SOUTH/EAST APPLE VALLEY LOCAL AREA TRANSPORTATION FACILITIES PLAN REPORT

San Bernardino County
Department of Transportation/Flood Control
Public Works Group

FEBRUARY 1993

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ORDINANCE NO. 3533

AN ORDINANCE OF THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ADDING SUBSECTION 16.0225(h)(8) TO CHAPTER 2 OF DIVISION 6 OF TITLE 1; AND ADDING SUBSECTION 811.0240(h) TO CHAPTER 2 OF DIVISION 11 OF TITLE 8 OF THE SAN BERNARDINO COUNTY CODE, RELATING TO ROAD FEES TO ASSIST THE FINANCING AND CONSTRUCTION OF ROADS AND PROVIDING FOR THE COLLECTION OF SAID FEES IN THE UNINCORPORATED TERRITORY INCLUDED WITHIN THE BOUNDARIES OF THE SOUTH/EAST APPLE VALLEY LOCAL AREA TRANSPORTATION FACILITIES PLAN.

The Board of Supervisors of the County of San Bernardino, State of California, ordains as follows:

SECTION 1. The Board of Supervisors of the County of San Bernardino finds that:

(1) A South/East Apple Valley Local Area Transportation Facilities Plan (herein "Plan") has been prepared in accordance with the requirements of law and is on file with the Clerk of the Board.

(2) The South/East Apple Valley community and surrounding areas will experience growth which will increase the need for construction of the additional transportation facilities identified in the Plan.

(3) This financing mechanism is necessary to achieve an equitable method of payment for the construction of the transportation facilities required to accommodate new development and to prevent potential failure of the existing road system.

(4) The Plan fee will be used to build and improve the transportation facilities identified in the Plan. The need for the said transportation facilities is related to new development because such new development will bring additional people and vehicles into the Plan area thus creating more vehicular traffic

which can be accommodated safely only with the addition of the said transportation facilities.

(5) The Plan fee will be imposed on new residential and commercial development projects. These projects bring people and vehicles into the Plan area which will create a need for the transportation facilities identified.

(6) There is a reasonable relationship between the amount of the fee and the cost of the transportation facilities attributable to the developments on which the fee is imposed because the fee has been calculated based upon vehicular traffic trips generated which impact the road system pursuant to a study prepared by Basmaciyan Darnell, Inc. (BDI). The estimated total cost of the transportation facilities necessary to accommodate new development in the Plan area has been divided by the estimated number of possible new residents in the Plan area. This method constitutes a reasonable distribution of the cost to provide the necessary road improvements among the developers which generate traffic and cause the need for the road improvements.

(7) Prior to implementation, an account will be established for the fee specified herein, and the funds from that account will have been appropriated for the transportation facilities identified in the Plan. A proposed construction schedule has been prepared as a part of the Plan.

(8) A public hearing has been held with the notice of hearing having been given as required by law, and written protests, not withdrawn, have not been filed by the owners of more than one-half of the area of the property subject to the fee.

(9) Only unincorporated portions of the County are within the

Plan. In the event an incorporation of all or part of the Plan area occurs, appropriate revisions or arrangements shall be identified pursuant to Government Code Section 56000 et seq.

(10) Failure to mitigate growth impact on transportation facilities within the Plan area and the subdivisions therein will place residents in the South/East Apple Valley area in a condition perilous to their health, safety and welfare.

(11) The bridges and major thoroughfares to be provided with fees collected by the Plan are identified on and are consistent with the circulation element of the County General Plan, and the railways, freeways, streams and canyons for which bridge crossings are required, and the major thoroughfares whose primary purpose is to carry through traffic and provide a network connecting to the state highway system, are identified on the general plan, and all of these identifications were included in the general plan at least 30 days prior to imposition of the South/East Apple Valley transportation fee.

(12) The major thoroughfares contained in the Plan are in addition to, or a reconstruction of, existing major thoroughfares serving the Plan area, and the bridges contained in the Plan are original bridges or additions to existing bridges serving the Plan area.

SECTION 2. Subsection 16.0225(h)(8) is added to Chapter 2 of Division 6 of Title 1 of the San Bernardino County Code, to read:

16.0225 Transportation

(h) Local Area Transportation Facilities Plan Fees

(8) South/East Apple Valley Local Area Transportation Facilities Plan Fees

(A) Single Family Residentials (SFR): ..... $1,785.00/D.U.

(B) Commercial - Average Daily Vehicle Trip End (Trip): $178.54/Trip

(C) Industrial - Average Daily Vehicle Trip End (Trip)..... $178.54/Trip

SECTION 3. Subsection 811.0240(h) of the San Bernardino County Code is added to Chapter 2 of Division 11 of Title 8, to read:

811.0240 Subject Areas

(h) The South/East Apple Valley Local Area Transportation Facilities Plan is established as follows:

SOUTH/EAST APPLE VALLEY LOCAL AREA

TRANSPORTATION FACILITIES PLAN

LEGAL DESCRIPTION

Those portions of Sections 13, 14, 23 through 26, and 36, Township 6 North, Range 3 West; Sections 15 through 36, Township 6 North, Range 2 West; Sections 1 through 24, and 26 through 35, Township 5 North, Range 2 West; Sections 1, 12, 13, 24, 25, and 36, Township 5 North, Range 3 West; Sections 1, 2, 11 through 15, 17 through 36, Township 4 North, Range 3 West; Sections 3 through 10, 15 through 22, and 27 through 34, Township 4 North, Range 2 West; Sections 3 through 8, Township 3 North, Range 2 West; Sections 1 through 12, Township 3 North, Range 3 West, all lying within San Bernardino Base and Meridian, described as follows:

BEGINNING at the northwest corner of said Section 14, Township 6

North, Range 6 West; thence easterly along the north line of Sections 14 and 13, of said Township and Range; and Sections 18, 17, 16, and 15, Township 6 North, Range 2 West, a distance of 6.0 miles to the northeast corner of said Section 15; thence southerly along the east line of said Section 15, a distance of 1.0 miles to the southeast corner of said Section 15; thence easterly along the north line of Sections 23, and 24, of said Township and Range, a distance of 2.0 miles to the northeast corner of said Section 24; thence southerly along the east line of Sections 24, 25, and 36 of said Township and Range, a distance of 3.0 miles to the southeast corner of said Section 36; thence westerly along the south line of said Section 36, an unknown distance to the northeast corner of Section 1, Township 5 North, Range 2 West; thence southerly along the east line of Sections 1, 12, 13, and 24, a distance of 3.5 miles to the east quarter corner of said Section 24, of said Township and Range; thence westerly along the south line of the north half of said Section 24, a distance of 0.5 miles to the center quarter corner of said Section 24; thence southerly along the east line of the west half of said Section 24, a distance of 0.5 miles to the south quarter corner of said Section 24; thence westerly along the south line of said Section 24, a distance of 0.5 miles to the southwest corner of said section; thence southerly along the east line of Sections 26 and 35, of said Township and Section, a distance of 2.0 miles to the southeast corner of said Section 35; thence westerly along the south line of Sections 35 and 34, of said Township and Range, a distance of 1.5 miles to the south quarter corner of said Section 34; thence southerly along the centerline of Sections 3, 10, 15, 22, 27, and 34, Township 4 North, Range 2 West; Section 3, Township 3 North, Range 2 West, a distance of 7.0 miles to the south quarter corner of said Section 3, and the United States Forest Boundary; thence westerly along the south line of Sections 3 and 4, of said Township and Range, a distance of 1.5 miles to the southwest corner of said Section 4; thence southerly along the east line of Section 8, of said Township and Range, a distance of 1.0 miles to the southeast corner of said Section 8; thence westerly along the south line of Sections 8 and 7, of said Township and Range; Sections 12, 11, 10, 9, 8, and 7, Township 3 North, Range 3 West, a distance of 8.0 miles to the southwest corner of said Section 7; thence northerly along the west line of Sections 7 and 6, of said Township and Range; Sections 31 and 30, Township 4 North, Range 3 West, a distance of 3.5 miles to the west quarter corner of said Section 30; thence easterly along the north line of the south half of said Section 30, a distance of 0.25 miles to the east line of the west 1/2, of the west 1/2 thereof; thence northerly along said east line and the prolongation thereof a distance of 2.0 miles to the center west 1/16 corner of said Section 18; thence westerly along the south line of the north 1/2 of said Section 18, a distance of 0.25 miles to the west quarter corner thereof; thence northerly along the west line of said Section 18, a distance of 0.5 miles to the northwest corner thereof; thence easterly along the north line of Sections 18 and 17, of said Township and Range, a distance of 2.0 miles to the northeast corner of said Section 17; thence

southerly along the east line of said Section 17, a distance of 1.0 miles to the southeast corner of said Section 17; thence easterly along the north line of Section 21, of said Township and Range, a distance of 1.0 miles to the northeast corner of said Section 21; thence northerly along the west line of Section 15, of said Township and Range, a distance of 0.5 miles to the west quarter corner of said Section 15; thence easterly along the center line of said Section 15, a distance of 1.0 miles to the east quarter corner of said Section 15; thence northerly along the west line of Sections 14, 11 and 2, of said Township and Range, a distance of 2.0 miles to the west quarter corner of said Section 2; thence easterly along the north line of the south half of said Section 2, a distance of 1.0 miles to the east quarter corner of said Section 2; thence northerly along the west line of Section 1, of said Township and Range; Sections 36, 25, 24, 13, 12, and 1, Township 5 North, Range 3 West, a distance of 6.5 miles to the northwest corner of said Section 1; thence easterly along the north line of said Section 1, an unknown distance to the southwest corner of Section 36, Township 6 North, Range 3 West, thence northerly along the west line of said Section 36, a distance of 1.0 miles to the northwest corner of said Section 36; thence westerly along the south line of Section 26 of said Township and Range, a distance of 1.0 miles to the southwest corner of said Section 26; thence northerly along the westerly line of Sections 26, 23, and 14, of said Township and Range, a distance of 3.0 miles to the north west corner of said Section 14 and to the POINT OF BEGINNING.

Containing 132.5 square miles, more or less.

SECTION 4. This ordinance shall take effect sixty (60) days from the date of adoption.

Jon D Mikels

JON D. MIKELS, Chairman
Board of Supervisors

CSS:jif 2/2/93
CSS ORD S/E Apple Val

SIGNED AND CERTIFIED THAT A COPY
OF THIS DOCUMENT HAS BEEN DELIVERED
TO THE CHAIRMAN OF THE BOARD
EARLENE SPROAT
Clerk of the Board of Supervisors
of the County of San Bernardino

Earlene Sproat

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

I, EARLENE SPROAT, Clerk of the Board of Supervisors of the County of San Bernardino, State of California, hereby certify that at a regular meeting of the Board of Supervisors of said County and State, held on March 1, 1993 at which meeting were present Supervisors: Marsha Turoci, Barbara Cram Riordan, Larry Walker, Jon D. Mikels

and the Clerk, the foregoing ordinance was passed and adopted by the following vote, to wit:

AYES: SUPERVISORS: Turoci, Riordan, Walker, Mikels

NOES: SUPERVISORS: None

ABSENT: SUPERVISORS: Eaves

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Board of Supervisors this 1st day of March, 1993.

APPROVED AS TO FORM
DATE 1-13-93
COUNTY COUNSEL
SAN BERNARDINO COUNTY, CALIFORNIA
BY ..., DEPUTY

EARLENE SPROAT, Clerk of the Board of Supervisors of the County of San Bernardino, State of California

Laura Welch
Deputy

CSS:jif 1/12/93
CSS ORD S/E Apple Val

SOUTH/EAST APPLE VALLEY LOCAL AREA
TRANSPORTATION FACILITIES PLAN REPORT

EXECUTIVE SUMMARY

The South/East Apple Valley Local Area Transportation Facilities Plan consists of approximately 133 square miles and is bounded by the San Bernardino National Forest on the south, the town of Apple Valley on the west, Pioneer Road on the east, and extends northerly for one mile north of Johnson Road on the north. An estimated 12,200 additional new residential homes can be built in the remainder of the area exclusive of the existing residences.

The area south and east of the Town of Apple Valley is rapidly developing. The existing road system is marginally able to handle the existing traffic and will have problems handling the traffic capacity in the future. With the increase in the number of permits for new residences issued in the last several years and the anticipated continued growth in the area, the increased traffic volumes will overstress the existing road system of paved and graded dirt roads in the area. This increased traffic will lead to increased travel times and decreased "level of service" throughout the area if no improvements are made to the road system.

It can no longer be expected that the major road improvements needed for the area can be fully funded from the traditional revenue sources that constructed the existing highway system and street network. Supplemental funding sources must be developed if important components of the County's transportation road system are to be constructed. These needed roads will provide relief to the existing marginal road facilities and support orderly development in the future. Development fees represent a potential source of supplemental funds.

A development fee program has been prepared for consideration, by the Board of Supervisors, based on the general principle that future development within the described benefit area will benefit from the construction of the proposed transportation facilities plan and should pay for such facilities in proportion to projected traffic demand attributed to each development.

The needed improvements were determined by performing a traffic level of service analysis. Trip ends were selected as the best common denominator and fees were established by dividing the total estimated cost of the needed improvements by the total number of projected new daily trip ends within the plan area. Adjustments were made to trip ends between non-residential and residential land uses to reflect the different level of trips generated by each. The traffic study further indicated that certain roads will be impacted by through trips originating in the Lucerne Valley Local Area Transportation Facilities Plan area. The "fair share" cost resulting from this impact is proportioned to each areas share of the traffic impacts and the costs adjusted accordingly.

The total new trip ends attributed to new development within the plan area is projected to be 131,431 trips. The total estimated cost to provide the needed improvements is $34,883,300 and includes constructing or widening of approximately 84.1 miles of paved county roads, signalizing 22 intersections, constructing 4 railroad crossings, and 1 crossing of the Mojave River. Measure "I" will contribute approximately $4,183,800 towards the cost of the projects. It is anticipated that State matching funds will further contribute approximately 20% of the costs for the projects resulting in a total plan cost of $23,826,800. State matching funds are based on State contributions made in recent years, as well as projections. If, however, State funding should no longer be available, recalculation of the fees will be necessary.

The resultant fees to fund the proposed South/East Apple Valley Local Area Transportation Facilities Plan are recommended as follows:

Single Family Residential (SFR): $ 1,785.00 / D.U.

Industrial and commercial land use designations will require special traffic studies and allow a wide variety of development intensities. Traffic impact fees will be treated on a case by case basis supported by the individual land use proposals for each development based on $178.54 per trip.

Only unincorporated portions of the County are within the benefit area for the facilities financing. All fees collected under this program will be deposited into accounts specifically for the construction of the South/East Apple Valley Local Area Transportation Facilities Plan only. These fees will not be used to construct any other road facility not expressly shown within said South/East Apple Valley Local Area Transportation Facilities Plan.

SOUTHEAST APPLE VALLEY TRANSPORTATION FACILITIES PLAN

PROJECT SUMMARY AND COSTS

AREA: 133 Square Miles

Projected New Residential Dwelling Units: 12,200

ESTIMATED COSTS:

6 LANE ROADS: 10.0 Miles	$ 3,587,900
4 LANE ROADS: 22.1 Miles	$ 6,192,100
2 LANE ROADS: 52.1 Miles	$ 16,500,000
22 SIGNALS (COUNTY SHARE)	$ 4,083,300
4 RAILROAD CROSSINGS	$ 520,000
BRIDGE	$ 4,000,000
SUBTOTAL	$ 34,883,300
LESS MEASURE "I" FUNDS	$ (4,183,800)
LESS ANTICIPATED STATE FUNDS	$ (6,872,700)
TOTAL	**$ 23,826,800**

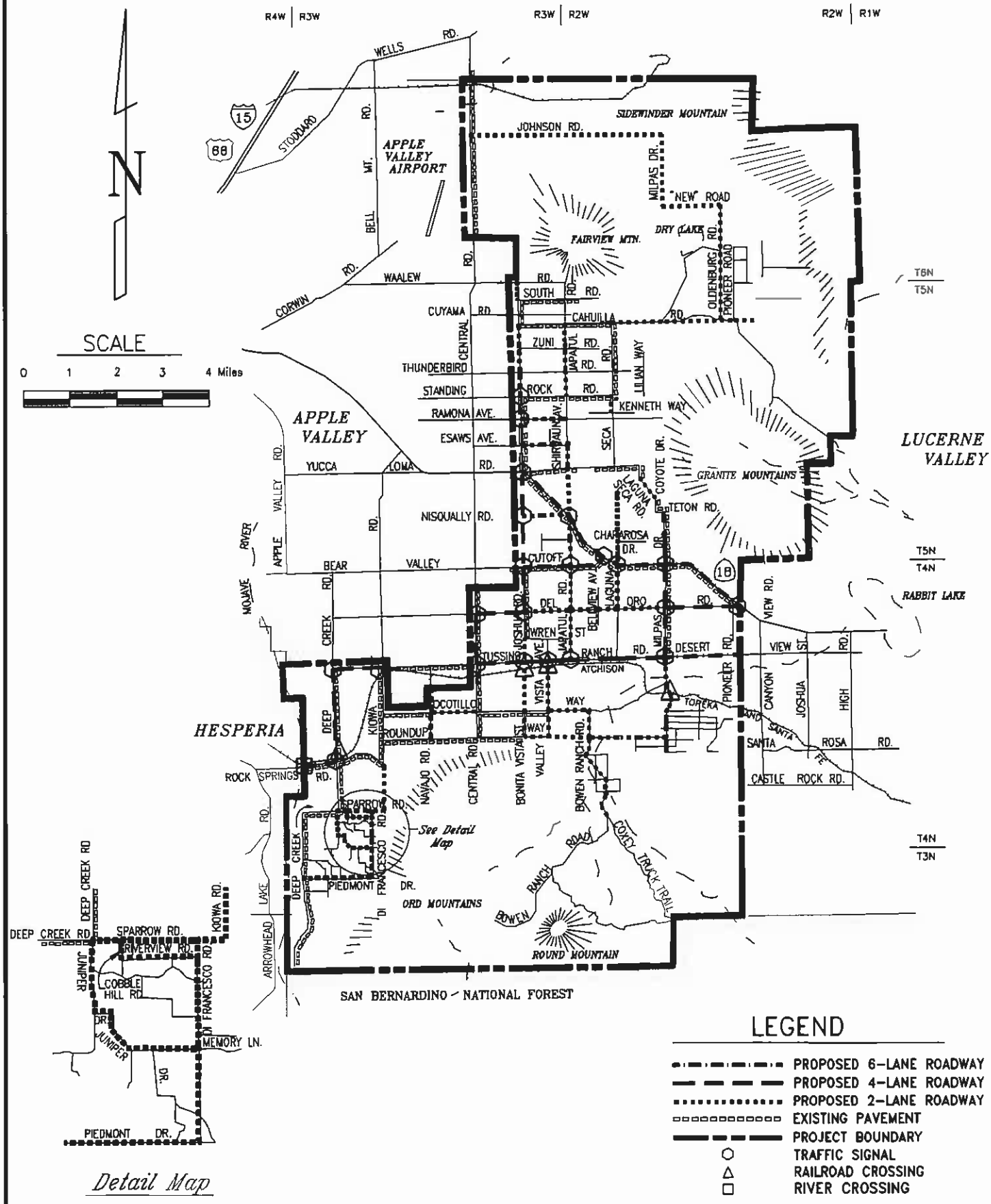
PROPOSED DEVELOPMENT FEE

Single Family Residential (SFR) $1,785.00/D.U.

Commercial and Industrial

Commercial and Industrial land use designation will require special traffic studies and allow a wide variety of development intensities. Traffic impact fees will be treated on a case by case basis supported by the individual traffic studies for each development based on $178.54 per trip.

SOUTH/EAST APPLE VALLEY LOCAL AREA TRANSPORTATION FACILITIES PLAN



LEGEND

- PROPOSED 6-LANE ROADWAY
- PROPOSED 4-LANE ROADWAY
- PROPOSED 2-LANE ROADWAY
- EXISTING PAVEMENT
- PROJECT BOUNDARY
- TRAFFIC SIGNAL
- RAILROAD CROSSING
- RIVER CROSSING

APVMAP1 9/25/92 EP

SCHEDULE A

SOUTH/EAST APPLE VALLEY LOCAL AREA TRANSPORTATION FACILITIES PLAN
PROJECT PRIORITY LIST AND CONSTRUCTION COST ESTIMATE

The plan priority list should be reviewed and updated periodically to account for changes in development activity. The recommended transportation facilities plan improvements are reflected below in the year the activity (i.e study, design, right–of–way acquisition,construction, etc.) will be started. Each project is unique and has a different time span for completion. Activities starting in years 1–10 reflect the community's choices for prioritization.

ACTIVITY STARTING IN YEARS 1–4	TOTAL COST	MEASURE "I" SHARE	STATE SHARE
JUNIPER DRIVE *Memory Ln. to Deep Creek Rd.* Construct 2 Lane Road	$600,000	$60,000	$120,000
ACTIVITY STARTING IN YEAR 5			
MEMORY LN. *Di Francesco Rd. to Juniper Dr.* Construct 2 Lane Road	$200,000	$20,000	$40,000
ACTIVITY STARTING IN YEAR 6			
JOSHUA ROAD *Standing Rock Road to S.H. 18* Construct 4 Lane Road	$187,500	$18,800	$37,500
ACTIVITIES STARTING IN YEAR 10			
MILPAS DRIVE			
Tussing Ranch Road to Santa Rosa Rd. Construct 2 Lane Road	$800,000	$80,000	$160,000
Construct 2 Lane Railroad Crossing	$40,000	$0	$0
FUTURE PROJECTS			
1. STATE HIGHWAY 18 *Joshua Road to Pioneer Road* Widen to 6 Lanes	$2,922,200	$292,200	$584,400
Signal at Del Oro Road	$125,000	$12,500	$25,000
Signal at Bear Valley Cutoff	$125,000	$12,500	$25,000
Signal at Laguna Seca Drive	$125,000	$12,500	$25,000
2. DESERT VIEW ROAD *Milpas Drive to Pioneer Road* Widen to 6 Lanes	$665,700	$66,600	$133,100
3. JOSHUA ROAD			
a) S.H. 18 to Bear Valley Cutoff Construct 4 Lane Road	$500,000	$50,000	$100,000
Signal at S.H. 18	$83,300	$8,300	$16,700

	TOTAL COST	MEASURE "I" SHARE	STATE SHARE
b) Bear Valley Cutoff to Del Oro Road	$187,500	$93,300	$37,500
Widen to 4 Lanes			
Signal at Bear Valley Cutoff	$125,000	$12,500	$25,000
Signal at Nisqually Rd.	$125,000	$12,500	$25,000
Signal at Del Oro Rd.	$250,000	$25,000	$50,000
c) Cahuilla Road to Standing Rock Road	$250,000	$60,000	$50,000
Construct 2 Lane Road			
Signal at Standing Rock Road	$125,000	$12,500	$25,000
d) Wren Street to Tussing Ranch Road	$125,000	$12,500	$25,000
Construct 2 Lane Road			
Signal at Tussing Ranch Road	$250,000	$25,000	$50,000
e) South Rd. to Waalew Rd.	$125,000	$12,500	$25,000
Construct 2 Lane Road			
f)Signal at Ramona Avenue	$125,000	$12,500	$25,000
4. DEEP CREEK ROAD			
Tussing Ranch Road to Rock Springs Road	$330,000	$33,000	$66,000
Widen to 4 Lanes			
Construct 4 Lane Overhead Railroad Crossing	$400,000	$0	$0
5. CENTRAL ROAD			
Del Oro Road to Tussing Ranch Road	$125,000	$12,500	$25,000
Widen to 4 Lanes			
Signal at Tussing Ranch Road	$250,000	$25,000	$50,000
6. MILPAS DRIVE			
Teton Road to Tussing Ranch Road	$750,000	$224,000	$150,000
Widen to 4 Lanes			
Signal at S.H. 18	$125,000	$12,500	$25,000
Signal at Del Oro Road	$250,000	$25,000	$50,000
Signal at Tussing Ranch Road	$250,000	$25,000	$50,000
7. BEAR VALLEY CUTOFF			
Joshua Road to S.H. 18	$250,000	$25,000	$50,000
Widen to 4 Lanes			
8. DEL ORO ROAD			
a) Central Road to Joshua Road	$500,000	$50,000	$100,000
Construct 4 Lane Road			
Signal at Central Road	$250,000	$25,000	$50,000
b) Milpas Drive to S.H. 18	$800,000	$80,000	$160,000
Construct 4 Lane Road			
c)Joshua Road to Milpas Road	$750,000	$75,000	$150,000
Construct 2 Lane Road			

	TOTAL COST	MEASURE "I" SHARE	STATE SHARE
9. TUSSING RANCH ROAD			
a) Deep Creek Road to Kiowa Road	$166,800	$140,100	$33,400
Construct 4 Lane Road (County Share)			
Signal at Deep Creek Road	$125,000	$12,500	$25,000
b) Central Road to Milpas Drive	$1,620,000	$162,000	$324,000
Construct 4 Lane Road (County Share)			
Signal at Valley Vista Ave.	$250,000	$25,000	$50,000
10. ROCK SPRINGS ROAD			
Deep Creek Road to End	$775,300	$400,000	$155,100
Construct 4 Lane Road (County Share)			
Signal at Deep Creek Road	$250,000	$25,000	$50,000
Construct Bridge at Mojave River Crossing	$4,000,000	$400,000	$800,000
11. JOHNSON ROAD			
Central Road to Milpas Drive	$1,225,000	$122,500	$245,000
Construct 2 Lane Road			
12. CAHUILLA ROAD			
Laguna Seca Road to Canyon View Road	$750,000	$75,000	$150,000
Construct 2 Lane Road			
13. RAMONA AVENUE			
Joshua Road to Japatul Road	$250,000	$25,000	$50,000
Construct 2 Lane Road			
14. NISQUALLY RD.			
Joshua Road to S.H. 18	$250,000	$25,000	$50,000
Construct 2 Lane Road			
15. OCOTILLO WAY			
a) Navajo Road to Central Road	$250,000	$25,000	$50,000
Construct 2 Lane Road			
b) Valley Vista Road to Bowen Ranch Rd.	$250,000	$25,000	$50,000
Construct 2 Lane Road			
16. ROUND UP WAY			
a)Bonita Vista Road to Valley Vista Avenue	$125,000	$55,500	$25,000
Construct 2 Lane Road			
b) Valley Vista Avenue to Milpas Drive	$1,000,000	$100,000	$200,000
Construct 2 Lane Road			
17. KIOWA ROAD			
South of Rock Springs Rd. to Sparrow Rd.	$600,000	$60,000	$120,000
Signal at Deep Creek Road	$250,000	$25,000	$50,000
18. SPARROW ROAD			
Kiowa Road to Deep Creek Rd.	$250,000	$25,000	$50,000
Construct 2 Lane Road			

	TOTAL COST	MEASURE "I" SHARE	STATE SHARE
19. ESAWS AVE.			
Joshua Rd. to Japatul Rd.	$250,000	$25,000	$50,000
Construct 2 Lane Road			
20. BONITA VISTA STREET			
Tussing Ranch Road to Roundup Way	$600,000	$60,000	$120,000
Construct 2 Lane Road			
Construct 2 Lane Railroad Crossing	$40,000	$0	$0
21. VALLEY VISTA AVENUE			
Tussing Ranch Road to Roundup Way	$375,000	$37,500	$75,000
Construct 2 Lane Road			
Construct 2 Lane Railroad Crossing	$40,000	$0	$0
22. JAPATUL ROAD			
a) Cahuilla Road to Standing rock Road	$375,000	$37,500	$75,000
Construct 2 Lane Road			
b) Esaws Ave. to Tussing Ranch Road	$1,125,000	$112,500	$225,000
Construct 2 Lane Road			
Signal at S.H. 18	$125,000	$12,500	$25,000
Signal at Bear Valley Cutoff	$250,000	$25,000	$50,000
Signal at Tussing Ranch Road	$250,000	$25,000	$50,000
23. LAGUNA SECA ROAD			
a) Standing Rock Road to Kenneth Way	$120,000	$12,000	$24,000
Construct 2 Lane Road			
b) S.H. 18 to Del Oro Road	$400,000	$40,000	$80,000
Construct 2 Lane Road			
c) North end of landfill to Coyote Dr.	$480,000	$48,000	$96,000
Construct 2 Lane Road			
24. LAGUNA SECA RD.			
Bear Valley Cutoff to mountain	$500,000	$50,000	$100,000
Construct 2 Lane Road			
25. MILPAS DRIVE			
Johnson Road to "New" Road	$600,000	$60,000	$120,000
Construct 2 Lane Road			
26. BOWEN RANCH ROAD			
Ocotillo Way to Coxey Truck Trail	$375,000	$37,500	$75,000
Construct 2 Lane Road			
27. NAVAJO RD.			
Roundup Way to boundary	$400,000	$40,000	$80,000
Construct 2 Lane Road			
28. "NEW" ROAD			
Milpas Dr. to Oldenburg Rd.	$400,000	$40,000	$80,000
Construct 2 Lane Road			

	TOTAL COST	MEASURE "I" SHARE	STATE SHARE
29. OLDENBURG ROAD *"New" Rd. to Cahuilla Rd.* Construct 2 Lane Road	$1,000,000	$100,000	$200,000
30. DI FRANCESCO RD. *Sparrow Rd. to Piedmont Rd.* Construct 2 Lane Road	$600,000	$60,000	$120,000
31. PIEDMONT DR. *Di Francesco Rd. to Deep Creek Rd.* Construct 2 Lane Road	$700,000	$70,000	$140,000
32. RIVERVIEW RD. *Di Francesco Rd. to Cobble Hill Rd.* Construct 2 Lane Road	$300,000	$30,000	$60,000
33. COBBLE HILL RD. *Riverview Rd. to Sparrow Rd.* Construct 2 Lane Road	$100,000	$10,000	$20,000
TOTAL	**$34,883,300**	**$4,183,800**	**$6,872,700**

Total Cost	$34,883,300
Less Measure "I" Funds	($4,183,800)
Less State Funds	($6,872,700)
Final Cost	$23,826,800

SOUTH/EAST APPLE VALLEY LOCAL AREA TRANSPORTATION FACILITIES PLAN
RELATIONSHIP BETWEEN FEE AND DEVELOPMENT PROPERTY

The method for determining the fee per dwelling unit (DU) and commercial/industrial per gross leasable square feet (GLSF) was to first establish the cost per new trip and then convert that to a cost per DU or cost per GLSF.

Proposed new trips used to compute the cost per trip to determine the cost per dwelling units and commercial/industrial units per GLSF was obtained from information contained in the South/East Apple Valley area model prepared by Basmaciyan-Darnell, Inc. (BDI) and in the Transportation Department, Traffic Division, land development files. Future dwelling unit estimation is based on existing land use from the adopted County General Plan.

PLAN AREA TRIP GENERATION

Residential: For single family detached residential (single family residential) (SFR) the ITE recommended average of 10 trips per unit was used. Based on that information, 12,200 SFR DU are projected within the plan area. Commercial/Industrial: Commercial land uses within the plan area have had traffic generator factors introduced to account for a summation of diverted links, passerby, and induced trips as follows:

Acres of zoned commercial = 95
Acres of zoned regional industrial (IR) = 1,310, other industrial = 105
Percentage of gross leasable square feet (GLSF) in an acre = 26%
Institute of Transportation Engineers (ITE) trips based on 1,000 GLSF
ITE rate per 1,000 GLSF (Commercial) = 34.5 trips
ITE rate per ACRE for Industrial (except IR) = 30 trips
Induced trip percentage (Commercial) = 20%
Induced trip percentage industrial (except IR) = 70%

Using the above information and the ITE Trip Generation Manual the following calculations were made:

Single Family Residential (SFR)	
12,200 DU X 10 trips per DU	= 122,000
*Commercial (COM) trips	
95 ac. X 43,560 sf/ac X .26 GLSF / 1000 X 34.5 X .2	= 7,424
*Industrial (IR) trips: 1,310 ac X 1.4 trips/ac	= 1,834
*Other Industrial trips: 105 ac X 30 trips/ac X .7	= 2,195
Total fee trips	= 133,453

* Industrial and commercial land use designations will require special traffic studies and allow a wide variety of development intensities. The calculations shown above are for estimating total fee trips and for establishing a unit cost per trip. Actual traffic impact fees for industrial and commercial land uses will be determined by the individual land use proposals.

The cost estimate as shown on the "South/East Apple Valley Local Area Transportation Facilities Plan Cost Estimate" is $23,826,800.

$$\text{Cost per trip} = \frac{\$23,826,800}{133,453} = \$178.54 \text{ per trip}$$

Costs were distributed to the various residential land use categories based on trip generation tables and passerby information from ITE.

SFR at 10 trips/DU	10 X $178.54	= $1,785.00 per DU

South/East Apple Valley
Sample Commercial Trip Generations

1. Supermarket (High) = $\frac{150 trips}{1000 ft^2}$
   (Such as Vons, Stater Bros.)

   Assuming 100' X 100' floor size = $10,000 ft^2 \cdot \frac{150 trips}{1000 ft^2}$ = 1,500 trips

   applying induced trip adjustment factor of 20%:
   1,500 X .2 = 300 trips

   FEE: $178.54/trip X 300 trips = **$53,562**

2. Standard Commercial Office (Medium) = $\frac{34.5 trips}{(1000 ft)^2}$
   (Such as accounting, insurance, or attorney offices)

   Assuming 45' X 45' floor size = $2,025 ft^2 \cdot \frac{34.5 trips}{1000 ft^2}$ = 70 trips

   applying induced trip adjustment factor of 20%:
   70 X .2 = 14 trips

   FEE: $178.54/trip X 14 trips = **$2,500**

3. Specialty Store (Low) = $\frac{3 trips}{1000 ft^2}$
   (Such as shoe repair, hobby shop, or florist)

   Assuming 40' X 35' floor size = $1,400 ft^2 \cdot \frac{3 trips}{1000 ft^2}$ = 4.2 trips

   applying induced trip adjustment factor of 20%:
   4.2 X .2 = .84 trips

   FEE: $178.54/trip X .84 trips = **$150**

South/East Apple Valley
Sample Industrial Trip Generations

TYPICAL INDUSTRIAL USES:

1. Industrial Park (high): 63 trips/acre

   Applying induced trip adjustment factor of 70%:
   63 trips/acre x .7 = 44 trips/acre
   44 trips/acre x $178.54/trip = **$7856/acre**

2. Manufacturing (medium): 39 trips/acre

   Applying induced trip adjustment factor of 70%:
   39 trips/acre x .7 = 27 trips/acre
   27 trips/acre x $178.54/trip = **$4821/acre**

3. General Heavy Industrial (low): 7 trips/acre

   Applying induced trip adjustment factor of 70%:
   7 trips/acre x .7 = 5 trips/acre
   5 trips/acre x $178.54/trip = **$893/acre**

ROCK QUARRY AND MINING INDUSTRIAL USES:

Typically very low traffic generations. Estimated from existing quarry and mining operations.

4. Rock Quarry or Mine (Very Low): 1.4 trips/acre

   1.4 trips/acre x $178.54/trip = **$250/acre**

SOUTH/EAST APPLE VALLEY LOCAL AREA
TRANSPORTATION FACILITIES PLAN

ENGINEER'S REPORT

This report addresses the transportation needs and impact on the existing road system in the unincorporated area southeast of the Town of Apple Valley, which can be predicted as development occurs within the area.

DESCRIPTION

The South/East Apple Valley Plan area consists of approximately 133 square miles of unincorporated area of San Bernardino County generally bounded by the San Bernardino National Forest on the south, the town of Apple Valley on the west, Pioneer Road on the east, and extends northerly one mile north of Johnson Road.

PURPOSE

The area is experiencing rapid growth and the needed transportation facilities cannot be fully funded through traditional revenue sources. Supplemental funding sources must be developed if the major components of an adequate transportation system are to be constructed. A study of the existing transportation needs and projected future impacts was prepared by the firm of Basmaciyan-Darnell, Inc. (BDI). The study clearly shows the need to upgrade the sparse two lane paved roads and several existing dirt roads to current standards for County maintenance.

Traditional funding sources for maintaining and constructing County roads are derived almost entirely from highway user taxes and fees. Other sources include federal and state aid, fine and forfeitures, grants and reimbursements. These sources are not sufficient to fund the necessary improvements to the road system to accommodate growth. This plan is a mechanism for financing improvements for transportation needs created by anticipated future development.

In 1989 the voters of San Bernardino County approved a half-cent sales tax to improve the county's transportation system. Known as Measure "I", the funds generated by the sales tax are designated to relieve existing deficiencies in the transportation system. Some of the projects identified in the traffic study for future growth were also recognized in the Measure "I" program as locations beginning

to have delays, indicating these locations would be further negatively impacted by growth.

The estimated funds to be generated by Measure "I" for the South/East Apple Valley area have been deducted from Schedule "A" and the costs estimates. Measure "I" funds can be used to complete the improvements necessary to relieve existing traffic congestion, increase public safety, improve air quality, and in conjunction with contributions from the developer fee program a project can also accommodate future traffic impacts. It should be noted that the extent of the improvement to mitigate growth is greater than the correctional measures covered by Measure "I" improvements.

During the past years, the State has maintained a program for matching local contributions on road projects. For the purpose of estimating the project costs a State contribution of 20% of the total project has been included. If State funding should no longer be available, recalculation of the cost estimates and resulting fees will be necessary.

ESTIMATE OF DEVELOPABLE LANDS

Based on a review of the existing Assessor's Office information, United States Geological Survey topographical mapping, aerial photos, and the existing land use from the current County General Plan, it is projected that approximately 12,200 residential lots will be developed and approximately 95 acres are available for commercial development. Within the plan area approximately 1,415 acres are designated as industrial land use. This comprises primarily mining operations. For the purpose of estimating trips for fee calculations this areas trips were patterned after similar existing mining operations which contribute relatively few trips on the road network.

AREA PLAN

A preliminary program was identified by staff and presented to the community at a series of committee and public meetings. Some $34,883,300 in two lane, four lane, and six lane roads, signals, and railroad and river crossings were identified. The included projects are the minimal improvements deemed necessary to provide the community with a transportation system to adequately meet the basic needs of the

future 12,200 single family residential units (SFR), approximately 95 acres of commercial development, and 1,415 acres of industrial development, of which 1,310 acres are designated regional industrial (IR) and 405 acres are designated other community industrial.

Direct public input was received from area property owners and through a series of meetings during the development of the plan. Development patterns and the community's desires were a major element in designating the priorities for the first five years of the program based on anticipated revenues. The priority listing in Schedule A should be reviewed and updated periodically to match improvements with growth in the plan area. The Building and Safety Department normally adds a $25.00 charge for fee collection.

REASONABLE COST DISTRIBUTION

The development generated costs were distributed to the anticipated land uses based on the trips per land use as defined in the "Institute of Transportation Engineers Trip Generation Manual" and the existing land use factors for the South/East Apple Valley area. Trip generation was computed at 10 trips per day for single family residential, 34.5 trips per 1,000 gross leasable square feet for commercial, 1.4 trips per acre for regional industrial, and 30 trips per acre for other industrial land uses.

Commercial developments are largely dependent upon attracting business within the plan area. It is recognized, however, that a portion of the trips to the commercial areas will be induced traffic from outside the plan area, such as necessary service and supply vehicles. Since the commercial areas are supported by the residential community in which they serve an adjustment factor has been used in an effort to insure that the trips generated as a result of the commercial attraction are not being excessively charged.

For the commercial land use areas traffic generator factors have been adjusted for passerby trips based on the ITE Traffic Generation - 5th Edition (published in 1991). This adjustment reflects anticipated driver behavior and consists of a summation of diverted links, passerby, and induced trips deemed appropriate to the development area. Commercial development shall have the opportunity to submit for

approval an independent traffic study, prepared by a traffic engineer, estimating the anticipated traffic from a development. If it is agreed that the trip generation rates are different than the averages used in this report, the fees will be based on the cost per trip.

The vast majority (93% - 1,310 acres) of industrial land use in the plan consists of mining areas which are zoned as regional industrial (IR). Because mining operations are very different from normal traffic patterns, this land use category was considered to have a low contribution of trips. The regional industrial (IR) land use will be charged by the anticipated number of average daily trips generated by the development built in this land use area multiplied by the cost per trip. This number will be determined by individual traffic studies required for each development.

Approximately 105 acres of other industrial is contained within the plan boundary. This land use designation will require special traffic studies and allow a wide variety of development intensities. Traffic impact fees will be treated on a case by case basis supported by individual traffic studies for each development. The industrial land use will be charged the cost per trip multiplied by the anticipated number of average daily trips generated by the development and adjusted by the induced trip percentage.

An example of the methodology in determining the industrial fee can be shown with a typical manufacturing facility. Manufacturing is under the "medium" category (39 trips/ac) based on the Institute of Traffic Engineers (ITE) Traffic Generation - 5th Edition (published in 1991).

39 trips/acre X .7 = 27 trips/acre
27 trips/acre X $178.54/trip = $4,821/acre

COMMUNITY REVIEW

Direct public input was received from area property owners and through a series of meetings during the development of the plan. County Counsel has reviewed the reports and prepared the required ordinances on January 13, 1993. The plan was presented before the Development Advisory Committee on October 20, 1992 and the Planning Commission on October 22, 1992.

On February 22, 1993 the Transportation/Flood Control Department will bring forth to the Board of Supervisors, for their consideration, a Fee Ordinance and related actions for transportation facilities in the community of South/East Apple Valley. These documents are on file with the Clerk of the Board of Supervisors.

ENVIRONMENTAL ANALYSIS

The preliminary environmental description forms for the identified transportation facilities plan were submitted to the Land Management Department, Environmental Analysis Division, for review and processing. It was determined that the South/East Apple Valley Local Area Transportation Facilities Plan would not have a significant environmental impact on the communities in the area. A Negative Declaration of Environmental Impact for this plan has been prepared for approval by the Board of Supervisors.

SOUTH/EAST APPLE VALLEY LOCAL AREA
TRANSPORTATION FACILITIES PRELIMINARY PLAN
COST ESTIMATES

	LENGTH (MILES)	ROAD COST	MEASURE "I" SHARE	STATE SHARE (20%)
PART I – ROADS				
6 LANE ROADS				
1. STATE HIGHWAY 18 (less Lucerne share)				
Joshua Road to Pioneer Road	8.5	$2,922,200	$292,200	$584,400
2. DESERT VIEW ROAD (less Lucerne share)				
Milpas Drive to Pioneer Road	1.5	$665,700	$66,600	$133,100
SUBTOTAL	**10.0**	**$3,587,900**	**$358,800**	**$717,500**
4 LANE ROADS				
1. JOSHUA ROAD (less Apple Valley share)				
a. Standing Rock Road to S.H. 18	1.5	$187,500	$18,800	$37,500
b. S.H. 18 to Bear Valley Cutoff	2.0	$500,000	$50,000	$100,000
c. Bear Valley Cutoff to Del Oro Road	1.0	$187,500	$93,300	$37,500
2. DEEP CREEK ROAD (less Lucerne share)				
Tussing Ranch Road to Rock Springs Road	2.0	$330,000	$33,000	$66,000
3. CENTRAL ROAD (less Apple Valley share)				
Del Oro Road to Tussing Ranch Road	1.0	$125,000	$12,500	$25,000
4. MILPAS DRIVE				
Teton Road to Tussing Ranch Road	3.0	$750,000	$224,000	$150,000
5. BEAR VALLEY CUTOFF (less Lucerne share)				
Joshua Road to S.H. 18	2.0	$250,000	$25,000	$50,000
6. DEL ORO ROAD				
a. Central Road to Joshua Road	1.0	$500,000	$50,000	$100,000
b. Milpas Drive to S.H. 18	1.6	$800,000	$80,000	$160,000
7. TUSSING RANCH ROAD				
(Less Lucerne and Apple Valley share)				
a. Deep Creek Road to Kiowa Road	1.0	$166,800	$140,100	$33,400
b. Central Road to Milpas Drive	4.0	$1,620,000	$162,000	$324,000
8. ROCK SPRINGS ROAD (less Lucerne share)				
Deep Creek Road to End	2.0	$775,300	$400,000	$155,100
SUBTOTAL	**22.1**	**$6,192,100**	**$1,288,700**	**$1,238,500**

	LENGTH (MILES)	ROAD COST	MEASURE "I" SHARE	STATE SHARE (20%)
2 LANE ROADS				
1. JOHNSON ROAD				
Central Road to Milpas Drive	4.0	$1,225,000	$122,500	$245,000
2. CAHUILLA ROAD				
Laguna Seca Road to Canyon View Road	3.0	$750,000	$75,000	$150,000
3. RAMONA AVENUE				
Joshua Road to Japatul Road	1.0	$250,000	$25,000	$50,000
4. NISQUALLY RD.				
Joshua Road to S.H. 18	1.0	$250,000	$25,000	$50,000
5. DEL ORO ROAD				
Joshua Road to Milpas Road	3.0	$750,000	$75,000	$150,000
6. OCOTILLO WAY				
a. Navajo Road to Central Road	1.0	$250,000	$25,000	$50,000
b. Valley Vista Road to Bowen Ranch Rd.	1.0	$250,000	$25,000	$50,000
7. ROUND UP WAY				
a.Bonita Vista Road to Valley Vista Avenue	0.5	$125,000	$55,500	$25,000
b. Valley Vista Avenue to Milpas Drive	2.5	$1,000,000	$100,000	$200,000
8. KIOWA ROAD				
South of Rock Springs Rd. to Sparrow Rd.	1.5	$600,000	$60,000	$120,000
9. SPARROW ROAD				
Kiowa Road to Deep Creek Rd.	1.0	$250,000	$25,000	$50,000
10. ESAWS AVE.				
Joshua Rd. to Japatul Rd.	1.0	$250,000	$25,000	$50,000
11. JOSHUA ROAD (less Apple Valley share)				
a. Cahuilla Road to Standing Rock Road	2.0	$250,000	$60,000	$50,000
b. Wren Street to Tussing Ranch Road	0.5	$125,000	$12,500	$25,000
c. South Rd. to Waalew Rd.	0.5	$125,000	$12,500	$25,000
12. BONITA VISTA STREET				
Tussing Ranch Road to Roundup Way	1.5	$600,000	$60,000	$120,000
13. VALLEY VISTA AVENUE				
Tussing Ranch Road to Roundup Way	1.5	$375,000	$37,500	$75,000
14. JAPATUL ROAD				
a. Cahuilla Road to Standing rock Road	1.5	$375,000	$37,500	$75,000
b. Esaws Ave. to Tussing Ranch Road	4.5	$1,125,000	$112,500	$225,000
15. LAGUNA SECA ROAD				
a. Standing Rock Road to Kenneth Way	0.3	$120,000	$12,000	$24,000
b. S.H. 18 to Del Oro Road	1.0	$400,000	$40,000	$80,000
c. North end of landfill to Coyote Dr.	1.2	$480,000	$48,000	$96,000
16. LAGUNA SECA RD.				
Bear Valley Cutoff to mountain	1.3	$500,000	$50,000	$100,000

	LENGTH (MILES)	ROAD COST	MEASURE "I" SHARE	STATE SHARE (20%)
17. MILPAS DRIVE				
a. Tussing Ranch Road to Santa Rosa Rd.	2.0	$800,000	$80,000	$160,000
b. Johnson Road to "New" Road	1.5	$600,000	$60,000	$120,000
18. BOWEN RANCH ROAD				
Ocotillo Way to Coxey Truck Trail	1.5	$375,000	$37,500	$75,000
19. NAVAJO RD.				
Roundup Way to boundary	1.0	$400,000	$40,000	$80,000
20. "NEW" ROAD				
Milpas Dr. to Oldenburg Rd.	1.0	$400,000	$40,000	$80,000
21. OLDENBURG ROAD				
"New" Rd. to Cahuilla Rd.	2.5	$1,000,000	$100,000	$200,000
22. DI FRANCESCO RD.				
Sparrow Rd. to Piedmont Rd.	1.5	$600,000	$60,000	$120,000
23. MEMORY LN.				
Di Francesco Rd. to Juniper Dr.	0.5	$200,000	$20,000	$40,000
24. PIEDMONT DR.				
Di Francesco Rd. to Deep Creek Rd.	1.7	$700,000	$70,000	$140,000
25. RIVERVIEW RD.				
Di Francesco Rd. to Cobble Hill Rd.	0.8	$300,000	$30,000	$60,000
26. COBBLE HILL RD.				
Riverview Rd. to Sparrow Rd.	0.3	$100,000	$10,000	$20,000
27. JUNIPER DR.				
Memory Ln. to Deep Creek Rd.	1.5	$600,000	$60,000	$120,000
SUBTOTAL	**52.0**	**$16,500,000**	**$1,728,000**	**$3,300,000**
TOTALS	**84.1**	**$26,280,000**	**$3,375,500**	**$5,256,000**

PART II–TRAFFIC SIGNALS	COST	MEASURE "I" SHARE	STATE SHARE (20%)
1. Joshua Road @ Standing Rock Road (1/2 share)	$125,000	$12,500	$25,000
2. Joshua Road @ Ramona Avenue (1/2 share)	$125,000	$12,500	$25,000
3. Joshua Road @ S.H. 18 (1/3 share)	$83,300	$8,300	$16,700
4. Joshua Road @ Nisqually Rd. (1/2 share)	$125,000	$12,500	$25,000
5. Joshua Road @ Bear Valley Cutoff (1/2 share)	$125,000	$12,500	$25,000
6. Joshua Road @ Del Oro Road	$250,000	$25,000	$50,000
7. Joshua Road @ Tussing Ranch Road	$250,000	$25,000	$50,000
8. Central Road @ Tussing Ranch Road	$250,000	$25,000	$50,000
9. Japatul Road @ S.H. 18 (1/2 share)	$125,000	$12,500	$25,000
10. Japatul Road @ Bear Valley Cutoff	$250,000	$25,000	$50,000
11. Japatul Road @ Tussing Ranch Road	$250,000	$25,000	$50,000
12. Tussing Ranch Road @ Valley Vista Avenue	$250,000	$25,000	$50,000
13. S.H. 18 @ Del Oro Road (1/2 share)	$125,000	$12,500	$25,000
14. S.H. 18 @ Bear Valley Cutoff (1/2 share)	$125,000	$12,500	$25,000
15. S.H. 18 @ Laguna Seca Drive (1/2 share)	$125,000	$12,500	$25,000
16. Milpas Drive @ S.H. 18 (1/2 share)	$125,000	$12,500	$25,000
17. Milpas Drive @ Del Oro Road	$250,000	$25,000	$50,000
18. Tussing Ranch Road @ Deep Creek Road (1/2 share)	$125,000	$12,500	$25,000
19. Rock Springs Road @ Deep Creek Road	$250,000	$25,000	$50,000
20. Del Oro Road @ Central Road (1/2 share)	$250,000	$25,000	$50,000
21. Milpas Drive @ Tussing Ranch Road	$250,000	$25,000	$50,000
22. Kiowa Road @ Tussing Ranch Rd.	$250,000	$25,000	$50,000
SIGNAL TOTALS	**$4,083,300**	**$408,300**	**$816,700**

PART III–RAILROAD CROSSINGS	COST	MEASURE "I" SHARE	STATE SHARE (20%)
1. DEEP CREEK ROAD 4 lane overhead crossing @ $2 million 20 % participation with P.U.C.	$400,000	$0	$0
2. MILPAS DRIVE 2 lane crossing 20% participation with P.U.C.	$40,000	$0	$0
3. VALLEY VISTA AVENUE 2 lane crossing 20% participation with P.U.C.	$40,000	$0	$0
4. BONITA VISTA RD. 2 lane crossing 20% participation with P.U.C.	$40,000	$0	$0
RAILROAD CROSSING TOTALS	**$520,000**	$0	$0
PART IV: BRIDGE Mojave River Crossing at Rock Springs Rd.	**$4,000,000**	**$400,000**	**$800,000**

TOTAL PART 1 – ROADS	$26,280,000
TOTAL PART 2 – SIGNALS	$4,083,300
TOTAL PART 3 – RAILROAD CROSSINGS	$520,000
TOTAL PART 4–BRIDGE	$4,000,000
LESS ANTICIPATED STATE CONTIBUTION	($6,872,700)
LESS ANTICIPATED MEASURE "I" CONTRIBUTION	($4,183,800)
TOTAL COST OF FEE PLAN	**$23,826,800**