

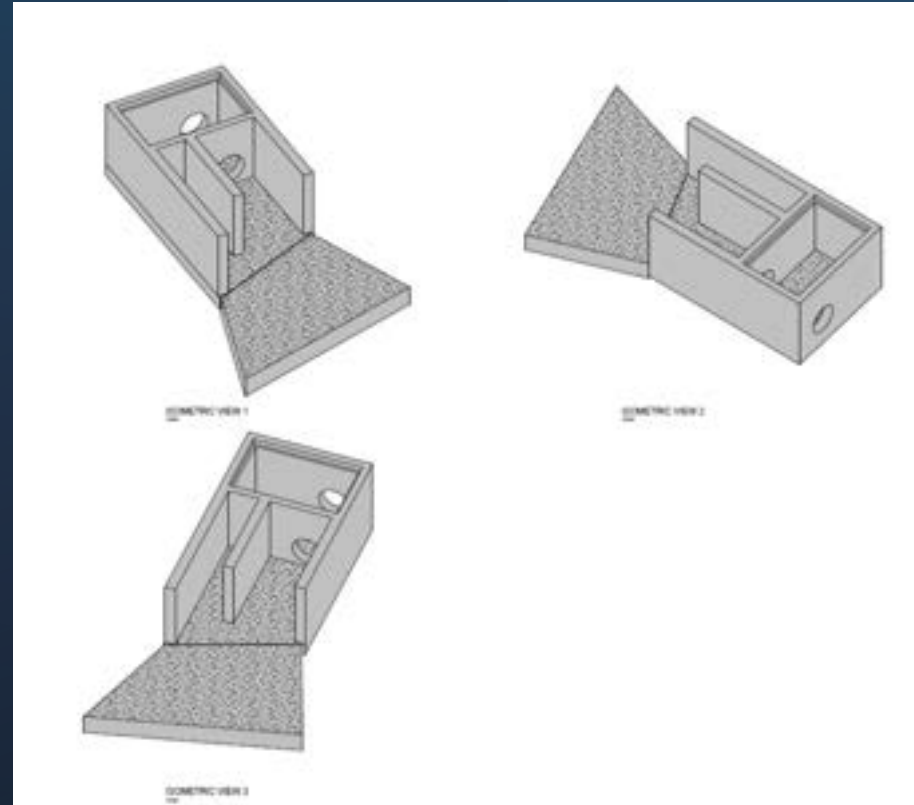
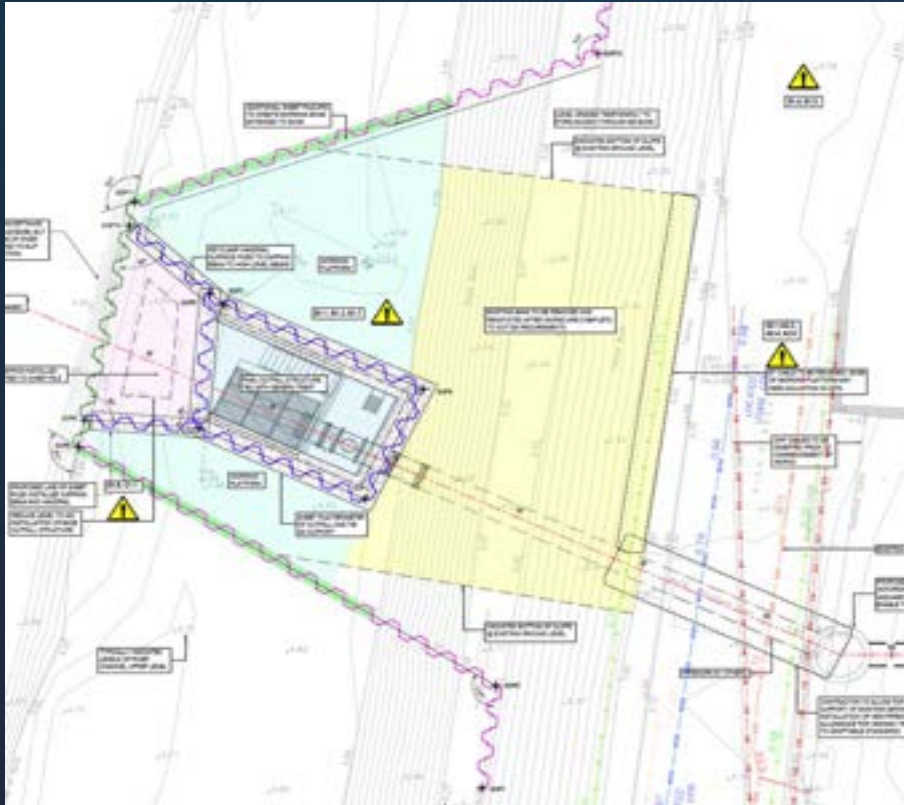


**SCUNTHORPE YADDLETHORPE
STW FE OUTFALL CONSTRUCTION**



Project Brief:

The construction of an 80m² by 3m high reinforced concrete outfall structure to facilitate the discharge of processed water delivered through 3.7km of 900 DI pipework from Yaddlethorpe Sewage Treatment Works



Construction specifics:

- Construction of 600m² piling platform spanning onto existing East Butterwick High Street for a period of 6 weeks
- Installation of 140 Nr sheet piles ranging from 17m to 9m in length to form the temporary flood defence, structure cofferdam and structural support for the base and walls
- Removal of circa 250m³ of existing flood defence bund and river embankment to form temporary working platforms and provide access for the construction of the structure
- Installation of 9 tonnes of reinforcement
- Placement of 144m³ of ready mixed concrete
- Construction of 2.5m deep in-situ concrete manhole chamber (MH1) for the pipework connection from Yaddlethorpe STW and the outfall
- Installation of concrete bed and surround 900mm dia ductile iron pipework linking the outfall to MH1 on the east side of butterwick high street
- Installation of various metal works from access stairs to security grilles to handrailing
- Cut down and removal of circa 19 tonnes of redundant sheet piles
- Removal of temporary working platform and reinstatement of circa 40m length of flood bund and embankment
- Reseed circa 700m² of flood bund and embankment

North view of proposed
work area



North west view of
proposed work area



Construction of temporary piling platform



Assembly of 200T
crawler crane



200T crawler crane in operation
positioned on East Butterwick
High Street driving in flood
defence piles



17m long front wall flood defence piles installation process.



Installation process of
flood defence piles and
structure piles.



Operation of 200T
crawler crane 'South
view'



Removal process of
existing flood defence
bund and embankment



Removal process of
existing flood defence
bund and embankment
'cont'



Removal process of
existing flood defence
bund and embankment
'cont'



Construction process of
temporary working
platform



Construction process of
temporary working
platform 'cont'



Construction process of
temporary working
platform 'cont'





Completed excavation to
circa 3m below ground
level to underside of sub-
base

Installation and compaction
of type 1 sub-base (110V
equipment to mitigate fumes)





Installation and compaction
of type 1 sub-base (110V
equipment to mitigate fumes)

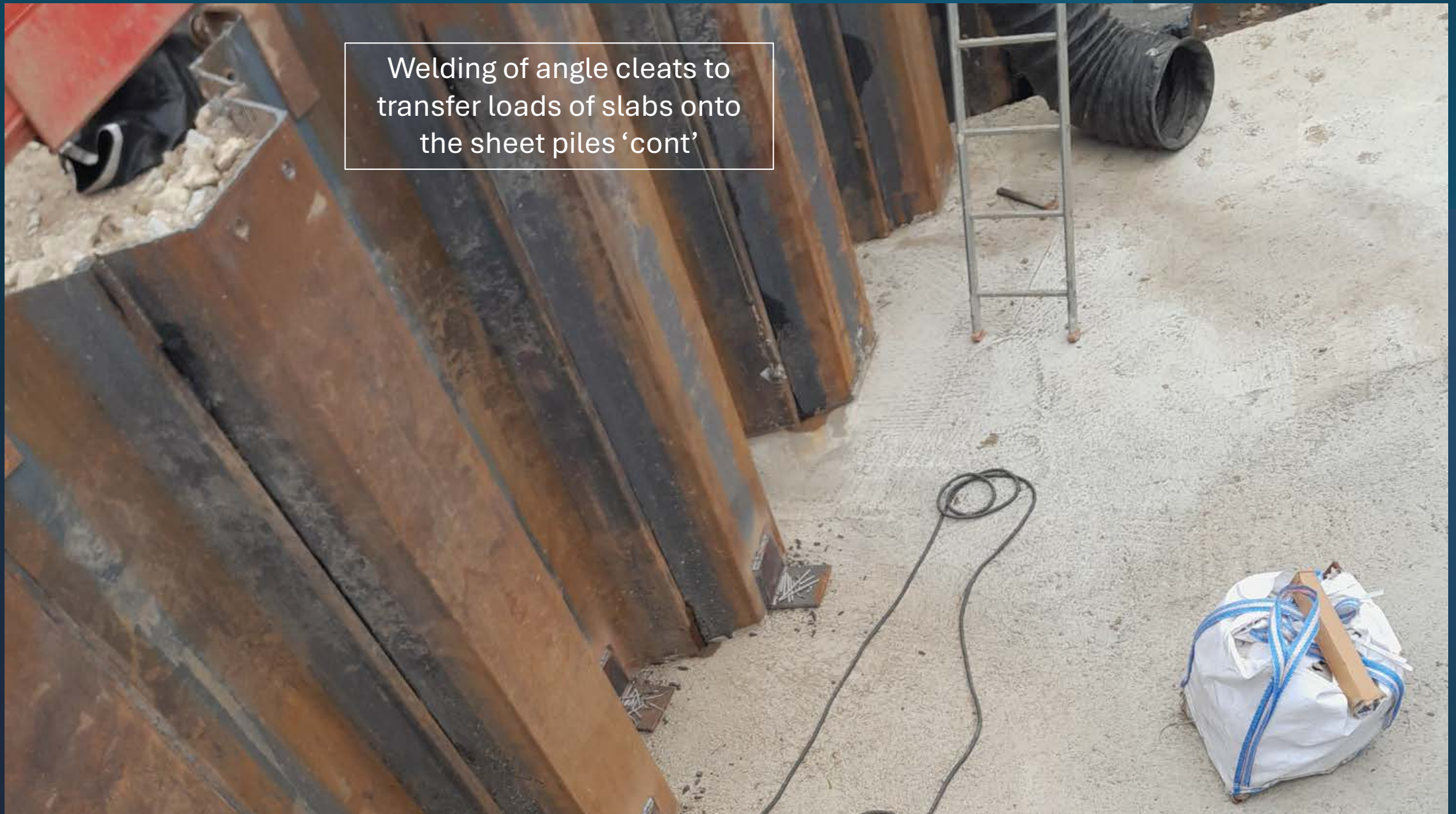
Installation of 150mm thick concrete blinding for RC slab



Welding of angle cleats to transfer loads of slabs onto the sheet piles



Welding of angle cleats to transfer loads of slabs onto the sheet piles 'cont'



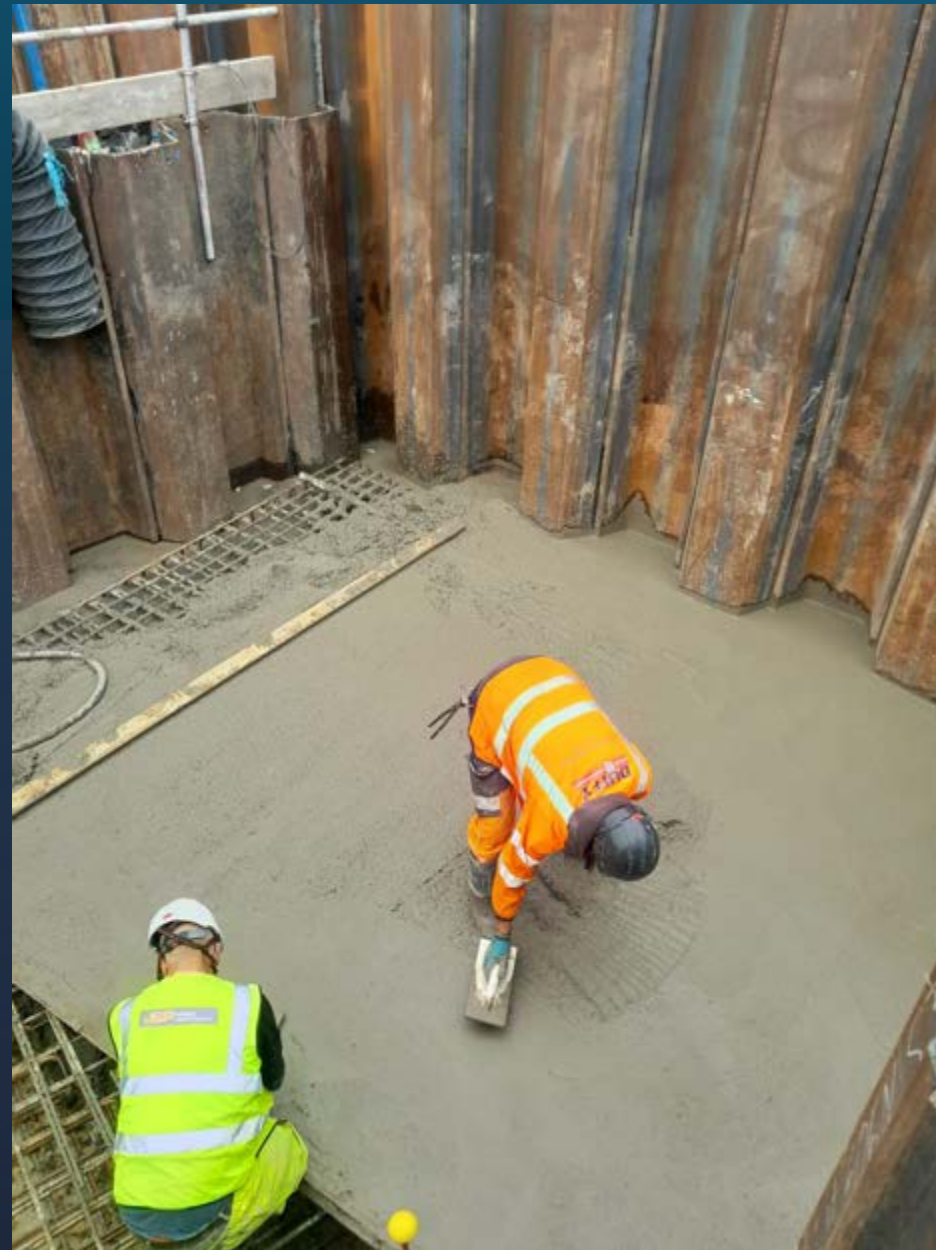
Installation of rebar and formwork at kicker level



Installation of rebar and formwork at kicker level 'cont'



Placement of ready mixed concrete for 750mm thick RC apron slab



Completed 750mm thick RC
apron slab



Completed apron slab and
preparation work on valve
chamber and outlet chamber
slab at 450mm thick



Rebar and formwork at kicker level for valve chamber slab



Placement of ready mixed concrete for 450mm thick RC valve and outlet chamber slab



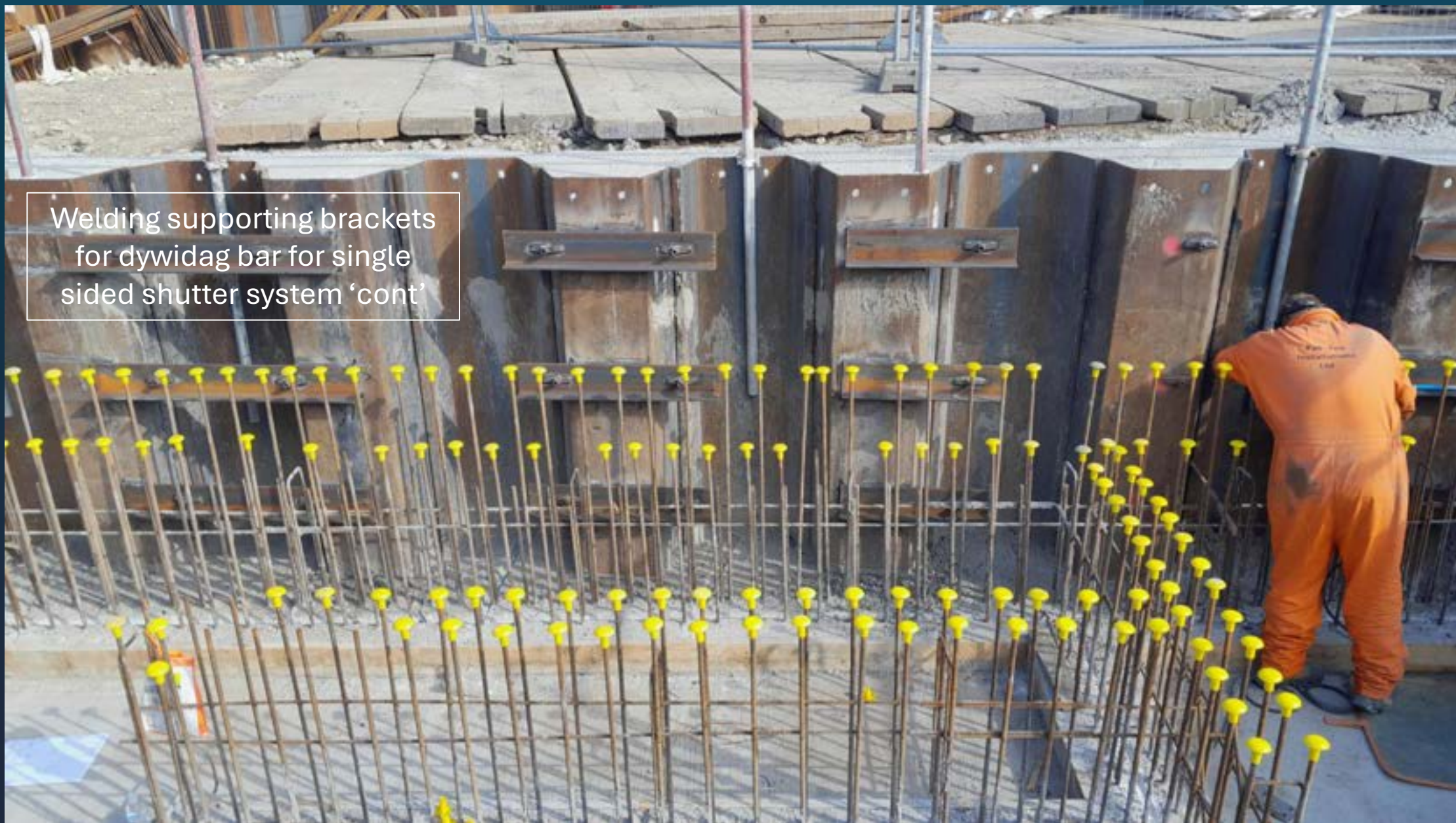
Welding supporting brackets
for dywidag bar for single
sided shutter system



Welding supporting brackets
for dywidag bar for single
sided shutter system 'cont'



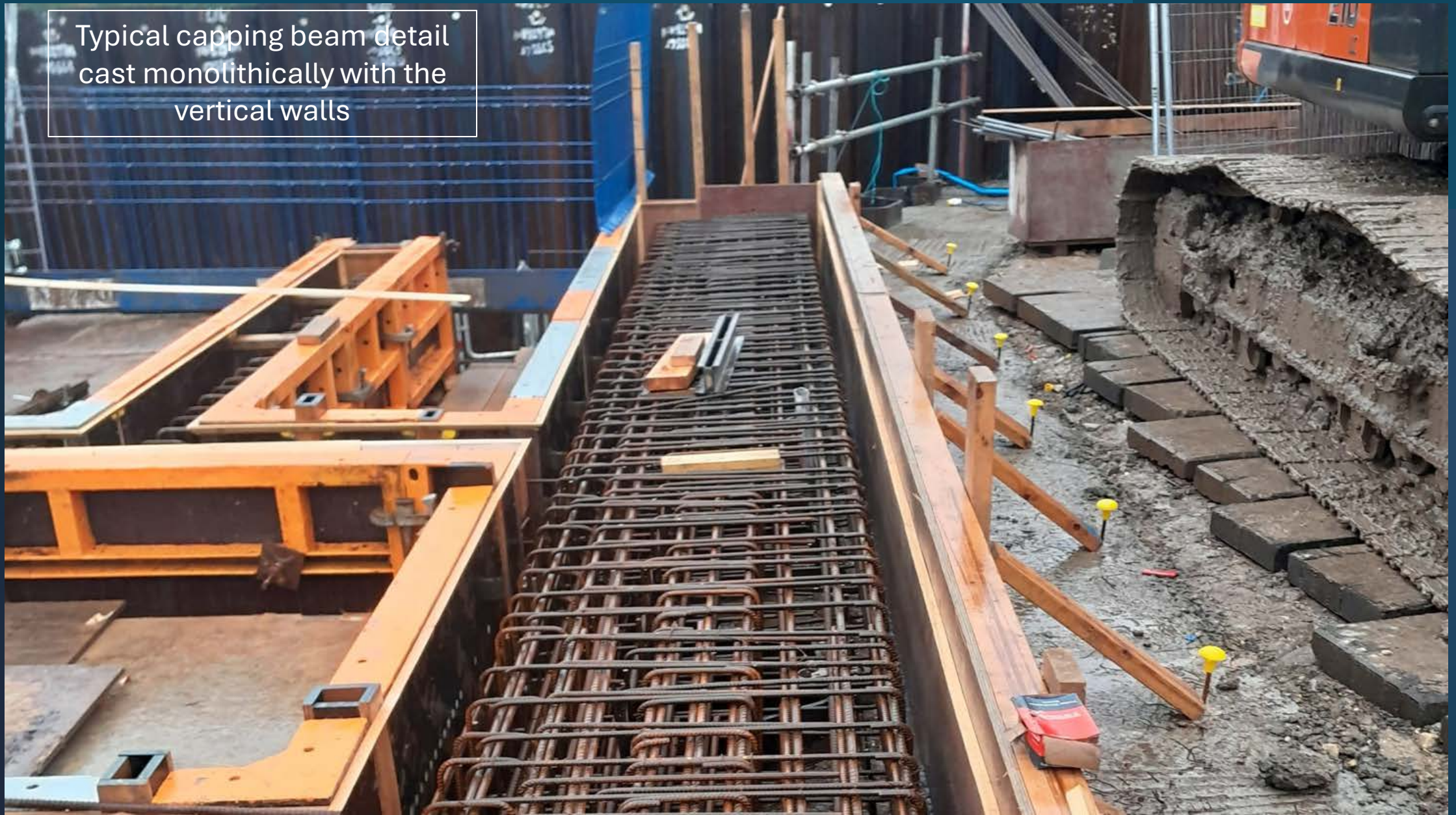
Welding supporting brackets
for dywidag bar for single
sided shutter system 'cont'



Void former for 900 diameter
pipe penetration



Typical capping beam detail
cast monolithically with the
vertical walls



Capping beam splay typical detail.



Capping beam splays typical
detail. 'cont'



Completed splayed capping
beam



View of 900 ductile iron pipe
from MH1 alignment with pipe
penetrations



View of 900 ductile iron pipe
from MH1 alignment with pipe
penetrations. 'cont'



View of 900 ductile iron pipe
from MH1 complete with
concrete surround



Progress of galvanised
handrail and infills for the
capping beam



Completed galvanised metal
handrail and infills





Timelapse view of flood bund and embankment reinstatement process.



Timelapse view of flood bund
and embankment
reinstatement process. 'cont'



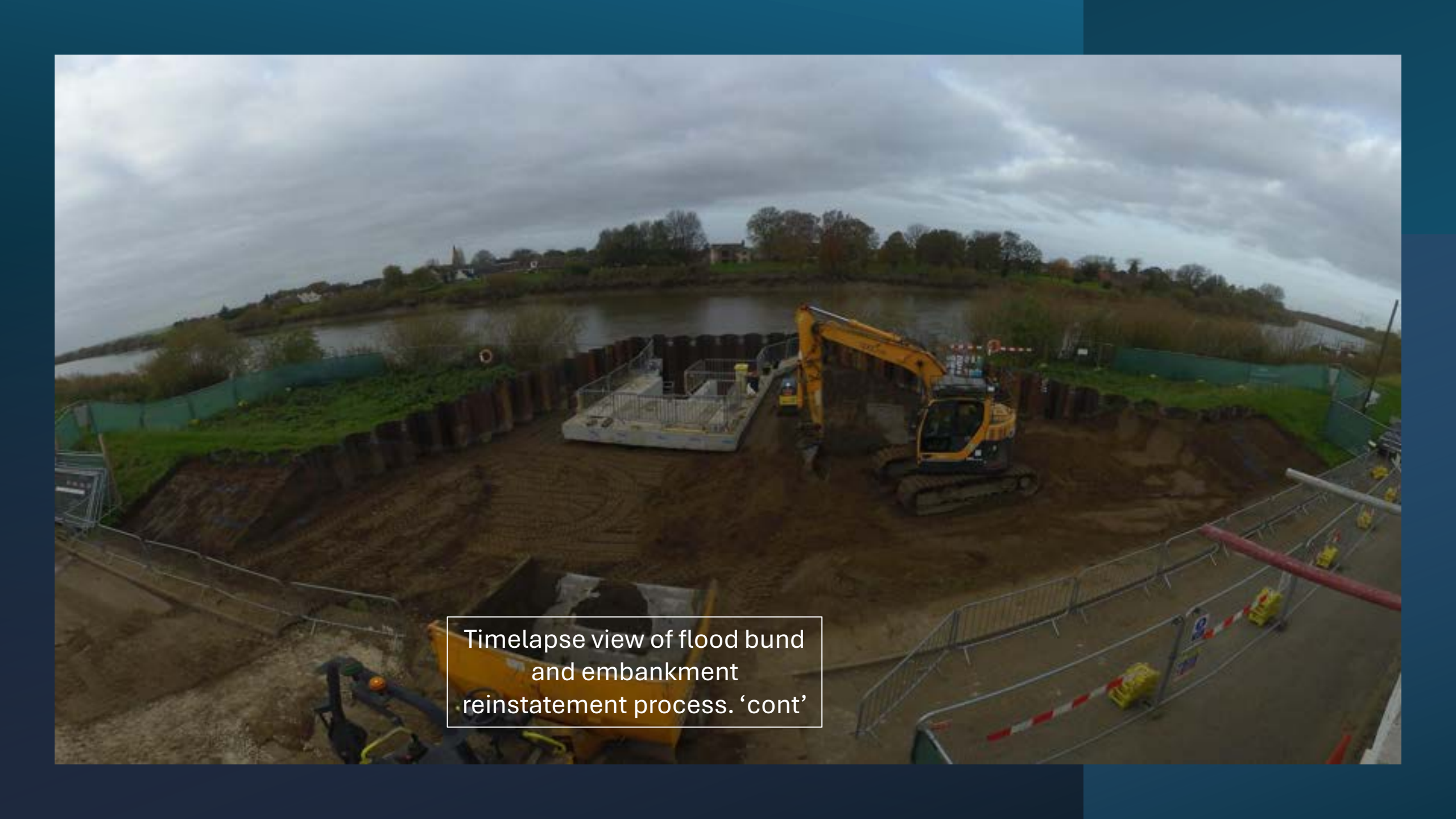
Timelapse view of flood bund and embankment reinstatement process. 'cont'



Timelapse view of flood bund and embankment reinstatement process. 'cont'

Timelapse view of flood bund and embankment reinstatement process. 'cont'





Timelapse view of flood bund and embankment reinstatement process. 'cont'

Timelapse view of flood bund and embankment reinstatement process. 'cont'





Timelapse view of flood bund and embankment reinstatement process. 'cont'



Timelapse view of flood bund and embankment reinstatement process. 'cont'

Flood bund and embankment reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'



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Flood bund and embankment reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'



Time lapse view of flood bund
and embankment
reinstatement process. 'cont'



Flood bund and embankment reinstatement process. 'cont'





Flood bund and embankment reinstatement process. 'cont'

Flood bund and embankment reinstatement process. 'cont'





Flood bund and embankment reinstatement process. 'cont'

Completed flood bund and
embankment reinstatement.
(excluding final profile and
seeding)



View of completed outfall structure with topsoil apron dressed up to edges

