March 1, 2019

IMPACT ATTENUATORS (PERMANENT)

Standard Drawings: 601-GAIA-01, 02 and 03; 601-IAED-01

<table>
<thead>
<tr>
<th>Source Code</th>
<th>Manufacturer Code</th>
<th>Product</th>
<th>Type(s)</th>
<th>Approval Number</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tbody>
</table>

The following products are applicable for Impact Attenuators for lettings on or after January 1, 2019

4590 ENERGY ABSORPTION SYSTEM, INC-----------W028990
ENERGITE III MODULE ED, and Gravel Barrels

4590 ENERGY ABSORPTION SYSTEM, INC-----------W188990
QUADGUARD M10 ED, R1, R2, LS and SD

4597 PLASTIC SAFETY SYSTEMS, INC-----------W088990
CRASHGARD BARREL SYSTEM ED, and Gravel Barrels

4591 TRAFFIX DEVICES, INC-----------W028994
IMPACT ATTENUATOR SAND BARRELS ED, and Gravel Barrels

4594 SCI PRODUCTS, INC-----------W078992
SCIGM ED, R1, R2, SD and CR

The following products are applicable for Impact Attenuators for lettings prior to January 1, 2019

4598 BARRIER SYSTEM, INC-----------W048990
TAU-II ED, R1, R2, LS and SD

4590 ENERGY ABSORPTION SYSTEM, INC-----------W028990
ENERGITE III MODULE ED, and Gravel Barrels

4590 ENERGY ABSORPTION SYSTEM, INC-----------W028991
QUADGUARD II ED, R1, R2, LS and SD

4590 ENERGY ABSORPTION SYSTEM, INC-----------W028993
REACT 350 or REACH 350 II MODELS ED, R1, R2, CR1 and CR2

4597 PLASTIC SAFETY SYSTEMS, INC-----------W088990
CRASHGARD BARREL SYSTEM ED, and Gravel Barrels

4594 SCI PRODUCTS, INC-----------W078992
SCIGM ED, R1, R2, SD and CR1

4591 TRAFFIX DEVICES, INC-----------W028994
IMPACT ATTENUATOR SAND BARRELS ED, and Gravel Barrels
**IMPACT ATTENUATORS (PERMANENT)**

**Specification Reference:** 601.07.1  
**SM Material Code:** 910M00850  
**Standard Drawings:** 601-GAIA-01, 02 and 03; 601-IAED-01

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<tbody>
<tr>
<td>4571</td>
<td>TRINITY INDUSTRIES, INC-------------</td>
<td>W028995</td>
<td>ED</td>
<td>Alternate with CAT-350 guardrail transition piece. Contractor to determine required space for installation including transition piece.</td>
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<tr>
<td>4571</td>
<td>TRINITY INDUSTRIES, INC-------------</td>
<td>W078991</td>
<td>ED, R1, R2, and SD</td>
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**Type Descriptions**

- **ED:** Energy dissipation device without redirective capabilities.
- **R1:** Energy dissipation device with redirective capability on one side.
- **R2:** Energy dissipation device with redirective capability on two sides.
- **CR** *(Clearance Restriction):* Energy dissipation device with redirective capability on two sides.
- **SD** *(Vertical Sight Distance Limitation):* Energy dissipation device with redirective capability on two sides.
- **LS** *(Low Speed):* Low speed energy dissipation device with redirective capability on two sides. Design speed of 30 mph or lower.

**Width Designations**

- **W1:** Required for an obstruction that is not more than 3 ft wide.
- **W2:** Required for an obstruction that is more than 3 ft wide but less than or equal to 6 ft wide.
- **W3:** Required for an obstruction that is more than 6 ft wide but less than or equal to 8 ft wide.