Section II
REVIEW OF EXISTING NEIGHBORHOOD ROADWAY CONDITIONS

Kings Beach's neighborhood streets ("the grid") consist of a series of north-south streets (named after mammal species) and east-west streets (named after fish species) that largely result in an interconnected grid network roughly four blocks (east-west) by nine blocks (north-south) north of SR 28 and east of SR 267. In addition, Brockway Vista Avenue parallels SR 28 one block to the south between Coon Street and Chipmunk Street.

These streets largely serve low to mid-density residential land uses. The preponderance of commercial land uses are located along SR 28, or within one block of the state highway. Other important traffic and pedestrian trip generators consist of:

- The Kings Beach Elementary School and adjacent Boys and Girls Club, along the west side of Deer Street between Steelhead Avenue and Dolly Varden Avenue.
- Light industrial land uses along Speckled Avenue and Cut Throat Avenue.
- The State Recreation Area and public boat launch ramp at the south end of Coon Street.
- Several small churches.

Block size in the grid area averages roughly 785 feet in the east-west direction and 285 feet in the north-south direction.

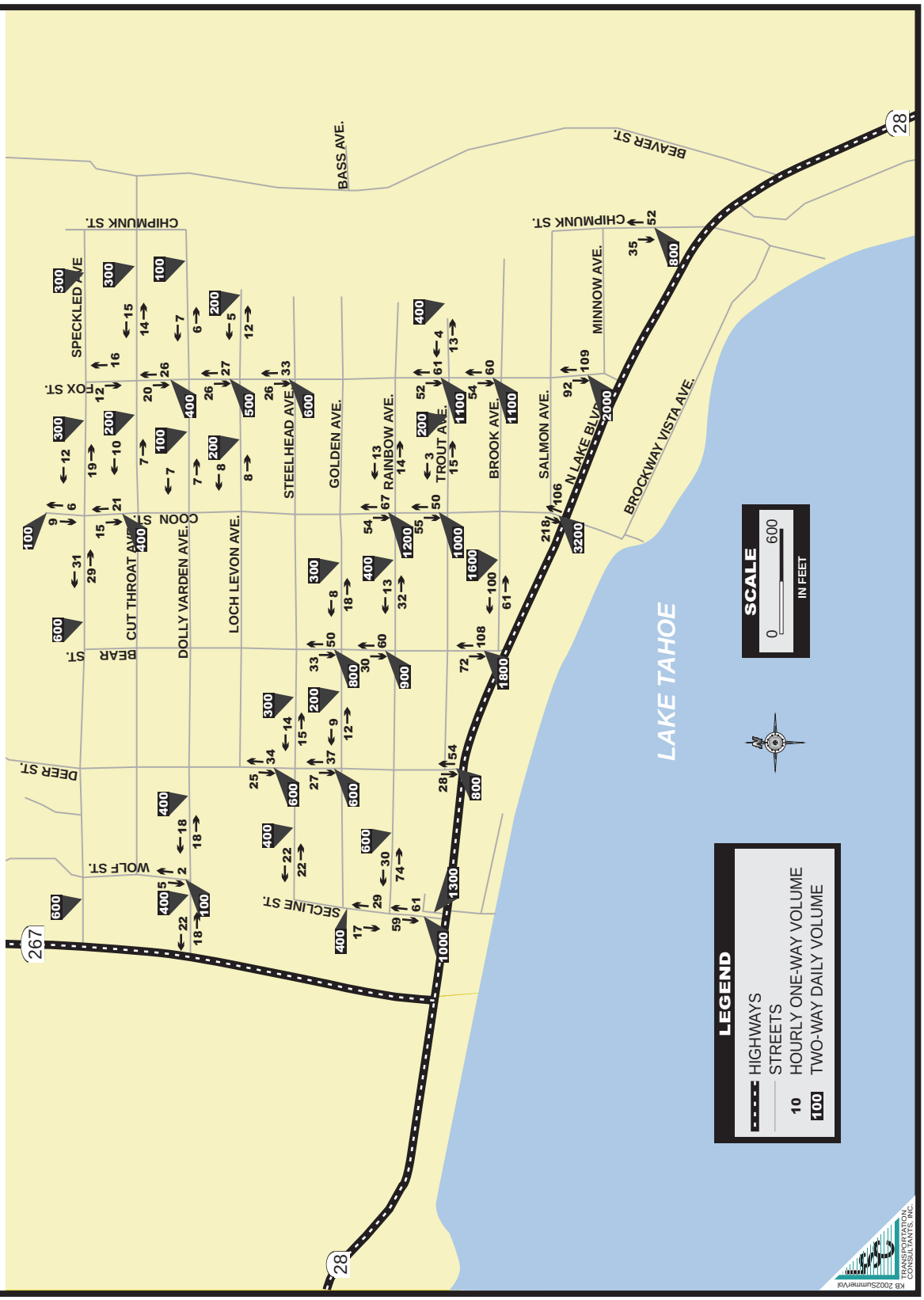
The configuration of this local roadway network tends to make the neighborhood streets relatively susceptible to cut through traffic. A high proportion of traffic passing through Kings Beach travels between SR 267 to the north (serving Truckee and Interstate 80) and SR 28 to the east (serving Crystal Bay and Incline Village). Total travel distance via the state highways for this "diagonal" travel pattern is not much shorter than the travel distance vial the local streets. As a result, if travel times were to increase along the state highways, through drivers may be motivated to use neighborhood streets to seek travel time savings.

Existing Traffic Volumes

The most recent comprehensive traffic count effort in the Kings Beach neighborhood streets was conducted by Placer County Department of Public Works in 2002, and included both roadway and intersection counts during the summer months of June, July and August. Figure 1 presents this count information. Of the locations counted, traffic volumes are relatively high closest to SR 28. Volumes are relatively high on Coon Street (up to 3,200 vehicles per day) followed by Fox Street (2,000 vehicles per day). Away from the highway, volumes tend to fall in the range of 200 to 1,200 vehicles per day (total of both directions). A comparison of these volumes with the traffic volumes estimated to be generated by the existing land uses indicates that existing cut through traffic activity is low (not more than a few hundred vehicles per day).

FIGURE 1

Kings Beach 2002 Summer Hourly and Daily Traffic Volumes



Existing Pedestrian and Bicycle Activity

As part of this study, limited bicycle and pedestrian activity counts were conducted July 17-18, 2008, at a total of ten locations, as shown in Figure 2. Counts were conducted for 30 to 60 minutes depending on volume (lower volume sites were counted longer). Adjusted to reflect an hour-long period, along any one street segment up to roughly 40 pedestrians and 14 cyclists per hour were observed. As these counts were conducted in summer, they do not reflect the substantial pedestrian activity generated by the elementary school.

Existing Traffic Control

Beyond the two existing traffic signals (at SR 28/SR 267 and SR 28/Coon Street), traffic control in Kings Beach consists largely of Stop signs on side street approaches. As shown in Figure 3, these Stop signs are largely oriented facing the east-west streets, leaving relatively long stretches of the north-south streets between Stop signs.

Figure 3 also shows existing posted traffic speeds. As shown, all neighborhood streets are posted at 25 miles per hour. This is also the “prima facie” speed limit in California on residential streets not otherwise posted and as defined in the California Vehicle Code.

Existing Pavement Width and Right-Of-Way Width

Figure 4 presents the existing pavement width of each roadway block in Kings Beach. As indicated, the majority of the roadways are 20 to 28 feet in width. Some blocks just off of SR 28 and Speckled Avenue are relatively wide (up to 38 feet in width), while Beaver Street and the eastern portion of Chipmunk Avenue are relatively narrow (as small as 18 feet). The neighborhood roadways in Kings Beach are generally platted to provide 50 feet of right-of-way for the north-south streets and 40 feet of right-of-way for the east-west streets.

Existing Roadway Grades

The grade of a neighborhood street is important in traffic management, in part because it may limit the feasibility of some traffic control devices. Grades were evaluated on a block-by-block basis; as not all blocks are of a consistent grade, detailed design of traffic controls would require a more detailed evaluation of grade. As shown in Figure 5, overall grades are relatively slight in the western and southern portions of the grid (less than 5 percent grades). In the northeastern portion of the area, however, grades are as high as 12 percent.

Existing Traffic Speeds

Two limited surveys of existing traffic speeds were conducted as part of this study. Short surveys were conducted using a radar gun at a total of ten locations on July 17-18, 2008. A minimum of 40 observations were made in each location. In addition, 24-hour counts of traffic speeds were conducted at 3 locations using a pole-mounted radar device. Figure 6 presents a summary of this speed survey. For each location, first the 85th percentile speed is reported, followed by the observed maximum speed. The 85th percentile speed (that speed at which 85 percent of all drivers travel at or below) is important as it is the accepted level used by traffic engineers to set speed limits. As shown, the 85th percentile speed is within 5 miles per hour of the established speed limit at all locations, with the exception of Speckled Avenue (33 miles

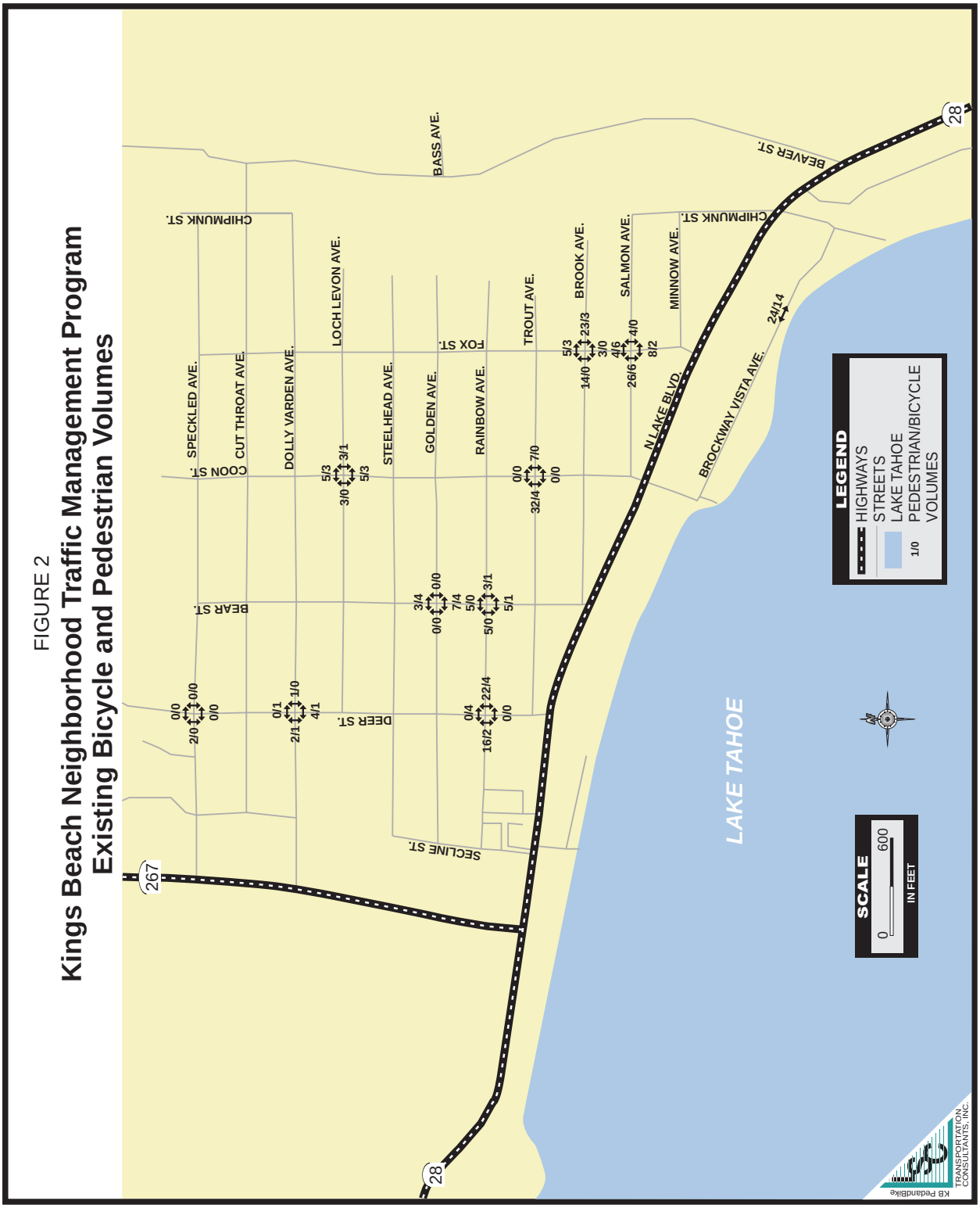


FIGURE 2
Kings Beach Neighborhood Traffic Management Program
Existing Bicycle and Pedestrian Volumes
SPECKLED AVE.
CUT THROAT AVE.
DOLLY VARDEN AVE.
LOCH LEVON AVE.
STEELHEAD AVE.
GOLDEN AVE.
RAINBOW AVE.
TROUT AVE.
BROOK AVE.
SALMON AVE.
MINNOW AVE.
BASS AVE.
COON ST.
FOX ST.
CHIPMUNK ST.
BEAR ST.
DEER ST.
SECLINE ST.
N LAKE BLVD.
BROCKWAY VISTA AVE.
BEAVER ST.
267
28
LAKE TAHOE
SCALE
0
600
IN FEET
LEGEND
HIGHWAYS
STREETS
LAKE TAHOE
1/0 PEDESTRIAN/BICYCLE VOLUMES
TRANSPORTATION CONSULTANTS, INC.
KB Pedandbike

FIGURE 3

Kings Beach Neighborhood Traffic Management Program – Existing Traffic Control

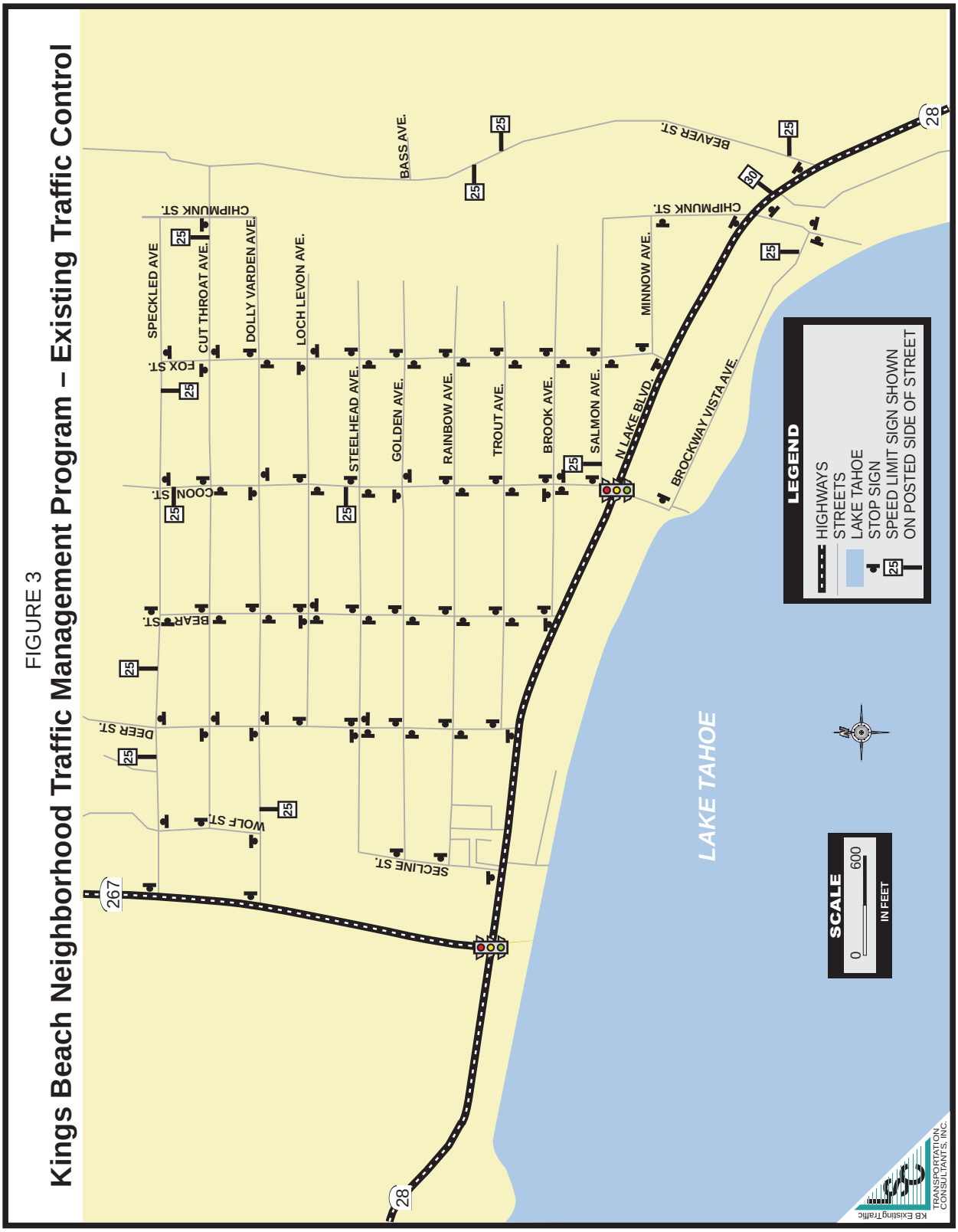


FIGURE 4

Kings Beach Neighborhood Traffic Management Program - Existing Pavement Width

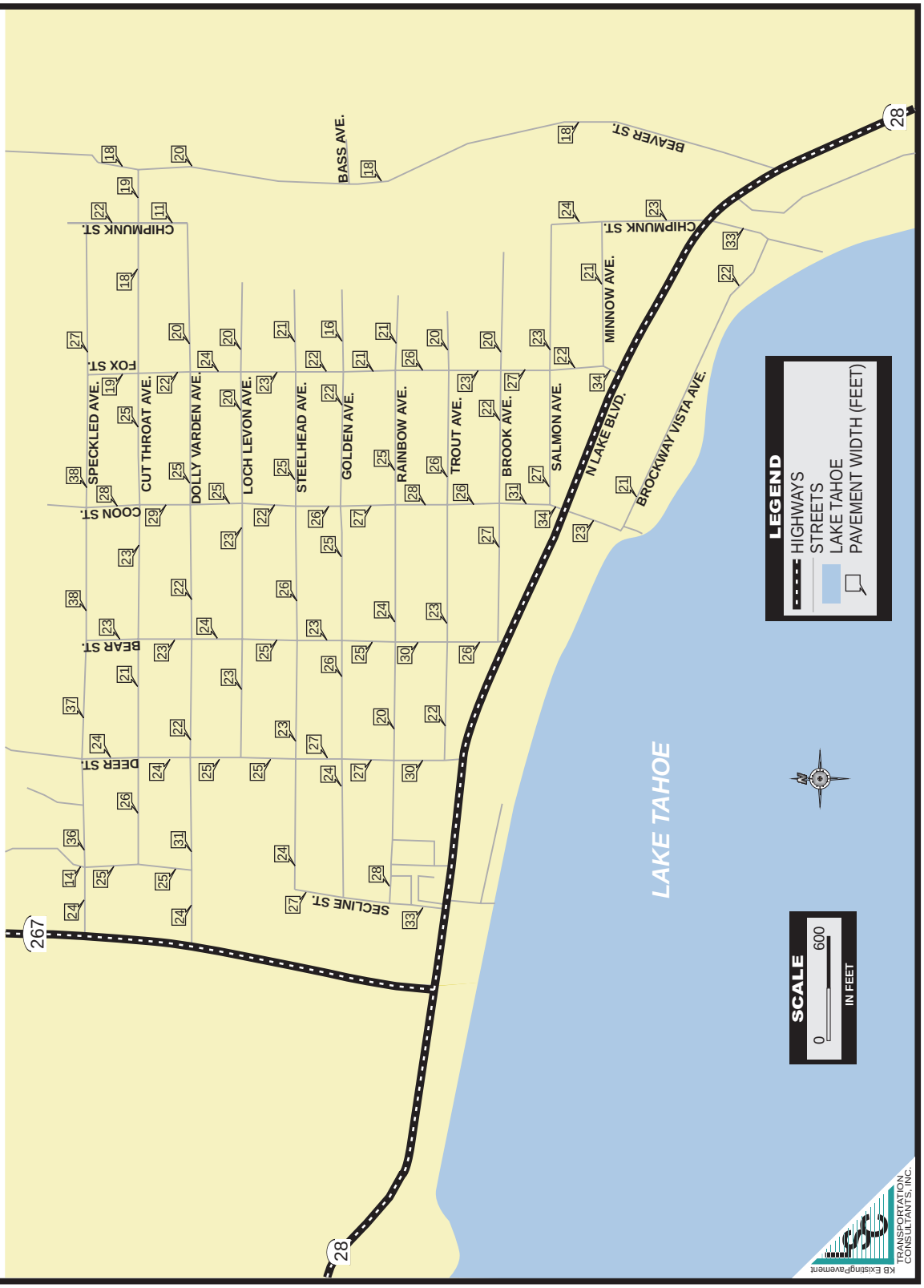
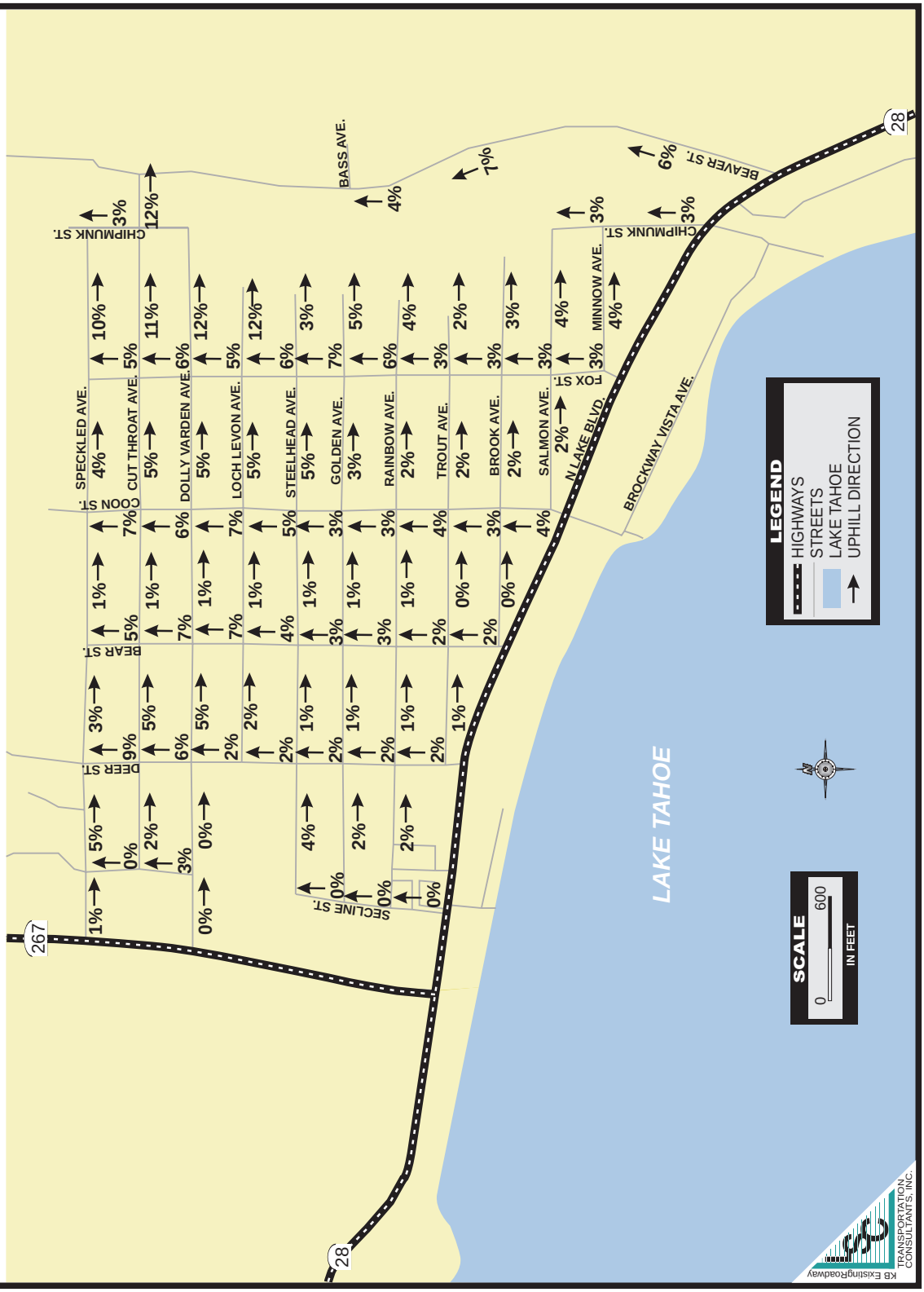


FIGURE 5

Kings Beach Neighborhood Traffic Management Program - Existing Roadway Grade



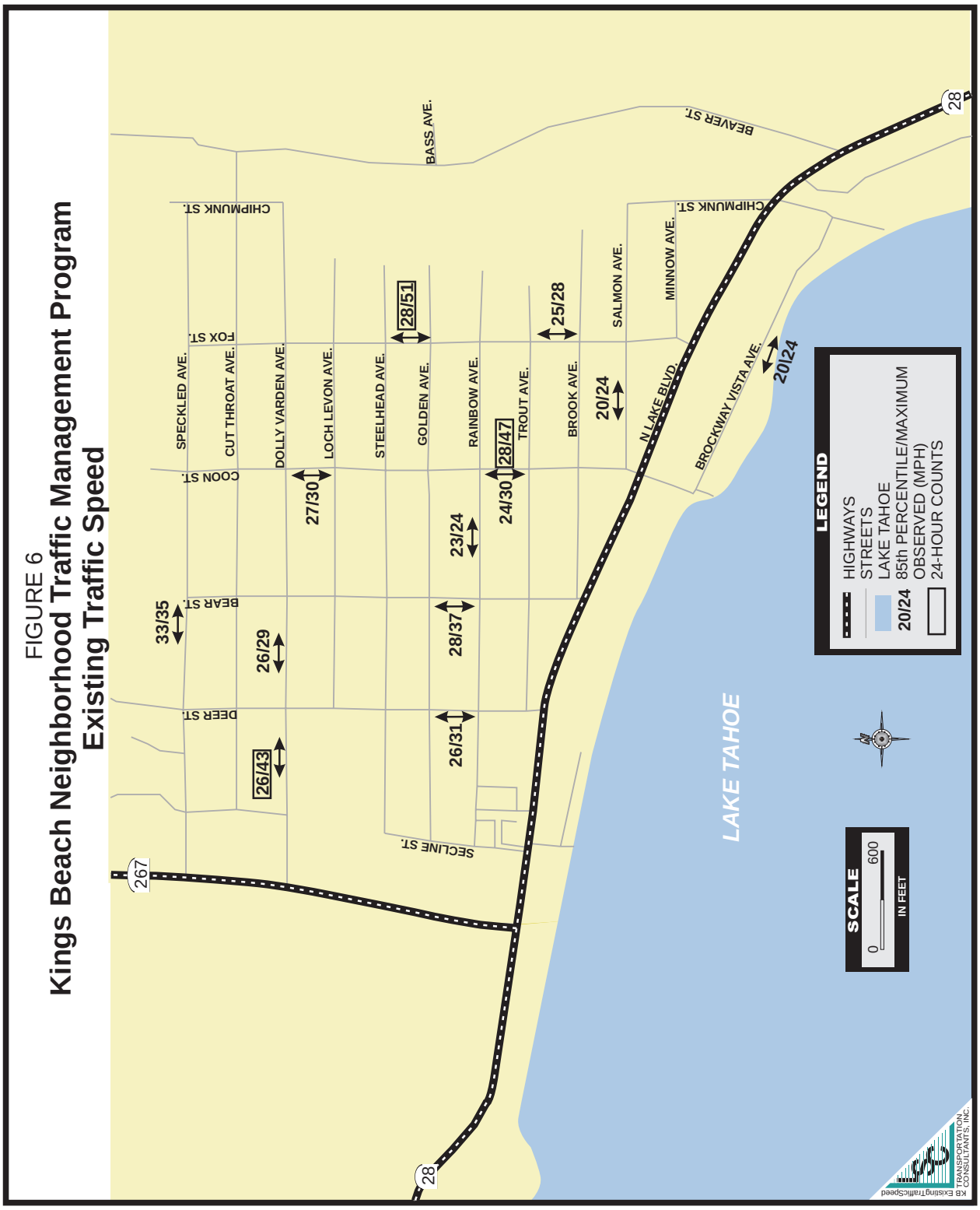


FIGURE 6
Kings Beach Neighborhood Traffic Management Program
Existing Traffic Speed
SPECKLED AVE.
CUT THROAT AVE.
DOLLY VARDEN AVE.
LOCH LEVON AVE.
STEELHEAD AVE.
GOLDEN AVE.
RAINBOW AVE.
TROUT AVE.
BROOK AVE.
SALMON AVE.
MINNOW AVE.
N LAKE BLVD.
BROCKWAY VISTA AVE.
CHIPMUNK ST.
FOX ST.
COON ST.
BEAR ST.
DEER ST.
SECLINE ST.
BASS AVE.
BEAVER ST.
267
28
33/35
26/29
26/43
27/30
28/51
23/24
28/37
26/31
24/30
28/47
25/28
20/24
20/24
LAKE TAHOE
LEGEND
HIGHWAYS
STREETS
LAKE TAHOE
20/24 85th PERCENTILE/MAXIMUM OBSERVED (MPH) 24-HOUR COUNTS
SCALE
0
600
IN FEET
LSC TRANSPORTATION CONSULTANTS, INC.
K:\B ExistingTrafficSpeed

per hour). The highest observed speed (51 miles per hour) was observed along Fox Street between Golden and Steelhead Avenues. In general, the 24-hour counts indicated that the maximum speeds occurred in the evenings or in the middle of the night.

This limited speed survey data indicates that, at present, excessive speeding is not a widespread problem on Kings Beach neighborhood streets. However, given the high level of bicycle and pedestrian activity combined with narrow roadway widths shared by all modes, the prospect of increased speeds is of concern. In addition, if traffic congestion occurs along SR 28 in the future, it can be expected that some drivers frustrated by the delay will divert to residential streets and may speed, which would increase both 85th percentile as well as maximum speeds.

Existing Potential Locations for Mid-Block Traffic Control Device Locations

Some potential neighborhood traffic control devices (such as speed humps) are installed along blocks away from intersections. It is important that these devices allow drivers turning onto the roadway adequate time to observe and adjust their driving to the presence of the device in a safe manner. These devices also should not be installed immediately adjacent to a driveway. Kings Beach neighborhood streets were surveyed to identify those locations that meet the following typical criteria for speed humps:

- At least 100 feet from a public street intersection.
- A minimum of 30 feet of roadway length between driveway locations on either side. (Note: A typical speed hump is 12 feet in the direction of travel. 30 feet provides room for the device and maneuvering room for driveway access.)

Figure 7 shows the locations that meet these criteria, which provides an initial indication where speed humps may be feasible.

As indicated, there are several relatively long roadway segments where it appears that no mid-block devices could be installed based on the criteria above, including the following:

- Deer Street from south of Golden Avenue to north of Loch Levon Avenue
- Coon Street from south of Golden Avenue to north of Dolly Varden Venue
- Fox Street from Minnow Avenue to north of Trout Avenue, and from south of Rainbow Avenue to north of Steelhead Avenue
- Chipmunk Street between SR 28 and Salmon Street.
- The southern half of Beaver Street
- Golden Avenue from west of Deer Street to east of Bear Street
- Golden Avenue from west of Coon Street to east of Fox Street
- Steelhead Avenue from west of Bear Street to East of Coon Street
- Dolly Varden Avenue from west of Deer Street to east of Bear Street
- Speckled Avenue from west of Deer Street to east of Bear Street

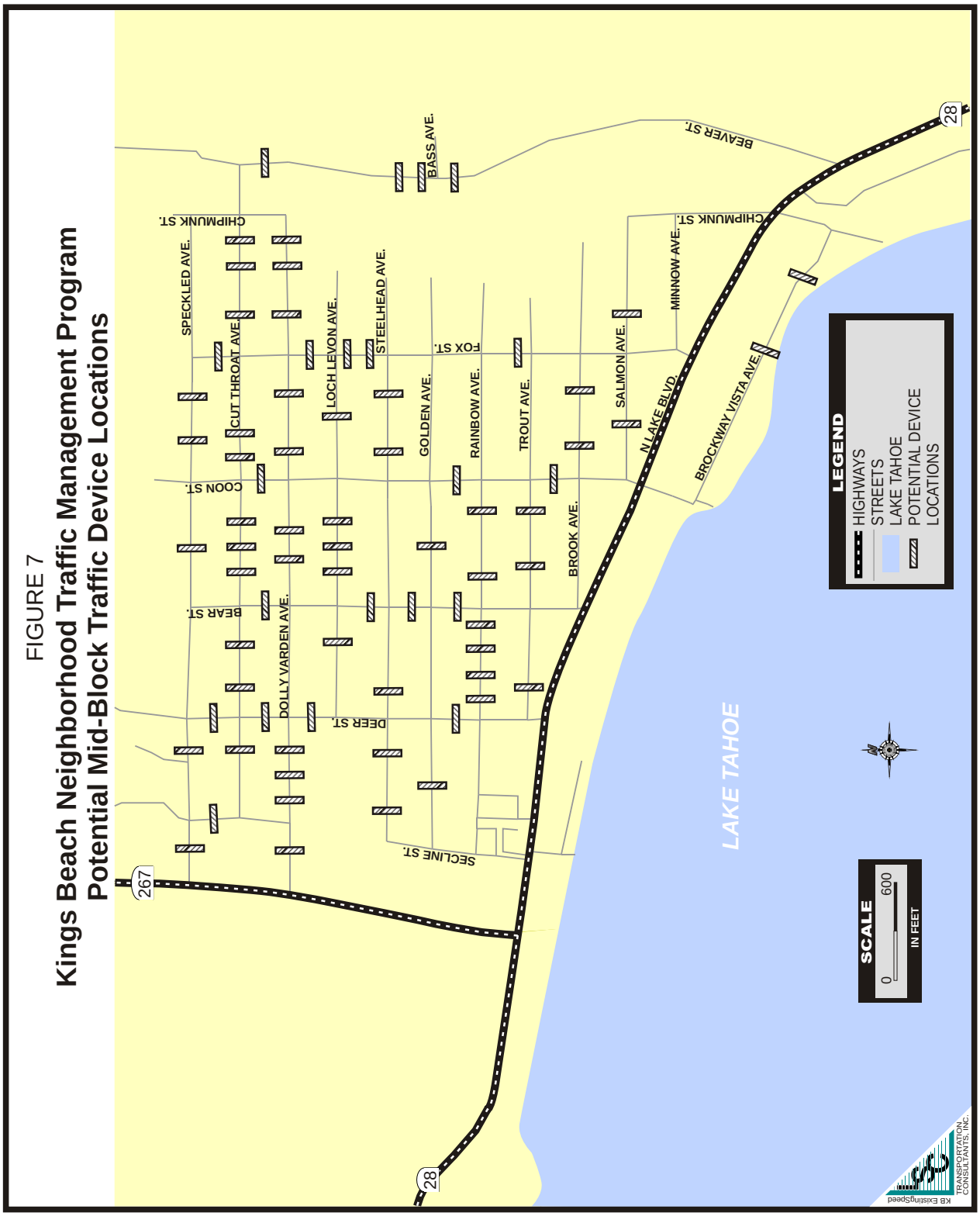


FIGURE 7
Kings Beach Neighborhood Traffic Management Program
Potential Mid-Block Traffic Device Locations
SPECKLED AVE.
CHIPMUNK ST.
CUT THROAT AVE.
COON ST.
BEAR ST.
DOLLY VARDEN AVE.
LOCH LEVON AVE.
STEELHEAD AVE.
BASS AVE.
FOX ST.
GOLDEN AVE.
DEER ST.
SECLINE ST.
RAINBOW AVE.
TROUT AVE.
BROOK AVE.
SALMON AVE.
MINNOW AVE.
N LAKE BLVD.
BROCKWAY VISTA AVE.
BEAVER ST.
267
28
LAKE TAHOE
SCALE
0
600
IN FEET
LEGEND
HIGHWAYS
STREETS
LAKE TAHOE
POTENTIAL DEVICE LOCATIONS
LSC
TRANSPORTATION CONSULTANTS, INC.
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