

APPENDIX C

Level of Service Data

Level of Service Descriptions

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level-of-service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with Level of Service A representing the best operating conditions and Level of Service F the worst.

In general, the various levels of service are defined as follows for uninterrupted flow facilities:

- Level of Service A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
- Level of Service B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
- Level of Service C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.
- Level of Service D represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- Level of Service E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.
- Level of Service F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Level of Service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and Level of Service F is an appropriate designation for such points.

Intersection: US 50/Elks-Point-Road *Kahle Dr.*
Location: SLT
North/South Street: US 50
East/West Street: Kahle Drive

Date: August 20, 2004
Day: Friday
Name: Ingrid
Project #: 047270

Counter Movement #:	2		3		4		6		7		8		10		11		12		14		15		16	total
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right		
04:00 PM	5	11	293	11	7	1	6	21	264	4	10	9	0	10	631									
04:15 PM	6	12	278	12	7	3	2	11	262	2	8	22	1	8	614									
04:30 PM	3	22	291	22	11	2	2	16	251	3	19	15	0	19	635									
04:45 PM	3	19	314	19	13	4	4	18	247	2	17	4	2	17	647									
05:00 PM	5	13	325	13	9	2	2	15	269	1	16	6	2	16	665									
05:15 PM	0	8	320	8	6	1	5	15	257	1	19	5	3	19	640									
05:30 PM	2	4	291	4	6	0	3	16	272	1	22	1	4	22	622									
05:45 PM	1	6	273	6	6	0	1	11	232	2	19	15	1	19	567									
Peak Hour	11	62	1250	62	39	9	13	64	1024	7	71	30	7	71	2587									

Intersection TM Counts.wb3

Intersection: US 50/Elks Point Road
Location: SLT
North/South Street: US 50
East/West Street: Elks Point Road

Date: August 20, 2004
Day: Friday
Name: Scott Hill
Project #: 047270

Counter Movement #: 2 3 4 6 7 8 10 11 12 14 15 16

Time Period Beginning Ending	Southbound			Westbound			Northbound			Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
04:00 PM 04:15 PM	4	222	3	40	4	9	19	199	51	2	10	17
04:15 PM 04:30 PM	4	220	8	54	7	11	15	191	38	7	10	17
04:30 PM 04:45 PM	8	232	7	42	9	8	19	199	54	10	13	25
04:45 PM 05:00 PM	9	204	6	76	5	9	19	190	42	11	8	17
05:00 PM 05:15 PM	5	229	5	59	6	17	18	195	34	6	9	29
05:15 PM 05:30 PM	10	267	8	56	12	5	19	235	29	8	7	20
05:30 PM 05:45 PM	7	231	13	53	5	8	29	177	45	3	4	28
05:45 PM 06:00 PM	6	240	10	47	6	6	30	192	43	3	2	18

Peak Hour 32 932 26 233 32 39 75 819 159 35 37 91