

## Case Study Earth Moving Project



**Client**  
McArdle Group

**Plant**  
360° excavators,  
bulldozers, articulated  
dump trucks

**Equipment Deployment**

Single & Dual Antenna Site Zone Proximity Warning Systems with telemetry module, external alarms, dead man handle integration for excavators, Site Zone tag test station, long life Site Zone transponders

**Background**

The works package involved the restoration of a former aggregate recycling yard to natural landscape. The project ran for a period of approximately six months and involved:

- Removal of buildings
- A contamination remediation strategy
- An earthworks package to deliver a landscaped surface including use of in situ site materials
- Top soiling and rendering the landscape capable of supporting grass seeding
- Landscaping aftercare for a period of 12 months



### General

As part of their constant commitment to site safety McArdle Group has been an early adopter of the Site Zone proximity warning system. The system was deployed on all McArdle machines working on this site, this included a number of excavators in the 20 -30 tonne range, bulldozers and 3 articulated dump trucks. Appropriate detection zones were set around each machine, these were 5m for the excavators and dump trucks and 8 metres for the bulldozers.

Each system was fitted with an external alarm so that pedestrians as well as drivers could be warned when a zone breach had occurred.

### Site Zone Management

Due to the nature of this project a number of contractors were operating on the project at any one time, all of these ground personnel were issued with personal transponders and made aware of the systems operation via the Sites Induction process. This induction process was also used for transient visitors. In order to maintain full system integrity personal transponders were tested on a daily basis using the transponder test station, this process take a few seconds.

### Site Management

All Site Zone systems have a data logging facility. Due to the number of machines on this site McArdle stipulated that all data collection should be remote and accessible in real time therefore all systems were fitted with the Site Zone PWS telemetry module. When a zone breach occurred the event was logged locally and transmitted via the telemetry module to a secure website where McArdle could view and interpret the data. This method allowed McArdle to conduct real time management of the plant – personnel interface.

### Conclusion

The use of the Site Zone system provided an additional tier of protection to the stringent workplace transport safety measures already employed by McArdle. The system gave universal protection and the personnel transponders were used as an extra piece of PPE. Workplace transport management was possible using Site Zone telemetry capability.

**“Site Zone is instrumental in changing the behaviour of operatives working with mobile plant”**

### Client comment

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