



City of Santa Monica

TRANSPORTATION IMPACT FEE NEXUS STUDY

Final

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FEHR & PEERS

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EXECUTIVE SUMMARY

This report defines the purpose, rationale, and structure of a new multimodal transportation impact fee on new development in the City of Santa Monica including a detailed description of the projects and programs to be funded by fee revenues. We provide evidence of the “reasonable relationship,” in both intended use and amount, between the proposed fee and the projected transportation impacts of development that the fee-funded transportation projects and programs are intended to address.

Purpose of the Transportation Impact Fee

The purpose of the Multimodal Transportation Impact Fee is to ensure that new development, projected through the year 2030 in the Environmental Impact Report (EIR) for the Land Use and Circulation Element (LUCE) of the Santa Monica General Plan, pays its fair share of the costs of providing the transportation infrastructure necessary to implement the policies and achieve the goals of the Plan.

Transportation is not an end in and of itself, but rather a means of gaining access and maintaining connections to people, places, goods, and services. The transportation policies, projects, and programs called for in the Land Use and Circulation Element (LUCE) of the Santa Monica General Plan are in turn a means for the City to achieve goals for improving public health, economic and community development, equity of access, and environmental sustainability.

The Community Vision Statement in the LUCE notes that, “Reducing emphasis on the automobile and bolstering walking and biking is paramount to the Santa Monica community. The modest, targeted growth in housing and commerce must be balanced with specific initiatives to calm traffic and reduce congestion”.¹ The LUCE identifies a number of policies and programs that will encourage walking, biking and transit usage which in turn will help reduce PM peak hour vehicle trips.² Consistent with this vision, a primary goal of the LUCE is to accommodate modest growth and development and improve access and mobility with no net increase in vehicle traffic volumes.³ The adopted metric for evaluating progress towards this goal is the volume of PM peak hour vehicle trips destined to and from City lands.

Need for the Fee

To confirm the need for the transportation improvements to be funded by the multimodal transportation impact fee and to estimate the effects of future development on the transportation system, the Santa Monica travel demand forecasting model (TDFM) developed for the LUCE EIR was used to forecast Year 2030 conditions assuming future development patterns anticipated with the LUCE but without the LUCE transportation improvements and trip reduction strategies contained in the LUCE. These forecasts were compared to conditions as forecast in the LUCE EIR with the LUCE land use scenario and the LUCE transportation improvements/trip reduction strategies. The scenario with the LUCE transportation improvements/trip reduction strategies is

¹ City of Santa Monica Land Use and Circulation Element, Executive Summary, p.2

² For a full analysis of the impacts of bicycle, pedestrian, transit, and TDM programs on vehicle trip generation please refer to the Santa Monica LUCE Final EIR

³ This goal is articulated as part of LUCE Framework Element 3: Pro-Active Congestion Management. Santa Monica LUCE, Executive Summary, p. 10

the same LUCE scenario that was analyzed in detail in the LUCE EIR; the scenario without the LUCE transportation improvements/trip reduction strategies was run for the purposes of the nexus analysis only.

If all projected development were to occur without transportation improvements, it is estimated that the number of PM peak hour vehicle trips generated within the City of Santa Monica would increase from approximately 60,100 existing PM peak hour vehicle trips to 64,700 PM peak hour vehicle trips. As discussed in the LUCE EIR, the number of PM peak hour vehicle trips generated within Santa Monica under the LUCE development with transportation improvements and trip reduction strategies scenario is projected to decrease to 59,500, thus achieving the LUCE goal of no net new evening peak period trips generated within Santa Monica.

In addition, the impacts of LUCE policies on intersection level of service (LOS) were also analyzed. The City of Santa Monica uses LOS to determine the significance of transportation impacts. The 41 LUCE EIR study intersections were evaluated for the two model runs (one with LUCE transportation improvements and trip reduction strategies and one without transportation improvements and trip reduction strategies). With the LUCE transportation improvements/trip reduction strategies, the number of study intersections projected to operate at LOS E or F during one or both of the AM and PM peak hours at year 2030 is reduced from 14 to 5 intersections.

Fee Expenditure Plan

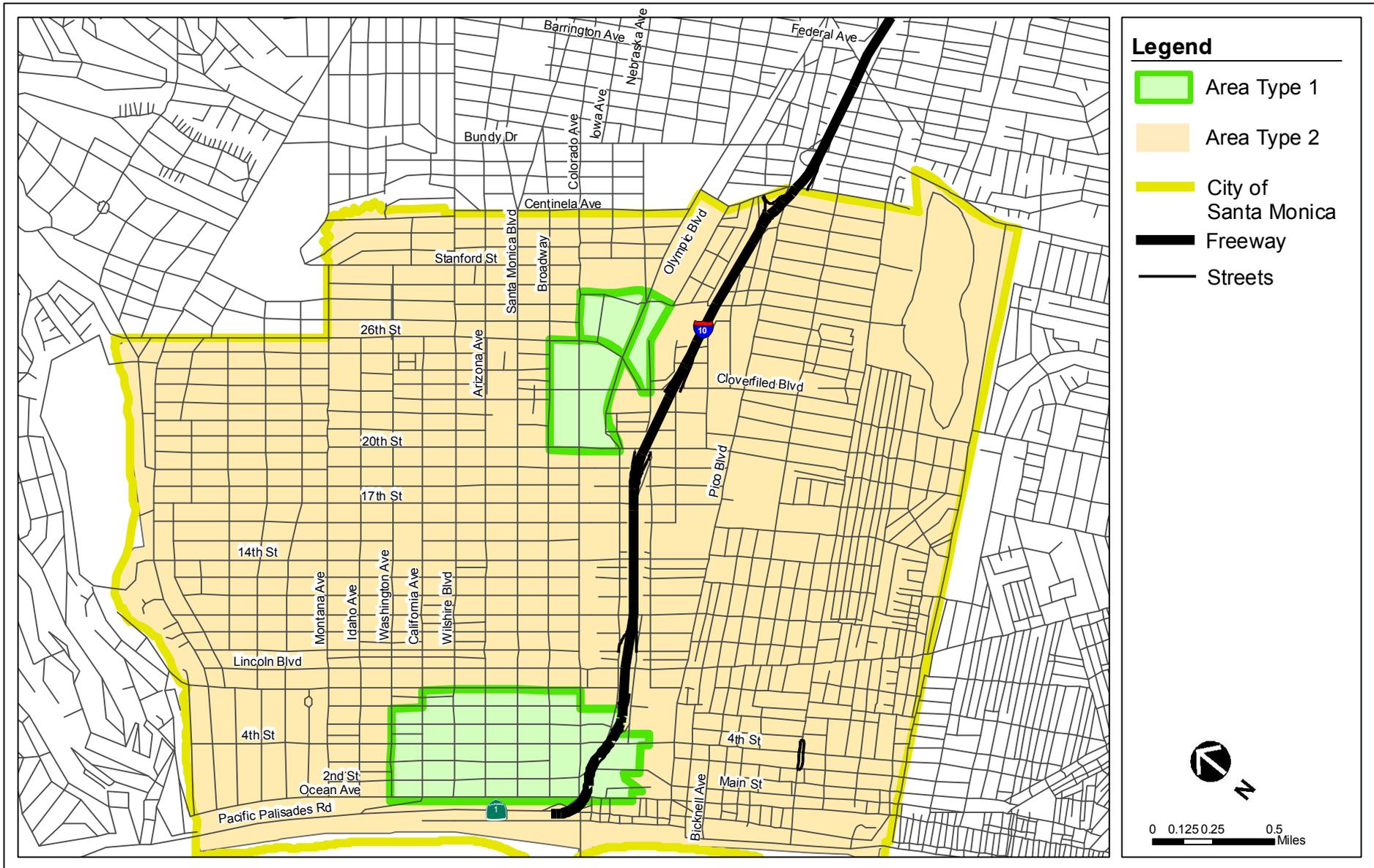
The fee expenditure plan for capital projects is part of a larger plan that includes transportation demand management and transportation system management programs, all of which contribute to the goal of achieving no net new PM peak hour vehicle trips, through 2030. Capital projects that expand transportation choices, such as construction of sidewalks, curb extensions, installation of bike racks and bus stops, and signing and striping of new bicycle and transit lanes throughout the City are matched by demand-side measures that can help achieve the no net new PM peak hour vehicle trips goal by reducing vehicle trip generation rates for both new and existing residents, businesses, and property-owners. These include TDM programs, such as carsharing and mobility centers. It is important to note that for programs and policies with an associated operating cost, those costs are not included in the fee expenditure plan and thus will not be covered by the impact fee. This fee will not duplicate costs associated with employer or developer TDM programs, nor transportation improvements required for project mitigations or provided as project benefits.

Use of Fee Revenues

The package of capital projects to be funded by the impact fee is designed explicitly to address projected growth and to help achieve the goal of no net increase in PM peak hour vehicle trips through 2030. The determination of capital projects which may be funded by the transportation impact fee is based on the policies and actions identified in the Land Use and Circulation Element, which were used in the trip generation modeling conducted as part of the LUCE EIR.

The improvement cost estimate for capital projects is approximately \$92 million. Figure E-1 provides a summary of total project costs by project category. In addition to capital costs, the cost to provide a project management position to oversee these capital projects is included as well as the cost for a fee administration staff person. Lastly, a 10 percent design and engineering fee is added onto the subtotal of physical improvements, as is a 35 percent contingency cost per

Figure E-2 Map of Area 1 and Area 2



industry standard.⁴ With these additional costs, the total capital projects list totals approximately \$134 million.

Figure E-1 Summary of Project Costs over 20 Year Period

Project Category	Estimated Capital Costs
Bicycle Actions	\$33,708,781
Pedestrian Actions	\$25,024,000
TDM Actions	\$6,127,075
Transit Actions	\$10,177,750
Auto Network Actions	\$11,594,000
Project Management ⁵	\$3,000,000
Fee Administration ⁶	\$3,000,000
<i>Subtotal</i>	<i>\$92,631,606</i>
Engineering/Design ⁷	\$9,263,161
Contingency ⁸	\$32,421,062
Total	\$134,315,829

Method for assessing fees in proportion to project impacts

The method for assessing multimodal transportation impact fees is carefully calibrated to traffic volumes in Santa Monica to account for the different transportation system impacts (as measured by PM peak hour vehicle trip generation) of each new development project in the city, by accounting for differences based on location (especially proximity to transit), and the type and mix of land uses predicted in 2030, the build out year for the Land Use and Circulation Element. This method is consistent with Assembly Bill 3005 which requires fees to be adjusted based on proximity to transit and locally serving retail, both of which have been demonstrated through empirical research to be inversely correlated with vehicle trip generation.

For this study, both vehicle trip generation rates for comparable land uses and the fee per dwelling unit and square foot are different for each of two different areas:

- Area 1 includes Downtown Santa Monica, the Special Office District, and Bergamot Transit Village. These districts have lower vehicle trip generation rates due to their accessibility by transit, and the presence of a diversity of complementary land uses and activities, both of which tend to reduce vehicle travel demand.
- Area 2 includes all remaining areas of the City of Santa Monica, not included in Area 1.

⁴ Caltrans Project Development Procedures Manual specifies including a contingency of between 30% and 50% as part of the project cost estimation phase. Caltrans Project Development Procedures Manual, Chapter 20 pg 11.

⁵ Project Management covers the annual salary cost of one staff person to oversee capital projects for a 20 year period.

⁶ Fee Administration covers the annual salary cost of one staff person to oversee the administration of the fee for a 20 year period.

⁷ A 10% engineering and design fee is added on to the subtotal of physical improvements only.

⁸ A 35% contingency fee is added on to the subtotal of physical improvements only.

Figure E-3, below, shows the different vehicle trip generation rates (vehicle trips that begin or end at a location within the City of Santa Monica) per residential unit or per thousand gross square feet during the weekday PM peak hour in Area 1 and Area 2 for eight distinct land use categories. Trip generation rates by land use are based on calibrated PM peak hour rates from the Santa Monica Travel Demand Forecasting Model (TDFM).⁹

Figure E-3 Weekday PM Peak Period Vehicle Trip Generation Rates

Land Use Category	PM Peak Hour Trip Generation Rate (per 1,000 sq. ft. or dwelling unit) Area 1	PM Peak Hour Trip Generation Rate (per 1,000 sq. ft. or dwelling unit) Area 2
Residential (dwelling unit)		
Single Family	0.76	0.78
Multi-Family ¹⁰	0.26	0.33
Non-Residential (1,000 sq. ft.)		
Retail	2.10	3.01
Office	0.97	1.08
Medical Office	2.81	2.98
Hospital	NA	1.47
Lodging ¹¹	0.36	0.36
Industrial	0.12	0.13

The land use categories are comprised of groups of related land uses. Land uses with similar trip generation characteristics are grouped together to simplify nexus fee administration and compliance monitoring. It should be noted that several land use categories that were evaluated as part of the LUCE EIR are not included in the categories above, including fire and police, recreation, and government office, as development of these types of uses are not anticipated to pay the fee since they are uses provided by the City of Santa Monica and the share of these costs associated with these trips will be born directly by the City of Santa Monica. The trips generated by these uses as part of the LUCE EIR are not included in the impact fee analysis and calculation.

Fee Structure and Fee Rates

The fees have been calculated based on cost estimates of capital improvements, which in combination with trip reduction programs are, required to reduce the additional vehicle trips generated by growth in Santa Monica such that no new net vehicle trips are generated in the PM

⁹ For a detailed discussion of the trip generation rates established as part of the Santa Monica Travel Demand Forecasting Model refer to Fehr & Peers Santa Monica Travel Demand Forecasting Model Trip Generation Rates report, October 2011.

¹⁰ Multi-family zero cars, one car, and two or more cars have been combined, and trip rates have been averaged

¹¹The trip generation rates for Lodging are empirically derived.

peak hour. Using the trip generation rates shown in Figure E-3, fee rates by land use and area were established that reflect the proportional difference in trips generated by land use and by area. Figure E-4 below shows the maximum level of fees that could be charged in order to fully cover the portion of the cost of capital projects that is associated with by new development within Santa Monica. Output from Santa Monica TDFM found that the average share of the overall incremental growth in traffic that is generated by development within Santa Monica was 74% and the average share that was determined to be the result of growth in regional pass-through traffic was 26%. This suggests that as much as 74% of the cost of the transportation improvements contained in the LUCE nexus fee program could be fairly attributed to new development within the city.

Figure E-4 Maximum Impact Fee by Land Use

Land Use Category	Impact Fee (per sq. ft. or dwelling unit)	Impact Fee (per sq. ft. or dwelling unit)
	Area 1	Area 2
Residential (dwelling unit)		
Single Family	\$12,540	\$12,870
Multi-Family	\$4,290	\$5,445
Non-Residential (sq. ft.)		
Retail	\$34.65	\$49.67
Office	\$16.01	\$17.82
Medical Office	\$46.37	\$49.17
Hospital	NA	\$24.26
Lodging	\$5.94	\$5.94
Industrial	\$1.98	\$2.15

The fees shown in Figure E-4 represent the maximum fee that could be charged by the City of Santa Monica, 74% of the total cost. The maximum fees were calculated by dividing 74% of the total project cost by the trip generation rate rates in Figure 5-3 to generate a per unit/square foot maximum rate for each land use in Area 1 and Area 2.

It should be noted that full cost recovery would be inconsistent with the collection of similar fees statewide and may discourage some desired land use change in Santa Monica. Therefore the proposed fee levels have been identified that are comparable with other Southern California communities, and will provide substantial funding for the proposed capital projects. Figure E-5 below shows the proposed impact fee on a per square foot or unit basis by land use.

Figure E-5 Proposed Impact Fee by Land Use

Land Use Category	Impact Fee (per sq. ft. or dwelling unit) Area 1	Impact Fee (per sq. ft. or dwelling unit) Area 2
Residential (dwelling unit)		
Single Family	\$7,600	\$7,800
Multi-Family	\$2,600	\$3,300
Non-Residential (sq. ft.)		
Retail	\$21.00	\$30.10
Office	\$9.70	\$10.80
Medical Office	\$28.10	\$29.80
Hospital	NA	\$14.70
Lodging	\$3.60	\$3.60
Industrial	\$1.20	\$1.30

By creating a proportional relationship or ranking between the various land use categories, this ensures that land uses with a lower PM peak hour vehicle trip generation rate will be charged a lower fee, while land uses with a higher trip generation rate will be charged a higher fee. Similarly, some land uses in Area 2 will be charged a higher fee due to higher PM peak hour vehicle trip generation rates as compared to the rate for the same land use in Area 1.

Based on the land use growth projections described in Chapter 2, a total potential revenue of approximately \$60 million could be generated by the proposed Transportation Impact Fee if all predicted development were to occur, which represents 45% of the total project cost. Given that the cost estimate for capital projects is approximately \$134 million, the revenue generated by the transportation impact fee will not be sufficient to fully cover the cost of all capital projects. The remaining 55% of the total project cost is expected to be covered by regional, state and federal grants, City General Fund, and other sources, for which the Fee may provide a local match.

Legal Considerations

Local jurisdictions are authorized to assess impact fees in California by the Mitigation Fee Act (AB 1600, 1987, Gov. Code § 66000), while the expenditure of such fee revenues is both supported and limited by legal precedent.

Local government authority to regulate land uses, including the exaction of impact fees, derives from the “police power” to protect the public health, safety, and welfare. As defined in AB 1600, a development impact fee is not a tax or special assessment, but rather a fee that must be reasonably related to the cost of the service provided by the local agency for the purpose of defraying all or a portion of the cost of public facilities related to the development project. This report makes all of the required findings of the Mitigation Fee Act that (a) identify the purpose of the fee, (b) identify the use to which the fee is to be put and the facilities (if any) to be financed, (c) determine how there is a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed, and (d) determine how there is a reasonable

relationship between the need for the public facility and the type of development project on which the fee is imposed (Government Code §66001(a)).

In addition to meeting the requirement of AB 1600 the impact fee proposed in this report is also consistent with AB 3005, which was passed by the California State legislature in 2008. For new fees meeting the requirements listed below, “...the fee, or the portion thereof relating to vehicular traffic impacts, shall 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...”:

1. 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.
2. Convenience retail uses, including a store that sells food, are located within one-half mile of the housing development.
3. 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.

1 INTRODUCTION

Cities throughout California frequently rely on impact fees to ensure that the costs of infrastructure and services necessary to support new development are paid by the development and not born disproportionately by existing residents, businesses and/or property-owners. Santa Monica already has an impact fee; since December 2006, the City of Santa Monica has levied a Child Care Linkage Program Impact Fee on the majority of new commercial and multiunit residential developments in proportion to the demand they generate for additional child care services in the City.

The recently adopted LUCE establishes a citywide goal of No Net New PM Peak Hour trips either starting or ending in the City of Santa Monica. Meeting the goal will require that as the City evolves and changes that it focus on the right kind of development, in the right locations, coordinated with the right management tools and careful public investment. New development must do more to reduce its own trips, including making the City more walkable, bikeable and transit friendly. As one step toward that goal, LUCE policy T19.7 states “perform a nexus study and implement a transportation impact fee to mitigate negative transportation impacts of new development.”

This impact fee would enable new development to pay its fair share of the costs of providing needed transportation infrastructure and services in the City. This report describes the purpose, rationale, and structure of a new multimodal transportation impact fee on new development in the City of Santa Monica. We provide evidence of the reasonable relationship, both in intended use and amount, between the proposed fee and the projected transportation impacts of development that the fee-funded transportation projects and programs are intended to address.

This report is intended to satisfy the requirements of the California Mitigation Fee Act (AB 1600, 1987, Gov. Code § 66000), and is consistent with legislative precedent, as necessary to permit expenditure of fee revenue on the specific transportation projects and programs identified as necessary to implement the land use and circulation policies of the General Plan.

California Mitigation Fee Act – AB 1600

In 1987 the California Legislature passed Assembly Bill (AB) 1600, the California Mitigation Fee Act. As defined in AB 1600, a development impact fee is not a tax or special assessment, but rather a fee that must be reasonably related to the cost of the service provided by the local agency for the purpose of defraying all or a portion of the cost of public facilities related to the development project (Gov. Code § 66000(b).)

The California Mitigation Fee Act¹² established a statewide procedure for exacting development impact fees. This legislation requires the City Council to make certain findings in order to establish a fee. These findings must:

- Identify the purpose of the fee
- Identify the use to which the fee is to be put and the facilities (if any) to be financed
- Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed
- Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed (Government code §66001(a)).

This report serves to meet the above described items.

California AB 3005

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 satisfy all 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 and Chapter 5 describes in greater detail how the proposed impact fee structure will ensure compliance with AB 30053005.

Land Use and Circulation Element (LUCE) of the Santa Monica General Plan

The adopted Santa Monica LUCE provides the framework necessary to integrate land use and transportation to reduce vehicle trips, encourage walking, bicycling and transit use, and to create

¹² Government Code Section 66000 ET seq.

active pedestrian-oriented neighborhoods that allow people to meet their daily needs locally and with a variety of mobility choices. The LUCE recognizes the crucial role that transportation plays in reducing greenhouse gases and achieving the community's sustainability goals. The LUCE proposes the creation of a complete multi-modal transportation system that builds upon the City's major investment in transit including the Expo Light Rail. The LUCE identifies local strategies that manage trips, treating the entire City as an integrated transportation management system with aggressive requirements for trip reduction, transit enhancements, pedestrian and bike improvements, and shared parking. Transportation demand management (TDM) programs that reduce automobile travel demand and incentivize alternative modes such as carpool, vanpools, and shuttles, walking, bicycling, and shared parking are all encouraged. Pro-active demand management for new automobile trips will be implemented in concert with strategies for large existing employers such as schools, hospitals, and other large institutions. The LUCE serves as the basis for creating the nexus between new development and impact fees, and it helps define the capital project list that will be funded by the impact fee.

The LUCE clearly identifies the establishment of fees as a tool to manage vehicle trips and increase alternative transportation options for Santa Monica residents. The LUCE states that "New projects will be required to minimize the trips they generate and contribute fees to mitigate their new trips. To achieve the No Net New Trips goal, developers cannot be expected to have every project generate zero trips by itself. Rather, developers will pay mitigation fees that will fund capital improvement projects citywide, such that the net impact of each development project ultimately is zero. Fees will be used for improvements that benefit the City's transportation system overall, such as additional buses to increase frequency, improved walking routes and new bike lanes."¹³

Purpose of the Transportation Impact Fee

The purpose of the Transportation Impact Fee is to ensure that new development pays its fair share of the costs of providing the transportation infrastructure necessary to implement the *no net increase* in vehicle trips originating or ending within the City during the PM peak hour goal of the Plan. By supporting this goal, it also supports LUCE goals of reducing vehicle trips and promoting walking, bicycling, carpooling, and use of public transit, in order to accommodate some desired growth and development.

Use of the Transportation Impact Fee

The LUCE contains a list of transportation policies, projects, and programs that are necessary to accommodate projected growth with no net increase in PM peak hour vehicle trips through 2030. More specifically these new trips must be offset through the development of new transportation infrastructure providing alternatives to automobile travel, including public transit, bicycling, ridesharing, and walking.

The package of capital improvements projects to be funded by the fee includes completion of the sidewalk network, and enhanced pedestrian crossings along major boulevards, striping and signage of new bike lanes, bike paths, and bike boulevards, and installation of new bus pads, bus benches and transit only lanes.

¹³ Santa Monica Land Use and Circulation Element p. 4.0-12

Each of the specific projects included in the fee expenditure plan has been evaluated and selected based on its cost-effectiveness in reducing PM peak hour vehicle trips. The impact of implementing the entire package of projects and programs was modeled as part of the LUCE EIR, and determined to be sufficient to achieve the goal of no net increase in PM peak hour vehicle trips through 2030.

It must be noted that the capital projects that will be funded by the proposed Transportation Impact Fee are not intended to fully offset the projected transportation effects of development as developers will also undertake separate measures such transportation demand management programs and localized mitigation measures to help offset the transportation effects of new development. The proposed impact fee will not fully cover the cost of the capital projects and additional funding must be identified to implement many of the projects and programs identified herein, with a substantial share of that funding generated by existing residents, businesses, and/or transportation system users. The fee revenue will also likely be used as a local match for regional, state and federal grants, City General Fund, and other sources, allowing the City to fully fund the projects necessary to meet its trip reduction goals without relying upon the fee revenue alone.

Outline of this Report

This report describes the methodology used to establish and calculate transportation impact fee rates that vary by land use, estimates total fee proceeds and provides recommendations for fee implementation as follows:

- Chapter 2 provides the land use projections used to estimate vehicle trip generation and set fee rates, including the type and amount of land uses through 2030.
- Chapter 3 describes the methodology and findings of an analysis of the transportation demand created by projected development and the criteria used for determining the related impacts.
- Chapter 4 identifies and provides costs for the specific list of projects and programs to be funded by the transportation impact fee. Criteria for project and program inclusion on the list is described as well identification of projects considered, but not included.
- Chapter 5 details the structure of the fee, which will vary based on the different projected vehicle trip generation rates of a variety of land use categories. After defining the different categories of land uses used for fee assessment, and specifying any uses that are to be exempt from the fee, this chapter defines the trip generation rates and associated fee rates for each land use category. The chapter concludes with a projection of the total impact fee revenue expected to be generated, and a discussion of options for funding the remaining cost of all of the projects and programs identified in this study.

2 LAND USE PROJECTIONS

As part of the EIR process for the Land Use and Circulation Element (LUCE), the City of Santa Monica projected potential net new development that could occur through 2030 based on the policies of the LUCE. These projections represent the potential amount of future development; however, actual development may occur at lower levels and varying proportions.

Almost all of the land in the City of Santa Monica is developed, with existing uses including established residential neighborhoods, commercial mixed-use corridors, parks, schools, and other community serving facilities, and public services and utilities. Opportunities for new uses are limited and are primarily confined to the redevelopment of existing properties. In order to minimize the disruption of established residential neighborhoods and to link housing and commercial uses to transit opportunities for new land uses according to the LUCE FEIR, the new development “would be focused in areas around planned transit stations, along the future Exposition light rail line, and at nodes along primary commercial and transit corridors in the City”.¹⁴ These transit and commercial corridors are along the Wilshire, Santa Monica, and Pico Boulevards, in Downtown Santa Monica, and in the vicinity of the proposed Exposition Line rail stations, including Bergamot Station and Memorial Park Stations. Housing with ground floor retail and services are focused on the corridors, with a mix of housing and employment at the stations.

The LUCE FEIR states that, “Compared to today, the modest land use changes allowed under the proposed LUCE could result in a net increase of residential units (emphasizing affordable and workforce housing), retail space, local-serving office uses, creative arts spaces, medical space, hotel space, and recreational space”.¹⁵ The time horizon for these changes is 2030.

Land use projections are included in this study for the purpose of estimating the proposed impact fee. As shown in Table 2-1 of the LUCE FEIR, the projected net change in land uses includes approximately:

¹⁴ Santa Monica LUCE FEIR p. 2-3

¹⁵ Santa Monica LUCE FEIR p. 2-3

Figure 2-1 Projected Land Use Changes

Land Use Category	Existing	Projected LUCE(2030) Net Change	Citywide Total under LUCE
Residential (units)	49,036	4,955	53,991
Office (sf)	10,209,000	448,980	10,657,980
Retail (sf)	7,408,650	566,803	7,975,453
Creative Office (sf)	3,412,000	699,709	4,111,709
Industrial (sf)	1,418,000	-379,137	1,038,863
Medical Office (sf)	2,095,000	187,327	2,282,327
Hospital (sf)	921,000	763,123	1,684,123
Institutional (sf)	1,543,000	196,029	1,739,029
Hotel (sf)	1,108,000	626,578	1,734,578
Educational (student)	42,539	—	42,539
Parks & Open Space (acres)	328	18.5 ¹⁶	346.5
Airport (aircraft)	500	—	500

¹⁶ Does not account for open space that may be created through open space and community benefit requirements of the proposed LUCE

3 TRANSPORTATION EFFECTS OF NEW DEVELOPMENT

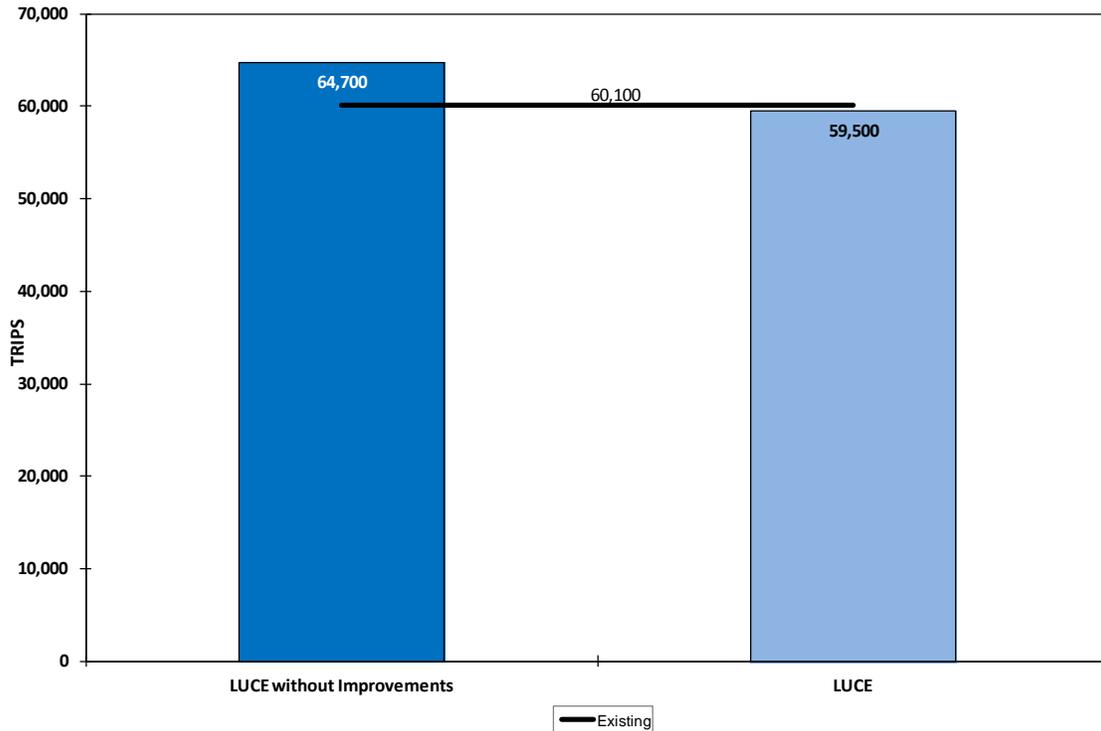
This chapter identifies the anticipated effects of new development on the city's transportation system, which a Transportation Impact Fee (TIF) could be used to mitigate.

Effects of New Development

To confirm the need for the transportation improvements and trip reduction strategies to be funded by the transportation impact fee, the Santa Monica Travel Demand Forecasting Model (TDFM) was used to estimate the effects of future development on the transportation system. Using the TDFM, year 2030 transportation conditions were forecast assuming future development patterns anticipated with the LUCE land use scenario but without the transportation improvements/trip reduction strategies contained in the LUCE. This forecast was compared to conditions as forecast in the LUCE EIR with the combined LUCE land use scenario and the LUCE transportation improvements/trip reduction strategies which is the same LUCE scenario that was analyzed in detail in the LUCE EIR.

As shown in Figure 3-1, using the Santa Monica TDFM, there are currently approximately 60,100 existing PM peak hour vehicle trips generated within the City of Santa Monica. As discussed in the LUCE EIR, the number of PM peak hour vehicle trips generated within Santa Monica under the LUCE land use scenario with transportation improvements and trip reduction strategies is projected to decrease to 59,500, thus achieving the LUCE goal of no net new evening peak period vehicle trips generated within Santa Monica. However, the model estimates that if the development projected by the LUCE occurred without the implementation of LUCE transportation improvements/trip reduction strategies, the number of PM peak hour vehicle trips would increase to 64,700, thus violating this basic objective of the LUCE transportation policy.

Figure 3-1 PM Peak Hour Vehicle Trips Generated in Santa Monica



The impacts of LUCE policies on intersection level of service (LOS) were also analyzed. The City of Santa Monica uses LOS to determine the significance of transportation impacts. The 41 LUCE EIR study intersections were evaluated for the two model runs (one assuming future development patterns anticipated with the LUCE land use scenario but without the transportation improvements/trip reduction strategies contained in the LUCE and one with conditions as forecast in the LUCE EIR with the combined LUCE land use scenario and the LUCE transportation improvements/trip reduction strategies). With the LUCE transportation improvements and trip reduction strategies, the study intersections that are projected to operate at LOS E or F during one or both of the AM and PM peak hours at year 2030 is reduced from 14 to 5 (Figure 3-2). Without the LUCE transportation improvements and trip reduction strategies, 14 of the 41 LUCE EIR intersections are projected to operate at LOS E or F during one or both of the AM and PM peak hours. Currently one intersection operates at LOS F during both the AM peak hour and two intersections operate at LOS F during the PM peak hour.

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Figure 3-2 LOS Summary Table

Traffic ID	Street Names	Existing AM			Existing PM			LUCE No TDM AM			LUCE No TDM PM		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS
6	Ocean Ave & Colorado Ave	13.0	0.569	B	31.7	0.682	C	13.6	0.578	B	36.1	0.703	D
7	Ocean Ave & Pacific Coast Highway/Moomat Ahiko	23.6	0.751	C	35.4	0.989	D	24.7	0.826	C	36.3	0.999	D
8	Ocean Ave & Pico Blvd	16.7	0.741	B	51.6	0.819	D	16.4	0.775	B	50.9	1.085	D
9	Neilson Way & Ocean Park Blvd	6.7	0.601	A	10.4	0.708	B	7.0	0.652	A	52.5	1.315	D
11	Second St & Wilshire Blvd	11.1	0.339	B	13.3	0.485	B	12.0	0.379	B	13.8	0.510	B
13	Second St & Santa Monica Blvd	13.4	0.327	B	15.8	0.588	B	14.0	0.397	B	16.7	0.654	B
30	Fourth St & Wilshire Blvd	17.0	0.636	B	21.0	0.793	C	18.0	0.699	B	28.4	0.918	C
32	Fourth St & Santa Monica Blvd	13.2	0.642	B	23.9	0.924	C	15.3	0.661	B	17.1	0.686	B
34	Fourth St & Colorado Ave	22.6	0.628	C	26.7	0.780	C	28.2	0.864	C	33.6	0.912	C
35	Fourth St & I-10 Wb Off-Ramp	15.9	0.631	B	19.9	0.780	B	15.9	0.584	B	20.6	0.808	C
36	Fourth St & I-10 Eb On-Ramp	15.0	0.634	B	42.8	1.006	D	17.4	0.730	B	60.3	1.072	E
37	Fourth St & Pico Blvd	25.8	0.853	C	44.9	0.935	D	28.2	0.888	C	75.5	1.128	E
38	Fifth St & Wilshire Blvd	13.1	0.513	B	14.0	0.610	B	13.6	0.537	B	14.0	0.592	B
40	Fifth St & Santa Monica Blvd	13.4	0.347	B	14.7	0.496	B	13.9	0.397	B	15.3	0.552	B
48	Seventh St & San Vicente Blvd	26.6	0.812	C	24.0	0.732	C	38.6	0.971	D	34.8	0.926	C
49	Seventh St & Montana Ave	14.4	0.549	B	15.2	0.637	B	14.5	0.577	B	17.3	0.728	B
56	Lincoln Blvd & Wilshire Blvd	43.4	1.137	D	37.7	1.201	D	59.6	1.275	E	27.4	0.995	C
58	Lincoln Blvd & Santa Monica Blvd	15.3	0.742	B	17.8	0.724	B	24.8	0.967	C	32.0	1.105	C
61	Lincoln Blvd & I-10 Wb Off-Ramp	25.4	0.847	C	27.2	0.876	C	25.9	0.851	C	30.9	0.923	C

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Traffic ID	Street Names	Existing AM			Existing PM			LUCE No TDM AM			LUCE No TDM PM		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS
62	Lincoln Blvd & I-10 Eb On-Ramp	20.7	0.738	C	22.7	0.799	C	24.2	0.827	C	22.4	0.788	C
63	Lincoln Blvd & Pico Blvd	33.4	0.886	C	43.4	0.976	D	37.6	0.930	D	101.5	1.227	F
65	Lincoln Blvd & Ocean Park Blvd	49.0	1.010	D	62.5	1.100	E	76.4	1.141	E	77.7	1.161	E
103	Twentieth St & Wilshire Blvd	25.4	1.116	C	30.1	1.220	C	26.1	1.171	C	21.8	0.868	C
105	Twentieth St & Santa Monica Blvd	20.0	0.856	C	19.3	0.866	B	23.0	1.078	C	26.6	0.954	C
108	Twentieth St & Olympic Blvd	33.9	0.950	C	22.3	0.828	C	44.6	1.037	D	28.7	1.039	C
111	Twentieth St & Pico Blvd	26.3	0.879	C	109.4	1.200	F	31.8	0.944	C	122.8	1.216	F
118	Twenty-Third St & Ocean Park Blvd	120.5	0.973	F	93.3	1.049	F	203.1	1.186	F	123.8	1.056	F
120	Cloverfield Blvd & Santa Monica Blvd	41.2	1.007	D	24.5	0.890	C	29.3	0.951	C	22.0	0.859	C
123	Cloverfield Blvd & Olympic Blvd	49.4	1.044	D	45.0	1.003	D	56.8	1.074	E	54.7	1.050	D
125	Cloverfield Blvd & I-10 WB Off Ramp	70.8	1.142	E	18.9	0.776	B	101.1	1.236	F	20.9	0.850	C
126	Cloverfield Blvd & I-10 EB On Ramp	8.7	0.621	A	7.3	0.599	A	8.2	0.651	A	7.8	0.652	A
128	Cloverfield Blvd & Pico Blvd	19.8	0.632	B	21.1	0.684	C	21.5	0.754	C	25.3	0.800	C
131	Twenty-Sixth St & San Vicente Blvd	31.3	0.889	C	22.7	0.764	C	55.6	1.144	E	28.0	0.885	C
132	Twenty-Sixth St & Montana Ave	34.9	1.022	C	55.2	1.066	E	47.4	1.057	D	101.4	1.382	F
135	Twenty-Sixth St & Santa Monica Blvd	28.2	0.950	C	25.8	0.996	C	35.5	1.161	D	26.4	0.919	C
138	Twenty-Sixth St & Olympic Blvd	21.9	0.691	C	28.0	0.867	C	22.3	0.710	C	39.0	0.988	D
150	Centinela Ave (East) & Wilshire Blvd	6.3	0.510	A	9.1	0.526	A	6.5	0.541	A	9.0	0.557	A
151	Centinela Ave & Santa Monica Blvd	29.4	0.955	C	34.6	1.031	C	48.2	1.070	D	67.3	1.090	E
154	Centinela Ave (East) & Olympic Blvd	17.8	0.711	B	16.9	0.623	B	18.3	0.828	B	24.1	1.162	C
155	Centinela Ave & Pico Blvd	14.9	0.619	B	18.9	0.925	B	17.6	0.824	B	180.2	2.407	F

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Traffix ID	Street Names	Existing AM			Existing PM			LUCE No TDM AM			LUCE No TDM PM		
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS
157	Centinela Ave & Ocean Park Blvd	15.8	0.687	B	31.0	0.939	C	23.3	0.868	C	70.6	1.176	E
65	Lincoln Blvd & Ocean Park Blvd	49.0	1.010	D	62.5	1.100	E	76.4	1.141	E	77.7	1.161	E
103	Twentieth St & Wilshire Blvd	25.4	1.116	C	30.1	1.220	C	26.1	1.171	C	21.8	0.868	C
105	Twentieth St & Santa Monica Blvd	20.0	0.856	C	19.3	0.866	B	23.0	1.078	C	26.6	0.954	C
108	Twentieth St & Olympic Blvd	33.9	0.950	C	22.3	0.828	C	44.6	1.037	D	28.7	1.039	C

Additional performance metrics, such as travel times on major corridors during the AM and PM peak hours, support the finding that traffic conditions in Santa Monica would be worse without the implementation of transportation improvements and trip reduction strategies. Similar, to the decline in intersection LOS and the increase PM peak hour vehicle trips, travel times on major transportation corridors in the City would increase without the implementation of LUCE transportation improvements/trip reduction strategies. Figure 3-4, Figure 3-5, and Figure 3-6 show that on each of the analyzed corridors, travel times are projected to be materially slower when LUCE land use scenarios are not coupled with LUCE transportation improvements/trip reduction strategies.

Figure 3-3 Change in Travel Time on North/South Corridors during the AM Peak Hour

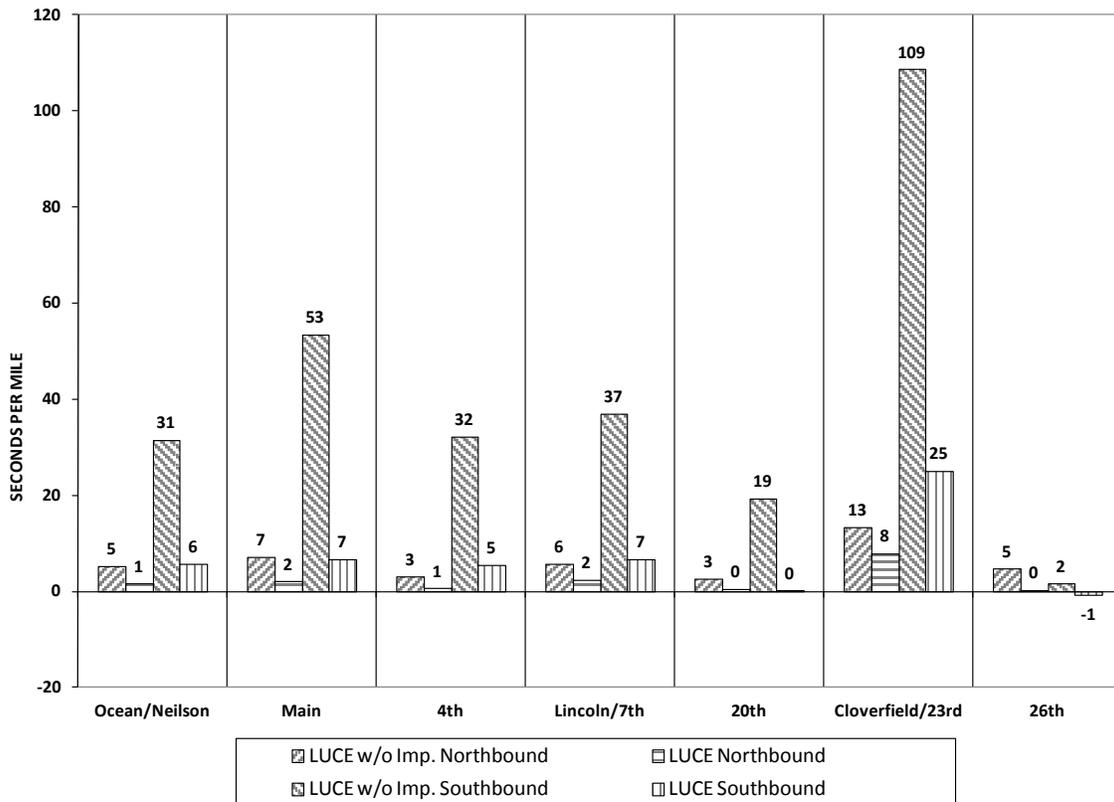


Figure 3-4 Change in Travel Time on North/South Corridors during the PMPM Peak Hour

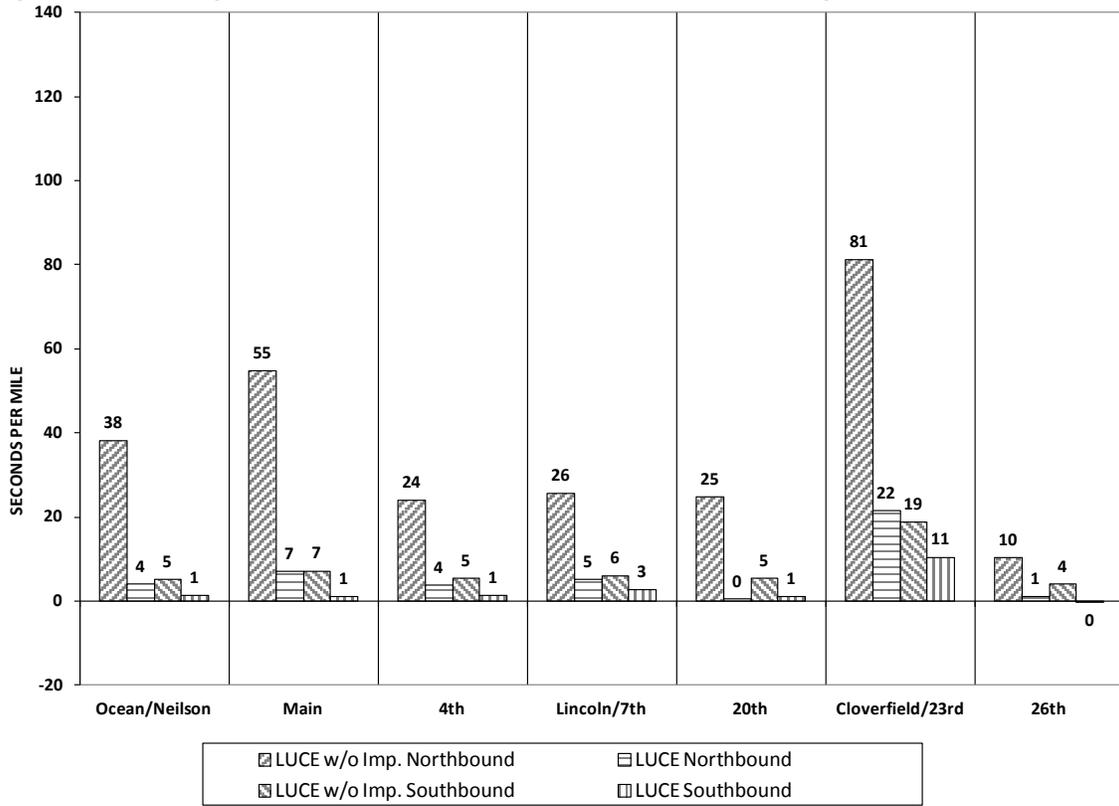


Figure 3-5 Change in Travel Time on East/West Corridors during the AMAM Peak Hour

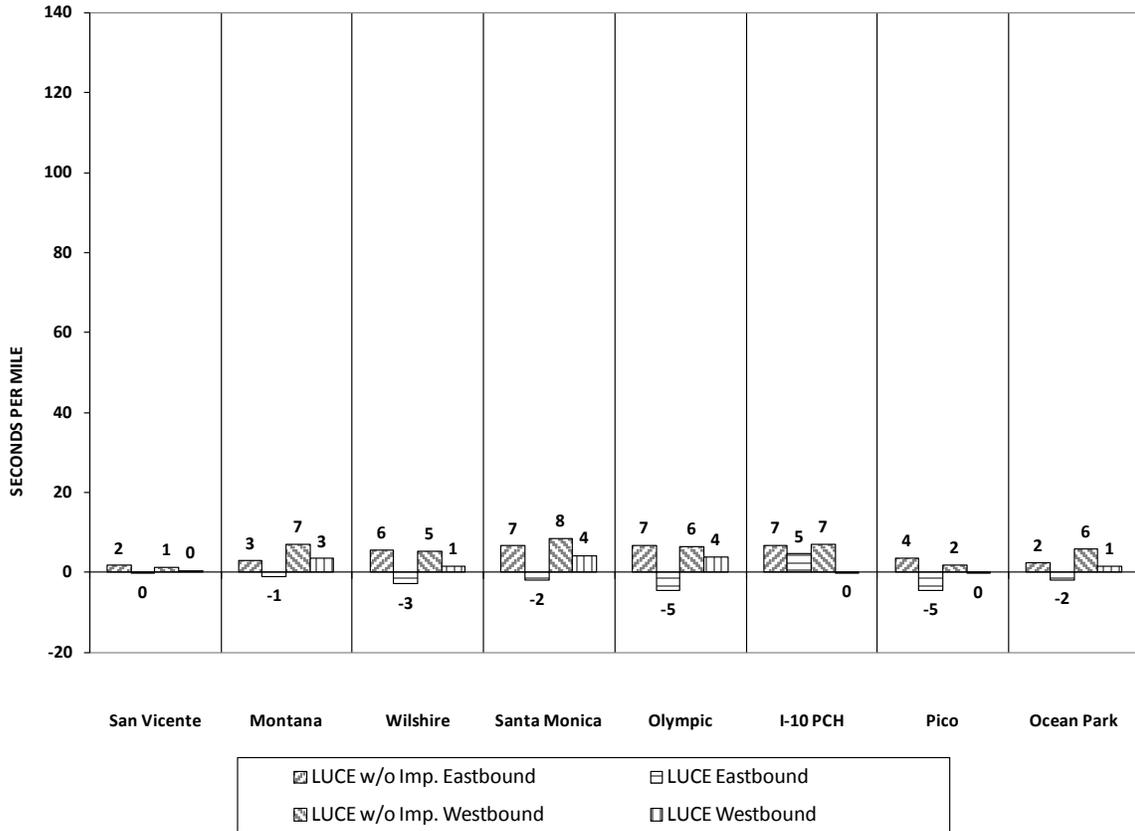
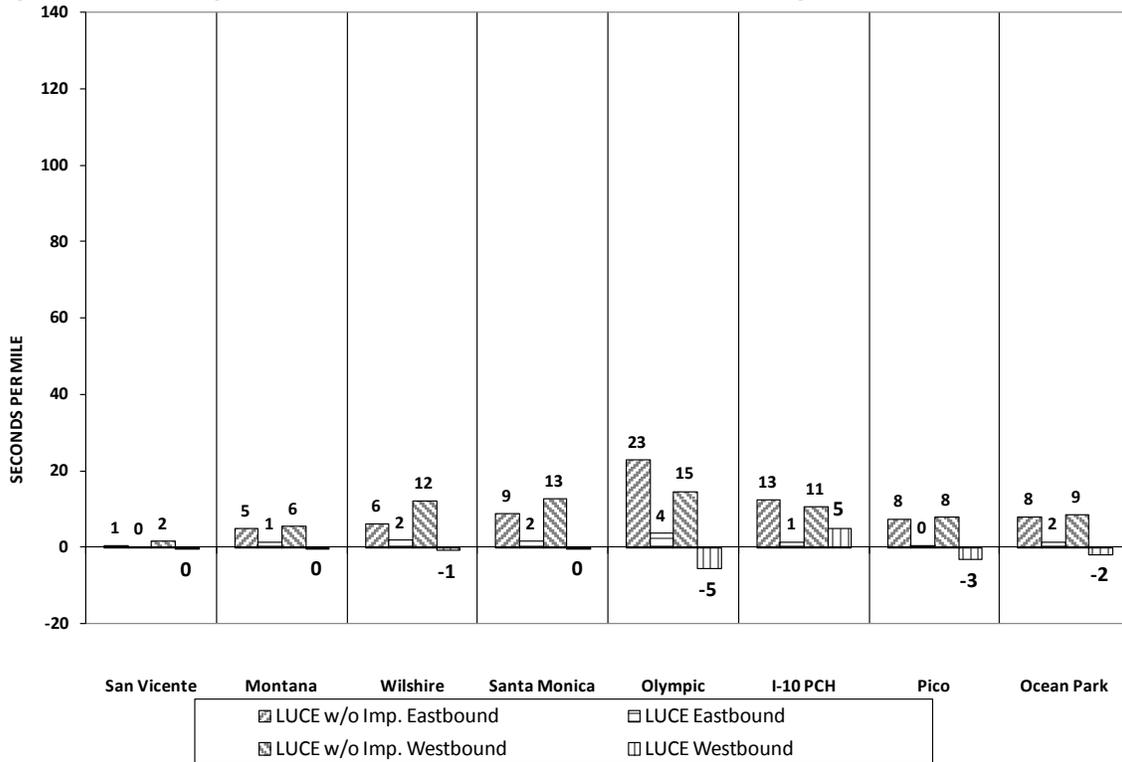


Figure 3-6 Change in Travel Time on East/West Corridors during the PM Peak Hour



Nexus for the Transportation Impact Fee

The adopted Santa Monica LUCE provides the framework necessary to integrate land use and transportation to reduce vehicle trips, encourage walking, bicycling and transit use, and to create active pedestrian-oriented neighborhoods that allow people to meet their daily needs locally and with a variety of mobility choices. The LUCE recognizes the crucial role that transportation plays in reducing greenhouse gases and achieving the community’s sustainability goals. The LUCE proposes the creation of a complete multi-modal transportation system that builds upon the City’s major investment in transit including the Expo Light Rail. The LUCE identifies local strategies that manage trips, treating the entire City as an integrated transportation management system with aggressive requirements for trip reduction, transit enhancements, pedestrian and bike improvements, and shared parking. Transportation demand management (TDM) programs that reduce automobile travel demand and incentivize alternative modes such as carpool, vanpools, and shuttles, walking, bicycling, and shared parking are all encouraged. Pro-active demand management for new automobile trips will be implemented in concert with strategies for large existing employers such as schools, hospitals, and other large institutions.

The LUCE establishes the goal of achieving no net new PMPM peak hour vehicle trips. A primary strategy of the LUCE in order to achieve this goal is vehicle trip reduction. Achieving the level of automobile trip reduction anticipated in the LUCE EIR for both new development and existing development generated within the City requires both provision of improvements to the alternate modal networks citywide (bicycle, walk, transit) as well as measures to be implemented by individual developments and employers in accordance with the TDM requirements of the LUCE

as implemented through updates to the City's TDM ordinance; project mitigations may also be required in compliance with the requirements of the California Environmental Quality Act . The transportation improvements to be funded in part by the multimodal transportation impact fee include a series of improvements to the transit, bicycle and pedestrian systems. Developers would be required to pay these fees in support of the modal improvements and would separately be required to implement their own project-specific TDM programs. Reasons for this include the following:

- The LUCE calls for a comprehensive response to transportation, and the TDFM model shows that the LUCE policies can achieve the desired results if all elements are implemented. The impact fee covers one element of this system – capital costs of improvement to the transportation system so that it supports biking, walking and transit at the level needed to get no net trips. Other elements (such as TDM programs for existing employers and stronger requirements on employees of new developments, and project-specific mitigations) are also required and were assumed in the modeling but are complementary to and not duplicative of the capital improvements in the fee program. Both elements, multimodal system improvements implemented by the City and individual trip reduction measures implemented by developers and employers, are necessary in order to achieve the trip reduction goals embodied in the LUCE. Each element is in support of the other.
- It is common, even in traditional highway-capacity-based trip fees, for developers to pay trip fees that support cumulative area-wide improvements and yet also pay to implement their own project-specific TDM programs and localized improvements.
- The bicycle/pedestrian improvements supported by the trip fee help with the first mile/last mile for the presumed transit effectiveness for the new development.

Establishment of Reasonable Relationship

The Santa Monica TDFM was used to establish the reasonable relationship between the Transportation Impact Fee and that portion of the LUCE transportation system improvements which could be attributed to new development in the City. This analysis focused specifically on the projected intersection conditions using the LUCE land use development scenario, both with and without the LUCE transportation improvements/trip reduction strategies, since intersection LOS is the metric used by the City to determine the significance of transportation impacts. First, Santa Monica-generated traffic was differentiated from regional pass-through traffic. Then a test was performed to demonstrate that transportation improvements and trip reduction strategies were being directed at future impacts rather than existing deficiencies. The resulting share is the proportion of improvements to the transportation system in Santa Monica that can be properly attributed to new development in Santa Monica.

Santa Monica-Generated Traffic Versus Regional Pass-Through Traffic

The Santa Monica TDFM was used to identify how much of the traffic growth at the intersections projected to operate at LOS E or F during one or both peak hours without the LUCE transportation improvements/trip reduction strategies is the result of development in Santa Monica and how much is projected to be the result of growth in regional pass-through traffic. At these intersections, the average share of the overall incremental growth in traffic that is generated by development within Santa Monica was 74% and the average share that was determined to be the result of growth in regional pass-through traffic was 26%. This suggests that as much as 74% of the cost of the transportation improvements contained in the LUCE nexus fee program could be fairly attributed to new development within the city.

Some of the improvements in the fee program (such as the Advanced Traffic Management System and widening the 4th Street bridge) will address both regionally-generated and Santa Monica-generated traffic increases. Others (such as specific bicycle and pedestrian improvements to help support reduced vehicle tripmaking) are directed more at trips generated locally within Santa Monica. For these latter improvements, the share attributable to development in Santa Monica could be closer to 100%. For purposes of the fair share calculation the Nexus Study relies on the 74% of trips generated within Santa Monica.

Existing Versus Future Deficiencies

To assess the possibility that new transportation improvements and trip reduction strategies were addressing existing deficiencies rather than future deficiencies, a simple test was performed. If the LOS at study intersections were poor under existing conditions and improved under future conditions with transportation improvements and trip reduction strategies, then a portion of the LUCE transportation improvements and trip reduction strategies might be addressing an existing condition at these locations rather than solely a future condition. The results of the test did not suggest that this was occurring. The five LUCE study intersections operating at LOS E or F under existing conditions were reviewed, and all five locations have the same LOS under existing and future conditions.

Effects Not Mitigated

The mitigation program proposed by this report is designed to mitigate the citywide effects of automobile trips associated with new development within the City of Santa Monica. A primary objective of the LUCE is to coordinate land use and transportation planning and emphasize non-motorized tripmaking in order to achieve the goal of no net new PM peak hour vehicle trips generated within the City.

Nevertheless, development projects can generate an increase in traffic at intersections immediately surrounding the projects and on the streets directly feeding the projects. These localized effects can occur even though the citywide effects of increased trips are mitigated by the proposed program. Localized development impacts will continue to be mitigated through site specific exactions or conditions tied to project-based traffic studies, in compliance with the requirements of the California Environmental Quality Act.

4 CAPITAL PROJECTS AND COSTS

This chapter documents the transportation improvements included in the multimodal transportation impact fee (TIF) capital project list and their corresponding costs. The TIF Master Capital Project List was selected based on the inclusion criteria described below and refined based on funding need. The eligible TIF capital project list includes the capital cost portion of projects that are assumed to be funded, in full or in part, by TIF revenue.

Project Inclusion Criteria

The package of capital projects to be funded by the impact fee is designed explicitly to address projected growth and to help achieve the goal of no net increase in PM peak hour vehicle trips through 2030. The determination of capital projects that may be funded by the transportation impact fee is based on the policies and actions identified in the Land Use and Circulation Element, which were used in the trip generation modeling conducted as part of the LUCE EIR.

The package of projects includes capital improvement projects, such as completion of the sidewalk network, and enhanced pedestrian crossings along major boulevards, striping and signage of new bike lanes, bike paths, and bike boulevards, and installation of new bus pads, bus benches, and transit-only lanes. The bicycle pathway projects listed in the Master Capital Project List were identified in the adopted Santa Monica Bike Action Plan and were developed in response to the policies and actions identified in the LUCE. It is important to note that only capital costs and fee administration costs have been included, and operating and maintenance costs were not included. In addition, projects with no associated capital costs and only operating and maintenance costs were not included.

List of Projects

The improvement cost estimate for capital projects is approximately \$92 million. Figure 4-1 provides a summary of total project costs by project category. In addition to capital costs, the cost to provide a project management position to oversee these capitals projects is included as well as the cost for a fee administration staff person. Lastly, a 10 percent engineering and design fee is added onto the subtotal of physical improvements as is a 35 percent contingency cost per industry standard.¹⁷ With these additional costs, the total capital projects list totals approximately \$134 million. It should be noted that an escalation factor to account for inflation has not been included however this will be addressed in the City of Santa Monica's TIF ordinance.

¹⁷ Caltrans Project Development Procedures Manual specifies including a contingency of between 30% and 50% as part of the project cost estimation phase. Caltrans Project Development Procedures Manual, Chapter 20 pg 11.

Figure 4-1 Summary of Project Costs over 20 Year Period

Project Category	Estimated Capital Costs
Bicycle Actions	\$33,708,781
Pedestrian Actions	\$25,024,000
TDM Actions	\$6,127,075
Transit Actions	\$10,177,750
Auto Network Actions	\$11,594,000
Project Management ¹⁸	\$3,000,000
Fee Administration ¹⁹	\$3,000,000
<i>Subtotal</i>	<i>\$92,631,606</i>
Engineering/Design ²⁰	\$9,263,161
Contingency ²¹	\$32,421,062
Total	\$134,315,829

For a complete list and description of the capital projects and their associated costs please refer to Figure 4-2.

¹⁸ Project Management covers the annual salary cost of one staff person to oversee capital projects for a 20 year period.

¹⁹ Fee Administration covers the annual salary cost of one staff person to oversee the administration of the fee for a 20 year period.

²⁰ A 10% engineering and design fee is added on to the subtotal of physical improvements only.

²¹ A 35% contingency fee is added on to the subtotal of physical improvements only. Caltrans Project Development Procedures Manual specifies including a contingency of between 30% and 50% as part of the project cost estimation phase. Caltrans Project Development Procedures Manual, Chapter 20 pg 11.

Figure 4-2 Master Capital Project List

Project	Description	Estimated Capital Costs (20 year period)
Bicycle Projects		
San Vicente Bikeway	Ocean Avenue to 26 th St. Bike path, buffered bike lanes	\$6,000,000
Washington Avenue Neighborhood Greenway	Ocean Avenue to Arizona Ave. Neighborhood greenway, shared lane markings, traffic circles	\$500,000
California Avenue Bikeway	Ocean Avenue to 17 th Street. Buffered bike lanes	\$10,000
Arizona Avenue Bikeway	Ocean Avenue to 26 th Street. Buffered bike lanes, traffic circles	\$250,000
Nebraska Avenue Bikeway	26 th Street to Centinela Avenue. Buffered bike lanes	\$5,000
Michigan Avenue Neighborhood Greenway	Marvin Braude Bike Trail to Appian Way. Bike Path	\$150,000
Michigan Avenue Neighborhood Greenway	Bergamot Station parking lot to Stewart Street. Shared use path.	\$250,000
Pearl Street Bikeway	Barnard Way to Centinela Avenue. Buffered bike lanes, neighborhood traffic circles, Intersection refuge.	\$350,000
Ocean Park Boulevard Bikeway	Barnard Way to Main Street. Buffered bike lanes.	\$3,000
Ocean Park Boulevard Bikeway	Lincoln Boulevard to Cloverfield Boulevard. Buffered bike lanes, bike lanes.	\$30,000
Ocean Park Boulevard Bikeway	Cloverfield Boulevard to Centinela Avenue. Buffered bike lanes, raised median extension.	\$100,000
Ashland Avenue Neighborhood Greenway	Barnard Way to Douglas Loop. Shared use path, shared lane markings.	\$65,000
Marine/Navy/Ozone/Dewey/Airport Bikeway	Lincoln Boulevard to Dewey Street closure. Shared use path, shared lane markings	\$750,000
Virginia Avenue Shared Lane Markings	Stewart Street to Dorchester Tunnel. Shared lane markings.	\$2,000
Marvin Braude Bike Trail	North City Limit to south city limit. Bike path, stair troughs (partnering with LA County/City of LA)	\$4,800,000
3rd Street Bikeway	Pico Boulevard to South City Limit. Bike path.	\$200,000
6th Street / 7th Street Bikeway	Michigan Avenue to south city limit. Bike/pedestrian bridge, neighborhood greenway, bike path/cycle track.	\$8,000,000
17th Street Bikeway	Pico Boulevard to Pearl Street. Side path/bike path.	\$750,000
20th Street Bikeway	Wilshire Avenue to Pico Boulevard. Buffered bike lanes.	\$275,000
24th Street Neighborhood Greenway	26th Street to Broadway. Neighborhood greenway, curb ramps, intersection enhancements, crossing treatments	\$150,000
26th Street Bikeway	North City limit to Exposition Bike Path. Buffered bike lanes (green).	\$700,000

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Bike Action Plan 5 Year Implementation Plan ²²	Bikeways and greenways.	\$1,330,511
Bicycle Transit Centers	See TDM	
Bikesharing	See TDM	
Bike Racks	Install 3,350 bicycle racks throughout the City	\$670,000
Countdown Indicators	Install 948 countdown indicators throughout the City	\$948,000
Bike Detectors	Install bike detectors at 130 intersections	\$5,200,000
Bike Boxes	Install approximately 220,000 square feet of bike boxes	\$2,220,270
Subtotal		\$33,708,781
Project	Description	Estimated Capital Costs (20 year period)
Pedestrian Projects		
Enhanced Pedestrian Crossings along Major Boulevards	Improvements include decorative concrete crosswalks, pedestrian signals, audible pedestrian devices, pedestrian push buttons, and tree grates.	\$4,268,000
Complete Sidewalk Network	Complete gaps in the sidewalk network.	\$1,121,000
Pedestrian Network Improvements	Improvements include curb ramps, sidewalk extensions, curb and gutter extensions, and traffic signal relocations resulting from curb extensions.	\$19,635,000
4 th Street Bridge	See Auto Network	
Subtotal		\$25,024,000
TDM		
Bicycle Transit Centers	Two, 150 space bike-transit centers that offer bicycle parking, bike rentals, bike repair shops, lockers, showers and transit information and amenities.	\$4,000,000
Bikesharing	Provide public bicycle rental in "pods" located at 10 locations throughout the city.	\$9,570,075
Carsharing	Provide start-up funds for capital expenses to a third party operator to run carsharing program in the city.	\$50,000
Mobility Centers	Provide start-up materials such as computers and furniture for mobility centers located in each TDM district. Mobility centers will serve as a one-stop shopping center for residents, employees, and visitors to get information on travel options.	\$120,000
Real-time Wayfinding	Create a comprehensive multi-modal wayfinding system for the City that includes trip planning tools, real-time traveler information systems, dynamic signage, and static signage for bicyclists and pedestrians.	\$1,000,000

²² These improvements are listed in more detail on page 4-15 of the Santa Monica Bicycle Action Plan

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Subtotal		\$6,127,075
Project	Description	Estimated Capital Costs (20 year period)
Transit		
Transit Amenities	In consultation with Big Blue Bus, provide improvements to transit facilities including benches, secure bike parking, trash receptacles, wider sidewalks, concrete bus pads, changeable message signs, landscaping, and shelters, with a focus on Lincoln Blvd, intersection of Lincoln and Pico Boulevards, Wilshire and 14th Activity Center, and adjacent to new developments.	\$500,000
Real Time Information	Incorporate real-time information systems so that passengers will know when their bus is expected to arrive. Such technologies include online applications and changeable message signs at major bus stops. Expand the existing transit stop improvement program, including real-time bus arrival displays and schedule information.	\$512,750
Reliability and Speed Enhancements	To the extent practical and based on funding availability, eliminate transit delay and improve transit reliability on regional and connecting transit streets through physical and policy improvements. Such improvements may include: <ul style="list-style-type: none"> • Queue-jump lanes • Transit-only lanes • Bus bulb outs • Automated bus tracking • Signal prioritization at all intersections along these streets (Covered under Advanced Traffic Management System) 	\$9,165,000
Subtotal		\$10,177,750
Auto Network		
Advanced Traffic Management System	Implement an Advanced Traffic Management System.	\$2,000,000
4 th Street Bridge	Widen the 4 th Street bridge including widening of the east and west side sidewalks, lighting, landscaping art and landscaping, aligning I-10 on and off ramps, extending off ramp west of 4 th Street, and a ramp connection to 5 th Street.	\$9,594,000
Subtotal		\$11,594,000
TOTAL		\$92,631,606

Projects Considered but Not Included

When reviewing the policies and actions identified in the Land Use and Circulation Element, which were used in the trip generation modeling conducted as part of the LUCE EIR to compile a list of capital projects for the TIF Master Capital Project List, a number of applicable projects were considered but not included for several reasons. First, policies and programs identified in the LUCE that only had an operating or maintenance cost component were not included. Examples include the creation of Transportation Management Organizations, the development of a transit pass program for new development, and the development of pedestrian design guidelines for encouraging walking. Second, policies and programs that would not contribute to a reduction in peak hour vehicle trips were not included.

5 RECOMMENDED FEE STRUCTURE AND CALCULATION

Chapter 5 provides an in-depth discussion of the transportation impact fee (TIF) structure and fee rates by land use for new development in Santa Monica. This fee will only apply to new development and changes to existing development which generate additional vehicle trips.

FEE STRUCTURE

The fee structure is based on vehicle trip generation by land use from Santa Monica’s Travel Demand Forecasting Model (TDFM). Land use categories are comprised of groups of related land uses. Land uses with similar trip generation characteristics are grouped together to simplify nexus fee administration and compliance monitoring. Figure 5-1 below identifies the land use categories that are grouped in each of the major land use categories used for this analysis.

Figure 5-1 Land Use Categories²³

Primary Land Use Category	Land Use Categories
Single-Family Residential	Single Family (R01)
Multi-Family Residential	Congregate Care - Non-senior (R06) Congregate Care – Seniors (R07) Multi Family (R02)
Retail	Animal kennels & veterinary hospitals (C01) Auto Repair (I01) Auto sales - new & used (C02) Car wash (I03) Community meeting facilities & community centers (includes non-residential adult care facilities) (P02) Construction-related materials (retail/wholesale) and nurseries, garden centers (I04) Entertainment & Recreational Facilities (C05) Gas station (C07) Library (P06) Museums, aquariums, & Art Galleries (C09) Nightclubs and bars (C10) Personal Services (C14) Post-secondary educational facility (P10) Pre-school/Child daycare (P11) Private studio (P13) Restaurants - Fast Food & Cafes (C15)

²³ For further detail on the land uses shown in Figure 5-1 please refer to the City of Santa Monica zoning code and the land use code provided in parenthesis.

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	Restaurants - Sit-down (C16) Retail Durable goods (C17) Retail Food, Markets (C18) Retail Mixed (C19) Retail Non-Food (C20)
Office	Creative office (I05) Financial institutions & offices (C06) Office, General (C11)
Medical Office	Office, Medical, including medical clinics, and offices for medical professionals (not hospital space) (C12)
Hospital	Hospital (full-service, not including medical clinics) (P05)
Lodging	Hotels, motels and other overnight accommodations (C08)
Industrial	Auto Inventory Storage (surface or structured) (I02) City maintenance facilities & bus yards (P01) Heavy industrial, manufacturing (I06) Light industrial (I07) Utilities (I08) Warehouse, self-storage (I09) Wholesale distribution/shipping (I10)

The land uses shown in Figure 5-1 represent the land use categories identified by the City of Santa Monica, thus if new land uses are introduced the City will need to determine which of the primary land use categories is most appropriate based on the type of land use and trip generation characteristics of that land use.

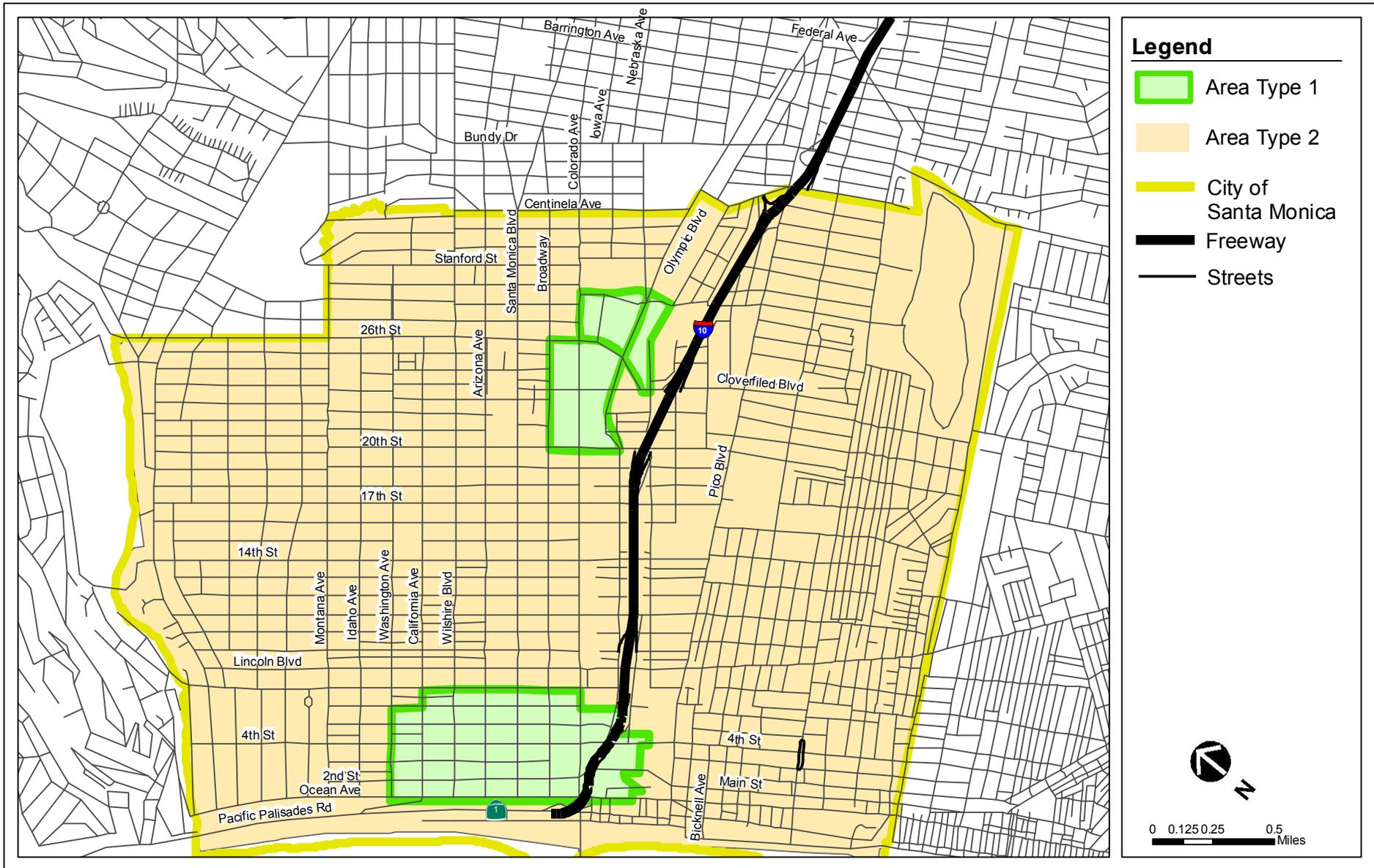
It should be noted that several land use categories that were evaluated as part of the LUCE EIR are not included in the categories above, including fire and police, recreation, affordable housing and government office, as development of these types of uses are not anticipated to pay the fee since they are uses required by or explicitly encouraged by the City of Santa Monica.

Trip generation rates by land use are based on calibrated PM peak hour rates from the Santa Monica TDFM and reflect trip generation expected from developments that comply with all LUCE development standards and policies.²⁴ Trip generation rates from the TDFM model have taken into account the effects of density, diversity, design, and destinations associated with the built environment as well as the effects of transportation demand management policies identified in the LUCE. Two sets of trip generation rates were established for each land use category based on what area of the city development occurs in. This method is consistent with Assembly Bill 3005 which requires fees to be adjusted based on proximity to transit and locally serving retail, both of which have been demonstrated through empirical research to be inversely correlated with vehicle trip generation.

²⁴ With the exception of lodging all rates are from the Santa Monica Travel Demand Forecasting Model. For a detailed discussion of the trip generation rates established as part of the Santa Monica Travel Demand Forecasting Model refer to Fehr & Peers Santa Monica Travel Demand Forecasting Model Trip Generation Rates report, October 2011. The trip generation rates for Lodging are from the 710 Wilshire Transportation Study, May 2011.

Area 1 represents Downtown, the Special Office District, and the Bergamot Transit Village area which has lower trip generation rates than Area 2 due to factors such as density, proximity to transit services, and mix of uses (Figure 5-2).

Figure 5-2 Map of Area 1 and Area 2



Area 2 represents the rest of the city. Figure 5-3 below shows the proposed land use categories and the PM peak hour vehicle trip generation rates. It should be noted that not all land uses have lower trip generation rates in Area 1 as compared to Area 2.

Figure 5-3 Trip Generation Rates by Land Use Category

Land Use Category	PM Peak Hour Trip Generation Rate (per 1,000 sq. ft. or dwelling unit) Area 1	PM Peak Hour Trip Generation Rate (per 1,000 sq. ft. or residential unit) Area 2
Residential (dwelling unit)		
Single Family	0.76	0.78
Multi-Family ²⁵	0.26	0.33
Non-Residential (1,000 sq. ft.)		
Retail	2.10	3.01
Office	0.97	1.08
Medical Office	2.81	2.98
Hospital	NA	1.47
Lodging	0.36	0.36
Industrial	0.12	0.13

FEE CALCULATION

The fees have been calculated based on cost estimates of capital improvements, which in combination with trip reduction programs, required to reduce the additional vehicle trips generated by growth in Santa Monica such that no new net vehicle trips are generated in the PM peak hour. Using the trip generation rates shown in Figure 5-3, fee rates by land use and area were established that reflect the proportional difference in trips generated by land use and by area. Figure 5-4 below shows the maximum level of fees that could be charged in order to fully cover the portion of the cost of capital projects that is associated with that is generated by new development within Santa Monica.

Output from Santa Monica TDFM found that the average share of the overall incremental growth in traffic that is generated by development within Santa Monica was 74% and the average share that was determined to be the result of growth in regional pass-through traffic was 26%. This suggests that as much as 74% of the cost of the transportation improvements contained in the LUCE nexus fee program could be fairly attributed to new development within the city.

²⁵ Multi-family zero cars, one car, and two or more cars have been combined, and trip rates have been averaged

Figure 5-4 Maximum Impact Fee by Land Use

Land Use Category	Impact Fee (per sq. ft. or dwelling unit) Area 1	Impact Fee (per sq. ft. or dwelling unit) Area 2
Residential (dwelling unit)		
Single Family	\$12,540	\$12,870
Multi-Family	\$4,290	\$5,445
Non-Residential (sq. ft.)		
Retail	\$34.65	\$49.67
Office	\$16.01	\$17.82
Medical Office	\$46.37	\$49.17
Hospital	NA	\$24.26
Lodging	\$5.94	\$5.94
Industrial	\$1.98	\$2.15

The fees shown in Figure 5-4 represent the maximum fee that could be charged by the City of Santa Monica capturing 74% of the total project cost. The maximum fees were calculated by dividing 74% of the total project cost by the trip generation rate rates in Figure 5-3 to generate a per unit/square foot maximum rate for each land use in Area 1 and Area 2.

However, full cost recovery was deemed inconsistent with the collection of similar fees statewide and it would be anticipated to have a deleterious effect on some desired land use change in Santa Monica. The proposed fee levels are comparable with other Southern California communities, are expected to be acceptable to the community, and will provide substantial funding for the proposed capital projects. The trip generation rates shown in Figure 5-3 reflect the proportional difference in trips generated by land use and by area. Figure 5-5 below shows the proposed impact fee on a per square foot or dwelling unit basis by land use.

For example, in Area 1 retail land uses have a per square footage fee that is approximately more than twice that for office land uses in this same area due to the fact that the trip generation rate for retail land uses is approximately 116% greater than the trip generation rate for office land uses during the PM peak hour (Figure 5-5). For some land uses the fee per square foot is greater in Area 2 than Area 1 due to the fact that the higher densities and transit service levels in Area 1 result in lower vehicle trip generation rates in Area 1 than in Area 2.

Figure 5-5 Proposed Impact Fee by Land Use

Land Use Category	Impact Fee (per sq. ft. or dwelling unit) Area 1	Impact Fee (per sq. ft. or dwelling unit) Area 2
Residential (dwelling unit)		
Single Family	\$7,600	\$7,800
Multi-Family	\$2,600	\$3,300
Non-Residential (sq. ft.)		
Retail	\$21.00	\$30.10
Office	\$9.70	\$10.80
Medical Office	\$28.10	\$29.80
Hospital	NA	\$14.70
Lodging	\$3.60	\$3.60
Industrial	\$1.20	\$1.30

This ensures that land uses with a lower PM peak hour vehicle trip generation rate will be charged a proportionately lower fee, while land uses with a higher trip generation rate will be charged a proportionately higher fee. Similarly, some land uses in Area 2 will be charged a higher fee due to higher PM peak hour vehicle trip generation rates as compared to the rate for the same land use in Area 1.

Based on the land use projections shown in Chapter 2, Figure 2-1, and using the fees shown in Figure 5-5, total potential revenue of approximately \$60 million could be generated by the impact fee (Figure 5-6). Industrial land use shows a negative fee generation to reflect the magnitude of credit being taken for existing land uses that are anticipated to be converted to other land uses as development occurs. Since land uses generate fees at different rates, the net fee is the difference between new and existing fees. For example, any individual project will be charged for the net change in land use, meaning that the fee will be calculated by taking the net difference between the fee that would be charged for the existing land use that is being removed and the fee for the proposed land use.

Figure 5-6 Potential Impact Fees Generated by Land Use Category

Land Use Category	Impact Fees Generated Area 1	Impact Fees Generated Area 2	Citywide Total Revenue
Residential			
Multi-Family	\$10,080,000	\$3,570,000	\$13,650,000
Non-Residential			
Retail	\$2,160,000	\$14,590,000	\$16,750,000
Office	\$7,650,000	\$3,910,000	\$11,560,000
Medical Office	\$5,120,000	\$150,000	\$5,270,000
Hospital	NA	\$11,220,000	\$11,220,000
Lodging	\$1,450,000	\$800,000	\$2,250,000
Industrial	-\$290,000	-\$180,000	-\$470,000
Total	\$26,150,000	\$34,120,000	\$60,250,000

Given that the cost estimate for capital projects is approximately \$134 million, the revenue generated by the transportation impact fee will not be sufficient to fully cover the cost of all capital projects. The remaining 55% of the total project cost is expected to be covered by regional, state and federal grants, City General Fund, and other sources, including developers' public benefit contributions for transportation above the standard fee amount, for which the fee may provide a local match.

Fee Reduction for Housing within a Half-Mile of Transit Stations

The proposed nexus fee is consistent with the Mitigation Fee Act, including the amendment added by AB 3005 in 2008. This amendment applies to new housing that meets the following requirements:

1. 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.
2. Convenience retail uses, including a store that sells food, are located within one-half mile of the housing development.
3. 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 amendment uses the following definitions:

- **Transit station:** "a rail or light-rail station, ferry terminal, bus hub, or bus transfer station...includes planned transit stations otherwise meeting this definition whose construction is programmed to be completed prior to the scheduled completion and occupancy of the housing development."

- **Bus hub:** “an intersection of three or more bus routes, with a minimum route headway of 10 minutes during peak hours.”
- **Bus transfer station:** “an arrival, departure, or transfer point for the area’s intercity, intraregional, or interregional bus service having permanent investment in multiple bus docking facilities, ticketing services, and passenger shelters.”

For new housing that meets these requirements,

“...the fee, or the portion thereof relating to vehicular traffic impacts, shall 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...”

In Santa Monica, qualifying transit stations include the Santa Monica Transit Mall on Santa Monica Boulevard and Broadway between 2nd Street and 4th Street, and Expo Phase 2 stations at Colorado & 4th, Colorado & 17th, and Olympic & 26th. The ridership catchment area of the Exposition & Bundy station also includes land within the City of Santa Monica. Figure 5-7 shows half-mile walksheds from these five locations.

The Santa Monica Travel Demand Forecasting Model (TDFM) and the proposed nexus fee currently include lower trip generation rates for Downtown Santa Monica, the Special Office District, and Bergamot Transit Village (referred to as Area 1) compared to the rest of the City (referred to as Area 2). These lower fees reflect the reduced trip generation of residences near transit and would be automatically applied to development within Area 1, consistent with the intent of AB 3005. It should be noted that Memorial Park was not included in Area 1, as under existing conditions, it does not exhibit the same type of reduced auto use travel behavior as seen in Downtown Santa Monica and Bergamot Transit Village. However, housing in Memorial Park located within the half-mile walkshed of the Exposition Line will be charged Area Type 1 impact fee rates due to AB 3005.

As shown in Figure 5-7, the half-mile walkshed specified in AB 3005 would also encompass certain residential areas in Area 2. Therefore, the residential fees established for Area 1 would be used to charge reduced fees for qualifying housing in Area 2 as specified in AB 3005. The trip fee revenue estimate in this study conservatively assumes that all eligible housing in Area 2 would apply for this reduction and meet the specified requirements. Residential fees for Area 1 were applied to all planned housing development within the half-mile walkshed around transit stations as shown in Figure 5-7.

Figure 5-7 AB 3005 Santa Monica Transit Station Walkshed

