

Westgate Development Fiscal Impact Analysis

Capital expenses will be addressed later in this chapter. Other expenses are also considered fixed.

Figure 25: Police Expenditures

Exp. Category	FY2006 Budget Less Ded. Rev.	Res. Share 80%	Method.	Divisor	Exp. Factor	Non Res. Share 20%	Method.	Divisor	Exp. Factor
Personnel	-\$43,206,405	-\$34,779,314	Pop.	146,138	-\$238	-\$8,463,122	Nonresidential Trips	435,213	- \$19.45
Services and Supplies	-\$1,808,684	-\$1,455,913	Pop.	146,138	-\$10	-\$354,279	Nonresidential Trips	435,213	-\$0.81
Equipment	-\$89,617	-\$72,138	Fixed	0	\$0	-\$17,554	Fixed	N/A	\$0.00
Internal Service	-\$3,905,108	-\$3,143,446	Pop.	146,138	-\$22	-\$764,919	Nonresidential Trips	435,213	-\$1.76
Other	-\$13,696	-\$11,025	Fixed	0	\$0	-\$2,683	Fixed	N/A	\$0.00

Fire Expenditures

Following Police is Fire, making up 18% of general fund expenditures. TischlerBise used the proportionate share analysis in Figure 40 to determine the relative demand for fire services from residential and non-residential development. The share factors are 80% for residential and 20% for non-residential. Revenues generated by the Charges for Current Services have been applied against the department's budget to offset the costs incurred to perform these reciprocal services. The budget less the dedicated revenues is multiplied by residential growth's proportionate share (80%), then divided by the current estimates for population. The same methodology is repeated for nonresidential growth by applying the proportionate share factor of 20%. This amount is then divided by the current estimate of nonresidential vehicle trips.

Again, nonresidential vehicle trips are used to forecast the impact of nonresidential growth on fire services because it is a better measure of the presence of people at nonresidential land uses including employees, shoppers and visitors. Equipment and other expenses are considered fixed. Capital expenses will be addressed later in this chapter.

Figure 26: Fire Expenditures

Exp. Category	FY2006 Budget Less Ded. Rev.	Res. Share 80%	Method.	Divisor	Exp. Factor	Non Res. Share 20%	Method.	Divisor	Exp. Factor
Personnel	-\$25,060,798	\$20,172,874	Population	146,138	-\$138	-\$5,502,698	Nonres. Trips	435,213	-\$12.64
Services and Supplies	-\$1,849,513	-\$1,488,779	Population	146,138	-\$10	-\$406,105	Nonres. Trips	435,213	-\$0.93
Equipment	-\$444	-\$358	Fixed	0	\$0	-\$98	Fixed	N/A	\$0.00
Internal Service	-\$1,792,098	-\$1,442,562	Population	146,138	-\$10	-\$393,498	Nonres. Trips	435,213	-\$0.90
Other	\$0	\$0	Fixed	0	\$0	\$0	Fixed	N/A	\$0.00

Non-Departmental Expenditures

Non-departmental expenditures total \$31 million in FY2006, representing 17% of General Fund expenditures. These expenditures consist primarily of transfers to debt service funds, including capital projects and pensions. These transfers (shown under “other” in the Figure below) are not expected to increase as a result of new development. Future capital projects are considered later in this section.

Figure 27: Non-Departmental Expenditures

Expenditure Category	FY2006 Budget	Methodology	Divisor	Exp. Factor
Personnel	-\$1,407,378	Population and Jobs	231,782	-\$6.07
Services and Supplies	-\$3,209,403	Population and Jobs	231,782	-\$13.85
Equipment	\$0	Fixed	0	\$0.00
Internal Service	\$0	Fixed	0	\$0.00
Other (Transfer to Debt Service)	-\$26,740,034	Fixed	0	\$0.00

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Public Works

Public Works budgeted expenditures total \$19.8 million in Fiscal Year 2006. Other Public Works expenditures are found in special funds that are addressed at the end of this chapter. General Fund Public Works expenditures are found in Figure 28. Revenues generated by the Fees and Charges for Current Services have been applied against the department's budget to offset the costs incurred to perform these reciprocal services. The City anticipates impacts in the following public work function areas: traffic lights/signals, street cleaning, street maintenance and parks. The first three are a function of vehicle trips, while parks is driven by increased population. All other Public Works expenditures are considered fixed, based on discussions with City staff. The last column presents the cost factor per demand unit (vehicle trips or population).

Figure 28: Public Works Expenditures

Public Works (General Fund)	FY2006 Budget	Dedicated Revenue	Less Dedicated Rev.	Methodology	Divisor	Cost Factor
<i>Traffic Lights/Signals</i>						
Personnel	-\$1,132,087	\$35,726	-\$1,096,361	Vehicle Trips	679,180	-\$1.61
Services and Supplies	-\$2,190,363	\$69,123	-\$2,121,240	Vehicle Trips	679,180	-\$3.12
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$223,594	\$7,056	-\$216,538	Vehicle Trips	679,180	-\$0.32
Other	-\$1,100	\$35	-\$1,065	Fixed	0	\$0.00
Subtotal	-\$3,547,144	\$111,941	-\$3,435,203			
<i>Street Cleaning</i>						
Personnel	-\$1,127,849	\$73,469	-\$1,054,380	Vehicle Trips	679,180	-\$1.55
Services and Supplies	-\$137,861	\$8,980	-\$128,881	Vehicle Trips	679,180	-\$0.19
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$452,724	\$29,491	-\$423,233	Vehicle Trips	679,180	-\$0.62
Other	\$0	\$0	\$0	Fixed	0	\$0.00
Subtotal	-\$1,718,434	\$111,941	-\$1,606,493			
<i>Street Maintenance</i>						
Personnel	-\$770,145	\$100,518	-\$669,627	Vehicle Trips	679,180	-\$0.99
Services and Supplies	-\$28,455	\$3,714	-\$24,741	Vehicle Trips	679,180	-\$0.04
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$59,060	\$7,708	-\$51,352	Vehicle Trips	679,180	-\$0.08
Other	\$0	\$0	\$0	Fixed	0	\$0.00
Subtotal	-\$857,660	\$111,941	-\$745,719			
<i>Parks</i>						
Personnel	-\$2,857,628	\$269,084	-\$2,588,544	Population	146,138	-\$17.71
Services and Supplies	-\$1,604,411	\$151,077	-\$1,453,334	Population	146,138	-\$9.94
Equipment	-\$35,760	\$3,367	-\$32,393	Fixed	0	\$0.00
Internal Service	-\$756,979	\$71,280	-\$685,699	Population	146,138	-\$4.69
Other	\$0	\$0	\$0	Fixed	0	\$0.00
Subtotal	-\$5,254,778	\$494,808	-\$4,759,970			
<i>All Other Public Work Expenditures</i>						
Personnel	-\$5,447,065	\$71,786	-\$5,375,279	Fixed	0	\$0.00
Services and Supplies	-\$1,934,655	\$25,496	-\$1,909,159	Fixed	0	\$0.00
Equipment	-\$20,975	\$276	-\$20,699	Fixed	0	\$0.00
Internal Service	-\$1,091,263	\$14,381	-\$1,076,882	Fixed	0	\$0.00
Other	-\$70	\$1	-\$69	Fixed	0	\$0.00
Subtotal	-\$8,494,028	\$111,941	-\$8,382,087			

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Planning and Permitting

City staff does not expect increased planning and permitting expenditures for two reasons. First, revenues from permitting are expected to offset permit issuance related costs. Additionally, the developer is paying the staff costs related to the public review process of the development proposal.

Human Services and Recreation

Human Services and Recreation provides the program-content at the City's parks and recreation facilities. The department's budget for FY2006 totals \$8.6 million. Expenditures are expected to increase as a result of new development, with population serving as the demand factor. The right column presents the expenditure factor per demand unit (population).

Figure 29: Human Services and Recreation Expenditures

Expenditure Category	FY2006 Budget	Dedicated Revenue	Less Dedicated Revenue	Methodology	Divisor	Exp. Factor
Personnel	-\$6,016,243	\$306,826	-\$5,709,417	Population	146,138	-\$39.07
Services and Supplies	-\$1,260,304	\$64,275	-\$1,196,029	Population	146,138	-\$8.18
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$1,358,965	\$69,307	-\$1,289,658	Population	146,138	-\$8.82
Other	\$0	\$0	\$0	Fixed	0	\$0.00

Transportation

General Fund transportation expenses are budgeted at \$4 million in Fiscal Year 2006. This includes expenses related to traffic engineering and planning, transportation administration, transportation planning and development and parking enforcement. Other Transportation expenditures are found in special funds that are addressed at the end of this chapter. Transportation expenditures are considered variable, and are a function of vehicle trips. The right column presents the expenditure factor per demand unit (vehicle trips). Vehicle trips are expected to grow as a result of new development.

Figure 30: Transportation Expenditures

Expenditure Category	FY2006 Budget	Methodology	Divisor	Exp. Factor
Personnel	-\$2,150,266	Vehicle Trips	679,180	-\$3.17
Services and Supplies	-\$1,724,916	Vehicle Trips	679,180	-\$2.54
Equipment	-\$40,000	Fixed	0	\$0.00
Internal Service	-\$169,648	Vehicle Trips	679,180	-\$0.06
Other	\$0	Fixed	0	\$0.00

Human Resources, City Attorney, City Manager, City Council, City Clerk and Finance

Human Resources, City Attorney, City Manager, City Council, City Clerk and Finance expenditures are not expected to increase as a result of the Westgate development.

SPECIAL FUND EXPENDITURES

This area of the report examines those expenditures budgeted for the special funds examined in Section II. Not included here is the building services fund, as expenditures are found within the General Fund planning and permitting department. As enterprise funds are not considered in this analysis, those expenditures are not considered here.

Transportation Sales Tax Fund

Transportation Sales Tax Fund dollars (Proposition A) are used to support the Dial-A-Ride program for seniors over 60 years old. The operations are expected to be impacted by new residential development, so population is the demand driver. The right column presents the expenditure factor per demand unit (population).

Figure 31: Transportation Sales Tax Fund Expenditures

Expenditure Category	FY2006 Budget	Methodology	Divisor	Exp. Factor
Personnel	-\$508,099	Population	146,138	-\$3.48
Services and Supplies	-\$1,731,144	Population	146,138	-\$11.85
Equipment	\$0	Fixed	0	\$0.00
Internal Service	-\$101,274	Population	146,138	-\$0.69
Other	\$0	Fixed	0	\$0.00

Proposition C Local Transit Fund

Proposition C Local Transit dollars are used to support the Pasadena Area Rapid Transit System (ARTS). Fare revenues have been applied against the department’s budget to offset the costs incurred to operate the service. The system is used for commuting-to-work as well as other trips, therefore population and jobs serve as the demand factors. The right column presents the expenditure factor per demand unit (population and jobs).

Figure 32: Proposition C Local Transit Fund Expenditures

Expenditure Category	FY2006 Budget	Dedicated Rev.	Less Ded. Rev.	Methodology	Divisor	Exp. Factor
Personnel	-\$203,533	\$27,054	-\$176,479	Population and Jobs	231,782	-\$0.76
Services and Supplies	-\$3,707,077	-\$42,847	-\$3,749,924	Population and Jobs	231,782	-\$16.18
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$415,303	\$49,760	-\$365,543	Population and Jobs	231,782	-\$1.58
Other	\$0	\$0	\$0	Fixed	0	\$0.00

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Gas Tax Fund

Gas tax funds are used by the City for roadway maintenance. Vehicle trips is the driver of demand for this service.

Figure 33: Gas Tax Fund Expenditures

Expenditure Category	FY2006 Budget	Methodology	Divisor	Exp. Factor
Personnel	-\$383,310	Vehicle Trips	679,180	-\$0.56
Services and Supplies	-\$84,140	Vehicle Trips	679,180	-\$0.12
Equipment	\$0	Fixed	0	\$0.00
Internal Service	-\$221,825	Vehicle Trips	679,180	-\$0.33
Other	-\$100	Fixed	0	\$0.00

Library Services Fund

Figure 36 presents the expenditures for the Library Services Fund. Revenues from library fees have been applied against the department's budget to offset costs. Demand for library services is driven by population.

Figure 34: Library Services Fund Expenditures

Expenditure Category	FY2006 Budget	Dedicated Rev.	Less Ded. Rev.	Methodology	Divisor	Exp. Factor
Personnel	-\$7,506,911	\$31,078	-\$7,475,833	Population	146,138	-\$51.16
Services and Supplies	-\$1,999,805	\$8,279	-\$1,991,526	Population	146,138	-\$13.63
Equipment	\$0	\$0	\$0	Fixed	0	\$0.00
Internal Service	-\$1,652,928	\$6,843	-\$1,646,085	Population	146,138	-\$11.26
Other	\$0	\$0	\$0	Fixed	0	\$0.00

CAPITAL EXPENDITURES

To estimate general government related capital costs resulting from the Westgate development, TischlerBise used costs drawn from the City’s FY 2005-2010 Capital Improvement Program (CIP). Included in this analysis is the local contribution for the following categories of capital projects: municipal buildings and facilities and technology projects. Select capital categories are not included – parks and landscaping, arroyo projects, technology, and traffic controls and facilities projects. Capital costs for these categories are expected to be offset by impact fees (parks), developer on-site improvements (transportation) and developer contributions (transportation). Enterprise activities are also excluded from the analysis, including Water, Power, the Rose Bowl, and the Pasadena Center.

The CIP includes funding received from various sources, include local, state, federal and private sources. Only contributions made by the City of Pasadena are considered here. The CIP also includes unfunded projects, or the unfunded portion of planned projects. As it is unclear what of these will ultimately be funded, these dollars have been excluded from the analysis. Figure 35 presents the annual average of local, funded capital expenditures by the City of Pasadena over the 2005-2010 period. Residential and non-residential development serves as the demand driver for municipal buildings and facilities and technology projects.

Figure 35: Capital Expenditures – Pasadena

FY 2005-2010 Capital Improvement Program

Totals by Category

	CIP Total	Non-Local Dollars	Unfunded Dollars	Local Funded Dollars	Local Annual Average	Methodology	Divisor	Cost Factor
Municipal Buildings and Facilities	\$106,738,107	\$8,015,408	\$53,361,790	\$45,360,909	\$7,560,152	Population and Jobs	231,782	\$32.62
Technology Projects*	\$3,215,484	\$76,000	\$1,318,699	\$1,820,785	\$303,464	Population and Jobs	231,782	\$1.31
Total	\$109,953,591	\$8,091,408		\$47,181,694	\$18,325,599			

*Excludes Power and Water technology projects

**Enterprise activities not included: Water, Power, Rose Bowl improvements and Pasadena Center.

***Capital projects in the following categories - parks and recreation, arroyo projects and traffic control and facility projects - are not included because it is anticipated that improvements will be provided by the developer directly, through impact fees, and/or a developer contribution.

To approximate capital expenditures for the City from the project’s residential component, each expenditure factor is multiplied by person per housing unit (PPIU) for a multi-family unit (shown in Figure 36). This results in estimated City capital expenditures of \$67 per multi-family housing unit. Expenses for retail/commercial are calculated by multiplying the jobs per 1,000 sq. ft. of space (shown in Figure 37) by each applicable expenditure factor. This totals \$85 per 1,000 sq. ft.

EXPENDITURE SUMMARY – PASADENA

The tables in this section presented the City of Pasadena’s General Fund, Special Fund and capital expenditures, along with associated projection methodologies in relation to the Westgate development. To calculate expenditures for the City from the project’s residential component, each applicable expenditure factor is multiplied by person per housing unit (PPHU) for multi-family (see Figure 36). This results in estimated annual expenditures of \$1,448 per multi family housing unit, or \$1.1 million for the residential component as a whole. Expenses for retail/commercial are calculated by multiplying the jobs and/or trips per 1,000 sq. ft. of space (shown in Figure 37) by each applicable expenditure factor. This totals \$3,739 per 1,000 sq. ft. For the project’s 22,154 sq. ft. of commercial space, this equates to annual expenses totaling \$82,823.

Section III. Demographic Data – Pasadena, CA

The text and tables below summarize the current residential and nonresidential conditions in the City of Pasadena. This information is used to determine the average revenue and cost factors for the City of Pasadena as a result of the proposed development.

CURRENT RESIDENTIAL ESTIMATES

Persons per housing unit is an important demographic factor that helps account for variations in service demand by type of housing. The best data available to make this differentiation is the US Census Summary File 3 dataset, shown in Figure 36 below. The City of Pasadena has a person per housing unit of 2.79 persons per single family unit, 1.98 persons per multi-family unit and 1.90 for all other units. As the residential units in this study are multi-family units, the persons per housing unit figure of 1.98 is used to calculate revenues and costs per multi-family unit.

Figure 36: Persons per Housing Unit - Pasadena, CA

*Persons Per Housing Unit by Type - 2000**

	<i>Persons</i>	<i>Hsg Units</i>	<i>PPHU</i>	<i>Hsg Mix</i>
Single Family	80,531	28,913	2.79	53%
Multi Family	49,670	25,128	1.98	46%
All Other	139	73	1.90	0%
Total Less Group Quarters	130,340	54,114	2.41	100%
Group Quarters	3,531			
Sample Difference	3,596	18		
TOTAL	137,467	54,132		

*Current Estimates by Housing Type - 2005**

	<i>Persons</i>	<i>Hsg Units</i>	<i>PPHU</i>	<i>Hsg Mix</i>
Single Family	88,118	31,637	2.79	53%
Multi Family	54,350	27,495	1.98	46%
All Other	152	80	1.90	0%
Total Less Group Quarters	142,620	59,212	2.41	100%
Group Quarters	3,518			
TOTAL	146,138	59,212		

Notes to Tables

*Source: 2000 U.S. Census, Summary File 3: Tables P1, P3, P9, H1, H3, H8, H30, H32, H33

*Source: 2000 U.S. Census and California Department of Finance Demographic Research Unit - E-5 City County Population and Housing Unit Estimate, 1/1/06 (2005 Household population and group quarters estimate)

The second part of Figure 36 estimates population by housing type in the City in 2005. To do this, the housing mix and person per housing unit figures from the 2000 Census are applied to the City's 2005 population. As the Census population estimates by City are only available from 2000, this report uses the State of California's population estimate for current year. The State of California's Department of Finance estimates the City's population as 146,138 in 2005 (of which 3,518 are in group quarters).

CURRENT NONRESIDENTIAL ESTIMATES

In addition to data on residential development, the calculation of fiscal impacts requires data on nonresidential construction in Pasadena. To convert employment estimates to gross floor area of nonresidential development, average square feet per employee multipliers are used. The multipliers shown in Figure 37 are derived from national data published by the Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI). These multipliers are also used to calculate the number of average weekday vehicle trips from nonresidential development in Pasadena. The multipliers used in the Pasadena study are based on existing development types in the City, and are shown in grey.

Figure 37: Floor Area Per Employee and Nonresidential Trip Rates

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit*	Wkdy Trip Ends Per Employee*	Emp Per Dmd Unit**	Sq Ft Per Emp
Commercial / Shopping Center						
820	25K gross leasable area	1,000 Sq Ft	110.32	na	3.33	300
820	50K gross leasable area	1,000 Sq Ft	86.56	na	2.86	350
820	100K gross leasable area	1,000 Sq Ft	67.91	na	2.50	400
820	200K gross leasable area	1,000 Sq Ft	53.28	na	2.22	450
820	400K gross leasable area	1,000 Sq Ft	41.80	na	2.00	500
General Office						
710	10K gross floor area	1,000 Sq Ft	22.66	5.06	4.48	223
710	25K gross floor area	1,000 Sq Ft	18.35	4.43	4.15	241
710	50K gross floor area	1,000 Sq Ft	15.65	4.00	3.91	256
710	100K gross floor area	1,000 Sq Ft	13.34	3.61	3.69	271
Industrial						
770	Business Park***	1,000 Sq Ft	12.76	4.04	3.16	317
151	Mini-Warehouse	1,000 Sq Ft	2.50	56.28	0.04	22,512
150	Warehousing	1,000 Sq Ft	4.96	3.89	1.28	784
140	Manufacturing	1,000 Sq Ft	3.82	2.13	1.79	558
110	Light Industrial	1,000 Sq Ft	6.97	3.02	2.31	433
Other Nonresidential						
720	Medical-Dental Office	1,000 Sq Ft	36.13	8.91	4.05	247
730	Government Office Building	1,000 Sq Ft	68.93	11.95	5.77	173
620	Nursing Home	bed	2.37	6.55	0.36	na
610	Hospital	1,000 Sq Ft	17.57	5.20	3.38	296
565	Day Care	student	4.48	28.13	0.16	na
530	High School	student	1.71	19.74	0.09	na
520	Elementary School	student	1.29	15.71	0.08	na
520	Elementary School	1,000 Sq Ft	14.49	15.71	0.92	1,084
320	Lodging	room	5.63	12.81	0.44	na

* Trip Generation, Institute of Transportation Engineers, 2003.

** Employees per demand unit calculated from trip rates, except for Shopping Center data, which are derived from *Development Handbook and Dollars and Cents of Shopping Centers*, published by the Urban Land Institute.

*** According to ITE, a Business Park is a group of flex-type buildings served by a common roadway system. The tenant space includes a variety of uses with an average mix of 20-30% office/commercial and 70-80% industrial/warehousing.

Job & Nonresidential Square Footage Estimates

TischlerBise obtained employment data for jobs located in the City from ESRI Business Information Solutions, a private firm specializing in demographic and market data. ESRI estimates indicate that 85,644 persons were employed in the City in 2005.

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For purposes of this study, TischlerBise allocated the total number of jobs into the categories of retail/commercial, office, public sector/government and goods production. Using the employment density multipliers in the far right column of Figure 37, the number of jobs for each category was converted into nonresidential square footage. TischlerBise estimates there is 29.6 million square feet of nonresidential development in Pasadena.

Figure 38: Job and Nonresidential Square Footage Estimates

	2005 Employment ¹	Percent of Employment	Sq Ft Per Emp ²	2005 NR Floor Area Pasadena ³
Retail/Commercial				
Retail Trade	16,253			
Services (50%)	23,267			
Subtotal	39,520	46.1%	400	15,807,800
Office				
Finance/Ins./Real Estate	7,210			
Services (50%)	23,267			
Other	249			
Subtotal	30,726	35.9%	271	8,326,694
Public Sector				
Education	4,812			
Government	2,459			
Subtotal	7,271	8.5%	271	1,970,461
Goods Production				
Agriculture	407			
Construction	1,777			
Manufacturing	2,621			
Wholesale Trade	1,161			
Comm, Trans, & Utilities	2,162			
Subtotal	8,128	9.5%	433	3,521,745
Total	85,644	100.0%		29,626,699

¹ Source: ESRI Business Information Solutions, 2005.

² Institute of Transportation Engineers (ITE) and Urban Land Institute

³ NR=nonresidential. NR Floor Area determined by multiplying employment estimate for City of Pasadena by ITE ratio of average number of square feet of nonresidential floor space per employee.

⁴ NR=nonresidential. NR Floor Area for 2005 based on 2005 employment estimate.

Average Daily Vehicle Trip Estimates

Figure 39 on the following page provide a summary of the residential and nonresidential vehicle trip calculations used in this analysis. Average Weekday Vehicle Trip Ends are from the reference book, Trip Generation, published by the Institute of Transportation Engineers (ITE), in 2004. A “trip end” represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip rates have been adjusted to avoid overestimating the number of actual trips because one vehicle trip is counted in the trip rates of both the origination and destination points. A simple factor of 50% has been applied to the residential, office, public sector and goods production categories. The commercial category has a trip factor of less than 50% because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary

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destination. The ITE Manual indicates that on average 34% of the vehicles entering shopping centers between 50,001 and 100,000 square feet in size are passing by on the way to some other primary destination and 59% of the attraction trips have the shopping center as their primary destination. Therefore, the adjusted trip factor is 33% (0.66×0.50).

There is an estimated average of 679,180 vehicle trips generated by existing development in Pasadena on an average weekday. As the figure below indicates, residential development generates an estimated 243,967 vehicle trips and nonresidential development generates an estimated 435,213 vehicle trips on an average weekday.

Figure 39: Average Daily Trips

Residential Vehicle Trips Average Weekday (2005)

Residential Units	<i>Assumptions</i>	
Single Family	31,637	
Multi Family	27,495	
Other	80	
<i>Average Weekday Trip Ends per Unit*</i>	<i>Rate</i>	<i>Factor</i>
Single Family	9.57	50%
Multi Family	6.72	50%
Other	4.99	50%
<i>Residential Vehicle Trip Ends Average Weekday</i>		
Single Family		151,383
Multi Family		92,385
Other		199
Total Residential Trips		243,967

Nonresidential Vehicle Trips Average Weekday (2005)

Nonresidential Gross Floor Area (1,000 sq.ft.)**	<i>Assumptions</i>	
Retail/Commercial	15,808	
Office	8,327	
Public Sector	1,970	
Goods Production	3,522	<i>Adjustment</i>
<i>Average Weekday Ends per 1,000 sq. ft.*</i>	<i>Rate</i>	<i>Factor</i>
Retail/Commercial	67.91	33%
Office	13.34	50%
Public Sector	13.34	50%
Goods Production	6.97	50%
<i>Nonresidential Vehicle Trips Average Weekday</i>		
Retail/Commercial		354,258
Office		55,539
Public Sector		13,143
Goods Production		12,273
Total Nonresidential Trips		435,213
TOTAL TRIPS		679,180

**Trip rates are from the Institute of Transportation Engineers (ITE) Trip Generation Manual (2004)

*Floor area estimates were derived using sq. ft. per employee factors from ITE and ULI

PROPORTIONATE SHARE

The analysis uses a functional population concept to allocate costs to residential and nonresidential development for police and fire expenditures. Figure 40 distinguishes time at home (2/3 of a day, 16 hours) versus time at work (1/3 of a day, 8 hours) and accounts for commuting patterns in Pasadena.

To estimate the residential share, person hours for individuals living in the City are calculated. The State reported Pasadena's labor force as 74,400 in 2005. This figure is

subtracted from the 2005 population estimate of 142,620, providing a resident, non-working population estimate of 68,220 persons. This group is estimated to be in the County 24 hours/day, bringing the person hours for this group to 1,637,280. Next, residential hours for Pasadena's workers are calculated. According to 2000 Census data, 37% of all residents in Pasadena worked in Pasadena in 2000. This percentage was applied to the labor force figure for Pasadena of 74,400, resulting in an estimated 27,752 city residents working in Pasadena in 2005. Sixteen residential hours are allocated to each of these individuals, generating 444,032 person hours in the City (16 hours/day x 27,752 workers = 444,032). The same calculation is made for resident workers with jobs outside Pasadena, generating 746,368 person hours (16 hours/day x 46,648 workers = 746,368). Combined with the 1,637,280 person hours from resident non-workers, this brings the total residential person hours in the City to 2,827,680.

To estimate the non-residential share, person hours for individuals working in the City is calculated. The ESRI estimate for jobs located in Pasadena in 2005 is 85,644. As there is some in-migration of workers, the total number of Pasadena residents working in Pasadena (27,752) is subtracted from the total number of jobs (85,644) to reach the number of non-resident workers (57,892). The person hours for resident and non-resident workers in Pasadena are multiplied by 8 hours, the typical work day, bringing the total number of non-residential person hours to 685,152. This brings the total number of person hours in the City to 3,512,832. Of this, 2,827,680 hours are attributable to residential uses and 685,152 to non-residential uses. Thus residential development accounts for 80% of the demand for City services while nonresidential development accounts for 20% of the demand.

Figure 40: Pasadena Proportionate Share – Residential and Nonresidential

	<u>Demand Units in 2005</u>	<u>Demand Hours/Day</u>	<u>Person Hours</u>
Residential			
Resident Population (2005) ¹	142,620		
Residents Not Working	68,220	24	1,637,280
Workers Living in Pasadena ²	74,400		
City Residents Working in Pasadena ³	27,752	16	444,032
City Residents Working outside of Pasadena	46,648	16	746,368
	<i>Residential Subtotal</i>		2,827,680
			80%
Nonresidential			
Jobs Located in Pasadena (2005) ⁴	85,644		
City Residents Working in Pasadena ³	27,752	8	222,016
Non-Resident Workers	57,892	8	463,136
	<i>Nonresidential Subtotal</i>		685,152
			20%
		TOTAL	3,512,832

¹Source: California Department of Finance, Demographic Research Unit, E-5 City County Population and Housing Unit Estimates 2005, 1/1/06.

²Source: California Employment Development Department, Labor Market Division (January, 2006).

³Source: US Census 2000, Table P27. The proportion of resident workers living in the City in 2000 (37%) is applied to the employment estimate for the total of city residents working in the City in 2005.

⁴Source: ESRI Business Information Solutions, 2005.