



Health, Safety & Environmental Policy

ZERO  **CIVIL**
ZERO WASTE, ZERO HARM ▶▶

We're passionate about building a better future

The environmental crisis has reached a critical tipping point, as have our cities and their ability to cope with the growing maintenance requirements and difficulty performing this work

With fast depleting resources the current methods of buy, replace, repurchase- will soon become untenable.

Without the civil industry committing to reduce carbon intensive waste, and employ more sustainable technologies we will destroy our ability to repair our cities

At Zero Civil the protection and preservation of the environment what we do after hours- it's the reason we're in business and our every day's work.

We have developed the worlds first sustainable solution to this problem.

We seek not only to do less harm, but to do more good.



Health, Safety & Environmental Policy

Our company is committed to ensuring a safe and healthful workplace, protecting the environment and minimising future adverse environmental impacts upon the environment

We minimise our impact through innovative product development providing simple solutions to help our clients

1. Improve workplace safety and the safety of our cities
2. Reduce waste and consumption of carbon intensive supplies
3. Improve the liveability and sustainability of our urban environments

The road construction industry has one of the largest levers to inhibit climate change through the reduction of carbon waste and ongoing consumption of concrete (the world's greatest polluter, second only to vehicles) and the longer governments continue to do business as usual, the greater the cost.

We believe that without de-carbonizing the civil industry, we stand little chance of achieving the goals set in the Paris Protocol Agreement.


**Reducing waste is not enough-
we can now repair our cities
and put an end to the damage**

Lean and efficient operations

We both manufacture ethically produced products designed to improve the resilience and sustainability of road projects.

All work is conducted locally using local manufacturers and sourcing local materials (when possible recycled waste is used in the manufacture of our products)

- Health, safety and environmental considerations are integrated into all aspects of our work.
- We strive to continuously improve health, safety and environmental performance.
- Encourage contractors to be responsible for identifying and eliminating hazards, preventing injury to themselves and others, and preventing adverse environmental impacts.
- Provide personnel with sufficient training, resources and systems.
- Provide and maintain properly engineered facilities, plants and equipment.
- Minimize waste generation, air emissions and other discharges from our activities to the environment.



ZERO CIVIL is committed to providing and maintaining a safe and healthy workplace for all workers (including contractors) as well as clients, visitors and members of the public.

The company is structured to maximise effectiveness with around 96 % of work conducted off-site. Hazards and risks to health and safety are eliminated or minimised, as far as is reasonably practicable.

We are committed to complying with the *Work Health and Safety Act 2011*, the *Work Health and Safety Regulation 2011*, codes of practice and other safety guidance material and helping our clients to do the same.

Responsible manufacturing

We are not Bound by Convention

Our success lies in thinking outside the box and developing new innovative ways of doing things.

Most roadside items are designed to fail so you return to buy more. That's where we differ – although we've often been told it doesn't make good financial sense, we believe the best way to limit our ecological impact and make a difference is with good honest products that last for generations.

We manufacture ZERO WASTE Foundations from 100% recycled petroleum waste (considered the world's most environmentally friendly polymer compound)

Our Impact Recovery and Shock Absorbing Rings are made from rubber, and we use a percentage of recycled material (although we haven't managed to find a way to make them from 100% recycled rubber and maintain our extremely high quality standards and sustainability requirements – we are still trying to find a way and hope with advancements in the field- we'll soon find a way.

Our bollards are made from Australian raw materials producing quality products that will outlast imported products, reducing waste and consumption. We are now working on developing a range of Smart products made from recycled plastic bags.

Not only do our products reduce damage and waste, they overcome the traditional sequence of buy, replace, repurchase, repeat, with buy and reuse for a lifetime.

Overcoming the traditional sequence of buy, replace, repurchase, repeat- with buy and re-use for a lifetime

Our Industry has a carbon problem

We urgently need to re-think single-use concrete. This violates the Paris agreement on climate change, under which every government in the world agreed that annual carbon emissions from the cement industry should fall by at least 16% by 2030.

Concrete is regarded as the most dangerous material on earth yet globally billions of highly vulnerable roadside items and items of street furniture are secured directly into concrete consuming billions of tonnes annually as these valuable concrete footings are repeatedly replaced

In Australia alone we dispose of more than half a million concrete footings every year, and as our populations grow so will the damage, the disturbance and the waste, creating a major problem for future generations

Unless we act, and act fast, with our urban populations set to explode the damage and difficulty performing this work will dramatically increase as will the amount of carbon waste



As one of the most polluting industries, the challenges we face as an industry are enormous. We recognise that current recycling programs are not enough and that without decarbonizing the civil industry, we stand little chance of achieving the Paris goals.

Single use plastic has been banned around the globe and yet single-use concrete (considered the world's most harmful material) is a global problem of far greater importance.

Concrete is designed to last 100 years yet 100 percent of concrete used to secure roadside items ends up in landfill where its impact on the planet lasts a lifetime.



Limiting the ecological impact

Awarded innovator of the Year we have developed the world's first means of preserving concrete footings for the entire lifespan of a development. This is truly a game changer!

Instead of repeatedly replacing pavements and concrete footings, now for the first time in history **w**e can repair our cities and protect pavements for the entire lifespan of a development.

1. Zero damage
2. Zero carbon intensive waste
3. Zero on-going consumption of concrete
4. Zero on-going consumption of paving
5. Zero on-going consumption of sand
6. Zero disturbance to traffic causing congestion and pollution

We need to re-think recycling

In this industry most products are designed to fail, creating a never-ending cycle of waste. The greatest focus for most companies is on making their products recyclable but this simply delays the inevitable trip to the tip

We recognise that current recycling programs are not enough. Instead of recycling waste we need to not create it in the first place. Recycling concrete waste is almost impossible when you have metal fused with concrete- paving rubble amongst concrete and steel. A very small proportion can be recycled and to perform the work to make it suitable for recycling is costly (not something many local govt authorities can afford and let's be honest if it costs money, it is not something commercial enterprises wish to do!) It is costly work, and the outcome is simply delaying the inevitable- as concrete cannot be perpetually recycled, 100% of the concrete used for repeated repairs ends up as carbon intensive landfill.

We need to re-think the three R's as reduce, reuse, recycle is simply not enough-

- Instead of reducing the use of concrete we can end to it by repairing foundations
- Instead of reusing once or twice, we can now reuse it for 100 years
- Repeat, repeat repeat.

REPAIR

Install ZERO WASTE
Foundations putting an end
to damage for the next 100
years

RE-USE

Footings are reused and
items replaced quickly and
efficiently using ergonomic
tools from standing position

REPEAT

Repeat year after year and
continue saving for the
entire lifespan of a
development

Socially sustainable cities that never grow old

Instead of static unyielding urban environments subject to constant decay, by utilising ZERO WASTE technologies cities become dynamic, (able to quickly adapt to meet changing needs of the city throughout the day, week or decade) never growing old and tired.

Roadside items from traffic and parking signs, to barriers, bollards, traffic light columns and street furniture becomes removable, replaceable and even relocatable for events, disasters response, seasonal changes, maintenance and future upgrades.

Now there's no excuse for old tired or unsafe urban environments



