



A better Advanced Warning System

CREATING SAFER RAIL LEVEL CROSSINGS

SafeZone is designed to provide unprecedented safety for motorists who travel through passive or active high risk Rail Level Crossings.

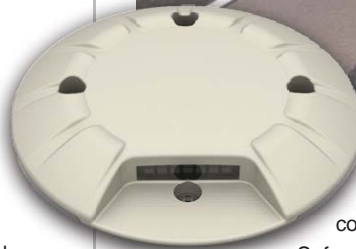
SafeZone addresses safety, primarily targeting human behaviour by awakening & stimulating the subconscious brain & heightening a motorist's state of mind and level of alertness.

Motorists approaching a high risk rail level crossing are repeatedly alerted, awoken with an advanced warning when a train is on approach to the crossing.

Wireless directional beacons (IRADs) provide the advanced warning by being positioned & installed at set intervals along the centre line of the road. The distance is determined by the road & surrounding conditions, but typically 200m from each side of the level crossing. An integrated advanced warning active roadside sign is positioned at the start of the zone to inform motorists well in advance that there is a rail crossing ahead & that flashing beacons represent a train on approach & prepare to stop.

When the **SafeZone** system is triggered by a train on approach via the primary signalling system, the beacons emit a continuous strobed runway effect, which is the key to awakening & stimulating the subconscious brain & heightening a motorist's state of mind & level of alertness.

This continuous & repeated runway effect gives motorists a longer reaction time & confidence that multiple levels of redundancy are built into the system by using multiple beacons. **SafeZone** delivers added safety because it provides advanced warning day, night, during poor visibility and bad weather. Unlike other solutions where single roadside signs can be driven passed without noticing them, the **SafeZone** solution ensures that the "warning cannot be missed".



To ensure motorists' safety is not compromised, the system incorporates a Fail Safe mode of operation. If a beacon loses contact with the wireless controller, beacons will activate (Fail Safe flash mode). This safety feature ensures that in the unlikely event of a controller failure, the beacon operates independently and continuously in the fail safe mode.

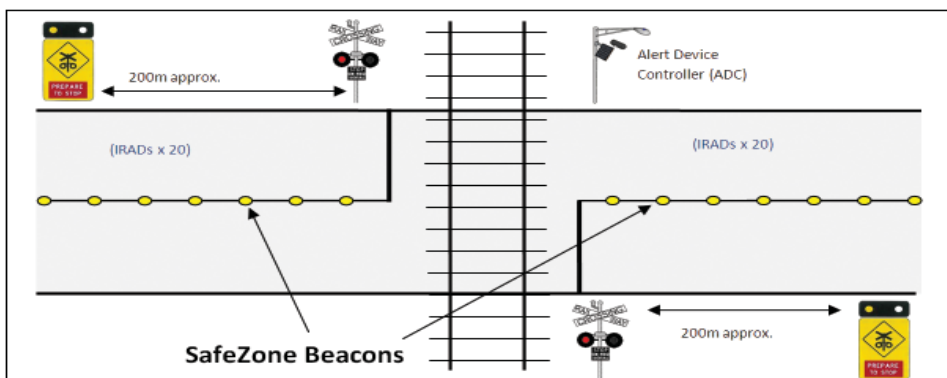
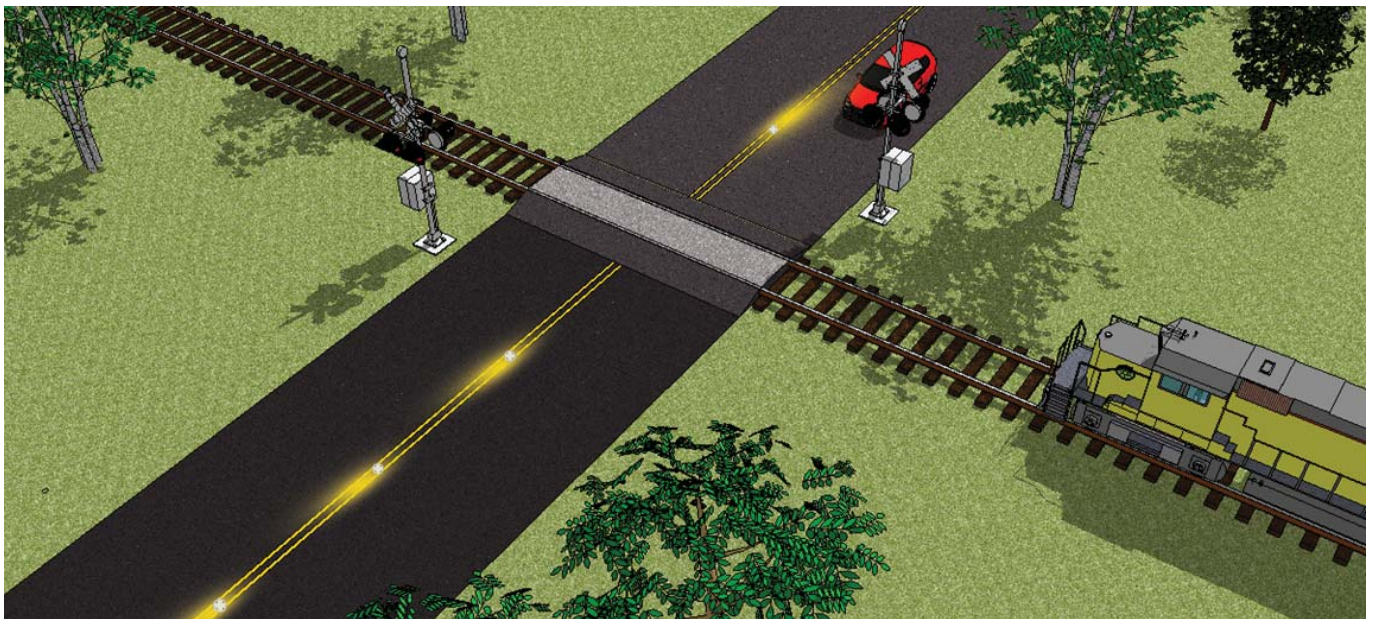
The **SafeZone** system can be integrated into existing rail level crossing detection circuits or can be interfaced directly to a rail axle detection device via a Safezone Wireless Controller. **SafeZone** is perfectly suited to isolated, un-powered sites as the system is powered independently by its own solar and battery source. There are no cabling requirements to install the system, which reduces installation costs & increases reliability.



As the driver approaches an 'active' SafeZone, a series of in-road beacons will alert them as to the presence of a train. SafeZone increases driver awareness and reduces their approach speed, thereby reducing the chance of incidence at a rail level crossing.

HOW DOES IT WORK?

A typical Rail Level Crossing installation:



The SafeZone system is triggered by an approaching train. The SafeZone **IRADs** are activated automatically via the **Alert Device Controller**, signalling for motorists to STOP. The colour, strobe pattern and activation time of the beacons can be customised to specific Rail Authority requirements and can be integrated into existing systems.

SafeZone comprises three elements:

SafeZone ADC (Alert Device Controller)

- These are the roadside, pole-mounted, AC mains or solar powered zone control units that act as the bridge between the controlling authority (eg road authority or council), & the in-road lights. They provide the signal that activates the in-road beacons & controls their flashing pattern, as well as receives information used for remote management & fault diagnostics.



SafeZone AWS (Advanced Warning Sign)

- Roadside, solar powered, wireless control units & signs. They provide signals that activate the sign lamps & the in-road beacons. They operate as an advanced warning sign & as a site repeater allowing communications redundancy.



SafeZone IRADs (In-Road Alert Devices)

- These are the in-road, battery-powered, radio-controlled, remotely programmable, remotely controllable, remotely monitor-able, ultra-bright flashing LED warning beacons.

