10. Circulation / Traffic

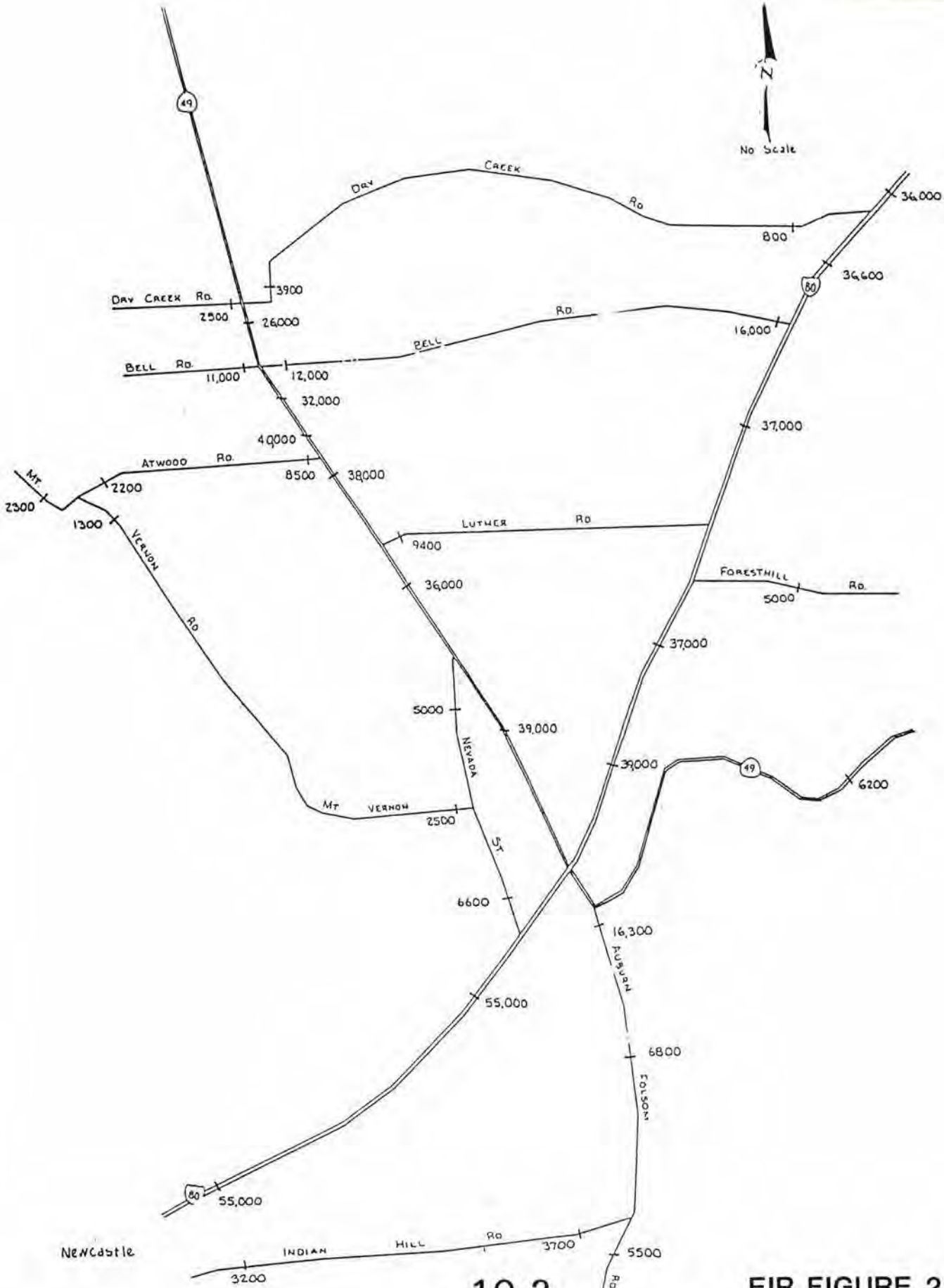
Setting

The Auburn/Bowman Community Plan Circulation element was prepared by Placer County staff with assistance in computer modelling by Omni-Means, Ltd., Consulting Traffic Engineers and Placer County staff. This Chapter of the EIR is based on the information contained in the Community Plan Element and background report. While the following setting information describes both the unincorporated Auburn/Bowman Community Plan area and the City of Auburn, the project evaluated in the Impact section is the updated Plan for the unincorporated area only.

Existing Highways and Roads. Interstate 80 (I-80), a major highway serving the region, passes from southwest to northeast through the Community Plan area. At present, there are seven interchanges on I-80 which directly serve the Community Plan area (Maple/Nevada Street, SR 49, Elm Avenue, Russell Road, Auburn Ravine Road, Bowman Road, and Bell Road). SR 49 is almost as significant as I-80 to the region and the Community Plan area. It follows a southeast to northwest alignment through the Community Plan area. I-80 generally serves to move interregional traffic; Highway 49 serves as an arterial for "through" traffic from Nevada County(approximately one-third of total traffic volume) and El Dorado County as well as functioning as a high volume local roadway. SR 49 is the major connector between the City of Auburn and the unincorporated Community Plan area; many other minor streets also connect both jurisdictions.

Within the Community Plan area, major east-west streets are: Elm/Fulweiler Avenue, Mt. Vernon Road, Luther Road, and Bell Road. Other major north-south streets are Nevada Street and Auburn-Folsom Road. Figure 24 shows existing (1988) traffic volumes on the Community Plan area's main road network derived from Department of Public Works traffic counts. Most of the roads within the City of Auburn are historical roadways which have been improved to their present standard by maintenance activities. Most of these roads have now been upgraded to current urban standards, including concrete curb, gutter and sidewalk and urban storm drainage. Most of the roads within the unincorporated area have not been upgraded to current urban standards. Typical deficiencies include: lack of shoulders, reduced lane widths, inadequate structural sections, roadside and cross drainage problems, etc. Most of these "country" roads within the unincorporated area provide an adequate level of service for present traffic conditions.

Existing Transit. There are presently two public transit services within the Community Plan area. The first is provided by the City of Auburn within the City limits. This transit system is currently budgeted at approximately $100,000 per year for capital, operating and maintenance costs. Service is by fixed route with approximately 1-hour headways. Placer County Transit (PCT) provides service within both the incorporated and unincorporated areas using both scheduled routes and demand-response methods. The current budget is approximately $290,000 annually for capital, operating, and maintenance costs for PCT service in the Auburn Community Plan area. Headways average approximately 30 minutes.



10-2

EIR FIGURE 24
AUBURN–BOWMAN
COMMUNITY PLAN EXISTING CONDITIONS
(1988) Daily Counts Only

(Map taken directly from Auburn–Bowman Community Plan Circulation Element)

A third transit system, the Consolidated Transit Service Agency (CTSA), is available within the Community Plan area to serve developmentally disabled and elderly clients. School districts that operate within the Community Plan area also provide transit service to students. Neither the school districts nor CTSA provide service to the general public.

Several State of California vanpools have routes that serve commuters from the Community Plan area to jobs in Sacramento. Placer County also runs a 6-vehicle vanpool service to transport residents of the area to jobs in the greater Sacramento area.

Private transit services within the Community Plan area include Greyhound Bus Lines, two Sacramento Metro Airport Services (Land-Air Express and Foothill Flyer), and two taxi services (Auburn City Cab and Sierra Cab).

Existing Trails. At present, there is no network of hiking or equestrian trails that has been constructed within the Community Plan area. However, an informal system of trails has been developed by use within the American River Canyon area. There is no formal maintenance program for these trails, and most construction/ maintenance is accomplished by volunteer groups. There is a trail plan for expansion of the existing trail system that was prepared by State Parks and Recreation in 1981; however, there is no implementation program.

Placer County has a County Bikeways Master Plan which indicates future bike trails to be constructed within road rights-of-way. Some shoulders of existing roadways within the Community Plan area have been designated as bike lanes (for example, Lincoln Way and Bell Road). Less than one mile total of separated bike trail exists at spot locations within the Community Plan area (Auburn Ravine Road, Wise Road, and Bell Road).

The Placer County Board of Supervisors has adopted a 5-year bicycle trail construction program. Auburn-Folsom Road, Luther Road, and Auburn Ravine Road are identified in the program as the top priority routes in the Community Plan area. Roadway construction projects will be scheduled to widen these roadways for on-street bike lanes.

The City of Auburn has constructed several minor, separated trail improvements.

At locations within the City and in the unincorporated area where urbanized development has occurred, all-weather surface sidewalks have been standard requirements for residential and commercial uses. However, County policy allows larger lot subdivisions without these urban amenities.

Existing Transportation System Management (TSM). There are five public Park and Ride lots at present that serve the Community Plan area. These are located at the I-80/Bell Road interchange (2), the I-80/Bowman Road interchange, the I-80/Ophir Road interchange, and the Highway 49/ Atwood Road intersection; all have bicycle storage lockers which are available for commuters.

Placer County adopted a countywide Trip Reduction Ordinance in August, 1993. This Ordinance requires all businesses, government agencies, etc. to reduce anticipated trip generation. Small employers have only a minimal posting of notice

requirement. Larger employers have requirements for a designated coordinator, performance monitoring, and reporting

Existing Airports. Auburn airport lies within the city limits of Auburn incorporated area (although it is surrounded by unincorporated area). There is presently a small-scale, Air transport service from the Auburn Airport which is under contract to the City of Auburn. This is the only serviceable airport within the Community Plan area. There are approximately 200 private aircraft located primarily at the Auburn Airport. The City anticipates expanding commuter and other commercial service from the airport.

Existing Improvement Programs. Road maintenance and improvement within the Community Plan area is presently supported by the County's Road Fund, Transportation Development Act funds, traffic mitigation fees, and other State and Federal sources. Improvements include correction of potential hazards, occasional asphalt overlays, and minor maintenance work. The traditional sources of road improvement funding have in the past few years been used exclusively for maintenance activities. The County's Pavement Management system establishes cost-effective priorities for maintaining the road network; these priorities do not allow resources to be used for major new construction.

The Countys Transportation Improvement Program establishes candidate projects for funding from the conventional sources. Projects within the Community Plan area which are included in the 5-year transportation improvement program are shown in Table 83 below.

Table 83
ROAD NETWORK IMPROVEMENT PROJECTS INCLUDED IN PLACER COUNTY'S 5-YEAR TRANSPORTATION IMPROVEMENT PROGRAM

Bell Road	
– Richardson Drive to I-80	Widen to 4 lanes
– Deseret Drive to Tahoe Street	Shoulder widening
– Highway 49 to I-80	Widen to 4 lanes
– Orr Creek	Bridge replacement
– Dry Creek	Bridge Replacement
– Highway 49 to Richardson	Widening and sidewalks
– Highway 49	Intersection reconstruction
Mt. Vernon Road	
– Atwood Road to Baxter Grade	Widen and realign
– Edgewood Rd to Merryknoll Dr	Widen and realign
Auburn-Ravine Road	
– SPRR to Auburn	Bikelanes
– I-80	Widen overcrossing
Shirland Tract Road	
– Manhattan Bar Road	Realign
Auburn-Folsom Road	
– Shirland Tract Road to Auburn	Bikelanes
Live Oak Road - 6 Intersections	Improve sight distance
Lone Star Road - West of Hwy 49	Widen and realign

Table 83 (cont.)
ROAD NETWORK IMPROVEMENT PROJECTS INCLUDED IN PLACER COUNTY'S 5-YEAR REGIONAL TRANSPORTATION PROGRAM

Highway 49 - Willow Creek	Signalization
Luther Road	
– Bowman Rd to Hwy 49	Shoulder widening
– Canal Street	Improve sight distance
Atwood Road - Hwy 49 to Richardson Dr	Widening and sidewalk
Professional Drive - Heritage Park at Atwood Road	Construct 2 lanes
Wise Road - Auburn Ravine	Replace bridge

There are two major traffic mitigation fee programs within the Community Plan area—one for the State Highway 49 corridor and another for the Auburn Ravine/ Bowman area. These zones establish traffic mitigation fee requirements as part of the County's zoning ordinance. The current balance of the accounts for these special zones is approximately:

State Highway 49	$460,000
Auburn Ravine/Bowman	$322,000

The Highway 49 program collects funds for the widening to 6 lanes at major intersections and for the development of a local street system parallel to Highway 49 which is intended to connect the various land uses along the corridor. The Auburn Ravine/Bowman program collects funds for traffic signal, intersection, and interchange improvements in the commercial area along I-80.

The capital improvement programs for which these traffic mitigation fees are collected are estimated at $3.6 million for State Highway 49 and $1.1 million for Auburn Ravine/Bowman. These traffic limitation zones were established in an attempt to have development partially fund the roadway infrastructure required to serve it.

Road improvements are typically required as conditions of approval on land development within the Community Plan area. In the absence of specific direction by a Community Plan, required road improvement standards are based on the county's "SCR 93-Highway Deficiency Report". This document establishes the ultimate right-of-way width, road width, structural section, and sidewalk requirements for all County roads. The document is nearing the end of a major revision which incorporates changes from all Community Plan documents.

As land development occurs within the Community Plan area, dedication of road and public utility rights-of-way is required along County road frontage. Widening and/or reconstruction of road frontage is required on a case-by-case basis consistent with the SCR-93 Report.

The City of Auburn and Placer County have jointly participated in improvement programs for major facilities that affect both jurisdictions. However, this joint participation is determined project-by-project and follows no master plan. There are

no County road projects which involve joint participation by other jurisdictions such as Nevada County, within the Community Plan area. Caltrans has been a source of improvement funding for projects involving SR 49 and I-80; in some cases, Placer County has required land development projects to make improvements to State Route 49 as well as local roads.

Impact Evaluation Criteria

Level of Service. Level of service (LOS) is a quantitative and qualitative measure of traffic conditions on isolated sections of roadways ("links") or intersections(see Table 84 below). LOS ranges from level A, with no congestion to level F, where the system fails with "gridlock" or stop-and-go conditions prevailing. The quantitative basis for determining LOS is the ratio between existing traffic volume (V) and the calculated capacity (C), the "V/C ratio". Normally, interaction capacity will be the limiting factor in an area's road network.

Table 84
LEVEL OF SERVICE DEFINITIONS

LOS	INTERSECTION	ROADWAY SECTION
A	Uncongested operations all queues clear in a single signal cycle V/C* = 0.00 - 0.60**	Free Flow, vehicles unaffected by other vehicles in the traffic stream
B	Uncongested operations, all queues clear in a single cycle V/C = 0.61 - 0.70	Higher speed range of stable flow, volume 50% of capacity or less
C	Light congestion, occasional backups on critical approaches V/C = 0.71 - 0.80	Stable flow with volumes not exceeding 75% capacity
D	Significant congestion of critical approaches, but intersection functional. Cars required to wait through more than one cycle during short peaks. No lone queues formed V/C = 0.81 - 0.90	Upper end of stable flow conditions. Volumes do not exceed 90% of capacity
E	Severe congestion with some long, standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es)	Unstable flow at roadway capacity. Operating speeds 30 to 25 mph or less
F	Total breakdown, stop-and-go operation V/C = 1.00	Stop-and-go traffic with operating speeds less than 30 mph

* V/C = Ratio of traffic volume (V to calculated capacity C)
** V/C ratio same for road sections and intersections except as noted.

The performance standard approach to planning assumes that a specified LOS - in this case, the lower limits of Level C - becomes a general standard for the area's road network. Land development projects must satisfy this performance standard in order to receive permit approval; in other words, it must be shown that a certain standard for traffic operations will exist after a proposed project is in place. The existing road network in the area of such a project may have sufficient capacity for the project's traffic; or it may be necessary to increase the available capacity by capital improvements (i.e., increasing the number of lanes, signalizing an intersection, etc.).

There is presently no adopted level of service for the Community Plan area. The lower limits of LOS C have been adopted for other community plans within Placer County and it has been used in the past as a standard for project review; however, this standard does not presently exist at several locations along the Highway 49 corridor and will not be sustainable in the future—even after significant improvements to the transportation system.

Cumulative impacts. As in the case of project impacts, cumulative impacts are generally considered potentially significant if cumulative traffic conditions will result in Levels-of-Service below the levels adopted as policy.

Impacts

Introduction / Methodology. A computerized traffic model was developed for the Community Plan area (including the City of Auburn) to forecast future traffic conditions. The model was developed jointly by Omni-Means, Ltd. (consulting traffic engineers) and Placer County staff in order to evaluate future traffic conditions and the effects of proposed road network improvements and/or land use changes. The traffic model has been used by both Placer County and the City of Auburn in preparing their respective circulation elements.

Several different land use alternatives were prepared by the City and County Planning Departments and evaluated by the traffic model. The Baltimore Ravine area of the City was assumed to develop at approximately 4 single-family homes per acre, although the City land use plans have not indicated what density should be used for this area.

Different trip generation rates were used for different areas of the Community Plan. For example, there are very different trip-generation characteristics for suburban shopping centers than for commercial areas of downtown Auburn on an acreage basis. The traffic model was tested and validated to much better than standard tolerances for existing (1988) conditions.

Forecasting considers the effects of buildout of the Community Plan together with increased traffic within, into, out of, and through the Community Plan area on all major roadways. Forecasts of future traffic volumes at the boundaries of the traffic model area for I-80 and SR 49 were obtained from Caltrans. The traffic model was used as a basis for evaluating Highway 49 bypass alternatives as part of a separate study, and intersection LOS analysis was performed using future traffic volumes projected by the model.

Traffic forecasts by the computer model indicated the roadway sections and intersections where undesirable levels of service would occur. The effects of different roadway improvements were then tested in order to determine the cost effectiveness of various "fixes" to the future level of service problems. The most cost-effective set of roadway improvements which corrected future level-of-service deficiencies was then incorporated into the Capital Improvement Program.

The primary indicator of congestion which is output from the traffic model is total system delay, which is measured in daily vehicle-hours. Total system delay is a good indicator of overall operating conditions of the area's road network. It avoids the problem of ignoring congestion which is shifted to other areas that can result from focusing on specific areas (such as the SR 49 corridor, alone).

Within the Community Plan area full buildout of residential land use was assumed to be 80% of maximum density—the balance being streets, vacant parcels, larger than minimum lots, etc. Non-residential land use was assumed to buildout to 100% of development potential.

The Community Plan contemplates a number of ways to avoid traffic congestion. These are discussed in the context of the impact evaluation below.

As described above, the project being evaluated is the updated Plan, and accompanying Capital Improvement Program for the unincorporated area only; the effects of the City's Plan are brought into the analysis as part of the cumulative impacts discussion.

1. **Increased traffic congestion.** Buildout of the Auburn/Bowman area will worsen traffic congestion at intersections and on street segments. This impact centers on Highway 49 and is fundamentally a cumulative impact with the major components being "project" (that is Community Plan) traffic and regional through traffic including that from the City of Auburn. A separate quantitative analysis of project traffic alone is not provided because it would lack meaning given the inevitability of the through traffic. However, as noted in the Traffic Circulation Element, over two-thirds of the future traffic on Highway 49 is expected to be traffic with either an origin or destination within the Community Plan area (p. 139). Consequently, the basic impact of increased congestion is assignable to the Plan, as well as to cumulative conditions.

   The Plan's impact depends not only on the amount of traffic generated, but also on the offsetting effect of recommended improvements to the extent that they are implemented. As a point of reference, however, the following discussion includes conditions that would occur with development of the updated Plan without the recommended improvements.

   As shown in Table 85 below, the Plan's recommended improvements partially avoid the impacts of the updated Plan's increased traffic even without a Highway 49 bypass (see Column C). Development without the improvements would create a basically non-functioning circulation system, with 76 miles of road in failure mode, and about 28 times the hours of delay experienced in 1988.

Table 85
COMPARISON OF FUTURE TRAFFIC CONGESTION RESULTING FROM DIFFERENT ROAD NETWORK CONFIGURATIONS IN AUBURN-BOWMAN COMMUNITY PLAN AREA

DELAY (SHOWN IN VEHICLE HOURS PER DAY)

	A	B	C	D	E	F	G	H	I
TYPE OF ROADWAY	1988 LAND USE & ROAD NETWORK	PROPOSED LAND USE PLAN BUILDOUT & 1988 ROAD NETWORK	NO BYPASS		WEST 49 BYPASS		EAST 49 BYPASS		NO BYPASS-4 LANE 49 Maximum additional improvements for existing streets (See Note 6)
			6 Lane 49	4 Lane 49	6 Lane 49	4 Lane 49	6 Lane 49	4 Lane 49	
I-80	132 (10%)	6238 (16%)	4191 (41%)	3993 (28%)	3327 (42%)	3208 (30%)	4486 (47%)	4627 (35%)	3983 (34%)
I-80 Ramps	1 (0%)	130 (0%)	62 (1%)	82 (1%)	26 (0%)	46 (0%)	40 (0%)	52 (0%)	70 (1%)
SR 49 (I-80 to Nevada Co.)	1070 (80%)	23385 (59%)	2530 (25%)	5514 (39%)	1181 (15%)	3621 (34%)	1757 (19%)	4542 (35%)	4568 (39%)
Arterials	104 (8%)	5521 (14%)	2007 (20%)	2277 (16%)	1969 (25%)	1905 (18%)	1825 (19%)	1845 (14%)	1976 (17%)
Major Collectors	0 (0%)	3264 (8%)	1126 (11%)	1950 (13%)	1206 (15%)	1533 (15%)	1101 (12%)	1372 (11%)	1076 (9%)
Minor Collectors	25 (2%)	1241 (3%)	211 (2%)	358 (3%)	227 (3%)	221 (2%)	230 (2%)	263 (2%)	147 (1%)
SR 49 Bypass	0 (0%)	0 (0%)	0 (0%)	0 (0%)	42 (1%)	121 (1%)	95 (1%)	347 (3%)	0 (0%)
TOTAL ALL ROADS	1332	39794	10127	14174	7978	10655	9534	13050	11820
TOTAL LOCAL ROADS (EXCLUDES I-80 & I-80 RAMPS	1199(90%)	33426(84%)	5874(58%)	10099(71%)	4625(58%)	7401(69%)	5008(52%)	8371(64%)	7767(66%)

LEVEL OF SERVICE DEFICIENCIES (SHOWN IN MILES OF ROADWAY)

	A	B	C	D	E	F	G	H	I
MILES OF ROAD NETWORK AT LEVEL OF SERVICE (LOS)	1988 LAND USE & ROAD NETWORK	PROPOSED LAND USE PLAN BUILDOUT & 1988 ROAD NETWORK	NO BYPASS		WEST 49 BYPASS		EAST 49 BYPASS		NO BYPASS-4 LANE 49 Maximum additional improvements for existing streets
			6 Lane 49	4 Lane 49	6 Lane 49	4 Lane 49	6 Lane 49	4 Lane 49	
F	14	76	35	54	27	39	32	47	40
D, E, OR F	23	100	59	81	56	72	53	67	63
MILES OF LOCAL ROADS AT LEVEL OF SERVICE (LOS)									
F	13	66	28	45	20	32	23	34	32
D, E, OR F	21	84	48	67	45	59	42	53	50

Notes:

1. Traffic congestion is measured in total vehicle hours of delay for both the City and County Plan area.
2. "Delay" includes only congestion on links of the road networks - not intersection delay.
3. Column C through H assume that the County's recommended road network Capital Improvement Program is in place.
4. All future road networks assume buildout of the County's and City's recommended land use within their respective jurisdictional limits.
5. Approximately 335 miles of the Auburn area and road network are simulated by the traffic model.
6. Column I information assumes an additional set of improvements to the existing road network in order to test whether the congestion relief benefits of widening SR 49 to six lanes could be accomplished by some other set of improvements. The additional improvements tested include: 4 lane Nevada Street; 4 land Auburn-Ravine Road, 4 lane Mt. Vernon Road, 4-lane Luther road; 4 lane Richardson extension; 4 lane Bowman Road; 4 lane Lincoln way; Luther extension; Radcliffe-Oakridge extension, etc.

SOURCE: Auburn/Bowman Community Plan, Traffic Circulation Element, p. 120

The future conditions with the base level planned improvements (no bypass) include approximately 35 miles of road operating at LOS F and approximately 7.6 times the amount of delay experienced in 1988. Approximately nine intersections of 33 sample intersections analyzed would operate at LOS F (see Table 86). While this is substantially better than the no improvement scenario, it still fails to meet the standard of LOS C. The Traffic Circulation Element acknowledges this, and creates several LOS exceptions through its policies; these exceptions are mostly road segments and intersections along SR 49. However, from the standpoint of this EIR, the failure mode intersections still represent significant impacts. These cumulative impacts, then, will be significant and they appear to be unmitigable. The specific impacted locations are shown in Table 86 and circled in the Circulation System Impacts map.

Table 86
SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY

Community Plan Buildout with Base Level Improvements (No Bypass)

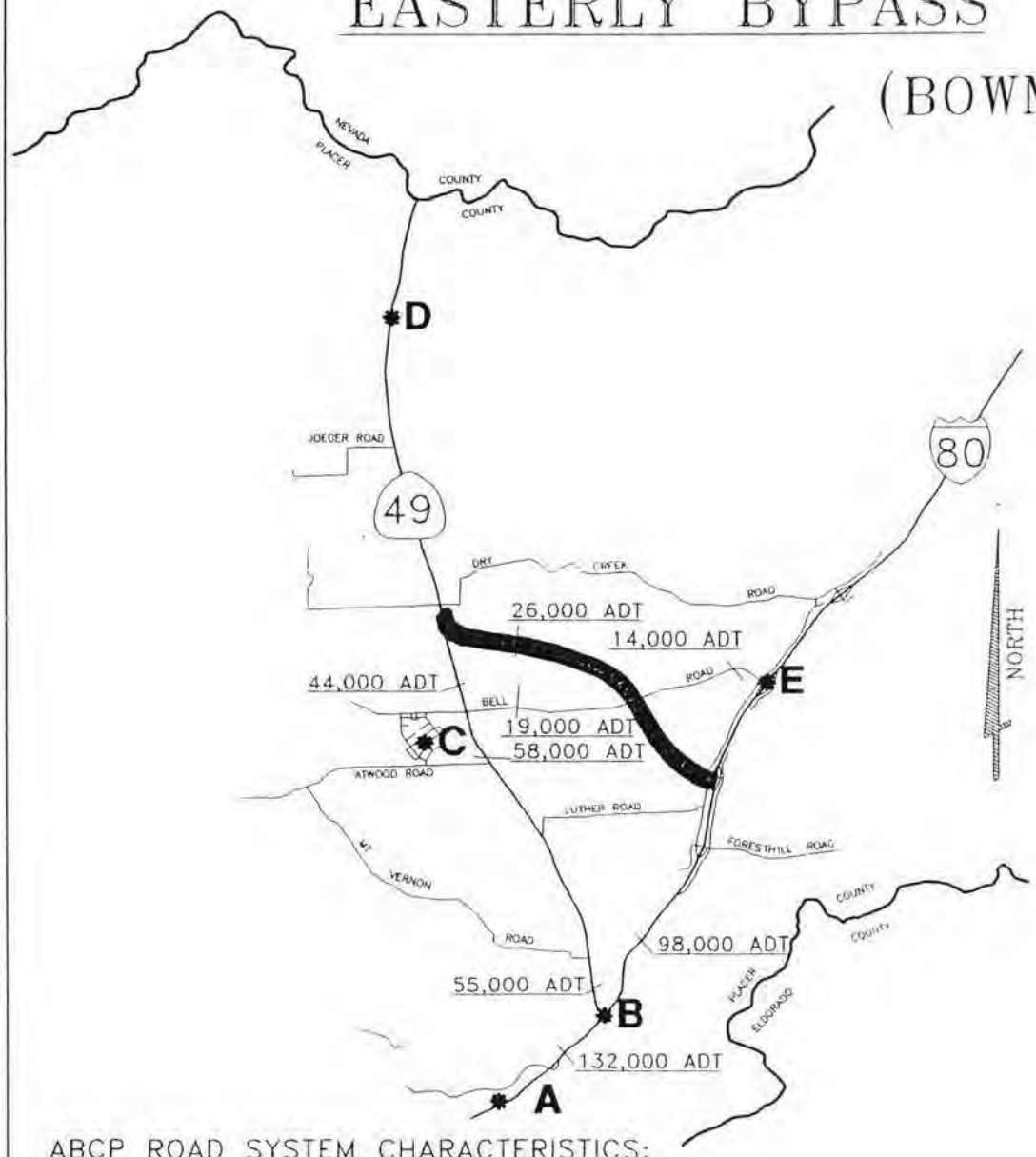
INS. NO.	N-S STREET	E-W STREET	V/C	LOS
1	SR 49	DRY CREEK	.80	C
2	SR 49	BELL ROAD	1.01	F
3	SR 49	ATWOOD DR	.80	D
4	SR 49	LUTHER ROAD	1.18	F
5	SR 49	ELM AVE	1.08	F
6	SR 49	I-80 WB	1.10	F
7	SR 49	I-80 EB	1.28	F
8	SR 49	LINCOLN WAY	.80	D
9	SR49	WILLOWBUSH	.89	D
10	SR49	NEW AIRPORT	.87	D
11	SR49	BOHEMIA	.91	E
12	SR49	LIVE OAK	.88	D
13	I-80 WB	BELL RD	.25	A
14	I-80 EB	BELL RD	.64	B
15	SR49	EDGEWOOD	.89	D
16	SR49	NEVADA	1.05	F
17	SR49	PALM	.93	E
18	MAPLE AVE	LINCOLN WAY	1.32	F
19	AUBURN-FOLSOM	HIGH ST/SACTO	.94	E
20	HIGH STREET	LINCOLN WAY	.52	A
21	SR 49	QUARTZ	.94	E
22	LIN WAY/BORLAND	SR 49	1.04	F
23	LINCOLN WAY	RUSSELL RD	.54	A
24	SR49	LOREN/FLORENCE	.96	E
25	BOWMAN	LUTHER	.47	A
26	BOWMAN	BELL	.48	A
27	N AIRPORT	BELL	.49	A
[redacted]				
31	NEVADA	FULWEILER	.29	A
32	NEVADA	PALM	.23	A
33	AUB-FOLSOM	INDIAN HILL	1.01	F
34	AUB-FOLSOM	MAIDU	.85	D
[redacted]				
37	QUARTZ EXTEN	BELL	.54	A
38	RICHARDSON	BELL	.27	A
[redacted]				

Community Plan Buildout with Base Level Improvements and Easterly Bypass

IS. NO.	N-S STREET	E-W STREET	V/C	LOS
1	SR 49	DRY CREEK	.80	C
2	SR 49	BELL ROAD	.81	D
3	SR 49	ATWOOD DR	.67	B
4	SR 49	LUTHER ROAD	.99	E
5	SR 49	ELM AVE	.96	E
6	SR 49	I-80 WB	1.03	F
7	SR 49	I-80 EB	1.24	F
8	SR 49	LINCOLN WAY	.79	C
9	SR49	WILLOWBUSH	.78	C
10	SR49	NEW AIRPORT	.73	C
11	SR49	BOHEMIA	.77	C
12	SR49	LIVE OAK	.76	C
13	I-80 WB	BELL RD	.25	A
14	I-80 EB	BELL RD	.49	A
15	SR49	EDGEWOOD	.77	C
16	SR49	NEVADA	.95	E
17	SR49	PALM	.82	D
18	MAPLE AVE	LINCOLN WAY	1.31	F
19	AUBURN-FOLSOM	HIGH ST/SACTO	.95	E
20	HIGH STREET	LINCOLN WAY	.50	A
21	SR 49	QUARTZ	.70	C
22	LIN WAY/BORLAND	SR 49	1.14	F
23	LINCOLN WAY	RUSSELL RD	.67	B
24	SR49	LOREN/FLORENCE	.96	E
25	BOWMAN	LUTHER	.38	A
26	BOWMAN	BELL	.32	A
27	N AIRPORT	BELL	.56	A
28	BYPASS	I80EB	.86	D
29	BYPASS	I80WB	.63	B
[redacted]				
31	NEVADA	FULWEILER	.29	A
32	NEVADA	PALM	.22	A
33	AUB-FOLSOM	INDIAN HILL	1.01	F
34	AUB-FOLSOM	MAIDU	.85	D
35	BYPASS	BOWMAN	.84	D
36	BYPASS	BELL	.82	D
37	QUARTZ EXTEN	BELL	.41	A
38	RICHARDSON	BELL	.26	A
39	BYPASS	SR49	1.17	F

EASTERLY BYPASS

(BOWMAN)



ABCP ROAD SYSTEM CHARACTERISTICS:

1. TOTAL DAILY VEHICLE-MILES TRAVELED:
   - A) TOTAL ROAD SYSTEM — 2,070,413 MILES
   - B) ROAD SYSTEM W/OUT I-80 — 1,230,291 MILES
2. DAILY HOURS OF VEHICLE DELAY FROM TRAFFIC (DOES NOT INCLUDE INTERSECTIONS):
   - A) TOTAL ROAD SYSTEM — 9,534 HOURS
   - B) ROAD SYSTEM W/OUT I-80 — 5,008 HOURS
3. COST (C.I.P. + EASTERLY BYPASS):
   - A) TOTAL — $82 MILLION
   - B) TRAFFIC MITIGATION FEES SHARE — $52.8 MILLION
4. ESTIMATED TRAVEL TIMES:
   - A) **A — D** — 18.62 MINUTES
   - B) **C — B** — 14.61 MINUTES
   - C) **C — E** — 6.10 MINUTES

FIGURE 25a
EASTERLY BYPASS

NOTES:

1. ADT = AVERAGE DAILY TRAFFIC.
2. BUILDOUT OF PLANNING COMMISSION LAND USE PLAN.
3. RECOMMENDED C.I.P. (CAPITAL IMPROVEMENT PROGRAM) IN PLACE.

In an attempt to improve traffic conditions, the Plan calls for the development of an Easterly Bypass connecting Highway 49 at a point just south of Dry Creek Road to Interstate 80 at the Bowman Interchange (see Figure 25a). This bypass reduces the total hours of vehicle delay by 593 hours (6%) compared to the base level improvements. Significant impacts to level of service would still result (six intersections operating at LOS F).

Note: The Auburn/Bowman Community Plan Traffic Circulation Element describes the various attempts that were made in an effort to avoid significant impacts; these include a western Highway 49 Bypass, improved transit, transportation system management, alternative capital improvements, and alternative land uses.

Table 88 above summarizes these impact avoidance strategies. As shown, even the most costly of the strategies is incapable of avoiding significant impacts.

The funding of the Capital Improvement Program relies on mitigation fees, developer frontage requirements, the County Road Fund, Transportation Development Act (TDA) monies, and State funds for Highway 49. The allocation of various costs to these funding sources is shown in Table 89. The $42,432 to $78,432 million total cost of the improvements is roughly split as shown in the Table 87 below with and without the Easterly Bypass.

Table 87
IMPROVEMENT COST BREAKDOWN

	% Share of Total Costs	
	Base Level Improvements	
Funding Source	**W/O Bypass**	**with Bypass**
Mitigation Fees	51%	38
Developer Frontage Requirements	15%	8
Local/Miscellaneous Programs*	16	9
State	18%	45
All	**100%**	**100%**

* Includes the County Road Fund and TDA monies.

As shown, approximately 2/3 of the costs for the base level improvements (without bypass) will be distributed to new development in the form of mitigation fees and frontage requirements –this pay-as-you-go funding system is a well-established, reliable source of funds. Approximately one-fifth (18%) of the remaining third of the funding is anticipated to come from the State in the form of Highway 49 improvements. The Route 49 project was included in Placer County's Regional Transportation Improvement Program (STIP), but was not funded by the California Transportation Commission in the 1992 State Transportation Improvement Program. The remaining portion (16%) comes from past mitigation funds, City of Auburn commitments, Transportation Development Act (TDA) monies, and the established County Road Fund. TDA monies are a grant entitlement funded by sales taxes; the amount of this funding has been relatively consistent over the years (Placer County Engineer, John Krogsrud, personal communication, 5/11/92). The

Table 88
IMPACT AVOIDANCE STRATEGIES

Strategy	Description	Part of Plan	Potential Effectiveness (Compared to Plan)	Cost	Environmental Concerns
a. West Highway 49 Bypass	- Through traffic road west of SR 49.	No	- Reduces total hours of delay by 2149	$48 million	- Growth-inducement and disruption of rural character.
b. Improved Transit	- More busses, reduced intervals	Yes	- "Small effect on congestion based upon current projected ridership" (p.104)	$810,000 (initial capital costs only) (p.103)	Few
c. Transportation System Management	- Rideshare Ordinance - Park and Ride Lots - Signal Coordination - Others	Yes	- Rideshare and park & ride not known - Probably small - Signal coordination 10-15% (p.105)	N/A	Few
d. Alternative Capital Improvements	- Rail along SR 49	No	- Rail: no tangible reduction in delays (pp.89-90)	$100 million	- Business access conflicts
	- Second level of SR 49 in existing corridor (causeway)		- Partially effective (p.90)	$150 million	- Visual clutter/urban appearance
	- Separated lane for through traffic & supplementary overcrossings		- Very little (p.90)	$28 million	- Visual clutter
	- Over crossings at major intersections		- Effective, but not as effective as the Western Bypass (p.90)	$45 million	- Visual clutter
e. Alternative Land Uses*	Alternative 1 has: - Approx. same population as proposed plans - Fewer commercial acres than proposed plan	No	- Reduces total hours of delay by 2244 hours	No capital outlay	See Alternatives section.

* Based upon computer runs by the Department of Public Works.

SOURCE: Auburn-Bowman Community Plan Background Report, pp. 82-122.

Table 89
AUBURN AREA GENERAL PLAN
CAPITAL IMPROVEMENT PROGRAM PROJECT LIST

NO. *	PROJECT	PROJECT LIMITS	APPROX. PROJECT LENGTH (MILES)	STANDARD	TOTAL COST ESTIMATE	STATE	LOCAL/ MISC. PROGRAMS	DEVELOPER FRONTAGE REQMTS.	MIT FEE PROGRAM SHARE
	I.ROAD NETWORK IMPROVEMENTS								
1	SR 49	NEVADA ST. TO JOEGER RD. (INCLUDES SIDEWALKS)	4.47	6 LANE	$12,472,000	$6,000,000	$167,000	$500,000	$5,805,000
2	BELL RD.	SR 49 TO I-80	2.81	4 LANE	$2,226,000	$0	$0	$560,000	$1,666,000
4	CHRISTIAN VALLEY RD.	FLORENCE DR. TO SR 49	0.64	2 LANE	$507,000	$0	$207,000	$150,000	$150,000
5	BILL FRANCIS DR.	EXIST. END TO OLD AIRPORT	0.42	2 LANE	$333,000	$0	$0	$167,000	$166,000
6	LOCKSLEY LANE	SR 49 TO CITY LIMIT	0.59	2 LANE	$467,000	$0	$117,000	$117,000	$233,000
7	RICHARDSON DR.	DRY CREEK RD. TO BELL RD.	0.70	2 LANE	$554,000	$0	$100,000	$227,000	$227,000
8	QUARTZ DR.	SR 49 TO RICHARDSON DR.	0.20	2 LANE	$158,000	$0	$25,000	$50,000	$83,000
9	GALENA DR.	QUARTZ DR. TO BELL RD.	0.20	2 LANE	$158,000	$0	$25,000	$50,000	$83,000
10	EDUCATION ST.	PROFESSIONAL DR. TO RICHARDSON DR.	0.16	2 LANE	$127,000	$0	$27,000	$50,000	$50,000
11	QUARTZ DR.	SR 49 SE TO BELL RD.	0.51	2 LANE	$404,000	$0	$101,000	$202,000	$101,000
12	UNNAMED ROAD	DRY CREEK TO EAST OF SR 49 SOUTH TO QUARTZ DR. EXIT	0.60	2 LANE	$475,000	$0	$158,000	$158,000	$159,000
13	PROFESSIONAL DR.	BELL RD. TO ATWOOD RD.	0.38	2 LANE	$301,000	$0	$200,000	$0	$101,000
14	WILLOWCREEK RD.	THIRD ST. TO SR 49 AT AUBURN HONDA	0.37	4 LANE	$592,000	$0	$60,000	$266,000	$266,000
15	BELL RD. WEST OF SR 49	SR 49 TO RICHARDSON FULWEILER AVE.	0.60	4 LANE	$480,000	$0	$0	$130,000	$350,000
16	RICHARDSON DR. SO. EXT.	ATWOOD RD. TO EDGEWOOD/ MT. VERNON	1.45	2 LANE	$1,160,000	$0		$580,000	$580,000
17	MT. VERNON ROAD	.3 MI. WEST OF NEVADA ST. TO EDGEWOOD RD.	0.70	2 LANE	$600,000	$0	$0	$100,000	$500,000
18	LUTHER ROAD	SR 49 TO CANAL STREET	0.15	4 LANE	$120,000	$0	$0	$60,000	$60,000
19	LUTHER ROAD	BOWMAN RD. TO CARRIAGE LN.	0.23	4 LANE	$184,000	$0	$0	$92,000	$92,000
20	LINCOLN WAY	RUSSELL RD. TO FERGUSON RD.	0.41	4 LANE	$328,000	$0	$0	$66,000	$262,000
21	BOWMAN UNDERCROSSING	BOWMAN RD. TO LINCOLN WAY	0.12	5 LANE	$250,000	$0	$50,000	$0	$200,000
22	NEW AIRPORT RD.	SR 49 TO BELL RD.	1.09	2 LANE	$872,000	$0	$120,000	$349,000	$403,000
23	NEW AIRPORT RD.	BELL RD. TO AUBURN AIRPORT	0.69	2 LANE	$552,000	$0	$276,000	$138,000	$138,000
24	OLD AIRPORT RD.	BELL RD. TO NEW AIRPORT RD.	1.02	2 LANE	$555,000	$0	$272,000	$183,000	$100,000
25	MISC. SHOULDER ADDITIONS	VARIED LOCATIONS - 4' MIN. WIDTH (SEE TEXT)	20.00	2 SIDES	$4,000,000	$0	$1,000,000	$1,000,000	$2,000,000
26	SHALE RIDGE ROAD	EAST OF SR 49	0.32	2 LANE	$256,000	$0	$0	$100,000	$156,000
27	ATWOOD ROAD	RICHARDSON DRIVE TO PROFESSIONAL	0.42	2 LANE	$350,000	$0	$0	$0	$350,000
28	LINCOLN WAY	SILVER BEND TO SYLVAN VISTA	0.20	4 LANES	$240,000	$0	$0	$0	$240,000
29	LINCOLN WAY	SYLVAN VISTA TO BOWMAN	0.43	2 LANES	$344,000	$0	$0	$172,000	$172,000
30	INDIAN HILL ROAD	AUBURN FOLSOM ROAD TO NEWCASTLE	2.40	4 LANES	$3,336,000	$0	$2,688,000	$0	$672,000
31	EDUCATION STREET	PROFESSIONAL TO SR 49	0.17	2 LANES	$136,000	$0	$0	$0	$136,000
32	BOWMAN ROAD	AUBURN RAVINE ROAD TO LUTHER ROAD	0.30	2 LANES	$240,000	$0	$80,000	$0	$160,000
	ROADS SUBTOTAL				$32,777,000	$6,000,000	$5,673,000	$5,467,000	$15,661,000
	II.STATE ROUTE 49 BYPASS	STATE ROUTE 49 TO I-80	3.10	4 LANE					
		A. ROUTE ALIGNMENT, ENGINEERING, EIR, INITIAL RIGHT-OF-WAY			$8,000,000	$0	$0	$0	$8,000,000
		B. CONSTRUCTION & RIGHT-OF-WAY ACQUISITION			$28,000,000	$28,000,000	$0	$0	$0

SOURCE: Auburn/Bowman Community Plan, Table 19.

Table 89 (Cont.)
AUBURN AREA GENERAL PLAN
CAPITAL IMPROVEMENT PROGRAM PROJECT LIST

NO.	PROJECT	PROJECT LIMITS	PROJECT LENGTH (MILES)	STANDARD	TOTAL COST ESTIMATE	STATE	LOCAL/ MISC. PROGRAMS	DEVELOPER FRONTAGE REQMTS.	MIT FEE PROGRAM SHARE
	III.SIGNALIZATION AND INTERSECTION IMPROVEMENTS								
33	SR49/FLORENCE				$150,000	$75,000	$0	$0	$75,000
34	SR49/DRY CREEK				$150,000	$75,000	$25,000	$0	$50,000
35	SR49/BELL				$250,000	$125,000	$90,000	$0	$35,000
36	SR49/WILLOWCREEK				$150,000	$75,000	$75,000	$0	$0
37	SR49/ATWOOD				$150,000	$75,000	$25,000	$0	$50,000
38	SR49/NEW AIRPORT				$150,000	$75,000	$25,000	$25,000	$25,000
39	SR49/LUTHER				$150,000	$75,000	$0	$50,000	$25,000
40	SR49/LIVE OAK				$150,000	$0	$0	$100,000	$50,000
41	SR49/EDGEWOOD				$150,000	$75,000	$0	$0	$75,000
42	SR49/NEVADA				$150,000	$75,000	$0	$0	$75,000
43	AUBURN RAVINE INTER/I-80				$2,000,000	$1,000,000	$500,000	$0	$500,000
44	BOWMAN/LUTHER				$150,000	$0	$50,000	$50,000	$50,000
45	BOWMAN INTERCHANGE/I-80				$700,000	$0	$0	$0	$700,000
46	BELL RD. INTERCHANGE/I-80				$1,200,000	$0	$0	$0	$1,200,000
47	ATWOOD RD./RICHARDSON DR.				$150,000	$0	$0	$50,000	$100,000
48	ATWOOD RD./PROFESSIONAL DR.				$150,000	$0	$50,000	$0	$100,000
49	BELL RD./RICHARDSON DR.				$150,000	$0	$50,000	$50,000	$50,000
50	BELL RD./GALENA DR.				$150,000	$0	$50,000	$50,000	$50,000
51	BELL RD./PROFESSIONAL DR.				$150,000	$0	$70,000	$20,000	$60,000
52	EDUCATION/RICHARDSON DR.				$150,000	$0	$0	$100,000	$50,000
53	LUTHER RD./CANAL ST.				$150,000	$0	$0	$75,000	$75,000
54	S. OLD AIRPORT RD./BELL RD.				$235,000	$0	$115,000	$80,000	$40,000
54	SR 49 BYPASS/BOWMAN ROAD				$250,000	$0	$0	$0	$250,000
56	SR 49 BYPASS/BELL ROAD				$250,000	$0	$0	$0	$250,000
57	SR 49 BYPASS/SR 49				$300,000	$0	$0	$0	$300,000
	INTERSECTION SUBTOTAL				$7,735,000	$1,725,000	$1,125,000	$650,000	$4,235,000
	ROADS, INTERSECTION & BYPASS SUBTOTAL				$76,512,000	$35,725,000	$6,798,000	$6,117,000	$27,896,000
	IV.BIKETRAILS								
58	SEPARATED BIKETRAILS	BELL RD./OLD AIRPORT RD.	3.00	SEPARATED	$750,000	$0	$0	$188,000	$562,000
	V.TRANSIT								
59	CAPITAL COSTS ONLY (SEE TEXT)				$1,170,000	$0	$0	$0	$1,170,000
	GRAND TOTAL				$78,432,000	$35,725,000	$6,798,000	$6,305,000	$29,628,000

Note: 1. Above estimates include the costs of construction, engineering, environmental review, and administration but do not include right-of-way or acquisition costs.
2. Improvements generally include 12' wide traffic lanes, 8' wide paved shoulders, and concrete curb, gutter, and sidewalk.

SOURCE: Auburn/Bowman Community Plan, Table 19.

amount of the County Road Fund to be used is minimal and the other sources are committed.

In conclusion, the funding for the basic set of recommended capital improvements appears assured but the SR49 funding is not on the STIP and is not yet assured. Thus, in a worst case scenario, impacts to SR49 could be more severe than discussed above.

The addition of the Easterly Bypass (Bowman) to the planned road system increases the potential for partially improved traffic conditions. However, with the Easterly Bypass included, the reliance of the Capital Improvement Program on State funds increases substantially (from 18% to 45%).

It should be noted that, in addition to the basic set of road improvements proposed, the Traffic Circulation Element establishes a policy framework which encourages ongoing efforts at Transportation System Management, transit, and alternative modes of transportation as indicated in a number of the Goals and Policies shown in Table 90 (particularly Goals 3, 4, and 8-14, and Policies 1, 13-17, and 19). These Goals and Policies could set the stage for some unanticipated effective mitigation.

Note: In addition to the impacts on roadway capacity described above, the increases in traffic congestion will also have an effect on the character/quality of life of local residential streets. Higher traffic levels can cause an increase in noise, dust, vehicle exhaust, and it can inhibit pedestrians and bicyclists. When these effects become pronounced, the street essentially becomes what is termed traffic-dominated. The traffic volume projections of sample locations contained in the Community Plan Traffic Circulation Element do not include low-volume residential streets. However, based on the projected doubling or more in traffic on arterials, it is likely that some residential streets will become traffic dominated. There is no way to avoid this impact without street barriers which are contrary to County policy and which have their own impacts on the circulation system and public safety.

Table 90
AUBURN/BOWMAN COMMUNITY PLAN
UPDATED TRAFFIC CIRCULATION ELEMENT GOALS & POLICIES

B. GOALS

1. PROVIDE FOR A TRANSPORTATION SYSTEM THAT SUPPORTS THE SOCIAL AND ECONOMIC WELL BEING OF THE PEOPLE AND ENVIRONMENT OF THE PLAN AREA.
2. PROVIDE SAFE AND EFFICIENT TRANSPORTATION SYSTEMS FOR RESIDENTS OF THE PLAN AREA AND OTHERS WHO USE THE SYSTEMS.
3. ENCOURAGE AND ENABLE THE USE OF PUBLIC AND PRIVATE TRANSIT AS WELL AS OTHER ALTERNATIVE MODES OF TRANSPORTATION. EXPAND PUBLIC TRANSPORTATION OPPORTUNITIES TO MEET THE NEEDS OF THE PLAN AREA'S RESIDENTS, REDUCE TRAFFIC CONGESTION, AND IMPROVE AIR QUALITY.
4. ENCOURAGE THE USE OF TRANSPORTATION SYSTEMS MANAGEMENT (TSM) STRATEGIES--SUCH AS FLEX TIME, PARK AND RIDE LOTS, ETC.--TO REDUCE PEAK-PERIOD TRAFFIC AND TOTAL VEHICLE MILES TRAVELED (VMT).

5. COORDINATE THE ROAD NETWORK AND ALTERNATIVE TRANSPORTATION SYSTEMS WITHIN THE PLAN AREA WITH SIMILAR SYSTEMS IN SURROUNDING AREAS.
6. KEEP TO A MINIMUM THE NUMBER OF DRIVEWAY ENCROACHMENTS ALONG PUBLIC ROADWAYS--PARTICULARLY ALONG MAJOR CORRIDORS.
7. ELIMINATE POTENTIAL HAZARDS AND OTHERWISE IMPROVE EXISTING, SUBSTANDARD ROADS IN THE PLAN AREA.
8. DEVELOP A COMMUNITY TRAIL SYSTEM IN ORDER TO:
   a. PROVIDE SAFE, PLEASANT, AND CONVENIENT TRAVEL BY FOOT, HORSE, OR BICYCLE WITHIN THE PLAN AREA.
   b. PROVIDE RECREATIONAL OPPORTUNITIES TO RESIDENTS OF THE PLAN AREA.
   c. CONNECT LOCAL TRAILS TO REGIONAL TRAIL SYSTEMS.
   d. LINK SCHOOL FACILITIES, PARKS, COMMUNITY BUILDINGS, AND OTHER COMMUNITY-ORIENTED PUBLIC SERVICES WITH RESIDENTIAL DEVELOPMENTS.
9. PROVIDE SAFE BICYCLE FACILITIES ALONG EXISTING AND PROPOSED ROADWAYS.
10. IMPLEMENT A CAPITAL IMPROVEMENT PROGRAM (CIP) SUFFICIENT TO ENSURE THAT ADOPTED LEVELS OF SERVICE FOR TRAFFIC ON THE COMMUNITY PLAN AREA'S ROAD NETWORK AND FOR TRANSIT ARE ACHIEVED AS DEVELOPMENT OCCURS.
11. MAINTAIN ROADS, TRAILS, AND OTHER TRANSPORTATION FACILITIES AT A STANDARD WHICH ASSURES SAFE PUBLIC USE.
12. ENSURE THAT SUFFICIENT FUNDING IS AVAILABLE TO COMPLETE ROAD NETWORK, TRANSIT, AND OTHER PROJECTS INCLUDED IN THE CIP.
13. PROVIDE ADEQUATE SPACE FOR ALTERNATIVE MODES OF TRANSPORTATION WITHIN OR ADJACENT TO EXISTING TRANSPORTATION CORRIDORS.
14. IDENTIFY AND PROTECT EXISTING AND PROPOSED RAIL CORRIDORS AND FACILITY SITES.

C. POLICIES

1. Rights-of-way for roads shall be wide enough to accommodate roadways, trails, bikeways, drainage, public utilities, landscapin g, and suitable separations. Minimum right-of-way criteria for roadways throughout the Plan area are shown in the Background Report.
2. Traffic signals shall be installed at roadway intersections in accordance with Caltrans standards.
3. Off-street vehicular parking shall be provided by all new development.
4. Safety shall be a heavily-weighted criterion in determining priorities for projects in the Capital Improvement Program (CIP).
5. The level of service (LOS) minimum standard for roadways and intersections throughout the Plan area shall generally be LOS C . Exceptions to this standard are listed in Table 17. Land development requirements shall be set to sustain LOS C at all roadway and intersection locations for as long as possible.

{Table 17 of Traffic Circulation Element}

Exceptions to Level of Service (LOS) C Standard within Auburn/Bowman Community Plan Area

			LOS
ROADWAYS	1	a) SR 49 – Nevada County line to Joeger Road line	F
		b) SR 49 – Joeger Road to Dry Creek Road	E
		c) SR 49 – Dry Creek Road to Bypass	F
		d) SR 49 – Bell Road to Atwood Road	D
		e) SR 49 – Atwood Road to Edgewood Road	E
		f) SR 49 – Edgewood Road to Auburn city limits	F
		g) SR 49 – Auburn city limits to El Dorado County line	F
	2	a) I-80 – Newcastle to Auburn city limits	F
		b) I-80 – Auburn city limits to Auburn Ravine interchange	F
		c) I-80 – Auburn Ravine interchange to Bowman interchange	E
	3	SR 49 Bypass – I-80 to Bell Road	D/E
	4	Auburn Ravine Road – I-80 overcrossing	E
	5	Lincoln Way –Sylvan Vista to Bowman	D
INTERSECTIONS	1	SR 49/Florence Drive	E
	2	SR 49/Bell Road	D
	3	SR 49/Luther Road	E
	4	SR 49/Nevada Street	E
	5	I-80 (Eastbound)/SR 49 Bypass	D
	6	Bowman Road/SR 49 Bypass	D
	7	Bell Road/Bypass	D
	8	SR 49/Bypass	F

NOTE: This list does not include LOS deficiencies for the City of Auburn.

6. Land development projects shall be approved only if the identified LOS standards can be sustained on the Plan road network and intersections after:
   a. Traffic from approved projects has been added to the system, and
   b. Improvements funded by this program are in place.

NOTE: This will sometimes result in temporary violation of LOS standards until adequate funding has been collected for the construction of program improvements.

7. The CIP shall be constructed in response to buildout of the Plan area. Traffic mitigation fees to fund the CIP (or in lieu construction) shall be required as conditions of approval on land development projects within the Plan area.
8. As part of a CIP-listed improvement which is "on-site" or "frontage" to a land development project, shall be constructed by that project. Such construction shall be required by conditions of approval placed on that project.
9. Priority and scheduling of the CIP projects shall be determined by the Placer County Board of Supervisors.

10. Traffic mitigation fee programs and ordinances shall be based on peak-period road network usage by traffic from proposed projects. Such road network usage shall be estimated using standard reference sources, such as the Institute for Transportation Engineers (ITE). Fees shall be collected when building permits are issued. The fee program shall be implemented by County ordinance.
11. The road network within the Plan area shall be coordinated with road networks of adjacent jurisdictions, particularly the City of Auburn.
12. "Through" traffic which must pass through this Plan area shall be accommodated in a manner which will not encourage the use of neighborhood roadways. This through traffic shall be directed to appropriate routes in order to maintain public safety and local quality of life in outlying sections of the Plan area.
13. As development of the Plan area occurs, dedication of public rights-of-way shall be required for the roads, trails, and bikeways identified in the Plan. Dedication of right-of-way as well as construction of such roads, trails, and bikeways shall be required as conditions of approval placed on land development projects.
14. Trail rights-of-way shall not be abandoned unless there is substantial evidence of no practical use for trail purposes.
15. Transit stops, turnouts, and shelters shall be required at appropriate locations as conditions of approval for land development projects.
16. "Park and Ride" shelters and parking areas shall be required at appropriate locations as conditions of approval for land development projects.
17. In residential areas, concrete curb, gutter, and sidewalk shall be provided on both sides of roadways where lot sizes are 1/2 acre or smaller. In areas with lot sizes between 1/2 acre and 40,000 sq.ft., concrete curb and gutter shall be provided on both sides of the roadway; concrete sidewalk shall be provided on one side of the roadway. In areas with lot sizes larger than 40,000 sq.ft., an off-street, multipurpose walkway shall be provided together with 4' (min.) paved roadway shoulders.
18. The traffic mitigation fee program described in this Community Plan shall not supersede or otherwise affect Placer County's Street Improvement Ordinance or other authority to require road improvements.
19. The preservation of the Highway 49 Bypass as a viable future transportation facility shall be considered in all land use decisions along the corridor. The precise alignment shall be adopted by the Board of Supervisors based upon a routine alignment study and EIR.

~~Table 91~~
{D E L E T E D}

Conclusion: In summary, the effects of the updated Plan on the area circulation system will be significant and unmitigable when compared to existing conditions.

If the proposed improvements were not part of the Plan, these significant unmitigable impacts would be even more severe and extensive and would essentially represent a non-functioning circulation system. The updated Plan is of a mitigating nature when compared to the previous Auburn Area and Bowman General Plans.

2. **Impacts of proposed improvements.** The widening of roadways and related improvements will create a number of impacts including grading and vegetation loss, and associated visual and erosion impacts. The severity of these impacts will vary based upon the size of the area affected, the visual quality of that area, whether or not it has been previously disturbed as part of road shoulder grading, the affected topography, and the time of year that grading occurs (erosion). Short-term disruption, and long-term change in access to some businesses will occur. Given the conceptual nature of the improvements, it is not possible to provide detailed impact analysis for each of the improvements. However, Table 92 lists the types of impacts which may occur and roughly gauges their severity within the limitations of the current analysis (specific designs are not available). This is very generalized analysis based primarily on area-wide mapping. The impacts will need to be reviewed on a case-by-case basis as part of the normal environmental review procedure.

Conclusion: Based upon the preliminary examination of road improvement impacts, it appears that significant effects on visual character, riparian habitat, and tree stands will occur and that these effects may be unmitigable in some locations (particularly visual impacts).

~~Table 93~~
{D E L E T E D}

3. **Cumulative traffic impacts.** See Discussion under Impact 1, above.

Additional Discussion

The following discussion is provided for informational purposes only; it does not relate to an impact of the project at hand — the adoption and implementation of the Auburn/Bowman Community Plan.

Summary - Previous Plan vs Updated Plan. The circulation study does not quantify the effects of buildout of the previous Auburn/Bowman Plan and therefore is not possible to make a numerical comparison with the updated Plan. In general the trip generation of the previous Plan is expected to be roughly similar to that of the updated Plan given that it has approximately the same overall level of urbanization.

Table 92
AUBURN AREA GENERAL PLAN
CAPITAL IMPROVEMENT PROJECT - INITIAL IDENTIFICATION OF IMPACTS

No.	Project	Project Limits	Apprx Prj Length (miles)	Stand-ard (lanes)	Initially Identified Impact
I. ROAD NETWORK IMPROVEMENTS					
1	SR49	Nevada St to Joeger Rd	4.47	6	Cumulative visual character change (Significant, unmitigable with other improvements). Potential short-term access disturbance (significant, mitigable)
2	Bell Road	SR49 to I-80	2.81	4	Visual character change (significant, unmitigable) Tree Loss (significant, mitigable)
3	Christian Valley Rd	Florence Dr to SR49	0.64	2	Visual degradation (less than significant) Vegetation loss (significant, mitigable)
4	Bill Francis Dr	Exist end to Old Airport	0.42	2	Riparian habitat impacts (significant, mitigable) Tree loss (significant mitigable)
5	Locksley Ln	SR49 to City Limit	0.59	2	No significant effects.
6	Richardson Dr	Existing Chano School terminus to Bell Rd	0.70	2	Tree loss (significant, mitigable)
7	Quartz Dr	SR49 to Richardson Dr	0.20	2	Visual degradation (less than significant)
8	Galena Dr	Quartz Dr to Bell Rd	0.20	2	No significant effects

Assumptions

Visual Effects: Significant if high quality visual corridors affected or if changes substantial enough to cause a broad change in character.
Unmitigable if change is permanent.

Riparian Effects: Significant if riparian areas affected
Unmitigable if multiple, angular crossings made or if riparian forest is affected.

Tree Loss: Significant if large oak woodland or oak ponderosa pine woodland crossed.
Generally, mitigable through Tree Preservation Ordinance.

Table 92 (Cont.)
AUBURN AREA GENERAL PLAN
CAPITAL IMPROVEMENT PROJECT - INITIAL IDENTIFICATION OF IMPACTS

No.	Project	Project Limits	Apprx Prj Length (miles)	Stand-ard (lanes)	Initially Identified Impact
9	Education St	Professional to Richardson Dr	0.16	2	No significant effects.
10	Quartz Dr	SR49 SE to Bell Rd	0.51	2	No significant effect
11	Unnamed Rd	Dry Creek Rd E of SR 49 S to Quartz Dr Ext	0.60	2	No significant effect
12	Professional Dr	Bell Rd to Atwood Rd	0.38	2	No significant effect
13	Willowcreek Rd	Third St to SR49 @ Auburn Honda	0.37	4	No significant effect
14	Bell Road W of SR49	SR49 to Richardson	0.60	4	Cumulative visual character change (significant, unmitigable)
15	Richardson Dr S Ext	Atwood Rd to Edgewood & Mt Vernon	1.45	2	Riparian habitat impacts (significant, unmitigable)
16	Mt Vernon Rd	.3 mi W of Nevada St to Edgewood Rd	0.70	2	Riparian habitat impacts (significant, unmitigable)
17	Luther Rd	SR49 to Canal St	0.15	4	No significant effect
18	Luther Rd	Bowman Rd to Carriage Ln	0.23	4	No significant effect
19	Lincoln Wy	Russell Rd to Ferguson Rd	0.41	4	Cumulative visual character change (significant, unmitigable)
20	Bowman Undercros.	Bowman Rd to Carriage Ln	0.12	4	No significant effects
21	New Airport Rd	SR49 to Bell Road	1.09	2	Possible effects on yards, landscaping, driveways, etc.(significant, mitigable)
22	New Airport Rd	Bell Rd to Auburn Airport	0.69	2	No significant effects
23	Old Airport Rd	Bell Rd to New Airport Rd	1.02	2	Visual degradation (significant, mitigable)
24	Misc Shoulder Adtn	Varied locations-- 4 ft min width (see text)	20.00	2	No significant effect

Assumptions

Visual Effects: Significant if high quality visual corridors affected or if changes substantial enough to cause a broad change in character.
Unmitigable if change is permanent.

Riparian Effects: Significant if riparian areas affected
Unmitigable if multiple, angular crossings made or if riparian forest is affected.

Tree Loss: Significant if large oak woodland or oak ponderosa pine woodland crossed.
Generally, mitigable through Tree Preservation Ordinance.

Mitigation Measures

1a. Increased traffic congestion - Increased emphasis on Transportation Control Measures. As described in the impacts section, the County has considered a wide variety of measures to ease traffic congestion including:

- Road improvements (including the Eastern Highway 49 Bypass) within the Capital Improvement Plan
- Transit support, and
- Transportation System Management.

None of these measures will provide effective avoidance of significant congestion; even the Western Bypass, a costly, unassured, and impacting alternative, does not provide complete avoidance. A practical level of transit, based on reasonable ridership expectations is proposed as part of the Plan; however, the effect of this measure on the overall problem is minor. The same can be said of Transportation Control Measures (TCMs), but a increased level of TCMs is still recommended in this EIR to provide an additional increment of mitigation and to address air quality concerns. These measures are described in the Air Quality section and not repeated in this section. They generally entail more emphasis on trip reduction through specific methods of carpooling, rideshare, alternative transportation modes, and inclusion of ancillary services in developments such as child care.

It should be noted that the Alternatives section evaluates the potential for reduced urban development to avoid significant congestion. The basic conclusion is that, while none of the land use alternatives considered will entirely avoid significant, unmitigable impacts, some will substantially lessen impacts.

1b. Increased traffic congestion - Addition of a policy and implementation measures calling for the County to work with the City of Auburn toward a joint City/County mitigation fee program to address impacts to the Auburn/Bowman/City's street system. This fee program should entail joint mitigation fee collection into a single fund targeting needed improvements. The trip end fee should be modified by the establishment of benefit areas so that projects which are more impacting pay a higher amount.

Effectiveness of Measure/Relevant Plan Provisions: These measures will provide only an incremental reduction in congestion and impacts will remain significant. Relevant Plan provisions include: 1a) Traffic/Circulation Goals 3, 4, 8-14, Policies 1, 13-17 and 19; 1b) Traffic/Circulation Policy 11 and Implementation Measure 4.

Implementation: a) Construction of improvements listed in CIP by County and State contracts; collection of traffic mitigation fees by County DPW to fund CIP; pursuit of all available funding for CIP projects; obtain necessary rights-of-way for CIP by dedication requirements and purchase. Also, other implementation measures as described in the Air Quality section; b) Measure partially adopted. See Traffic/Circulation Policy 11 and Implementation Measure 4.

2a. Impacts of proposed improvements - Maximum feasible wetland avoidance and replacement and erosion control of exposed surfaces to reduce

impacts on wetlands. The basic wetland mitigation framework necessary to avoid or correct wetland impacts is available in existing policy (see Impact Evaluation Criteria of the Biology section, particularly Resolution No. 92-39 and Minute Order 90-09 excerpts). In the case of proposed road improvements, application of this policy will mean the following:

.1 Perpendicular crossings whenever possible.

.2 Shifts in proposed road alignments to miss wetlands

.3 Where wetlands cannot be avoided recreation of wetlands in the project corridor or nearby.

.4 Failing the above, payment of a mitigation fee for wetland banking.

From a very preliminary analysis, the best opportunity for mitigation strategy, #.2 would be a north-eastward shift in the southerly Richardson Drive extension (Atwood to Edgewood) to avoid riparian forest.

Erosion control during and after construction is another important measure.

2b. **Impacts of proposed improvements - Tree avoidance, replantings, and payment of mitigation fees for tree loss.** Similar to the case of wetlands the policies necessary to mitigate tree loss are currently available; the County Tree Protection Ordinance sets forth provisions for replantings or fee payment. In the case of road improvements adjustment of alignment in the design process can minimize tree loss--plantings within road rights of way provide an readily identifiable means of mitigation for those which are lost, and help to mitigate visual impacts as well.

Effectiveness of Measure/Relevant Plan Provisions: The above measures will be effective in reducing impacts to wetlands and trees below the level of significance. Visual impacts cannot be reduced below significance in every circumstance. Relevant Plan Provisions include: 2a) Vegetation Goal 1 and Policies 4-7; also, County Resolution #92-39 and Minute Order 90-9 apply ; 2b) Vegetation Goals 1-2, and Policies 10-11, Fish and Wildlife Implementation Measure t.

Implementation: Road improvement design and environmental review

3. **Cumulative impacts - No further mitigation measures available beyond those described under #1-2, above.**

Effectiveness of Measure/Relevant Plan Provisions: Cumulative impacts related to increased congestion will remain unmitigated (see 1a above). Relevant Plan Provisions include various Traffic/Circulation Goals and Policies, particularly Policy 11 and Implementation Measure 4.

Implementation: See #1-2 above.