

## FEATURE 460

### ATTENUATORS

Roadway Side	Allows Tie	LRS Package	Feature Type	Interlocking	Secured
R/L	No	No	Point	Yes	Yes
<b>Responsible Party for Data Collection</b>		District Office of Maintenance			

**Definition/Background:** Attenuators are intended to provide a motor vehicle with a cushioned impact area prior to solid obstructions such as parapet walls, bridge columns, sign structures, and signal poles. They are generally constructed of modules or cells containing different types of energy absorption materials such as water, sand, or hex foam.

Lists the condition, date of inspection, installation date, repair date, comments, location, model number, attenuator type, and vehicle direction. All required information can be obtained from Type I and Type II inspection reports.

Attenuators require twice-yearly inspections, a Type 1 inspection in April and a Type 2 inspection in October. A Type 1 inspection is a visual inspection, and a Type 2 inspection is an actual breakdown and cleaning of the attenuator. These inspections are typically performed by field crews and all information pertaining to these inspections may be input by the party performing the inspection or by the MMS personnel responsible for maintaining RCI after notification that the inspections are complete.

If the below characteristics are located at a rest area, ramp, or other applicable sub-section, they are to be inventoried against the applicable sub-section number.

#### ATCOND TN | ATTENUATOR CONDITION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that best describes the condition of the attenuator.

Codes	Descriptions
01	Good
02	Fair
03	Poor
04	Critical

### ATINSPEC | ATTENUATOR INSPECTION DATE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the date of latest attenuator inspection with leading zeros for months and days less than 10. No hyphens or backslash.

**Value for Attenuator Inspection Date:** 8 Bytes: MMDDYYYY

### ATREPAIR | ATTENUATOR REPAIR DATEX

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the date attenuator repaired with leading zeros for months and days less than 10. No hyphens or backslash.

**Value for Attenuator Inspection Date:** 8 Bytes: MMDDYYYY

### ATRMRS1 | ATTENUATOR REMARKS | 1

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the statement concerning attenuator.

**Value for Attenuator Remarks—1:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXXX

**ATMRKS2 | ATTENUATOR REMARKS | 2**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the statement concerning attenuator.

**NOTE:** New to the maintenance add screen.

**Value for Attenuator Remarks—2:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXXXX

**ATTLOCD | ATTENUATOR LOCATION CODE**

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that describes the location of the attenuator.

Codes	Descriptions
GL	Gore left
GR	Gore right
LS	Left shoulder
MD	Median
RS	Right shoulder

## ATTMODEL | ATTENUATOR MODEL NUMBER

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Code the model number given in the Attenuator Inventory and Inspection Procedure, Topic No. 850-055-003.

**Value for Attenuator Model Number:** 20 Bytes: XXXXXXXXXXXXXXXXXXXXX

Model #	01—Hi-Dro Cell (sandwich)
G	Color: G—gray, Y—yellow, GN—green, BLK—black, BL—blue
209	Width of first diaphragm (2'-9")
508	Width of last diaphragm (5'-8")
S	S—standard or N—non-standard
8	Number of bays
S	S—wet or D—dry

Model #	02—Hi-Dro Cell (cluster)
300	Width (3'-0")
600	Length (6'-0")
W	W-designates Hi-Dro cluster

Model #	03—G-R-E-A-T System
200	Width of first diaphragm (2'-0")
200	Width of last diaphragm (2'-0")
S	S—standard or N—non-standard
F	
6	Number of bays

Model #	04/05—Sand Crash Cushion (fitch or energite)
002	No. of 200 lb. Modules
004	No. of 400 lb. Modules
004	No. of 700 lb. Modules
0014	No. of 1400 lb. Modules
0021	No. of 2100 lb. Modules
F&E	Fitch & Energite (mixed installation)

<b>06—Hex Foam Sandwich</b>	
Model #	
209	Width of first diaphragm (2'-9")
508	width of last diaphragm (5'-8")
H	
8	Number of bays
S	S—standard or N—non-standard

<b>08—QuadGurad System</b>	
Model #	
QS	QS—QuadGuard System
24	Width of diaphragms (24")
5	Number of bays
G	Nose color, G—gray in Florida

<b>09—BREAKMASTER 350</b>	
Model #	
106	There is only one model number for this system.
106	
BR	
S5	

<b>10—CAT 350</b>	
There is only one model number for this system.	

<b>11—REACT 350</b>	
Model #	
75	Design speed: 75, 62, 55, 45 mph
B	B-self-contained backup or S-side mounted anchors
036	Width (36")

<b>12—ADIEM 350</b>	
Model #	
xx	Number of modules, 06 or 10

## ATTYPCD | ATTENUATOR TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the code that describes the attenuator type.

Code	Type
01	Hi-Dro Cell (sandwich)
02	Hi-Dro Cell (cluster)
03	G-R-E-A-T System
04	Sand Crash Cushion (fitch)
05	Sand Crash Cushion (energite)
06	Hex Foam Sandwich
07	Other
08	QuadGuard System
09	BRAKEMASTER 350
10	CAT 350
11	REACT 350
12	ADIEM 350
13	DRAG-NET
14	TRACC
15	TAU-II
16	QuadGuard Elite
17	Smart Cushion
18	Easi-Cell
19	X-MAS
20	QuadGuard II
21	QuadGuard M10
22	TAU-M

EXAMPLES



02. Hi-DRO Cell (Cluster)



03. G-R-E-A-T System



05. Sand Crash Cushion (energite)



06. Hex Foam Sandwich



08. Quadguard System



12. Adiem 350



13. Drag-Net



14. TRACC



15. TAU-II



16. Quadguard Elite



17. Smart Cushion



18. Easi-Cell



19. X-MAS



20. Quadguard II



21. QuadGuard M10



22. TAU-M

## ATTYPINS | ATTENUATOR INSPECTION TYPE

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the following code that describes the attenuator inspection type.

Codes	Descriptions	Codes	Descriptions
<b>01</b>	Type 1 inspection	<b>02</b>	Type 2 inspection

## VEHDIRCD | GENERAL VEHICULAR DIRECTION

HPMS	MIRE	Who/What uses this Information	Required For	Offset Direction	Offset Distance
N/A		Maintenance	All Active On and Active Exclusive roads, including managed lanes.	N/A	N/A

**How to Gather this Data:** Use the code that describes the vehicle direction.

Codes	Descriptions	Codes	Descriptions
<b>NB</b>	Northbound	<b>EB</b>	Eastbound
<b>SB</b>	Southbound	<b>WB</b>	Westbound