

**Pima County, Arizona
Impact Fee Update**

**Street Facilities
Development Fee Study**

DRAFT Public Report

Prepared by

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. DEVELOPMENT IMPACT FEE CATEGORIES	3
3. STREET FACILITIES AND COSTS ATTRIBUTABLE TO DEVELOPMENT	4
4. DEVELOPMENT FEES FOR STREET FACILITIES	9
4.1. TRAVEL DEMAND CALCULATION	9
4.2. FEE CALCULATION	9

APPENDIX

- LIST OF PREPARERS
- FEE CALCULATION
- UPDATED EDU TABLE

LIST OF EXHIBITS

Exhibit 1. Street Facilities Benefit Areas	2
Exhibit 2. Total Roadway Needs and Cost Attributable to Development.....	4
Exhibit 3. Necessary Streets Facilities.....	6
Exhibit 4: Recommended Maximum Roadway Development Fee.....	11

1. INTRODUCTION

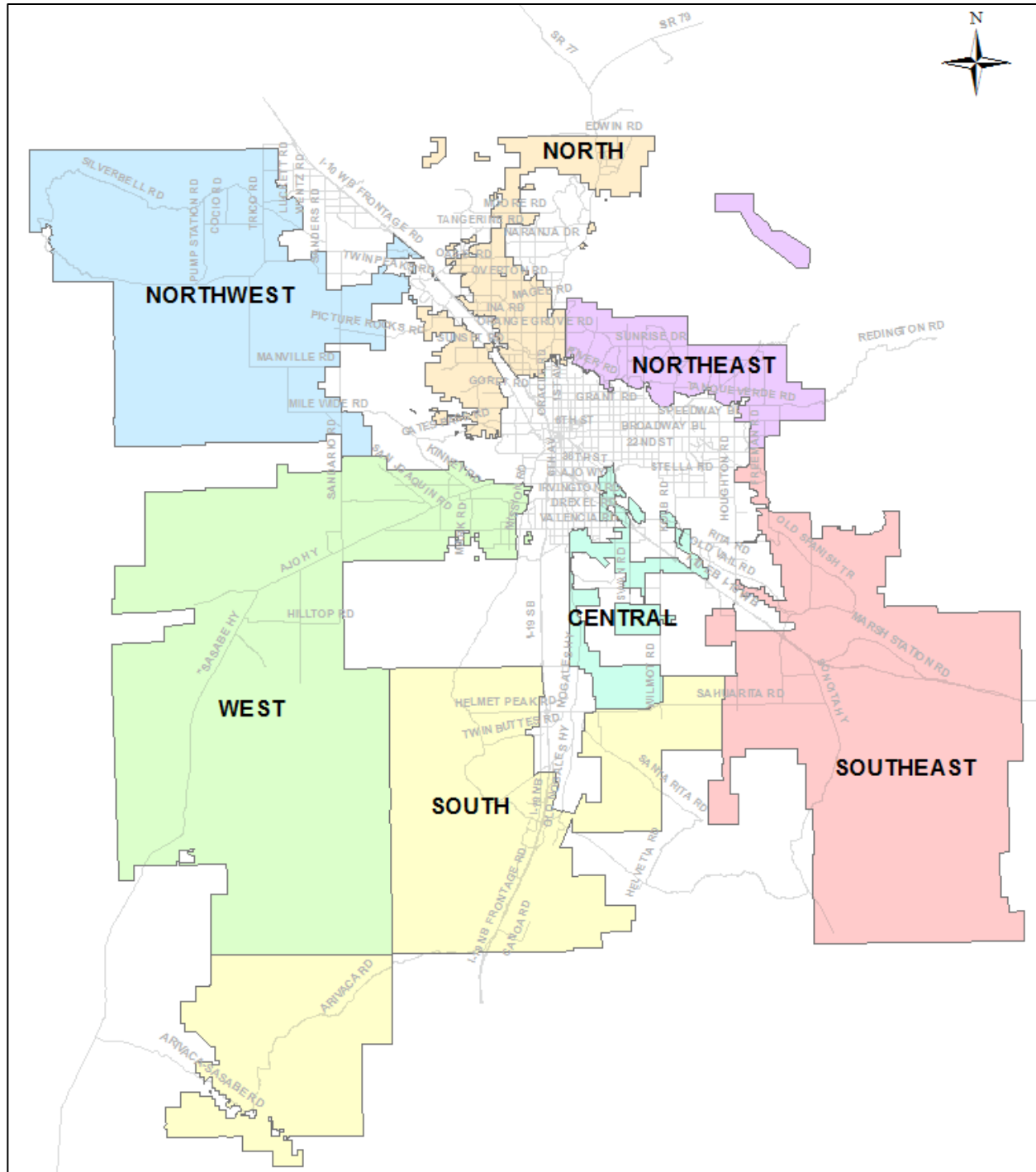
The Street Facilities Development Impact Fee in unincorporated Pima County is assessed for new developments to offset some of the infrastructure costs associated with growth. The County currently charges development impact fees for street facilities. To continue assessing and collecting fees, the County must update its program to comply with the new state statute ARS §11-1102. The update of the Street Facilities Development Impact Fee program includes preparation of new development impact fee studies, project lists, fee schedules, and county ordinance.

The statute prescribes in detail development fee assessment procedures and programs and limits the types of “necessary public services” which the fees can fund. A county must develop two preliminary products prior to calculating the fees for each service category: a set of land use assumptions and an infrastructure improvements plan (IIP). These documents were presented for public hearing on January 14, 2020 and adopted by the County Board of Supervisors on February 18, 2020.

The Land Use Assumptions Report and Street Facilities Infrastructure Improvements Plan (Street Facilities IIP) define seven service areas for street improvements, shown in Exhibit 1.

This Development Fee Report defines land use categories subject to the fee and identifies the maximum recommended fees to be collected to fund the Street Facilities IIP.

Exhibit 1. Street Facilities Benefit Areas



2. DEVELOPMENT IMPACT FEE CATEGORIES

Roadway development impact fees are assessed based on a development's size and type. Pima County defines eight major land use categories: residential, commercial/retail, industrial, hospital/clinic, recreational, office, public schools, and charter/private schools with subcategories for residential, retail/services, and office (Exhibit 2). Category definitions are based on commonly used land use descriptions in the Institute of Transportation Engineers' *Trip Generation Manual* (ITE).

Exhibit 2. Land Use Categories and Descriptions

Category	Description	ITE Code
Single Family Residential (SFR)	Single family homes not age-restricted, not mobile homes	210
Multi-Family Residential	Apartments and townhomes	220
Senior Housing (Residential)	Age-restricted housing, single family detached and attached/multi-family units	251
Assisted Living/ Congregate Care	Nursing homes, group homes, and housing with centralized amenities and/or some level of medical services or medical care	253
Mobile Home Park	Mobile home and mobile home parks	240
Hotel/Motel	Hotels, motels, recreational vehicle parks, temporary lodging	310,320
Retail	General commercial/retail including grocery, big box, home improvement/superstores, factory outlets, discount clubs, nurseries, automobile sales, pharmacies ¹	820, 823
Services	Restaurants, auto repair centers, car washes, day cares, banks ²	932, 942
High-Traffic Retail/Services	Fast food, coffee shops, gas stations, convenience stores and other similar high traffic generators	853, 930, 934
Industrial	All industrial uses, manufacturing, warehouses, and self-storage facilities (i.e. mini-warehouses)	110, 130, 140, 150, 151
Hospital/Clinic	Hospitals, clinics, labs, pharmacies, veterinary hospitals/clinics	610, 620
Recreational	Athletic, health, fitness, racquet, tennis clubs	492
General Office	All non-medical/dental/veterinarian offices	710
Medical/Dental/ Vet Office	Medical, dental, and veterinarian offices	720
Public Schools	Public schools, all grades	520, 530
Charter/Private Schools	Charter/private schools, all grades	534, 536, 537

¹ The IIP listed pharmacies in the High-Traffic Retail/Services category

² The IIP listed banks in the High-Traffic Retail/Services category

3. STREET FACILITIES AND COSTS ATTRIBUTABLE TO DEVELOPMENT

The Streets Facilities IIP included a list titled “Necessary Streets Facilities” (Exhibit 2) of 28 projects to be partially funded with impact fees between 2020 and 2029. That exhibit, also included in the following pages as Exhibit 4, includes projects in each of the seven service (or benefit) areas, the total cost of improvements, and the cost attributable to new development. A summary of the IIP projects by service area and amount attributable to development is shown below in Exhibit 3. The total cost of improvements is \$201,947,891. Of that total, a little less than half, or \$93,911,982, is attributable to new development. The remainder is not attributable to new development and will be funded through other sources such as RTA, federal or local funds.

Exhibit 3. Total Roadway Needs and Cost Attributable to Development

Service Area	Total Roadway Needs 2020-2029	Cost Attributable to Development	% of total
Central	\$ 20,758,289	\$ 11,309,791	54%
Southeast	\$ 68,354,736	\$ 25,344,769	37%
North	\$ 42,721,694	\$ 16,725,793	39%
Northeast	\$ 26,078,238	\$ 8,514,045	33%
Northwest	\$ 8,600,000	\$ 3,594,341	42%
South	\$ 11,415,304	\$ 5,383,991	47%
West	\$ 24,019,630	\$ 23,039,251	96%
TOTAL	\$ 201,947,891	\$ 93,911,982	47%

The amount attributable to new development varies by service area depending on how much new growth is anticipated relative to total roadway needs. For example, nearly all (96%) of the projects in the West service area will be funded by new growth because that area is anticipated to grow substantially during the next 10 years and will require new capacity. The other service areas are projected to have less growth relative to existing roadway capacity needs; therefore, the percentage of the project cost which is attributable to new development is lower (between 33% and 54%). Overall, the total percent of roadway capacity needs in the IIP attributable to new development is 47%. Additional detail about the development of the total costs and the cost attributable to development can be found in the Street Facilities IIP.

Exhibit 4. Necessary Streets Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
CENTRAL	1	Valencia Road	0.9 mi east of Kolb Road	0.8 mi west of Old Vail Road	Widening	6	0.7	\$12,600,000	25%	\$3,151,503
	2	Swan Road/Los Reales Road	N/A	N/A	Intersection Improvements	N/A	1.0	\$2,000,000	100%	\$2,000,000
	3	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	17	\$733,771	100%	\$733,771
	4	Country Club Road	I-10	Valencia Road	ROW Purchase	N/A	N/A	\$5,424,518	100%	\$5,424,518
	Central Service Area Total							\$20,758,289	N/A	\$11,309,791
SOUTHEAST	5	Houghton Road	0.2 mi south of Golf Links Road	Escalante Road	Widening	6	0.8	\$14,400,000	29%	\$4,162,206
	6	Valencia Road	Houghton Road	Old Spanish Trail	New Construction	2	2.6	\$16,000,000	41%	\$6,559,309
	7	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	2	\$86,326	100%	\$86,326
	8	Houghton Road	I-10	Andrada Polytech	Widening	4	2.9	\$34,800,000	33%	\$11,468,518
	9	Colossal Cave Road - 2 Locations	Mary Ann Cleveland Way	Camino Loma Alta	Turn Lanes/ Intersection Improvements	N/A	2	\$3,068,410	100%	\$3,068,410
	Southeast Service Area Total							\$68,354,736	N/A	\$25,344,769

Exhibit 4 (cont'd). Necessary Street Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
NORTH	10	Silverbell Road	Sunset Road	Sunset Dunes	Widening	3	2.0	\$18,000,000	49%	\$6,400,000
			Benjamin Road	Abington Road						
	11	Orange Grove Road	La Cañada Drive	Oracle Rd	Widening	4	0.9	\$10,800,000	43%	\$4,680,931
	12	Sunset Road	I-10	River Road	New Construction	3	0.3	\$11,381,500	70%	\$3,104,669
	13	Linda Vista Road - 3 Locations	Hartman Road	Camino de Oeste	Turn Lanes	N/A	3	\$900,000	100%	\$900,000
	14	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	38	\$1,640,194	100%	\$1,640,194
	North Service Area Total							\$42,721,694	N/A	\$16,725,793
NORTHEAST	15	1st Avenue	Orange Grove Road	Ina Road	Widening	4	1.0	\$6,556,000	6%	\$361,622
	16	Houghton Road	Speedway Boulevard	Drachman Street	Widening	4	0.3	\$9,000,000	13%	\$1,173,691
	17	Houghton Road/ Catalina Highway	N/A	N/A	Intersection Improvements	N/A	1	\$2,000,000	100%	\$2,000,000
	18	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	26	\$1,122,238	100%	\$1,122,238
	19	Tanque Verde Road/Soldier Trail	N/A	N/A	Intersection Improvements	N/A	1	\$2,000,000	100%	\$2,000,000
	20	Orange Grove Road	1st Avenue	Camino de Michael	Widening	4	0.45	\$5,400,000	34%	\$1,856,494
	Northeast Service Area Total							\$26,078,238	N/A	\$8,514,045

Exhibit 4 (cont'd). Necessary Street Facilities

Service Area	Project No.	Project	Limits		Project Description	# of Lanes	Length /Units	Total Cost	% Used by Development	Cost Attributable to Development
NORTHWEST	21	Sandario Road/Picture Rocks Road	N/A	N/A	Intersection Improvements	N/A	1	\$2,000,000	100%	\$2,000,000
	22	Twin Peaks Road	Twin Peaks Road	Saguaro Highlands	Widening	4	0.55	\$6,600,000	35%	\$1,594,341
	North Service Area Total							\$8,600,000	N/A	\$3,594,341
SOUTH	23	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	8	\$345,304	100%	\$345,304
	24	Andrada Road	West Access for Hook M	1 mile west of Houghton	New Construction	2	1.8	\$11,070,000	46%	\$5,038,687
	South Service Area Total							\$11,415,304	N/A	\$5,383,991
WEST	25	ITS Improvements	N/A	N/A	Signal Coordination/ Timing	N/A	10	\$431,630	100%	\$431,630
	26	Valencia Road	Mission Road	1/4 mi W of Cardinal Ave	Widening	6	1.0	\$18,000,000	100%	\$18,000,000
	27	Camino Verde/Valencia Road	N/A	N/A	Intersection Improvements	N/A	1	\$500,000	100%	\$500,000
	28	Irvington Road	Sunset Boulevard	Ajo Way	New Construction	2	0.8	\$5,088,000	81%	\$4,107,621
	West Service Area Total							\$24,019,630	N/A	\$23,039,251
TOTALS								\$201,947,891	TOTAL ATT. TO DEVELOPMENT	\$93,911,982

4. DEVELOPMENT FEES FOR STREET FACILITIES

Roadway development impact fees are based on the cost to provide roadway capacity for new development. The Infrastructure Improvements Plan (IIP) identified the roadway improvements that will be needed as a result of anticipated development over the next ten years. The IIP also identified the travel demand and the equivalent demand per unit (EDU) for each land use type. The methodology for calculating travel demand, impact fees, and EDU is described in more detail below.

4.1. TRAVEL DEMAND CALCULATION

Several factors are used to calculate fees, including the amount of traffic generated by a residential unit or non-residential development (trip generation), the percent of primary trips, the distance traveled on the roadway network (impact/consumption), and the cost to provide the roadway capacity needed to serve that development/land use. The explanation of these variables and associated references can be found in the Appendix. The travel demand for a single family residential (SFR) unit is shown in the calculation below:

Vehicle-Miles Traveled per Dwelling Unit

Trips per Dwelling Unit (ITE Trip Generation)	=	0.99 trips in peak hour
Trip Length (US Census, N.H.T.S.)	=	10.7 miles
Vehicle-Miles Traveled (VMT) in peak hour = 0.99×10.7 miles	=	10.6 miles
Travel in Unincorporated Pima County = $50\% \times 10.6$ miles	=	5.3 miles
Travel on Arterial Roads Only = $80\% \times 5.3$ miles	=	4.2 miles

4.2. FEE CALCULATION

The impact fee for a single family dwelling unit is calculated by multiplying the number of vehicle miles travelled (VMT) as calculated above by the cost to construct one unit of roadway capacity (one lane mile). The roadway unit cost is calculated by dividing the cost per lane mile of newly constructed roadway (\$3.0M) by the hourly vehicle capacity per lane mile (960 vehicles per hour). Adjustments are made to account for non-residential and multi-purpose trips and to allow credits for taxes paid toward those roadway improvements included in the Regional Transportation Authority (RTA) plan. A summary of the fee calculation for one SFR unit is shown below:

Single Family Residential Fee Calculation

Cost per lane mile of capacity	=	\$3,000,000
Capacity per lane mile (peak hour)	=	960 vehicles per hour (vph)
Cost per vehicle miles travelled (\$3,000,000/960vph)	=	\$3,125/vph
Base fee (4.2 miles x \$3,125)	=	\$13,218
Residential Factor (accounts for non-residential trips)	=	65%
Raw fee (base fee x residential factor)	=	\$8,592
Fee credits for RTA taxed paid	=	\$69
Net Fee per residential unit (raw fee – RTA credit)	=	\$8,523

The term “Equivalent Demand per Unit (EDU)” is a measure of demand for street infrastructure created by a typical single family residence (SFR). The average VMT created by one SFR on the arterial network is considered to be one EDU. The demand for roadway improvements for other land uses is the ratio of its demand compared to that of an SFR, expressed in EDUs. The EDUs were established in the IIP; however, two minor changes have been made to the retail and high-traffic retail/services categories as indicated in Exhibit 2. The updated EDU table is included in the Appendix, and the changes are noted. It was estimated that due to the nature of County retail, a higher percentage of trips are pass-by than what was originally assumed. For high-traffic retail/services, the removal of drive-thru banks and pharmacies with drive-thrus resulted in a change in the average trip generation for the overall category.

Non-residential fees (as well as residential fees for non-SFR units) are calculated in the same manner as SFR fees, starting with the base fee calculated in the SFR fee calculation (4.2 VMT x \$3,125 cost for one lane mile for one VMT) and then multiplying that product by the applicable EDU. The example below is for retail development, and one retail unit is 1,000 square feet.

Retail Fee Calculation (per 1,000 sq. ft.)

Base fee (4.2 miles x \$3,125)	=	\$13,218
Equivalent Demand per Unit (per 1,000 sq. ft.)	=	1.2
Factored Base Fee (base fee x EDU)	=	\$15,636
Non-Residential Factor (65% are residential trips)	=	35%
Raw fee (base fee x non-residential factor)	=	\$5,472
Fee credits for RTA taxes paid	=	\$30
Net Fee per Retail Unit (raw fee – RTA credit)	=	\$5,442

Other fees are calculated similarly and are summarized in Exhibit 4, which defines the recommended maximum base fee for each land use. The fees are calculated in proportion to the relative EDU factors and RTA credits, which are detailed in the IIP. The fees are assessed per number of dwelling units for residential uses, per room for hotels, and per 1,000 square feet of gross building area for all other non-residential uses.

Exhibit 4: Recommended Maximum Roadway Development Fee

Land Use Category	Unit	EDUs	Raw Fee*	RTA Credit**	Recommended Fee***
Residential					
<i>Single Family Detached</i>	Dwell. Unit	1.0	\$ 8,592	\$ 69	\$ 8,523
<i>Attached Residential/Multi-Family</i>	Dwell. Unit	0.6	\$ 4,860	\$ 33	\$ 4,827
<i>Senior Housing</i>	Dwell. Unit	0.3	\$ 2,604	\$ 69	\$ 2,535
<i>Assisted Living/Congregate Care</i>	Dwell. Unit	0.2	\$ 1,562	\$ 17	\$ 1,545
<i>Mobile Home Park</i>	Dwell. Unit	0.5	\$ 3,992	\$ 27	\$ 3,965
Commercial/Retail					
<i>Hotel/Motel</i>	Rooms	0.5	\$ 2,290	\$ 21	\$ 2,269
<i>Retail</i>	1000 sf	1.2	\$ 5,472	\$ 30	\$ 5,442
<i>Services</i>	1000 sf	3.2	\$ 14,665	\$ 30	\$ 14,635
<i>High-Traffic Retail/Services</i>	1000 sf	5.9	\$ 27,406	\$ 41	\$ 27,365
Industrial	1000 sf	0.3	\$ 1,348	\$ 41	\$ 1,307
Hospital/Clinic	1000 sf	1.4	\$ 6,533	\$ 85	\$ 6,448
Recreational	1000 sf	2.6	\$ 12,882	\$ 39	\$ 12,843
Office					
<i>General Office</i>	1000 sf	1.0	\$ 4,635	\$ 41	\$ 4,594
<i>Medical/Dental/Vet Office</i>	1000 sf	3.0	\$ 13,826	\$ 41	\$ 13,785
Public Schools	1000 sf	0.5	\$ 2,540	\$ 44	\$ 2,496
Charter/Private Schools	1000 sf	1.1	\$ 5,648	\$ 44	\$ 5,604

*Raw fees are the development fees before RTA credits are applied.

** RTA credits were calculated based on estimated construction costs. Details of the calculations are in the IIP.

***Recommended fees are the raw fees after applying the RTA credits

APPENDIX

- **List of Preparers**
- **Fee Calculation**
- **Updated EDU Table**

List of Preparers

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Fee Calculation

	Type of Calculation	Proposed	Data Source/Calculation
1	Number of Trips per DU in Peak Hr	0.99	ITE Trip Generation Manual, 10th Edition
2	Trip Length	10.7	2017 NHTS - Table 5b. Use "Original" 2017 values to account for changes in methodology https://nhts.ornl.gov/assets/2017_nhts_summary_travel_trends.pdf
3	Peak Hr VMT/DU	10.6	=1*2
4	% travel in Unincorporated PC	50%	Estimated based on location of trip generators and destinations within the County and adjacent jurisdictions
5	% of travel on Arterials	80%	AASHTO
6	% of travel on Unincorporated PC Arterials	40%	=4*5
7	Peak Hr VMT/DU in PC Arterials	4.2	=3*6
8	Cost per Ln-Mi	\$ 3,000,000	IIP Appendix
9	Peak Hr Capacity/Ln	960	=15,390 (Daily capacity veh/day)*.11 (% travel in peak hour)*55% (% travel in peak direction)
10	\$/VMT	3,125	=8/9
11	Base Fee	\$ 13,218	=7*10
12	Residential/Non Residential Factor	65%	Factor used to ensure trips are not double counted (since each trip has two ends). Standard adjustment would be 50/50 splits between residential and non-residential, but because non-residential include a significant percentage of non-primary (i.e. pass-by) trips, a higher percentage of trip ends are associated with residential uses.
13	Raw Fee (Residential)	\$ 8,592	=11*12
14	Credits/offsets (RTA)*	\$ 69	Exhibit 10 in IIP
15	Credits/offsets (HURF)	\$ -	The County uses HURF monies for maintenance. Therefore, no credit is given because Impact Fees cannot go to maintenance (and therefore, there is no double-charging).
16	Net Fee (Residential)	\$ 8,523	=13-14-15

*Calculated RTA credit for single family residential - credit varies by use

Updated EDU Table

Land Use Category	Unit	% Primary Trips	Peak Hour Rate per Unit	Average Trip Length (mi)	% Travel within Unincorporated PC	% Travel on Arterials	% Travel Demand on PC Arterial Network	Vehicle Miles of Travel Demand per Unit - Peak Hour	Representative ITE Category	Proposed EDUs
Residential										
Single Family Detached	Dwelling Unit	100%	0.99	10.7	50%	80%	40%	4.2	210	1.0
Attached Residential/Multi-Family	Dwelling Unit	100%	0.56	10.7	50%	80%	40%	2.4	220	0.6
Senior Housing	Dwelling Unit	100%	0.30	10.7	50%	80%	40%	1.3	251	0.3
Assisted Living/Congregate Care	Dwelling Unit	100%	0.18	10.7	50%	80%	40%	0.8	253	0.2
Mobile Home Park	Dwelling Unit	100%	0.46	10.7	50%	80%	40%	2.0	240	0.5
Commercial/Retail										
Hotel/Motel	Rooms	100%	0.49	10.7	50%	80%	40%	2.1	310, 320	0.5
Retail	1000 sf	52%	3.05	7.9	50%	80%	40%	5.0	820, 823	1.2
Services	1000 sf	66%	6.44	7.9	50%	80%	40%	13.4	932, 942	3.2
High-Traffic Retail/Services	1000 sf	23%	34.54	7.9	50%	80%	40%	25.1	853, 930, 934	5.9
Industrial	1000 sf	70%	0.41	10.7	50%	80%	40%	1.2	110, 130, 140, 150, 151	0.3
Hospital/Clinic	1000 sf	60%	2.33	10.7	50%	80%	40%	6.0	610, 630	1.4
Recreational	1000 sf	75%	3.45	11.4	50%	80%	40%	11.8	492	2.8
Office										
General Office	1000 sf	75%	1.16	12.2	50%	80%	40%	4.2	710	1.0
Medical/Dental/Vet Office	1000 sf	75%	3.46	12.2	50%	80%	40%	12.7	720	3.0
Public Schools	1000 sf	25%	5.17	4.5	50%	80%	40%	2.3	520, 530	0.5
Charter/Private Schools	1000 sf	25%	7.39	7.0	50%	80%	40%	5.2	534, 536, 537	1.2