

## IV. TRANSPORTATION ELEMENT

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### ***Purpose***

It is a requirement of Government Code §65302(b) that every General Plan include a Transportation Element which consists of “the general location and extent of existing and proposed thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the General Plan.” This Transportation Element is in conformance with the requirements of the Government Code.

The Transportation Element discusses transportation issues for the City and the Sphere of Influence. The Element describes the existing circulation system and travel characteristics. It also projects future traffic, based on the build-out of the land uses described in the Land Use Element and identifies the resulting anticipated roadway deficiencies. Policies and implementation programs contained in this Element provide a guide for decisions regarding transportation system improvements to accommodate Lakeport’s anticipated growth.

The Transportation Element is organized in the following manner: each issue is first briefly described with relevant background information; then policies and implementing programs are presented.

### ***Goals***

The City has the following goals for transportation:

- Develop a City and area-wide circulation system that is safe and efficient.
- Develop and manage a street and highway system which accommodates future growth.
- Improve safety on streets for vehicles, pedestrians and cyclists.
- Preserve the peace and quiet of residential areas.
- Reduce dependence on the automobile.
- Regard the quality of life in Lakeport as important as mitigating traffic problems.

### ***Traffic Volume and Level of Service***

“Level of Service” is a qualitative measure of traffic operating conditions whereby a letter grade, ‘A’ through ‘F’, corresponding to progressively worsening traffic operating conditions, is assigned to an intersection or roadway segment. At a signalized intersection, the LOS is determined by comparing existing traffic volumes and future forecasts to Level of Service thresholds employed by applicable planning agencies. Level ‘A’ represents free flow conditions and level ‘F’ represents jammed conditions where traffic flow is at or over the capacity of the roadway and consequently moves very slowly. The current Level of Service design standard is a level ‘C.’ [Table 6](#) below explains in more detail the Level of Service Concept.

**Table 6  
Roadway Classification System Descriptions**

| Level of Service | Description   | V/C Ratio |
|------------------|---|-----------|
| A                | Relatively free-flow. No restrictions to vehicle maneuverability of speed. Very slight delay.   | 0.00-0.60 |
| B                | Stable Flow. Some slight reduction in maneuverability and speed. Vehicle platoons form. This is a suitable level of operation for rural design. Slight delay. | 0.61-0.70 |
| C                | Stable flow operation. Higher volumes. More restrictions on maneuverability and speed. Acceptable delay.  | 0.71-0.80 |
| D                | Approaching unstable flow operation. Queues develop. Little freedom to maneuver. Tolerable delays for short periods.  | 0.81-0.90 |
| E                | Unstable flow or operation. Low operating speed; momentary stoppages. This condition is not uncommon in peak hours. Congestion and intolerable delays.        | 0.91-1.00 |
| F                | Forced flow or operation. There are many stoppages. The highway acts as a vehicle storage area. Jammed.   | 1.00+     |

## LEVEL OF SERVICE THRESHOLDS

No readily identifiable thresholds have previously been used which equate daily traffic volumes with general planning Levels of Service. Thus thresholds previously developed by the Florida Department of Transportation and employed by many California planning agencies have been used to identify Levels of Service thresholds on City streets.

According to the Florida Department of Transportation the presence of a raised median could increase Level of Service thresholds by about 5 percent. While the presence of wider shoulders and or bicycle lanes will promote overall safety, the general capacity of the street may not be affected by this extra width. Resulting LOS thresholds are presented in [Table 7](#) below while the definitions of each street type are presented in [Table 8](#) and the classifications for each major roadway are shown in [Table 9](#).

**Table 7  
General Level of Service Thresholds Based on Daily Traffic Volumes**

| Street Classification | Lanes | Control   | Daily Traffic Volume at LOS |        |        |
|-----------------------|-------|-----------|-----------------------------|--------|--------|
|                       |       |           | C                           | D      | E      |
| Collector             | 2     | Undivided | 9,100                       | 14,600 | 15,600 |
| Arterial              | 2     | Undivided | 11,200                      | 15,400 | 16,300 |
|                       | 4     | Undivided | 24,700                      | 31,100 | 32,800 |
| Freeway               | 4     | Divided   | 46,000                      | 56,000 | 63,000 |

\* FDOT Table 4 -1 urban arterial with 2.00 to 4.5 signalized intersections per mile

Source: KdAnderson Transportation Engineers, May 2007.

**Table 8**  
**Definitions of Street Types**

| Street Type  | Definition   |
|--------------|--|
| Freeway      | A freeway is a divided highway with full-control of access. Complete separation of conflicting traffic movements is provided. It is thus the highest form of roadway design, and is intended to provide for the expeditious movement of large volumes of traffic between, across, around or through a city, area, or a region. It is not intended to provide access to abutting land.  |
| Arterial     | The primary function of an arterial is to provide for: [1] traffic movement between areas and across portions of a city; [2] direct service to principal traffic generators; and [3] a connection to the freeway-expressway system. A subordinate function of arterials is the provision of direct access to abutting land. Since the primary function of this street type is to provide for the movement of vehicles rather than afford access to abutting land or temporary parking for vehicles, arterial streets are typically subject to regulation and control of parking, turning movements, entrances, exits, and curb use where conditions warrant. Control of access may also be required at some locations. |
| Collector    | Collector streets link small areas of neighborhoods to the arterial street system. They also carry much of the through-traffic within residential, industrial, and commercial areas and serve to connect adjacent neighborhoods. An important part of their function is to provide access to abutting property.  |
| Local Street | Local streets are intended to provide direct access to residential, commercial, industrial or other abutting land. These streets should serve local traffic movements and are not intended to handle through-traffic.  |

**Table 9**  
**Roadway Classifications**

| Name of Roadway     | Freeway | Arterial                        | Collector     | Local |
|---------------------|---------|---------------------------------|---------------|-------|
| Adams Street        |         |                                 | •             |       |
| Armstrong Street    |         |                                 | •             |       |
| Bevins Street       |         |                                 | •             |       |
| Boggs Lane          |         |                                 | •             |       |
| Central Park Avenue |         |                                 | •             |       |
| Clear Lake Avenue   |         | • Main & High                   | • High & Pool |       |
| Compton             |         |                                 | •             |       |
| Craig Avenue        |         |                                 | •             |       |
| Crystal Lake Way    |         |                                 | •             |       |
| Eleventh Street     |         | •                               |               |       |
| First Street        |         |                                 | •             |       |
| Forbes street       |         | •                               |               |       |
| Giselman Street     |         |                                 | •             |       |
| Green Street        |         |                                 | •             |       |
| Hartley Street      |         |                                 | •             |       |
| High Street         |         | • Clear Lake & 20 <sup>th</sup> |               |       |
| Hill Road East      |         |                                 | •             |       |

| Name of Roadway     | Freeway | Arterial | Collector | Local |
|---------------------|---------|----------|-----------|-------|
| Hill Road           |         |          | •         |       |
| Howard Avenue       |         |          | •         |       |
| Industrial Avenue   |         |          | •         |       |
| Kimberly Lane       |         |          | •         |       |
| Lakeport Boulevard  |         | •        |           |       |
| Lakeshore Boulevard |         | •        |           |       |
| Lange Street        |         |          | •         |       |
| Larrecou Lane       |         |          | •         |       |
| Loch Drive          |         |          | •         |       |
| Main Street         |         | •        |           |       |
| Martin Street       |         | •        |           |       |
| McMahan Road        |         |          | •         |       |
| Mellor Drive        |         |          | •         |       |
| Mountview Road      |         |          | •         |       |
| Page Drive          |         |          | •         |       |
| Parallel Drive      |         | •        |           |       |
| Park Street         |         |          | •         |       |
| Rainbow Road        |         |          | •         |       |
| Pool Street         |         |          | •         |       |
| Roscoe Street       |         |          | •         |       |
| Russel Street       |         |          | •         |       |
| Sandy Lane          |         |          | •         |       |
| Second Street       |         |          | •         |       |
| Shady Lane          |         |          | •         |       |
| Sixteenth Street    |         |          | •         |       |
| Sixth Street        |         |          | •         |       |
| Smith Street        |         |          | •         |       |
| Soda Bay Road       |         | •        |           |       |
| Spurr Street        |         |          | •         |       |
| State Route 20      | •       |          |           |       |
| State Route 29      | •       |          |           |       |
| State Route 175     | •       |          |           |       |
| Third Street        |         |          | •         |       |
| Todd Road           |         | •        |           |       |
| Twentieth Street    |         |          | •         |       |

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## EXISTING ROADWAY NETWORK AND TRAFFIC FLOW

Lakeport's roadway network is defined and constrained by two barriers: Clear Lake on the East and State Highway 29 on the West. The majority of the city is laid out in a rectangular grid pattern which is interrupted by hilly terrain. In these hilly areas the street system becomes discontinuous and through traffic is difficult. Many of the City's streets are narrow, not improved to current standards, and will require upgrading. In addition, further development of the street system between Bevins and Main Streets is prevented by large areas devoted to public facilities such as the City corporation yard and the Lake County Fairgrounds.

Although construction of the State Highway 29 freeway has reduced congestion downtown, it is now a barrier inhibiting east-west circulation through the Planning Area. Access across State Route 29 is only available at: Eleventh Street; Martin Street; Lakeport Boulevard; the South Main Street intersection with Highway 29; and the Hill Road crossing, as indicated in [Figure 4](#).

State Route 29 permits vehicles to bypass the downtown area and carries the largest amount of traffic through Lakeport. When the HW 29 bypass was constructed in 1970, it carried between 2,000 and 4,000 vehicles per day significantly reducing the amount of through traffic on Main Street and other city streets. Lakeport has grown considerably resulting in an increase in traffic volumes on Main Street. Traffic volumes will continue to increase commensurate with population growth in Lakeport and the County.

Traffic volumes continue to increase on arterials and many collectors, particularly in the downtown area. The central core, bounded by First, Third, Forbes and Park Streets, generates more vehicular traffic than anywhere else in Lakeport. The majority of north-south through traffic is carried on State Route 29 and on the Main Street, High Street, Lakeshore Boulevard corridor. East/west traffic volumes are the highest on Lakeport Boulevard and Eleventh Street.

In January 2005 traffic counts were made at locations on major roads in Lakeport in order to supplement data available from Caltrans and other recent studies. This sample of current traffic volumes was intended to look at those roads which already carry major traffic volumes and which are expected to carry high traffic volumes in the future. Count locations are presented in [Figure 5](#), while the counts themselves are described in [Table 10](#). The current daily traffic volumes on most of these roads fall within the Level of Service 'C' standard, indicating that current traffic conditions in the community are good.

**Table 10  
January 2005 Daily Traffic Volumes and Levels of Service**

| Road                              | Location from           | To                           | Count # | Year 2005    |                     |          |
|-----------------------------------|-------------------------|------------------------------|---------|--------------|---------------------|----------|
|                                   |                         |                              |         | Lanes        | Daily Volume (1/05) | LOS      |
| <b>State Highway</b>              |                         |                              |         |              |                     |          |
| SR 29                             | Park Way                | 11 <sup>th</sup> Street      | 1       | Free 4       | 12,700              | A        |
|                                   | Southbound off          | To 11 <sup>th</sup> Street   | 2       | 1            | 2,100               | C        |
|                                   | Northbound on           | From 11 <sup>th</sup> Street | 3       | 1            | 1,900               | C        |
|                                   | Southbound on           | From 11 <sup>th</sup> Street | 4       | 1            | 3,000               | C        |
|                                   | Northbound off          | To 11 <sup>th</sup> Street   | 5       | 1            | 3,300               | C        |
|                                   | 11 <sup>th</sup> Street | Lakeport Blvd                | 6       | Free 4       | 14,600              | A        |
|                                   | Southbound off          | To Lakeport                  | 7       | 1            | 3,200               | C        |
|                                   | Northbound on           | From Lakeport                | 8       | 1            | 3,500               | C        |
|                                   | Southbound on           | From Lakeport                | 9       | 1            | 3,000               | C        |
|                                   | Northbound off          | To Lakeport                  | 10      | 1            | 3,000               | C        |
|                                   | Lakeport Blvd           | SR 175                       | 11      | Art 4        | 13,100              | A        |
| SR 175                            | south                   |                              | Art 4   | 12,500       | A                   |          |
| SR 175                            | Hopland                 | SR 29                        |         | Art 2        | 820                 | C        |
| <b>City Streets</b>               |                         |                              |         |              |                     |          |
| Hartley Street                    | Anastasia Drive         | 20 <sup>th</sup> Street      | 12      | Col 2        | 670                 | C        |
| Lakeshore Blvd                    | Lange Street            | Beach Lane                   | 13      | Art 2        | 4,930               | C        |
| 20 <sup>th</sup> Street           | Will O View Circle      |                              | 14      | Col 2        | 420                 | C        |
| Hartley Street                    | 19 <sup>th</sup> Street | 17 <sup>th</sup> Street      | 15      | Col 2        | 2,020               | C        |
| 16 <sup>th</sup> Street           | Hartley Street          | High Street                  | 16      | Col 2        | 870                 | C        |
| High Street                       | 15 <sup>th</sup> Street | 16 <sup>th</sup> Street      | 17      | Art 2        | 8,200               | C        |
| Mellor Drive                      | 14 <sup>th</sup> Street | 11 <sup>th</sup> Street      | 18      | Col 2        | 1,050               | C        |
| 11 <sup>th</sup> Street           | SR 29                   | Central Park Ave             | 19      | Art 2        | 11,020              | C        |
| 11 <sup>th</sup> Street           | Mellor Drive            | Pool Street                  | 20      | Art 2        | 11,030              | C        |
| 11 <sup>th</sup> Street           | Tunis Street            | Brush Street                 | 21      | Art 2        | 9,100               | C        |
| Forbes Street                     | Eighth Street           | Ninth Street                 | 22      | Art 3        | 3,840               | C        |
| Main Street                       | 7 <sup>th</sup> Street  | 9 <sup>th</sup> Street       | 23      | Art 2        | 9,200               | C        |
| Sixth Street                      | Manzanita Street        | Brush Street                 | 24      | Col 2        | 510                 | C        |
| Russell Street                    | Armstrong Street        |                              | 25      | Col 2        | 850                 | C        |
| Armstrong Street                  | Brush Street            | High Street                  | 26      | Col 2        | 770                 | C        |
| Martin Street                     | Brush Street            | High Street                  | 27      | Art 2        | 2,740               | C        |
| Bevins Street                     | Bevins Court            | Martin Street                | 28      | Col 2        | 3,480               | C        |
| Bevins Street                     | Lakeport Blvd           | Bevins Court                 | 29      | Col 2        | 4,290               | C        |
| Lakeport Blvd                     | SR 29                   | Bevins Street                | 30      | <b>Art 2</b> | <b>11,925</b>       | <b>D</b> |
| Parallel Drive                    | north                   | Lakeport Blvd                | 31      | Col 2        | 3,500               | C        |
| Lakeport Blvd.                    | Parallel Dr             | SR 29                        | 32      | <b>Art 2</b> | <b>11,940</b>       | <b>D</b> |
| Parallel Drive                    | Lakeport Blvd           | Sandy Lane                   | 33      | Col 2        | 1,320               | C        |
| Main Street                       | Royale Ave              | Kimberly Ln                  | 34      | Art 2        | 9,900               | C        |
| Main Street                       | Lakeport Blvd           | Martin Street                | 35      | Art 2        | 7,940               | C        |
| Col is Collector, Art is Arterial |                         |                              |         |              |                     |          |

Source: KdAnderson Transportation Engineers, May 2007.

## CURRENT PEAK HOUR LEVELS OF SERVICE

The a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) peak hour Levels of Service were also determined for three major intersections in Lakeport in January 2005. These locations were identified based on local knowledge of locations where improvements may soon be warranted. Levels of Service were calculated using the methodologies presented in the 2000 Highway Capacity Manual, and the results are presented in [Table 11](#). At all-way stops, the “overall” Level of Service for all motorists has been determined. At intersections controlled by side street stops, the Level of Service for the “worst” movement has been presented.

As shown, the overall Level of Service at each location is within the City’s LOS ‘C’ standard. However, the volume of traffic at the Main Street / Lakeport Blvd intersection already satisfies Caltrans Warrant No. 11 (peak hour volume) for signalization.

**Table 11**  
**Current Peak Hour Intersection Levels of Service**

| Intersection                           | Control      | A.M. Peak Hour   |     | P.M. Peak Hour   |     | Signal Warranted ? |
|--|--------------|------------------|-----|------------------|-----|--------------------|
|  |              | Avg Delay or v/c | LOS | Avg Delay or v/c | LOS |                    |
| 1 Main Street/Lakeport Blvd            | All-Way Stop | 11.0 sec         | B   | 16.3 sec         | C   | No*                |
| 2 Main Street /11 <sup>th</sup> Street | EB Stop      | 11.5 sec         | B   | 12.1 sec         | B   | No                 |
| 3 High Street/20 <sup>th</sup> Street  | EB Stop      | 17.2 sec         | C   | 12.2 sec         | B   | No                 |

\* Peak Hour Warrants Met.

Source: KdAnderson Transportation Engineers, May 2007.

## SEASONAL TRAFFIC VARIATION

The volume of traffic on the major roads around Lakeport can vary throughout the year, primarily as a result of seasonal tourist activity. Volume observed during the late summer months (July, August and September) can be much higher than data collected in the winter. It is reasonable to expect that counts conducted in January would be indicative of “average” or “below average” conditions.

To provide perspective on this issue, data available from Caltrans regarding the volume of traffic on SR 29 and SR 175 was obtained and reviewed. To provide a rough indication of the variation, daily traffic volumes recorded in the “peak month” were compared to the reported annual average daily traffic volume. As noted in [Table 12](#), peak month volumes are an average of about 8 percent higher than the annual average.

**Table 12**  
**Seasonal Traffic Volume Variation**

| Road   | Location from           | To                      | Daily Traffic 2005    |            |                  |
|--------|-------------------------|-------------------------|-----------------------|------------|------------------|
|        |                         |                         | Average Annual Volume | Peak Month | Percent Increase |
| SR 29  | Park Way                | 11 <sup>th</sup> Street | 12,700                | 13,900     | 9.4%             |
|        | 11 <sup>th</sup> Street | Lakeport Blvd           | 14,600                | 15,900     | 8.9%             |
|        | Lakeport Blvd           | SR 175                  | 13,100                | 14,000     | 6.9%             |
|        | SR 175                  | South                   | 12,500                | 12,900     | 3.2%             |
| SR 175 | Hopland                 | SR 29                   | 820                   | 920        | 12.2%            |

Source: KdAnderson Transportation Engineer, May 2007.

## HISTORIC GROWTH TRENDS

Data from the 1991 General Plan Update was compared with recent traffic counts to gain perspective on traffic conditions in Lakeport. This comparison is summarized in [Table 13](#) below. As shown, where comparable data is available, annualized growth rates have either been negative or not appreciably large.

**Table 13**  
**Historic Traffic Volume Growth Trends**

| Road                    | Location from           | To                      | Daily Volume |        |              |
|-------------------------|-------------------------|-------------------------|--------------|--------|--------------|
|                         |                         |                         | April 1991   | 2003   | January 2005 |
| <b>State Highway</b>    |                         |                         |              |        |              |
| SR 29                   | Park Way                | 11 <sup>th</sup> Street | 9,264        | 11,700 | 12,700       |
|                         | 11 <sup>th</sup> Street | Lakeport Blvd           | 9,068        | 14,000 | 14,600       |
|                         | Lakeport Blvd           | SR 175                  | 10,965       | 12,600 | 13,100       |
|                         | SR 175                  |                         | 9,066        | 12,000 | 12,500       |
| SR 175                  | Hopland                 | SR 29                   | 1,805        | 1,800  | 820          |
| <b>City Streets</b>     |                         |                         |              |        |              |
| Hartley Street          | Anastasia Drive         | 20 <sup>th</sup> Street |              |        | 670          |
| Lakeshore Blvd          | Lange Street            | Beach Lane              |              |        | 4,930        |
| 20 <sup>th</sup> Street | Will-O-View Circle      |                         |              |        | 420          |
| Hartley Street          | 19 <sup>th</sup> Street | 17 <sup>th</sup> Street | 2,286        |        | 2,020        |
| 16 <sup>th</sup> Street | Hartley Street          | High Street             |              |        | 870          |
| High Street             | 15 <sup>th</sup> Street | 16 <sup>th</sup> Street | 9,275        |        | 8,200        |
| Mellor Drive            | 14 <sup>th</sup> Street | 11 <sup>th</sup> Street |              |        | 1,050        |
| 11 <sup>th</sup> Street | SR 29                   | Central Park Ave        | 11,000       |        | 11,020       |
| 11 <sup>th</sup> Street | Mellor Drive            | Pool Street             |              |        | 11,030       |
| 11 <sup>th</sup> Street | Tunis Street            | Brush Street            | 9,000        |        | 9,100        |
| Forbes Street           | 8 <sup>th</sup> Street  | 9 <sup>th</sup> Street  |              |        | 3,840        |
| Main Street             | 7 <sup>th</sup> Street  | 9 <sup>th</sup> Street  | 13,000       |        | 9,200        |
| Sixth Street            | Manzanita               | Brush Street            |              |        | 510          |
| Russell Street          | Armstrong Street        |                         |              |        | 850          |
| Armstrong Street        | Brush Street            | High Street             |              |        | 770          |
| Martin Street           | Brush Street            | High Street             | 3,479        |        | 2,740        |



| Road           | Location from | To            | Daily Volume |      |              |
|----------------|---------------|---------------|--------------|------|--------------|
|                |               |               | April 1991   | 2003 | January 2005 |
| Bevins Street  | Bevins Court  | Martin Street | 2,654        |      | 3,480        |
| Bevins Street  | Lakeport Blvd | Bevins Court  |              |      | 4,290        |
| Lakeport Blvd  | SR 29         | Bevins Street | 10,000       |      | 11,925       |
| Parallel Drive |               | Lakeport Blvd |              |      | 3,500        |
| Lakeport Blvd. | Parallel Dr   | SR 29         |              |      | 11,940       |
| Parallel Drive | Lakeport Blvd |               |              |      | 1,320        |
| Main Street    | Royale Ave    | Kimberly Lane | 9,500        |      | 9,900        |
| Main Street    | Lakeport Blvd | Martin Street |              |      | 7,940        |

Note: A 10%-15% variation in traffic volume can be expected among various traffic counts are taken.

Source: KdAnderson Transportation Engineer, May 2007.

## ROADWAY IMPROVEMENTS

Congestion on the City’s arterial and collector street systems, including the downtown area will become a problem. Actions are needed to improve existing traffic flow and mitigate the impacts of existing and future land development. Major improvements to the existing system are necessary, including road widening, additional crossings over/under the freeway, new roads, additional traffic controls, including signalization of intersections, and perhaps one-way couplet systems.

The policy section recommends that traffic engineering and planning evaluation of the one-way couplets be carried out prior to their inclusion into the City’s Capital Improvement Program. One-way couplets may have potentially adverse impacts on the character of the downtown area and adjacent residential neighborhoods, parking and safety.

Funds will not be available to build all the roadway improvements required to offset or significantly improve future traffic congestion in Lakeport and its Sphere of Influence. The roadway improvements listed in [Appendix B](#), however, represent the most important and cost effective improvements. These recommended improvements constitute the City’s Long Range Roadway Improvement Program. The locations of these improvements are located in [Figure 6](#).

The recommended roadway improvements listed below have a high, medium and low priority rating. The following criteria have been used to develop these priorities: Criteria 1: Projects that increase the north-south capacity of the roadway network; Criteria 2: Projects that increase east-west capacity of the roadway network; and Criteria 3: Improvements to the local street network to close gaps and improve the safety and efficiency of the roadway system. The priority ranking of recommended roadway improvements should be reviewed periodically in relation to available funding and the City’s changing needs.

Lakeport has several characteristics which increase the difficulty of improving the roadway system such as: hilly terrain; a relatively large amount of undeveloped land located within City limits; and many substandard roads. The policies contained below provide a systematic approach to improving the City’s roadway system. Additional capacity is needed to carry the increased amount of projected traffic. The recommended improvements to the roadway system are organized under policies and implementation programs for System-wide Improvements, Route Completion, and Road Maintenance and Improvement.

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The local street system in Lakeport is incomplete and has many discontinuous, narrow, and unimproved streets. In many areas hilly topography has prevented the completion of the collector system, leaving gaps in the street system. Consequently, through traffic is forced to take local streets through residential neighborhoods and through the Main Street corridor.

Poorly designed and improperly maintained roads have been a continuing problem in Lakeport. Many roads were built before City standards and planning regulations existed. The improvement of the City's roads to meet current standards will increase the capacity and safety of the roadway system.

## **FUNDING**

As the City continues to grow, there will be a need to identify increased revenue sources in order to maintain and improve the Lakeport street system. New development shall pay for its share of multi-modal transportation improvements required to accommodate the growth that it generates. Approval of new developments and/or financial contributions toward improvements required as the result of project approval. The transportation impacts of development occur throughout the region irrespective of jurisdictional boundaries. Development in the County near to the City will affect traffic near Lakeport, and similarly the growth of Lakeport will impact the County's roadway system. For this reason, it is necessary to establish a regional traffic mitigation fee program involving Lake County and the City.

## **BICYCLE TRANSPORTATION**

The City has a fragmented bicycle circulation network which uses a variety of local streets. East-west routes through the City are limited. Few improvements have been made to the bikeways system in the past due to a lack of funds. The importance of a safe and comprehensive bikeways system is recognized and will be more fully incorporated into the City's transportation planning. Lakeport is a sufficiently small and compact community where it is still practical to use a bicycle for many trips. (Bikeways are also discussed in relation to paths and trails in the Conservation, Open Space and Parks Element.)

The California Street and Highways code has established three categories of bikeways based on needs and physical conditions of the right-of-way. The bikeway categories are as follows:

- Class 1 Bikeway-Bike Path-Bike Trail: these facilities are constructed on separate right-of-ways, are completely separated from the street traffic and have minimal crossflows of automobile traffic. The state standard for minimum paved width of a two-way bike path is eight feet.
- Class 2 Bikeway-Bike Lane: A restricted right-of-way for the exclusive use of bicycles with vehicle parking and crossflow by pedestrians and motorists permitted. Bike lanes are normally striped within paved areas of highways and are one-directional with a minimum standard width of five feet.

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- **Class 3 Bikeway-Bike Route:** A route for bicyclists designated by signs or other markings and shared with pedestrians and motorists. Bike routes are typically designated to provide linkages to the Bikeway system where Class 1 or 2 Bikeways cannot be provided.

The existing bikeways system in Lakeport provides a basis for expanding bicycle use for both work and recreation related trips. Increasing the number of Class 1 and 2 bikeways and providing additional bike storage facilities at public transit facilities, commercial/office developments and schools would significantly promote greater use of bicycles near the City. [Figure 7](#) indicates the existing and future bikeways in Lakeport.

## **FACILITIES FOR PEDESTRIANS**

Many residential areas in the City are built without sidewalks. The construction of sidewalks would significantly increase pedestrian safety, particularly for children going to and from school. Funds to construct sidewalks in these areas are available from Improvement Districts where property owners agree to pay for sidewalk construction and from the City's General and Redevelopment Funds. Use of the City's General Fund to build sidewalks is unlikely, unless community-wide benefit can be demonstrated. It is recommended in the Policy section that the City carry out an inventory and map existing sidewalks in relation to schools, parks and major arterials to identify priority areas for sidewalk construction and inform the community of the financing options for such improvements.

The importance of improving facilities for pedestrians in Lakeport is acknowledged in various sections of this Plan. In some areas of the City, the lack of sidewalks represents a potential safety hazard and City policies now require that sidewalks be installed at the time of development. Providing additional pedestrian paths in the Downtown area is one of the key aspects of the Urban Design Standards. The Conservation, Open Space and Park Element identifies existing and proposed walking trails throughout the community.

Generally, sidewalks should be installed along both sides of all downtown streets, arterials, collectors and on all streets leading to public transit facilities and to schools. In low density residential areas, sidewalks on only one side of the street may be appropriate, depending on the street configuration, topography and location of the development.

In older areas already developed without sidewalks, and in low density residential areas which typically have a swale adjacent to the road instead of a sidewalk, curb and gutter, it may be preferable to build an asphalt pathway to separate pedestrians from vehicular traffic.

Adequate lighting is essential for safety for all pedestrian facilities. Much street lighting is vehicular rather than pedestrian-oriented. Pedestrian-oriented lighting is typically located lower to the ground and is more closely spaced than vehicular-oriented lighting.

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## **PUBLIC TRANSIT**

The Lakeport area is served by Lake Transit. Fixed route service links the City with Ukiah via SR 29, SR 20, and US 101 (Route &), as well as with Northshore and Southshore communities (Route 1 and Route 4) from the 3<sup>rd</sup> Street/Main Street transit hub. A door to door dial-a-ride service is also available.

Public transit is financed through a portion of the State sales tax which is reserved for that specific use. The local transportation planning agency, Lake County/City Area Planning Council (APC), is responsible for administering the funds in Lake County. Requests for new service, service changes, and service reductions are considered by the APC.

## **TRAFFIC SAFETY**

As vehicular traffic increases and roadways and intersections become more heavily used, the potential for conflict increases. The demand for safer intersections and roadways and the necessity for appropriate measures to improve traffic operation will increase with growth. The emphasis of the policies below is to improve traffic safety below by identifying and removing roadway hazards.

## **AIR TRANSPORTATION**

Lampson Field is located in the County outside of Lakeport's Sphere of Influence. It provides the principal air transportation facility in western Lake County. Although there are no scheduled commercial flights into Lampson Field, it has a significant volume of private aircraft operations and provides an air taxi service. The County's Master Plan for Lampson Field Airport describes the expected growth in airport operations and related development to the year 2010. The City is represented on the Airport Land Use Commission (ALUC) and is working to mitigate impact on Lakeport of the proposed Lampson Field Airport expansion. In addition, sea planes regularly land on Clear Lake near the city boundaries. Additional policies and programs relating to Lampson Field Airport are contained in the Safety Element.

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## **POLICES & PROGRAMS**

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### ***Roadway System***

**Policy T 1.1: Roadway Improvements.** Implement Lakeport's Five Year Roadway Capital Improvement Program.

**Policy T 2.1: Signalization.** Intersections should be considered for traffic signals when an analysis of traffic levels and safety factors establish a clear need for such an improvement.

**Policy T 3.1: Couplet Systems.** Evaluate the effectiveness, cost and impacts on urban design and community identity of the one-way couplet systems listed in Appendix B prior to implementation.

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**Program T 3.1-a:** Carry out a thorough evaluation of the effectiveness of the one-way couplet systems listed in Appendix B that takes into consideration: their effectiveness; cost; and impacts on safety, parking, community identity, existing residential neighborhoods and on the downtown area. Ensure that Lakeport residents and business people are fully informed about the couplet evaluation study and have every opportunity to participate in its review through community workshops and public hearings.

Responsibility: Community Development and Public Works Departments

**Policy T 4.1: Traffic Mitigation for New Development.** Require new development to provide off-site improvements that adequately mitigate traffic problems they generate.

**Policy T 5.1: Disruption of Street Improvements.** Strive to make improvements to the street network in a manner that minimizes disruption to adjacent residential neighborhoods.

**Program T 5.1-a:** Establish, in cooperation with Caltrans and the County, mitigation measures to reduce the impact of adjacent neighborhoods for both the construction phase as well as for permanent improvements to State Routes 29 and 175 and other roadway improvements.

Responsibility: Community Development and Public Works Departments.

**Program T 5.1-b:** Require developers to provide setbacks, landscaping or other appropriate measures through the plan program to protect adjacent land uses from traffic impacts such as noise, air quality, and headlight glare. Develop plan lines for street improvements and keep these on file at the Public Works Department.

Responsibility: Community Development and Public Works Departments.

**Policy T 6.1: Roadway Design Standards.** Establish specific roadway design standards for the construction and improvement of highway arterials, collectors and local streets. The design standards shall accommodate the needs of all users including bicyclists, pedestrians, transit riders and motorists in accordance with the Complete Streets Act of 2008.

**Program T 6.1-a:** Revise the Zoning and Subdivision Ordinances to carry out Policy T 6.1.

Responsibility: Community Development and Public Works Departments.

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**Policy T 7.1: Interjurisdictional Cooperation.** Cooperate with other jurisdictions to develop and implement regional solutions to traffic problems and request that the County enter into a management agreement.

**Program T 7.1-a:** Continue to participate in the County Area Planning Council.

Responsibility: City Council, Community Development and Public Works Departments.

**Program T 7.1-b:** Support efforts to obtain funding from Caltrans for improvements to the State Routes 29 and 175.

Responsibility: Community Development Department

**Program T 7.1-c:** Continue coordination with the Lake County 'Area Plans' to improve transportation for Lakeport.

Responsibility: Community Development and Public Works Departments

**Policy T 8.1: Downtown Traffic Plan.** Develop a traffic plan for the Central Business District as defined in the Community Design Element.

**Program T 8.1-a:** Prepare and adopt a traffic plan for the Central Business District.

Responsibility: Community Development and Public Works Departments and the Lakeport Redevelopment Agency

**Policy T 9.1: Level of Service.** Level of Service (LOS) shall be considered in the Environmental Review process. Level of Service, however, shall not be used as the sole quantitative performance criteria to limit development, or as a prerequisite for approving development.

**Policy T 10.1: Access to Arterial or Collector Streets.** Ensure that new developments which generate high traffic volumes, such as high density residential uses and commercial uses, have direct access to arterial and/or collector streets.

**Policy T 11.1: Reduction of Through Traffic on Local Streets.** Divert through traffic from using local streets in residential areas to arterials and collectors wherever possible.

**Program T 11.1-a:** Include the Roadway Classification system (Table 2-1) in the revised Zoning Ordinance.

Responsibility: Community Development Department

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**Program T 11.1-b:** Adopt and enforce a truck route plan for Lakeport that limits truck routes to arterial and collector streets.

Responsibility: Community Development, Public Works and the Police Department

**Program T 11.1-c:** Consider the following traffic calming measures, as appropriate, to reduce through-traffic from using the City's local streets in residential areas:

- a) utilize one-way street systems;
- b) require narrowed and landscaped entrances to residential areas experiencing heavy through traffic as appropriate;
- c) complete the collector and arterial street system;
- d) restrict turning movements into residential areas;
- e) reduce road widths
- f) develop traffic roundabouts

Responsibility: Community Development and Public Works Departments

**Policy T 12.1: Improved Traffic Movement.** Facilitate free flow of vehicular traffic on arterials and collectors.

**Program T 12.1-a:** Restrict private access, driveways, parking lot entrances, and other curb cuts on arterial and collector roads. Adopt a standard for defining the location and proximity of curb cuts on arterials and collectors in the Zoning Ordinance.

Responsibility: Community Development and Public Works Departments

**Program T 12.1-b:** Revise the Zoning Ordinance to prevent new single family homes or garages fronting on arterial roads wherever possible.

Responsibility: Community Development Department

**Program T 12.1-c:** Discourage strip commercial uses except where they are specifically designed to reduce traffic impacts and substantial evidence is provided that significant traffic impacts will be mitigated.

Responsibility: Community Development Department

**Program T 12.1-d:** Revise the Zoning Ordinance to establish thresholds and guidelines for the implementation of traffic impact studies and to require traffic studies for all high traffic generating uses.

Responsibility: Community Development and Public Works Departments

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**Program T 12.1-e:** Provide upgraded traffic control and information devices to improve circulation in areas with gaps in the roadway system.

Responsibility: Community Development and Public Works Departments

**Policy T 13.1: Extension of Arterial and Collector Streets.** Require the continuation of collector streets into adjacent properties, wherever possible in new developments, including the dedication of land for right of way and alignments as established by the Figure 6, to eliminate gaps in the roadway system and to facilitate traffic movement.

**Policy T 14.1: Street Maintenance.** Maintain an appropriate level of roadway maintenance within the City to reduce deterioration of the roadway system commensurate with available funding.

**Program T 14.1-a:** Prepare an annual report on roadway maintenance needs for City Council consideration and adopt and implement an annual road maintenance program.

Responsibility: Public Works Department

**Program T 14.1-b:** Consider weight limits for the City street system.

Responsibility: Public Works Department

**Program T 14.1-c:** Continue to implement a pavement management system.

Responsibility: Public Works Department

**Program T 14.1-d:** Develop maintenance standards for each roadway classification.

Responsibility: Public Works Department

**Program T 14.1-e:** Continue to coordinate long-term planning with utility companies prior to overlays.

Responsibility: Public Works Department

**Policy T 15.1: Private Roads in the Sphere of Influence.** Work with the County to ensure that private roads are permitted only for low density housing developments.

**Program T 15.1-a:** Request review of all development proposals within the Sphere of Influence from the County. Prepare written comments for County in a timely manner and negotiate an urban management agreement and common street standard.



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Responsibility: Community Development Department

**Policy T 16.1: Private Roads Within City.** Adopt standards for private roads within the City.

**Policy T 17.1: Acceptance of Roads into City Street System.** Roads shall conform to the City of Lakeport standards for width, grade, structural section, etc., as contained in the Municipal Code.

**Program T 17.1-a:** Require that all roads and streets be constructed to City standards prior to dedication and acceptance by the City.

Responsibility: Community Development and Public Works Departments

**Policy T 18.1: Traffic Mitigation Fees.** Require new developments to pay for their fair share of planned roadway improvements.

**Program T 18.1-a:** Consider adopting and implementing a City-Wide Traffic Mitigation Fee (TMF) Program for all areas within the City based on trip generation for new development or significant enlargement of existing uses, including residential uses. (The City-Wide Traffic Mitigation Program should be coordinated with a regional TMF Program established between the City and Lake County).

Responsibility: Community Development and Public Works Departments

**Program T 18.1-b:** Work with Lake County and consider establishing a regional Traffic Mitigation Fee Program to jointly collect and allocate funds to improve transportation facilities.

Responsibility: Community Development and Public Works Departments

**Program T 18.1-c:** Review and revise as needed the Traffic Mitigation Fee Schedule every two years.

Responsibility: Community Development and Public Works Departments

**Program T 18.1-d:** Report on the status and use of the Traffic Mitigation Fee Fund annually with the review of the Capital Improvement Program.

Responsibility: Community Development and Public Works Departments

**Program T 18.1-e:** Use the City Traffic Mitigation Fee Program to carry out projects as soon as sufficient funds are received.

Responsibility: Community Development and Public Works Departments

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**Policy T 19.1: Funding for Street System Improvement.** Utilize, as appropriate, the following funds for improvements to the City’s street system: Measure I sales tax revenue; Redevelopment funds; bonds; improvement or assessment districts; and street light districts.

**Policy T 20.1: Capital Improvement Program.** Adopt a Capital Improvement Program identifying required improvements to Lakeport’s transportation system.

**Program T 20.1-a:** The Planning Commission and the City Council shall review annually the CIP.

Responsibility: Community Development and Public Works Departments

### ***Bicycle Transportation***

**Policy T 21.1: Improve the Bikeways System.** Create and maintain a safe, convenient and effective bikeway system.

**Program T 21.1-a:** Implement the bikeway route system as shown on Figure 7.

Responsibility: Community Development and Public Works Departments

**Program T 21.1-b:** Actively pursue grant funding to assist in the construction of additional bikeways.

Responsibility: Community Development and Public Works Departments

**Program T 21.1-c:** Amend the Zoning Ordinance to require such bicycle related amenities as bike rack/storage facilities for commercial/office, industrial and high density residential developments as well as for park facilities.

Responsibility: Community Development Department

**Program T 21.1-d:** Publish and periodically update a map which identifies bikeways in the City and the Sphere of Influence.

Responsibility: Community Development Department

**Program T 21.1-e:** Construct bikeways according to the standards established by Caltran’s Planning and Design Criteria for Bikeways.

Responsibility: Community Development and Public Works Departments

**Program T 21.1-f:** Incorporate Class 2 bikeways into new arterial and collector streets wherever feasible.

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Responsibility: Community Development and Public Works Departments

**Program T 21.1-g:** Continually maintain bikeways within the City, including patching and sweeping in order to remove debris. Implement a program for inspecting road cuts by contractors and utility companies to assure compliance with City standards and reduce hazards.

Responsibility: Community Development and Public Works Departments

**Policy T 22.1: Dedication of Right-of-Way.** Require the dedication of land for the development of bicycle facilities in all new major land developments or for proposed developments located in an area designated as part of the Bikeways Plan as show in Figure 7.

**Policy T 23.1: Update Bikeways Plan.** Update the Bikeways Plan within five years of adoption of the Transportation Element consistent with the Regional Bikeway Plan developed by the Lake County/City Area Planning Council.

**Policy T 24.1: Coordinate Bikeways Plan.** Coordinate with Lake County the development of additional bikeways with the trails system indicated in the Conservation, Open Space and Parks Element, the Lakefront Master Plan, and the requirements of the Transportation Element.

### ***Pedestrian Facilities***

**Policy T 25.1: Improve Pedestrian Facilities.** Create and maintain a safe and convenient pedestrian system.

**Program T 25.1-a:** Establish and enforce standards for sidewalks, curb and gutter and pedestrian pathways in the Municipal Code for all new developments. Curbs may be mountable or vertical.

Responsibility: Community Development and Public Works Departments

**Program T 25.1-b:** Permit, where appropriate, asphalt pedestrian pathways in low density single family residential areas in lieu of curb, gutter and sidewalk configurations taking into account community sentiment, frontage improvements on adjacent streets, potential for nearby additional infill development., soils conditions, and other relevant factors. Revise the Zoning and Subdivision Ordinances accordingly.

Responsibility: Community Development and Public Works Departments

**Policy T 26.1: Sidewalks in New Street Improvements.** Include sidewalks or pedestrian paths in all new street improvements.

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**Program T 26.1-a:** Adopt standards for pedestrian facilities such as sidewalks, pedestrian paths, curbs, gutters, handicapped ramps in the revised Zoning and Subdivision Ordinances.

Responsibility: Community Development and Public Works Departments

**Policy T 27.1: Pedestrian Facilities as Traffic Mitigation.** Consider pedestrian facilities such as sidewalks and pedestrian paths as an essential traffic mitigation for new developments.

**Policy T 28.1: Redevelopment Funds.** TDA and CDBG Funds for Pedestrian Facilities: Utilize development tax-increment financing, TDA and Community Development Block Grant (CDBG) funds for pedestrian facilities, as appropriate.

**Policy T 29.1: Handicapped Accessibility.** Improve accessibility for the handicapped.

**Program T 29.1-a:** Continue to review all projects for handicapped access and require the installation of curb cuts, ramps and other improvements facilitating handicapped access in conformance with Title 24 of the California Administrative Code. Upgrade existing facilities as required by Title 24.

Responsibility: Community Development and Public Works Departments.

**Policy T 30.1: Street Lighting.** Consider street light installation, designed for pedestrian rather than vehicular lighting requirements in areas, where moderate to heavy pedestrian traffic is expected and to improve safety.

**Program T 30.1-a:** Establish lighting standards and specifications for pedestrian paths and sidewalks in the Zoning Ordinance.

Responsibility: Community Development and Public Works Departments

**Policy T 31.1: Dedication of Land for Pedestrian Facilities.** Require dedication of land for pedestrian facilities in compliance with policies contained in the Conservation, Open Space and Parks Element.

**Policy T 32.1: Improvement Districts.** Consider the formation of Improvement Districts in order to fund pedestrian facility improvements in developed areas of the city.

**Policy T 33.1: Additional Sidewalks in Existing Residential Areas.** The City shall endeavor to use all feasible and available means to construct sidewalks in priority areas.

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**Program T 33.1-a:** Inventory and map the sidewalks in the City in relation to parks, schools and other pedestrian-intensive routes. Develop a priority for the construction of additional sidewalks. Integrate the sidewalk priority into the City's Five Year Capital Improvement Program (CIP).

Responsibility: Community Development and Public Works Departments.

**Program T 33.1-b:** Inform the community, and specifically property owners in areas designated high priority for sidewalk construction, through the newspapers, direct mail and other means, of the costs, benefits and procedures for establishing an Improvement District for sidewalk construction.

Responsibility: Community Development and Public Works Departments.

**Program T 33.1-c:** Provide assistance for the establishment of Improvement Districts for residents of built-out areas who wish to install sidewalks or pedestrian pathways.

Responsibility: Community Development and Public Works Departments.

## ***Public Transit***

**Policy T 34.1: Design Guidelines for Public Transit.** The City will coordinate with Lake Transit Authority and establish design guidelines for residential and commercial development to facilitate future public transit service.

**Program T 34.1-a:** The City will coordinate with Lake Transit Authority and establish design guidelines in the Zoning Ordinance to facilitate the future public transit service. Consider identifying areas for the location of future bus stops, right-of-ways for bus turnouts, and facilities in high density residential developments to facilitate future use of public transit.

Responsibility: Community Development and Public Works Departments

**Policy T 35.1: Dial-A-Ride and Senior Transit Services.** Continue to encourage the Dial-A-Ride, Senior Transit and other transit services for persons with special transit needs.

**Program T 35.1-a:** Continue to monitor the operation of the Dial-A-Ride and Senior Transit services to identify problems and needs. Work with these transit service providers to provide assistance in planning routes and obtaining additional funding.

Responsibility: Community Development and Public Works Departments

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**Policy T 36.1: Public Transit.** Continue operation of public transit and cooperate with the Area Planning Council and Lake Transit Authority to continue to implement a regional public transit system.

Responsibility: Community Development and Public Works Departments

### ***Traffic Safety***

**Policy T 37.1: Speed Zones.** Periodically review and adjust speed zones in accordance with the requirements of the California Vehicle Code.

Responsibility: Community Development and Public Works Departments

**Policy T 38.1: Traffic Control Devices.** Traffic control devices shall conform to the Manual on Uniform Control Devices or Caltrans' Traffic Manual warrants for installation, maintenance, and operation.

**Program T 38.1-a:** Develop and maintain traffic control device inventory and deficiency lists.

Responsibility: Public Works Department

**Policy T 39.1: Roadway Safety.** Increase the safety of the roadway system by removing hazards.

**Program T 39.1-a:** Review traffic accident records annually to determine where additional street lighting or modifications to the existing street lighting may be required.

Responsibility: Police and Public Works Departments

**Program T 39.1-b:** Review high accident areas annually and make recommendation for improvements to the street system. Ensure adequate enforcement of existing speed zones.

Responsibility: Police and Public Works Departments.

**Program T 39.1-c:** Develop safe route to school plans in cooperation with the school district and the Area Planning Council.

Responsibility: Police and Public Works Departments, the Lakeport Unified School District, and the Area Planning Council.

**Policy T 40.1: Increased Safety and Accessibility.** Provide roadway improvements to increase safety and accessibility for both motorists and pedestrians and to reduce congestion on existing streets.

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**Program T 40.1-a:** Require public street right-of-way dedications as development occurs.

Responsibility: Public Works Department

**Program T 40.1-b:** Evaluate the feasibility of installing additional pedestrian crossings wherever necessary.

Responsibility: Community Development and Public Works Departments

**Program T 40.1-c:** Develop and promote a school safety and education program in collaboration with the Lakeport Unified School District.

Responsibility: Police Department

**Policy T 41.1: Traffic Separation.** Separate vehicular, bicycle and pedestrian traffic wherever possible.

**Program T 41.1-a:** Monitor and record accidents on City's streets and recommend safety-related improvements with the annual review of the City's Capital Improvement Program.

Responsibility: Police and Public Works Departments

### ***Air Transportation***

**Policy T 42.1: Regional Airport Development.** Consider the development of a regional airport with scheduled commercial or commuter service. Study the impact of expanding Lampson Field into a regional airport.

**Program T 42.1-a:** Consider such methods as participation in an airport district, joint management of the facility, or City acquisition of the airport to develop Lampson Field into regional airport.

Responsibility: City Council

**Program T 42.1-b:** Cooperate and work with the County to develop an Airport Master Plan and expand Lampson Field

Responsibility: City Council.

*Additional policies and programs related to aircraft noise are contained in the Noise section of the Safety Element.*

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**Policy T 43.1: Public Participation.** Seek public participation in the preparation and implementation of regional and local transportation plans

**Policy T 44.1: Environmental Quality.** Ensure that transportation facilities do not adversely impact irreplaceable resources, such as the lakefront, riparian corridors, open space, and park facilities. Minimize the air, noise, and water pollution due to transportation facilities.

Responsibility: Community Development and Public Works Departments

**Policy T 45.1: Community Character.** Ensure that transportation facilities and improvements will not adversely impact or reduce the character of the community and the Central Business District.

Responsibility: Community Development and Public Works Departments

**Policy T 46.1: Interagency Coordination.** Continue to coordinate with Lake County and Caltrans to insure development that is occurring in the County is consistent with the City's long-term transportation policies.

Responsibility: Community Development and Public Works Departments

**Policy T 47.1: County Road System.** Continue coordination with the County of Lake for the provision of improvements to the County road system. Utilize the Road Network Needs Study as a basis for determining required improvements.

Responsibility: Community Development and Public Works Departments