

calculated for each approach to the crossing (as well as intersection approaches that would be close to a crossing). Poor levels of service and/or queues that fill the distance between a crossing and a nearby intersection were used to make a preliminary determination whether grade separation would be warranted. The results of the grade crossing analysis are shown in **Table 4-8**.

**TABLE 4-7  
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS**

Level of Service (LOS)	Average Total Delay (sec/veh)	Description
A	≤10	Very low delay; most vehicles do not stop at all.
B	> 10 and ≤ 20	More vehicles stop than with LOS A, increasing the average delay.
C	> 20 and ≤ 35	The number of vehicles stopping is significant; however, many still pass through the intersection without stopping.
D	> 35 and ≤ 55	Congestion is readily apparent with many vehicles stopping and individual cycle failures are noticeable (i.e., not all vehicles waiting in the intersection queue are able to get through the intersection on the first green indication).
E	> 55 and ≤ 80	Poor progression; long cycle lengths and frequent cycle failures.
F	> 80	Unacceptable operations, which include many cycle failures caused by arrival flow rates exceeding intersection capacity.

Source: Transportation Research Board, *Highway Capacity Manual*, 2000

**TABLE 4-8  
GRADE CROSSINGS ANALYSIS**

Map No.*	Crossing	2030 Peak Hour Crossing Level of Service	2030 Peak Hour Queue Length (feet)	Distance to Nearest Signalized Intersection (feet)	Recommendation
2	Harry Hines Blvd	B	1,523	0	Grade Separation
24	Tom Braniff Pkwy	A	419	0	Grade Separation
25	SH 114 WB FR	A	292	None	At-Grade
29	Teleport Ave	A	60	None	At-Grade
30	Riverside Blvd	A	76	None	At-Grade
32	Las Colinas Blvd	A	54	None	At-Grade
33	California Crossing Rd	A	140	500 <sup>2</sup>	At-Grade
35	O' Connor Blvd	A	142	1,920	At-Grade
36	Street "A"	Minor <sup>1</sup>	Minor <sup>1</sup>	1,300 <sup>2</sup>	At-Grade
49	MacArthur Blvd	B	1,047	700, 100 <sup>2</sup>	Grade Separation
51	Walnut Hill Lane	A	264	None	At-Grade

<sup>1</sup> Traffic volume projections were not available for this future roadway.

<sup>2</sup> Assumed traffic signal on future roadway.

\* See **Figures 4-3** and **4-4**.

Source: Parsons Transportation Group; 2006

Specifically, the conclusion that a crossing should be grade separated was made due to excessive traffic delay caused by the LRT crossing the roadway or the likelihood that vehicle queues from the crossing would spill back into signalized intersections (or vice versa). Although all of these crossings would experience acceptable levels of service if they were in isolated locations, **Table 4-8** shows that the resultant queues from some crossings would interfere with nearby signalized intersections. Based on this preliminary analysis, the crossings requiring grade separation include Harry Hines Boulevard, Tom Braniff Parkway, and MacArthur Boulevard.