**Analysis of traffic flow**

Work zone capacity has been a significant issue, but capacity data at work zones have been collected only sporadically. The Highway Capacity Manual 2000 provides only a limited discussion of this issue. As more rehabilitation or reconstruction of existing highways take place, it becomes essential that Utah Department of Transportation traffic engineers have proper capacity estimates for different work zone configurations. These configurations include partial lane closures, shoulder closures, narrowed lanes and lane crossings. Proper capacity estimates are essential in order to correctly estimate capacities for these work zone control measures, estimate possible queues that would be formed, and evaluate the effects of different work zone traffic control measures on queue mitigation. The Beck Street work zone was selected for this study because it provides information about Interstate 15, which is the most used corridor in the Salt Lake City area. After models for flow rate, density, and speed were completed, the overall capacity of the Beck Street work zone after experiencing a lane reduction from 3 to 2 lanes was determined to be approximately 1,350 vehicles per hour per lane (veh/h/ln), much lower than a typical one freeway lane capacity of approximately 2,000 veh/h/ln, but only slightly lower than expected for a work zone based on an average of 1512 veh/h/ln from similar studies. Keywords: work zone, capacity, traffic flow model