defer payment of the impact fees until prior to the Certificate of Occupancy, when the project is more likely to be generating revenue. This nexus study recommends mandating payment at time of building permit, which is the norm, but reserving the right to defer the fees in special circumstances.

Cities also occasionally waive specific impact fees, particularly during times of economic downturn, as a development incentive. The fees could be waived for a building size target (e.g. fee waiver for the first 500,000 square feet), or for a certain building valuation, based on building permits (e.g. fee waiver for the first \$20 million of permit valuation). This nexus study recommends mandating payment, but reserving the right to waive fees in special circumstances.

Typically, deferred or waived fees are fees for 'quality of life' infrastructure (such as parks and streetscape), and not backbone infrastructure (such as storm drains and water supply). Note also that the City cannot waive or defer the EIR traffic mitigations – a subset of the transportation infrastructure projects. Waiving the fee for EIR traffic mitigations would require amending the certified Program EIR.

# Appendices

## APPENDIX A: SOURCES

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The table below lists selected sources used to create this study.

**Table A-1: Sources**

Source	Prepared by	Year
American Community Survey (2009-2011)	21 Elements	2011
Capital Improvement Program and Capital Budget, FY 2016-17 & FY 2017-18 (adopted 6/21/16)	City of East Palo Alto	2016
Community and Economic Development Department, City of East Palo Alto		2016-2019
Draft Engineering Plan, Ravenswood Business District, Draft EIR Appendix 4	Wilsey Ham, Associates	2008
East Palo Alto Development Impact Fee Program Study	AECOM	2013
East Palo Alto Development Task 1 & Task 2 Technical Memorandum	AECOM	2016
East Palo Alto General Plan Public Draft	Raimi + Associates	2016
East Palo Alto General Plan Update (Water Supply Assessment)	Integrated Resource Management / Raimi + Associates	2015
East Palo Alto Storm Drain Master Plan	Schaff + Wheeler	2014
East Palo Alto Transportation Fee Nexus Study	Nelson\Nygaard	2018
Ravenswood/4 Corners TOD Specific Plan	The Planning Center	2013
Transportation Impact Analysis of East Palo Alto General Plan Update		2015
Water Capacity Charge Update	Bartle Wells Associates	2018



## APPENDIX B: PROJECTS ELIGIBLE FOR DEVELOPMENT IMPACT FEES

Table B-1 summarizes all projects under consideration for cost recovery through development impact fees for Parks and Trails, Public Facilities, Storm Drainage, and Transportation Infrastructure. The basis for the project list is the City of East Palo Alto Capital Improvement Program (CIP), adopted June 21, 2016. The table documents whether the project is considered for cost recovery through the proposed development impact fees, project description, source, and gross project costs.

The City determined which projects are considered eligible for cost recovery through development impact fees based on factors such as whether it is a non-maintenance project and whether it received outside federal funding.

Costs are represented in thousands dollars. The \$2016 cost estimates are based on the City's CIP and other City cost estimates and updates. The \$2018 cost estimates are adjusted by 7.08 percent, which is the change in the Engineering News-Record Construction Cost Index (20 Cities Average) from the June 2016 Index of 10337.05 to the June 2018 Index of 11068.57.

**Table B-1: Capital Improvement Project List Eligible for Impact Fees (\$1000s)**

Cost Recovery	Project Description	Source <sup>1</sup>	Gross Project Cost (\$2016) <sup>4</sup>	Gross Project Cost (\$2018) <sup>4</sup>
	<b>Parks and Trails</b>			
✓	PK-01 Cooley Landing Phases I-V	CIP <sup>1</sup>	\$6,355	\$6,805
✓	PK-04 Martin Luther King Jr Park Expansion & Improvements	CIP	\$460	\$493
✓	PK-05 Joel Davis Park Improvements	CIP	\$265	\$284
✓	PK-08 Jack Farrell Park Improvements	CIP	\$225	\$241
✓	PK-09 Baylands Park	CIP	\$4,400	\$4,711
✓	PK-10B Bell Street Park Improvements: Master Plan Implementation	CIP	\$400	\$428
✓	PK-11 New Parks in Ravenswood 4 Corners	CIP	\$22,300	\$23,878
No	PK-12 Hetch Hetchy Aqueduct Linear Park	CIP	\$3,100	\$3,319
✓	PK-13 Park Irrigation Upgrades	CIP	\$60	\$64
✓	PK-14 Park Fitness Equipment Installation	CIP	\$80	\$86
✓	PK-15 Cooley Landing Roadway Lighting	CIP	\$187 <sup>3</sup>	\$200
	<b>10 Parks and Trails Projects Eligible for Cost Recovery</b>		<b>\$34,732</b>	<b>\$37,190</b>
	<b>Public Facilities</b>			
✓	FA-01 Community Facilities & Parks Master Plan	CIP	\$102	\$109
✓	FA-02 Community Development Building	CIP	\$100	\$107
✓	FA-03 2277 University Avenue Building	CIP	\$11	\$12
✓	FA-04 Senior Center Building	CIP	\$40	\$43
✓	FA-05 Police Department Building	CIP	\$15,000	\$16,062
✓	FA-06 Corporation Yard	CIP	\$102	\$109
✓	FA-07 City Hall Purchase	CIP	\$20,000	\$21,415
✓	FA-08 Council Chamber Accessibility Compliance (Media Center)	CIP	\$153	\$164
✓	FA-09 New Facilities in Ravenswood Specific Plan Area	CIP	\$25,000	\$26,769
✓	FA-10 Electric Vehicle Charging Stations	CIP	\$350	\$375
✓	FA-11 City Facility Energy Upgrades	CIP	\$50	\$54

Cost Recovery	Project Description	Source <sup>1</sup>	Gross Project Cost (\$2016) <sup>4</sup>	Gross Project Cost (\$2018) <sup>4</sup>
	<b>11 Public Facilities Projects Eligible for Cost Recovery</b>		<b>\$60,908</b>	<b>\$65,218</b>
	<b>Storm Drainage</b>			
✓	SD-02 Runnymede Storm Drain Project: Phase II	CIP	\$2,100	\$2,249
✓	SP-02A SF Creek Flood Control Project: Bay to Highway 101	CIP	\$1,260	\$1,349
✓	SP-02B SF Creek Flood Control Project: Upstream to Highway 101	CIP	\$200	\$214
✓	SD-03 Repair of University Village Outfalls	CIP	\$245	\$262
✓	SD-04 Street Sweeping Signage	CIP	\$75	\$80
No	SD-05 O'Connor Street Pump Station Improvements (included in Storm Drainage Master Plan)	CIP	\$580	\$621
✓	SD-06 Storm Drainage Master Plan Implementation	CIP/ SDMP <sup>2</sup>	\$35,990	\$38,537
	<i>Intermediate O'Connor PS Improvements (50% benefits RBD only)<sup>5</sup></i>	SDMP <sup>2</sup>	\$580	\$622
	<i>Channel Improvement (Wilsey Ham)</i>	SDMP <sup>2</sup>	\$1,250	\$1,338
	<i>O'Connor PS Improvement (50% benefits RBD only)<sup>5</sup></i>	SDMP <sup>2</sup>	\$6,570	\$7,035
	<i>Bay Rd. Pump Station (80% benefits RBD only)<sup>5</sup></i>	SDMP <sup>2</sup>	\$4,800	\$5,140
	<i>Illinois-O'Connor Alt 2</i>	SDMP <sup>2</sup>	\$5,540	\$5,932
	<i>Bell-Clarke Alt 2</i>	SDMP <sup>2</sup>	\$2,600	\$2,784
	<i>Ralmar</i>	SDMP <sup>2</sup>	\$730	\$782
	<i>Garden to Beach</i>	SDMP <sup>2</sup>	\$1,090	\$1,167
	<i>Newbridge</i>	SDMP <sup>2</sup>	\$1,050	\$1,124
	<i>Menalto and Green</i>	SDMP <sup>2</sup>	\$570	\$610
	<i>Euclid-Bell</i>	SDMP <sup>2</sup>	\$590	\$632
	<i>Weeks End</i>	SDMP <sup>2</sup>	\$290	\$311
	<i>Purdue Ave. Alt 2</i>	SDMP <sup>2</sup>	\$320	\$343
	<i>Camellia Dr.</i>	SDMP <sup>2</sup>	\$460	\$493
	<i>Camellia to Azalia</i>	SDMP <sup>2</sup>	\$550	\$589
	<i>Daphne to Jasmine</i>	SDMP <sup>2</sup>	\$660	\$707
	<i>Notre Dame</i>	SDMP <sup>2</sup>	\$700	\$750
	<i>System Cleaning</i>	SDMP <sup>2</sup>	\$1,030	\$1,103
	<i>Kavanaugh Dr.</i>	SDMP <sup>2</sup>	\$460	\$493
	<i>Donohoe</i>	SDMP <sup>2</sup>	\$170	\$182
	<i>Glen Way</i>	SDMP <sup>2</sup>	\$280	\$300
	<i>Manhattan</i>	SDMP <sup>2</sup>	\$40	\$43
	<i>Michigane Ave.</i>	SDMP <sup>2</sup>	\$110	\$118
	<i>Myrtle St.</i>	SDMP <sup>2</sup>	\$200	\$214
	<i>Sage Larkspur</i>	SDMP <sup>2</sup>	\$640	\$685
	<i>University Ave.</i>	SDMP <sup>2</sup>	\$210	\$225
	<i>Weeks to Pulgas</i>	SDMP <sup>2</sup>	\$4,500	\$4,818
No	SD-07 Weeks Street Storm Drain Improvements (included in Storm Drainage Master Plan)	CIP		
✓	SD-08 Trash Capture Device Installation	CIP	\$560 <sup>3</sup>	\$600
✓	SD-09 Storm Water Resource Plan	CIP	\$50	\$54
✓	SD-10 Fence Installation North of Ravenswood Business District	CIP	\$200	\$214
✓	Storm drainage pipes in RBD (100% benefits RBD only) <sup>5</sup>	DEPLAN	\$9,873	\$10,572
	<b>10 Storm Drainage Projects Eligible for Cost Recovery</b>		<b>\$50,553</b>	<b>\$54,131</b>
	<b>Transportation</b>			
✓	ST-01 Traffic & Transportation Master Plan	CIP	\$200	\$214

Cost Recovery	Project Description	Source <sup>1</sup>	Gross Project Cost (\$2016) <sup>4</sup>	Gross Project Cost (\$2018) <sup>4</sup>
✓	ST-03 Safe Routes to School: (Cycle 3)	CIP	\$580	\$621
✓	ST-04A Street Light Upgrade Project: Neighborhood Req.	CIP	\$133	\$142
✓	ST-04B Street Light Upgrade Project: Phase III	CIP	\$325	\$348
✓	ST-05A Bay Road (Roadway & Downstream Improvements	CIP	\$7,471 <sup>3</sup>	\$8,000
✓	ST-05B Bay Road (Roadway & Downstream Improvements	CIP	\$7,471 <sup>3</sup>	\$8,000
✓	ST-06 Highway 101 Pedestrian - Bicycle Overcrossing	CIP	\$12,141	\$13,000
No	ST-07 Street Resurfacing Program	CIP	\$9,500	\$10,172
✓	ST-08 University Avenue Resurfacing & Signal Upgrade	CIP	\$5,603 <sup>3</sup>	\$6,000
✓	ST-09 Bicycle & Pedestrian Improvements	CIP	\$467 <sup>3</sup>	\$500
✓	ST-10 New Sidewalks, Curbs, & Gutters	CIP	\$5,000	\$5,354
No	ST-11 Sidewalk Repair (Tier II) – High Risk Tripping Hazards	CIP	\$4,400	\$4,711
✓	ST-12 Traffic Calming Program	CIP	\$1,128	\$1,208
No	ST-13 Major Street Reconstruction	CIP	\$5,000	\$5,354
✓	ST-14 University Avenue Interchange	CIP	\$9,339 <sup>3</sup>	\$10,000
✓	ST-15 Signage & Striping Improvements	CIP	\$500	\$535
✓	ST-16 Euclid Avenue Tunnel Assessment & investigation	CIP	\$30	\$32
✓	ST-17 New Loop Road	CIP	\$20,546 <sup>3</sup>	\$22,000
✓	ST-18 Neighborhood Traffic & Transportation Plan	CIP	\$65	\$70
✓	ST-19 Runnymede/University Ave Signal	CIP	\$500	\$535
✓	ST-20 Pedestrian Accessibility Improvements	CIP	\$40	\$43
✓	ST-21 Scofield Avenue Sidewalk Improvements	CIP	\$132	\$141
✓	ST-22 Green Infrastructure Plan	CIP	\$375	\$402
✓	PK-06 New Trails & Sidewalks in Ravenswood Specific Plan Area	CIP	\$15,000	\$16,062
✓	PK-07 San Francisquito Creek Park/Trail	CIP	\$5,000	\$5,354
✓	SP-10 Accessibility Study & Citywide Transition Plan	CIP	\$74	\$80
	<b>23 Transportation Projects Eligible for Cost Recovery</b>		<b>\$92,122</b>	<b>\$98,641</b>

Source: City of East Palo Alto and AECOM, 2019

Notes:

<sup>1</sup> CIP costs are from document adopted on June 21, 2016 and from updates provided by City staff in September 2018.

<sup>2</sup> Storm Drainage Master Plan SD-06 Storm Drainage Master Plan Implementation costs appear in the Storm Drainage Master Plan, Alt 2, Table 6-6.

<sup>3</sup> Cost differs from CIP adopted on June 21, 2016 due to updated City staff estimates of project costs. The \$2016 costs are based on estimates in \$2018 dollars and deescalated by 7.08 percent.

<sup>4</sup> Due to rounding, numbers presented may not add up precisely to the totals provided elsewhere in this document.

<sup>5</sup> See Chapter 4: Storm Drainage for explanation of how projected storm drainage costs that benefit the RBD only are used to calculate impact fees.

APPENDIX C: DEMOGRAPHIC AND LAND USE ASSUMPTIONS

**Table C-1: Population and Employment Density Assumptions**

*	Measure	Value	Source / Comments
A	Single-Family (persons / DU)	4.5	East Palo Alto General Plan Update (from Raimi + Associates)
B	Multi-Family (persons / DU)	3.1	As above (A)
C	SF / unit (Single-Family)	1,000	City of East Palo Alto
D	SF / unit (Multi-Family)	875	City of East Palo Alto
E	Resident per service population	1	Standard weight for resident in service population calculation
F	Service population / unit (Single-Family)	4.5	E * A
G	Service population / unit (Multi-Family)	3.1	E * B
H	SF / employee (Office + R&D)	400	East Palo Alto General Plan Update (Water Supply Assessment), Raimi + Associates
I	SF / employee (Industrial)	1,000	As above (H)
J	SF / employee (Retail)	600	As above (H)
K	Employee per service population unit	0.5	Standard weight for employee in service population calculation
L	SF / service population unit (Office + R&D)	800	K / H
M	SF / service population unit (Industrial)	2,000	K / I
N	SF / service population unit (Retail)	1,200	K / J

Source: City of East Palo Alto, AECOM, 2016

**Table C-2: Assumptions for Population, Employment, and Service Population Projections (2010 - 2040)**

*	Measure	Value	Source / Comments
A	East Palo Alto Population (2010)	28,155	East Palo Alto General Plan Update (Water Supply Assessment), Table 1-2
B	East Palo Alto Population Growth (2010 - 2040)	9,626	Table 2-1
C	RBD Population Growth (2010 - 2040)	3,278	Table 2-1
D	Non-RBD Population Growth	6,348	B – C
E	East Palo Alto Employment (2010)	2,650	East Palo Alto General Plan Update (Water Supply Assessment), Table 1-4
F	East Palo Alto Employment Growth (2010 - 2040)	6,009	Table 2-1
G	RBD Employment Growth (2010 - 2040)	3,545	Table 2-1
H	Non-RBD Employment Growth (2010 - 2040)	2,464	F – G
I	East Palo Alto Service Population (2040)	42,111	Standard service population calculation: $(A + B) * 1 + (E + F) * 0.5$
J	East Palo Alto Service Population Growth (2010 - 2040)	12,631	$B * 1 + F * 0.5$
K	RBD Service Population Growth (2010 - 2040)	5,051	$C * 1 + G * 0.5$
L	Non-RBD Service Population Growth (2010 - 2040)	7,580	J – K

Source: City of East Palo Alto, AECOM, 2016

**Table C-3: Development and Land Use Assumptions for 25-Year and 50-80 Year Planning Horizons**

	RBD <sup>1</sup>			City		
	Area	Quantity	Density (DUA)	Area	Quantity <sup>2</sup>	Density (DUA)
<b>25-Year Planning Horizon</b>						
	<b>Acreage</b>	<b>DU</b>	<b>DUA</b>	<b>Acreage</b>	<b>DU</b>	<b>DUA</b>
Town Houses <sup>3</sup>	n/a	493	25	73	1,486	n/a
Multi-Family Housing	n/a	342	41	22	1,033	40
	<b>Land SF<sup>4</sup></b>	<b>Built SF<sup>4</sup></b>	<b>FAR</b>	<b>Land SF<sup>4</sup></b>	<b>Built SF<sup>4,5</sup></b>	<b>FAR</b>
Office	824,000	1,236,000	1.5	1,293,000	1,940,000	1.5
R&D	0	0	0.6	0	0	0.6
Industrial	335,000	268,000	0.8	335,000	268,000	0.8
Retail	112,000	112,000	1	333,000	333,000	1

Source: City of East Palo Alto, AECOM, 2016; Ravenswood / 4 Corners TOD Specific Plan, 2013

Notes:

DU = dwelling unit

DUA = dwelling unit per acre

SF = Square foot

FAR = Floor area ratio

- 1 All RBD values for acreage, land square footage, built square footage, number of dwelling units, density, and floor-area-ratio provided by the City of East Palo Alto
- 2 Number of housing units in East Palo Alto (entire city) taken from AECOM's Task 1 & 2 technical memorandum. All housing units outside of RBD are assumed to be town houses with a density of 40 DUA.
- 3 Town houses are a subset of Single Family Housing
- 4 Square foot (SF) values are rounded to the nearest thousand.
- 5 Values for built square footage in East Palo Alto are taken from the Ravenswood/4 Corners TOD Specific Plan EIR. Industrial and R&D square footages for the entire city are assumed to be the RBD square footage plus half the balance of the combination 'Industrial / R&D' square footage.

## APPENDIX D: STORM DRAINAGE FACTORS

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The East Palo Alto Storm Drainage impact fee determines the unit cost of storm drainage infrastructure in the RBD and non-RBD areas as a function of the assumed total impervious acres by land use type based on assumptions in the City's 2014 Storm Drainage Master Plan and other City planning documents. The methodology relies on the following logic:

1. Identify gross project costs for storm drainage infrastructure in two zones: the RBD and non-RBD areas of the City.
2. Apply impervious factors by land use type from the City's 2014 Storm Drainage Master Plan to the City's data on existing land uses (collected 2013-2015) to estimate existing impervious area in both the RBD and non-RBD areas of the City.
3. Use the City's planning projections for the RBD (25-year planning horizon) and the City (25-year planning horizon) to identify built square feet and dwelling unit assumptions by land use type for new development.
4. Apply impervious factors by land use type from the City's 2014 Storm Drainage Master Plan (SDMP) to the planning land use projections (#3) to identify estimated impervious acres per land use type for new development. Town homes were given an impervious factor of 0.75 instead of the 0.6 provided in the SDMP due to their greater density than a typical single family residential unit. This establishes a bound for impervious acres of new development requiring storm drainage infrastructure.
5. For the RBD and non-RBD areas of the city, calculate the percentage of total impervious area (#2) due to new developments (#4) and multiply by gross project costs (#1) to determine the portion of gross project costs attributable to the new development.
6. Divide the portion of gross project costs attributable to the new development (#5) by impervious acres of new development (#3) to arrive at a unit cost for storm drainage infrastructure for each zone.

Under this method, developers must establish the existing and proposed impervious surface area on project parcels.

Table D-1 provides impervious factor values referenced in step #2, above.

**Table D-1: Impervious Factors for Storm Drainage Calculations**

Land Use Type	Impervious Factor
Neighborhood Business	0.6
General Commercial	0.9
Community Open Space	0.2
Light Industrial	0.8
Heavy Industrial	0.95
Industrial Buffer	0.6

Land Use Type	Impervious Factor
Office	0.75
Office/Residential	0.8
Planned Unit Development	0.15
Single-Family Residential	0.6
Two-Family Residential	0.75
Multi-Family Residential	0.9
Road	0.98
Resource Management	0.01
Neighborhood Business	0.6
General Commercial	0.9

Source: East Palo Alto Storm Drain Master Plan, Table 2-2, prepared by Schaff + Wheeler



Table D-2 provides assumptions for the impervious acres due to new development. Within the 25-year planning period, the City assumes new development will be responsible for 108 impervious acres Citywide, with 47 of those impervious acres in the RBD and 61 of those impervious acres outside the RBD.

**Table D-2: Impervious Acres Assumptions for Storm Drainage**

25 Year Planning Horizon – Citywide <sup>1</sup>				
City (25 yr planning horizon)				
	<u>Dwelling Units</u>	<u>Impervious Acres<sup>2</sup></u>		
Town Houses <sup>3</sup>	1,486	55		
Multi-Family Housing	1,033	20		
	<u>Land SF</u>	<u>Impervious Acres</u>		
Office	1,293,000	22		
Industrial	335,000	6		
R&D	0	-		
Retail	333,000	5		
<b>Total</b>		<b>108</b>		
25 Year Planning Horizon – Breakdown by RBD and non-RBD <sup>1</sup>				
RBD (25 yr planning horizon)			Non-RBD (25 yr planning horizon)	
	<u>Dwelling Units</u>	<u>Impervious Acres<sup>2</sup></u>	<u>Dwelling Units</u>	<u>Impervious Acres<sup>2</sup></u>
Town Houses <sup>3</sup>	493	18	994	37
Multi-Family Housing	342	7	690	13
	<u>Land SF</u>	<u>Impervious Acres</u>	<u>Land SF</u>	<u>Impervious Acres</u>
Office	824,000	14	470,000	8
Industrial	335,000	6	0	-
R&D	0	0	0	-
Retail	112,000	2	221,006	3
<b>Total</b>		<b>47</b>		<b>61</b>

Source: Table C-3, City of East Palo Alto, AECOM, 2016

Notes:

<sup>1</sup> Values for acres, land square footage, built square footages, and number of dwelling units are taken from Table C-2 and Table C-3.

<sup>2</sup> Impervious acres for residential units are calculated as the number of acres multiplied by the impervious factor; impervious acres for non-residential units are calculated as the land square footage divided by 43,560 (to convert to acres), multiplied by the impervious factor in Table D-1.

<sup>3</sup> Town Houses are a subset of Single-Family Housing.

Table D-3 provides the assumptions for calculating the percentage of impervious acres due to new development over the 25-year planning period.

- Row 1 indicates the existing acres of development within the entire City according to two sources: the City's 2013 Master Plan (column A) and GIS data provided by the City in 2018 (column B). The sources documented in column A and column B both conclude that within a 25-year period, impervious acres will account for 16% of new developed land. This analysis relied on the GIS data summarized in column B in order to apply the GIS land use proportions of impervious surface area. Column B-1 shows the acres within the RBD zone, and column B-2 shows the acres outside of the RBD zone.
- Row 2 indicates the impervious acres from Table D-2 (due to rounding, the 107 impervious acres in row 2 does not precisely match the 108 acres summarized in Table D-2).
- Row 3 indicates the percentage of new impervious acres (calculated as Row 2 divided by Row 1).

**Table D-3: Existing and New Impervious Acres of Development**

Land Use Type	A: City Land (acres) <sup>1</sup>		B: City Land (acres) <sup>2</sup>		B-1: Within RBD (acres) <sup>2</sup>		B-2: Outside RBD (acres) <sup>2</sup>	
	Dvlp.	Imper.	Dvlp.	Imper.	Dvlp.	Imper.	Dvlp.	Imper.
1 - Existing Acres (current)	1318	673	1325	686	281	160	1044	526
2 - New Impervious Acres from Development (within 25 yrs)		107		107		47	0	61
3 - % New Impervious Acres from Development (within 25 yrs)		16%		16%		29%		12%

Source: City of East Palo Alto, AECOM, 2016

Notes:

<sup>1</sup> Data from City's 2013 Master Plan

<sup>2</sup> GIS land use data provided by City in 2018. Calculated impervious acres by multiplying the existing acres by the impervious factors in Table D-1.

## APPENDIX E: TRANSPORTATION FACTORS

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**Table E-1: City Trip Totals and Generation Rates (25-Year Planning Horizon)**

<b>Residential</b>	<b>ITE Code<sup>1</sup></b>	<b>Dwelling Unit<sup>2</sup></b>	<b>Trips Per Unit<sup>4</sup></b>	<b>Total Trips<sup>3</sup></b>	<b>Total Trips Adjusted<sup>5</sup></b>
Town Houses <sup>6</sup>	230	138	3.83	529	508
Multi-Family Housing	220	2,381	4.39	10,447	266
<b>Non-Residential</b>	<b>ITE Code<sup>1</sup></b>	<b>Built SF<sup>2</sup></b>	<b>Trips Per 1000 SF<sup>4</sup></b>	<b>Total Trips<sup>3</sup></b>	<b>Total Trips Adjusted<sup>5</sup></b>
Office/R&D	710	2,096,349	7.70	16,146	2,063
Industrial	110	267,987	4.97	1,333	185
Retail	820	333,406	22.20	7,402	643
<b>Total</b>				<b>35,857</b>	<b>3,665</b>

Sources: Nelson\Nygaard, City of East Palo Alto, 2018

Notes:

- <sup>1</sup> ITE codes are provided by the City of East Palo Alto.
- <sup>2</sup> Dwelling unit and built square footage numbers are taken from Table C-3.
- <sup>3</sup> Total trips are calculated as the number of dwelling units multiplied by the trip generation rate.
- <sup>4</sup> Trips generation rates from ITE.
- <sup>5</sup> Total trips adjusted calculated by Nelson\Nygaard.
- <sup>6</sup> Town Houses are a subset of Single-Family Housing.

**Table E-2: Transportation Trip Generation Calculations, PM Rate**

City of East Palo Alto				ITE Rates			Adjusted per CCAG model			Adjusted per RSP Plan Internal Capture Rates			Adjusted per RSP Retail Pass-By Rate			Adjusted per City's Transit Mode Share
Residential	ITE Code	DU <sup>3</sup>	Trips per Unit	Total Trips	CCAG Adjustment Factor	Trips per Unit	Total Trips	RSP ICR <sup>1</sup>	Trips per Unit	Total Trips	RSP RBP <sup>2</sup>	Trips per Unit	Total Trips	City Transit Mode Share	Trips per Unit	Total Trips
Townhouses	230	1,486	0.52	773	76%	0.40	587	8%	0.36	540	N/A	0.36	540	6%	0.34	508
Multi-Family Housing	220	1,033	0.39	403	76%	0.30	307	8%	0.27	283	N/A	0.27	283	6%	0.26	266
Non-Residential	ITE Code	Built SF <sup>3</sup>	Trips per 1,000 SF	Total Trips	CCAG Adjustment Factor	Trips per 1,000 SF	Total Trips	RSP ICR <sup>1</sup>	Trips per 1,000 SF	Total Trips	RSP RBP <sup>2</sup>	Trips per 1,000 SF	Total Trips	City Transit Mode Share	Trips per Unit	Total Trips
Office/R&D	710	1,939,853	1.49	2,890	76%	1.14	2,205	1%	1.13	2,194	N/A	1.13	2,194	6%	1.06	2,063
Industrial	110	267,987	0.97	260	76%	0.74	198	1%	0.74	197	N/A	0.74	197	6%	0.69	185
Retail	820	333,406	3.73	1,244	76%	2.85	949	11%	2.53	844	19%	2.05	684	6%	1.93	643
						<b>5,570</b>			<b>4,247</b>			<b>4,059</b>			<b>3,899</b>	<b>3,665</b>

Source: Nelson\Nygaard, 2018

Notes:

<sup>1</sup> RSP ICR = Ravenswood Specific Plan Internal Capture Rate

<sup>2</sup> RSP RPB = Ravenswood Specific Plan Retail Pass-by Rate

<sup>3</sup> For Dwelling Unit and Build Square Foot sources, see Table C-3.

**Table E-3: C/CAG Congestion Management Plan Peak-Hour Trip Reduction Credit Rates of TDM Programs**

TDM Program	Peak Hour Trip Credit Rate	Unit
Short-term secure bicycle storage (visitors)	0.33	Per bike rack (4 spaces)
Long-term secure bicycle storage (employees, tenants)	0.33	Per bike locker (4 spaces)
Showers and changing rooms	10	Per shower/changing room
Bonus for > 5 bike lockers	5	
Dedicated shuttle to rail station or urban residential area	1	seat of shuttle
Dedicated shuttle to rail station or urban residential area - with guaranteed ride home program	2	seat of shuttle
Subsidized transit passes	1	per transit pass
Subsidy for walking, cycling to work	1	per subsidy of \$20 per month per year
Preferential parking for carpoolers	2	per parking space reserved
Preferential parking for vanpoolers	7	per parking space reserved
Vanpool program implementation	7	per vanpool
Vanpool program implementation -with Guaranteed Ride home program	10	per vanpool
Commuter assistance center (e.g. transit marketing coordinator)	14	per center
Biannual travel survey	3	per year
Parking cash-out	1	per parking space cashed out
Implementation of compressed work week (4 day work week)	1	per 5 employees offered this perk
Flextime	1	per employee offered this perk
Guaranteed Ride Home program	1	per employee participating
Bonus for combining any 10 programs	5	Once 10 programs reached, subtract additional 5 peak hour trips
Install/maintain alternative transportation kiosks	5	per kiosk

Source: Nelson\Nygaard, C/CAG Congestion Management Plan

## APPENDIX F: WATER CAPACITY FACTORS

The City's Water Capacity development impact fee is effective as of August 1, 2018. Development projects requesting a water connection to the City of East Palo Alto's water system are subject to payment of a Water Capacity Fee to the City to cover the cost of a water supply increase and future water system improvement projects (Resolution No. 5004).<sup>8</sup>

Bartle Wells Associates calculated the water capacity fees. A comprehensive methodology is provided in a separate report issued by the firm, and excerpts of the analysis are provided in tables in this section.

**Table F-1: Water Systems Pipelines and Cost**

	Age of Facilities (Years)						Total LF	Cost per LF	Total Cost
	> 50	40	30	20	< 10	Unknown			
<b>Water Mains</b>	<b>Linear Feet (LF)</b>								
< 4-inch	2,220	0	0	0	0	640	2,860	\$210	\$600,600
4-inch	15,920	2,500	4,050	0	0	3,580	26,050	210	5,470,500
6-inch	39,680	3,090	13,410	1,260	420	2,400	60,260	220	13,257,200
8-inch	3,475	6,700	23,175	430	3,390	590	37,760	275	10,384,000
10-inch	2,490	645	1,535	1,250	1,015	0	6,935	300	2,080,500
12-inch	2,760	0	1,300	0	2,555	970	7,585	330	2,503,050
<b>Total</b>	<b>66,545</b>	<b>12,935</b>	<b>43,470</b>	<b>2,940</b>	<b>7,380</b>	<b>8,180</b>	<b>141,450</b>		<b>34,295,850</b>
<b>% of Total</b>	<b>47.0%</b>	<b>9.1%</b>	<b>30.7%</b>	<b>2.1%</b>	<b>5.2%</b>	<b>5.8%</b>	<b>100.0%</b>		
<b>Hydrants/Valves/Other System Costs</b>									
Estimated at 20% of Pipeline Cost									6,859,170
<b>Total Water Distribution System Cost</b>									<b>41,155,020</b>

Source: Bartle Wells Associates, 2018

<sup>8</sup> See "Water Capacity Fees": <http://www.ci.east-palo-alto.ca.us/DocumentCenter/View/3863>

**Table F-2: Water System Costs for Fee Recovery and Buy-In Cost per Unit**

<b>WATER SYSTEM COSTS</b>		
<u>Existing Water System Facilities (Table 1)</u>		
Water Distribution System Infrastructure		\$41,155,020
<u>Capital Improvements Providing Systemwide Benefit (Table 2)</u>		
<i>Excludes share of improvements identified as replacements</i>		
Upgrade/Expansion Component of Capital Improvements:		
Water Supply Reliability & Storage Improvements	100.0%	18,237,000
Water Distribution System Improvements	33.2%	<u>12,564,430</u>
Subtotal		30,801,430
Total Water System Costs for Fee Recovery		\$71,956,450
<b>WATER SYSTEM CAPACITY THROUGH BUILDOUT</b>		
Projected Annual Water Use through Buildout (from UWMP)		
Acre-Feet (AF) <sup>1</sup>		3,112
Conversion to Million Gallons per Day (mgd)		2.778
Conversion Gallons per Day (gpd)		2,778,211
<b>AVERAGE BUY-IN COST PER GPD</b>		<b>\$25.90</b>

1 Source: 2015 Urban Water Management Plan, Public Review Draft June 2016, Table 3-3: Net water supply after accounting for system loss/unaccounted water.

Source: Bartle Wells Associates, 2018

**Table F-3: Cost of Water Supply for Growth**

<b>NEW WATER SUPPLY COST</b>	
Acquisition Cost of 1 mgd SFPUC Water Supply Assurance	\$5,000,000
<b>WATER SUPPLY CAPACITY PROVIDED (GPD)</b>	
SFPUC Water Supply Assurance Acquired	1,000,000
% Available for Customer Supply (Net of System Loss)*	<u>92%</u>
Net Water Supply Available for New Demand	920,000
<b>AVERAGE COST OF NEW WATER SUPPLY PER GPD</b>	<b>\$5.43</b>
<i>Cost of New Supply / Net Supply Provided</i>	

\* Assumes 8% reduction in water supply due to system loss and unaccounted for water based on results from past 3 years.

Source: Bartle Wells Associates, 2018

Notes:

The City of East Palo Alto has a supply assurance of 957,539 ccf per day, or 1.963 MGD.

RBD projected demand = 1,698 ccf per day.

## APPENDIX G: MAXIMUM DEVELOPMENT IMPACT FEE REVENUE

Table G-1 shows the maximum impact fee revenue for each infrastructure category. The table shows the calculations for revenue based on multiplying planned estimates for net new dwelling units and built square footage by the maximum development impact fee revenue for the RBD and non-RBD zones of the City.

**Table G-1: Maximum Impact Fee Revenue by Infrastructure Category**

	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>RBD</u>	<u>RBD</u>	<u>RBD</u>
<b>Parks &amp; Trails</b>	<b>DU</b>	<b>Fee</b>	<b>Revenue</b>	<b>DU</b>	<b>Fee</b>	<b>Revenue</b>
Single-Family Housing	994	\$4,133	\$4,107,000	493	\$4,133	\$2,036,000
Multi-Family Housing	690	\$2,847	\$1,966,000	342	\$2,847	\$975,000
	<b>Built SF</b>	<b>Fee (psf)</b>	<b>Revenue</b>	<b>Built SF</b>	<b>Fee (psf)</b>	<b>Revenue</b>
Office + R&D	704,000	\$1.15	\$808,000	1,235,853	\$1.15	\$1,419,000
Industrial	0	\$0.46	\$-	267,987	\$0.46	\$123,000
Retail	221,006	\$0.77	\$169,000	112,400	\$0.77	\$86,000
Revenue Subtotals			\$7,050,000			\$4,639,000
<b><i>Revenue Total</i></b>	<b><i>\$11,689,000</i></b>					
	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>RBD</u>	<u>RBD</u>	<u>RBD</u>
<b>Public Facilities</b>	<b>DU</b>	<b>Fee</b>	<b>Revenue</b>	<b>DU</b>	<b>Fee</b>	<b>Revenue</b>
Single-Family Housing	994	\$7,248	\$7,201,000	493	\$7,248	\$3,571,000
Multi-Family Housing	690	\$4,993	\$3,447,000	342	\$4,993	\$1,709,000
	<b>Built SF</b>	<b>Fee (psf)</b>	<b>Revenue</b>	<b>Built SF</b>	<b>Fee (psf)</b>	<b>Revenue</b>
Office + R&D	704,000	\$2.01	\$1,417,000	1,235,853	\$2.01	\$2,488,000
Industrial	0	\$0.81	\$-	267,987	\$0.81	\$216,000
Retail	221,006	\$1.34	\$297,000	112,400	\$1.34	\$151,000
Revenue Subtotals			\$12,363,000			\$8,135,000
<b><i>Revenue Total</i></b>	<b><i>\$20,498,000</i></b>					
	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>Non-RBD</u>	<u>RBD</u>	<u>RBD</u>	<u>RBD</u>
<b>Storm Drainage</b>	<b>Impervious Acres</b>	<b>Fee (per acre)</b>	<b>Revenue</b>	<b>Impervious Acres</b>	<b>Fee (per acre)</b>	<b>Revenue</b>
Single-Family Housing	37	\$70,000	\$2,557,000	18	\$121,000	\$2,192,000
Multi-Family Housing	13	\$70,000	\$924,000	7	\$121,000	\$792,000
Office + R&D	8	\$70,000	\$566,000	14	\$121,000	\$1,716,000
Industrial	0	\$70,000	\$-	6	\$121,000	\$744,000
Retail	3	\$70,000	\$213,000	2	\$121,000	\$234,000
Revenue Subtotals			\$4,259,000			\$5,678,000
<b><i>Revenue Total</i></b>	<b><i>\$9,938,000</i></b>					



Transportation Infrastructure	Non-RBD DU	Non-RBD Fee	Non-RBD Revenue	RBD DU	RBD Fee	RBD Revenue
Single-Family Housing	994	\$2,358	\$2,342,000	493	\$2,358	\$1,161,000
Multi-Family Housing	690	\$1,775	\$1,226,000	342	\$1,775	\$608,000
	Built SF	Fee (gpd/psf)	Revenue	Built SF	Fee (gpd/psf)	Revenue
Office + R&D	704,000	\$7.33	\$5,163,000	1,235,853	\$7.33	\$9,064,000
Industrial	0	\$4.77	\$-	267,987	\$4.77	\$1,280,000
Retail	221,006	\$13.30	\$2,940,000	112,400	\$13.30	\$1,495,000
Revenue Subtotals			\$11,671,000			\$13,608,000
<b><i>Revenue Total</i></b>	<b><i>\$25,280,000</i></b>					

Source: AECOM, 2019

Notes:

DU = Dwelling Unit

PSF = Per square foot

GDP = Gallons per day

## APPENDIX H: MAXIMUM SUPPORTABLE DEVELOPMENT IMPACT FEE BURDENS

The tables and figures in this appendix summarize the proportional burdens of the maximum supportable development impact fees for the residential and non-residential development fee categories. The tables and figures assume a consistent development size.

### RESIDENTIAL DEVELOPMENT – OUTSIDE RBD

Table H-1 and Figure H-1 represent the maximum supportable development impact fee burden on residential development Citywide (outside of the RBD). The breakdown of fees by proportion of total fee burden is similar between single-family and multi-family developments. Public facilities impact fees constitute 44 to 45 percent, parks and trails impact fees constitute 25 to 26 percent, storm drainage impact fees constitute approximately 13 to 17 percent, and transportation infrastructure impact fees constitute 14 to 16 percent.

**Table H-1: Proposed Maximum Supportable Development Impact Fee Burden on Residential Development (Outside RBD)**

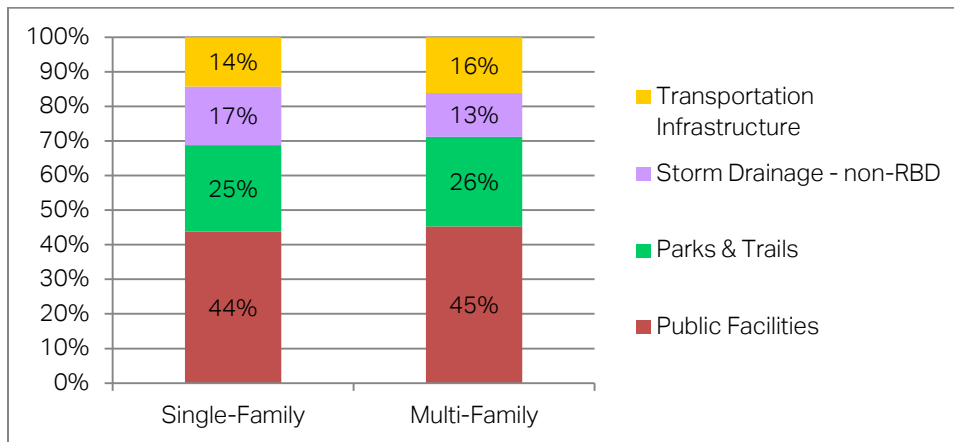
	Single-Family (per DU)	Multi-Family (per DU)
Parks & Trails	\$4,133 (25%)	\$2,847 (26%)
Public Facilities	\$7,248 (44%)	\$4,993 (45%)
Storm Drainage – non-RBD <sup>1</sup>	\$2,800 (17%)	\$1,400 (13%)
Transportation Infrastructure	\$2,358 (14%)	\$1,775 (16%)
<b>Total Estimated Fees</b>	<b>\$16,539</b>	<b>\$11,016</b>

Source: AECOM, 2019

Notes:

<sup>1</sup> Assumes 0.04 acres of impervious surface per multi-family dwelling unit.

**Figure H-1: Proportion of Proposed Impact Fee Burden on Residential Development (Outside RBD)**



Source: AECOM, 2019

## RESIDENTIAL DEVELOPMENT – IN RBD

Table H-2 and Figure H-2 represent the maximum supportable development impact fee burden on residential development inside the RBD. These indicate the difference in the storm drainage impact fee for development within the RBD, which is 20 to 26 percent of total estimated impact fees for development within the RBD (compared to 13 to 17 percent for development outside of the RBD).

**Table H-2: Maximum Supportable Development Impact Fee Burden on Residential Development (within RBD only)**

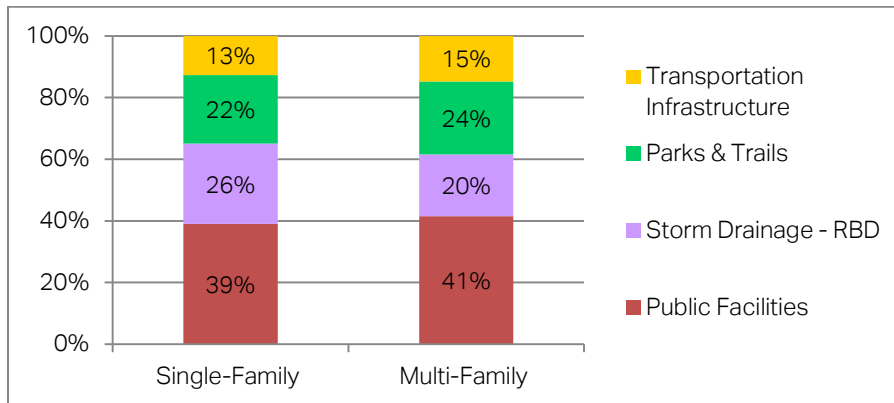
	Single-Family (per DU)	Multi-Family (per DU)
Parks & Trails	\$4,133 (21%)	\$2,847 (22%)
Public Facilities	\$7,248 (36%)	\$4,993 (39%)
Storm Drainage – RBD <sup>1</sup>	\$4,840 (26%)	\$2,420 (20%)
Transportation Infrastructure	\$2,358 (12%)	\$1,775 (14%)
<b>Total Estimated Fees</b>	<b>\$18,579</b>	<b>\$12,036</b>

Source: AECOM, 2019

Notes:

<sup>1</sup> Assumes 0.04 acres of impervious surface per multi-family dwelling unit.

**Figure H-2: Proportional Maximum Supportable Development Impact Fee Burden on Residential Development (within RBD only)**



Source: AECOM, 2019

## NON-RESIDENTIAL DEVELOPMENT – WITHIN AND OUTSIDE RBD

Table H-3 and Figure H-3 represent the maximum supportable development impact fee burden on non-residential development Citywide, both within and outside of the RBD. The table and figure do not represent the proposed new storm drainage fee because the unit is different (it is calculated by impervious acre of new development and not psf). Due to the trip generation transportation infrastructure fee methodology, retail developments bear the greatest proportion of the transportation infrastructure impact fee.

**Table H-3: Maximum Supportable Development Impact Fee Burden on Non-Residential Development (Citywide)**

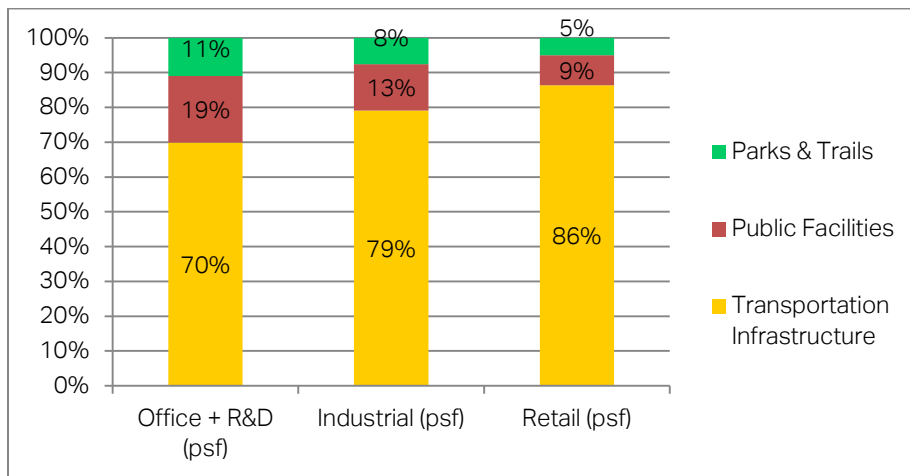
	Office + R&D (psf)		Industrial (psf)		Retail (psf)	
Parks & Trails	\$1.15	(11%)	\$0.46	(8%)	\$0.77	(5%)
Public Facilities	\$2.01	(19%)	\$0.81	(13%)	\$1.34	(9%)
Storm Drainage <sup>1</sup>	N/A		N/A		N/A	
Transportation Infrastructure	\$7.33	(70%)	\$4.77	(79%)	\$13.30	(86%)
<b>TOTAL</b>	<b>\$10.50</b>	<b>(100%)</b>	<b>\$6.04</b>	<b>(100%)</b>	<b>\$14.51</b>	<b>(100%)</b>

Source: AECOM, 2019

Note:

<sup>1</sup> Does not represent the proposed new Storm Drainage fee because the unit is different (it is calculated by impervious acre of new development and not psf).

**Figure H-3: Proportional Maximum Supportable Development Impact Fee Burden on Non-Residential Development (Citywide)**



Source: AECOM, 2019

Note:

Since Storm Drainage fees are calculated by impervious acre of new development, they are not shown in this comparison of unit cost by square foot.

## APPENDIX J: SAMPLE ORDINANCES

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### DEVELOPMENT IMPACT FEES

AECOM surveyed publicly available ordinances for development impact fees in neighboring and comparable cities in order to identify examples relevant to the City of East Palo Alto.

The cities surveyed were: Oakland, Alameda, San Diego, Santa Monica, Huntington Beach, and Tracy. California cities vary widely in terms of how they present information regarding development impact fees:

- ◆ Some cities do not explicitly delineate the impact categories and improvements that will be undertaken.
- ◆ Other cities include not only the funds, and the specific projects that they would acknowledge improvements on, but also contain detailed administrative guidance and growth scenarios that dictate the fee collection program.

#### Ordinances surveyed:

**Oakland, CA:** Amends the Oakland municipal code to establish citywide transportation and capital improvements impact fees on development. This draft clearly details the impacts and fees on different development types, and outlines the uses of the impact fee funds this generated:  
[https://www.municode.com/library/ca/oakland/codes/code\\_of\\_ordinances?nodeId=TIT15BUCO\\_CH15\\_74TRCAIMIMFE](https://www.municode.com/library/ca/oakland/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15_74TRCAIMIMFE)

**Alameda, CA:** Explores the option of fee credit and fee adjustment in the draft ordinance. Also outlines the need that the City's capital facilities must be constructed, and the City's public services must be provided at a rate that will accommodate the expected growth at Alameda Point:  
[https://www.municode.com/library/ca/alameda/codes/code\\_of\\_ordinances?nodeId=CHXXVIIIDFE\\_27-3DEIMFE](https://www.municode.com/library/ca/alameda/codes/code_of_ordinances?nodeId=CHXXVIIIDFE_27-3DEIMFE)

**San Diego County, CA:** Includes a provision for transportation impact fee "built-in credit" to account for frontage and any improvements constructed by the developers. It also contains a separate line item for the regional transportation congestion improvement program fee that not only assesses impacts on the local development, but at the regional level:  
[http://www.sandiegocounty.gov/content/dam/sdc/dpw/LAND\\_DEVELOPMENT\\_DIVISION/landpdf/TIFOrdinance2012.pdf](http://www.sandiegocounty.gov/content/dam/sdc/dpw/LAND_DEVELOPMENT_DIVISION/landpdf/TIFOrdinance2012.pdf)

**Santa Monica, CA:** Builds from a transportation impact nexus study. This example includes a section on the Periodic Review and Adjustment of Transportation Impact Fees:  
<http://www.smgov.net/departments/Council/agendas/2013/20130312/s2013031207-B-1.htm>

**Huntington Beach, CA:** Outlines the differentiation of public facilities outlined in the nexus fee vs. facilities that the City already provided for, and hence justifies a fee update for the whole City:  
[http://www.huntingtonbeachca.gov/files/users/planning/Approved\\_DIF\\_Resolution\\_6\\_18\\_12.pdf](http://www.huntingtonbeachca.gov/files/users/planning/Approved_DIF_Resolution_6_18_12.pdf)

**Tracy, CA:** Impact fees adopted by the City include park development impact fees, downtown incentive area fees, residential area specific plan impact fee, county capital facilities fee, agricultural mitigation impact fee, regional transportation impact fee, and infrastructure master plan cost recovery policy: [https://www.municode.com/library/ca/tracy/codes/code\\_of\\_ordinances?nodeId=TIT13DEIMFE](https://www.municode.com/library/ca/tracy/codes/code_of_ordinances?nodeId=TIT13DEIMFE)

## **CITY OF OAKLAND: SAMPLE ORDINANCE STRUCTURE**

For convenience, the structure of the City of Oakland's ordinance is provided below. The complete Transportation and Capital Improvements Impact Fees ordinance is 17 pages and available online: [https://www.municode.com/library/ca/oakland/codes/code\\_of\\_ordinances?nodeId=TIT15BUCO\\_CH15\\_74TRCAIMIMFE](https://www.municode.com/library/ca/oakland/codes/code_of_ordinances?nodeId=TIT15BUCO_CH15_74TRCAIMIMFE)

### Chapter 15.74 - Transportation and Capital Improvements Impact Fees

#### Article I – General Provisions

15.74.010 – Purpose

15.74.020 – Findings

15.74.030 – Definitions

15.74.040 – Applicability

#### Article II – Fee Requirements and Procedures

15.74.050 – Amount of impact fees

15.74.060 – Impact fee zones

15.74.070 – Payment of impact fees

15.74.080 – Reductions, waivers, and appeals

15.74.090 – Enforcement

#### Article III – Impact Fee Funds

15.74.100 – Transportation impact fee fund

15.74.110 – Capital improvements impact fee fund

#### Article IV – Developer Constructed Facilities

15.74.120 – Credits and reimbursement for developer constructed facilities

Article V – Miscellaneous

15.74.130 – Administration regulations

15.74.140 – Conflicting provisions

15.74.150 – Impact fees zone maps

## APPENDIX K: PROJECT MANAGEMENT COSTS IN CIP DOCUMENTS

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The development impact fees in this study reflect an administrative fee that is four percent of the total infrastructure cost. At the City's request, AECOM surveyed the capital improvement program (CIP) public documents for neighboring and comparable cities in order to identify how program management and overhead costs are accounted in the CIP programs.

The cities surveyed were: Mountain View, Brentwood, Hayward, Oakland, San Francisco, San Jose and Santa Monica. There is some heterogeneity in the way cities present this information:

- ◆ Some cities do not explicitly account for project management costs in their budgets (Mountain View, Santa Monica, San Francisco and Oakland).
- ◆ Others include administration costs for each of the projects (Brentwood and San Jose).
- ◆ Others simply state that administrative costs are included in the costs of the project (Hayward).
- ◆ The Port of Oakland, not included in the initial sample of cities, has the only CIP providing a formula to calculate overhead costs. It specifies an administrative overhead rate of approximately 200% on labor costs for engineering staff and 150% for facilities and other staff.

CIPs Surveyed:

### Mountain View

No explicit overhead or project management budget/costs in the budget document.

[More information](#)

### Brentwood

Present detailed description of costs for each project. Many of the project sheets do not show any cost in the line "project administration".

Definition of Project Administration: "Costs associated with ensuring City standards are adhered to during construction"

[More information](#)

### Hayward

Administration costs considered as part of specific projects (i.e. "project predesign"), within broader categories (i.e. "Road and street"). Didn't find specific overhead/administrative costs for all projects.

[More information](#)

### Oakland

No specified administrative or overhead costs.

For the **Port of Oakland**, there are specific rules to assign overhead costs:



"The Port allocates indirect overhead costs to capital projects. The Port routinely conducts an indirect cost allocation analysis and as of March 2013 is applying an administrative overhead rate of 198.66% on labor costs for engineering staff and 146.17% for facilities and other staff; and an administrative overhead rate of 0.63% on non-labor costs."

[More information](#)

### **San Francisco**

No specified administrative or overhead costs.

[More information](#)

### **San Jose**

Includes details of the CIP program, starting with the definition of overhead costs.

[More information](#)

Some projects classify the use of funds into "construction projects" and "non-construction" projects. Within the "non-construction" use of funds, different projects detail the cost of program management.

The document provides definitions of overhead and the rules to estimate it, but there is not an item in the project sheets that explicitly registers the costs of overhead. The document states that "All overhead costs are allocated to the appropriate program within the limits of local, State, and federal laws. The City utilizes a two-step method (double-step-down method) where costs are first allocated among the central service support programs to arrive at the total cost of the central service programs. These total costs are then allocated down to the departments and funds that are benefiting from these expenses. The Finance Department uses this process to develop overhead rates that recover these central support program costs borne by the General Fund from various funds and fee programs. The corresponding revenue is collected by the General Fund."

### **Santa Monica**

No explicit overhead or project management budget/costs.

[More information](#)

## APPENDIX L: COMPARISON OF SELECTED CITIES' IMPACT FEES

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This appendix presents a survey of development impact fees in cities neighboring East Palo Alto. For the purpose of this survey, "impact fee" is considered a municipal fee on a new or proposed development project to pay for all or a portion of the costs of providing public services to the new development. Impact fees are often associated with capital infrastructure programs. Other municipal or development fees, such as charges for inspections or plans, are NOT considered impact fees.

The cities surveyed include:

- ◆ Burlingame
- ◆ East Palo Alto
- ◆ Palo Alto
- ◆ Redwood City
- ◆ San Carlos/Belmont
- ◆ San Mateo
- ◆ South San Francisco
- ◆ Sunnyvale

There are a variety of ways to express impact fees, thereby complicating the process to identify and present per-unit comparisons across cities. Differences include:

- ◆ Land use type – fees within a city may differ by land use, or real estate product, type.
- ◆ Zones – fees may differ within a city by geographic zone.
- ◆ Unit of cost – fees may be expressed by a standardized cost, such as square feet or dwelling units. Alternatively, some fees may be based on a variety of factors specific to the proposed development.
- ◆ Category name – fees may refer to similar costs, but have different labels. For example, transportation infrastructure and streetscape or traffic improvements may all essentially refer to the same type of capital infrastructure cost and public benefit.


The survey applies impact fees to development prototypes with the following assumed features:

**Table L-1: Prototype Features**

Type	Size (sq.ft.)	Size (acres)	Units
R2: Residential (rental)	43,750	1	50
O2: Office (lease)	130,680	2	N/A


Source: AECOM, 2019

**Figure L-1: R2 Residential Prototype Features**

ID	Development Prototype	Units	Unit (ft <sup>2</sup> )	Residential Square Feet	Commercial Square Feet	Land Area (acres)	Density (du/a or FAR)	Examples	Impervious surface area (acres)	Impervious Factor
R2	R2: High Density Residential/3-5 story Building (for-sale and rental)	50	875	43,750	-	1.0	50 du/a		0.90	0.9

Source: AECOM, 2019

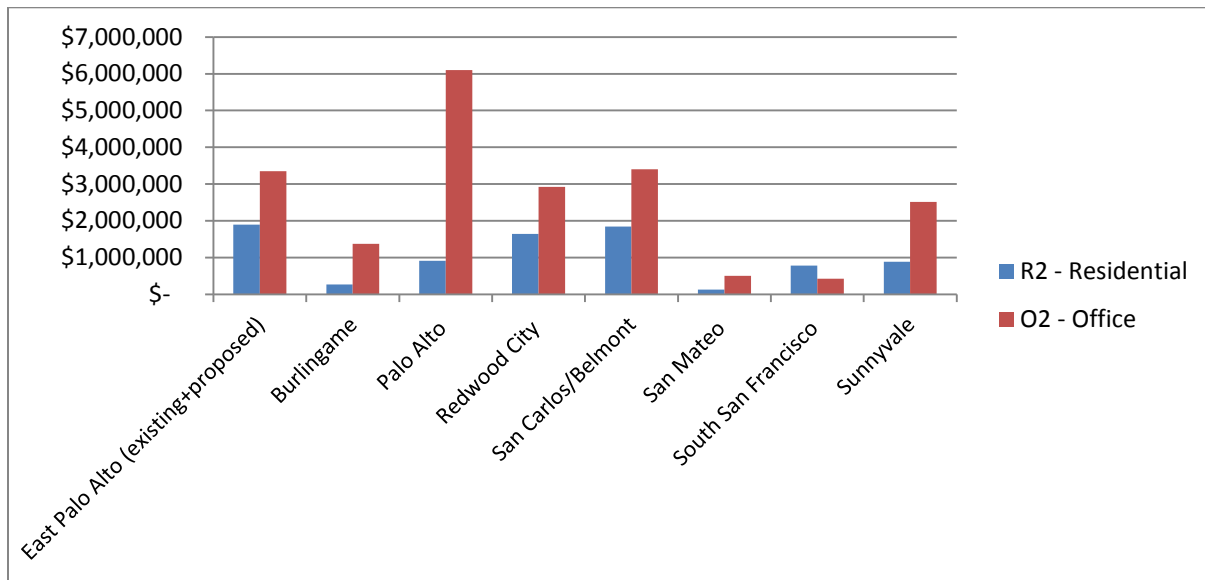
**Figure L-2: O2 Office Prototype Features**

ID	Development Prototype	Units	Unit (ft <sup>2</sup> )	Residential Square Feet	Commercial Square Feet	Land Area (acres)	Density (du/a or FAR)	Examples	Impervious surface area (acres)	Impervious Factor
O2	O2: Office/R&D (up to 4-6 stories)	-	-	-	130,680	2.00	1.5 FAR		1.80	0.9

Source: AECOM, 2019

The graph and table on the following pages compare impact fees on two prototype developments for seven neighboring cities with East Palo Alto’s existing and proposed development impact fees.

**Figure L-3: Comparison of Impact Fees for Prototype Developments**



Source: AECOM, 2019

**Table L-2: Comparison of Impact Fees for Prototype Developments in Neighboring Cities**

City (link to Fee Schedule)	Impact Fees Applied	Estimated Impact Fees for R2	Estimated Impact Fees for O2	Comments
East Palo Alto	Existing: Commercial Linkage, Housing, Water Capacity. <i>Proposed: Parks &amp; Trails, Public Facilities, Storm Drainage, Transportation Infrastructure</i>	\$1,903,541	\$3,348,866	
<a href="#">Burlingame</a>	Parks & Trails, Public Facilities, Library, Public Safety (Police), Public Safety (Fire), Storm Drainage, Transportation Infrastructure	\$276,850	\$1,377,498	The estimated totals do not reflect significant additional impact fees for development in the Bayfront Development Area on the east side of the US 101, Downtown Burlingame and for the North Burlingame & Rollins Road Development Area.
<a href="#">Palo Alto</a>	Parks & Trails, Community Center, Library, General Government Facilities, Public Safety Facilities, Housing - Non-Residential, Transportation	\$916,650	\$6,102,230	<p>The transportation impact fees rely on net new peak hour trips. The estimated total assumes the number of peak hour trips for the development corresponds to the parking spaces per development: 75 for R2 and 370 for O2 prototype.</p> <p>The estimated totals do not reflect the Parking In-Lieu Fee for Downtown Assessment District that amounts to more than \$5 million for the R2 and nearly \$26 million for the O2 prototype.</p> <p>The estimated totals do not reflect the Housing Impact Fee for Residential Condos that amounts to \$2.2 million since the R2 prototype assumes residential rental units.</p>

City (link to Fee Schedule)	Impact Fees Applied	Estimated Impact Fees for R2	Estimated Impact Fees for O2	Comments
<a href="#">Redwood City</a>	Parks & Trails, Affordable Housing, School, Transportation Infrastructure	\$1,649,455	\$2,924,618	The estimated totals do not reflect the Parking In-Lieu Fee for projects in downtown Redwood City that amounts to more than \$1.8 million for the R2 and more than \$9 million for the O2 prototype.  Sewer and Water Fees have not been included since they are not listed as impact fees.
<a href="#">San Carlos</a>	Parks & Trails, Affordable Housing, Commercial Linkage, Sewer Capacity, Transportation Infrastructure	\$1,845,600	\$3,400,577	Parks & Trails impact fees are based on the number of bedrooms; the R2 prototype assumes three bedrooms per apartment.  Sewer Capacity wastewater discharge for the O2 prototype is assumed to be 14,375 gpd (assuming 0.11 gpd per square foot and a 0.9 flow factor).
<a href="#">San Mateo</a>	Transportation Improvement	\$130,100	\$508,476	None
<a href="#">South San Francisco</a>	Parks & Recreation, Bicycle and Pedestrian, Public Safety	\$787,950	\$431,244	Parks & Recreation residential fees are \$17,221 for 20 to 49 units and \$15,026 for 50+ units.  The estimated totals do not reflect three East of 101 impact fees: Oyster Point Interchange Impact Fee, East of 101 Traffic Impact Fee, East of 101 Sewer Impact Fee.  Other "Development Fees" not applied: Childcare Fee, School District Fee, Sewer Capacity Fee (not available on online fee schedule).

City (link to Fee Schedule)	Impact Fees Applied	Estimated Impact Fees for R2	Estimated Impact Fees for O2	Comments
<a href="#">Sunnyvale</a>	Housing Impact Fee for Nonresidential Developments, Housing Impact Fee For Rental Housing, Storm Drainage, Transportation Infrastructure	\$891,329	\$2,516,269	Other "Development Fees" not applied: Technology Surcharge, Water and Sewer Connection Fees, Storm Drainage, and Park Dedication In-Lieu for Multi-Family Residential.

Source: AECOM, 2019

## APPENDIX M: AMENDMENTS SINCE PREVIOUS RELEASE

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The following amendments to this study have been made since the release of the Public Draft on January 24, 2019:

- In Table 3-1 and Summary Table 1, changed the Storm Drainage fee for the RBD from \$159,000 to \$121,000 per impervious acre to accord for reduction in CIP storm drainage costs from \$60.1 million to \$54.1 million. Amended references accordingly throughout study.
- In Table 4-5 and Table B-1, corrected the cost of Storm Drainage Pipes in RBD from \$16,504 to \$10,572. Corrected accordingly in Table 4-6 and Table 4-7, since the adjustment of the Storm Drainage fee for the RBD affected the gross cost, cost attributable to impervious acres of new development within the RBD, and the unit cost for storm drainage infrastructure.
- In Table 5-1 and Table 5-4, corrected the Storm Drainage and total fees and share of capital costs. Modified the committed City funds for Transportation Infrastructure.
- In Chapter 6, added footnote on employee office density calculations.
- In Appendix D, modified Table D-2 and added Table D-3 for clarity.