RESOLUTION No. 17-030

OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NEVADA

REVISE THE LOCAL TRAFFIC MITIGATION FEE PROGRAM

WHEREAS, the Board of Supervisors adopted Resolution 97-141, adopting a Local Traffic Mitigation Fee (LTMF) program; and

WHEREAS, the Board of Supervisors adopted revisions to the LTMF through Resolutions 03-460 and 08-336; and

WHEREAS, for the fifth fiscal year following the first deposit into the account or fund, and every five years thereafter, the local agency shall make all of the following findings with respect to that portion of the account or fund remaining unexpended, whether committed or uncommitted pursuant to Government Code Section 66001 (d)(1):

a) the purpose of LTMF fees are to offset or mitigate impacts to county roads resulting from local development.

b) the attached LTMF Nexus Study demonstrates a reasonable relationship between the fee and the purpose for which it is charged.

c) the Study also identifies all sources and amounts of funding anticipated to complete financing for incomplete improvements.

d) the Study and the County's annual Capital Improvement Program identifies the approximate dates on which the funding is expected to be deposited into the appropriate account or fund; and

WHEREAS, the revised LTMF is based on updated land use forecasts and recent traffic modeling; and

WHEREAS, based on the new list of projects and updated land use forecasts, the proposed LTMF fees have increased; and

WHEREAS, documentation has been submitted which establishes compliance with the provisions of the Mitigation Fee Act, Government Code 66000 et seq; and

WHEREAS, Government Code Sections 66004 and 66018(a) require that Development Fees be adopted in a public hearing; and

WHEREAS, notice was given, a public hearing held on January 10, 2017, and the Nevada County Board of Supervisors accepted the studies and revised fee schedule; and

WHEREAS, the Nevada County LTMF will be reviewed annually for necessary adjustments for the effects of inflation on the fee amounts.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Nevada County Board of Supervisors:

1. Approve the revised LTMF Fee Schedule as shown on the attached Exhibit A and calculated in the LTMF 2016 Nexus Study Update as shown in Exhibit B.

2. Adopt the revision of the LTMF Traffic Impact Fee Zone Map as shown on the attached Exhibit C.

3. The LTMF Fee schedule shall be adjusted annually each year based upon the Engineering News Record Construction Cost Index for the 12 month period ending December of the prior year.

4. This Resolution shall become effective and operative March 11, 2017, which is 60 days form the date of its adoption, pursuant to Government Code Section 66017(a).

PASSED AND ADOPTED by the Board of Supervisors of the County of Nevada at a regular meeting of said Board, held on the 10th day of January, 2017, by the following vote of said Board:

Ayes: Supervisors Heidi Hall, Edward Scofield, Dan Miller, Hank Weston and Richard Anderson.

Noes: None.

Absent: None.

Abstain: None.

ATTEST:

JULIE PATTERSON HUNTER
Clerk of the Board of Supervisors

By: _____

_____
Hank Weston, Chair

1/10/2017 cc: DPW*

EXHIBIT A – PROPOSED LTMF FEES

District	LTMF		RTMF		Combined		% Change for Combined Fees	Unit
	Current	Proposed	Current	Proposed	Current	Proposed		
Residential								
Western Nevada County	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
Eastern Nevada County - near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
Eastern Nevada County - not near Truckee	$143	$180	$0	$0	$143	$180	26%	Daily Trips
Non-Residential								
Western Nevada County	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
Eastern Nevada County - near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
Eastern Nevada County - not near Truckee	$143	$72	$0	$0	$143	$72	-50%	Daily Trips

TABLE 5: Dwelling Unit Equivalent Factors and Fee Calculations

Fee Formula: *$5,651 x DUE per Unit x Units (from Project) = fee*

Land Use Category	Unit	ITE Land Use Code	PM Peak Hour Trip Rate Per Unit[3]	% New Trips	New Trips per Unit	DUE per Unit
Residential						
Single-family[1]	DU	210	1.00	100%	1.00	1.00
Multi-family[2]	DU	220	0.62	100%	0.62	0.62
Mobile Home	DU	240	0.59	100%	0.59	0.59
Retirement	DU	252	0.25	100%	0.25	0.25
Hotel/Motel	Room	310	0.7	100%	0.70	0.70
Office						
General Office	1,000 s.f.	710	1.49	100%	1.49	1.49
Medical Office	1,000 s.f.	720	3.57	100%	3.57	3.57
Commercial						
General Retail	1,000 s.f.	Note 4	6.08	43%	2.64	2.64
Multiplex Movie Theater	1,000 s.f.	445	2.94	100%	2.94	2.94
Restaurant - Quality or High-Turnover	1,000 s.f.	931, 932	8.67	37%	3.23	3.23
Fast Food Restaurant / Coffee Shop	1,000 s.f.	933, 934	29.4	30%	8.78	8.78
Supermarket	1,000 s.f.	850	9.48	34%	3.24	3.24
Convenience Market	1,000 s.f.	851	52.4	24%	12.5	12.5
Bank	1,000 s.f.	912	24.3	27%	6.56	6.56
Gas Station	Fueling Position	944	13.87	13%	1.79	1.79
Health Fitness Club	1,000 s.f.	492	3.53	75%	2.65	2.65
Industrial						
Light Industrial	1,000 s.f.	110	0.97	100%	0.97	0.97
Warehouse	1,000 s.f.	150	0.32	100%	0.32	0.32
Hospital	1,000 s.f.	610	0.93	77%	0.72	0.72
Public Park	Acre	417	0.2	100%	0.2	0.20
School						
Elementary School	1,000 s.f.	520	1.21	80%	0.97	0.97
Middle School	1,000 s.f.	522	1.19	80%	0.95	0.95
High School	1,000 s.f.	530	0.97	80%	0.78	0.78
Community College	1,000 s.f.	540	2.54	80%	2.03	2.03

Note 1: A secondary dwelling with a floor area greater than 850 square feet shall be considered a single-family residence for the purpose of this Ordinance. Any single-family residence in excess of three bedrooms will be assessed an additional 0.33 DUE per bedroom in excess of three bedrooms.

Note 2: Multifamily units are any attached units (including duplex). In addition, a secondary dwelling with a floor area of 850 square feet or less shall be considered a multifamily residence for the purpose of this Ordinance.

Note 3: PM peak-hour of adjacent street traffic.

Note 4: Trip generation rate based on calibrated Town of Truckee Model.

2014 Truckee TIF.xlsx

EXHIBIT B

Local Traffic Mitigation Fee
2016 Nexus Study Update

Final Report

Prepared for:

Prepared by:

2150 River Plaza Drive
Sacramento, CA 95833

November 2016

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Executive Summary

The Mitigation Fee Act requires that mitigation fees be periodically updated. This is to ensure that the assumptions regarding future growth, the need for projects, their costs, etc. continue to provide a reasonable nexus between the impacts of new development and the fees charged. This report describes the methodology used in updating the nexus, the resulting recommended fee structure, and the revised forecast for Local Traffic Mitigation Fee (LTMF) program revenues based on the new growth assumptions and recommended fees.

Since the previous LTMF updated was prepared (2008) the Great Recession caused a prolonged slump in the economy with the real estate sector being particularly hard hit. New forecasts for future development incorporate both a lower existing base of households and employment and lower future growth rates. These factors have resulted in lower reduced forecasts for future traffic congestion and a reduced need for roadway capacity improvements. However, it also means that the cost of projects will be spread over fewer new units.

This combination of factors increases the amount that needs to be and can be collected through the LTMF to mitigate the future transportation impacts of new development. However, there reductions in the Nevada County Transportation Commission's (NCTC's) Regional Transportation Mitigation Fee (RTMF) will more than offset the increase in LTMF for developments in Districts 1, 2, 3, and 4. Exhibit ES-1 shows the recommended revised fee structure, which takes the factors described above into account.

District	LTMF		RTMF		Combined		% Change for Combined Fees	Unit
	Current	Proposed	Current	Proposed	Current	Proposed		
Residential								
Districts 1,2,3,4	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
District 5 Near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
District 5 Not Near Truckee	$143	$180	$0	$0	$143	$180	26%	Daily Trips
Non-Residential								
Districts 1,2,3,4	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
District 5 Near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
District 5 Not Near Truckee	$143	$72	$0	$0	$143	$72	-50%	Daily Trips

Exhibit ES-1: Current and Recommended LTMF Fees

Developments in District 5 are a special case. We recommend that developments in the immediate vicinity of Truckee be transferred to Truckee's fee program while developments in the remainder of District 5 be brought into the LTMF program. Developments in District 5 will thus pay the fee and roads in District 5 will be eligible for LTMF-funded improvements.

If the forecasts for future residential and non-residential development prove correct, then total revenues from the LTMF over the next twenty years will be approximately $3.4M which will provide approximately 12% of the total cost of the projects on the LTMF list. The remaining 88% of project costs are attributable to existing deficiencies and by law must be covered by some source other than impact fees.

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List of Exhibits

1.0 INTRODUCTION

1.1 Background to the Nexus Study

In April of 1997 the County of Nevada adopted the Local Traffic Mitigation Fee (LTMF) to help fund local roadway improvements triggered by new development[1]. The LTMF covers traffic impacts to local streets in the unincorporated portion of the county while a companion program, the western Nevada County Regional Transportation Mitigation Free (RTMF) program[2], covers traffic impacts to state roads including some within the unincorporated county. Together these programs provide a mechanism for new development to pay its fair share towards the cost of construction of the regional system of roads, streets, and highways needed to accommodate growth in unincorporated Nevada County.

The LTMF program operates pursuant to the Mitigation Fee Act, also known as California Assembly Bill 1600 (AB 1600) or California Government Code Sections 66000 et seq., which governs impact fees in California. The Mitigation Fee Act requires that all local agencies in California, including cities, counties, and special districts follow some basic principles when instituting impact fees as a condition of new development. Agencies must:

1) Identify the purpose of the fee. (Government Code Section 66001(a)(1))
2) Identify the use to which the fee is to be put. (Government Code Section 66001(a)(2))
3) Determine that there is a reasonable relationship between the fee's use and the type of development on which the fee is to be imposed. (Government Code Section 66001(a)(3))
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 to be imposed. (Government Code Section 66001(a)(4))
5) Discuss how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is to be imposed. (Government Code Section 66001(b))

These principles closely emulate two landmark U.S. Supreme Court rulings that each provide guidance on the application of impact fees. The first case, *Nollan v. California Coastal Commission* (1987) 107 S.Ct. 3141, established that local governments are not prohibited from imposing impact fees or dedications as conditions of project approval provided the local government establishes the existence of a "nexus" or link between the exaction and the state interest being advanced by that exaction. The Nollan ruling clarifies that once the adverse impacts of development have been quantified, the local government must then document the relationship between the project and the need for the conditions that mitigate those impacts. The ruling further clarifies that an exaction may be imposed on a development even if the development project itself will not benefit, provided the exaction is necessitated by the project's impacts on identifiable public resources.

[1] Resolution 97-141, dated April 15, 1997

[2] The RTMF was established in 2001 through a partnership of Nevada County, Nevada City, Grass Valley, and the Nevada County Transportation Commission (NCTC). It is administered by NCTC.

The second case, *Dolan v. City of Tigard* (1994) 114 S.Ct. 2309, held that in addition to the Nollan standard of an essential nexus, there must be a "rough proportionality" between proposed exactions and the project impacts that the exactions are intended to allay. As part of the Dolan ruling, the U.S. Supreme Court advised that *"a term such as 'rough proportionality' best encapsulates what we hold to be the requirements of the Fifth Amendment. No precise mathematical calculation is required, but the city (or other local government) must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development."*

The combined effect of both rulings is the requirement that public exactions must be carefully documented and supported. This requirement is reiterated by the provisions of the Mitigation Fee Act and subsequent rulings in the California Supreme Court (*Ehrlich v. City of Culver City* (1996) 12 C4th 854) and the California Court of Appeals (*Loyola Marymount University v. Los Angeles Unified School District 45* (1996) Cal.App.4th 1256).

This Nexus Study report is intended to satisfy the requirements of the State of California Mitigation Fee Act. Specifically, this Nexus Study report will outline the purpose and use of the LTMF, the relationship between new development and impacts on the transportation system, the estimated cost to complete necessary improvements to the local road system in unincorporated Nevada County, and the 'rough proportionality' or 'fair-share' fee for differing development types.

2.0 UPDATES OF KEY INPUTS

2.1 Trip Generation Rates

ITE's Trip Generation Manual has been updated with new survey material since the edition that was used in the previous nexus study. The trip generation rates have accordingly been updated to those of the latest (9th) edition.

Exhibit 1 shows the updated trip generation rates for the most commonly-used ITE land use codes.

Land Use Category	Unit	ITE Code	Weekday Trips per Unit
RESIDENTIAL			
Single Family Detached House	Dwelling Unit	210	9.52
Multi-Family			
Apartment	Dwelling Unit	220	6.65
Low Rise Apartment	Dwelling Unit	221	6.59
Residential Condominium/Townhouse	Dwelling Unit	230	5.81
Mobile Home in Park	Dwelling Unit	240	4.99
Senior Residential			
Senior Adult Housing - Detached	Dwelling Unit	251	3.68
Senior Adult Housing - Attached	Dwelling Unit	252	3.44
NON-RESIDENTIAL			
Office			
General Office	TSF	710	11.03
Single Tenant Office	TSF	715	11.65
Office Park	TSF	750	11.42
Business Park	TSF	770	12.44
Medical-Dentist Office Building			
Clinic	TSF	630	31.45
Medical-Dentist Office	TSF	720	36.13
Industrial			
General Light Industry	TSF	110	6.97
General Heavy Industry	TSF	120	1.50
Industrial Park	TSF	130	6.83
Manufacturing	TSF	140	3.82
Warehousing	TSF	150	3.56
Lodging			
Hotel	Room	310	8.17
All Suites Hotel	Room	311	4.90
Business Hotel	Room	312	7.27
Motel	Room	320	5.63
Public & Quasi-Public			
Military Base	TSF	501	1.78
Library	TSF	590	56.24
Government Office Building	TSF	730	68.93
State Motor Vehicles Department	TSF	731	166.02
United States Post Office	TSF	732	108.19
Government Office Complex	TSF	733	27.92

Exhibit 1: Trip-Generation Rates for Different Land Use Categories

Land Use Category	Unit	ITE Code	Weekday Trips per Unit
NON-RESIDENTIAL			
Retail			
Furniture Store	TSF	890	5.06
Discount Home Furnishing Superstore	TSF	869	20.00
Tire Superstore	TSF	849	20.36
Department Store	TSF	875	22.88
Tire Store	TSF	848	24.87
Factory Outlet Center	TSF	823	26.59
Home Improvement Superstore	TSF	862	30.74
New Car Sales	TSF	841	32.30
Discount Club	TSF	857	41.80
Shopping Center	TSF	820	42.70
Electronics Superstore	TSF	863	45.04
Building Materials and Lumber	TSF	812	45.16
Discount Superstore	TSF	813	50.75
Hardware/Paint Store	TSF	816	51.29
Arts and Crafts Store	TSF	879	56.55
Discount Store	TSF	815	57.24
Auto Parts Store	TSF	843	61.91
Specialty Retail Center	TSF	814	64.03
Apparel Store	TSF	876	66.40
Nursery (Garden Center)	TSF	817	68.10
Day Care Center	TSF	565	74.06
Quality Restaurant	TSF	931	89.95
Pharmacy/Drugstore w/o Drive Through Window	TSF	880	90.06
Discount Supermarket	TSF	854	90.86
Pharmacy/Drugstore with Drive Through Window	TSF	881	96.91
Supermarket	TSF	850	102.24
High Turnover (Sit-Down) Restaurant	TSF	932	127.15
Drive-in Bank	TSF	912	148.15
The trip generation for any project not found in the categories listed above shall be computed using the ITE daily trip-generation rate for their land use type or, at the discretion of agency staff, through a separate traffic study			

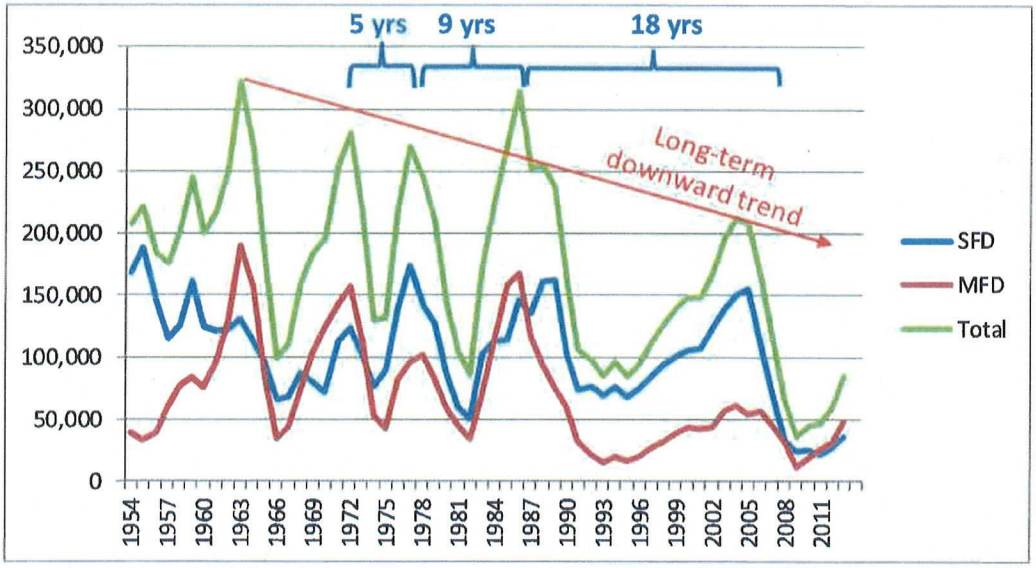
Exhibit 1: Trip-Generation Rates for Different Land Use Categories (continued)

For the purposes of the LTMF second units added to a single-family home are to be counted as multi-family dwellings rather than single-family dwellings.

2.2 Growth Forecasts

Assumptions regarding future growth are critical inputs for a traffic mitigation fee since they help determine both whether roadway deficiencies will develop and how many new homes or square feet of new commercial development will contribute towards the costs of mitigations. Since the LTMF is a long-term program we must look at long-term trends to forecast growth over the study horizon.

Exhibit 2 shows the number of housing starts for California for the period 1954 to 2013.



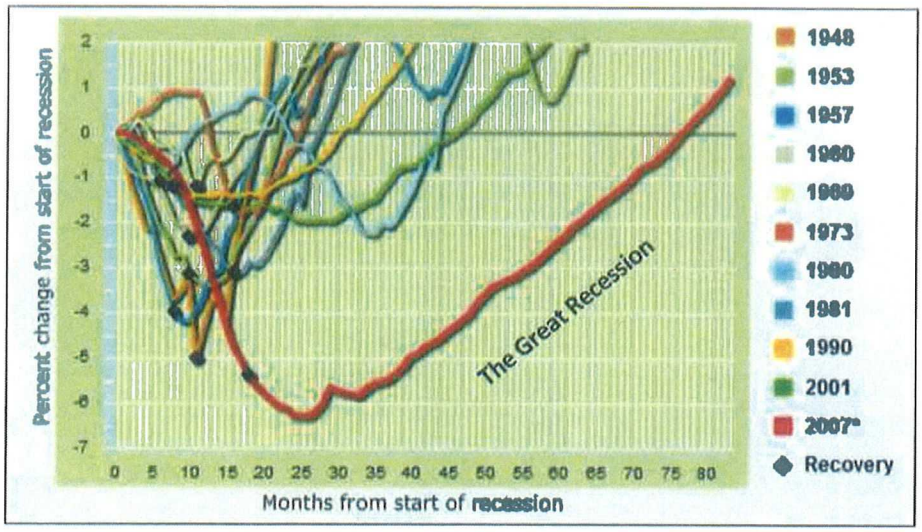
Data Source: California Building Industry Association

Exhibit 2: Housing Starts in California by Year

The exhibit shows the unstable nature of the housing market in California, with five major "housing booms" and five "housing busts" occurring during this period. Several patterns are discernible, namely:

- The housing booms are occurring further and further apart. Five years elapsed between the peaks of the 1972 and 1977 booms, 9 years between the peaks of the 1977 and 1986 booms, and 18 years between the 1986 and 2004 booms. If this pattern continues it may be decades before the next peak occurs.
- The size of the booms is trending downwards. The most recent boom was the smallest of the five, being only about 2/3^{rds} the size of the previous boom.
- From the 1960's through the 1980's single-family and multi-family housing was being built in similar quantities in California. In fact, multi-family housing production exceeded single-family housing in 3 of the 4 housing booms in this period. The period from 1990 to 2005, when single-family housing was produced at more than 2½ times the pace of multi-family, appears in retrospect to have been an aberration from the historical pattern.

More recently the real estate market has been affected by the Great Recession. The Great Recession was deeper and much longer than any previous recession since WWII (see Exhibit 3) and the collapse of the real estate market was at the heart of the recession. This was, hopefully, a one-off event unlikely to recur within the time horizon of the current study (to 2035). Nevertheless, it seems unlikely that things will "go to back to normal" (i.e. to the conditions prevailing in the 1990-to-2005 period) in terms of real estate development; structural and demographic changes have occurred resulting in a new normal. Any assumptions regarding real estate development that were made based on pre-recession data therefore need to be re-examined to determine if they remain valid post-recession.



Source: Federal Reserve Bank of Minneapolis

Exhibit 3: Change in U.S. Employment during Post WWII Recessions

Scaling down from the state-wide level to the local level, data from the U.S. Census Bureau shows that in recent years the foothills counties have been growing slowly, if at all (see Exhibit 4).

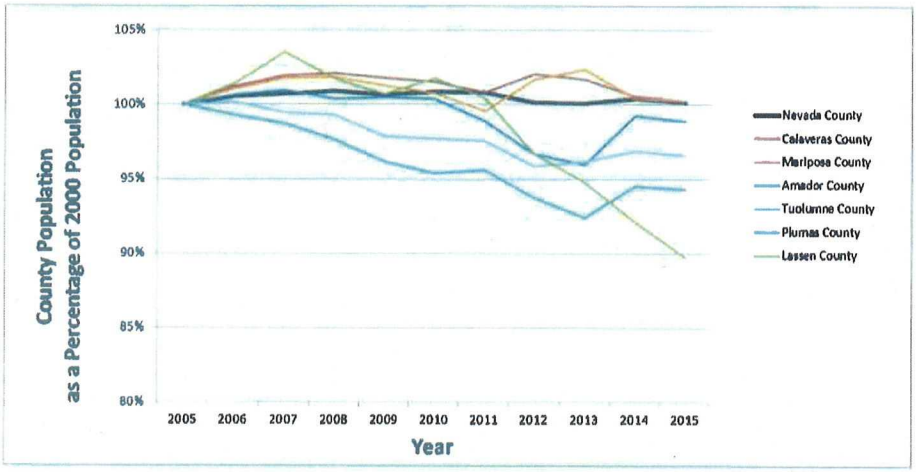


Exhibit 4: Change in Foothill Counties' Populations

Post-recession population forecasts by Caltrans[3] suggests that only modest growth can be expected for the foreseeable future (see Exhibit 5).

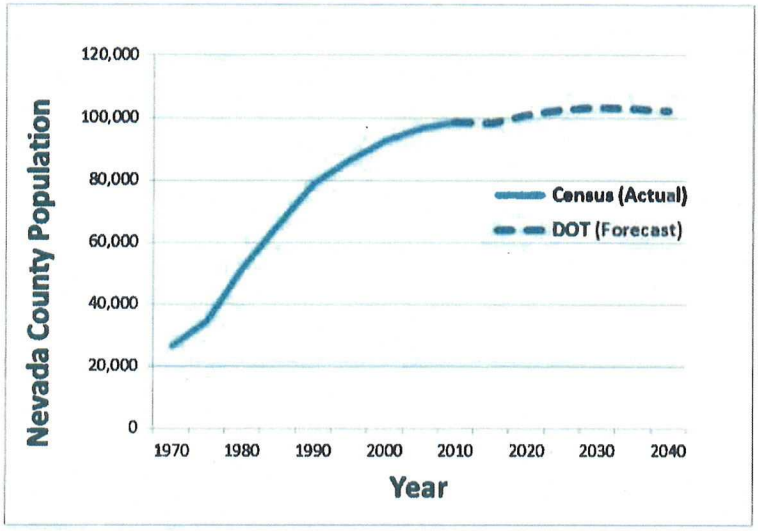


Exhibit 5: Actual and Forecast Population for Nevada County

The growth forecasts used in the previous LTMF update were based on data collected in the construction boom leading up to the Great Recession. The forecasts used in the current study are based on an assumed lower growth rate and therefore the 2035 population in the current forecast is lower than the 2030 forecast used in the previous study. The current and previous forecasts are compared in Exhibit 6.

[3] *California County-Level Economic Forecast, 2014-2040*, Office of State Planning, California Department of Transportation, September 2014

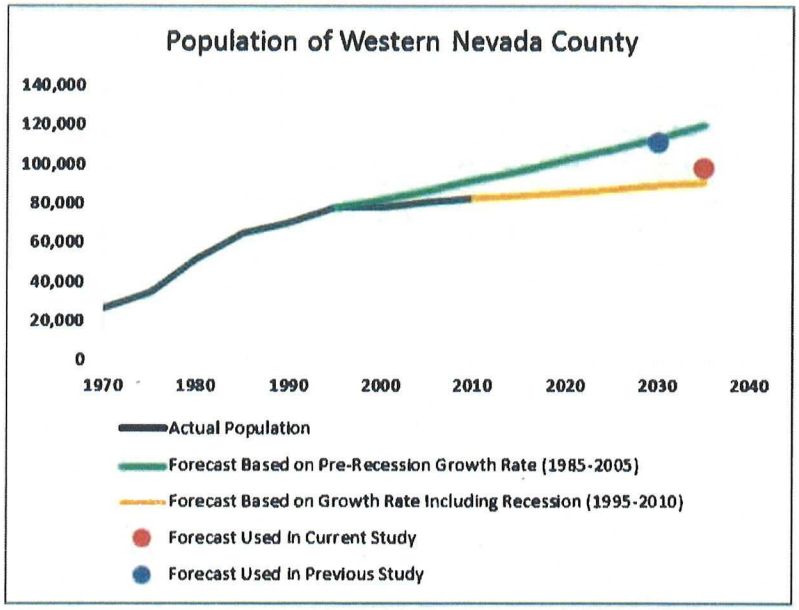


Exhibit 6: Comparison of Population Forecasts for Nevada County

The lower forecast for future population has several effects on the LTMF, most notably:

- Fewer new households means less traffic impacts and therefore less need for roadway improvements as mitigation. Some projects may no longer be needed and for other projects a smaller portion of the need will be attributable to new development.
- However, for those projects that are still needed, fewer new dwelling units means that each will have to pay a higher share of the cost.

These trends work in opposite directions; the first would tend to lower fees while the second would tend to raise them. The interaction of these opposing trends is discussed further in a later section of this report.

Based on the growth projections supplied by the local jurisdictions, the growth forecast by land use type is shown in Exhibit 7.

Land Use Type	Unit	Year 2012	Year 2035	# of new units	% Growth
Residential					
Single Family House	DU	26,534	27,410	876	3%
Multi-Family	DU	615	1,609	994	162%
Mobile Home in Park	DU	1,059	1,159	100	9%
Senior Residential	DU	0	365	365	100%
		28,208	30,543	2,335	8%
Non-Residential					
Office	TSF	384	426	42	11%
Medical Office	TSF	16	66	50	316%
Industrial	TSF	366	386	20	5%
Warehouse	TSF	48	48	0	0%
Retail/Service - Low	TSF	373	420	47	12%
Retail/Service - Medium	TSF	299	336	37	12%
Retail/Service - High	TSF	146	156	9	6%
Lodging	Rooms	267	287	20	7%
Public & Quasi-Public	TSF	324	349	25	8%
School K-8th Grade	Students	5,643	5,739	96	2%
School 9-12th Grade	Students	1,003	1,003	0	0%
College	Students	20	20	0	0%
East County Non-Residential					
Shatterhand RV Park					
Boreal BMX and Skate Park					
Soda Springs Planet Kids					
Pombo / Hobart Mills Master Plan					
Boca Quarry					
Tahoe Forest Church					
Tahoe Donner 5-yr Trail Plan					
Soda Springs Area Plan/rezone					
Miscellaneous					

Exhibit 7: Growth Forecast by Land Use Type

2.3 Funding from Other Sources

In some cases, the need for projects that receive LTMF funding is not 100 percent attributable to new development; there is an existing deficiency that new development by law cannot be held responsible for. In such cases another source of funds must be used to fund the portion of the project not attributable to new development.

The County of Nevada has several sources of funds besides LTMF that can be used for local roadway improvements. The most important of these include:

- Regional Surface Transportation Program (RSTP) - Used for construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements on federal aid highways and bridges.
- Measure F - A county-level initiative that directs a portion of Motor Vehicle License Fee revenues for use for road maintenance and repair, road safety, and access.
- State Exchange - Program that allows the exchange of federal Congestion Mitigation and Air Quality Improvement (CMAQ) and Regional Surface Transportation Program (RSTP) funds for State transportation funds, based upon funding availability.
- Highway Safety Improvement Program (HSIP) - A federal aid program that among other things provides funding for projects that correct or improve hazardous road locations.

The County of Nevada has received more than $22 million in non-LTMF funding for road projects from these sources over the last 7 years. Based on the historical average of $3.1/year in non-fee funding we estimate that $63.7 million will be available from these sources over the next 20 years (see Exhibit 8).

Fiscal Year	RSTP	Measure F	State Exchange	HSIP	Total
2016/2017	$530,000	$1,650,000	$390,000	$0	$2,570,000
2015/2016	$530,000	$1,650,000	$390,000	$2,230,000	$4,800,000
2014/2015	$530,000	$1,570,000	$390,000	$0	$2,490,000
2013/2014	$530,000	$1,540,000	$390,000	$1,290,000	$3,750,000
2012/2013	$530,000	$1,690,000	$390,000	$0	$2,610,000
2011/2012	$530,000	$1,900,000	$390,000	$410,000	$3,230,000
2010/2011	$530,000	$1,940,000	$390,000	$0	$2,860,000
				Total for 7 Years	$22,310,000
				Average for 7 Years	$3,187,143
				Expected 20-Year Receipts (7-yr average multiplied by 20)	$63,742,857

Exhibit 8: Non-Fee Funds Potentially Available for Projects Receiving LTMF Funds

2.4 Updating Project Costs

The cost of road construction has varied significantly over the course of the last decade, so it is important that this be factored into the fee structure for the LTMF.

Exhibit 9 shows the Caltrans construction price index for highway projects for the period from 1990 to 2014. As can be seen in the exhibit, there was a slow and stable rise in prices throughout the 1990's and early years of the 2000's. However, in 2004 a combination of a construction boom, rising land and fuel costs, and the effect of a weakening U.S. dollar on the cost of imported construction materials, caused construction prices to rise more in a single year then they had in the previous 15 years combined; the highest single-year increase since Caltrans started the index. This was followed in 2005 by the second-highest single-year increase. The rapid increase was followed by a rapid decrease with the collapse of the housing market, which used many of the same construction inputs as Caltrans.

The Caltrans cost index is based on actual bid prices for projects done in the previous year. There is a second cost index, prepared by the Engineering News Record (ENR) that is computed based on the market prices for

various major inputs to road projects (concrete, steel, aggregate, etc.). This index is less volatile than the Caltrans index because it does not include the effect of contractors' changing profit expectations in response to strong or weak market conditions. The two indices are compared in Exhibit 9.

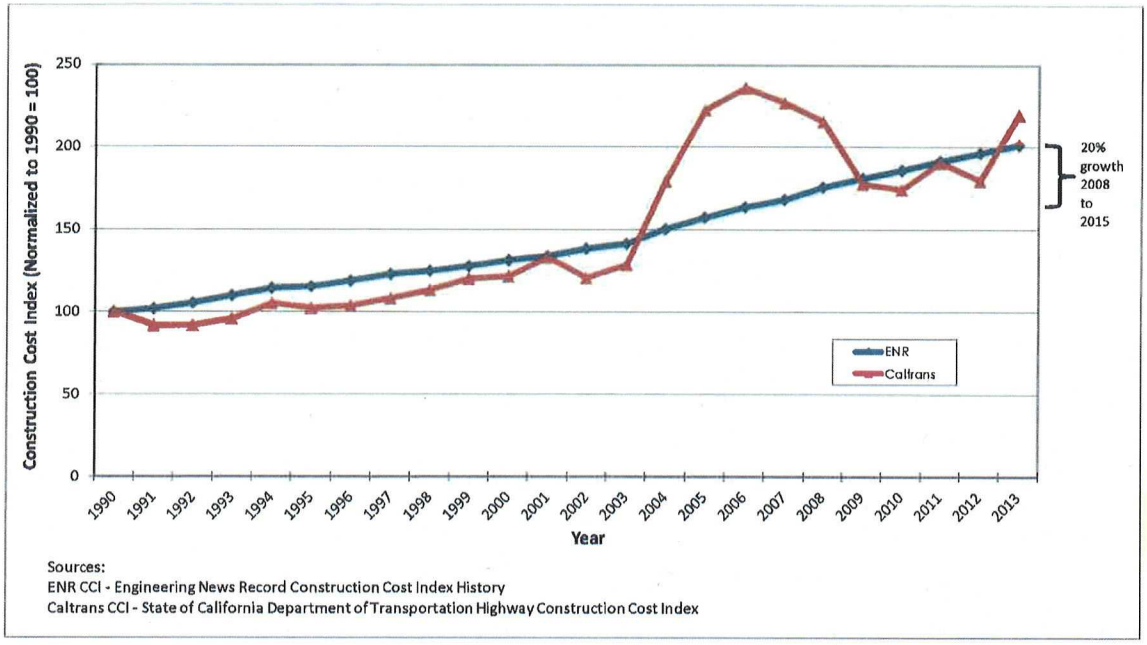


Exhibit 9: Caltrans and ENR Construction Price Indices, 1990-2014

Normal practice and our recommendation is to use the ENR index for California Cities as the basis for cost adjustments for traffic impact fees. This is based in part on the relative stability of the ENR index, which makes the fee program more predictable for developers compared to the highly volatile Caltrans index. Therefore, since the ENR index has risen 25.8% since the last nexus study, existing project cost estimates from the previous LTMF update were increased 25.8% from the previous calculation.

3.0 UPDATED FEE CALCULATION

An overview of the methodology used to compute the LTMF is provided in the section below, followed by sections providing more in-depth discussion of the key components.

3.1 Overview of the Fee Computation Methodology

The methodology used in the fee computation is outlined in Exhibit 10 below. The major steps include:

1) The starting point was a set of forecasts for residential and non-residential growth from NCTC, the City of Grass Valley, and Nevada County covering the western portion of Nevada County (Supervisor Districts 1, 2, 3, and 4, which is the area covered by the NCTC traffic model). The forecasts were described in Section 2.1.
2) The growth forecasts were used as inputs into the NCTC traffic model that was then used to forecast traffic volumes for 2035. Recent traffic counts were used to find current traffic volumes. The volumes were then used to determine the level of service (LOS) for each potential project site under 2015 and 2035 conditions.
3) The County has established LOS standards as part of its General Plan.
4) The existing and future LOS were compared to the LOS standard to determine where deficiencies currently exist and where they may develop in the future. Potential projects were identified that would correct the deficiencies.
5) The outputs of Step 4 were used to determine the percentage of the need for each potential project that is attributable to new development.
6) The estimated cost for different projects come from a variety of sources, including engineering studies and planning-level estimates.
7) The project cost estimates were updated, if necessary, using the Engineering New Record construction cost index to reflect current prices. This was described in Section 2.4.
8) The outputs from steps 5 and 7 were used to determine the dollar cost for each project that is attributable to new development.
9) Next, any funding that may be available from other sources for the listed projects was identified. This was discussed in Section 2.3.
10) The amount of funding available from other sources was compared to the project costs to determine if it exceeded the amount attributable to existing deficiencies (i.e., not attributable to new development). If so, the surplus of other funds was used to reduce the amount needed from new development. The result was the maximum amount of funding allowable by law that could potentially be collected using the LTMF.
11) The NCTC traffic model was used to determine the percentage share of growth in vehicle-miles traveled (VMT) that will be associated with residential and non-residential development in the western portion of the county.

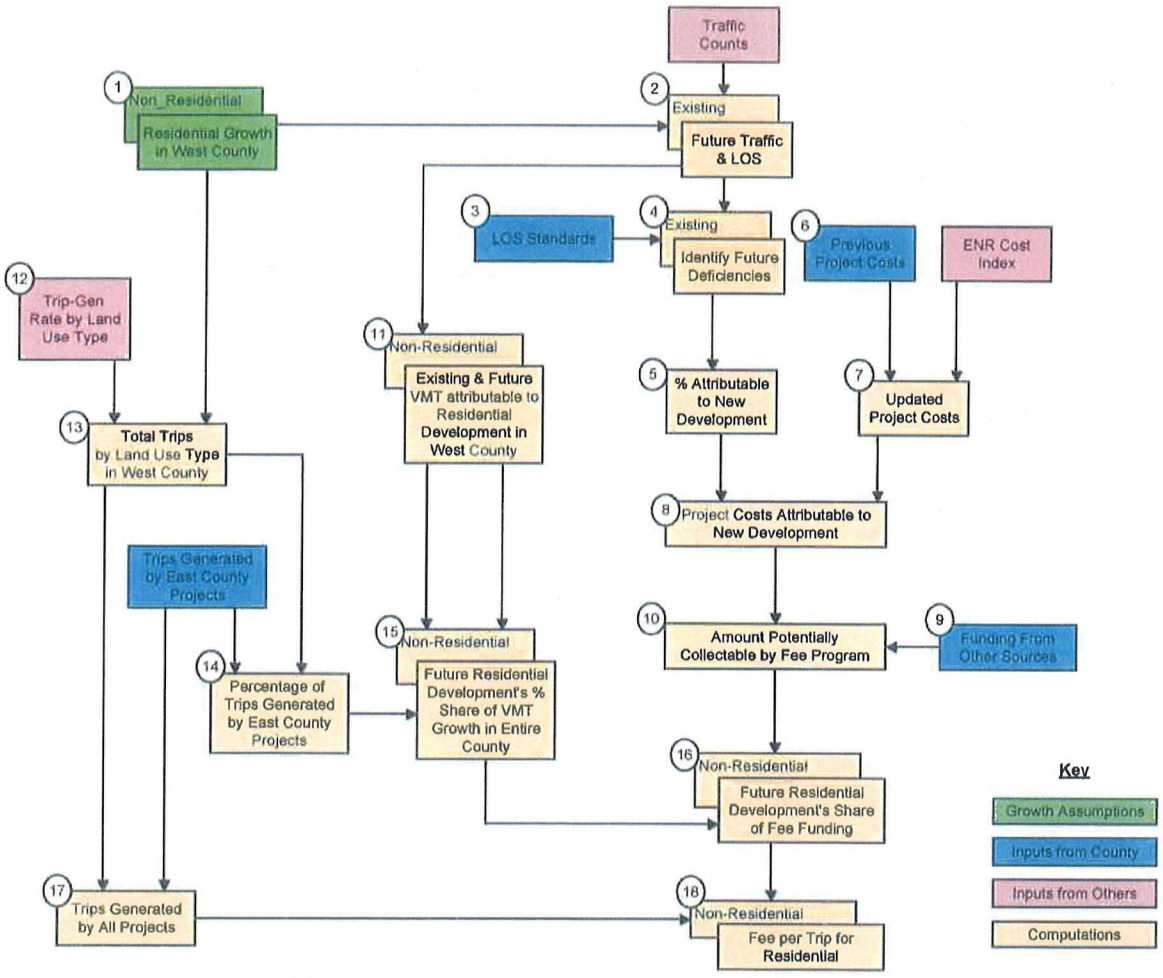


Exhibit 10: Steps in the Fee Computation

12) Next, the trip generation rate was determined for each land use type. For residential land uses the unit of measurement was daily trips/dwelling unit, while for non-residential uses trip-generation was measured in terms of daily trips/thousand square feet of space, except for schools, where the unit was daily trips/student and lodging, where daily trips/room were used.

13) The number of new units for each development type was then multiplied by the trip generation rate to produce the total number of new trips associated with each type of land use development for developments in the western portion of the county.

14) County staff have an estimate of the number of trips expected to be generated by proposed new developments in the eastern portion of the county. This was used to determine the percentage of trips attributable to east county developments.

15) The percentage computed in Step 14 was used to factor up the VMT from Step 11 to determine the portion of total VMT that could be attributed to new residential and non-residential development for the entire unincorporated county[4].

16) The percentage of VMT from Step 15 was multiplied by the amount of project costs potentially covered by the LTMF from Step 10 to produce the amount of LTMF fees that could be attributed to new residential and non-residential development for the entire unincorporated county.

17) The trips from the western portion of the county (from Step 13) were added to those from the eastern portion of the county (Step 14) to produce the total residential and non-residential trips for the entire county.

18) The project funding attributable to residential and non-residential developments (from Step 12) was then divided by the expected number of new residential and non-residential trips (from Step 17) to produce the potential impact fee per trip for each residential and non-residential trip generated by new development.

The next sections describe several key steps in the process in more detail.

3.2 Identification of Existing and Future Deficiencies

Existing and future deficiencies were identified by comparing the existing and future LOS to the LOS standards adopted by the County. The County General Plan has a target LOS D for County roads and intersections within a Community Region and LOS C for roads and intersections outside Community Regions. Exhibit 11 shows the existing and future LOS at the 5 capacity-increasing project locations listed in the previous (2008) LTMF update. Of these:

- 4 projects are now no longer expected to be needed due to the new, lower growth expectations. These were therefore dropped from the LTMF program.
- 1 project - Combie Road from SR-49 to Magnolia Road - is currently deficient and new development is expect to worsen the deficiency. It was therefore retained in the LTMF program.

7 additional locations were identified by County staff for analysis. Of these:

- 3 projects were forecast not to have a deficiency in the future and so were not added to the LTMF program.
- 2 projects - Combie Road at Higgins Road and Stampede Meadows Road - are currently deficient and new development is expect to worsen the deficiency. It was added to the LTMF program.
- 2 projects - SR-20 at Pleasant Valley Road and Rough and Ready Highway at Ridge Road - are adequate now but will become deficient in the future due to the effects of new development. This site was therefore added to the LTMF program.

[4] The NCTC traffic model, which was used to forecast VMT, covers only the western portion of the county. Step 15 was needed so that the VMT from the eastern part of the county would also be accounted for.

Exhibit 12 shows safety-related projects identified as Project IDs F-J in Exhibit 11. These are places where either the current lane width or the current shoulder width do not meet the County's recommended standard, and where traffic from new development will worsen the safety problems.

Project ID	Intersection or *Roadway*	Traffic Control	LOS Standard	Current Nexus Study (Existing)		Current Nexus Study (2035)		Notes
				Delay (sec/veh) *or ADT*	LOS	Delay (sec/veh) *or ADT*	LOS	
	Facilities in Current LTMF CIP							
	Combie Rd @ SR-49	Signal	D	32	C	35.0	D	Deficient in previous nexus study but not deficient under revised assumptions
A	*Combie Rd: SR-49 to Magnolia*		D	*15,943*	F	*17,400*	F	Currently deficient and conditions expected to worsen
	Pleasant Valley Rd/Lake Wildwood	AWSC	D	16.1	C	21.1	C	Deficient in previous nexus study but not deficient under revised assumptions
	Pleasant Valley Rd/Wildflower Dr	SSSC	D	11.1	B	12.2	B	Deficient in previous nexus study but not deficient under revised assumptions
	Wolf Rd @ SR-49	Signal	D	32.2	C	35.0	D	Deficient in previous nexus study but not deficient under revised assumptions
F	District 1 Safety Projects			Deficient Widths		Deficient Widths		Land and/or shoulder widths are still deficient, but new development's share of
G	District 2 Safety Projects			Deficient Widths		Deficient Widths		Currently deficient and conditions expected to worsen
H	District 3 Safety Projects			Deficient Widths		Deficient Widths		Currently deficient and conditions expected to worsen
I	District 4 Safety Projects			Deficient Widths		Deficient Widths		Currently deficient and conditions expected to worsen
J	District 5 Safety Projects			Deficient Widths		Deficient Widths		Currently deficient and conditions expected to worsen
	Other Possible Candidates for Inclusion in the LTMF CIP							
	Penn Valley Dr/Spenceville Rd	AWSC	D	10.1	B	11.4	B	No deficiency in forecast horizon
B	Combie Rd/Higgins Rd	SSSC	D	72.4	F	> 180	F	Currently deficient and conditions expected to worsen
C	Rough and Ready Highway @ Ridge Roa	SSSC	D	23.6	C	182.7	F	Adequate now, but forecast to be deficient in future
D	Stampede Meadows		D	Deficient Widths		Deficient Widths		Currently deficient and conditions expected to worsen
E	SR-20 @ Pleasant Valley Rd	Signal		SB queue length 330ft		SB queue length >450ft		This intersection would fail because the SC left-turn queue would exceed the capacity of the turn pocket, delaying other movements and causing a safety hazard. Add additional SB left-turn lane and receiving lane on SR-20
	Combie Rd/Magnolia Rd	Signal	D	19.2	B	22.5	C	No deficiency in forecast horizon
	Combie Rd/Lakeshore Dr	Signal	D	10.6	B	11.4	B	No deficiency in forecast horizon

Notes: a) For signalized intersections average delay and LOS for all approaches are reported.
b) "AWSC" means "all way stop-controlled." For AWSC intersections, average intersection delay and LOS are reported.
c) "SSSC" means "side-street stop controlled." For SSSC intersections, delay and LOS for the worst performing approach are reported.

Exhibit 11: Existing and Future LOS at Potential Project Locations

STREET NAME	BEGINING	ENDING	GENERAL PLAN FUNC-TIONAL CLASS	LENGTH (FEET)	LANE			SHOULDER			COST PER SQ. FT.		TOTAL COST FOR LANE & SHOULDER
					LANE WIDTH (FEET)	LANE STANDARD (FEET)	LANE DEFICIENCY (EACH SIDE)	WITH EXCESS LANE WIDTH	SHOULDER STANDARD	SHOULDER DEFICIENCY (EACH SIDE)	SHOULDER (GRAVEL)	LANE IMPROVEMT	
											$7.50	$11.34	
District 1													
BANNER LAVA CAP RD 04/13	50'E/BOREHAM DR	SUCCESS-X ROAD	MNC	2,680	11.00	10.00	0.00	3.00	4.00	**1.00**	$40,200	$0	$40,200
BANNER LAVA CAP RD 05/13	SUCCESS-X ROAD	FOREST VIEW (E)	MNC	2,490	11.00	10.00	0.00	2.00	4.00	**2.00**	$74,700	$0	$74,700
CEMENT HILL RD (1)	HWY 49	435'S/GOLDN OAK	MNC	7,815	10.50	10.00	0.00	2.00	4.00	**2.00**	$234,450	$0	$234,450
CEMENT HILL RD (4)	190'S/APPLEWOOD	END CO MAINT RD	MNC	3,875	8.50	9.00	**0.50**	0.00	1.00	**1.00**	$58,125	$43,943	$102,068
GRACIE ROAD 1/3	NEV.CITY LIMITS	BANNER MTN TRL	MNC	2,055	10.50	10.00	0.00	2.00	4.00	**2.00**	$61,650	$0	$61,650
GRACIE ROAD 2/3	BANNER MTN TRL	NID CANAL XING	MNC	2,570	10.00	10.00	0.00	2.75	4.00	**1.25**	$48,188	$0	$48,188
GRACIE ROAD 3/3	NID CANAL XING	BANNER LAVA CAP	MNC	3,085	10.50	10.00	0.00	3.00	4.00	**1.00**	$46,275	$0	$46,275
GREENHORN ROAD 2/8	HOLLYDALE ROAD	2615'E OF HOLLY	MNC	2,615	11.00	10.00	0.00	3.00	4.00	**1.00**	$39,225	$0	$39,225
GREENHORN ROAD 3/8	2615'E OF HOLLY	5230'E OF HOLLY	MNC	2,615	11.00	10.00	0.00	2.00	4.00	**2.00**	$78,450	$0	$78,450
GREENHORN ROAD 4/8	5230'E OF HOLLY	7845'E OF HOLLY	MNC	2,615	11.00	10.00	0.00	2.00	4.00	**2.00**	$78,450	$0	$78,450
GREENHORN ROAD 5/8	7845'E OF HOLLY	LOST LAKE ROAD	MNC	2,615	10.50	10.00	0.00	2.00	4.00	**2.00**	$78,450	$0	$78,450
GREENHORN ROAD 8/8	JONES RIDGE RD	END CO. MAINT.	MNC	2,615	10.50	10.00	0.00	3.00	4.00	**1.00**	$39,225	$0	$39,225
LAKE VERA PURDON ROAD 1/6	N BLOOMFIELD RD	ROCK CREEK ROAD	MNC	2,400	11.00	10.00	0.00	2.00	4.00	**2.00**	$72,000	$0	$72,000
LAKE VERA PURDON ROAD 2/6	ROCK CREEK ROAD	SELBY LANE	MNC	3,460	9.50	10.00	**0.50**	1.00	4.00	**3.00**	$155,700	$39,236	$194,936
MT OLIVE ROAD 1/7	HWY 174	LAST MILE ROAD	MJC	3,000	10.50	10.00	0.00	1.50	4.00	**2.50**	$112,500	$0	$112,500
MT OLIVE ROAD 2/7	LAST MILE ROAD	BAR T RANCH	MJC	1,825	10.50	10.00	0.00	1.00	4.00	**3.00**	$82,125	$0	$82,125
MT OLIVE ROAD 3/7	BAR T RANCH	MT O. TREE FARM	MJC	2,625	9.00	10.00	**1.00**	1.50	4.00	**2.50**	$98,438	$59,535	$157,973
MT OLIVE ROAD 4/7	MT O. TREE FARM	END OF PAVEMENT	MJC	2,490	9.00	10.00	**1.00**	1.50	4.00	**2.50**	$93,375	$56,473	$149,848
NEWTOWN RD (1)	HWY 49	250'W/BECKVILLE	MNC	6,260	10.00	10.00	0.00	2.00	4.00	**2.00**	$187,800	$0	$187,800
NEWTOWN RD (2)	250'W/BECKVILLE	4010'W/BECKVILL	MNC	3,760	10.00	10.00	0.00	2.00	4.00	**2.00**	$112,800	$0	$112,800
NO. BLOOMFIELD ROAD 01/25	HIGHWAY 49	LK VERA PURDON	MNC	2,720	10.50	10.00	0.00	2.25	4.00	**1.75**	$71,400	$0	$71,400
NO. BLOOMFIELD ROAD 03/25	COYOTE ST	2850'E COYOTE	MNC	2,850	10.75	10.00	0.00	1.25	4.00	**2.75**	$117,563	$0	$117,563
NO. BLOOMFIELD ROAD 04/25	2850'E COYOTE	5700'E COYOTE	MNC	2,850	11.75	10.00	0.00	2.75	4.00	**1.25**	$53,438	$0	$53,438
NO. BLOOMFIELD ROAD 05/25	5700'E COYOTE	MP 2.5	MNC	2,850	11.00	10.00	0.00	2.00	4.00	**2.00**	$85,500	$0	$85,500
NO. BLOOMFIELD ROAD 06/25	MP 2.5	MP 3.0	MNC	2,640	11.50	10.00	0.00	2.50	4.00	**1.50**	$59,400	$0	$59,400
NO. BLOOMFIELD ROAD 07/25	MP 3.0	MP 3.5	MNC	2,640	11.00	10.00	0.00	2.00	4.00	**2.00**	$79,200	$0	$79,200
NO. BLOOMFIELD ROAD 08/25	MP 3.5	NUBIAN WAY	MNC	2,570	12.50	10.00	0.00	3.50	4.00	**0.50**	$19,275	$0	$19,275
RATTLESNAKE ROAD 06/10	1275'S/BROOKS	3650'S/BROOKS	MNC	2,375	11.75	10.00	0.00	3.25	4.00	**0.75**	$26,719	$0	$26,719
RATTLESNAKE ROAD 07/10	3650'S/BROOKS	WHEELER CROSS	MNC	2,375	11.50	10.00	0.00	2.50	4.00	**1.50**	$53,438	$0	$53,438
RATTLESNAKE ROAD 08/10	WHEELER CROSS	HOLLY DAVO PL	MNC	2,375	10.00	10.00	0.00	1.50	4.00	**2.50**	$89,063	$0	$89,063
RATTLESNAKE ROAD 09/10	HOLLY DAVO PL	OAKRIDGE DR	MNC	2,640	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$118,800	$59,875	$178,675
RED DOG ROAD 01/11	BOULDER ST	JASPER-AGATE	MNC	2,140	11.00	10.00	0.00	3.00	4.00	**1.00**	$32,100	$0	$32,100
SCOTTS FLAT ROAD 2/4	2880'S HWY 20	6380'S HWY 20	MNC	3,500	10.00	10.00	0.00	3.00	4.00	**1.00**	$52,500	$0	$52,500
SCOTTS FLAT ROAD 3/4	6380'S HWY 20	775'E SCOTTS VY	MNC	3,500	10.25	10.00	0.00	3.25	4.00	**0.75**	$39,375	$0	$39,375
SCOTTS FLAT ROAD 4/4	775'E SCOTT VLY	END CO.MAINT	MNC	10,923	10.00	10.00	0.00	2.50	4.00	**1.50**	$245,768	$0	$245,768
WILLOW VALLEY RD 1/8	NC CITY LIMITS	BOULDER ST	MNC	2,355	12.00	10.00	0.00	2.50	4.00	**1.50**	$52,988	$0	$52,988
WILLOW VALLEY RD 2/8	BOULDER ST	2410'E BOULDER	MNC	2,410	10.00	10.00	0.00	2.00	4.00	**2.00**	$72,300	$0	$72,300
WILLOW VALLEY RD 4/8	4820'E BOULDER	SCOTTS VALLEY	MNC	2,410	10.50	10.00	0.00	2.25	4.00	**1.75**	$63,263	$0	$63,263
YOU BET ROAD 04/11	SONTAG ROAD	2160'E/SONTAG	MNC	2,160	12.50	10.00	0.00	3.00	4.00	**1.00**	$32,400	$0	$32,400
YOU BET ROAD 05/11	2160'E/SONTAG	4190'E/SONTAG	MNC	2,030	12.50	10.00	0.00	3.00	4.00	**1.00**	$30,450	$0	$30,450
YOU BET ROAD 06/11	4190'E/SONTAG	GREENHORN CREEK	MNC	2,025	12.50	10.00	0.00	2.50	4.00	**1.50**	$45,563	$0	$45,563
												Subtotal	$3,491,686

Exhibit 12: Safety Projects

STREET NAME	BEGINING	ENDING	GENERAL PLAN FUNC-TIONAL CLASS	LENGTH (FEET)	LANE			SHOULDER			COST PER SQ. FT.		TOTAL COST FOR LANE & SHOULDER
					LANE WIDTH (FEET)	LANE STANDARD (FEET)	LANE DEFICIENCY (EACH SIDE)	WITH EXCESS LANE WIDTH	SHOULDER STANDARD	SHOULDER DEFICIENCY (EACH SIDE)	SHOULDER (GRAVEL)	LANE IMPROVEMT	
											$7.50	$11.34	
District 2													
AUBURN ROAD 04/14	2400'N/ARCH CUL	4800'N/ARCH CUL	MNC	2,400	8.50	9.00	**0.50**	0.50	1.00	**0.50**	$18,000	$27,216	$45,216
DOG BAR ROAD 06/22	LORIE DRIVE	2760'S OF LORIE	MJC	2,760	10.00	10.00	0.00	1.00	4.00	**3.00**	$124,200	$0	$124,200
DOG BAR ROAD 07/22	2760'S OF LORIE	5520'S OF LORIE	MJC	2,760	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$124,200	$62,597	$186,797
DOG BAR ROAD 08/22	5520'S OF LORIE	MT. OLIVE ROAD	MJC	2,760	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$124,200	$62,597	$186,797
DOG BAR ROAD 15/22	660'N WOLFCREEK	1415'S WOLFCRK	MJC	2,075	9.00	10.00	**1.00**	3.00	4.00	**1.00**	$31,125	$47,061	$78,186
DOG BAR ROAD 16/22	1415'S WOLFCRK	LODESTAR ROAD	MJC	2,080	9.00	10.00	**1.00**	1.50	4.00	**2.50**	$78,000	$47,174	$125,174
GARDEN BAR ROAD 01/10	WOLF ROAD	2500'S/WOLF RD	MNC	2,500	10.00	10.00	0.00	1.50	4.00	**2.50**	$93,750	$0	$93,750
GARDEN BAR ROAD 02/10	2500'S/WOLF RD	COUNTRYSIDE RAN	MNC	2,500	10.00	10.00	0.00	1.00	4.00	**3.00**	$112,500	$0	$112,500
GARDEN BAR ROAD 03/10	COUNTRYSIDE RAN	1ST BRIDGE	MNC	2,630	10.00	10.00	0.00	1.00	4.00	**3.00**	$118,350	$0	$118,350
GARDEN BAR ROAD 04/10	1ST BRIDGE	CLAYTON ROAD	MNC	1,315	10.00	10.00	0.00	1.50	4.00	**2.50**	$49,313	$0	$49,313
LIME KILN ROAD 06/11	DUGGANS ROAD	BRIDGE	MNC	2,570	10.00	10.00	0.00	2.00	4.00	**2.00**	$77,100	$0	$77,100
MAGNOLIA ROAD 09/12	TROTTER ROAD	ADAMSON ROAD	MJC	1,245	11.00	10.00	0.00	3.50	4.00	**0.50**	$9,338	$0	$9,338
MAGNOLIA ROAD 10/12	ADAMSON ROAD	SPRING RANCHES	MJC	2,765	10.00	10.00	0.00	2.00	4.00	**2.00**	$82,950	$0	$82,950
MAGNOLIA ROAD 11/12	SPRING RANCHES	.5 MI/W DOG BAR	MJC	2,715	9.00	10.00	**1.00**	1.50	4.00	**2.50**	$101,813	$61,576	$163,389
MAGNOLIA ROAD 12/12	.5 MI W/DOG BAR	DOG BAR ROAD	MJC	2,640	9.00	10.00	**1.00**	2.00	4.00	**2.00**	$79,200	$59,875	$139,075
MT OLIVE ROAD 5/7	END OF PAVEMENT	.5 MI W/PAVEMNT	MJC	2,640	6.00	9.00	**3.00**	0.50	1.00	**0.50**	$19,800	$179,626	$199,426
MT OLIVE ROAD 6/7	.5 MI W/PAVEMNT	CHINABERRY CT	MJC	2,950	6.00	9.00	**3.00**	0.50	1.00	**0.50**	$22,125	$200,718	$222,843
MT OLIVE ROAD 7/7	CHINABERRY CT	DOG BAR ROAD	MJC	2,265	7.00	9.00	**2.00**	1.00	1.00	0.00	$0	$102,740	$102,740
WOLF ROAD 03/14	800'N/JENNIFER	1930'N/JENNIFER	MJC	1,130	10.50	10.00	0.00	3.50	4.00	**0.50**	$8,475	$0	$8,475
WOLF ROAD 06/14	70'W/STILL RD	1840'W/STILL RD	MJC	1,770	11.00	10.00	0.00	3.50	4.00	**0.50**	$13,275	$0	$13,275
WOLF ROAD 08/14	DUGGANS ROAD	CONE & HILLS DR	MJC	2,830	10.50	10.00	0.00	1.50	4.00	**2.50**	$106,125	$0	$106,125
WOLF ROAD 09/14	CONE & HILLS DR	SADDLEBACK LANE	MJC	2,200	10.00	10.00	0.00	3.00	4.00	**1.00**	$33,000	$0	$33,000
WOLF ROAD 10/14	SADDLEBACK LANE	GARDEN BAR ROAD	MJC	2,355	10.00	10.00	0.00	2.00	4.00	**2.00**	$70,650	$0	$70,650
WOLF ROAD 11/14	GARDEN BAR ROAD	1/2 MI N/GARDEN	MJC	2,640	10.00	10.00	0.00	2.00	4.00	**2.00**	$79,200	$0	$79,200
WOLF ROAD 12/14	1/2 MI N/GARDEN	QUARTERHORSE DR	MJC	3,000	10.00	10.00	0.00	2.00	4.00	**2.00**	$90,000	$0	$90,000
WOLF ROAD 13/14	QUARTERHORSE DR	1/2 MI E/QUARTR	MJC	2,640	9.50	10.00	**0.50**	3.00	4.00	**1.00**	$39,600	$29,938	$69,538
WOLF ROAD 14/14	1/2 MI E/QUARTR	LIME KILN ROAD	MJC	2,740	9.50	10.00	**0.50**	2.00	4.00	**2.00**	$82,200	$31,072	$113,272
												Subtotal	$2,700,677

Exhibit 12: Safety Projects (Continued)

STREET NAME	BEGINING	ENDING	GENERAL PLAN FUNC-TIONAL CLASS	LENGTH (FEET)	LANE			SHOULDER			COST PER SQ. FT.		TOTAL COST FOR LANE & SHOULDER
					LANE WIDTH (FEET)	LANE STANDARD (FEET)	LANE DEFICIENCY (EACH SIDE)	WITH EXCESS LANE WIDTH	SHOULDER STANDARD	SHOULDER DEFICIENCY (EACH SIDE)	SHOULDER (GRAVEL)	LANE IMPROVEMT	
											$7.50	$11.34	
District 3													
ALLISON RANCH ROAD 1/8	MILL ST	M.P. 0.554	MNC	2,925	10.50	10.00	0.00	0.75	4.00	**3.25**	$142,594	$0	$142,594
ALLISON RANCH ROAD 2/8	M.P. 0.554	M.P. 0.981	MNC	2,255	10.50	10.00	0.00	1.00	4.00	**3.00**	$101,475	$0	$101,475
ALLISON RANCH ROAD 3/8	M.P. 0.981	MOTE LANE	MNC	2,946	10.50	10.00	0.00	0.75	4.00	**3.25**	$143,618	$0	$143,618
ALLISON RANCH ROAD 4/8	MOTE LANE	JASPER LANE	MNC	2,862	10.00	10.00	0.00	1.50	4.00	**2.50**	$107,325	$0	$107,325
ALLISON RANCH ROAD 5/8	JASPER LANE	SUNNYVALE LANE	MNC	3,005	10.00	10.00	0.00	1.00	4.00	**3.00**	$135,225	$0	$135,225
ALLISON RANCH ROAD 6/8	SUNNYVALE LANE	BRIDGE	MNC	3,170	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$142,650	$71,896	$214,546
ALLISON RANCH ROAD 7/8	BRIDGE	2350'S/BRIDGE	MNC	2,350	9.00	10.00	**1.00**	0.25	4.00	**3.75**	$132,188	$53,298	$185,486
ALLISON RANCH ROAD 8/8	2350'S/BRIDGE	HIGHWAY 49	MNC	2,350	7.50	9.00	**1.50**	0.25	1.00	**0.75**	$26,438	$79,947	$106,385
BITNEY SPRINGS ROAD 01/13	R&R HWY	MISTIC MINE RD	MNC	3,960	11.00	10.00	0.00	2.50	4.00	**1.50**	$89,100	$0	$89,100
LA BARR MEADOWS RD 1/5	GV CITY LIMITS	2640'S/GV LIMIT	MJC	2,640	11.00	10.00	0.00	2.00	4.00	**2.00**	$79,200	$0	$79,200
LA BARR MEADOWS RD 2/5	2640'S/GV LIMIT	5800'S/GV LIMIT	MJC	3,160	10.00	10.00	0.00	2.00	4.00	**2.00**	$94,800	$0	$94,800
ROUGH & READY HWY 02/15	SQUIRREL CREEK	ADAM AVE	MJC	3,190	11.00	11.00	0.00	3.00	4.00	**1.00**	$47,850	$0	$47,850
ROUGH & READY HWY 06/15	625'W/WEST DR	BITNEY SPRINGS	MJC	1,965	11.00	11.00	0.00	3.00	4.00	**1.00**	$29,475	$0	$29,475
SQUIRREL CREEK ROAD 2/4	ADAMS AVE	HILE STREET	MNC	1,870	10.00	10.00	0.00	1.00	4.00	**3.00**	$84,150	$0	$84,150
SQUIRREL CREEK ROAD 3/4	HILE STREET	DIXON ROAD	MNC	2,910	10.25	10.00	0.00	3.25	4.00	**0.75**	$32,738	$0	$32,738
SQUIRREL CREEK ROAD 4/4	DIXON ROAD	END CO. MAINT.	MNC	3,400	10.00	10.00	0.00	1.50	4.00	**2.50**	$127,500	$0	$127,500
												Subtotal	$1,721,464
District 4													
AUBURN ROAD 06/14	DAWKINS LN	BRIDGE AT CANAL	MNC	2,345	8.00	9.00	**1.00**	0.50	1.00	**0.50**	$17,588	$53,185	$70,772
AUBURN ROAD 08/14	2075'N/BRIDGE	4150'N/BRIDGE	MNC	2,075	8.50	9.00	**0.50**	0.50	1.00	**0.50**	$15,563	$23,531	$39,093
AUBURN ROAD 13/14	5000'S/McCOURTN	2500'S/McCOURTN	MNC	2,500	10.00	10.00	0.00	3.00	4.00	**1.00**	$37,500	$0	$37,500
BITNEY SPRINGS ROAD 02/13	MISTIC MINE RD	330'N NEWTOWN	MNC	3,825	10.50	10.00	0.00	2.00	4.00	**2.00**	$114,750	$0	$114,750
BITNEY SPRINGS ROAD 03/13	330'N NEWTOWN	EMPRESS ROAD	MNC	1,980	10.75	10.00	0.00	1.75	4.00	**2.25**	$66,825	$0	$66,825
BITNEY SPRINGS ROAD 04/13	EMPRESS ROAD	2500'N EMPRESS	MNC	2,500	10.00	10.00	0.00	2.00	4.00	**2.00**	$75,000	$0	$75,000
BITNEY SPRINGS ROAD 05/13	2500'N EMPRESS	GVG MAIN ENT	MNC	2,500	10.75	10.00	0.00	2.00	4.00	**2.00**	$75,000	$0	$75,000
BITNEY SPRINGS ROAD 06/13	GVG MAIN ENT	1/2 MI N OF GVG	MNC	2,640	10.50	10.00	0.00	2.50	4.00	**1.50**	$59,400	$0	$59,400
BITNEY SPRINGS ROAD 07/13	1/2 MI N OF GVG	1 MI N OF GVG	MNC	2,640	10.00	10.00	0.00	2.00	4.00	**2.00**	$79,200	$0	$79,200
BITNEY SPRINGS ROAD 08/13	1 MI N OF GVG	NID CANAL XING	MNC	2,570	10.00	10.00	0.00	2.00	4.00	**2.00**	$77,100	$0	$77,100
BITNEY SPRINGS ROAD 09/13	NID CANAL XING	2230'N OF CANAL	MNC	2,230	10.00	10.00	0.00	1.75	4.00	**2.25**	$75,263	$0	$75,263
BITNEY SPRINGS ROAD 10/13	2230'N OF CANAL	STARDUSTER DR	MNC	2,230	10.00	10.00	0.00	2.00	4.00	**2.00**	$66,900	$0	$66,900
BITNEY SPRINGS ROAD 11/13	STARDUSTER DR	BEITLER ROAD	MNC	3,765	10.00	10.00	0.00	2.75	4.00	**1.25**	$70,594	$0	$70,594
BITNEY SPRINGS ROAD 12/13	BEITLER ROAD	3325'N BEITLER	MNC	3,325	10.00	10.00	0.00	2.00	4.00	**2.00**	$99,750	$0	$99,750
BITNEY SPRINGS ROAD 13/13	3325'N BEITLER	PLEASANT VLY RD	MNC	3,325	10.00	10.00	0.00	2.00	4.00	**2.00**	$99,750	$0	$99,750
INDIAN SPRINGS ROAD 01/12	PENN VALLEY DR	560'S/PV DRIVE	MJC	560	10.50	10.00	0.00	3.50	4.00	**0.50**	$4,200	$0	$4,200
INDIAN SPRINGS ROAD 02/12	560'S/PV DRIVE	OAK SPRINGS RD	MJC	2,530	10.00	10.00	0.00	2.00	4.00	**2.00**	$75,900	$0	$75,900
INDIAN SPRINGS ROAD 03/12	OAK SPRINGS RD	250'S/KAREN LN	MJC	3,000	10.00	10.00	0.00	3.00	4.00	**1.00**	$45,000	$0	$45,000
INDIAN SPRINGS ROAD 04/12	250'S/KAREN LN	ELNORA DRIVE	MJC	2,940	10.00	10.00	0.00	2.00	4.00	**2.00**	$88,200	$0	$88,200
INDIAN SPRINGS ROAD 05/12	ELNORA DRIVE	SPENCEVILLE RD	MJC	1,220	10.00	10.00	0.00	2.00	4.00	**2.00**	$36,600	$0	$36,600
INDIAN SPRINGS ROAD 06/12	SPENCEVILLE RD	PILOT PEAK LANE	MJC	2,720	11.50	10.00	0.00	2.00	4.00	**2.00**	$81,600	$0	$81,600
INDIAN SPRINGS ROAD 07/12	PILOT PEAK LANE	OLD FOREST RNCH	MJC	2,560	11.50	10.00	0.00	3.00	4.00	**1.00**	$38,400	$0	$38,400
INDIAN SPRINGS ROAD 08/12	OLD FOREST RNCH	MAIDU TRAIL	MJC	2,590	11.50	10.00	0.00	3.50	4.00	**0.50**	$19,425	$0	$19,425
INDIAN SPRINGS ROAD 09/12	MAIDU TRAIL	550'E SMITH RD	MJC	3,490	11.50	10.00	0.00	3.50	4.00	**0.50**	$26,175	$0	$26,175

Exhibit 12: Safety Projects (Continued)

STREET NAME	BEGINING	ENDING	GENERAL PLAN FUNC-TIONAL CLASS	LENGTH (FEET)	LANE			SHOULDER			COST PER SQ. FT.		TOTAL COST FOR LANE & SHOULDER
					LANE WIDTH (FEET)	LANE STANDARD (FEET)	LANE DEFICIENCY (EACH SIDE)	WITH EXCESS LANE WIDTH	SHOULDER STANDARD	SHOULDER DEFICIENCY (EACH SIDE)	SHOULDER (GRAVEL)	LANE IMPROVEMT	
											$7.50	$11.34	
District 4													
LIME KILN ROAD 01/11	McCOURTNEY ROAD	AMBERLEY LANE	MNC	1,850	10.50	10.00	0.00	2.00	4.00	**2.00**	$55,500	$0	$55,500
LIME KILN ROAD 02/11	AMBERLEY LANE	1/2 MI/S/AMBERL	MNC	2,640	10.50	10.00	0.00	1.75	4.00	**2.25**	$89,100	$0	$89,100
McCOURTNEY ROAD 06/24	WELLS DRIVE	SO PONDEROSA WY	MJC	3,070	12.00	10.00	0.00	3.00	4.00	**1.00**	$46,050	$0	$46,050
McCOURTNEY ROAD 09/24	1/2 MI/W/WOLF M	PATTERSON VAL'Y	MJC	2,180	11.50	10.00	0.00	3.00	4.00	**1.00**	$32,700	$0	$32,700
McCOURTNEY ROAD 10/24	PATTERSON VAL'Y	INDIAN SPRINGS	MJC	2,600	11.50	10.00	0.00	3.50	4.00	**0.50**	$19,500	$0	$19,500
McCOURTNEY ROAD 11/24	INDIAN SPRINGS	RETRAC WAY	MJC	3,870	11.00	10.00	0.00	3.00	4.00	**1.00**	$58,050	$0	$58,050
McCOURTNEY ROAD 19/24	BOBEL LANE	LIME KILN ROAD	MJC	1,340	10.00	10.00	0.00	2.50	4.00	**1.50**	$30,150	$0	$30,150
NEWTOWN RD (3)	4010'W/BECKVILE	BITNEY SPRINGS	MNC	11,417	9.00	10.00	**1.00**	1.50	4.00	**2.50**	$428,138	$258,938	$687,075
PENN VALLEY DRIVE 8/8	835'S/HWY 20 -E	HWY 20 - EAST	MJC	835	12.10	10.00	0.00	2.10	4.00	**1.90**	$23,798	$0	$23,798
PLEASANT VALLEY RD 09/28	710'N/PV SCHOOL	PIPER LANE	MJC	3,035	10.50	10.00	0.00	3.00	4.00	**1.00**	$45,525	$0	$45,525
PLEASANT VALLEY RD 10/28	PIPER LANE	2 MI S/BRIDGE	MJC	1,600	9.50	10.00	**0.50**	1.00	4.00	**3.00**	$72,000	$18,144	$90,144
PLEASANT VALLEY RD 11/28	2 MI S/BRIDGE	1.5 MI S/BRIDGE	MJC	2,640	10.00	10.00	0.00	2.00	4.00	**2.00**	$79,200	$0	$79,200
PLEASANT VALLEY RD 12/28	1.5 MI S/BRIDGE	1 MI S/BRIDGE	MJC	2,640	10.00	10.00	0.00	1.50	4.00	**2.50**	$99,000	$0	$99,000
PLEASANT VALLEY RD 13/28	1 MI S/BRIDGE	2125' S/BRIDGE	MJC	3,155	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$141,975	$71,555	$213,530
PLEASANT VALLEY RD 16/28	460'N/BRIDGE	M.P. 8.399	MJC	3,040	9.00	9.00	0.00	1.00	3.00	**2.00**	$91,200	$0	$91,200
PLEASANT VALLEY RD 17/28	M.P. 8.399	M.P. 8.905	MJC	2,675	9.00	9.00	0.00	1.00	3.00	**2.00**	$80,250	$0	$80,250
PLEASANT VALLEY RD 18/28	M.P. 8.905	M.P. 9.477	MJC	3,020	9.00	9.00	0.00	1.50	3.00	**1.50**	$67,950	$0	$67,950
PLEASANT VALLEY RD 19/28	M.P. 9.477	M.P. 10.035	MJC	2,950	10.00	10.00	0.00	1.50	4.00	**2.50**	$110,625	$0	$110,625
PLEASANT VALLEY RD 20/28	M.P. 10.035	635'E/CRESCENT	MJC	1,630	9.00	10.00	**1.00**	1.00	4.00	**3.00**	$73,350	$36,968	$110,318
PLEASANT VALLEY RD 21/28	635'E/CRESCENT	COVERT WAY	MJC	3,300	10.00	10.00	0.00	2.00	4.00	**2.00**	$99,000	$0	$99,000
PLEASANT VALLEY RD 22/28	COVERT WAY	M.P. 11.621	MJC	3,435	10.50	10.00	0.00	3.00	4.00	**1.00**	$51,525	$0	$51,525
PLEASANT VALLEY RD 23/28	M.P. 11.621	BIRCHVILLE ROAD	MJC	2,515	10.50	10.00	0.00	3.00	4.00	**1.00**	$37,725	$0	$37,725
PLEASANT VALLEY RD 24/28	BIRCHVILLE ROAD	VICKI DRIVE	MJC	2,750	10.50	10.00	0.00	3.00	4.00	**1.00**	$41,250	$0	$41,250
PLEASANT VALLEY RD 25/28	VICKI DRIVE	M.P. 12.844	MJC	1,190	10.50	10.00	0.00	0.50	4.00	**3.50**	$62,475	$0	$62,475
PLEASANT VALLEY RD 27/28	M.P. 13.372	M.P. 14.150	MJC	4,110	10.00	10.00	0.00	1.50	4.00	**2.50**	$154,125	$0	$154,125
PLEASANT VALLEY RD 28/28	M.P. 14.150	HIGHWAY 49	MJC	2,740	10.00	10.00	0.00	2.00	4.00	**2.00**	$82,200	$0	$82,200
ROUGH & READY HWY 14/15	VALLEY DRIVE	1270'N/HWY 20	MJC	2,320	12.50	10.00	0.00	3.50	4.00	**0.50**	$17,400	$0	$17,400
ROUGH & READY ROAD (1)	R&R HWY	280'N/ROCKER RD	MNC	7,130	10.10	10.00	0.00	3.10	4.00	**0.90**	$96,255	$0	$96,255
ROUGH & READY ROAD (2)	280'N/ROCKER RD	MINERS WY	MNC	4,380	9.50	10.00	**0.50**	0.50	4.00	**3.50**	$229,950	$49,669	$279,619
ROUGH & READY ROAD (3)	MINERS WY	END CO. MAINT.	MNC	2,325	7.10	9.00	**1.90**	0.50	1.00	**0.50**	$17,438	$100,189	$117,626
SPENCEVILLE ROAD 2/6	DEVONSHIRE CIRC	FARADAY COURT	MJC	2,425	10.50	10.00	0.00	3.00	4.00	**1.00**	$36,375	$0	$36,375
SPENCEVILLE ROAD 3/6	FARADAY COURT	INDIAN SPRINGS	MJC	2,425	10.00	10.00	0.00	2.00	4.00	**2.00**	$72,750	$0	$72,750
TYLER FOOTE XING RD 04/21	2270'W/MURPHY	850'E/MURPHY RD	MJC	3,120	12.00	10.00	0.00	3.50	4.00	**0.50**	$23,400	$0	$23,400
TYLER FOOTE XING RD 07/21	0.5 MI E/SHADY	OAK TREE ROAD	MJC	2,730	10.00	10.00	0.00	3.00	4.00	**1.00**	$40,950	$0	$40,950
TYLER FOOTE XING RD 16/21	JACKASS FLAT RD	GRIZZLEY HILL	MJC	2,565	10.00	10.00	0.00	3.00	4.00	**1.00**	$38,475	$0	$38,475
TYLER FOOTE XING RD 17/21	GRIZZLEY HILL	0.5 MI E/GRIZZL	MJC	2,640	9.00	10.00	**1.00**	3.00	4.00	**1.00**	$39,600	$59,875	$99,475
TYLER FOOTE XING RD 18/21	0.5 MI E/GRIZZL	CRUZON GRADE RD	MJC	3,840	9.00	10.00	**1.00**	3.00	4.00	**1.00**	$57,600	$87,091	$144,691
												Subtotal	$5,047,379

Exhibit 12: Safety Projects (Continued)

STREET NAME	BEGINING	ENDING	GENERAL PLAN FUNC-TIONAL CLASS	LENGTH (FEET)	LANE			SHOULDER			COST PER SQ. FT.		TOTAL COST FOR LANE & SHOULDER
					LANE WIDTH (FEET)	LANE STANDARD (FEET)	LANE DEFICIENCY (EACH SIDE)	WITH EXCESS LANE WIDTH	SHOULDER STANDARD	SHOULDER DEFICIENCY (EACH SIDE)	SHOULDER (GRAVEL)	LANE IMPROVEMT	
											$7.50	$11.34	
District 5													
NO. BLOOMFIELD ROAD 10/25	1285'E NUBIAN	BLUE TENT SCHL	MNC	2055	10.00	10.00	0.00	1.00	4.00	3.00	$92,475	$0	$92,475
NO. BLOOMFIELD ROAD 11/25	BLUE TENT SCHL	DAMIEN LANE	MNC	3600	11.00	10.00	0.00	3.50	4.00	0.50	$27,000	$0	$27,000
NO. BLOOMFIELD ROAD 14/25	2790'E ROCK CRK	MP 7.0	MNC	2275	8.00	9.00	1.00	0.50	1.00	0.50	$17,063	$51,597	$68,660
NO. BLOOMFIELD ROAD 15/25	MP 7.0	EDWARDS X-ING	MNC	2295	8.00	9.00	1.00	0.50	1.00	0.50	$17,213	$52,051	$69,263
YOU BET ROAD 07/11	GREENHORN CREEK	2480'E/GRNHRNCK	MNC	2480	9.50	10.00	0.50	1.00	4.00	3.00	$111,600	$28,123	$139,723
												Subtotal	$397,121

Exhibit 12: Safety Projects (Continued)

3.3 Determining the Percent of Project Need Attributable to New Development

The procedure for determining the percentage of the need to add capacity to a roadway facility that is attributable to new development is illustrated in Exhibit 13.

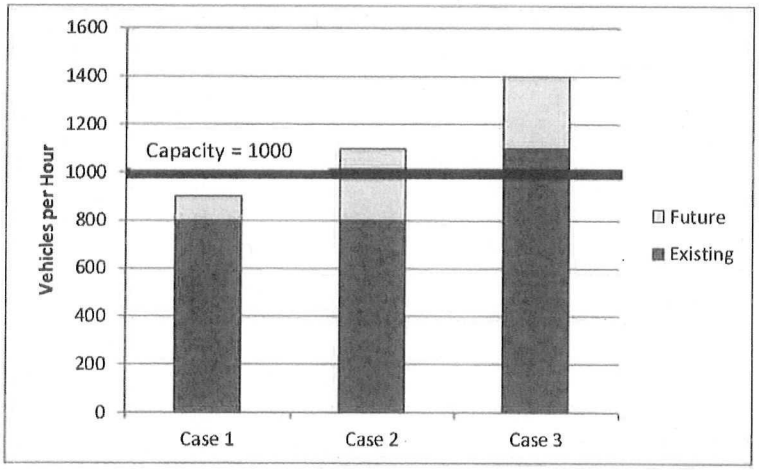


Exhibit 13: Examples of How the Percent Attributable to New Development is Determined

In Exhibit 13 the capacity is the maximum volume that can be accommodated at the adopted LOS. There are three possible cases, namely:

- In Case 1, the roadway facility is operating at below its capacity under existing conditions and is forecast to continue to do so under future conditions. In such cases there is no deficiency and so no impact fees can be collected for the project[5].
- In Case 2 the facility operates below its maximum capacity under existing conditions but the capacity is insufficient to accommodate the expected future growth in traffic. In such cases the need to provide additional capacity is entirely attributable to new development.
- In Case 3 the traffic using the facility already exceeds its rated capacity and the expected growth in traffic will exacerbate the situation. In such cases the percentage attributable to new development is the portion of the volume beyond the rated capacity that comes from new development.

Several of the candidate projects listed in Exhibit 11 fall into Case 1. These projects, Combie Road at SR-49 for example, are not eligible for improvements funded by impact fees. They were not assigned a project ID in Exhibit 11 because they will not be part of the LTMF project list.

[5] This is not to say that the project is not justified; only that the justification is unrelated to the need to provide additional capacity to accommodate future development. The seismic retrofit of a bridge would be an example of a project where the need is not based on insufficient capacity.

Two projects listed in Exhibit 11 fall into Case 2. These were Project C, Rough and Ready Highway at Ridge Road, and Project E, SR-20 at Pleasant Valley Rd. In those cases the entire need for the improvement is attributable to new development.

The remaining projects listed in Exhibit 11 fall into Case 3. Two of these projects, Project A, Combie Rd from SR-49 to Magnolia and Project B, Combie Road at Higgins Road, have capacity problems that will be worsened by traffic associated with new development. The computation of the percentage of the need for the improvement that is attributable to new development is shown in Exhibit 14.

For the other Case 3 projects, there is a deficiency that is related to some standard other than capacity, such as lane or shoulder width or storage length for queues. In such cases new development's share of responsibility is equal to its share of total future traffic.

Facility	Segment	LOS Standard	Existing				Future (2035) Without Improvements				% of Deficiency Attributable to New Development
			Peak-Hour Entering Volume or ADT	Capacity	V/C Ratio	LOS	Peak-Hour Entering Volume or ADT	Capacity*	V/C Ratio	LOS	
			(A)	(B)	(C)=(A)/(B)	(D)	(E)	(F)	(G)=(E)/(F)	(H)	(I)=(G-D)/(D-1)
Combie Rd	SR-49 to Magnolia	D	*15,943*	*13,950*	**1.14**	F	*24,105*	*13,950*	**1.73**	F	80%
Combie Rd	@ Higgins Rd	D	1,608	1,383	**1.16**	F	1,790	1,383	**1.29**	E	45%

Exhibit 14: Calculation of the Portion of the Need for the Project that is Attributable to New Development

3.4 Determining the Amount Potentially Collectable Through the LTMF

The amount potentially collectable through the LTMF program was calculated using the updated project costs and the percentage of project need attributable to new development. This calculation is shown in Exhibit 15. The amount potentially collectable through the LTMF is equal to the costs attributable to new development, which is $6.6 million (see Column C), minus other funds available (Column E) and the remaining balance of LTMF funds already collected (Column F). The cost of administering the impact fee program – including future costs to update the fee program - is then added on to this, as allowed by state law. The final amount potentially collectable by the LTMF is thus $3.8 million.

Column D in Exhibit 15 shows the amount of funding needed to correct existing deficiencies for these project. A comparison of this amount, $24.8 million, with the amount of funding reasonably foreseeable for potential[6] matching funds ($63.7M, see Section 2.4 of this report), shows that the County will be able to fully fund the non-LTMF portion of the projects shown in Exhibit 15.

[6] The projects show in Exhibit 15 are not the complete list of projects that the City will be funding from these sources.

Project ID	Facility	Segment	Cost from Previous Study or Updated Cost	Updated Cost Estimate	% of Need Attributable to New Development	Costs Attributable to New Development	Costs Attributable to Existing Deficiencies (not New Development)	Funding from Other Sources (STIP, SHOPP, Developer Direct Mitigations, etc.)	LTMF Funds Currently Available	Amount Potentially Collectable from LTMF
				(A)	(B)	(C) = (A)*(B)	(D) = (A) - (B)	(E)	(F)	(G)=(C)-(E)-(F)
A	Combie Rd	SR-49 to Magnolia	$4,600,000	$4,600,000	80%	$3,697,171	$902,829	$405,000	$2,510,000	$782,171.17
B	Combie Rd	@ Higgins Rd	$250,000	$250,000	45%	$111,761	$138,239	$0	$0	$111,761
C	Rough and Ready Highway	@ Ridge Road	$975,000	$975,000	100%	$975,000	$0	$0	$0	$975,000
D	Stampede Meadows	Truckee Town Limits t	$9,000,000	$9,000,000	5%	$450,000	$8,550,000	$0	$0	$450,000
E	SR-20	@Pleasant Valley Rd	$600,000	$600,000	100%	$600,000	$0	$0	$0	$600,000
F	District 1 Safety Projects	Various	$3,491,685	$4,212,368	5%	$210,618	$4,001,749	$0	$0	$210,618
G	District 2 Safety Projects	Various	$2,700,676	$3,258,095	5%	$162,905	$3,095,190	$0	$0	$162,905
H	District 3 Safety Projects	Various	$1,721,464	$2,076,773	5%	$103,839	$1,972,935	$0	$0	$103,839
I	District 4 Safety Projects	Various	$4,954,155	$5,976,691	5%	$298,835	$5,677,856	$0	$0	$298,835
J	District 5 Safety Projects	Various	$397,121	$479,087	5%	$23,954	$455,133	$0	$0	$23,954
	Total			$33,436,013		$6,634,082	$24,793,931	$405,000	$2,510,000	$3,719,082
	As a percent of total costs for needed projects					21%	79%		8%	12%
	Administrative Costs (3% of project costs)									$111,572
	Total Amount Potentially Collectable from LTMF									$3,830,655

Exhibit 15: Calculation of the Amount Potentially Collectable Through the LTMF

3.5 Residential and Non-Residential Shares of Traffic Impacts

The previous (2008) LTMF update used the number of vehicle trips generated by different types of developments as the primary indicator of their traffic impacts. Since that time, the State of California has instituted a new policy[7] by which vehicle-miles travelled (VMT) will now be used as the main indicator of traffic impacts. VMT takes into account the fact that traffic impacts are proportional both to the number of new trips associated with the development and the average length of those trips.

Outputs from the NCTC Travel Demand Model were used to forecast the growth in VMT for the five different types of trips that are represented in the model. The growth in VMT from new development was attributed to residential and non-residential developments based on trip type. Standard practice for how to do this can be found in NCHRP Report 187[8], a primary reference for travel estimation techniques used in travel demand modeling, which states that "*HBW (Home Based Work) and HBNW (Home Based Non Work) trips are generated at the households, whereas the NHB (Non-Home Based) trips are generated elsewhere.*" The current study follows this practice by attributing all trips beginning or ending at the traveler's home (roughly 2/3^{rds} of all trips) to the residential land use while all trips not involving a residential location (roughly 1/3rd of all trips) are attributed to non-residential land uses.

Exhibit 16 shows the average trip length by trip purpose in the NCTC traffic model. The four home-based trip purposes, shown in gray, have longer average lengths than non-home-based trips. Consequently the change from trip-based fees to VMT-based fees tends to shift the incidence of the fees away from non-residential development and more towards residential development.

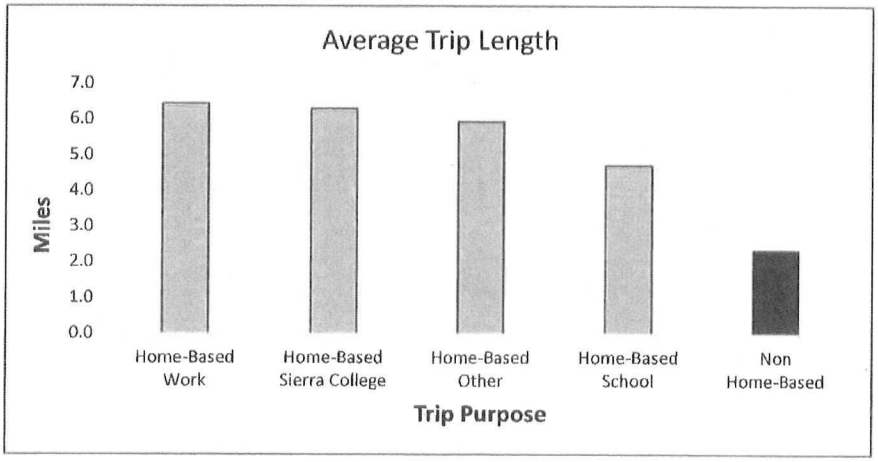


Exhibit 16: Average Trip Length by Trip Purpose

[7] SB-743, signed into law in 2013

[8] *Quick Response Urban Travel Estimation Techniques and Transferable Parameters User's Guide*, Transportation Research Board, 1978

The forecast growth in VMT from residential and non-residential land uses is shown Exhibit 17.

Trip Purpose	Growth in VMT	% of Total VMT Growth
Attributable to Residential Development		
Home-Base Other Trips	92,567	56%
Home-Base Work Trips	39,401	24%
Home-Based School Trips	2,075	1%
Home-Based Sierra College Trips	1,417	1%
Attributable to Non-Residential Development		
Non-Home-Based Trips	28,892	18%
Total	**164,352**	100%

Exhibit 17: Percentage of VMT Growth Attributable to Residential and Non-Residential Development

Based on this calculation, 82% of VMT growth was attributed to residential development and 18% was attributed to non-residential development.

3.6 Determining the Total Number of Trips and the Fee Per Trip

As described earlier, the next step in the process is to determine the total number of trips for residential and non-residential development. This was done by multiplying the trip generation rate for each land use category (see Exhibit 1) by number of new units of each land use type (see Exhibit 7). The result is shown in Exhibit 18.

Land Use Type	Unit	Year 2012	Year 2035	# of new units	Trip-Gen Rate	Total New Trips Using ITE Rates
Residential						
Single Family House	DU	26,534	27,410	876	9.52	8,340
Multi-Family	DU	615	1,609	994	6.59	6,550
Mobile Home in Park	DU	1,059	1,159	100	4.99	499
Senior Residential	DU	0	365	365	3.56	1,299
						16,688
Non-Residential						
Office	TSF	384	426	42	11.54	484
Medical Office	TSF	16	66	50	33.79	1,690
Industrial	TSF	366	386	20	5.33	107
Warehouse	TSF	48	48	0	3.56	0
Retail/Service - Low	TSF	373	420	47	23.88	1,113
Retail/Service - Medium	TSF	299	336	37	51.02	1,902
Retail/Service - High	TSF	146	156	9	90.46	843
Lodging	Rooms	267	287	20	6.45	129
Public & Quasi-Public	TSF	324	349	25	68.93	1,723
School K-8th Grade	Students	5,643	5,739	96	1.33	128
School 9-12th Grade	Students	1,003	1,003	0	1.69	0
College	Students	20	20	0	1.23	0
East County Non-Residential						
Shatterhand RV Park						40
Boreal BMX and Skate Park						100
Soda Springs Planet Kids						100
Pombo / Hobart Mills Master Plan						0
Boca Quarry						1,432
Tahoe Forest Church						164
Tahoe Donner 5-yr Trail Plan						300
Soda Springs Area Plan/rezone						600
Miscellaneous						750
						11,604

Exhibit 18: Computation of Total Residential and Non-Residential Trips

The amount potentially collectable by the LTMF ($3.8M, see Exhibit 15) was multiplied by the percent attributable to residential and non-residential development (see Exhibit 17) to find the fee-eligible costs for residential and non-residential development. This was then divided by the number of trips shown in Exhibit 18 to determine the fee per trip for residential and non-residential developments (see Exhibit 19).

		Total	Attributable to Residential Development		Attributable to Non-Residential Development	
Project Costs	**(A)**	$3,830,655	78%	$2,998,884	22%	$831,771
Trip Ends	**(B)**			16,688		11,604
LTMF per Trip End	**(C)=(A)/(B)**			$179.70		$71.68

Exhibit 19: Computation of Fee per Trip

Based on the fee per trip from Exhibit 19, the recommended changes in the LTMF are (see Exhibit 20):

- A 10% increase, from $163/trip to $180/trip, for trips from residential developments in Districts 1, 2, 3, and 4. Note that this is lower than the effect of inflation (25.4%) described in Section 2.4 since the last fee update. When combined with the proposed decrease in RTMF fees the net result would be a 4% decrease in the traffic impact fees paid by residential developers.
- An 80% increase, from $40/trip to $72/trip, for trips from non-residential developments in Districts 1, 2, 3, and 4. When combined with the proposed decrease in RTMF fees the net result would be a 6% decrease in the traffic impact fees paid by residential developers.
- Developments in District 5 currently have their own separate program that charges developers $1,357 per peak-hour trip (approximately $143 per daily trip)[9] for both residential and non-residential development. Having more than one County-run program to perform essentially the same function is inefficient and raises concerns about whether all developments in the unincorporated county are being treated equally. We therefore recommend that the County discontinue the fee program for District 5 and replace it as follows:
    - Residential and non-residential developments in District 5 in the functional vicinity of the Town of Truckee have more impact on that town's road system than they do on County roads. We therefore recommend that they be made part of the Town of Truckee traffic impact fee program so that they will properly mitigate the impacts they will have on the town's roadway system.
    - Developments in the portion of District 5 *not* in the functional vicinity of the Town of Truckee, we recommend that they be brought into the LTMF program so that developments there pay its fair share of the cost for improvements of County roads and so that developments in the other districts pay their fair share of the cost of mitigating impacts on roads in District 5. For residential development this would result in a 26% increase in fees, from $143/daily trip to $180/trip. Non-residential development would face a 50% decrease in fees, from $143/daily trip to $72/trip.

[9] Based on the ratio of peak-hour to day trips for single-family homes found in the ITE *Trip Generation Manual*, this is equivalent to $143 each for the trips occurring over a 24-hour period.

Residential

District	LTMF		RTMF		Combined		% Change for Combined Fees	Unit
	Current	Proposed	Current	Proposed	Current	Proposed		
District 1	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
District 2	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
District 3	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
District 4	$163	$180	$439	$396	$602	$576	-4%	Daily Trips
District 5 - Near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
District 5 - Outside Truckee	$143	$180	$0	$0	$143	$180	26%	Daily Trips

Non-Residential

District	LTMF		RTMF		Combined		% Change for Combined Fees	Unit
	Current	Proposed	Current	Proposed	Current	Proposed		
District 1	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
District 2	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
District 3	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
District 4	$40	$72	$110	$70	$150	$142	-6%	Daily Trips
District 5 - Near Truckee	$1,357	N/A	$0	$0	$1,357	N/A	Transfer to Truckee's Program	Peak Hour Trips
District 5 - Outside Truckee	$143	$72	$0	$0	$143	$72	-50%	Daily Trips

Exhibit 20: Computation of Revised Fee Levels

3.7 Revenues Raised by the LTMF Program

Based on the number of new units of development shown in Exhibit 7 and the recommended fee schedule shown in Exhibit 20, the total fee revenue expected to be generated by the LTMF in the next 20 years is $3.5 million, as shown in Exhibit 21. Note that this is 8% less than the $3.8M in project costs attributable to new development shown in Column G of Exhibit 15. This is because public-sector developments are exempt from the LTMF and their share of the costs cannot legally be transferred to others development, since the latter are responsible only for mitigating their own impacts.

Land Use Category	LTMF/ Trip End	Trip-Gen Rate	LTMF/ Unit	Expected # of New Units	Expected Revenues
	(A)	(B)	(C)=(A)*(B)	(D)	(E)=(C)*(D)
Residential					
Single Family House	$179.70	9.52	$1,711	876	$1,498,603
Multi-Family	$179.70	6.59	$1,184	994	$1,177,111
Mobile Home in Park	$179.70	4.99	$897	100	$89,670
Senior Residential	$179.70	3.56	$640	365	$233,501
				Total for Residential >	$2,998,884
Non-Residential					
Office	$71.68	11.54	$827	42	$34,726
Medical Office	$71.68	33.79	$2,422	50	$121,101
Industrial	$71.68	5.33	$382	20	$7,634
Warehouse	$71.68	3.56	$255	0	$0
Retail - Low	$71.68	23.88	$1,711	47	$79,748
Retail - Medium	$71.68	51.02	$3,657	37	$136,334
Retail - High	$71.68	90.46	$6,484	9	$60,431
Lodging	$71.68	6.45	$462	20	$9,247
Public & Quasi-Public	Exempt	68.93	$0	25	$0
School K-8th Grade	Exempt	1.33	$0	96	$0
School 9-12th Grade	Exempt	1.69	$0	0	$0
Public College	Exempt	1.23	$0	0	$0
				Total for Non-Residential >	$449,220
Total Expected Revenue					$3,448,104

Exhibit 21: Forecast of LTMF Revenues

4.0 MITIGATION FEE ACT FINDINGS

The Mitigation Fee Act, as set forth in the California Government Code Sections 66000 through 66008, establishes the framework for mitigation fees in the State of California. The Act requires agencies to make certain findings with respect to a proposed fee. These are described in the sections below.

4.1 Purpose of the Fee

Identify the purpose of the fee

The purpose of the LTMF is to mitigate the cumulative impacts of future developments on traffic conditions on roads in unincorporated Nevada County. The fees will help fund improvements needed to maintain the target level of service in the face of the higher traffic volumes brought on by new developments.

4.2 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

The list of projects to receive LTMF funding is shown in Exhibit 15. We recommend that the LTMF should be used only for non-State roads in the city. NCTC has a complementary program (the RTMF) to mitigate cumulative traffic impacts on state roads in the county.

4.3 Use/Type-of-Development Relationship

Determine the reasonable relationship between the fees' use and the type of development project on which the fees are imposed

To determine the "use" relationship, the development being assessed an impact fee must be reasonably shown to derive some use or benefit from the facility being built using the fee. In the case of the LTMF the projects that will be funded are high-priority roads means that all of the county's new residents and businesses will benefit in important ways from the maintenance of a reasonable level of service. Most drivers in the new developments can be expected to use these roads regularly, and those that do not will nevertheless benefit because good traffic conditions on the LTMF-funded roads will keep drivers from diverting to other roads and causing congestion in other parts of the county. Even residents or workers in the new developments who do not drive at all will benefit from access to goods and services made possible in part by the serviceability of the Nevada County road network.

4.4 Need/Type-of-Development Relationship

Determine the reasonable relationship between the need for the public facilities and the types of development on which the fees are imposed

To determine the "need" relationship, the facilities to be financed must be shown to be needed at least in part because of the new development. This was determined by analyzing the forecast traffic demand with the expected degree of new development and comparing that with the demand without new development. Projects were analyzed individually and the degree to which the need for the project was attributable to new development varied from project to project (see Exhibit 11, Exhibit 12, and Exhibit 14). The growth in vehicle

trips and the increases in congestion at project sites are evidence that new developments contributes towards the need for roadway improvements.

4.5 Proportionality Relationship

Determine how there is a reasonable relationship between the fee amount and the cost of the facilities or portion of the facilities attributable to the development on which the fee is imposed

The "proportionality" relationship requires that there be rough proportionality between the fee charged to each type of development and the cost of the facility being financed. In the case of the LTMF the differences in the traffic generated by different types of development were factored into the fee to be charged for each type, as is described earlier in this report. Within each land use category the size of the project, i.e. the number of dwelling units constructed or size of the building, is accounted for in assessing the fee. This ensures that projects that generate a lot of traffic and therefore have a greater traffic impact will pay more than other projects that have less impacts.

Exhibit C – LTMF Zone Map – Page 1

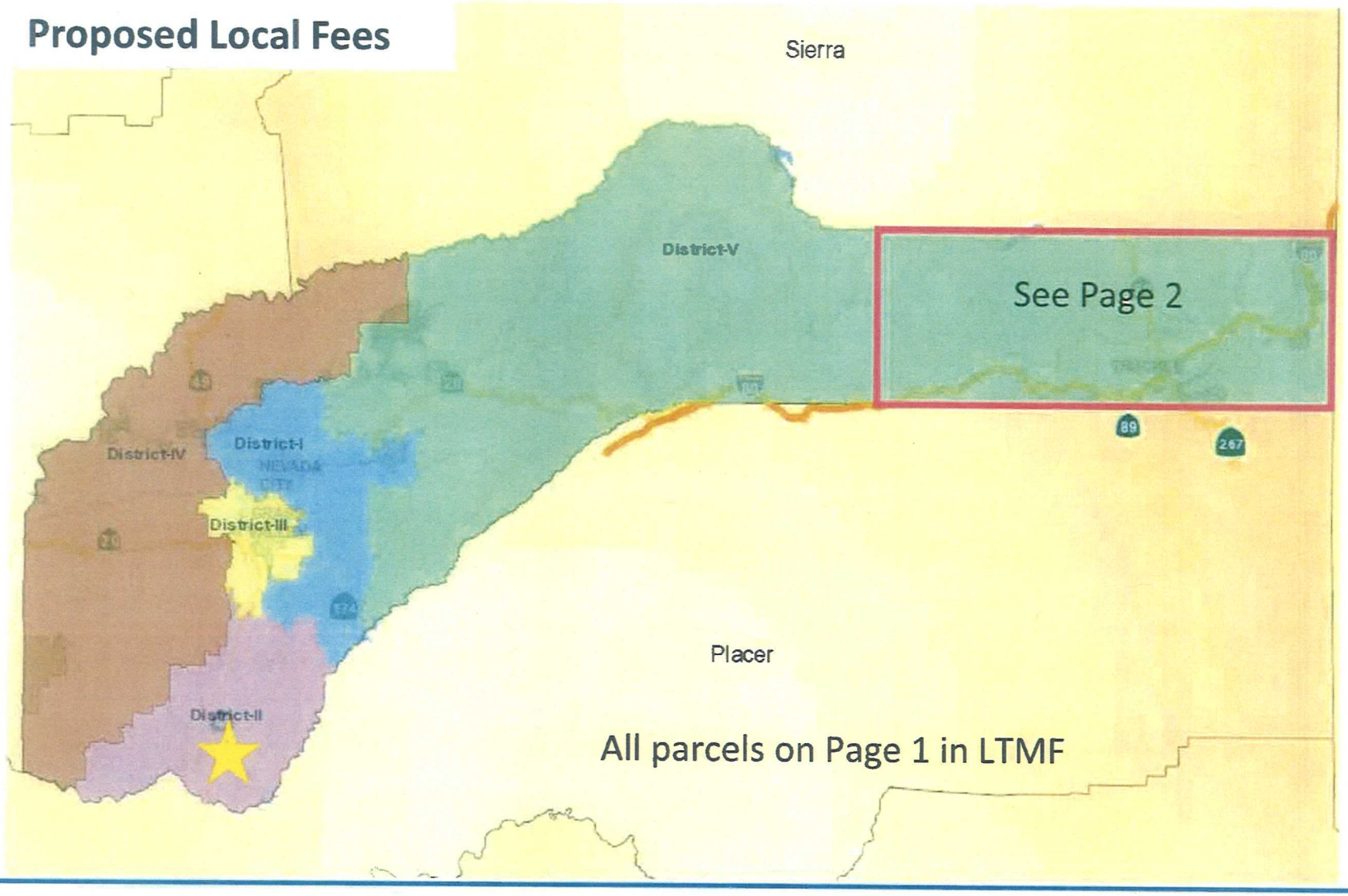


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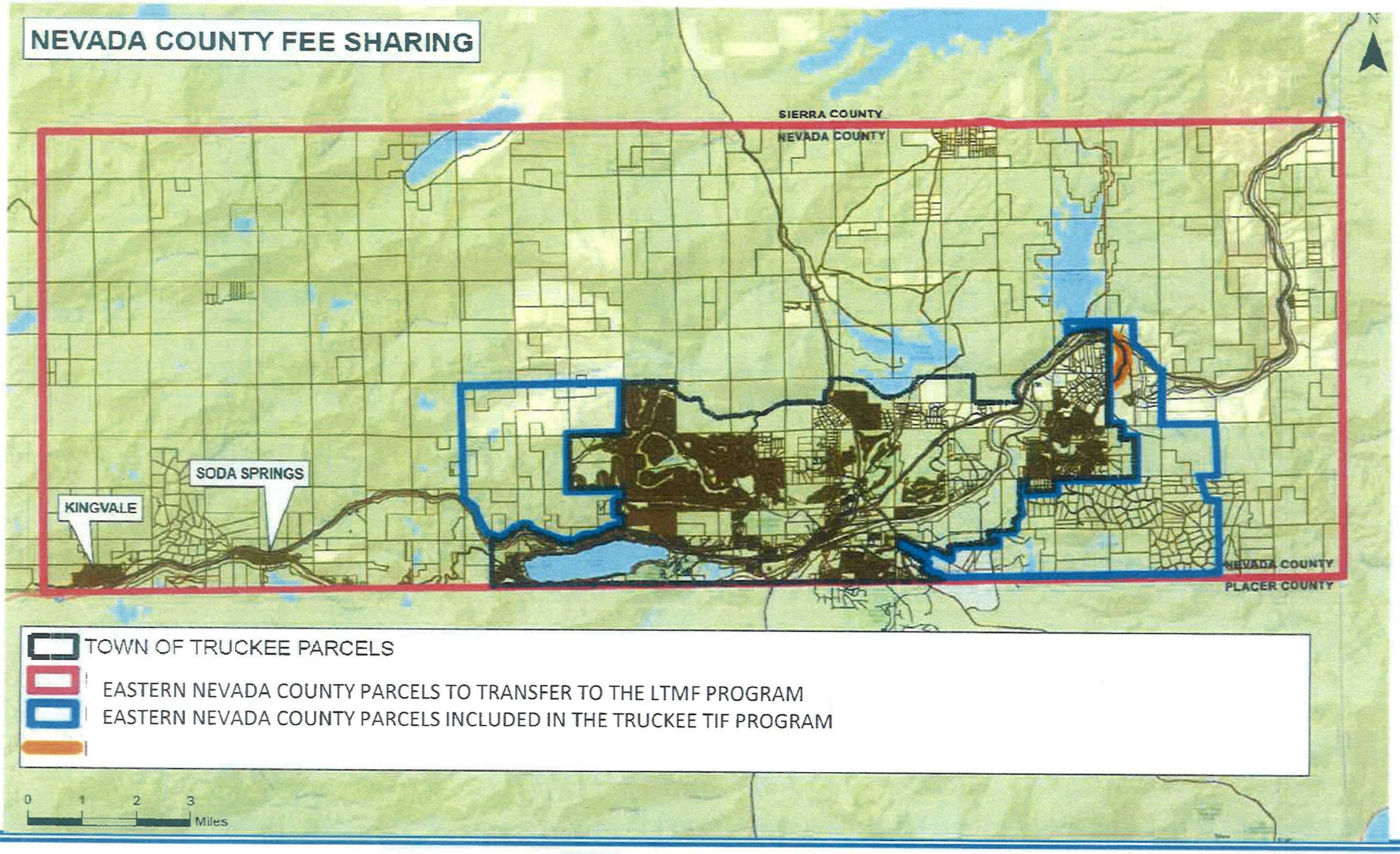
Exhibit C – LTMF Zone Map – Page 2



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