



ARMADILLO™ THE IRONWORK DEFENCE SYSTEM

PRODUCT SPOTLIGHT

PROTECTING IRONWORK

INSTALL ONCE AND PROTECT, NOT TWICE AND REGRET

Ironwork on construction sites often faces challenges from heavy machinery and silt intrusion, leading to damage and costly repairs. To address these issues, we have introduced the Armadillo range, designed as the ultimate protection for your ironwork and infrastructure.

The range includes protector shells and plates, which shield manhole covers and gully gratings from the extreme loads of construction vehicles, preventing the need for premature replacement or maintenance of ironwork, ensuring that manhole covers remain in optimal condition until they are needed post-construction.

New for 2025 is the innovative Silt Shield, which is a fully retrofittable and robust solution that effectively traps silt and debris, ensuring compliance with environmental regulations and mitigating the risk of blockages and flooding.

With the Armadillo range, Wrekin offers a comprehensive solution to protect and maintain your construction site's infrastructure, reducing downtime and expenses while supporting sustainable practices.





Ironwork after being exposed to typical construction site traffic.

Find out more wrek.in/armadillo





WHAT IF WE COULD...

SOLVE THESE ISSUES AND MORE



GET THE RIGHT PROTECTION AT THE RIGHT TIME

Manhole covers and gully gratings are one of the first materials installed on a construction site, usually selected to suit the final traffic environment (Group 4 D400, pneumatic tyres). However, during the construction phase, they can be regularly exposed to much greater forces from tracked plant and machinery. This is a common cause of premature failure.



REMOVE THE NEED TO REPLACE DAMAGED IRONWORK

Jet washing or sucking out gully pots can be costly, but failed ironwork can cost thousands of pounds to completely replace.

However, the costs don't just stop with the materials and labour. There are many other costs related to the issues of failed ironwork including health and safety, environmental, project delays and disruption to residents.



SAVE TIME AND REALLOCATE RESOURCES

The task of replacing failed ironwork can be time consuming. But the overall time is just one small aspect of it.

The inconvenience can include having to reallocate resources, plus the additional time required to allow for bedding mortar to cure or set before the ironwork can be trafficked.



PROTECT THE ENVIRONMENT

Prevent fines by providing a barrier to, silt and other detriment. Reduce the need for proactive maintenance and in worst cases the potential of fines for polluting watercourses and harming the natural environment.

Completely remove the need for replacing ironwork, ensuring the specified product installed first time remains ready for handover.





Armadillo is a complete ironwork defence system, protecting your assets from heavy machinery and the effects of silt.

Armadillo Protector Shells and Plates provide protection from construction site traffic, including tracked vehicles. They can be easily removed when the final surfacing is completed and reused across multiple construction sites.

Armadillo Silt Shield offers a fully retrofittable, robust, and environmentally friendly option for construction sites. This system effectively traps silt and debris before they can enter the drainage network, ensuring compliance with environmental regulations and mitigating the risk of blockages and associated flooding.

MEET THE RANGE

Armadillo Manhole Cover Protector Shell
A reusable shell that is compatible with
both Wrekin Highway and Tristar manhole
covers.



Armadillo Gully Grate Protector Shell
Compatible with Wrekin Tristar gullies
when installed proud of the binder.

Read more on page 6

Armadillo Silt Shield
Compatible with Tristar gully gratings*
and offers a simple and effective
solution to managing silt and debris
runoff into drainage systems.

Read more on page 8

*See compatibility chart on 18









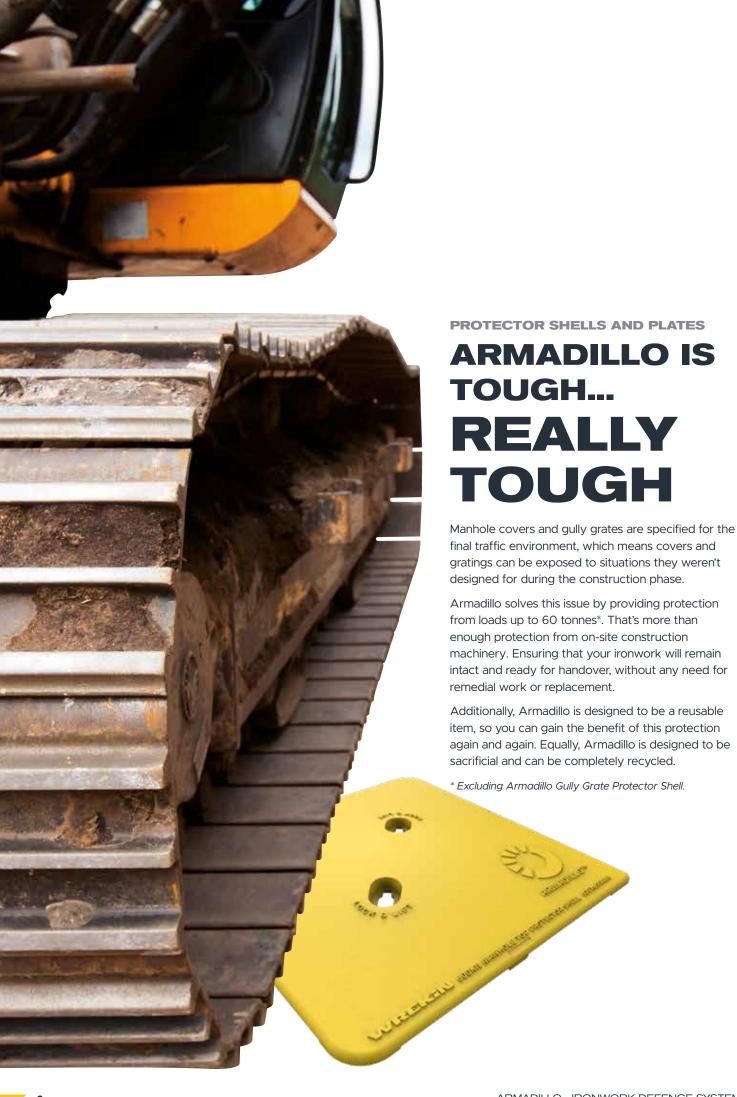
water management systems, and increased risk of

flooding.

Discharging silt-laden water into natural watercourses can harm aquatic life and water quality, violating environmental regulations and resulting in hefty fines for construction companies.

Armadillo Silt Shield addresses these challenges head-on. Unlike traditional silt management solutions, Armadillo Silt Shield offers a fully retrofittable, robust, and environmentally friendly option for construction

Find out more on 8 and at: wrek.in/armadillo





Armadillo Gully Grate Shell after being used to protect a Tristar Gully Grate on a new build construction site.

SAFE AND SECURE FIXING MECHANISM MANHOLE COVER FIXING

We understand that the forces exerted on ironwork on construction sites can be extreme. That's why the Armadillo Manhole Cover Protector Shell has been designed to fasten securely into the existing safety keyways of our Highway and Tristar manhole covers, providing a solid fixing, increasing the overall strength and protection provided.

Fixing using the existing safety keyways means it's incredibly easy to fit, re-fit and adjust the Armadillo Protector Shell in case of replacement or access requirements.



Armadillo Manhole Cover Protector Shell fixing mechanism

SAFE AND SECURE FIXING MECHANISM GULLY GRATE FIXING

The Armadillo Gully Protector Shell is designed to be simply placed over gully grates. Spikes in the bottom of the shell will grip the surroundings as traffic passes over, allowing the cover to move and flex with the traffic.

If the cover should move from the gully grate, it is easy for a site operative to move gully protector shell back into place.

OPTIONAL GULLY GRATE LOCK AND LIFT CLAMPS

Optional lock and lift clamps are available for the Armadillo Gully Grate Protector Shell. These clamps prevent s theft but allows some movement.

To install, simply insert the clamps through the shell and grating, and tighten into place.







ARMADILLO SILT SHIELD

FILTER OUT SILT AT SOURCE

THE PROBLEM:

Construction sites are dynamic environments where the movement of earth, materials, and machinery can generate substantial amounts of silt and debris. When rain falls on these sites, water runoff can carry these materials into gully systems.

Without effective interception, silt and debris can enter the drainage network, leading to blockages, reduced efficiency of water management systems, and increased risk of flooding.

Discharging silt-laden water into natural watercourses can harm aquatic life and water quality, violating environmental regulations and **resulting in hefty fines for construction companies.**



THE SOLUTION:

Armadillo Silt Shield is designed to address these challenges head-on.

Unlike traditional silt management solutions, Armadillo Silt Shield offers a fully retrofittable, robust, and environmentally friendly option for construction sites.

This system effectively traps silt and debris before it can enter the drainage network, ensuring compliance with environmental regulations and mitigating the risk of blockages and associated flooding.

KEY FEATURES AND BENEFITS





FULLY RETROFITTABLE

Armadillo Silt Shield can be easily installed in existing gully systems, making it a versatile solution for both new and ongoing projects.



EASE OF MAINTENANCE

The system's design facilitates easy access for cleaning and maintenance, ensuring its effectiveness over time and reducing the likelihood of system failures.



REUSABLE AND RECYCLABLE

Its durability allows for multiple uses across different sites or phases of a project, while its steel construction ensures that it can be fully recycled at the end of its life cycle.



SAFETY LIFTING POINTS

Designed with keyway points to ensure that the bucket can be safely and efficiently handled, mitigating the risk of injury during installation, maintenance, and removal.



ENVIRONMENTAL COMPLIANCE

By capturing silt and debris at the source, it helps avoid the discharge of polluted water into natural watercourses, preventing potential fines and environmental harm.



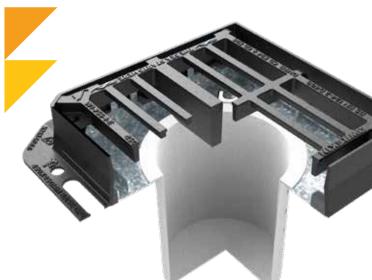
ROBUST CONSTRUCTION

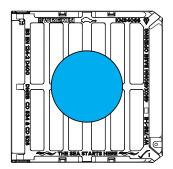
Manufactured from welded steel, Armadillo Silt Shield is designed to withstand the harsh conditions of construction sites, providing long-term reliability.



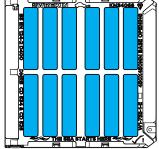
NO IMPACT ON WATERWAY AREA

Unlike systems with permanent restrictions, Armadillo Silt Shield temporarily limits the gully opening, ensuring effective silt capture without affecting drainage capacity.





Restricted waterway area with Armadillo Silt Shield installed



Full waterway area reinstated once Armadillo Silt Shield is removed

Developed in association with:





HOW DOES IT WORK?



FILTER BAG

The filter bag is made of lightweight yet strong geotextile fabric, designed to capture debris at the source as it enters the grating. It allows water to filter through the bag and into the drainage system while retaining silt and debris. These filter bags are reusable, easy to replace when needed, and come with replaceable options for convenience.



SAFE HANDLING

Lifting is made easy with the silt buckets' integrated keyways, allowing lifts to be handled without the need for bending or kneeling. Additionally, lifting keys of varying lengths can be used to suit different needs.



RETROFITTABLE

Armadillo Silt Shield is completely retrofittable, allowing you to remove the bucket from the locator plate, unhook the frame, and move it to a new location for protection where it's needed most. There is no need to install anything beneath the frame, and the process is simple enough for unskilled operation, resulting in significant time and cost savings.



INSTALLATION

AS EASY AS 1, 2, 3!





The locator plate is provided in 2 halves, fit both halves into a Tristar 430 x 430mm clear opening gully gratings



LOWER IN SILT BUCKET

The filter bag is inserted into the silt bucket. The silt bucket is lowered into the locator plate aperture using the safety keyway lifting points



FILTRATION WHEN NEEDED

Any water flowing into the gully grating will now be filtered through the bag, removing debris, fines and silt





Our first installation of our blue "The Sea Starts Here" gully gratings were installed at Kings Park, housing development in Macclesfield.

problems of water pollution.

We're working to overcome this major challenge

To understand more about the challenge our industry faces and what we are doing to tackle it, scan the QR code or visit

wrekinproducts.com/tssh





Our campaign will go some way to increasing the awareness to a wider audience about, the interconnectedness of our infrastructure and the

BENEFITS FOR EVERYONE

Armadillo offers benefits for everyone that bring cost, time and effort savings. In fact, all involved in the process of specifying, procuring, installing and maintaining ironwork and drainage systems will find benefits.

NO JET WASHING

Save time and money by eliminating the need to jet wash.

NO CRACKED IRONWORK

Significantly reduces the risk of cracking to ironwork which can lead to rejection by adopting authorities.

NO UNIDENTIFIED IRONWORK

The bold yellow coated shell and grille plates make it easier for operatives to identify and avoid ironwork.

NO SILT

Helps to stop debris from entering the chamber and drainage system at the source.

NO NEED FOR SPECIALIST TEAMS

Removes the need for specialist teams and specialist equipment saving time, resources and money.

NO EXCAVATION

When used with ClickLift, ironwork can be fitted right first time, removing the need to excavate to raise or reinstall.



MANHOLE COVER PROTECTION

ARMADILLO MANHOLE COVER PROTECTOR SHELL

ASSET OWNER

Ironwork is protected from traffic and related defects, including cracking. This ensures ironwork can start its service life as new. Armadillo can also remove the potential for debris in the drainage system.

GROUNDWORKER

Fully compatible with ClickLift, allowing manhole covers to be installed flush with the road surface and raised at a later date saving time and money.

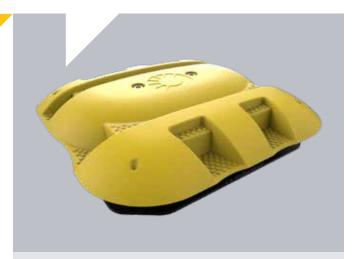
HOUSE BUILDER / DEVELOPER

Armadillo can prevent debris from entering the chamber and drainage system at the manhole cover.

Environmental, sustainability and Health and Safety benefits due to reduced remedial works, damaged products and the prevention of silt and pollutants in the drainage system.

USERS AND GENERAL PUBLIC

Armadillo prevents damage from being caused to residents cars and in combination with ClickLift minimises the inconvenience of road closures



GULLY GRATE PROTECTION

ARMADILLO GULLY GRATE PROTECTOR SHELL

ASSET OWNER

Allows ironwork to be installed proud of the road surface, as is commonly done, yet remain fully protected from side impacts and construction site traffic. Armadillo can also reduce the potential for debris in the drainage system.

GROUNDWORKER

Takes only seconds for an unskilled operative to fit, and is just as quick to remove. The Armadillo Gully Grate Protector Shell is designed to be reused and is easy to transfer around a project as the phases develop.

HOUSE BUILDER / DEVELOPER

Acts as a coarse debris barrier for gully gratings, ensuring that the drainage system remains in a good working order. Only smooth faces are presented to traffic reducing the risk of damage to site or residents' vehicles.

USERS AND GENERAL PUBLIC

Removes the need to close roads to replace damaged ironwork and the associated inconveniences caused to residents.



SILT SHIELD

ARMADILLO SILT SHIELD

ASSET OWNER

Armadillo Silt Shield keeps drainage systems clear, reducing flooding risks and maintenance costs while protecting long-term infrastructure investments.

GROUNDWORKER

It simplifies silt and debris management, providing a durable, easy-to-install solution. Its retrofittable design and health and safety-focused features ensure efficient deployment and maintenance, enabling teams to meet project deadlines while staying compliant with environmental regulations.

HOUSE BUILDER / DEVELOPER

Builders benefit from Armadillo Silt Shield's ecofriendly design, which prevents blockages, protects watercourses, and meets environmental standards.

USERS AND GENERAL PUBLIC

Contributes to clean watercourses, ponds and SUDS during the construction phase, when estates are already populated. Any inconveniences from road closures is either minimised or completely removed.

ClickLift requirement

With ClickLift

MANHOLE COVERS

ARMADILLO PROTECTOR SHELL AND GRILLE RANGE

Without ClickLift

GULLY GRATES

Without

ClickLift

CHOOSING THE RIGHT SYSTEM

Whether you are looking for manhole cover protection with ClickLift functionality, or Armadillo Gully Grate Protector Grille, we have a solution for you.

This selection chart will help you to identify which products will be in the ground at the different stages of installation.

However, if you are unsure, we have more selection information available online at **wrekinproducts.com**, and are happy to help you if you call us on 01543 440440.



CLICKLIFTTM

ClickLift enables manhole covers and gully grates to be installed flush first time and raised at a later date providing housing developers and groundworkers with huge savings in terms of time, money and hassle.



Products installed during construction phase

- Tristar or Highway Manhole Cover
- Armadillo Manhole Cover Protector Shell
- Option: UniPak bedding mortar



Fully adoptable and compliant products remaining at completion

- Tristar or Highway Manhole Cover
- ClickLift Manhole Cover Raising
- Poption: UniPak bedding mortar



- Tristar or Highway Manhole Cover
- Armadillo Manhole Cover Protector Shell
- Option: UniPak bedding mortar



- Tristar or Highway Manhole Cover
- Option: UniPak bedding mortar



- Tristar Gully Grate
- Armadillo Gully Grate Protector Shell
- Option: UniPak bedding mortar
- Poption: Lock and lift clamps



- Tristar Gully Grate
- > Armadillo Silt Shield
- Option: UniPak bedding mortar

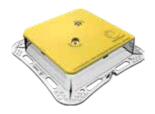


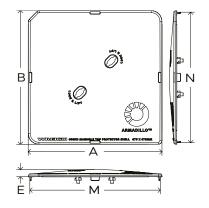
- > Tristar Gully Grate
- Poption: UniPak bedding mortar





ARMADILLO MANHOLE COVER PROTECTOR SHELL





Protects Highway and Tristar manhole covers during the initial construction phase of new build developments. The Armadillo manhole cover protector shell allows covers to be left raised and still withstand extreme loads.

- ▶ Provides protection up to 60 tonnes.
- Secure vertical anchors prevent lateral movement and fit into existing keyways.
- Anti-debris guard and seal prevents unwanted sediment and spills from entering the drainage system.
- Easy one person installation and removal.
- ▶ Designed to be reusable and 100% recyclable.

Options: Enhanced anti-slip coating, Alternative badging,

Customised colour scheme.

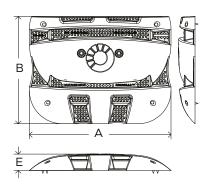
Notes: See compatibility list on page 16.

Secured in place with M16 Allen bolts.

COMPATIBLE WITH: COVER (mm)	OVERALL SIZE (A x B mm)	INNER SIZE (M x N mm)	HEIGHT (E mm)	STOCK CODE
600 x 600	615 x 615	600 x 600	55	ARMMSHELL/6060
675 x 675	690 x 690	675 x 675	55	ARMMSHELL/6767

ARMADILLO GULLY GRATE PROTECTOR SHELL





Protects raised Tristar gully grates from extreme loads during the initial construction phase of new build developments. The Armadillo gully grate protector shell completely enshrouds Tristar gully grates, allowing gratings to be left raised and withstand extreme loads.

- ▶ For use in Group 3 applications.
- Simple installation by placing over raised gully grates, can be secured in place with optional quarter turn spring loaded locking clamps.
- Anti-debris guard prevents unwanted waste from entering the drainage system.
- Accommodates up to 50mm of Frame protrusion above the surrounding road surface

Options: Lock and lift clamps, Enhanced anti-slip coating,

Alternative badging, Customised colour scheme.

Notes: See compatibility list on page 16.

COMPATIBLE WITH: RANGE	COMPATIBLE WITH: CLEAR OPENING (mm)	OVERALL SIZE (A x B mm)	HEIGHT (E mm)	STOCK CODE
Tristar Gully Grates	430 x 370	645 x 490	75	ARMGSHELL/4337
Tristar Gully Grates	450 x 450	645 x 550	75	ARMGSHELL/4545

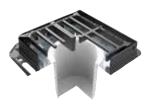
DESCRIPTION STOCK CODE

Pair of lock and lift clamps for securing a Armadillo Gully Grate Protector Shell to a Tristar Gully Grate

ARMGSHELL/CLAMPS/1



ARMADILLO SILT SHIELD



SILT/KITBOX/4545



Armadillo Silt Shield offers a simple and effective solution to managing silt and debris runoff into drainage systems. If this challenge is not addressed effectively, it can have significant environmental, operational, and financial repercussions for construction projects. Provides protection up to 60 tonnes.

- Gully grating allows for surface water to drain and can be fitted with an optional silt bucket.
- Fully compatible with Armadillo gully grate protector shell.
- Silt bucket and filter prevents unwanted sediment and spills from entering the drainage system.

Options: Enhanced anti-slip coating, Alternative badging, Locking

DESCRIPTION	CONTENTS	STOCK CODE
Armadillo Silt Shield (Kit)	Kit of 1 Armadillo Silt Bucket, 1 Armadillo Silt Bag, 1x Armadillo Silt Plate Inserts (2 parts)	SILT/KITBOX/4545
Armadillo Silt Shield (Site Pack)	25 Armadillo kits palletised for direct to site orders	SILT/SHLD/4545



DGH0D4/4545/KT



DGH0D6/4545/KT

Tristar Gully Grate "The Sea Starts Here"

Tristar D400 3 flange gully grate 430mm x 430mm clear opening with 100mm frame depth	DGH0D4/4545/KT
Tristar D400 3 flange gully grate 430mm x 430mm clear opening with 150mm frame depth	DGH0D6/4545/KT



ARMADILLO MANHOLE COVER PROTECTOR SHELLS COMPATIBILITY

STOCK CODE	COMPATIBLE PRODUCT	SIZE (mm)	DESCRIPTION	INCLUDED ACCESSORIES
ARMMSHELL/6060	DMT0D4/6060/KT	600 x 600 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D6/6060/KT	600 x 600 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D4/6767/KT	675 x 675 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D6/6767/KT	675 x 675 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D4/6060/KH	600 x 600 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D6/6060/KH	600 x 600 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D4/6767/KH	675 x 675 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D6/6767/KH	675 x 675 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)

^{*}Armadillo manhole cover protector shells are not compatible with the Highway HaloHinge range of manhole covers.

ARMADILLO GULLY GRATE PROTECTOR SHELLS COMPATIBILITY

STOCK CODE	COMPATIBLE PRODUCT	SIZE (mm)	DESCRIPTION	OPTIONAL ACCESSORIES
ARMGSHELL/4337	DGH0D4/4337/KT	430 x 370	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4337	DGH0D6/4337/KT	430 x 370	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4545	DGH0D4/4545/KT	450 x 450	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4545	DGH0D6/4545/KT	450 x 450	Tristar D400 gully grate	Lock and lift clamp (x2)

ARMADILLO SILT SHIELD COMPATIBILITY

STOCK CODE	COMPATIBLE PRODUCT	SIZE (mm)	DESCRIPTION	INCLUDED ACCESSORIES
SILT/KITBOX/4545	DGH0D4/4545/KT	450 x 450 x 100	Tristar D400 gully grate	Armadillo silt bucket, Armadillo silt bag, Armadillo silt plate inserts
SILT/KITBOX/4545	DGH0D6/4545/KT	450 x 450 x 150	Tristar D400 gully grate	Armadillo silt bucket, Armadillo silt bag, Armadillo silt plate inserts



BESPOKE ARMADILLO

The Armadillo range offers customisable protector shells for manhole covers and gully grates, allowing clients to tailor features to their specific needs. Customisation options include unique colour schemes, bespoke chequer patterns, enhanced anti-slip coatings, and alternative badging. These adaptations ensure that the Armadillo shells not only provide robust protection during construction phases but also align with individual project aesthetics and functional requirements.

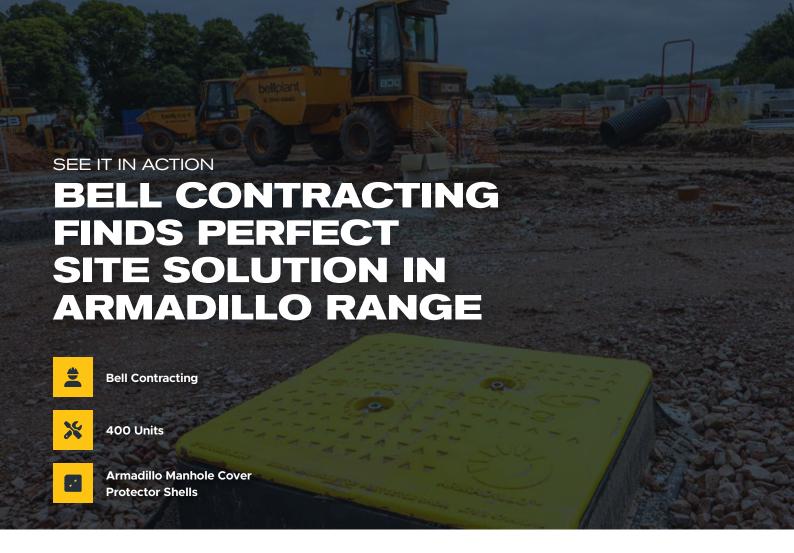


Read the case study on page 20









With projects involving months of heavy plant on site, Bell Contracting has historically found its ironwork being damaged or cracked during the construction phase.

This problem was costing time, money, and materials to replace, so could not go on. Through our relationship and experience, supplying them with various access solutions, conversations led to our Armadillo range coming to the fore – the perfect hardhat for its ironwork.



We recommended trialing our Armadillo range of manhole cover protector shells, which provide heavy duty protection from loads up to 60 tonnes, so that covers and grates can be installed once and protected from damage.

Following the trial, an initial order of 200 cover protector shells was placed by Bell Contracting. Impressed with the results that revealed the ironwork remaining 'as new' upon protector plate removal, a further 200 units were ordered.

Opting for a bespoke finish instead of our standard version, Bell Contracting asked us to personalise the order so that each of the Armadillo shells featured its company logo. Armadillo is designed to be reused on future sites, so Bell Contracting can gain the benefit of this protection, keeping their prominent branding, again and again.



Dave Sanders, our head of technical sales who handled the project, said: "This was a clear case of our client needing something reliable and tough, and our experience and relationship meaning that we were well positioned to suggest a suitable solution. The Armadillo has blown them away, so much so that a phenomenal 400 units were ordered, which is our largest order to date.

INNOVATION

RAPID SOLUTIONS TO COMMON PROBLEMS

CLICKLIFT

RAPID FRAME RAISING SYSTEM

Clicklift removes the time and resources required to dig out and reinstall manhole frames to suit the final adoptable road surface. This eliminates the potential damage to manhole covers during construction, minimises disruption and removes the potential for residents claims for damage to their vehicles.

Clicklift provides housing developers and contractors with huge savings in terms of time, money and hassle. Allowing whole estates to have their covers raised to the final surfacing level, in as little as a few hours.

Available with four fixed incremental raising heights, 30mm, 40mm, 50mm and 60mm, Clicklift offers contractors and developers huge time and cost savings, as well as eliminating common nuisance issues for residents on new build developments.



Saves up to 80% of installation costs



Saves weeks of reinstallation time, raising covers for asphalting



Substantially reduces site operatives' and home owners' exposure to risk.



Everyone thought it was a good product. We even had four or five different people involved in construction who came to see it and all were impressed.

Robin Guild,

Operations Director, Guild Homes

much it reduced costs and saved time.



NOTES













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