SafeSmart Access

Reaching new heights

NON-DRILL Pty Ltd

NON-DRILL EDGE PROTECTION

0845 382 1000 www.safesmartaccess.co.uk

NON-DRILL; FAST AND FIXING-FREE

The true purpose of NON-DRILL is to never have to drill into any concrete structure, precast and in-situ. Avoid drilling completely, incorporating additional anchors into design in precast and in-situ pours for both temporary and permanent handrails.

The NON-DRILL connection with nut and plate has many uses to avoid drilling and when removed simply fill the recess with grout, no damage to the concrete with the anchor already below the surface and secured poured around the anchor head.

SUMMARY OF BENEFITS

- Eliminate the need for drilling with the NON-DRILL edge protection and handrail system
- Connect to lifting anchors on precast structures
- NON-DRILL works seamlessly with 2.5, 5, 10T connections EdgePro/Hairpin lifting anchors + Ferrules
- Connecting to the anchor eliminates human error and meets industry standards for edge protection
- With NON-DRILL, you avoid costly labour hire, drilling into concrete, exposing steel and cutting off bolts
- Apart from avoiding the need to drill, the big savings with the NON-DRILL system is installation time. You can install 12 NON-DRILL posts in the same time it takes to drill a typical post with 2 holes

By planning ahead, incorporating anchors into design, the NON-DRILL team will work with your designers to position the anchors for both temporary edge protection and permanent handrails.

- Walls: min 130mm thick- 2.5 tonne anchor 170mm long or standard 16-20mm ferrule
- Slabs: 2.5 tonne cone anchor 75mm long, 100mm off the edge
- Where concrete thickness is <100mm e.g., flanges on Super Ts- use Ancon 20mm short foot ferrule 45mm long

NON-DRILL POST & HANDRAIL SYSTEM

WHEN MOVING FROM TEMPORARY TO PERMANENT HANDRAILS

First use as a temporary handrail until backfill is completed, then using the same NON-DRILL post and rails, transfer to permanent handrail using modular connections, without exposing a live edge.

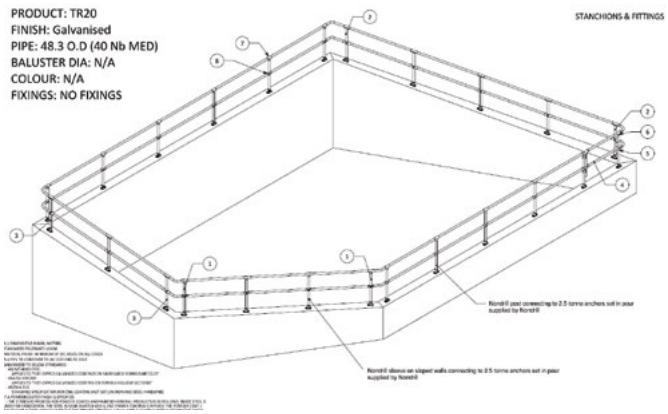
NON-DRILL is now an approved system on various large projects around Australia.

KEY ADVANTAGES OF TRANSFERRING FROM TEMPORARY TO PERMANENT HANDRAILS

The NON-DRILL methodology to transfer without exposing a live edge eliminates the need for scaffolding, EWPs, and working from heights. It also eliminate the need for drilling.

Eliminating drilling ensures the full lifespan of the structure and no silica dust.

Connection to the superior strength of the anchor eliminates human error guaranteeing all load standards are met. Can you always be certain with typical handrails if the installer hits steel when drilling 2- 4 holes in the baseplate, is it repaired properly or worst bolt cut shorter?



With the NON-DRILL permanent system, structural grout is placed in the recess before tightening down the NON-DRILL post. This seals any moisture ever getting to the connection increasing the lifespan even more.

Additional bonus: due to the superior strength of the anchor, if the handrail was ever damaged , simply replace the damaged post to the same anchor. With a typical handrail this is not so easy if the bolts shear resulting in drilling again in a new location, and repairing the sheared bolts.

TRAINING & SUPPORT

NON-DRILL has personnel located in all Australian states that are trained to install the NON-DRILL permanent system.

NON-DRILL offers step by step video installation instructions to train your team or subcontractor of choice.

For Re-Walls construction, NON-DRILL have designed a range of Steel Clamps for use when installing the panels to replace using timbers. NON-DRILL also have a Dropdown System that connects to the anchors on the higher panels for edge protection across the lower panel. Connecting to the anchors replaces the frame system that can damage the front face.

NON-DRILL

Code	Description
230121	NON-DRILL Post – 1.060m
230122	NON-DRILL 2.5T Clutch
230123	NON-DRILL 5.0T Clutch
230124	NON-DRILL 10.0T Clutch and extra baseplate
230125	NON-DRILL Modified Clutch for Edge Lifter/Hairpin anchor- Type 2 To Suit Ancon 4t (Red)
230126	NON-DRILL Modified Clutch for Edge Lifter/Hairpin anchor - Type 1 To Suit; Ancon 8.5t (Purple), REID 7t Jaws (Orange), REID 8.5t 3DX (Yellow)
230127	NON-DRILL Modified Clutch for Edge Lifter/Hairpin anchor - Type 3 To Suit; Ancon 15t (Green), REID 10t Jaws (Blue)
230128	NON-DRILL Modified Clutch for 16mm Ferrule/Drop In
230129	NON-DRILL Modified Clutch for 20mm Ferrule/Drop In
230120	NON-DRILL Post AdaptaPanel Bracket

- Eliminate the need for drilling with the NON-DRILL edge protection and handrail system
- Connect to lifting anchors on precast structures
- NON-DRILL works seamlessly with 2.5, 5, 10T connections and Edge Lifter / Hairpin anchors
- Connecting to the anchor eliminates human error and meets industry standards for edge protection
- With NON-DRILL, you avoid costly labour hire, drilling into concrete, exposing steel and cutting off bolts
- Complies with BS EN 13374:2013+A1:2018

NON-DRILL AdaptaPanel Bracket – for use with AdaptaPanel Panels

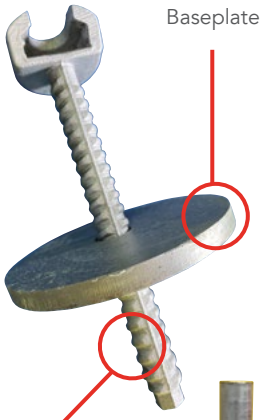
CUSTOMISE YOUR POST & CLUTCH COMBO

CLUTCH OPTION

NON-DRILL Post with Clutch 2.5T, 5T or 10T

2.5T Clutch
230122

5.0T Clutch
230123

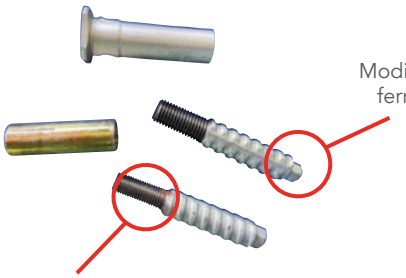


Baseplate

10.0T Clutch
230124

FERRULE/DROP IN OPTION

NON-DRILL Post with modified Clutch for 16mm or 20mm ferrule/drop in



Modified Clutch for 20mm
ferrule/drop in 230129

Modified Clutch for 16mm
ferrule/drop in 230128

1.060m Post
230121

EDGEPRO/HAIRPIN LIFTER OPTION

NON-DRILL Post with modified Clutch for EdgePro/Lifter 4T, 7T or 10T

Type 2 Edge Lifter/
Hairpin anchor
230125

Type 1 Edge Lifter/
Hairpin anchor
230126

Type 3 Edge Lifter/
Hairpin anchor
230127

NON-DRILL POST & HANDRAIL SYSTEM

- Eliminate the need for drilling with the NON-DRILL edge protection and handrail system
- Connect to lifting anchors on precast structures
- NON-DRILL works seamlessly with 2.5, 5, 10T connections and EdgePro/Hairpin lifting anchors

QUICK & EASY TO INSTALL

- By connecting to the anchor - eliminate human error and meet industry standards for edge protection
- With NON-DRILL you avoid - costly labour hire, drilling into concrete - exposing steel, cutting off bolts

NON-DRILL POST & HANDRAIL SYSTEM

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Typical handrail height of 1m, max spacing on NON-DRILL post as follows:

- 3.2mm wall thickness= 2.4m
- 4.0mm wall thickness= 2.6m
- 5.4mm wall thickness= 2.8m

Note: 5.4mm wall thickness requires extra round 150mm baseplate and must connect to a min 5 tonne lifting anchor due to higher pull-out capacity

Various options – top and mid rail using scaffold clips or clamp connections

To enclose live edge, SafeSmart AdapataPanels or 3m (50x50x4mm) mesh screens with 200mm overlap fixed to top and bottom rail.

NON-DRILL now approved by SafeWorkVIC to be installed by competent personnel. No scaffold sign off required, means you can utilise your existing personnel onsite to install (training videos can be provided)

"SafeWork Under the legislation (OHS Regulations 2017), scaffold means 'a temporary structure specifically erected to support access or working platforms.' This handrail system may be formed from scaffolding components (tube and coupler), but it is not scaffold as it does not support access or work platforms. As such, there is no need to hold a HRWL to install it (no matter the potential fall height). this requirement for the system to be installed by trained and competent persons, "

SETTING ANCHORS

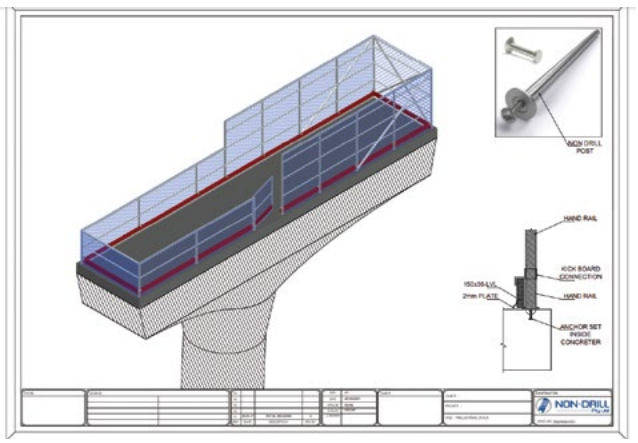
RETAINING WALLS

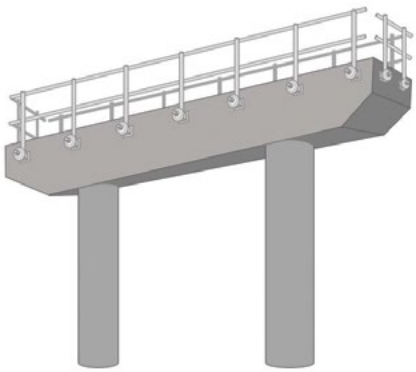
Set anchors to easily install temporary edge protection before formwork is removed. If a permanent handrail is required, it can be transferred using the same posts and rails with exposing a live edge when backfilling is completed.

HEAD STOCKS & CULVERTS

To pour or place head-walls, needing only a tower scaffold to gain access. Cast anchors in the side surface to use the NON-DRILL side connection to keep the top surface clear.

- Headstock design options of top mount or NON-DRILL side connection





WALKWAY BRACKETS

NON-DRILL has designed a walkway bracket with a strong pull-out capacity that need only one connection point, with loads up 500kg per/m.

OTHER USES FOR SETTING ANCHORS

Connecting lanyards, Davit rescue system, tripod for surveyors and securing formwork props.

PRECAST WALL PANELS CONSTRUCTING LARGE BUILDINGS

Utilise the existing anchors or have your precast company add additional anchors 200mm from the edge, allowing you to install edge protection before lifting.

When lifting, there will be edge protection in place removing the need for scaffolding and EWP's and the NON-DRILL post will be clear from the chains.

If installing second floor panels, a mobile frame on wheels has been designed to attach to the NON-DRILL system, allowing safe removal of the edge protection on each panel to drop the second floor panel on top.

CULVERTS

Once the culvert units are positioned and the anchors that are perfectly spaced, typically 5 and 10 tonne cone anchors along the edge, NON-DRILL can then be installed.

For edge protection on the front edge where the headwall gets formed, instruct your precast company to cast-in 20mm ferrules on the side edge. NON-DRILL has designed a side connection post which can also support the formwork for the headwall, and if the headwall and wing walls are precast, handrails (temporary or permanent) can attach to the existing anchors on top. The NON-DRILL sleeve connection can then be used to plumb the post on the wing walls.

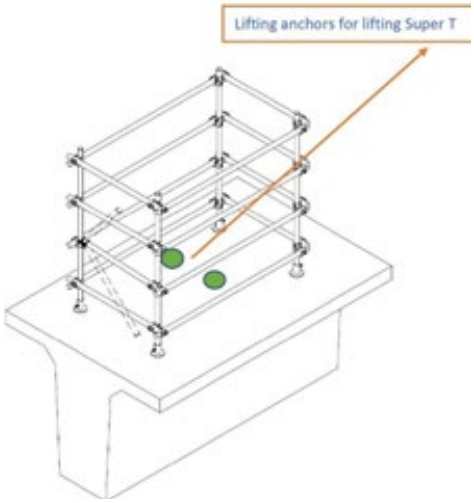
BRIDGE SEGMENTS AND SUPER T'S

'Incorporating anchors into design to avoid drilling'

For transport, NON-DRILL has designed a box protection around large anchors for riggers to install their chains. The top rail is spring loaded to allow easy entry but also for the chains when they move when lifting.

Setting anchors into design for Bridge Segments and Super T's, gives you the quick and easy option to have edge protection where required.

All edge protection can be installed prior to lifting into place, with spring loaded gates to gain access to each segment, and to quickly remove and place as bridge segments progress.



With the edge protection along the edges, anchors can be placed to allow room to later install the Bridge Parapets. Parapets are typically 820mm high after pouring the deck, then transfer the edge protection to the anchors which are again perfectly placed on top of the parapet.

If working over live traffic, attach SafeSmart's AdaptaPanel for a fully enclosed system.

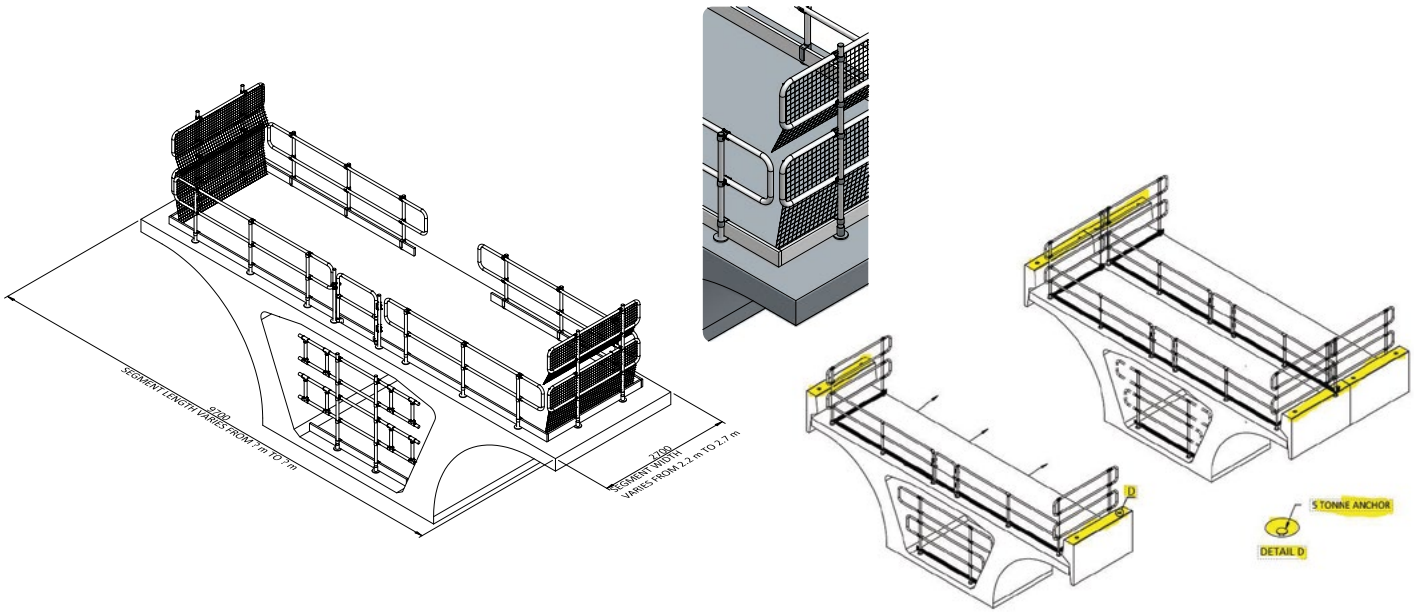
Note: if using Shade-cloth, this will increase the wind load on the posts which can be checked by NON-DRILL engineers.

BRIDGE SEGMENTS AND SUPER T'S

For Super Ts where concrete is only 70-90mm on the flanges, NON-DRILL recommend Ancon 45mm Short Foot Ferrule, we have a modified clutch to suit this anchor.

When removing the NON-DRILL system, simply grout the recess leaving no damage to the concrete not like typical handrails that are drilled where its costly to cut off the bolts below the concrete and repair.

Also there is a fair amount of difficultly in getting the required cover when cutting the bolt to which you have no reassurance after its repair either. See segment design for West Gate Tunnel Project below. There was over 40,000 anchors incorporated intodesign. Segment highlighted in yellow showcases where NON-DRILL was transferred to existing anchors on bridge parapets.



CONCRETE JERSEY BARRIERS 3M & 6M

Due to the superior strength of the 5 tonne NON-DRILL anchor, NON-DRILL has designed a hoarding system for 3 metre & 6 metre Concrete Jersey Barriers.

- Wind Load - 3m Barrier, 2.2m high from top of Barrier.
- Wind Load - 6m Barrier, 1.6m high from top of Barrier.
- SafeSmart can also offer design and fabricate gates with this type of hoarding.

On concrete jersey barriers, anchors sit idle once the barrier is in place - this gives many options to avoid drilling, which is back charged to repair.

For Gawk screens, NON-DRILL offer the mesh panel system or install top and bottom rails with mesh screens 3m long 50x50x4mm squares with 200mm lap fixed onto the rails.
Note: if adding shade cloth the wind load increases.

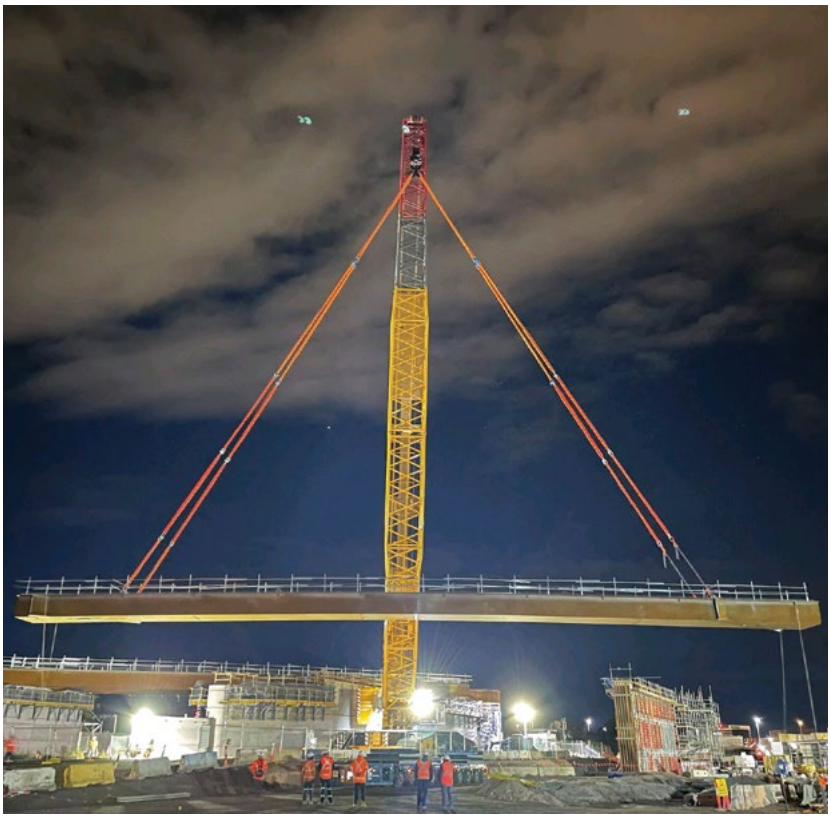
CONTAINER EDGE PROTECTION

- To suit 20ft or 40ft containers
- Special claw attachment that works in with container locking slots
- AdjustaStairs and Proscaf landings to provide access to container

SHEAR STUD EDGE PROTECTION

SEE CUSTOM SHEAR STUD EDGE PROTECTION PAGE #126

- Shear Stud base connector is 250mm high to suit 3 shear stud heights of 150mm, 175mm and 225mm allowing you to reuse them for bridges with varying stud sizes
- Utilise the 5t claw anchor to attach to shear studs
- Maximum post spacing of 2.4m with 1.0m high handrail



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