

**APPENDIX K**

**FLOW CHARTS ILLUSTRATING DECISION RULES**

# Decision Rules for the Expert System

This document contains flow charts describing the decision rules for the expert system for recommending speed limits in speed zones that was developed as a part of NCHRP Project 3-67.

## Terms:

### Closest 85th

This is the 5 mph increment that is closest to the 85th percentile speed (e.g., if the 85th percentile speed is 63 mph, the Closest\_85th will be 65 mph)

### Rounded-down 85th

This is the 5 mph increment obtained by rounding down the 85th percentile to the nearest 5 mph increment (e.g., if the 85th percentile speed is 63 mph, the Rounded-down\_85th will be 60 mph)

### Closest 50th

This is the 5 mph increment that is closest to the 50th percentile speed (e.g., if the 50th percentile speed is 58 mph, the Closest\_50th will be 60 mph)

### SL\_1

Speed limit calculated using safety surrogates

### SL\_2

Speed limit calculated using crash data from the crash module

### SL

Recommended speed limit

### L.A.F.

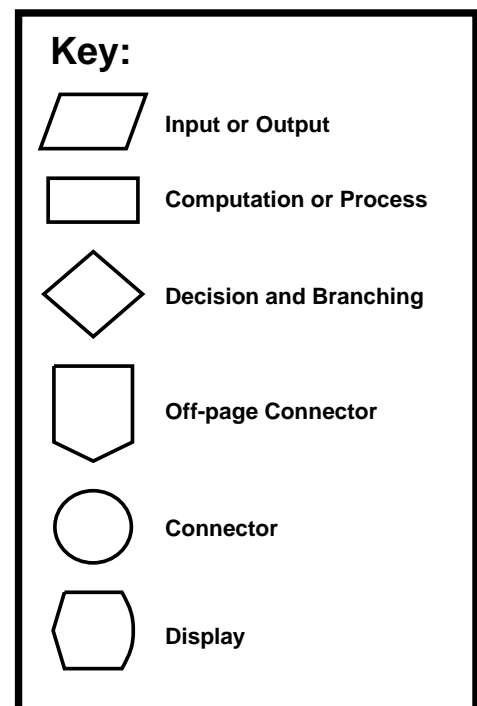
Limited Access Freeway

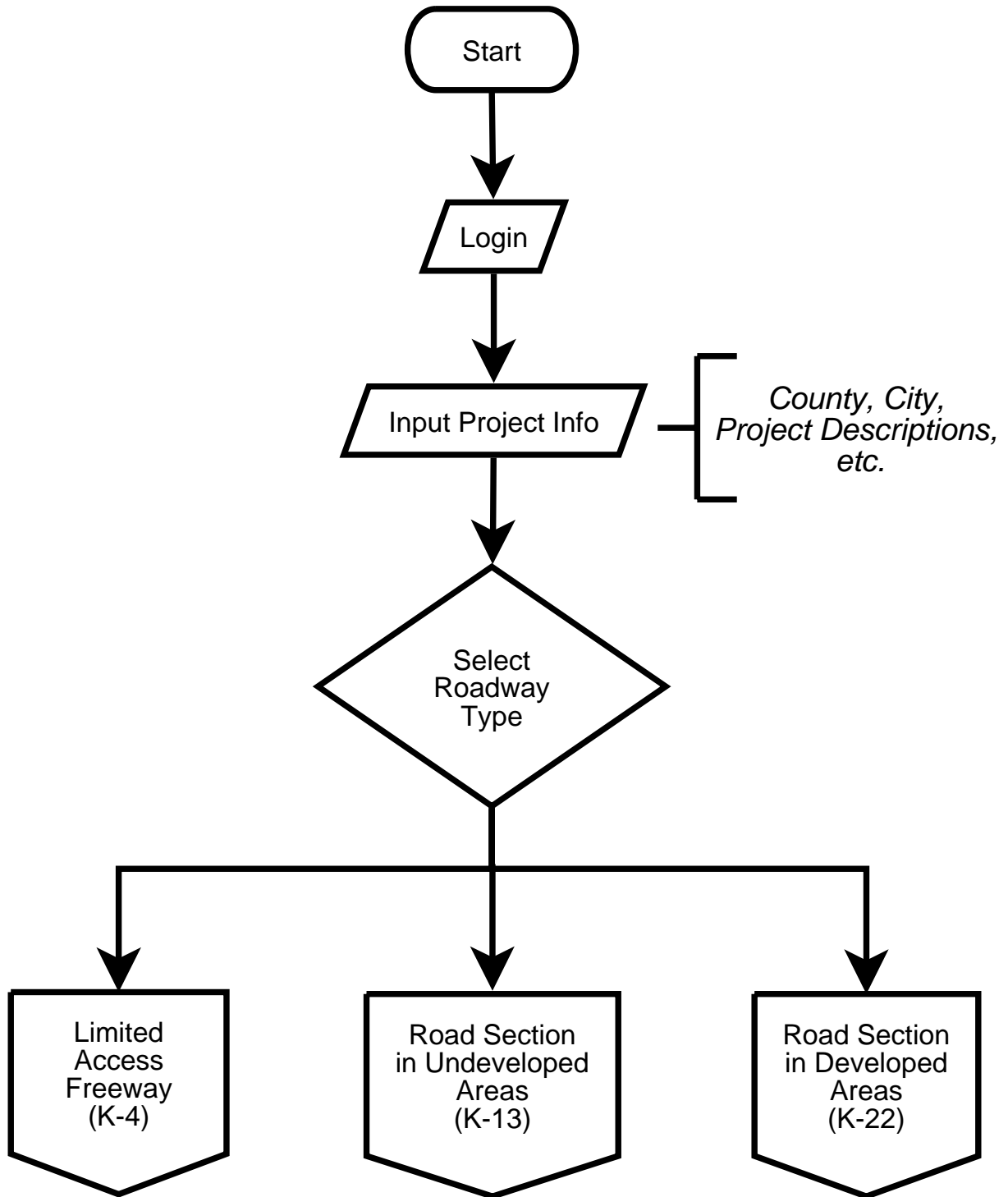
### R.S.I.U.A.

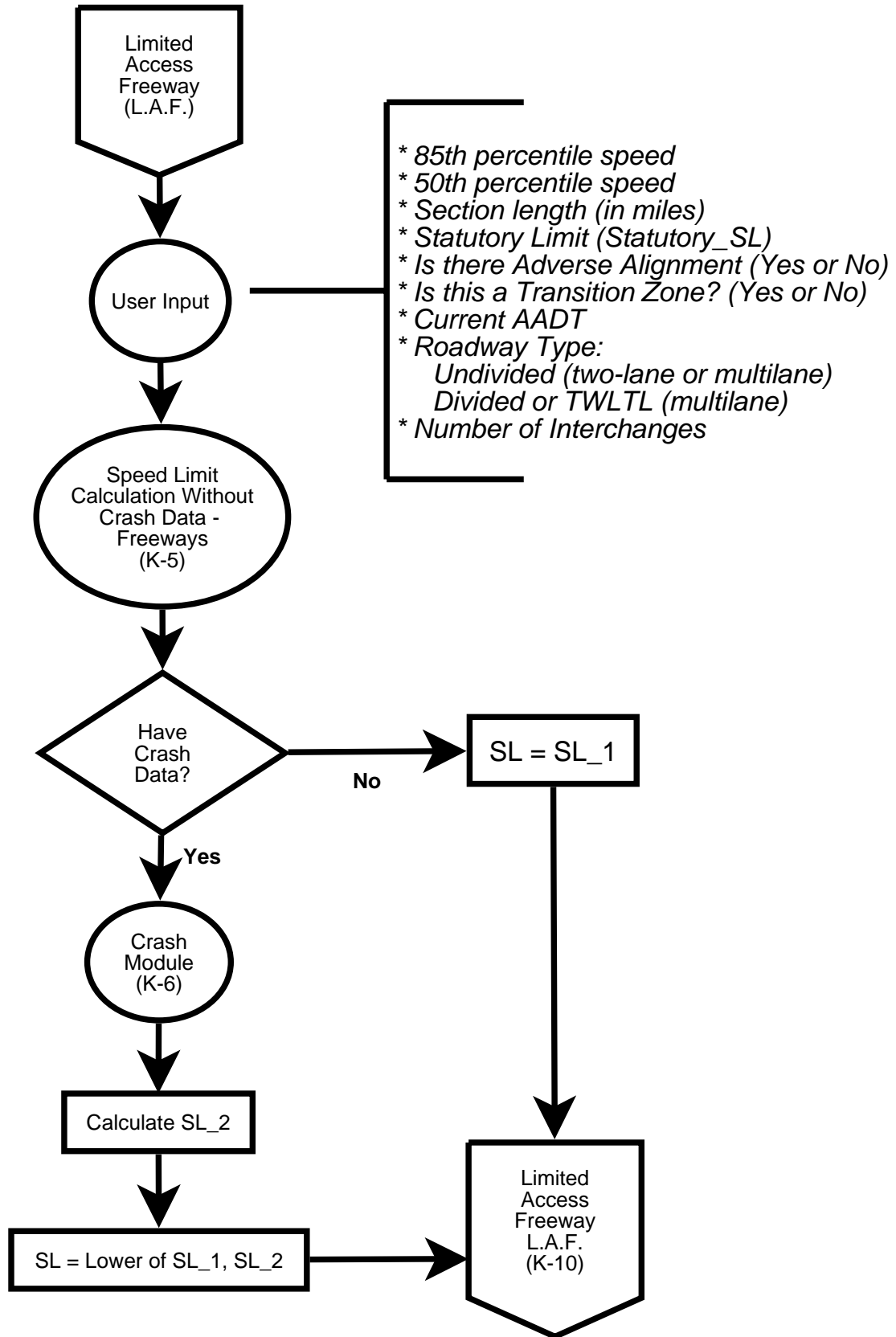
Road Sections in Undeveloped Areas

### R.S.I.D.A.

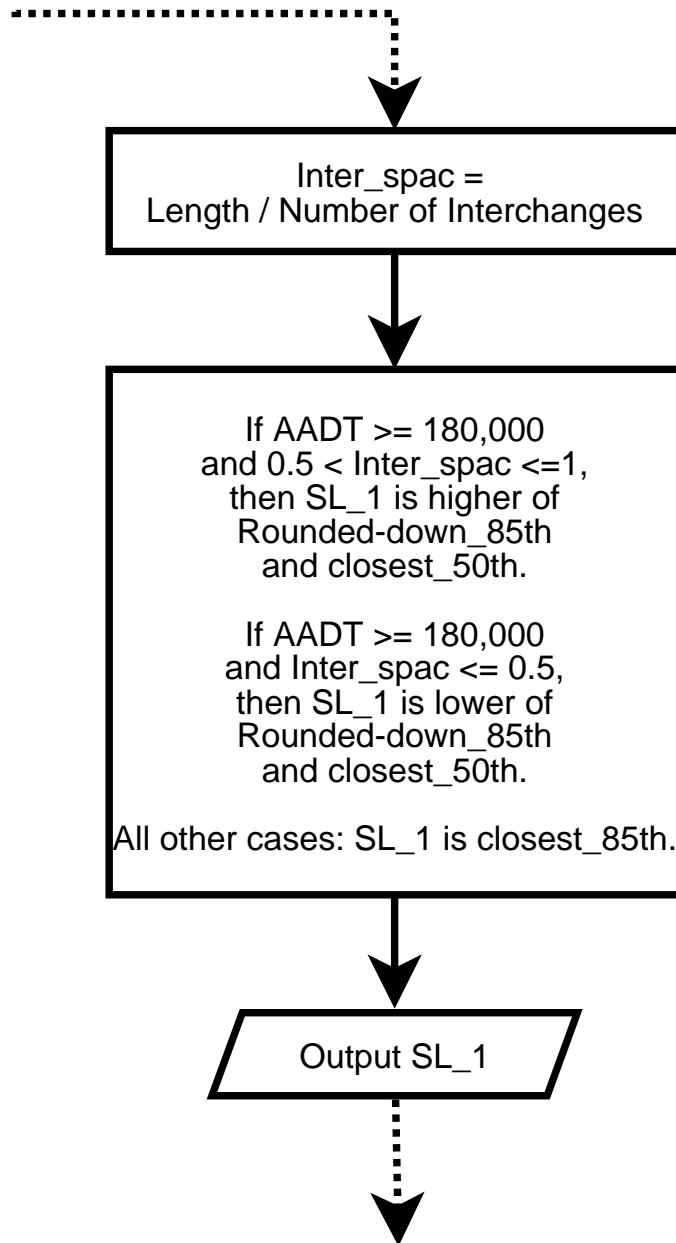
Road Sections in Developed Areas



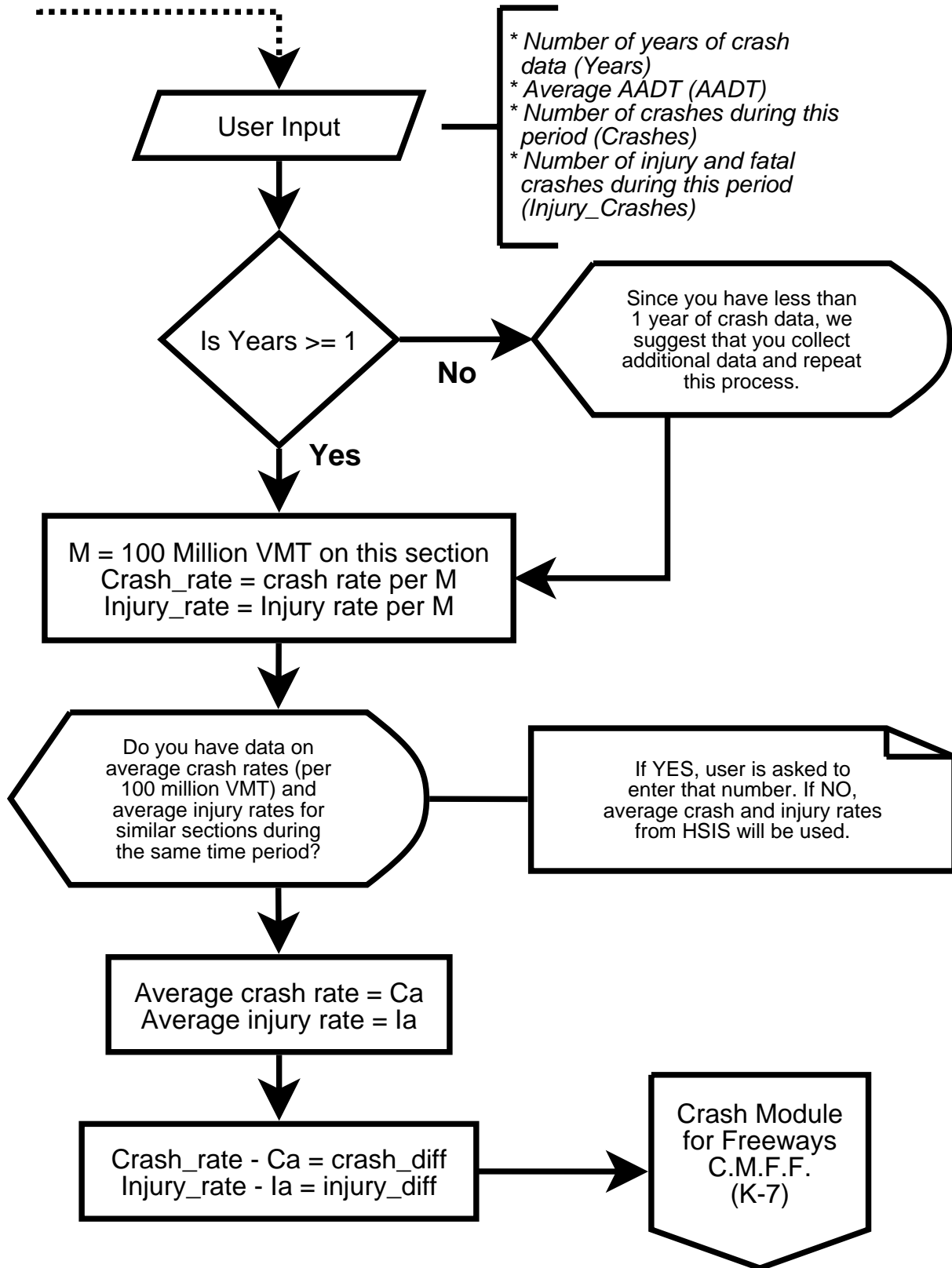


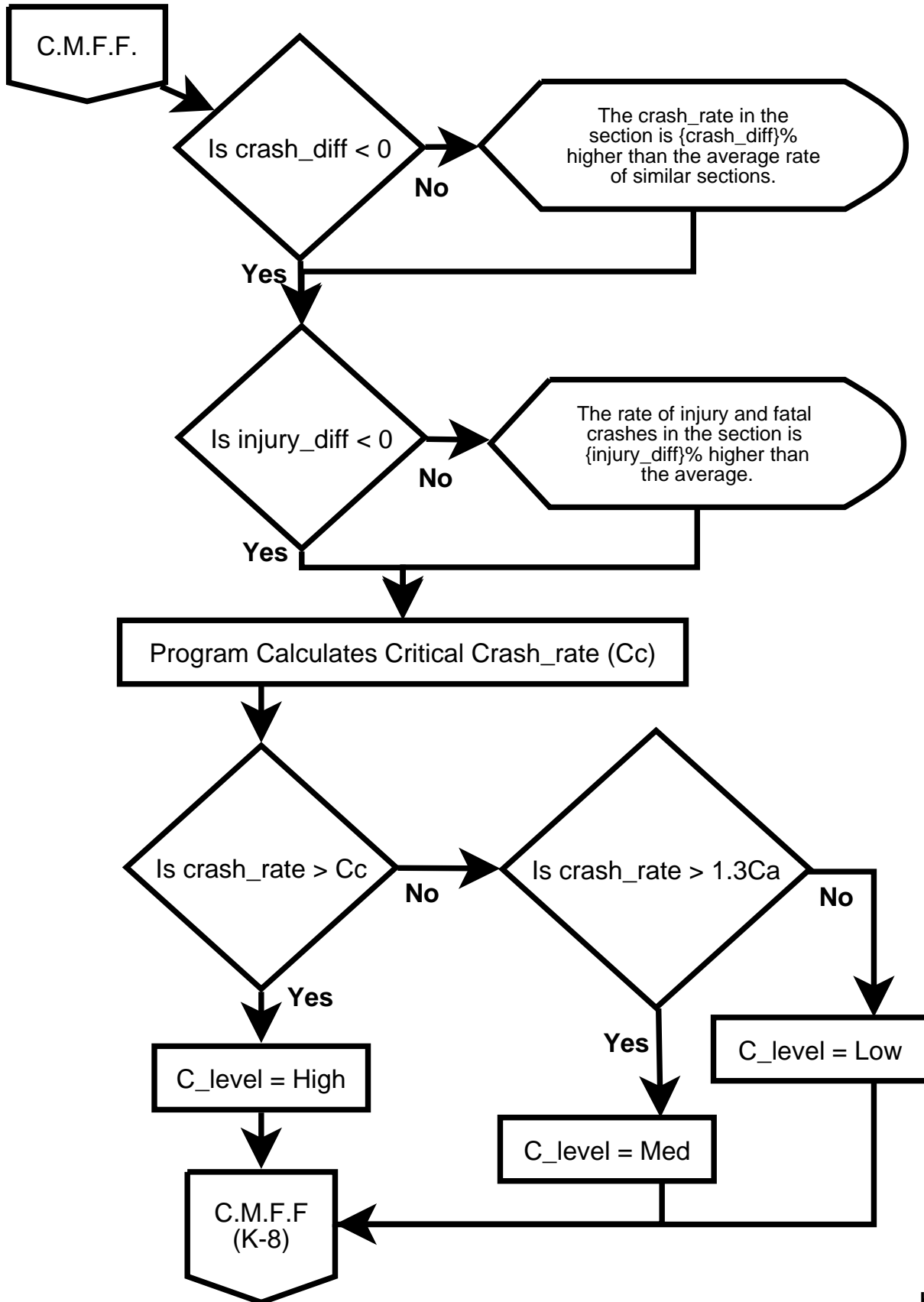


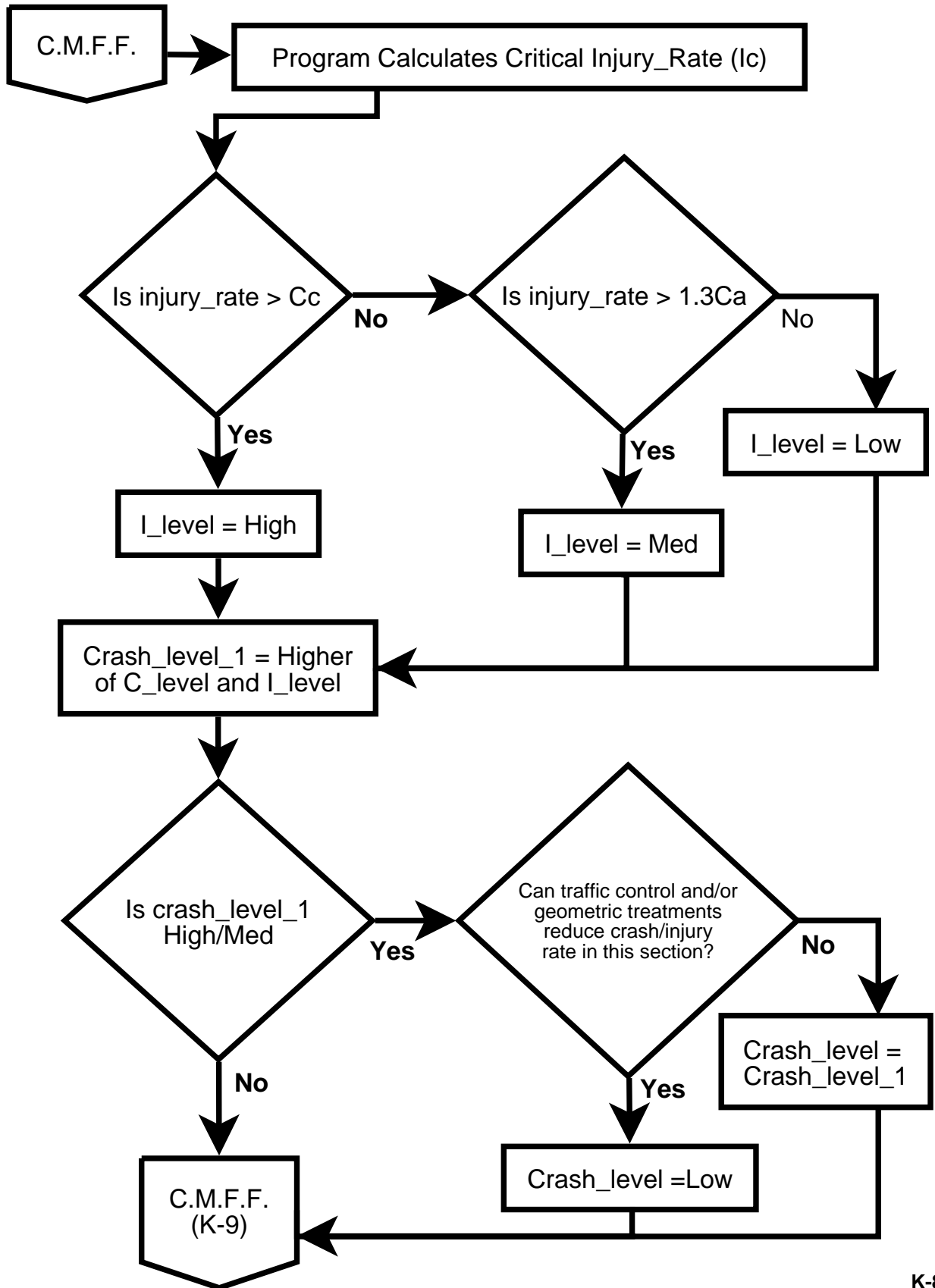
**Speed Limit Calculation Without Crash Data (to calculate SL<sub>1</sub>)  
(Limited Access Freeway)**



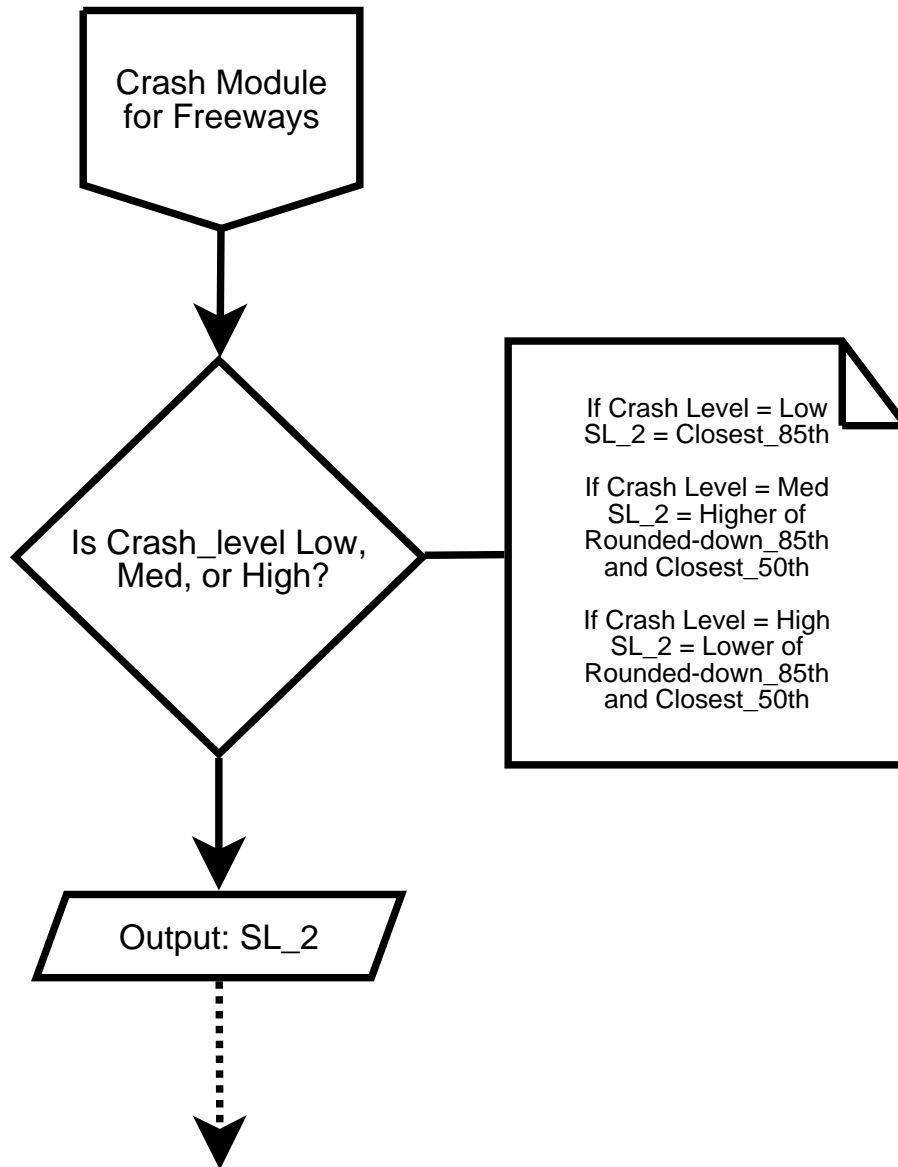
## Crash Module for Freeways (to calculate SL<sub>2</sub>)

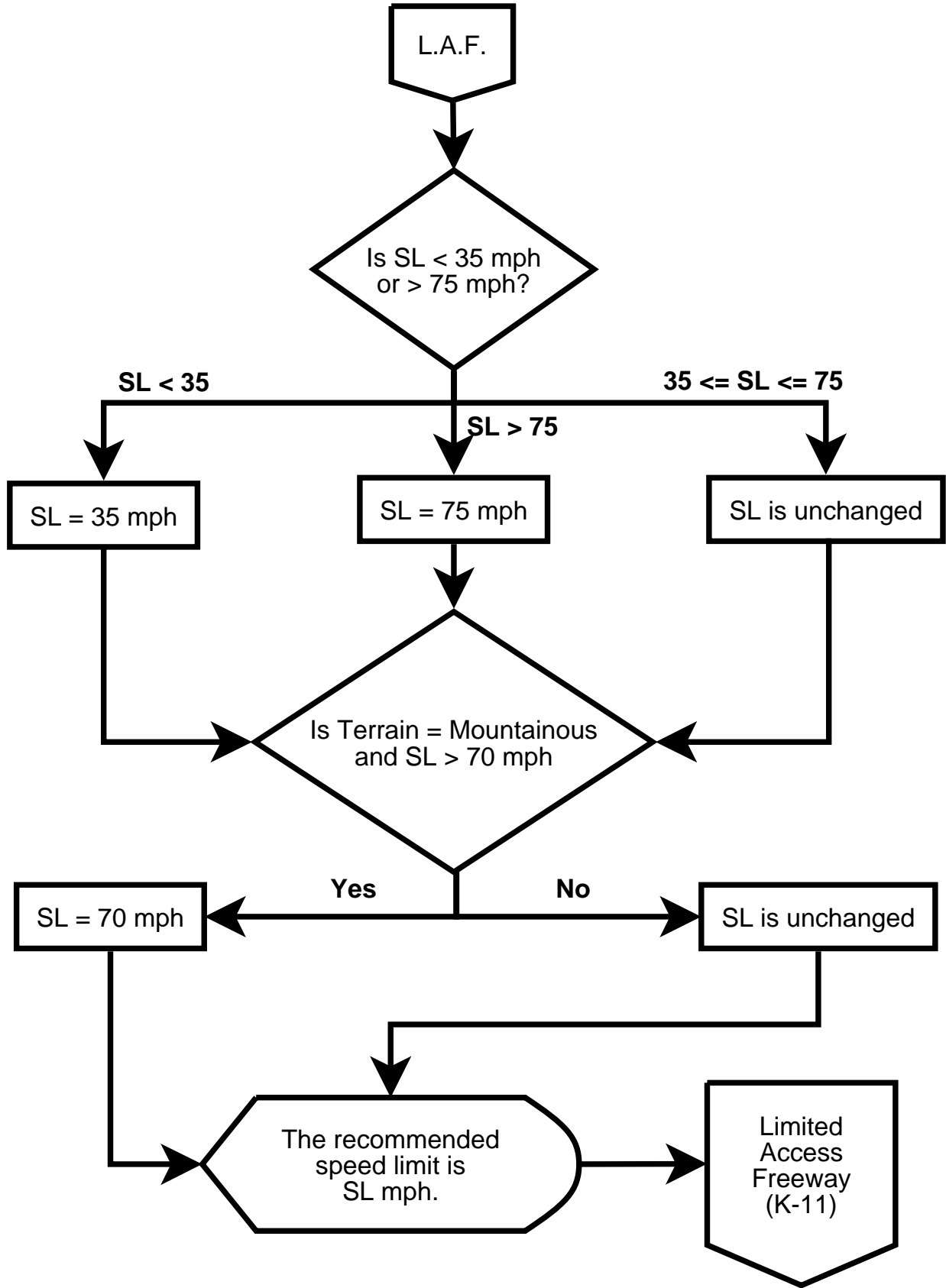


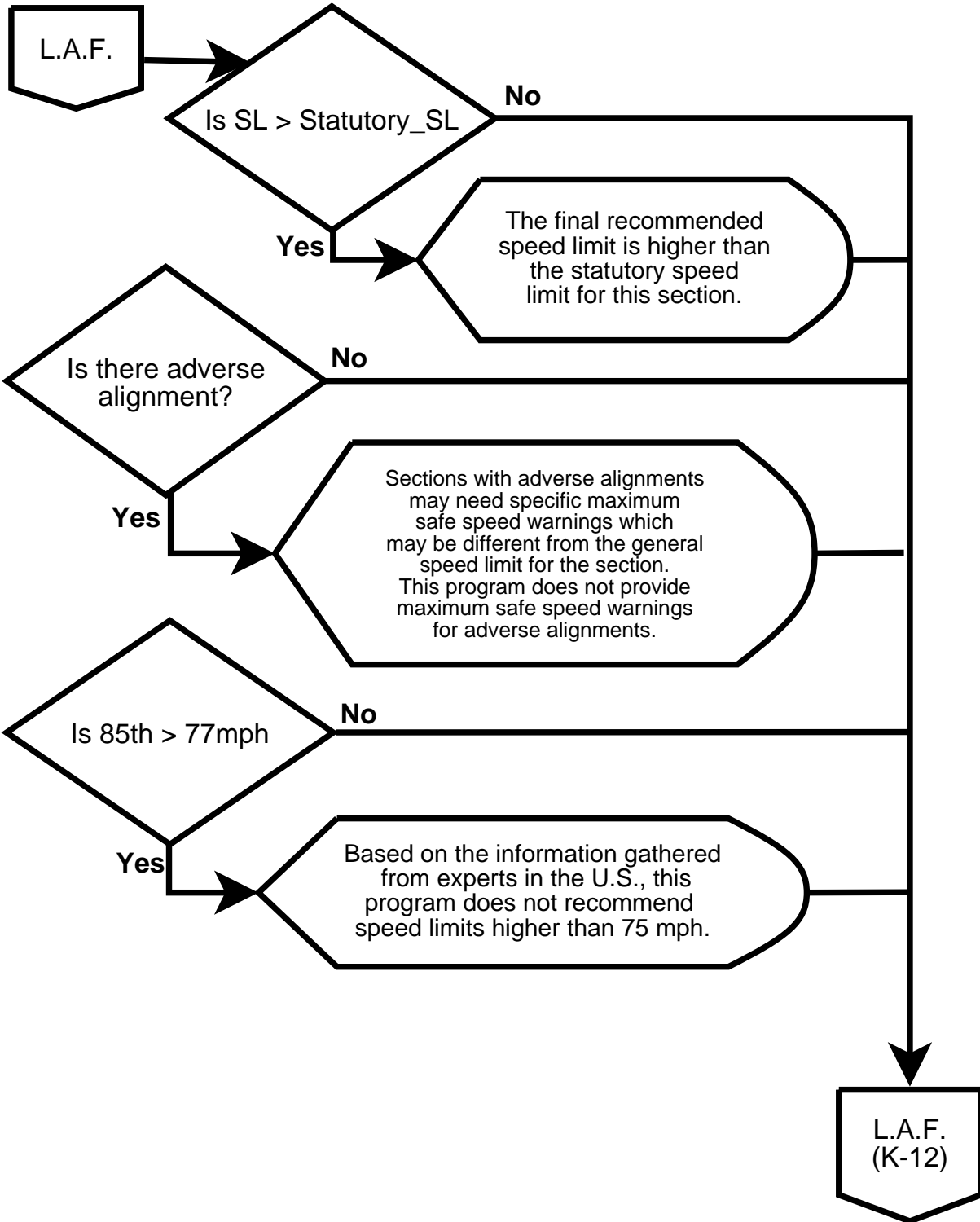


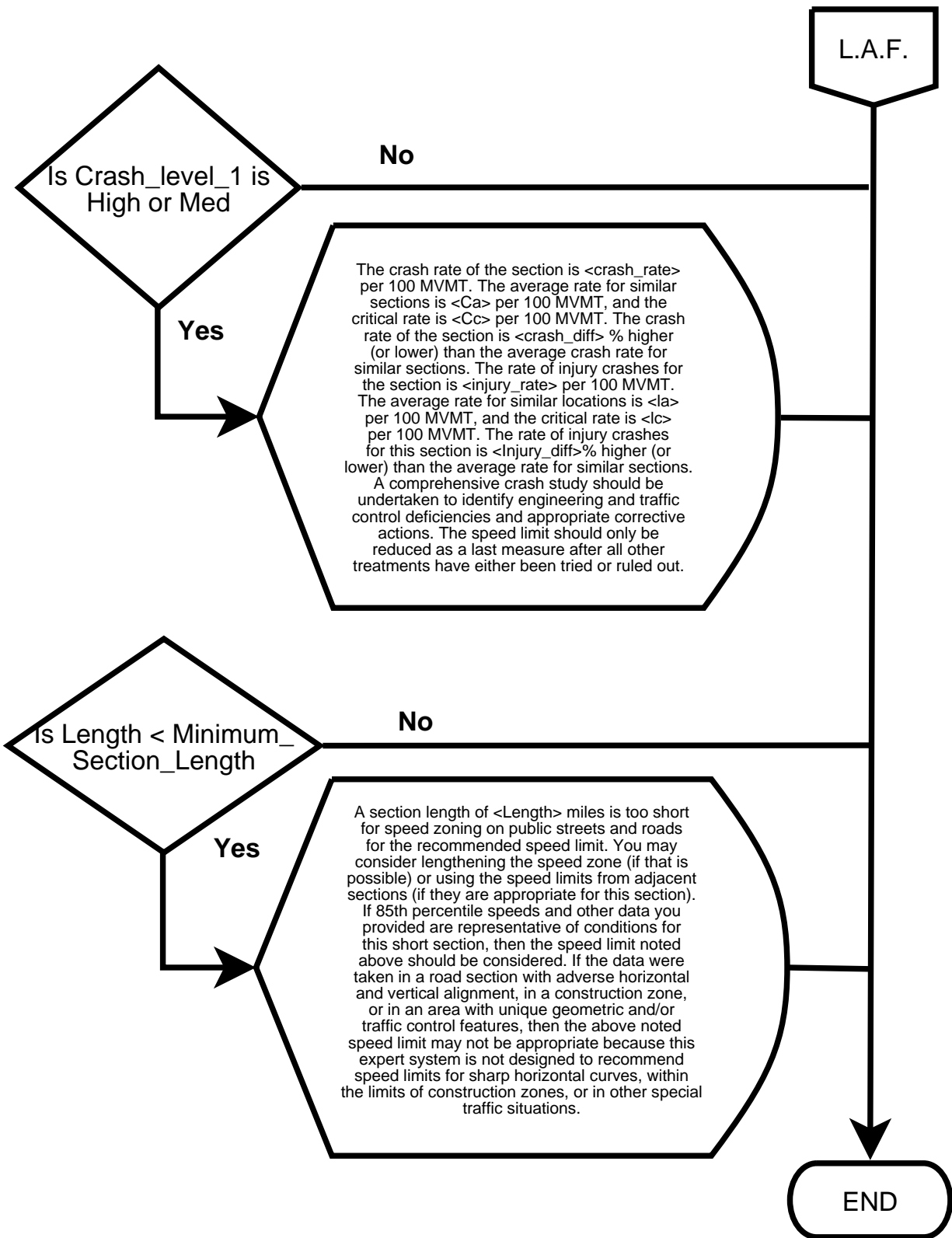


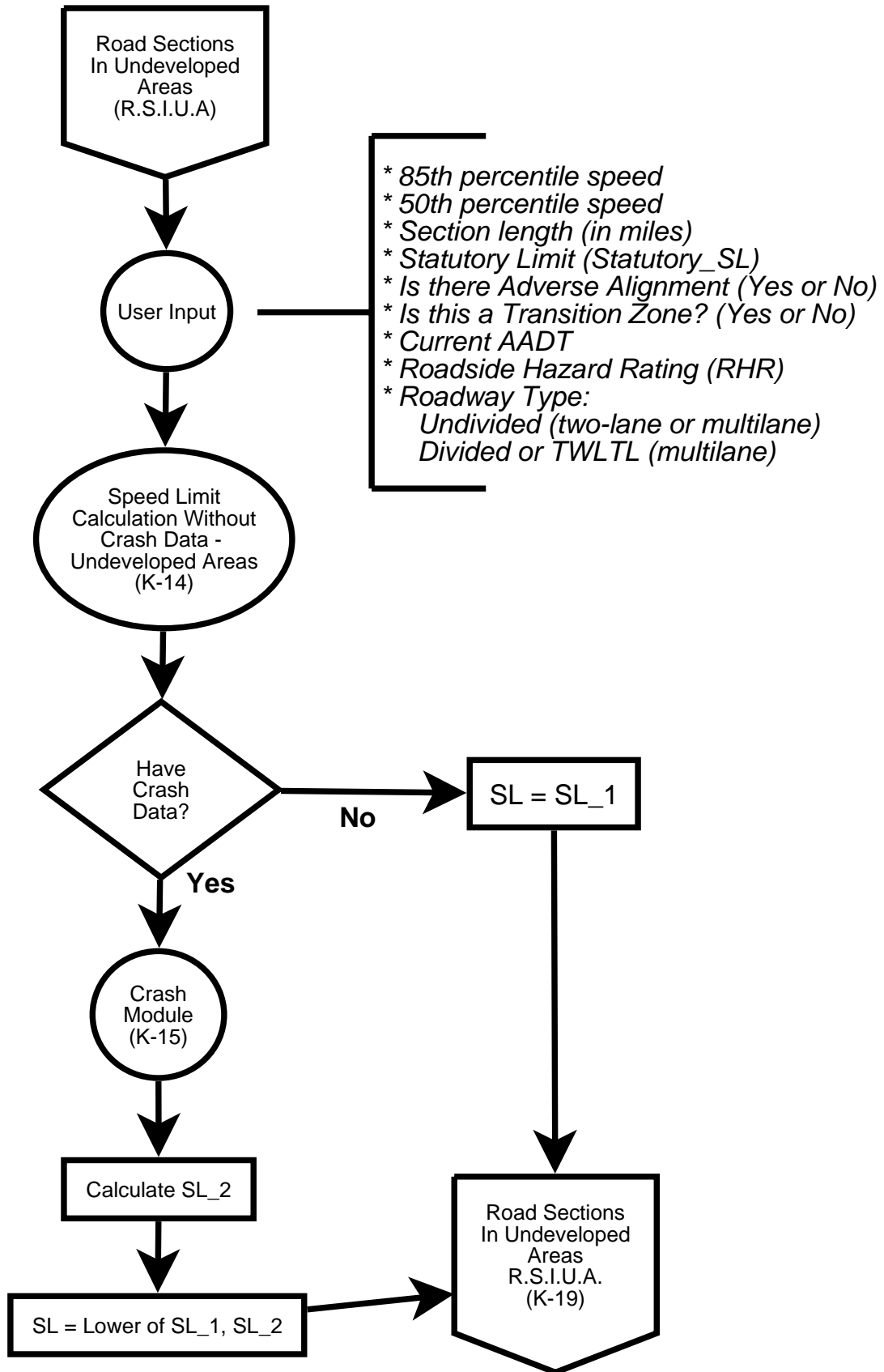




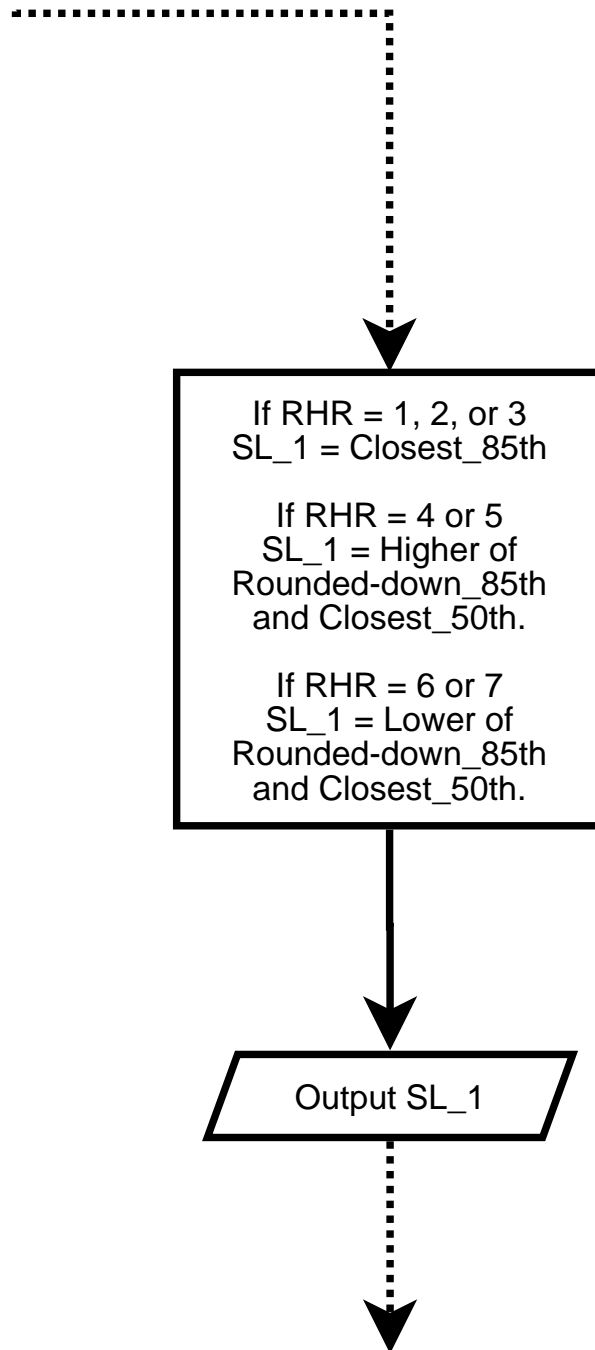




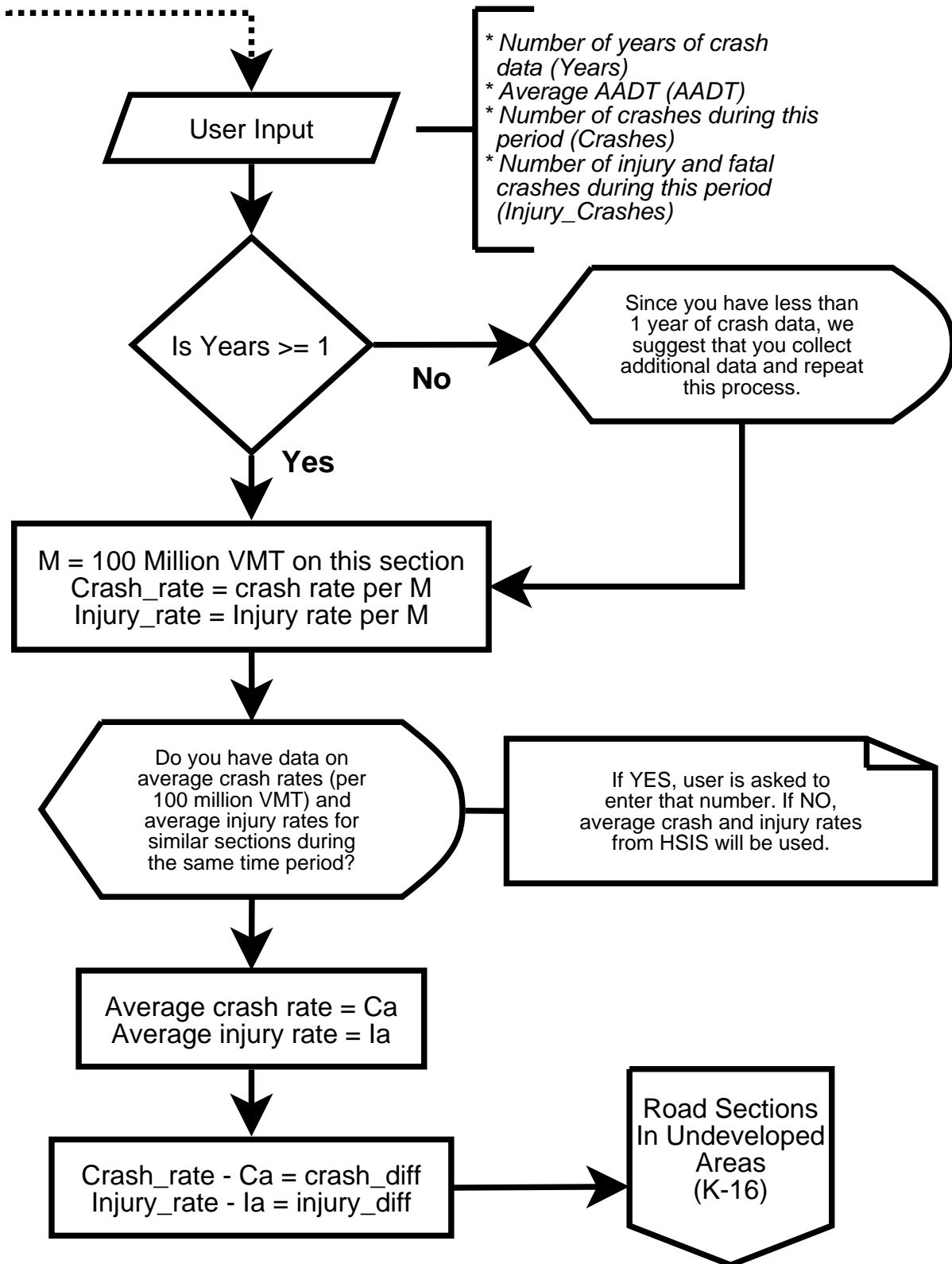


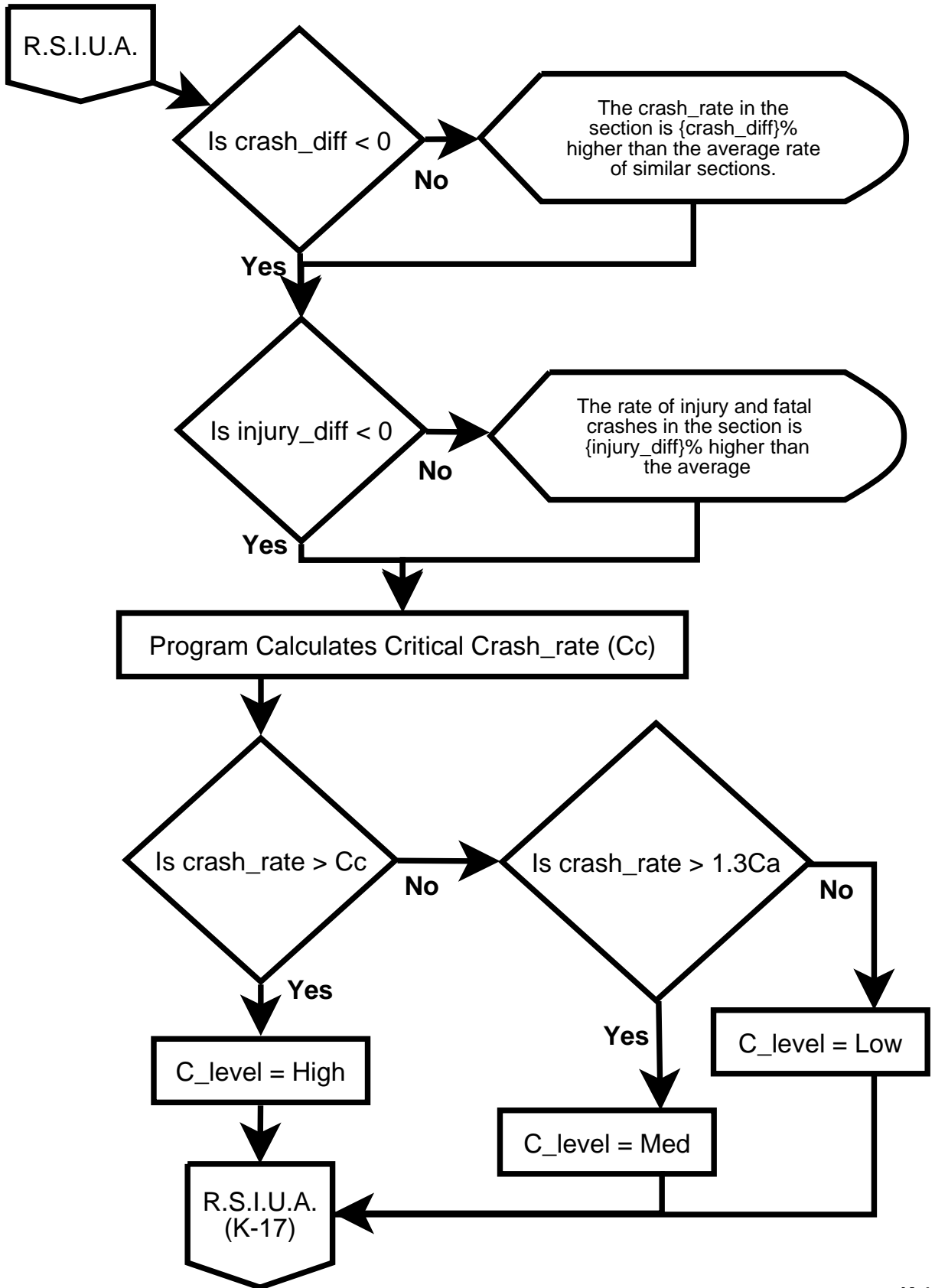


## Speed Limit Calculation Without Crash Data (to calculate SL<sub>1</sub>) (Roadway Section In Undeveloped Areas)

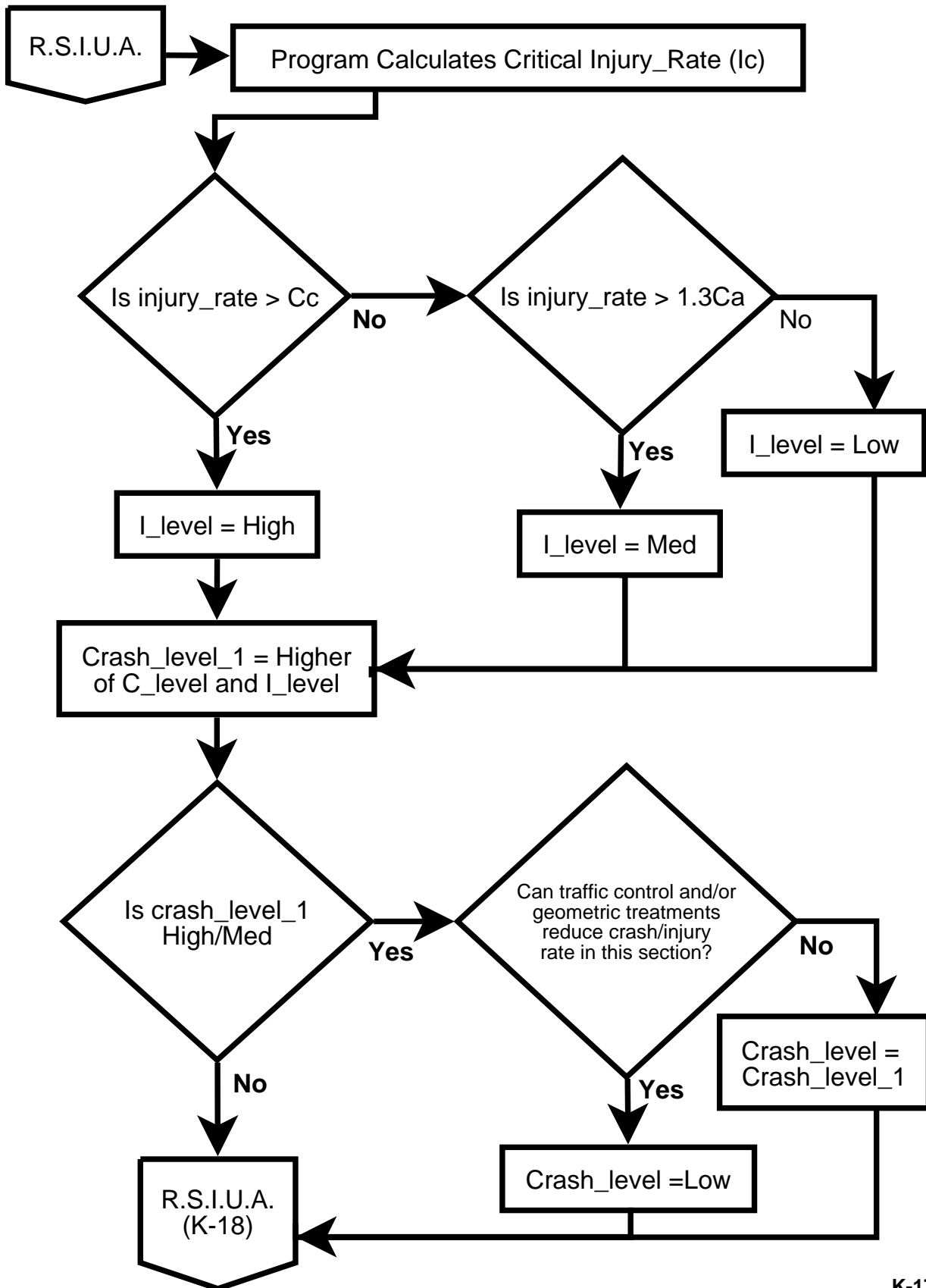


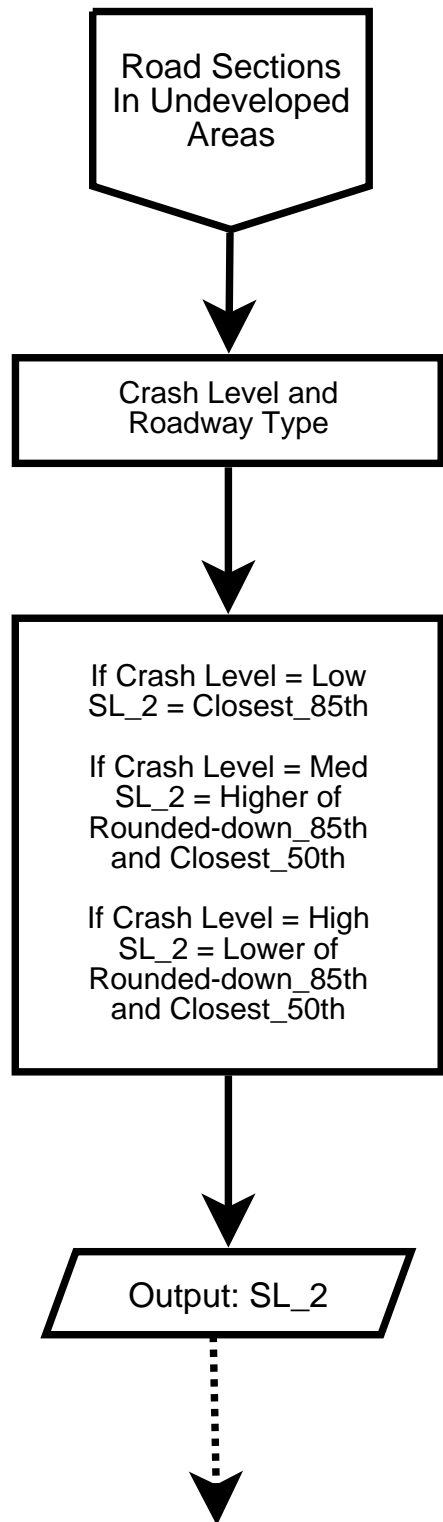
## Crash Module for Roads in Undeveloped Areas (to calculate SL<sub>2</sub>)

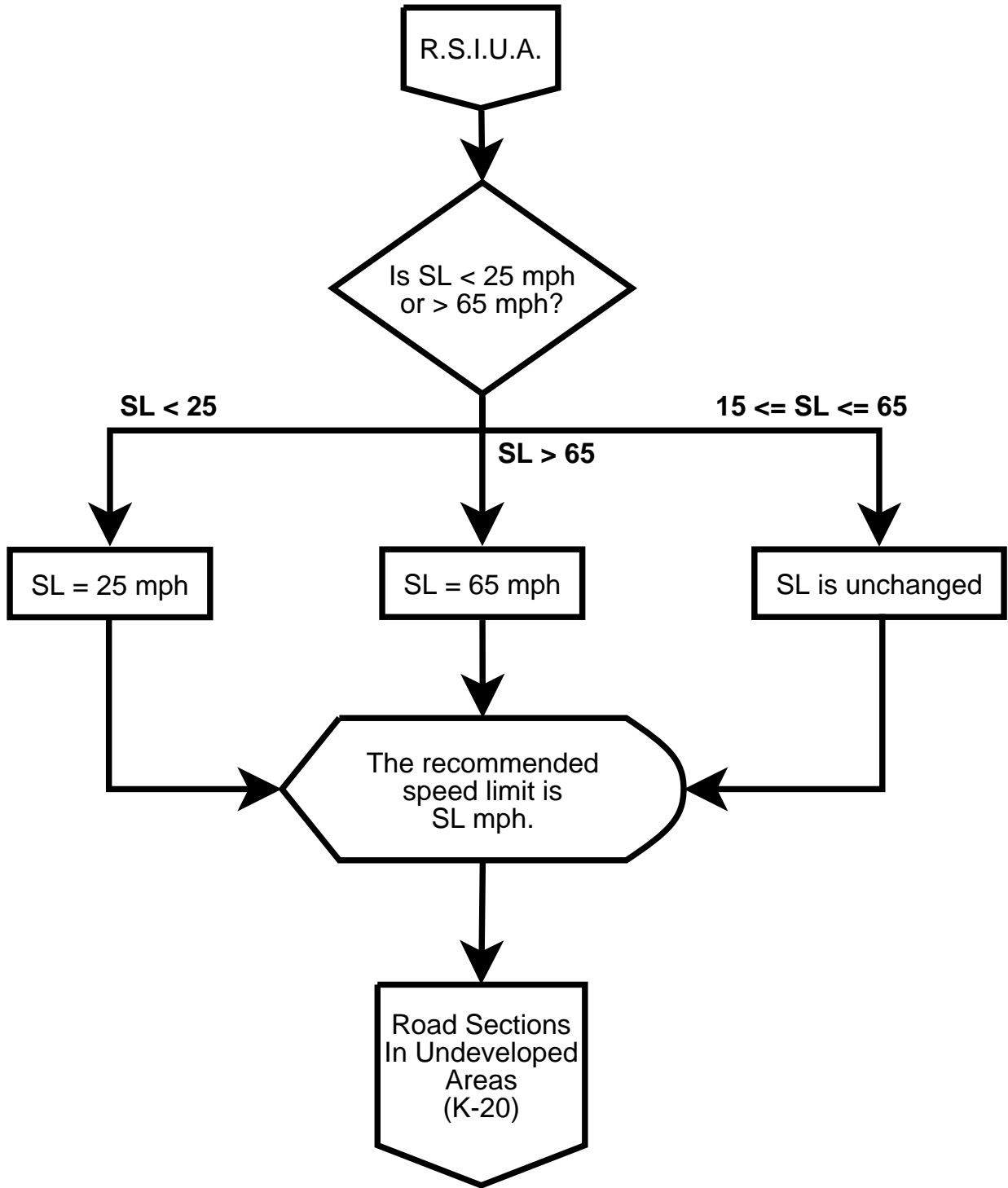


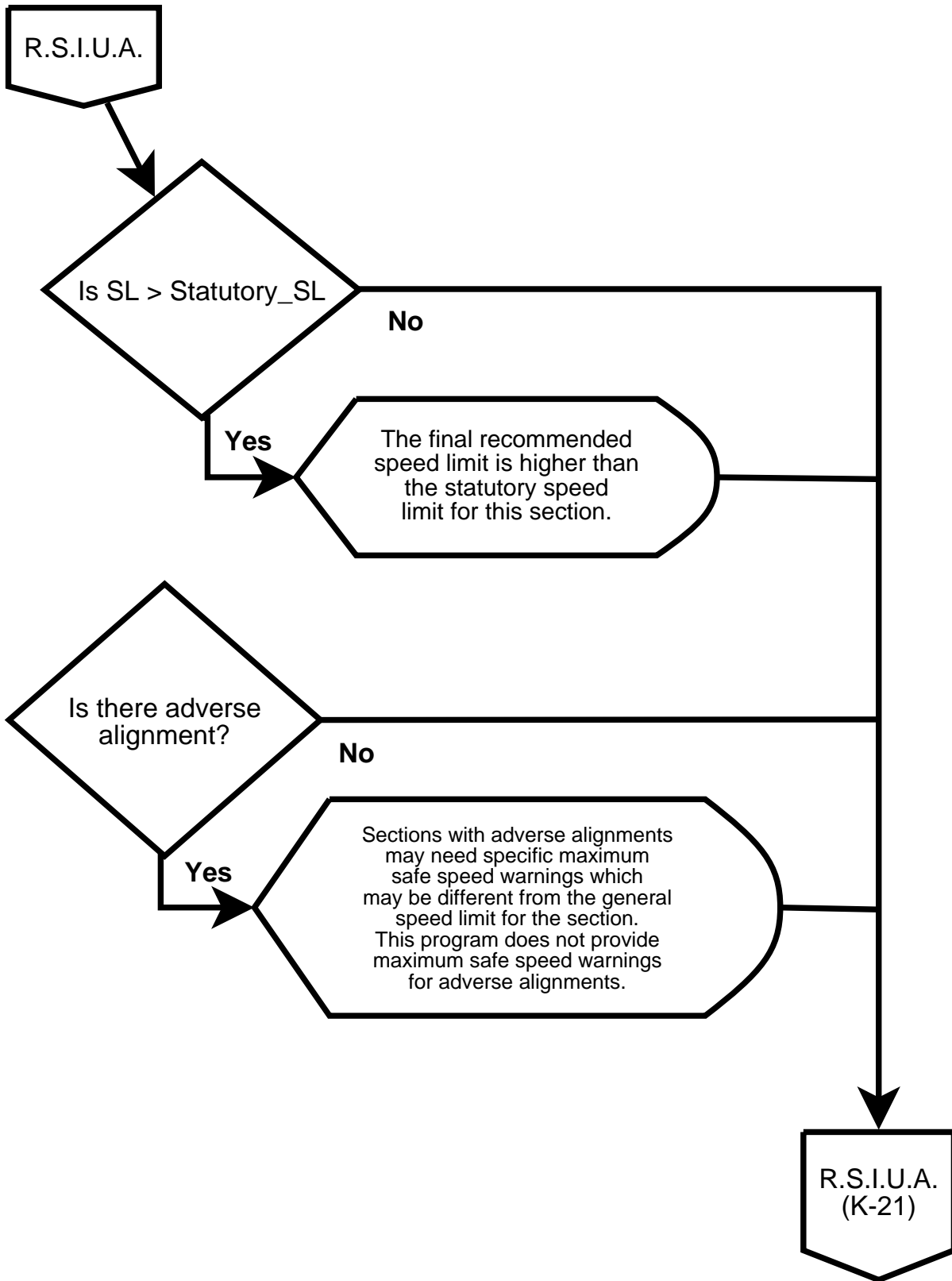


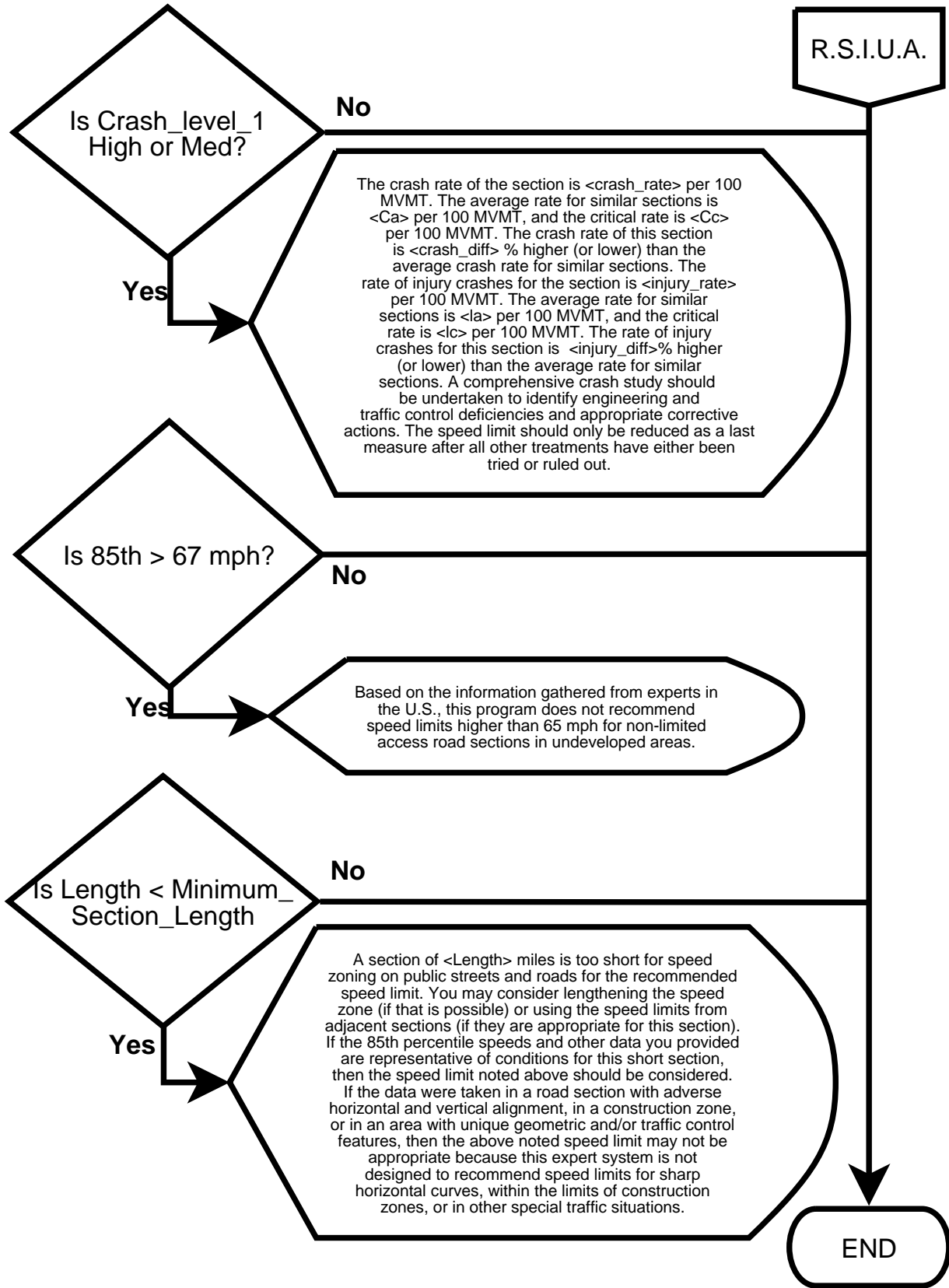


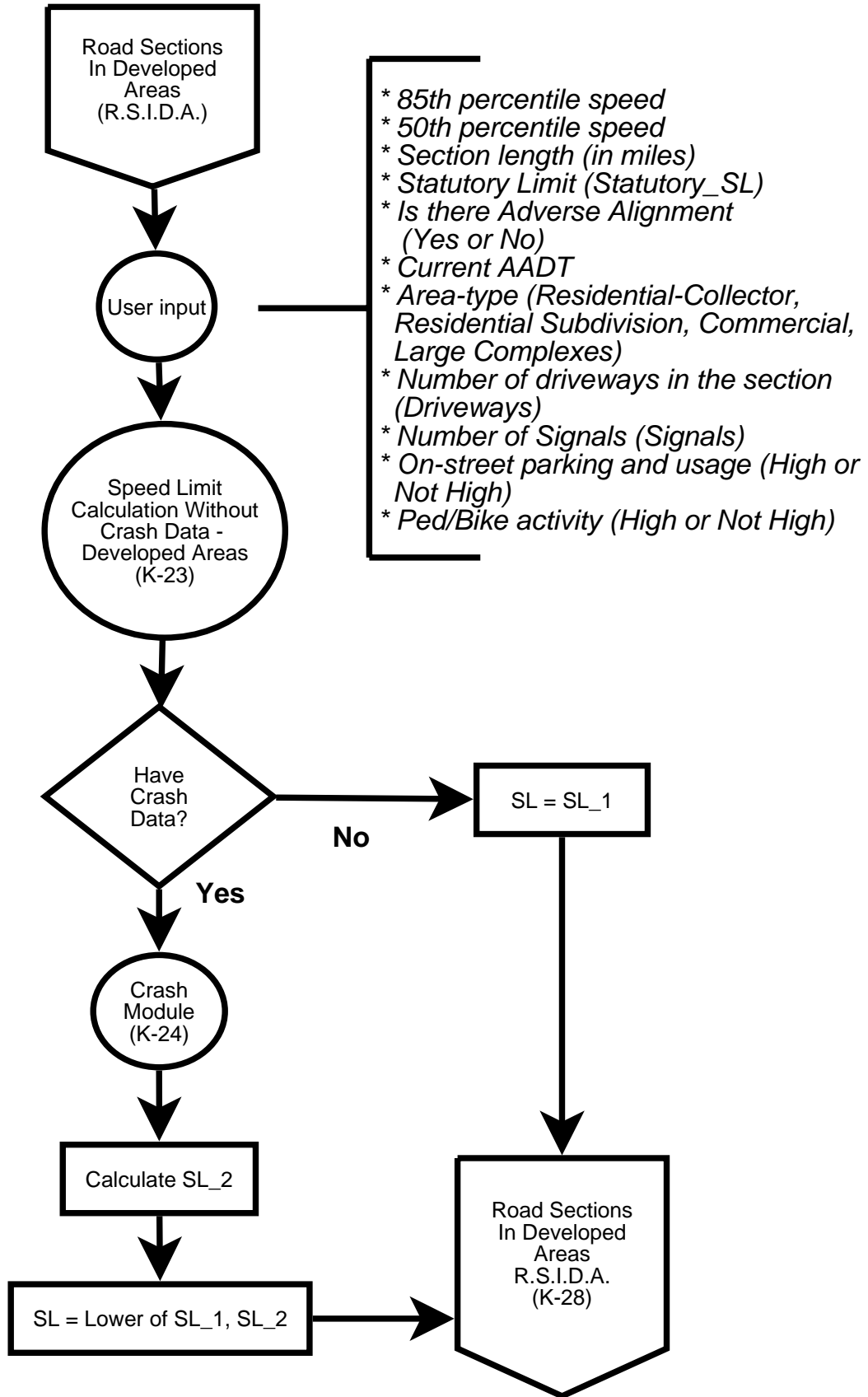




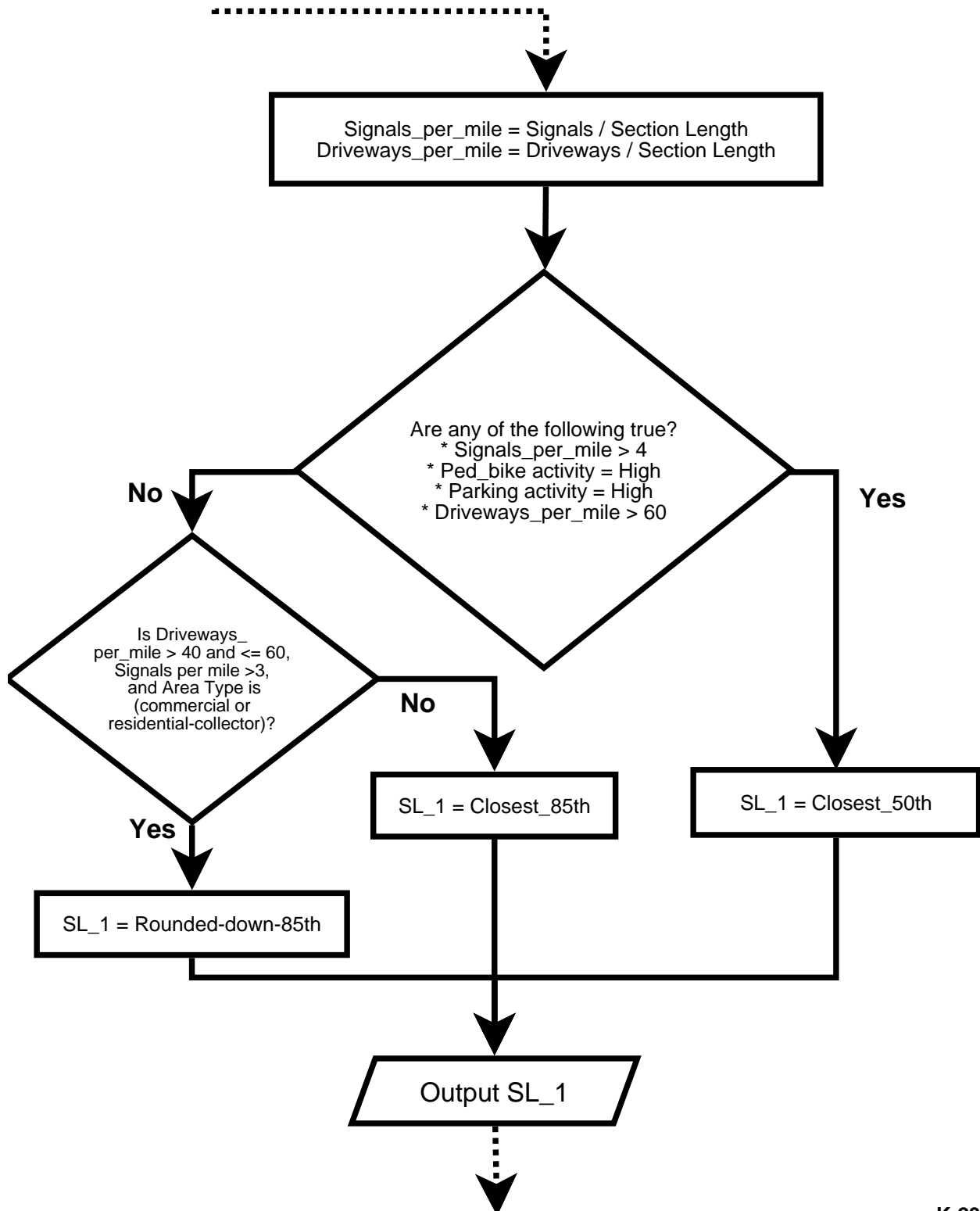








## Speed Limit Calculation Without Crash Data (to calculate SL-1) (Roadway Section In Developed Areas)



## Crash Module for Roads in Developed Areas (to calculate SL<sub>2</sub>)

