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Impact absorbing poles

Impact absorbing (frangible) street lighting poles

Uniquely constructed, this type of modified Frangible Street Lighting Pole has been engineered with the explicit intention of collapsing in progressive stages under impact so as to absorb energy from the collision and minimize the harmful effects of the accident. The gradual and predictable deformity of the impacted pole serves to decelerate a colliding vehicle in a controlled manner and thus reduces potential damage and injury to vehicles and occupants involved. The relative safety and cost-saving implications could be quite significant.

Coslee-Monash collaborative research

In May 2007, Coslee Heavy Metal Fabricators Pty Ltd and Monash University's Department of Civil Engineering (in Melbourne) conducted joint evaluative testing and analysis (pioneering research) on the design and performance of Impact Absorbing Poles in accordance with VicRoads Energy Absorbing Lighting Pole Test Specification TCS 014-3-2001, Australian standard AS/NZS 1158.1.3 and US Standard NCHRP350. Coslee's Impact Absorbing Poles strictly comply with the above stringent specifications.

Applications

Due to the safety optimization implications in their use, these poles need to be designed, evaluated and certified by the relevant authorities to meet Australian Standards specifications (AS/NZS 1158.1.3). Frangible (impact absorbing) Poles provide positive protection in low speed conditions (under 60 km/h) and are designed to avoid the risk of secondary incidents affecting pedestrians or other vehicles.

- Low speed zones
- Freeway on and off ramps

Design options & accessories

- Vicroad and RTA approved.
- The impact absorbing pole is available in either tapered octagonal or tapered round depending on the relevant state road authorities specifications.
- The impact absorbing pole range is standard base plate mounted with in-ground section, but can also be rag bolts only to meet each state road authorities requirement.
- All poles are hot dip galvanized to AS/NZS 4680:2006, and can be powder coated or painted.
- The impact absorbing pole range is available in standard heights according to relevant state road authorities specifications, however other heights, section sizes can be custom designed to meet specific requirements.
- The impact absorbing pole range is available in a single and double outreach arm arrangement, curved or straight.
- Security or tamper proof screws for access door covers.
- Slip joint assembly required for poles over 11metres in height.