

		ACCELERATION LENGTH, L (ft)								
		ENTRANCE CURVE DESIGN SPEED (mph)								
HIGHWAY	STOP CONDITION	15	20	25	30	35	40	45	50	
		INITIAL SPEED (mph)								
DESIGN SPEED (mph)	SPEED REACHED (mph)	0	14	18	22	25	30	36	40	44
30	23	190	—	—	—	—	—	—	—	—
40	31	380	320	250	220	140	—	—	—	—
50	39	760	700	630	580	500	380	160	—	—
60	47	1170	1120	1070	1000	910	800	590	400	170
70	53	1590	1540	1500	1410	1330	1230	1010	830	580

MINIMUM ACCELERATION LENGTHS FOR ENTRANCE TERMINALS  
(Flat grades of 2 percent or less)

**TABLE A**

DESIGN SPEED (mph)	ACCELERATION LANE				
	Ratio of length of grade to length of level for ①				
	Design speed of turning roadway curve (mph)				
	20	30	40	50	ALL SPEEDS
	<b>2.01 to 4 percent upgrade</b>				<b>2.01 to 4 percent downgrade</b>
40	1.3	1.3	—	—	0.7
50	1.3	1.4	1.4	—	0.65
60	1.4	1.5	1.5	1.6	0.6
70	1.5	1.6	1.7	1.8	0.6
	<b>4.01 to 6 percent upgrade</b>				<b>4.01 to 6 percent downgrade</b>
40	1.5	1.5	—	—	0.6
50	1.5	1.7	2.2	—	0.55
60	1.7	1.9	2.2	2.2	0.5
70	2.0	2.2	2.6	3.0	0.5

① Ratio from this table multiplied by length in Table A gives length of speed change lane on grade.

RATIO OF LENGTH OF SPEED-CHANGE LANE ON GRADE TO LENGTH OF LEVEL ACCELERATION LANE

**TABLE B**

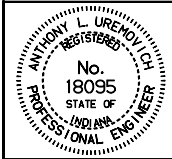
INDIANA DEPARTMENT OF TRANSPORTATION

**RAMP TERMINAL TABLES**

JUNE 1996

STANDARD DRAWING NO. **E 401-REBS-04**

DETAILS PLACED IN THIS FORMAT 11-15-99

	/s/ Anthony L. Uremovich 11-15-99 DESIGN STANDARDS ENGINEER DATE
	/s/ Firooz Zandi 11-15-99 CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER ORIGINALLY APPROVED 6-03-96