

LEGEND

- N: APPROXIMATE WIDTH OF SPACE NECESSARY FOR THE PLACEMENT OF A CRASH CUSHION.
- L: APPROXIMATE LENGTH.
- F: WIDTH OF A FIXED OBJECT THAT WILL BE SHIELDED WITH A CRASH CUSHION.

MINIMUM CRASH CUSHION RESERVE AREA (FT)

DESIGN SPEED MPH (MAIN LINE)	MINIMUM DIMENSIONS (1)				DESIRABLE DIMENSIONS	
	RESTRICTED DIMENSIONS (2)		UNRESTRICTED DIMENSIONS			
	N	L	N	L	N	L
30	6	8	8	11	12	17
50	6	17	8	25	12	33
70	6	28	8	45	12	55

- (1) MINIMUM DIMENSIONS SHOULD ONLY BE USED AT LOCATIONS WHERE IT IS INFEASIBLE TO PROVIDE THE DESIRABLE AREA. IN CASES WHEN MORE THAN THE MINIMUM AREA CAN BE PROVIDED, AS MUCH SPACE AS POSSIBLE SHOULD BE PROVIDED.
- (2) RESTRICTED MINIMUM DIMENSIONS SHOULD ONLY BE USED IF THE MINIMUM UNRESTRICTED DIMENSIONS ARE UNATTAINABLE.

LEGEND: CRASH CUSHION

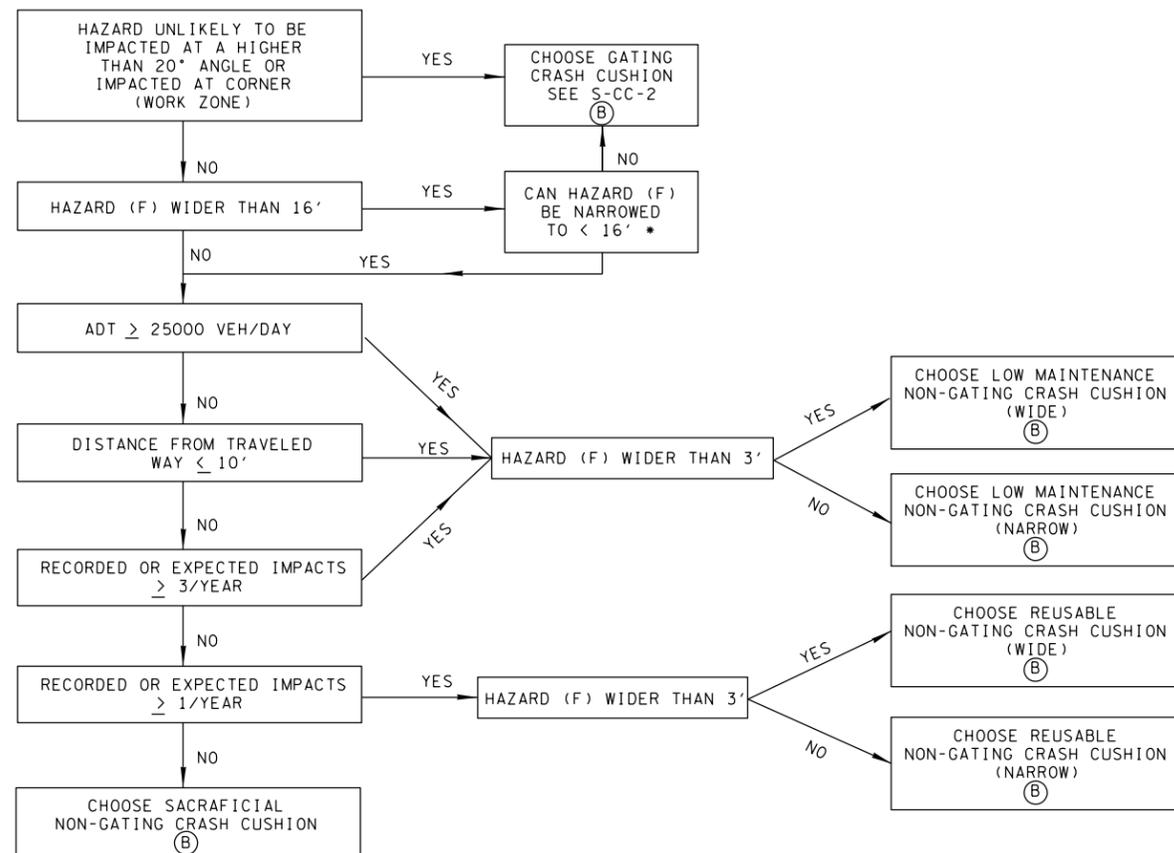
ATTENUATOR CLASSES DESCRIPTION

SACRIFICIAL: DEVICES DESIGNED FOR A SINGLE IMPACT SHOULD ONLY BE USED IF FREQUENT ATTENUATOR IMPACTS ARE NOT EXPECTED AT THE LOCATION.

REUSABLE: DEVICES FREQUENTLY DESIGNED THAT CAN BE REPAIRED BY SALVAGING MOST MAJOR COMPONENTS.

LOW-MAINTENANCE: DEVICES DESIGNED TO BE EASILY RESET AFTER IMPACT WITH MINIMAL REPAIR, USE IN AREAS WITH FREQUENT IMPACTS.

CRASH CUSHION SELECTION



* REDUCTION TO 16' CAN BE DONE BY MODIFYING BARRIER OR TRANSITION SECTION

GENERAL NOTES

- (A) CRASH CUSHIONS SHOULD ONLY BE USED IF LIMITED SPACE (SUCH AS A GORE AREA) PRECLUDES THE USE OF GUARDRAIL END TERMINALS OR AT OTHER LOCATIONS WHERE GUARDRAIL END TERMINAL WILL NOT FUNCTION.
- (B) CRASH CUSHIONS SHALL BE INSTALLED PER MANUFACTURERS SHOP DRAWINGS. SYSTEMS APPEARING ON THE QUALIFIED PRODUCT LIST 34 SECTION C ONLY MAY BE USED FOR THE SPECIFIED CATEGORY DETERMINED.
- (C) THE NOSE OR FIRST BARREL OF THE CRASH CUSHION SHALL BE MARKED WITH OBJECT MARKER STRIPING TYPE 3 INCLUDED IN THE COST OF THE SYSTEM.
- (D) SYSTEMS SHALL BE INSTALLED ON HARD, SMOOTH SURFACES WITH SLOPES LESS THAN 5% AND VARIATION OF CROSS SLOPE LESS THAN 2% CHANGE FOR THE LENGTH OF RESERVE AREA.
- (E) ONLY TL-3 CRASH CUSHION SHALL BE USED ON TDOT PROJECTS.
- (F) CURBS SHALL NOT BE INSTALLED IN AREAS NEAR CRASH CUSHIONS, EXISTING CURBS TO BE REMOVED UNLESS OTHERWISE SPECIFIED.
- (G) IF A CRASH CUSHION WOULD COMPROMISE SIGHT DISTANCE A SYSTEM WITH REDUCED HEIGHT (LESS THAN 36" HEIGHT) MAY BE SPECIFIED.
- (H) ALL PERMANENT INSTALLATIONS REQUIRE CONCRETE FOUNDATION AS SHOWN ON MANUFACTURERS SHOP DRAWINGS.
- (I) NON-GATING CRASH CUSHIONS (ATTENUATORS) SHALL BE PAID FOR:

PERMANENT		
705-17.94	ATTENUATOR (SACRIFICIAL)	EACH
705-17.95	ATTENUATOR (NARROW-REUSABLE)	EACH
705-17.96	ATTENUATOR (WIDE-REUSABLE)	EACH
705-17.97	ATTENUATOR (NARROW-LOW MAINTENANCE)	EACH
705-17.98	ATTENUATOR (WIDE-LOW MAINTENANCE)	EACH
THE PAYMENT OF ATTENUATOR INCLUDES CONCRETE FOUNDATION		
WORK ZONES		
705-08.51	PORTABLE IMPACT ATTENUATOR	EACH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CRASH CUSHION