

IN THE CITY COUNCIL OF THE CITY OF SAN LEANDRO

RESOLUTION NO. 2010-046

RESOLUTION ADOPTING A SUPPLEMENTAL TRAFFIC IMPACT FEE AND AMENDING THE SAN LEANDRO ADMINISTRATIVE CODE TO ADD SECTION 8.10.320, INCORPORATING ADMINISTRATIVE REGULATIONS FOR THE IMPLEMENTATION OF THE FEE PROGRAM FOR DEVELOPMENTS WITHIN A ZONE OF BENEFIT TO COVER THE COST OF IMPROVEMENTS TO THE MARINA BOULEVARD / INTERSTATE-880 (I-880) INTERCHANGE

RECITALS

WHEREAS the City Council of the City of San Leandro adopted San Leandro Municipal Code Chapter 7-11 establishing the authority to adopt and impose a Development Fee for Street Improvements on new development projects; and

WHEREAS, a traffic study titled "Traffic Impact Fee Analysis for I-880/ Marina Interchange Improvement" dated November 12, 2009 by TJKM (Traffic Study) calculated that traffic at the Marina Boulevard / Interstate 880 interchange (Interchange) will increase by approximately 100% by the year 2030; and

WHEREAS, the City determined that improvements to the Interchange required to mitigate the aforementioned increase in traffic will cost \$27,000,000 in 2008 dollars, under a present value calculation; and

WHEREAS, a report titled "Marina Boulevard/Interstate 880 Interchange Traffic Fee Report" (Fee Report) was prepared based on the Traffic Study. Said report addresses the requirements of AB 1600 making certain findings as identified below and in detail that shall be considered a part of this resolution, proposes a zone of benefit, concludes that new development within the zone of benefit creates traffic that impacts the Interchange, and calculates a supplemental traffic impact fee to pay for mitigation of said impacts; and

WHEREAS, at least 14 days prior to the public hearing at which this resolution was adopted, the City mailed the time and place of the public hearing to eligible interested parties that had previously filed written requests with the City for mailed meeting notices on new or increased fees or service charges; and

WHEREAS, the Fee Report was made available for public inspection 10 days prior to the public hearing; and

WHEREAS, the City provided 10 days published notice prior to the public hearing in accordance with California Government Code section 6062(a); and

WHEREAS, a public hearing was held by the City Council at which it received a staff report, took oral and written testimony and considered the Fee Report.

FINDINGS

The City Council finds as follows:

1. The Traffic Fee's purpose is to finance street improvements to reduce traffic impacts to the Interchange from future developments. The improvements to be financed are summarized in the Fee Report. The improvements also include design, and pre-construction activities.
2. The Traffic Fee collected will be used to finance the improvements.
3. After considering the Traffic Fee Report, written testimony, oral testimony received during the public hearing, and the staff report, the City Council approves and adopts the Fee Report.
4. The Traffic Fee is necessary to fund improvements to offset traffic impacts on the Interchange as identified in the Traffic Study.
5. In adopting the Traffic Fee, the City Council is exercising its powers under California Constitution Article XI, section 7, San Leandro Municipal Code Chapter 7-11, and Government Code section 66000 et seq.
6. The Traffic Fee Report has established that a reasonable relationship exists between the Traffic Fee amount and the costs to improve the Interchange. The Traffic Fee Report further establishes that a reasonable relationship exists between the need for the Interchange improvements and the type of development upon which the fee is being imposed.

NOW, THEREFORE, the City Council of the City of San Leandro does RESOLVE as follows:

That the supplemental traffic impact fee proposed in the Fee Report shall be adopted and applied to all non-exempt new development within the zone of benefit as described in and pursuant to the Fee Report; and

That the San Leandro Administrative code shall be amended as follows:

8.10.320: Marina Boulevard/Interstate 880 Interchange Traffic Impact Fee.

- (a) A Traffic Impact Fee is imposed on all non-exempt properties within the Traffic Impact Fee Zone shown in Figure 2, attached. The amount of the fee is set forth in the Fee Schedule.
- (b) Title 7, Chapter 11 of the San Leandro Municipal Code will govern imposing and collecting the Traffic Fee.

(c) This Traffic Impact Fee shall be collected until such time that the entirety of \$2,540,271.24 indexed to the CCI has been collected. At the time of adoption of this section the CCI for San Francisco was 9720.42.

That said supplemental traffic impact fee shall be discontinued when fees that total \$2,386,800 in 2008 dollars, adjusted for inflation, are collected.

Introduced by Councilmember Prola and passed and adopted this 3rd day of May, 2010, by the following called vote:

Members of the Council:

AYES: Councilmembers Gregory, Prola, Reed, Souza, Starosciak, Stephens;
Mayor Santos (7)

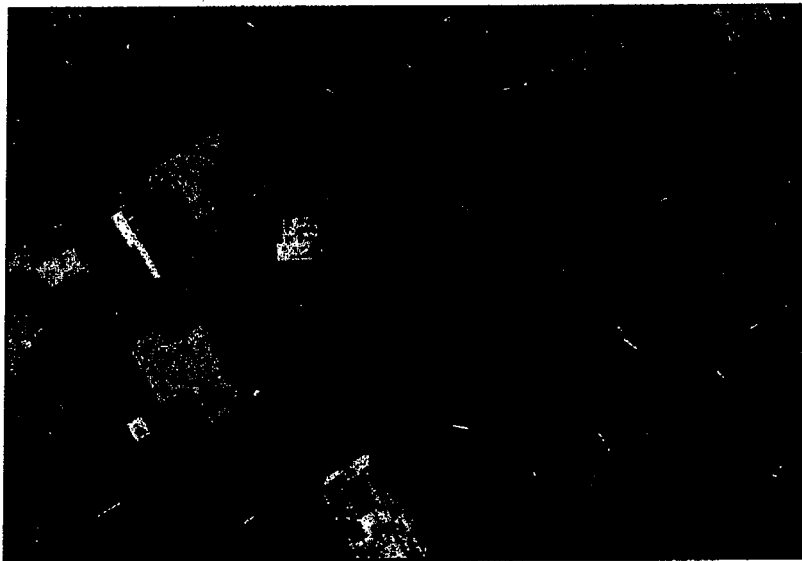
NOES: None (0)

ABSENT: None (0)

ATTEST: Marian Handa
Marian Handa, City Clerk

TJKM
Transportation
Consultants

Vision That Moves Your Community



Final

**Traffic Impact Fee
Analysis for I-880/
Marina Interchange
Improvement**

For City of San Leandro

November 12, 2009

Pleasanton
Fresno
Sacramento
Santa Rosa



Vision That Moves Your Community

Final

**Traffic Impact Fee Analysis for I-880/
Marina Interchange Improvement**

In City of San Leandro

November 12, 2009



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Introduction and Summary

Introduction

The I-880/Marina Boulevard interchange is currently deficient and due to be replaced, in part, by the widening of I-880 for the southbound I-880 HOV Lane project. However, the HOV Lane project will not support all costs of the interchange improvements that are needed. Additionally, major development proposals in San Leandro are being developed for application for entitlements, and several contribute significant amounts of new traffic to the interchange.

Currently, the City of San Leandro has an existing traffic impact fee program, the Development Fees for Street Improvements (DFSI) for named improvements throughout the city where it is difficult to attribute increases in traffic to specific development projects. The DFSI program has thirteen generalized land uses that TJKM proposes to use as the basis for fees in this project.

The improvement of the I-880/Marina Boulevard interchange is not a named project in the DFSI program, and the need for that project is perceived to be a combination of existing traffic (the interchange is already deficient) along with the increased traffic from major nearby development projects, other development in San Leandro and the increase in regional traffic in the I-880 corridor. Therefore, it is not appropriate to finance the needed improvements at this interchange solely from nearby development fees.

In order to determine a fair share of the improvement cost, the City of San Leandro is interested in determining:

- The cost per peak hour vehicle trip simply calculated by dividing total a.m. and p.m. peak hour trips on a typical weekday into the total costs for improving the interchange;
- The resulting association of costs per peak hour trip by categories of land use; and
- The allocation of interchange improvement costs to:
 - a) existing trips using the interchange,
 - b) to the growth in trips due to future development in San Leandro, and
 - c) to regional traffic using the interchange (trips neither beginning nor ending in San Leandro).

This report is prepared so that the City of San Leandro can make decisions on financing strategies for the interchange improvements.

Summary

The Alameda County Congestion Management Agency countywide model scenarios for 2005 and 2030 were used as the basis for calculations in this analysis. Specifically, the general validated countywide model was modified for the Draft Environmental Impact Report for the proposed ICI Retail Center and the relocation of the Hayward campus of the Kaiser Permanente Hospital into a vacant site in the southwest quadrant of the Marina/I-880 Interchange.

The estimated total of all trips using the interchange during the a.m. and p.m. peak hours is 14,814 on a typical weekday in 2030. In 2005 this total is 7,924, so the increase over 25 years is 87 percent, or about a 2.5 percent increase per year, on average. Trips using the interchange with an origin and/or destination within the city are 97 percent of all trips in 2005 and 88 percent of all trips in 2030. The reason for the increased through traffic at the interchange is due to anticipated congestion in I-880. More trips between Oakland west of I-880 are likely to use Doolittle Drive to bypass the I-880

Davis Street interchange and get on at Marina to avoid I-880 congestion north of Marina Boulevard, and there are also other trip patterns where regional traffic stays on surface streets to avoid I-880 congestion in the peak hours. The main consideration, however, is that traffic at the currently-congested interchange is expected to increase by 87 percent. Clearly, capacity improvements are needed.

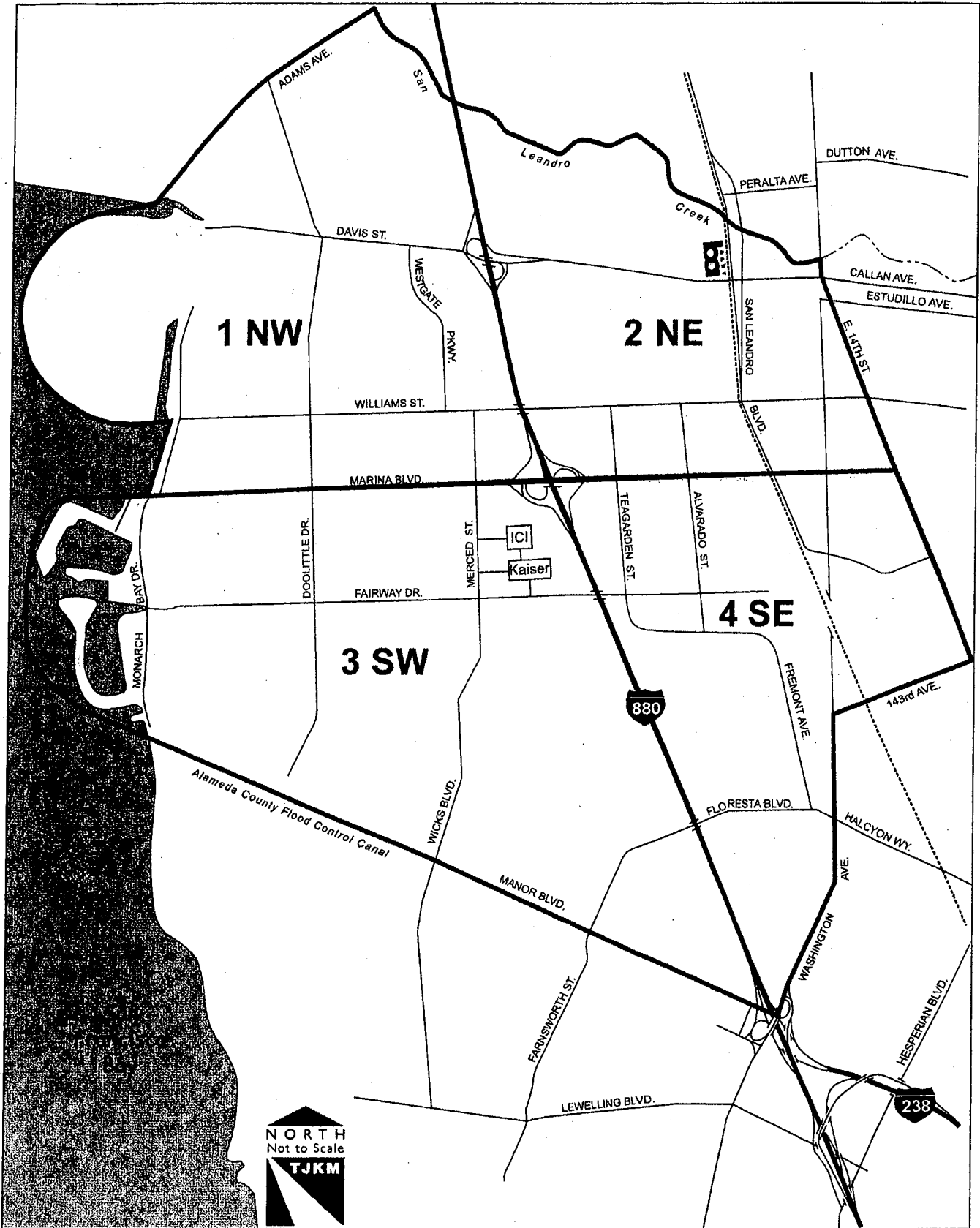
Using the 14,814 total interchange trips in the a.m. and p.m. peak hours, and an interchange improvement cost of \$27,000,000, the cost per trip is \$1,823 in 2008 dollars. Excluding the Kaiser Hospital and ICI Retail projects for which interchange fees have already been paid, an additional 1,310 trips from development projects in the impact area (Quadrants 1 – 4) are expected to use the interchange. However, many other trips from these projects will not use the interchange. The total growth in a.m. plus p.m. peak hour trips from development projects in the impact area is 6,890. By factoring the \$1,823 per trip cost by the proportion of trips from projects in the impact area expected to use the interchange yields a \$379.11 per trip fee for projects in the impact area. The per trip fee is then calculated for units such as per dwelling unit or per square foot of building area, etc. for each of the existing DFSI categories.

From 2009 through 2030, imposition of these supplemental fees in the DFSI program should generate approximately \$2.39 million in addition to impact fees already collected by the city for the Kaiser and ICI Retail projects. Of course, standard DFSI fees would also be imposed as they are for all development projects in the city.

Figure 1 shows the project vicinity map, the location of the interchange, the geographic area of property primarily served by the interchange (the impact area), and the locations of the two major development projects, ICI Retail and Kaiser Permanente Hospital.

City of San Leandro - Capital Improvement of I-880/Marina Blvd. Interchange
Vicinity Map

Figure
1



Analysis Approach

The analysis is straightforward and logical. It supplements the current transportation financing program already in place in San Leandro. This report was prepared by completing the following steps.

1. Define Trips That Lead to the Need for Improvements

The I-880 freeway was designed and constructed over 50 years ago, and the Marina/I-880 interchange is deficient in terms of clearance above the I-880 mainline as well as in the ability to accommodate ever-increasing traffic volumes on Marina Boulevard and the ramps to and from Marina Boulevard. Both the loop and diagonal off ramps merge with through traffic on Marina Boulevard, and they have reached capacity. In addition, the distance between the diagonal off ramps and the downstream signalized intersection is only a few hundred feet, so drivers exiting the freeway intending to turn left at these signals must weave through several lanes of traffic without adequate weaving distance, and this leads to congestion and accidents. Finally, the unsignalized left turns onto the on ramps are significantly congested during peak hours with traffic backing out of the left turn lanes into the left-most through traffic lanes. Therefore, all traffic on Marina Boulevard between Merced Street on the west to Wayne/Teagarden Street on the east plus all ramp traffic contributes to the need for interchange improvements.

2. Use the Countywide Model for Analyzing Trips Using the Interchange

The most recent version of the Alameda County countywide model as adapted for use in the Draft Environmental Impact Report (DEIR) for the combined ICI and Kaiser Permanente projects was used for this study as the model was calibrated for use in the local area. The model has both 2005 (Existing) and 2030 (Future) scenarios. The model as adapted for the DEIR includes accurate land use tabulations for current conditions as well as forecasts for 2030 conditions for the immediate area near the interchange as well as for Alameda County and the entire Bay Area.

3. Division of Trips by Category

As this study will be used as a basis for a benefit assessment area or supplemental traffic impact fee, it is necessary to define trips using the interchange due to local development plus existing trips and regional traffic. The model is quite useful in this regard. Trips from new development having an origin or destination within San Leandro are those for which fees can be assessed. Existing trips cannot be used for the imposition of fees, nor can through traffic (trips that both begin and end outside San Leandro). Each quadrant of the interchange was evaluated with respect to the level of traffic contributed. It was found that 80 percent of the growth in traffic at the interchange is expected to come from the quadrants. Locations in San Leandro that are relatively remote from the interchange contribute very few trips and are not proposed for inclusion in the impact fee area. Only those development projects within the four quadrants defined in Figure 1 are likely to contribute a significant proportion of new trips to the interchange, thus only this area is defined as the impact area and is the subject of supplemental traffic impact fees.

4. Peak Hour Trips as Basis

The peak hours are the times of the day where interchange capacity deficiencies become problems. Therefore, peak hour traffic is used as the basis for calculating trips using the interchange. There are deficiencies in both the a.m. and p.m. peak hours, so no differentiation is made between the two; rather, all trips in the a.m. and the p.m. peak hour are added together to define the total number of trips using the interchange.

5. Determine the Cost per Trip Using the Interchange

Because all peak hour trips contribute to the need for interchange improvements, the total of all trips is used as the divisor for the estimated capital cost of \$27 million for all improvements. Only a portion of this cost can be financed by new development – that is, only the increment of traffic from new development in San Leandro, defined as new traffic from development within the four quadrants depicted in Figure 1 less existing traffic at the interchange is used as a basis for traffic impact fee supplements in this analysis. For sites with existing traffic, it is necessary to provide a credit for existing traffic and only use the increment over existing traffic volumes created through more intense development.

6. Define the Development Fees by Generalized Land Use Categories

Once the cost per trip is determined, by using *Trip Generation* by the Institute of Transportation Engineers, it is possible to estimate the fee per square foot of development or other suitable unit such as a single house. This is a parallel procedure to how the current Development Fees for Street Improvements (DFSI) were calculated.

Interchange Improvement Project and Future Development

In order to determine the amount of traffic that is associated with expected new development and resulting added traffic at the improved interchange, it was necessary to identify specific potential development projects to be included for this study. Only two specific projects, ICI retail and Kaiser Hospital, have been proposed, although additional growth is anticipated in this area.

Capital Improvement Project

The I-880 SB HOV Lane project includes raising the I-880/Marina Boulevard interchange. This interchange is currently deficient. It does not meet minimum vertical clearance over I-880 and has been hit and severely damaged by trucks on two separate occasions in the past several years. This interchange will be raised to meet minimum clearance standards over I-880, but the improvement of capacity deficiencies on Marina Boulevard is not supported by that project. These capacity deficiencies already exist. The interchange improvement project definition used for the fee calculation covers the segments of Marina Blvd. between Merced St. and Alvarado St. plus the on and off ramps of the interchange.

The improvement of the I-880/Marina Boulevard Interchange within the I-880 Southbound HOV Lane Project is limited to raising the interchange over crossing to meet minimum clearance standards with no widening of Marina Boulevard nor realignment of the on and off ramps, nor any funds for converting the current L-8 interchange to an L-9 interchange (partial cloverleaf). The full improvement envisioned by the City is the construction of an L-9 interchange, including raising and widening Marina Boulevard plus nearby improvements to adjacent intersections such as Marina and Merced, Marina and Teagarden, and perhaps Teagarden and Fairway/Aladdin. It is assumed that Intelligent Transportation System (ITS) technology will provide real-time traveler information regarding travel times from the off-ramp to the ICI and Kaiser Projects so that excess demand for westbound left turns from Marina to southbound Merced can be moderated to enable maintenance of adequate levels of service. TJKM used a total project cost of \$27,000,000 as the capital improvement cost for the entire range of improvements.

Development Projects

Two major development projects are proposed near the interchange, and developers are in the process of submitting applications to the city for entitlements. They have been found to contribute significant amounts of new traffic to the interchange. These development projects are:

1. ICI Retail; and
2. Kaiser Permanente Full Service Hospital (relocation from Hayward).

These two projects are located in the southwest quadrant of the interchange and are noted in Figure 1. In addition to these two major development projects, the city has forecast substantial growth primarily west of I-880. Table 1 shows citywide growth estimates for 2005 through 2030. These data are in the model used for estimating trips using the interchange. As can be seen, city population is estimated to increase 21 percent from 81,918 in 2005 to 98,859 by 2030, and employment will increase from 43,495 in 2005 to 62,846 in 2030, an increase of 44 percent.

Table I: Land Use Growth

Name	Description	2005	2010	2015	2030	Growth	Annual Rate
TOTHH	Total House Units	31638	32202	36316	38647	1.22	0.86%
HHPOP	Household Population	81918	83316	93013	98859	1.21	0.85%
TOTPOP	Total Population	82832	84257	93998	99841	1.21	0.85%
EMPRES	Employed Residents	39258	41009	49410	55274	1.41	1.50%
SFHH	Single Family Households	21147	21428	22592	23829	1.13	0.55%
MFHH	Multi Family Households	10487	10778	13724	14818	1.41	1.52%
TEMP	Total Employment	43495	45872	49832	62846	1.44	1.60%
RETEMP	Retail Employment	7121	7496	8126	10393	1.46	1.65%
SEREMP	Service Employment	9228	10042	11401	15579	1.69	2.29%
OTHEMP	Other Employment	11620	12150	13027	16912	1.46	1.65%
AGEMP	Agriculture Employment	113	113	114	151	1.34	1.27%
MANEMP	Manufacture Employment	8665	9043	9663	11365	1.31	1.21%
WHOEMP	Wholesale Employment	6729	7020	7501	8446	1.26	1.00%

The data in Table I is based upon land use data in the ACCMA countywide model for TAZ's in San Leandro. As mentioned previously, the ACCMA countywide model was adjusted to incorporate the two major projects in the southeast quadrant of the interchange.

Traffic Impact Fee Analysis

TJKM obtained the San Leandro Traffic Model from the City of San Leandro with an approval from the Alameda County Congestion Management Agency (ACCMA). The City's model is derived directly from the ACCMA countywide model; this is the current model being used for the preparation of a DEIR for the ICI/Kaiser Permanente development in the southwest quadrant of the interchange. It generates peak hour trips for existing year and 2030 forecasting years. TJKM reviewed the network to make sure there are no errors or omissions. Likewise, TJKM reviewed the land use data, especially with an eye towards the land use categories of the DFSI program at the city. Since there are many land use categories, we chose to use specific land use categories in the DFSI program where each one is identified with an ITE land use code.

Total Trips Using the Interchange

A process called "select link analysis" was used within the ACCMA countywide model. The roads in the model are called "links" that extend between two "nodes" (intersections). All links comprising Marina Boulevard between Merced Street and Teagarden Street plus all links comprising the on and off ramps (but not the I-880 mainline) were defined as selected for the model runs for 2005 and 2030. This analysis essentially tabulated all trips assigned to the selected links and also categorized these trips as having an origin or destination somewhere within San Leandro and those that do not. A simple process of subtraction was used to define trips created by development within San Leandro and increases due to through traffic. The overall growth was also derived through simple subtraction. Figure 2 on the next page graphically shows model output for the select link analysis. The width of the line along a street is proportional to the total number of trips, with the wider the line, the more the trips. Trips along the I-880 mainline are shown, but as can be seen, all mainline trips use the ramps, and no through traffic along I-880 is shown in the graphic.

The estimated total of all trips using the interchange during the a.m. and p.m. peak hours is 14,814 on a typical weekday in 2030. In 2005 this total is 7,924, so the increase over 25 years is 87 percent, or about a 2.5 percent increase per year, on average. Trips using the interchange with an origin and/or destination within the city are 97 percent of all trips in 2005 and 88 percent of all trips in 2030. The reason for the increased through traffic at the interchange is due to anticipated congestion in I-880. More trips between Oakland west of I-880 are likely to use Doolittle Drive to bypass the I-880 Davis Street interchange and get on at Marina to avoid I-880 congestion north of Marina Boulevard, and there are also other trip patterns where regional traffic stays on surface streets to avoid I-880 congestion in the peak hours. The main consideration, however, is that traffic at the currently-congested interchange is expected to increase by 87 percent. Clearly, capacity improvements are needed. Table II shows 2005 and 2030 trip origins/destinations using the interchange in the combined a.m. and p.m. peak hours.

Table II: Total Trips Using the Interchange by Locations

Year	Allocation	Trips	% Total	Growth	% Total Growth
2005	City Only	7,687	97%		
	Total	7,924			
2030	City Only	12,989	88%	5,302	41%
	Total	14,814		6,890	47%

Figure 2: Traffic Volumes (in Bar) Using the Interchange



Traffic impact fees can only be levied on projects in the areas served by the interchange, in terms of traffic growth from now until 2030. Table III shows how the growth in trips in the four quadrants of the interchange are calculated. Existing trips from these areas must be subtracted from the total a.m. and p.m. peak hour 2030 trips to and from the interchange. The objective is to determine what percentage of trips in the four quadrants of the interchange use the interchange versus all other locations. Table III provides the detailed data for this calculation.

Table III: Calculation of Trip Growth, 2005 to 2030 and Proportion of Interchange Trips

Year	Trip Categories	Total Trips	Δ Trips	Trips to/from	Project Trips
		a.m. + p.m.	2005 → 2030	ICI and Kaiser	in Quadrants 1 - 4
2005	Project Trips Using Interchange	6,914		20	
	All Trips Using Interchange	7,924			
	Quadrant Trips to/from All Locations	23,512		20	
2030	Project Trips Using Interchange	11,956	5,042	3732	1,310
	All Trips Using Interchange	14,814	6,890		
	Quadrant Trips to/from All Locations	36,704	13,192	6894	6,298

Notes: Project Trips = Trips from Quadrants 1 - 4 using Marina/I-880 Interchange (excludes Kaiser/ICI)
 All Trips = All traffic using interchange including Project Trips (includes Kaiser/ICI)
 Quadrant Trips = Trips to/from Quadrants 1 - 4 to all locations

The growth in trips using the interchange from the four quadrants of the interchange is equal to "Project Trips Using Interchange" in 2030 less "Project Trips Using Interchange" in 2005 and also less the "Trips to/from ICI and Kaiser" in 2030. The result is 1,310 new trips to and from the interchange in 2030 not including trips related to the two known projects. Fees for the trips using the interchange from these two projects have already been negotiated through the CEQA process (California Environmental Quality Act). The total of all new trips by 2030 to and from the interchange, including through trips is 6,298 in Table III. The proportion of this growth attributable to the four quadrants by the interchange is 1,310/6,298, or 0.208, or 20.8 percent. Therefore, 20.8 percent of the new trips generated by future development in these quadrants will use the interchange.

The two major known development projects in the southwest quadrant, ICI Retail and Kaiser Permanente Hospital, are expected to contribute to a major proportion of total growth in traffic at the interchange. Table III shows the growth in trips at the interchange due to these two projects. Table IV shows that these two projects alone are estimated to contribute 54 percent of all growth in trips at the interchange from 2005 to 2030. The current site for these two projects has been vacant for several years, hence the few existing trips tabulated in Table III.

Table IV: ICI and Kaiser Permanente Hospital Trips Using Interchange in 2030

Development Project	Daily Trips	A.M. + P.M. Peak Trips	Trips Using Interchange	Percent Total Interchange Trips
ICI (Retail Center)	18,298	2,155	1,398	20%
Kaiser Hospital (KP)	34,272	4,759	2,334	34%
Total ICI + Kaiser	52,570	6,914	3,732	54%
Less Existing Trips	100	20	20	
Net Increase (Growth)	52,470	6,894	3,712	54%

Note: from Table III, there is an increase of 6,890 trips using the interchange. The percentage of the growth is calculated by dividing ICI and Kaiser trips using the interchange by 6,890, or $1,398/6,890 = 0.203$, or 20% (rounded), and so on.

Estimated Cost per Interchange Trip

Using the 14,814 total interchange trips in the a.m. and p.m. peak hours, and an interchange improvement cost of \$27,000,000, the cost per trip is \$1,823 in 2008 dollars. The next step in the analysis is to calculate the relative financial responsibility by land use categories based upon the standard reference, *Trip Generation, 8th Edition* published by the Institute of Transportation Engineers.

Conversion of Unit Cost/Trip to Generalized Land Use Categories

Excluding the Kaiser Hospital and ICI Retail projects, an additional 1,310 trips from development projects in the impact area (Quadrants 1 - 4) are expected to use the interchange. However, many other trips from these projects will not use the interchange. The total number of in a.m. plus p.m. peak hour trips from development projects in the impact area is 6,298 from Table III. The impact fee per trips in the impact area is calculated by factoring the per trip cost of \$1,823 by the proportion of trips from projects in the impact area expected to use the interchange ($1,310/6,298$ or 0.208) = \$379.18 per project trip in the impact area.

The resulting fee calculation in Table V on the next page is straightforward showing that trip generation rates for a.m. and p.m. peak hours are totaled to derive the contribution in development-

generated new trips at the interchange. The "units per trip" column is simply the calculation of how many units it takes to create one new trip. For general residential, for example, it takes about 0.69 of a dwelling to create one new trip, or one dwelling creates (or generates) 1.45 trips in the a.m. and p.m. peak hours. For general office evaluated on a per-thousand square foot basis, one new trip is generated for every 329 square feet of office space. The fee rate column then converts this information to the fee rate per dwelling or per square foot, room or pump position. The pass-by factor is used to estimate "new trips" as opposed to trips already on the street network or crossing the interchange for other purposes. In other words, trips are not made primarily to get to a fast-food restaurant or gas station, but more typically when the motorist sees an opportunity to get gas or food during trips for other purposes. Similarly, banks with ATM's attract passing traffic that is generated for other trip purposes. Pass-by trips are subtracted from the project trip generation to estimate the number of new trips resulting from each type of project.

The fee calculation is thus: $(\$1,823 \times 0.208) \times \text{Total a.m. + p.m. trip generation rate}$. Rates per square foot are calculated by dividing by 1,000, because the ITE rates are per 1,000 square feet where indicated by "ksf."

Table V: Calculation of Interchange Improvement Fee Rates for Development

Land Use Category	Land Use Variable	Pass-By Factor	ITE Rates			Units/Trip	Fee Rate	Unit
			a.m.	p.m.	Total			
Residential General	Unit	1.00	0.63	0.82	1.45	0.6897	\$549.81	Dwelling
Residential Senior	Unit	1.00	0.22	0.27	0.49	2.0408	\$185.80	Dwelling
General Office	ksf	1.00	1.55	1.49	3.04	0.3289	\$1.15	Sq. Ft.
Medical Office	ksf	1.00	2.30	3.46	5.76	0.6289	\$2.18	Sq. Ft.
General Retail	ksf	0.75	1.00	3.73	4.73	0.2819	\$1.34	Sq. Ft.
Personal Services	ksf	1.00	1.38	3.53	4.91	0.1047	\$1.86	Sq. Ft.
Quality Restaurants	ksf	0.80	0.81	7.49	8.30	0.1506	\$2.52	Sq. Ft.
All Other Restaurants	ksf	0.50	11.52	11.15	22.67	0.0431	\$4.30	Sq. Ft.
Financial Services	ksf	0.75	21.49	12.13	33.62	0.0397	\$9.56	Sq. Ft.
Hotel/Motel	Room	1.00	0.66	0.64	1.30	0.7692	\$492.93	Room
General Industrial	ksf	1.00	0.92	0.97	1.89	1.1628	\$0.72	Sq. Ft.
Mini-Warehouse	ksf	1.00	0.15	0.26	0.41	1.6129	\$0.16	Sq. Ft.
Service (Gas) Station	position	0.20	12.16	13.87	26.03	0.1921	\$1,974.01	position

Note: ksf = 1,000 square feet
Pass-by Factor = % New Trips

The above fees are recommended for implementation within the impact area, the four quadrants in Figure 1. From 2009 through 2030, imposition of these supplemental fees in the DFSI program should generate approximately \$2.39 million in addition to impact fees already collected by the city for the Kaiser and ICI Retail projects. Of course, standard DFSI fees would also be imposed as they are for all development projects in the city.

Study Participants

TJKM Transportation Consultants Personnel

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Marina Boulevard/ Interstate 880 Interchange Traffic Fee Report
(A report addressing the requirements of AB 1600)

The City of San Leandro is proposing a supplemental traffic impact fee to fund improvements at the Marina Boulevard/ Interstate 880 Interchange. The improvements will expand the capacity of the Interchange so that it can accommodate traffic predicted for the year 2030 with a level of service of D or better. The fee will be collected from a specific impact fee area or zone of benefit.

Marina Boulevard, an arterial street within the City of San Leandro, currently crosses over Interstate 880, a multilane controlled access freeway maintained by the State of California, via a 4 lane bridge. There are connector ramps in each quadrant of the Interchange that allow vehicles to enter and exit the interstate highway. Traffic at the Interchange is expected to nearly double by the year 2030, reducing the level of service significantly unless improvements are made.

There are two events which initiated the fee proposal. First, the State is planning to construct an additional South bound lane on Interstate 880 for use by high occupancy vehicles around the year 2012. This expansion of the interstate highway will require installation of a new bridge, or overcrossing, at Marina Boulevard. Replacement of the bridge should be done with consideration of the future traffic demands.

Second, a significant development project is proposed by Kaiser Permanente at 1701 Marina Boulevard. The Kaiser project will generate significant traffic and trigger a need for the upgrade of the Interchange. The proposed development has caused an evaluation of the traffic demands at the year 2030 and has led to the conclusion that certain improvements should be made.

Government Code section 66001 (AB 1600) requires certain findings to be made prior to implementing a fee for development.

66001 (a) (1) Identify the purpose of the fee.

The fee is proposed to mitigate the impact of additional motor vehicle traffic at the Marina Boulevard and Interstate 880 Interchange.

66001 (a) (2) Identify the use to which the fee is to be put.

The fee will be used to finance the design and construction of improvements that increase the capacity of the Marina Boulevard/ Interstate 880 Interchange. Improvements will include the replacement of the bridge on Marina Boulevard that crosses over Interstate 880, reconfiguration of the connector ramps between Marina Boulevard and Interstate 880, and installation of related lighting, signals, and equipment, possibly including intelligent transportation technology that provides real time delay information.

66001 (a) (3) Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.

By definition, new development is construction of buildings and other improvements for use by people. Residents, patrons, and employees will, on average, travel to the new development in motor vehicles at rates that are published by the Institute of Transportation Engineers (ITE). The ITE trip generation manual contains individual trip generation rates for different types of development. For example, residential units are listed as generating, on average, 1.45 peak hour vehicle trips each day while fast food restaurants are listed as generating 22.67 peak hour trips for each 1000 sf of floor area each day. The fee is proposed to be applied to all development projects within certain proximity (zone of benefit) to the Improvements, see figure 1. A traffic report entitled 'Traffic Impact Fee Analysis for I-880/Marina Interchange Improvement' by TJKM traffic consultants (Traffic Report), attached, concludes that 20.8% of the new vehicle trips generated by development within the zone of benefit will use the Marina Boulevard Interstate 880 Interchange and that said traffic will reduce the level of service below acceptable levels. Construction of the Improvements will increase the capacity of the roadway and return the level of service to D or better.

66001 (a) (4) 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.

Traffic volumes were forecast to the year 2030 by using the bay area traffic model that is maintained by the Alameda County Congestion Management Agency (ACCMA). An analysis of the forecast by TJKM traffic consultants, contained in the Traffic Report, found that 34.03% of the peak hour vehicle trips over the Interchange in 2030 were generated by new development within the zone of benefit. Most of those new trips were attributable to a proposed development at 1701 Marina Boulevard for which a Preliminary Environmental Impact Report has been prepared and mitigation measures proposed. The remaining new development trips, 8.84% of the vehicle trips over the Interchange in 2030, are generated by miscellaneous new development within the fee area.

Summary of traffic forecast for 2030

Source	Peak hour trips over Interchange	% of total 2030 trips
Existing traffic	7924	53.49
Growth at 1701 Marina (Kaiser et al)	3732	25.19
Growth within impact fee area (not including 1701 Marina)	1310	8.84
Growth outside of impact fee area	1848	12.48
Total	14814	100

Growth within the impact area is due to development projects that bring in either additional residents or services. This growth creates 8.84% of the traffic at the Interchange in 2030 and so creates a like percentage of the need for the improvements.

66001 (b) Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility attributable to the development on which the fee is imposed.

The cost of the necessary Improvements is estimated at \$27,000,000 (2008 dollars), and will serve 14,814 vehicle trips. Dividing these two numbers produces a cost per trip of \$1,822.60 (rounded to \$1,823.00 in the Traffic Report). New development, other than the proposed project at 1701 Marina, creates 8.84% of the need for the improvements and so shall fund 8.84% or \$2,386,800 of the cost (2008 dollars). While new development within the impact area is expected to generate 1,310 peak hour trips over the Interchange the model indicates that it will also generate 6,298 total peak hour trips. $1,310/6,298$ or 20.80% of the new peak hour trips will use the Interchange. Each new peak hour trip shall be charged 20.80% of \$1,823.00 or \$379.18 (2008 dollars). These costs are based upon a 2008 estimate of construction costs, since that time the Construction Cost Index for San Francisco, published by Engineering News Record has changed from 9133.56 in January 2008 to 9720.42 in January 2010, an increase of 6.43%. In 2010 dollars the cost new peak hour trip within the zone of benefit is \$403.56 and the cap or total amount that should be collected is \$2,540,271.24. Note that all references to costs and fees in the Traffic Report are in 2008 dollars.

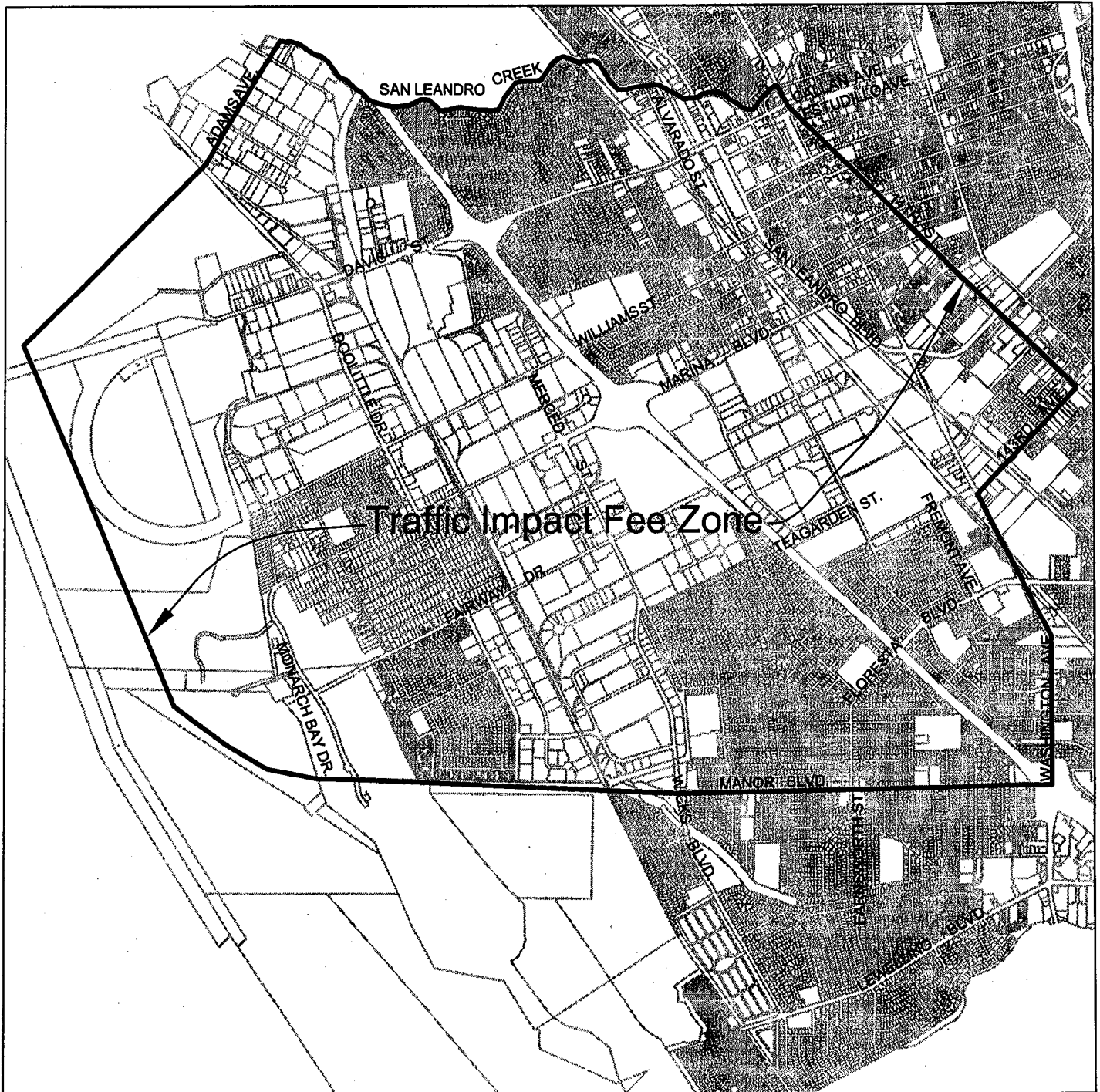
New development will be classified as one of several different categories. The table below summarizes the Institute of Traffic Engineers (ITE) pass by factor, trip generation rate and resultant impact fee for each category. Note that this fee is in addition to the general street impact fee that is already established.

Land Use Category	ITE trip generation Unit	ITE Pass-By Factor	ITE trip generation rates			Fee Unit	Fee Rate
			a.m.	p.m.	Total		
Residential General	Dwelling	1	0.63	0.82	1.45	Dwelling	\$585.16
Residential Senior	Dwelling	1	0.22	0.27	0.49	Dwelling	\$197.74
General Office	ksf	1	1.55	1.49	3.04	Sq. Ft.	\$1.23
Medical Office	ksf	1	2.30	3.46	5.76	Sq. Ft.	\$2.32
General Retail	ksf	0.75	1.00	3.73	4.73	Sq. Ft.	\$1.43
Personal Services	ksf	1	1.38	3.53	4.91	Sq. Ft.	\$1.98
Quality Restaurants	ksf	0.8	0.81	7.49	8.30	Sq. Ft.	\$2.68
All Other Restaurants	ksf	0.5	11.52	11.15	22.67	Sq. Ft.	\$4.57
Financial Services	ksf	0.75	21.49	12.13	33.62	Sq. Ft.	\$10.18
Hotel/Motel	Room	1	0.66	0.64	1.30	Room	\$524.63
General Industrial	ksf	1	0.92	0.97	1.89	Sq. Ft.	\$0.76
Mini-Warehouse	ksf	1	0.15	0.26	0.41	Sq. Ft.	\$0.17
Service (Gas) Station	position	0.2	12.16	13.87	26.03	position	\$2,100.93

References:

Traffic Impact Fee Analysis for I-8880/Marina Interchange Improvement by TJKM Traffic Engineers dated November 12, 2009.

Figure 2
City of San Leandro
Marina Blvd./Interstate I-880 Interchange
Traffic Impact Fee Zone



Department Responsible for Revision:
Engineering & Transportation
2/16/2010

Chapter 8.10
Figure 2