CITY OF MORGAN HILL

TRAFFIC FACILITIES DEVELOPMENT IMPACT FEE STUDY

FINAL

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1. Introduction

This report summarizes an analysis of the need for traffic facilities in the City of Morgan Hill to accommodate new development. The report documents a reasonable relationship between new development and an impact fee for funding new facilities.

The focus of this study is to fund the expansion of existing facilities and the construction of new facilities that are required as a direct result of facility demand brought on by new development. This study provides the documentation to comprehensively update the City's traffic facilities fee program.

Background and Study Objectives

The primary policy objective of a development impact fee program is to ensure that new development pays the capital costs associated with growth. Although growth also imposes operating costs, only facilities costs can be funded by through impact fees. The primary purpose of this report is to calculate and present fees that will enable the City to expand its inventory of traffic facilities, as new development creates increases in service demands.

The City imposes traffic facilities fees under authority granted by the *Mitigation Fee Act (*the *Act)*, contained in *California Government Code* Sections 66000 *et seq*. This report provides the necessary findings required by the *Act* for adoption of the fees presented in the fee schedules contained herein.

All development impact fee-funded capital projects should be programmed through the City's five-year Capital Improvement Plan (CIP). Using a CIP can help the City identify and direct its fee revenue to public facilities projects that will accommodate future growth. By programming fee revenues to specific capital projects, the City can help ensure a reasonable relationship between the new development paying the fees and the facilities funded by the fees.

Cost Allocation Approach

There are three methods for allocating to new development its fair share of the costs of providing new facilities commonly used in impact fee studies:

- The **system plan** approach is based on a master facilities plan in situations where the needed facilities serve both existing and new development. This approach allocates existing and planned facilities across existing and new development to determine new development's fair share of facility needs. This approach is used when it is not possible to differentiate the benefits of new facilities between new and existing development. Often the system plan is based on increasing facility standards, so the City must find non-impact fee revenue sources to fund existing development's fair share of planned facilities.
- The **existing inventory** approach is based on a facility standard derived from the City's existing level of facilities and existing demand for services. This approach results in no facility deficiencies attributable to existing development. This approach is often used when a long-range plan for new facilities is not available. Only the initial facilities to be funded with fees are identified in the fee study. Future facilities to serve growth will be identified through the City's annual capital improvement plan and budget process and/or completion of a new facility master plan. This approach is not used in this study.

- The **planned facilities** approach allocates costs based on the ratio of planned facilities that serve new development to the increase in demand associated with new development. This approach is appropriate when specific planned facilities that only benefit new development can be identified, when the specific share of facilities benefiting new development can be identified, or when the identified planned facilities represent a lower standard than the existing standard. This approach is not used in this study. This approach is used to calculate the traffic facilities fees in this study.

Based on discussions with City staff, it was determined that the planned facilities method is most appropriate to use in this case. A per capita value is calculated based on the future planned facilities divided by the growth in trip demand in the City. The resulting costs per trip are then allocated to the new development.

Traffic Facilities Fee Schedule Summary

Table E.1 summarizes the traffic facilities impact fees that meet the City's identified needs and comply with the requirements of the *Mitigation Fee Act*.

Table E.1: Maximum Justified Traffic Impact Fee Schedule

	A	*B*	*C = A x B*	*C / 1,000*
Land Use	**Cost Per Trip**	**PM Peak Hour Trip Rate**	**Total Fee[1]**	**Fee per Sq. Ft.**
Residential				
Single Family	$ 1,816	1.00	$ 1,816	
Multi-family	1,816	0.62	1,126	
Nonresidential				
R&D	$ 1,816	1.07	$ 1,943	$ 1.94
Commercial	1,816	3.71	6,737	6.74
Office	1,816	1.49	2,706	2.71
Industrial	1,816	0.97	1,762	1.76
Warehouse	1,816	0.32	581	0.58

[1] Fee per dwelling unit or per 1,000 square feet of nonresidential.

Sources: Tables 2 and 5; Willdan Financial Services.

2. Traffic Fee Analysis

Growth projections are used as indicators of demand to determine facility needs and allocate those needs between existing and new development. This chapter explains the source for the growth projections used in this study based on a 2015 base year and a planning horizon of 2035.

Estimates of existing development and projections of future growth are critical assumptions used throughout this report. These estimates are used as follows:

- The estimate of existing residents in 2015 is used as an indicator of existing facility demand and to determine existing facility standards.
- The estimate of total residents at the 2035 planning horizon is used as an indicator of future demand to determine total facilities needed to accommodate growth and remedy existing facility deficiencies, if any.
- Estimates of growth from 2015 through 2035 are used to (1) allocate facility costs between new development and existing development, and (2) estimate total fee revenues.

Growth Projections for City of Morgan Hill

The base year for this study is the year 2015. The planning horizon for this analysis is 2035. Existing residents is based on the latest data from the California Department of Finance (CA DOF). The estimate for residents in 2035 is based on data provided by the City, and is consistent with other impact fee studies being investigated by the City at this time.

Table 1 shows estimates of the growth in residents between 2015 and 2035.

Table 1: Land Use Assumptions

	2014	2035	Increase
Residents[1]	41,400	60,000	18,600
Dwelling Units[2]			
Single Family	10,700	15,500	4,800
Multi-family	2,100	3,000	900
Senior / Downtown / Secondary Units	1,100	1,600	500
Total	13,900	20,100	6,200
Building Square Feet (000s)[3]			
R&D	2,768	3,894	1,126
Commercial	1,700	3,200	1,500
Office	752	1,058	306
Industrial	2,236	3,146	910
Warehouse	483	680	197
Total	7,939	11,978	4,039

Note: Figures have been rounded to the hundreds.

[1] Excludes "group quarters" resident populations. Existing residents and dwelling unit estimate from DOF data. Estimates of residents in 2040 based on estimates provided by City.

[2] Total projected dwelling units based on total residents in 2035 divided by 2.97 residents per dwelling unit, the current occupancy density across all dwelling unit types. Units allocated to single family, multifamily and senior/downtown/secondary units based on current proportions.

[3] Base year and 2035 building square feet identified in *Morgan Hill Industrial Land Study Update* Memorandum, by Strategic Economics (May, 2015). Projection based on "Existing Conditions" Scenario in Figure 4.

Sources: California Department of Finance (DOF) Table E-5, 2015; Morgan Hill Industrial Land Study Update Memorandum, by Strategic Economics (May, 2015); City of Morgan Hill; Willdan Financial Services.

Land Use Types

To ensure a reasonable relationship between each fee and the type of development paying the fee, growth projections distinguish between different land use types. The land use types that impact fees have been calculated for are defined below.

- **Single family:** Detached and attached one-unit dwellings. Per *Municipal Code Section 18.04.155*, a single family detached dwelling unit is defined as, "a dwelling designed to contain a single dwelling unit situated on a single lot." Per *Municipal Code Section 18.04.154*, a single family attached dwelling unit is defined as, "a dwelling attached to another dwelling on at least fifty percent of the length of the attached side of the building, sometimes called a townhouse, duet, or row house."
- **Multi-family:** All attached multi-family dwellings including duplexes and condominiums. Per *Municipal Code Section 18.04.150*, a multi-family unit is defined as, "a building designed and used as a residence for three or more families living independently of each other and containing three or more dwelling

units. Per *Municipal Code Section 18.04.157*, a duplex is defined as, "a structure which is designed and used as a residence for two families living independently of each other and containing two dwelling units."

- **Senior / Downtown / Secondary Units:** All senior housing units, any multi-unit residential development occurring in the downtown area (as defined by the Downtown Specific Plan) and any secondary dwelling units less than 900 square feet in size per unit.
- **Commercial:** All commercial, retail, educational, and hotel/motel development.
- **R&D:** Facilities devoted to research and development (R&D) activities in physical, engineering, and/or life sciences engaged in application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes.
- **Office:** All general, professional, and medical office development.
- **Industrial:** All manufacturing and warehouse development.

The City should have the discretion to impose the traffic facilities fee based on the specific aspects of a proposed development regardless of zoning. The guideline to use is the probable occupant density of the development. The fee imposed should be based on the land use type that most closely matches the probable occupant density of the development.

The purpose of the traffic impact fee is to fund the traffic facilities needed to serve new development. The maximum justified impact fee is presented based on the planned facilities standard of traffic facilities per capita.

Trip Generation by Land Use

The share of roadway improvement costs allocated to each unit of new development is based on the relative amount of new trip demand generated by that development. Trip demand during the afternoon peak hour of traffic is used because this is generally the busiest time of day for traffic, and road improvements are needed to provide capacity to accommodate peak levels of traffic. The traffic study used for this analysis identified improvements needed to mitigate deficiencies during the peak hour.

Table 2 shows trip generation rate assumptions used in this analysis (dwelling unit or 1,000 square feet of nonresidential development). As new development generates increased vehicle trips for the City's transportation network, additional capacity in the system will be needed in the form of the improvements described in this report. Trip generation by major land use category allow the analysis to incorporate different estimates of demand for transportation facilities. Trip generation rates are applied to development projections to allocate improvement costs by land use type. The trip generation rates used for this analysis are based on years of study of major land use categories by the Institute of Transportation Engineers (9th Edition).

Table 2: PM Peak Hour Trip Rates

	ITE Category	PM Peak Hour Trip Rate[1]
		F
Residential		
Single Family	Single Family Housing (210)	1.00
Multi-family	Apartment (220)	0.62
Nonresidential		
R&D	R&D Center (760)	1.07
Commercial	Shopping Center (820)	3.71
Office	General Office Building (710)	1.49
Industrial	General Light Industrial (110)	0.97
Warehouse	Warehousing (150)	0.32

[1] Trips per dwelling unit or per 1,000 square feet of nonresidential building space.

Source: Institute of Traffic Engineers, Trip Generation, 9th Edition.

Growth in Trip Demand Through 2035

The peak hour trip demand generated by new development is a reasonable measure of new development's demand for traffic facilities. The need for new or expanded roads is typically determined based on peak-hour trip volumes because capacity needs are based on the busiest periods of the day. The trip demand rate from Table 2, multiplied by dwelling units for residential land use categories or by thousands of square feet of building space for nonresidential categories from Table 1, equals the total peak hour trip demand generated by that land use type. **Table 3** shows the trip demand generated by existing development and anticipated new development in Morgan Hill through the 2035 planning horizon.

Table 3: Land Use Scenario and Total Trips

Land Use	PM Peak Hour Trip Rate	2015 Units / 1,000 SF	2015 Trips	Growth 2015 to 2035 Units / 1,000 SF	Growth 2015 to 2035 Trips	Total - 2035 Units / 1,000 SF	Total - 2035 Trips
Residential							
Single Family	1.00	10,700	10,700	4,800	4,800	15,500	15,500
Multi-family	0.62	2,100	1,302	900	558	3,000	1,860
Senior / Downtown / Secondary Units	0.62	1,100	682	500	310	1,600	992
Subtotal		13,900	12,684	6,200	5,668	20,100	18,352
Nonresidential							
R&D	1.07	2,768	2,962	1,126	1,205	3,894	4,167
Commercial	3.71	1,700	6,307	1,500	5,565	3,200	11,872
Office	1.49	752	1,120	306	456	1,058	1,576
Industrial	0.97	2,236	2,169	910	883	3,146	3,052
Warehouse	0.32	483	155	197	63	680	218
Subtotal		7,939	12,713	4,039	8,172	11,978	20,885
Total			25,397		13,840		39,237
			65%		35%		100%

Sources: Tables 1 and 2.

Traffic Impact Fee Project Costs

Table 4 shows the improvements needed to accommodate projected 2035 traffic volumes. Project costs were estimated by City Staff. Each project included in the fee program, was either included in the original fee program, or is needed as a direct result of trip demand from new development. Consequently, the entire cost of planned facilities, with no existing deficiencies is allocated to new development in this impact fee.

Consistent with the current fee program, this update assumes that developers will dedicate 36' of right-of-way, including (site work and landscaping) on each side. Developers will dedicate 26' of road improvements, including (curb, gutter & pavement) on each side. The impact fee will fund the remainder of the improvements.

Table 4: Project Cost Summary

No	Road	Location	Total Project Cost	Cost Allocation to New Development	Allocation To Existing Deficiencies	Total Cost Allocated To New Development
1	Cochrane Road	Monterey Road to Hwy 101	$ 377,452	100%	0%	$ 377,452
2	Cochrane Road	Hwy 101 to Mission View Drive	504,229	100%	0%	504,229
3	Cochrane Road	Mission View Drive to Peet Road	753,315	100%	0%	753,315
4	Dunne Avenue	Hill Road to Gallop Drive	691,081	100%	0%	691,081
5	Dunne Avenue	Del Monte Avenue to Monterey Road	147,180	100%	0%	147,180
6	Hill Road/Peet Road	Half Road to Cochrane Road	-	100%	0%	-
7	Hill Road	Main Avenue to Barrett Avenue	1,071,486	100%	0%	1,071,486
8	Madrone Parkway	Hale Avenue to Monterey Road	898,829	100%	0%	898,829
9	Madrone Parkway	Monterey Road to Butterfield Blvd.	493,629	100%	0%	493,629
10	Main Avenue	Depot Street to Butterfield Blvd.	36,341	100%	0%	36,341
11	Main Avenue	Laurel Street to Condit Road	652,393	100%	0%	652,393
12	Main Avenue	Condit Road To Hill Road	-	100%	0%	-
13	Murphy/Mission View Dr.	Cochrane Road to Half Road	762,521	100%	0%	762,521
14	Murphy/Mission View Dr.	Half Road to Main Avenue	1,183,284	100%	0%	1,183,284
15	Murphy Avenue	Main Avenue to Diana Avenue	1,183,284	100%	0%	1,183,284
16	Murphy Avenue	Diana Avenue to Barrett Avenue	1,522,820	100%	0%	1,522,820
17	Hale Avenue	APN 764-09-012 to Llagas Road	630,059	100%	0%	630,059
18	Hale Avenue	Llagas Road to Wright Avenue	1,009,214	100%	0%	1,009,214
19	Hale Avenue	Wright Avenue to Main Avenue	928,962	100%	0%	928,962
20	Hale Avenue	Main Aveneu to Dunne Avenue	2,650,561	100%	0%	2,650,561
21	Hale Avenue	Dunne Avenue to Spring Avenue	1,548,312	100%	0%	1,548,312
22	Hale Avenue	Spring to Edmundson Avenue	500,000	100%	0%	500,000
23	Hale Avenue	Edmundson Avenue to Watsonville Road	2,099,074	100%	0%	2,099,074
24	Hale Avenue	Watsonville Road to Native Dancer Drive	969,088	100%	0%	969,088
25	Butterfield Blvd.	Madrone Parkway to Cochrane Road	511,043	100%	0%	511,043
26	Tennant Avenue	E HWY 101 to Murphy Avenue	1,286,920	100%	0%	1,286,920
27	Tennant Avenue	Juan Hernandez Driveto HWY 101	790,942	100%	0%	790,942
28	Watsonville Road	Monterey Road to La Alameda Drive	454,110	100%	0%	454,110
29	Monterey Road	Tilton Avenue to Cochrane Road	2,291,726	100%	0%	2,291,726
30	Monterey Road	Cochrane Road to Main Avenue	1,977,697	100%	0%	1,977,697
31	Monterey Road	Dunne Avenue to Middle Avenue	1,327,651	100%	0%	1,327,651
Total			$ 29,253,203			$ 29,253,203

Source: City of Morgan Hill.

Cost Allocation

Based on the total improvement cost allocated to new development shown in Table 4 and the anticipated new trip demand shown in Table 3, **Table 5** shows new development's cost per trip demand unit. Existing fund balances are subtracted from the total project costs to ensure that the impact fee only funds new development's share of the improvements.

Table 5: Cost per Trip to Accommodate Growth

Fee Program Share of Planned Facilities Costs	$ 29,253,203
Less Existing Fund Balance	(4,112,988)
Net Costs	$ 25,140,215
Growth in Trip Demand	13,840
Cost per Trip	$ 1,816

Sources: Tables 3 and 4; Willdan Financial Services.

Fee Schedule

Table 6 shows the maximum justified traffic facilities fee schedule. The cost per trip is multiplied by the PM peak hour trip rate for each land use to determine the fee per dwelling unit, on 1,000 square feet of nonresidential building space.

The peak hour trip generation rate assigned to each of the land use categories in the study is intended to capture all land uses within that category. For the two residential categories, the fees in Table 6 should be appropriate for virtually all residential projects to be developed in Morgan Hill. However, there are specific nonresidential projects that may have significantly different trip generation characteristics compared to the four nonresidential land use categories included in Table 6. If a development project is expected to generate trips at a vastly different rate than those included in Table 2, the City and developer can use the ITE Trip Generation manual to identify a land use category and corresponding trip rate that most closely matches the characteristics of the proposed development, and calculate a fee for that particular project. The fees are calculated based on the identified PM peak hour trip generation rate for that project using the following formula:

No. of Development Units in Project (or 1,000 square feet) x PM Peak Hour Trips per Development Unit x Cost per PM Peak Hour Trip ($1,816) = Fee for project

Table 6: Maximum Justified Traffic Impact Fee Schedule

	A	*B*	*C = A x B*	*C / 1,000*
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R&D	$ 1,816	1.07	$ 1,943	$ 1.94
Commercial	1,816	3.71	6,737	6.74
Office	1,816	1.49	2,706	2.71
Industrial	1,816	0.97	1,762	1.76
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[1] Fee per dwelling unit or per 1,000 square feet of nonresidential.

Sources: Tables 2 and 5; Willdan Financial Services.

3. Implementation

Impact Fee Program Adoption Process

Impact fee program adoption procedures are found in the *California Government Code Section 66016*. Adoption of an impact fee program requires the City Council to follow certain procedures including holding a public meeting. A fourteen-day mailed public notice is required for those registering for such notification. Data, such as an impact fee report, must be made available at least 10 days prior to the public meeting. Your legal counsel should inform you of any other procedural requirements as well as advice regarding adoption of an enabling ordinance and/or a resolution. After adoption there is a mandatory 60-day waiting period before the fees go into effect. This procedure must also be followed for fee increases.

Inflation Adjustment

Appropriate inflation indexes should be identified in a fee ordinance including an automatic adjustment to the fee annually. Separate indexes for land and construction costs should be used. Calculating the land cost index may require the periodic use of a property appraiser. The construction cost index can be based on the City's recent capital project experience or can be taken from any reputable source, such as the *Engineering News-Record*. To calculate prospective fee increases, each index should be weighed against its share of total facility needs represented by land or improvements, as appropriate.

Reporting Requirements

The City should comply with the annual and five-year reporting requirements of the Mitigation Fee Act. For facilities to be funded by a combination of public fees and other revenues, identification of the source and amount of these non-fee revenues is essential. Identification of the timing of receipt of other revenues to fund the facilities is also important.

Fee Accounting

The City should deposit fee revenues into separate restricted fee accounts for each of the fee categories identified in this report. Fees collected for a given facility category should only be expended on new facilities of that same category.

Programming Revenues and Projects with the CIP

The City should commit all projected fee revenues and fund balances to specific projects in a Capital Improvements Program. These should represent the types of facilities needed to serve growth and described in this report. The use of the CIP in this manner documents a reasonable relationship between new development and the use of those revenues. The CIP also provides the documentation necessary for the City to hold funds in a project account for longer than five years if necessary to collect sufficient monies to complete a project.

The City may decide to alter the scope of the planned projects or to substitute new projects as long as those new projects continue to represent an expansion of the City's facilities. If the total cost of facilities varies from the total cost used as a basis for the fees, the City should consider revising the fees accordingly.

4. Mitigation Fee Act Findings

Fees are assessed and typically paid when a building permit is issued and imposed on new development projects by local agencies responsible for regulating land use (cities and counties). To guide the imposition of facilities fees, the California State Legislature adopted the *Mitigation Fee Act* with Assembly Bill 1600 in 1987 and subsequent amendments. The *Act*, contained in *California Government Code* §§66000 – 66025, establishes requirements on local agencies for the imposition and administration of fees. The Act requires local agencies to document five statutory findings when adopting fees.

The five findings in the Act required for adoption of the maximum justified fees documented in this report are: 1) Purpose of fee, 2) Use of fee Revenues, 3) Benefit Relationship, 4) Burden Relationship, and 5) Proportionality. They are each discussed below and are supported throughout this report.

Purpose of Fee

- *Identify the purpose of the fee (§66001(a)(1) of the Act).*

We understand that it is the policy of the City that new development will not burden the existing service population with the cost of facilities required to accommodate growth. Policy 16.4(c) of the Morgan Hill General Plan states that the City will "Fully utilize existing strategies to achieve an urban level of public services throughout the city, including require [ing] developers to dedicate land and/or pay to offset the costs relating to the provision and expansion of public services and facilities." The purpose of the fees proposed by this report is to implement this policy by providing a funding source from new development for capital improvements to serve that development. The fees advance a legitimate City interest by enabling the City to provide traffic facilities to new development.

Use of Fee Revenues

- *Identify the use to which the fees will be put. If the use is financing facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan as specified in §65403 or §66002, may be made in applicable general or specific plan requirements, or may be made in other public documents that identify the facilities for which the fees are charged (§66001(a)(2) of the Act).*

Fees proposed in this report, if enacted by the City, would be available to fund expanded facilities to serve new development. Facilities funded by these fees are designated to be located within the City. Fees addressed in this report have been identified by the City to be restricted to funding traffic facilities.

A list of the preliminary facilities needed to serve new development is identified in Table 4 of this report. More thorough descriptions of certain planned facilities, including their specific location, if known at this time, are included in master plans, capital improvement plans, or other City planning documents or are available from City staff. The City may change the list of planned facilities to meet changing needs and circumstances of new development, as it deems necessary. The fees should be updated if these amendments result in a significant change in the fair share cost allocated to new development.

Benefit Relationship

- *Determine the reasonable relationship between the fees' use and the type of development project on which the fees are imposed (§66001(a)(3) of the Act).*

We expect that the City will restrict fee revenue to the acquisition of land, construction of facilities and buildings, and purchase of related equipment, furnishings, vehicles, and services used to serve new development as described above under the "Traffic Impact Fee Project Costs" finding. The City should keep fees in segregated accounts. Facilities funded by the fees are expected to provide a City-wide network of facilities accessible to the additional trip demand associated with new development. Under the *Act*, fees are not intended to fund planned facilities needed to correct existing deficiencies. Thus, a reasonable relationship can be shown between the use of fee revenue and the new development residential and non-residential use classifications that will pay the fees.

Burden Relationship

- *Determine the reasonable relationship between the need for the public facilities and the types of development on which the fees are imposed (§66001(a)(4) of the Act).*

Facilities need is based on a facility standard that represents the demand generated by new development for those facilities. For a given facility category, demand is measured by a single facility standard that can be applied across land use types to ensure a reasonable relationship to the type of development. For the traffic facilities impact fee, level of service standards are calculated based upon the trip demand from new development.

The standards used to identify growth needs are also used to determine if planned facilities will partially serve the existing service population by correcting existing deficiencies. This approach ensures that new development will only be responsible for its fair share of planned facilities, and that the fees will not unfairly burden new development with the cost of facilities associated with serving the existing service population.

Proportionality

- *Determine how there is a reasonable relationship between the fees amount and the cost of the facilities or portion of the facilities attributable to the development on which the fee is imposed (§66001(b) of the Act).*

The reasonable relationship between each facilities fee for a specific new development project and the cost of the facilities attributable to that project is based on the estimated service population growth the project will accommodate. Fees for a specific project are based on increases in the number of dwelling units or nonresidential building square feet. Different land uses generate varying amounts of trips, and the fees reflect these differences in demand, by type of unit. Thus, the fees can ensure a reasonable relationship between a specific new development project and the cost of the facilities attributable to that project.

See *Trip Generation by Land Use* for a description of the trip generation factors used in this analysis. See the *Fee Schedule* section for a presentation of the maximum justified facilities fees.