

B3224 Roundwaters' Steel Sheet Piled (SSP) Retaining Wall Embankment Stabilisation Scheme.

29th November 2023Rev6



Somerset
Council

Welcome

Welcome, on behalf of Somerset Council, to this presentation for the “B3224 Roundwaters’ Steel Sheet Piled (SSP) Retaining Wall Embankment Stabilisation” scheme.

I know you all would like to join me in expressing our thanks to colleagues from SC, WSP and Walters for joining us this evening.

May I ask you all to reserve questions until the “Time for Questions” section at the end of this evening’s presentation.

Thank you.

Evening's Format

- Introductions
- Background (Led by SC)
- Myths and Misconceptions (Led by SC)
- Actions Being Progressed (Led by SC)
- The Journey So Far (Led by SC)
- The Design (Led by WSP)
- The Construction (Led by Walters Group)
- Time For Questions (Questions from the floor)
- Finish 9:00pm

Introductions

Somerset Council

- **Paul Tucker** – Bridges and Structures' Service Manager
- **Paul Nation** – Bridges and Structures' Team Leader and Senior Bridge Engineer (Lead Scheme Officer)
- **Ross Matthews** – Bridges and Structures' Team Leader and Senior Bridge Engineer (Lead Site Officer)

Introductions

Somerset Council

- **Luke Green** – Principal Street Works Officer
- **Sam Murrell** – Specialist Town & Parish Liaison Officer

Introductions

WSP's Design Team (Consultant)

- **Rob Benson** – Geotech/Structures Design Lead
- **Chris Uzzell** – Highways/Drainage Design Lead

Introductions

Walters Group's Construction Team (Contractor)

- **Jim Webb** – Regional Director
- **Richard Scammell** – Contracts Manager
- **Dan Harrison** – Project Manager
- **Joe Sullivan** – Site Agent

Background

- During the autumn of 2021 the embankment supporting the B3224, between Exford and Wheddon Cross at Roundwaters, collapsed.
- This occurred following storm and rainfall events that caused a large tree to fall and a significant portion of the embankment and carriageway to fail.
- A single lane closure was subsequently installed to prevent highway users running close to the exposed and unstable carriageway edge and the steep drop beyond.



Background

- Traffic management is still in place.
- WSP (the Council's Consultant) was engaged in May 2022 to undertake a feasibility study and a steel sheet piled (SSP) retaining wall stabilisation has been designed.
- The design includes road drainage improvements, culvert repairs, new outfalls to Larcombe Brook, Vehicle Restraint System and carriageway resurfacing.
- This solution was presented to the LCN on 19th May 2023 and circulated to the affected landowner.



Myths and Misconceptions

There have been some “soundbites” in circulation.

- This is a Capital scheme. The reports about the Council’s financial situation are in respect of Revenue funding and funded schemes. The funding for this scheme is secured.
- Traffic Management has been on site since October 2021, just over two years. A long time but not the three years quoted recently.
- Safety is paramount – squeezing traffic through the construction site is not safe and will be unfeasible (more on that later).

Myths and Misconceptions

- Weekend working.
- Night working.
- Why not keep the temporary Traffic Lights in place permanently?

Actions Being Progressed

- Openreach Cable Realignment Works – this will take place on week commencing 2nd January 2024 in advance of the main works.
- Ordinary Water Course Consent – EA consultation ongoing.
- Diversion Route and Rat Running – Special signage and consideration to both Oldrey Lane and Thorne Lane being undertaken (More on diversion routes later).

The Journey So Far

Some of the activities that have been undertaken up to this point are, in no particular order:

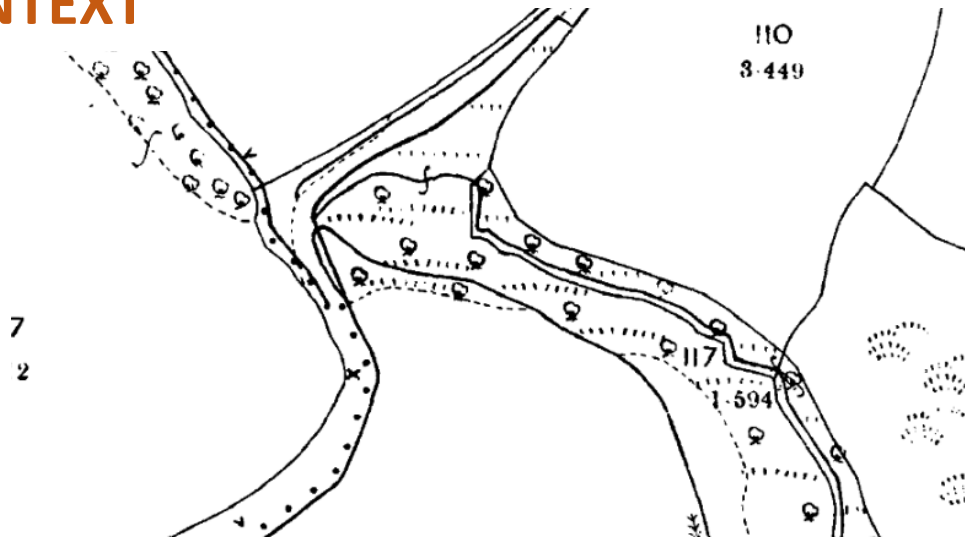
- ✓ Approval in Principle (AIP)
- ✓ Arboricultural Survey and Report
- ✓ Contractor Engagement
- ✓ Design
- ✓ Environmental and Ecological Advance Site Activities
- ✓ Existing Openreach Poles Moved
- ✓ Feasibility and Options Study

The Journey So Far

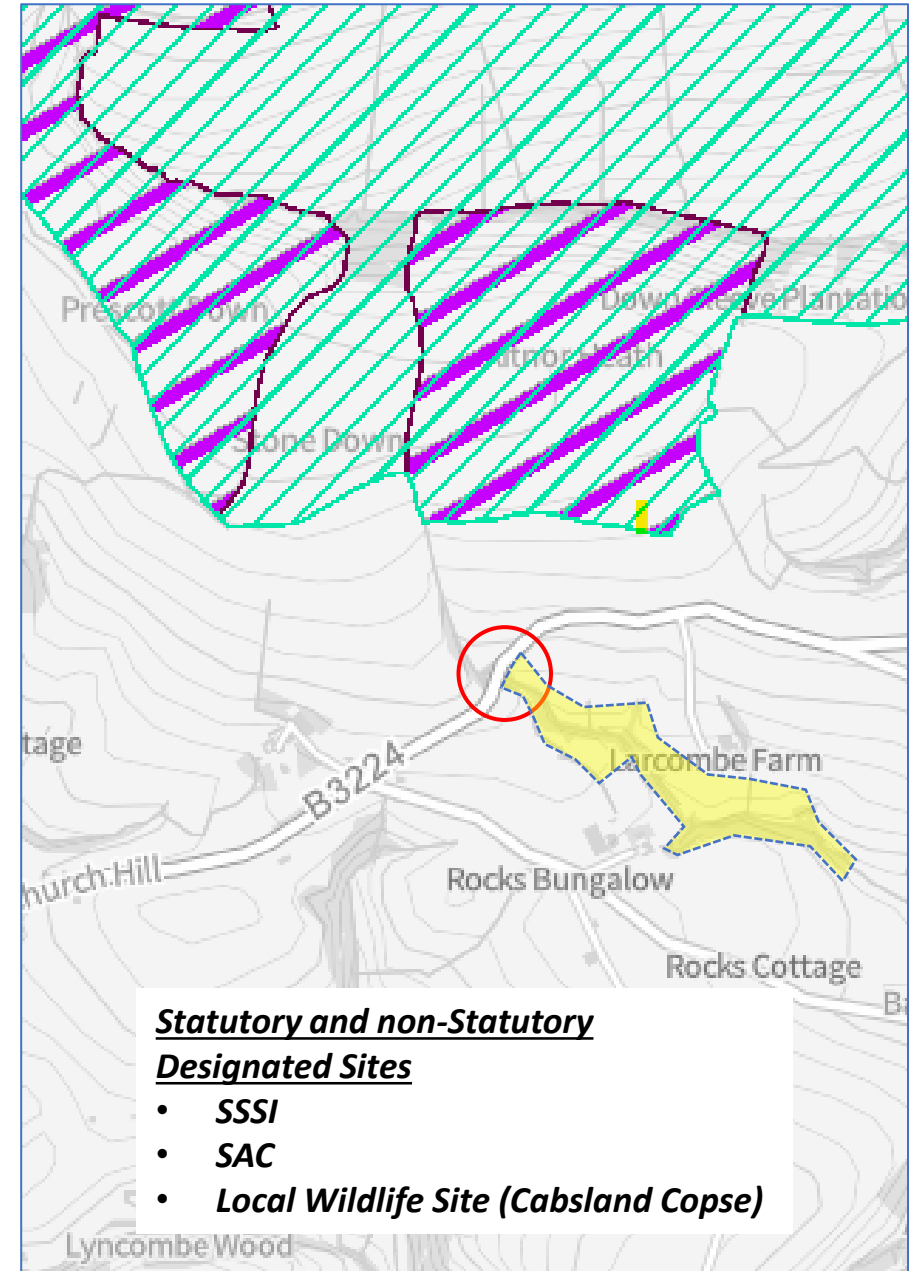
- ✓ Ground Investigation and Report
- ✓ Liaison and Updates with Local Community Network (LCN), Councillors, etc
- ✓ Provisional Advance Authorisation (PAA) for Road Space
- ✓ Preliminary Ecology Appraisal (PEA)
- ✓ Stage 1/2 (Feasibility/Detail Design) Safety Audit
- ✓ Tender Documents Preparation Including Drawings, Pre-Construction Information, Bill of Quantities, etc.
- ✓ Tendering, Tender Evaluation and Tender Award

The Designer WSP

CONTEXT



7
2



TOPOGRAPHICAL SURVEY

→ = water flow routes and direction

Flowing culverts
(Larcombe Brook)

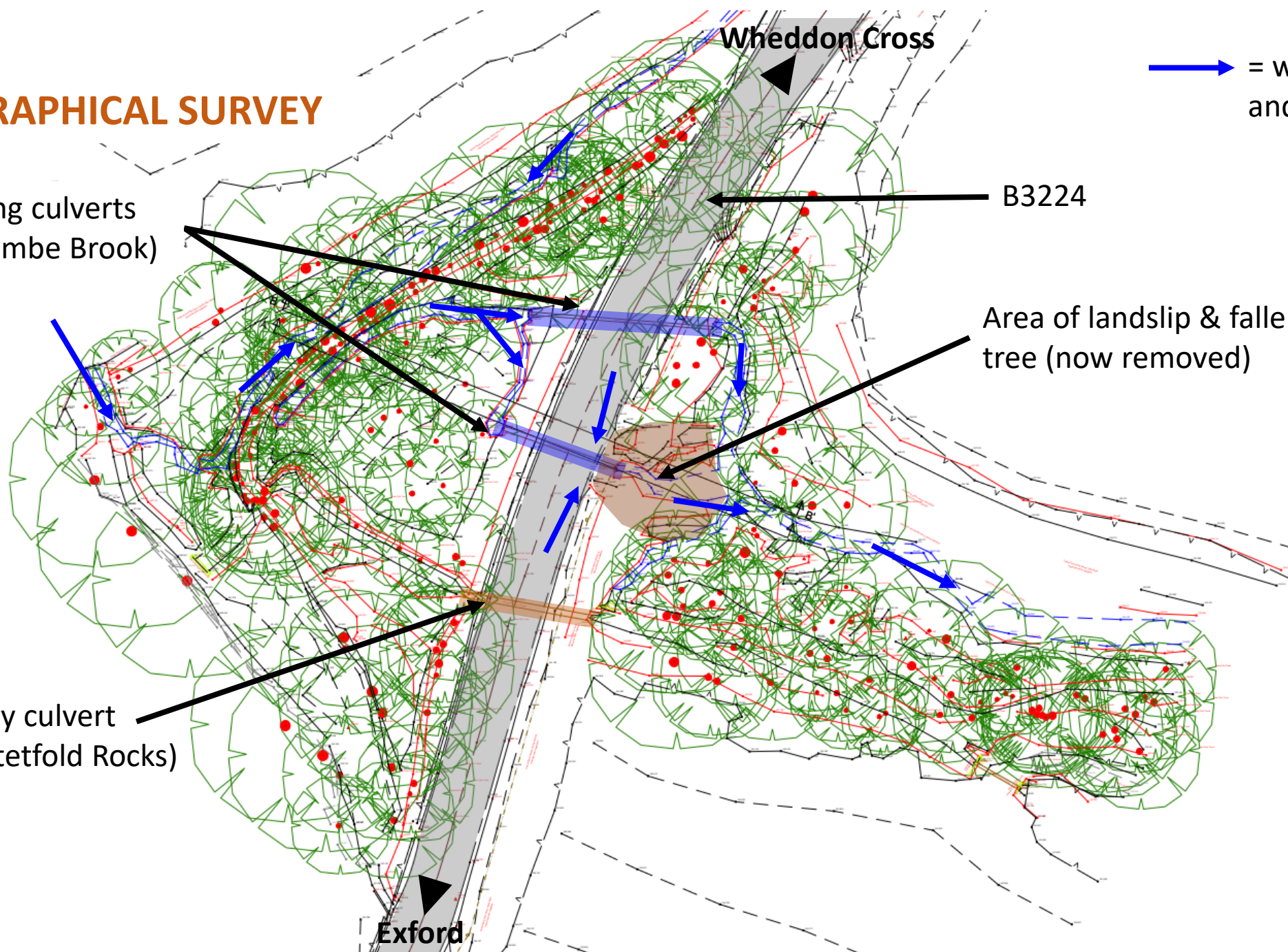
B3224

Area of landslip & fallen tree
(now removed)

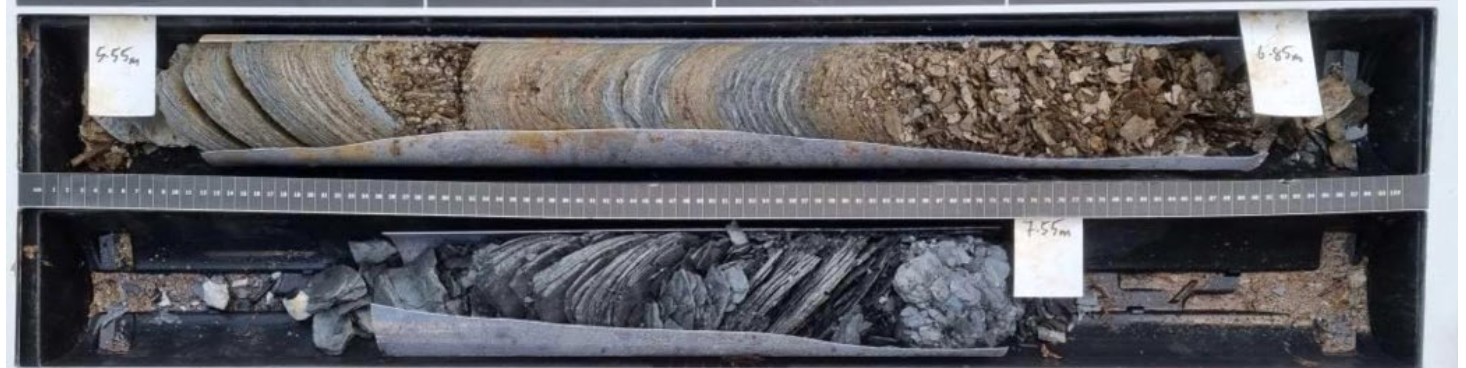
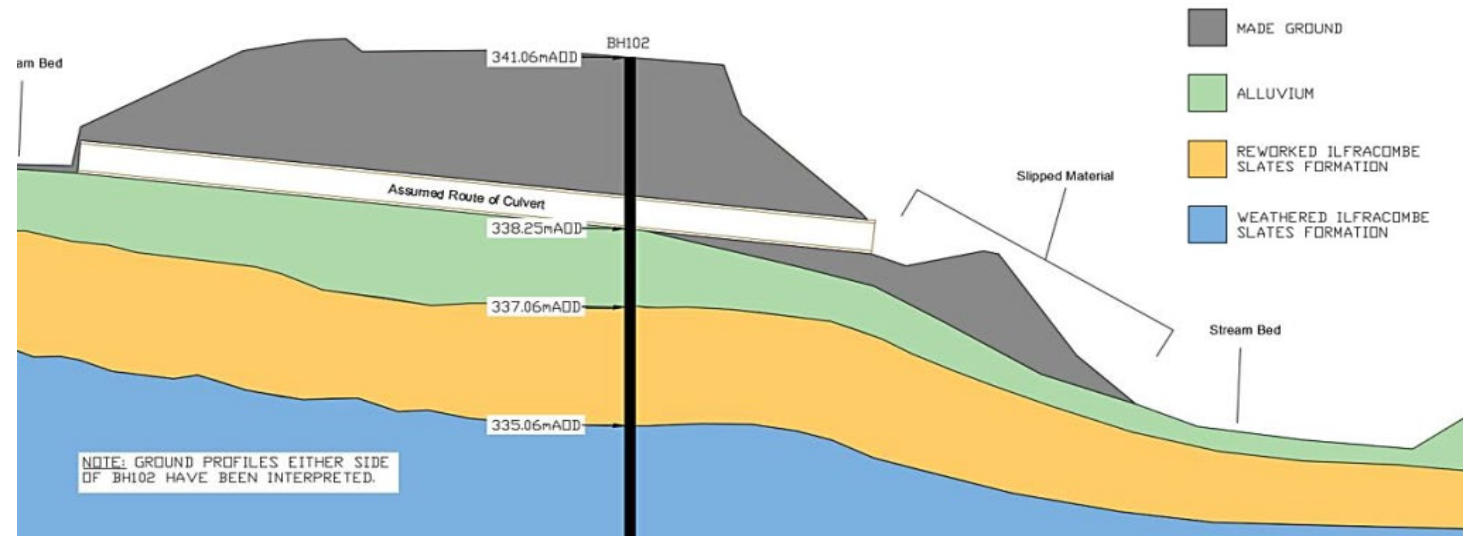
Dry culvert
(Stetfold Rocks)

Wheddon Cross

Exford



GROUND INVESTIGATION

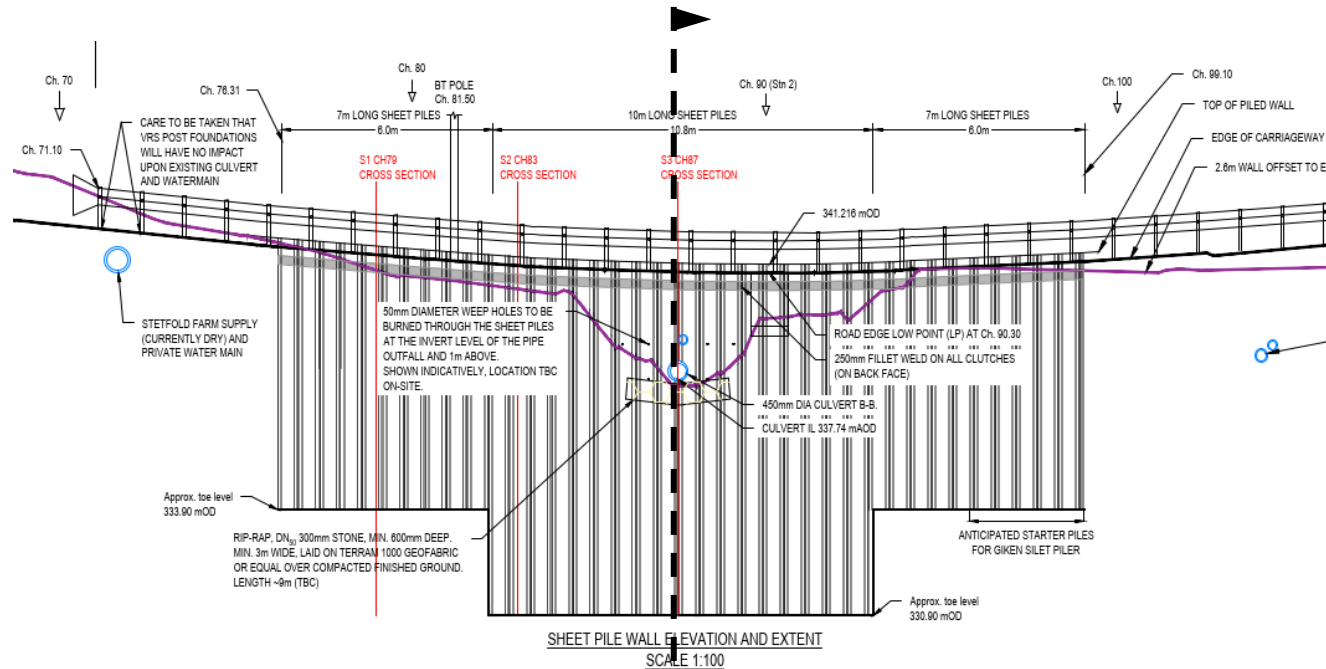


ECOLOGY SURVEYS & SUPERVISION



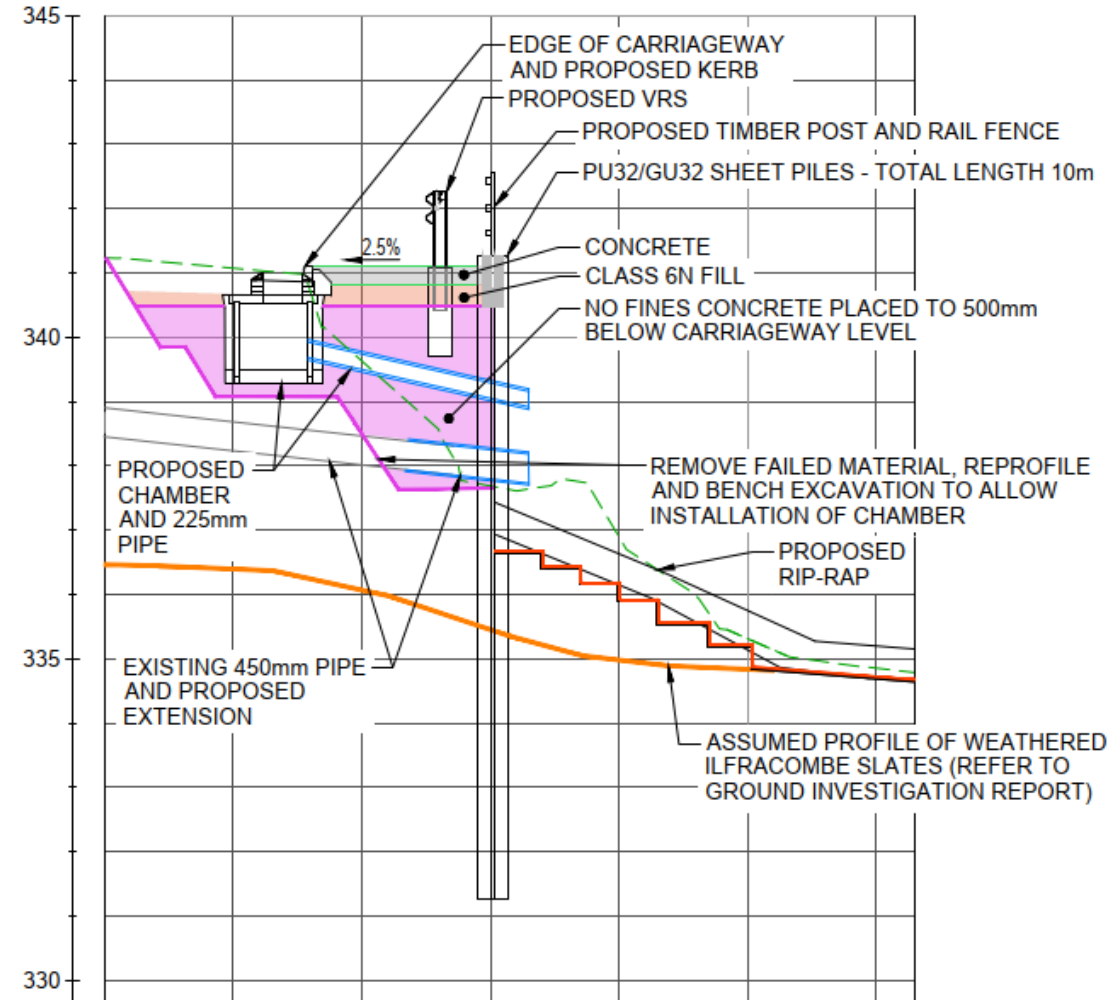
SOLUTION – SHEET PILED RETAINING WALL

ELEVATION

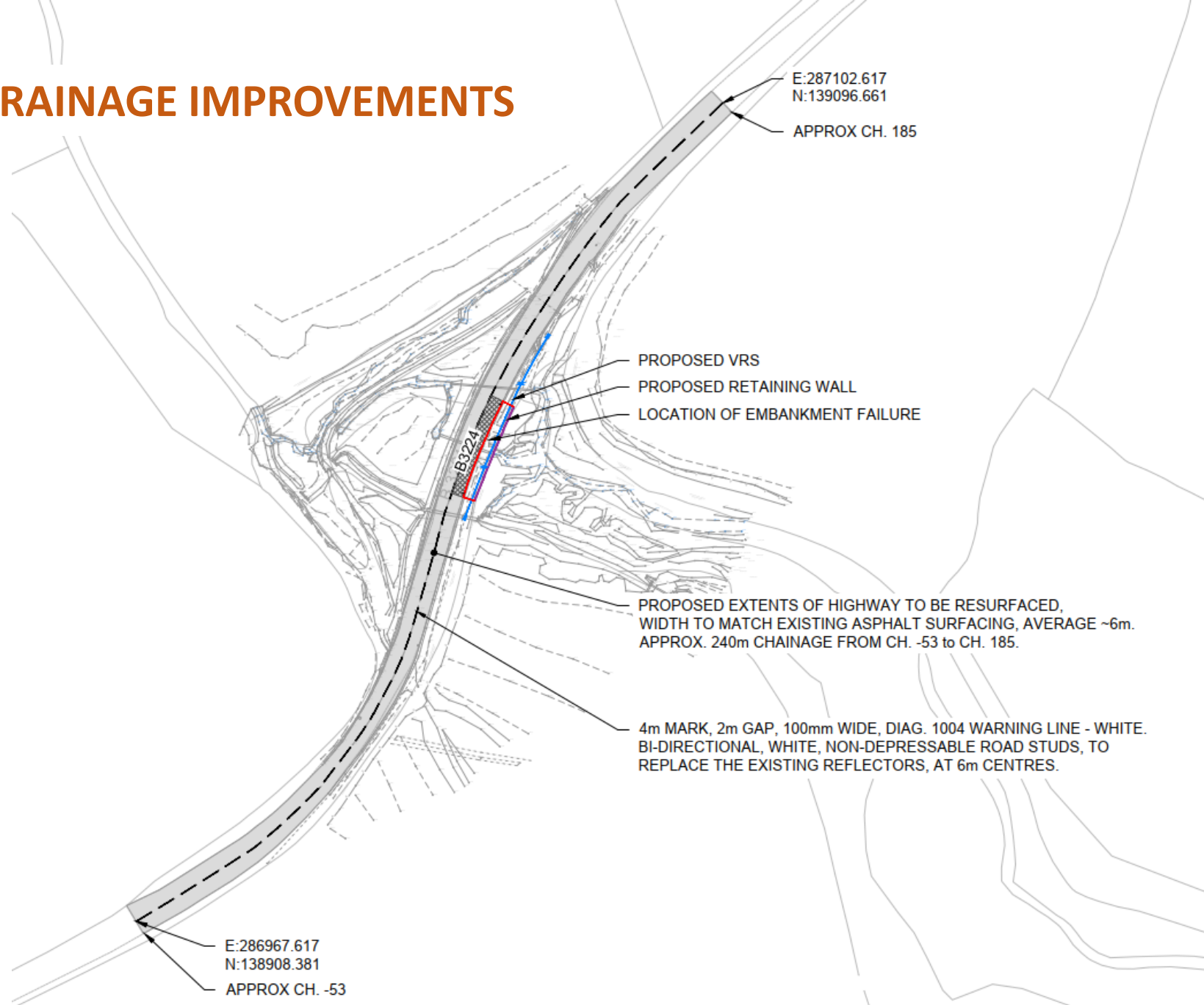


Section Line

CROSS SECTION



HIGHWAYS & DRAINAGE IMPROVEMENTS



The Contractor Walters Group

Who are we



Jim Webb
Regional Director



Richard Scammell
Contracts Manager



Dan Harrison
Project Manager



Joe Sullivan
Site Agent

AGENDA

1. Introduction to Walters
2. Previous Similar Experience
3. Roundwaters Project
4. Scope of Works
5. Specialist works/equipment
6. Rd closure/diversion route
7. Environmental Factors
8. Supply chain





INTRODUCTION

- Founded in 1982 – 40 years in business
- Group turnover £150M
- South-west Head Quarters in Avonmouth
- Strong working relationship with Somerset Council
- Almost 3 years on Somerset structures framework
- Directly employed, local workforce

RECENT SIMILAR WORKS

A46 Coopers Hill Southern Corner



- Gloucestershire CC
- Full closure of A46
- Bored pile retaining wall solution
- Carriageway reconstruction
- Completed and road re-opened on time

Northbound



Southbound



ROUNDWATERS

Project Information

- **Landslip remediation**
- **Enabling works completed in Autumn 2023**
- **Sheet piled solution**
- **Carriageway reconstruction**
- **Start on site: 2nd January 2024**
- **Completion: 10th May 2024**
- **Duration: 19 weeks**

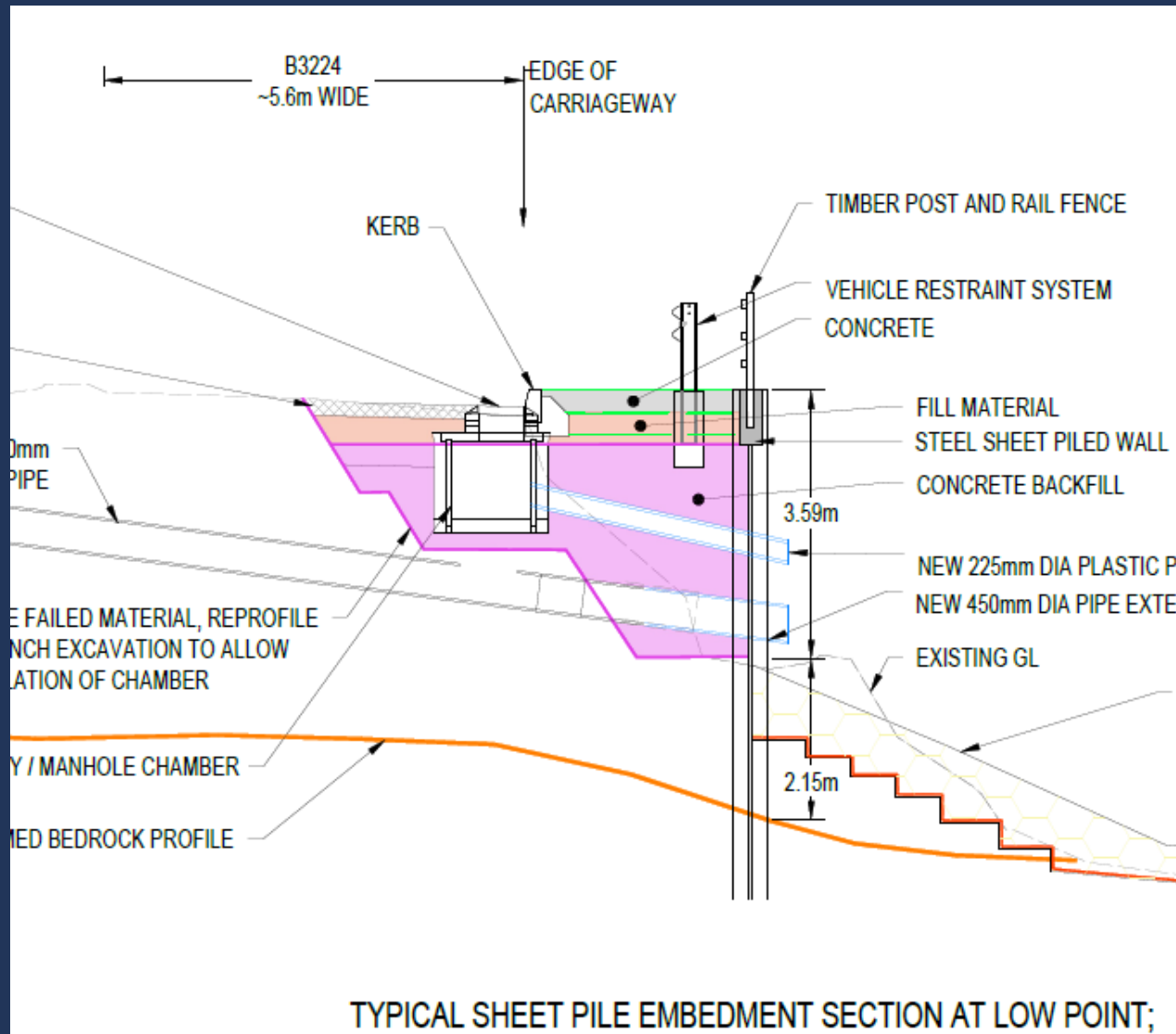
ROUNDWATERS

Activity	Jan-24	Feb-24	Mar-24	Apr-24	May-24
ESTABLISH ROAD CLOSURE AND DIVERSION ROUTE	02/01/2024				
BT OPENREACH UNDERTAKE OVERHEAD CABLE DIVERSION					
WALTERS' SITE MOBILISATION, INCLUDING WATERCOURSE MANAGEMENT					
EARTHWORKS PRE-PILING (RECOVER SLIPPED MATERIAL, INSTALL EROSION CONTROL, CIVILISE EMBANKMENT)					
STEEL SHEET PILING INSTALLATION (INCLUDING INSTALL TEMPORARY WORKING PLATFORMS)					
CIVILS WORKS (CULVERT EXTENSION, NEW DRAINAGE GULLY, BACKFILL, CONCRETE FOOTWAY, KERBS, TIMBER FENCE)					
VEHICLE RESTRAINT SYSTEM INSTALLATION					
RE-SURFACING AND ROAD MARKINGS					
SITE DE-MOBILISATION					
REMOVE ROAD CLOSURE AND DIVERSION ROUTE					10/05/2024

ROUNDWATERS

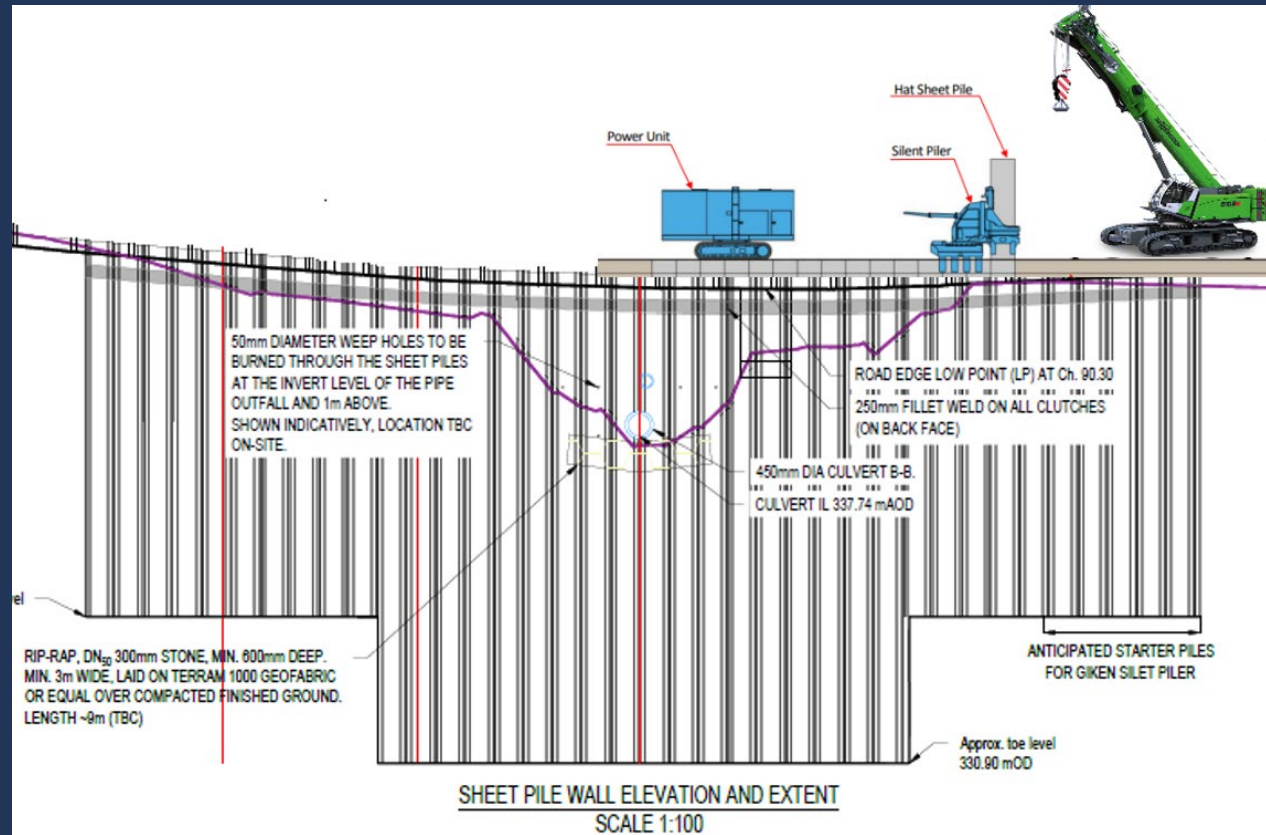
Scope of Works:

- Mobilise to site
- Establish diversion route
- Watercourse management & environmental controls
- Recover slip material and remove
- Install sheet piled solution
- Reconstruct carriageway
- Install VRS system



ROUNDWATERS

Specialist sheet piling works:

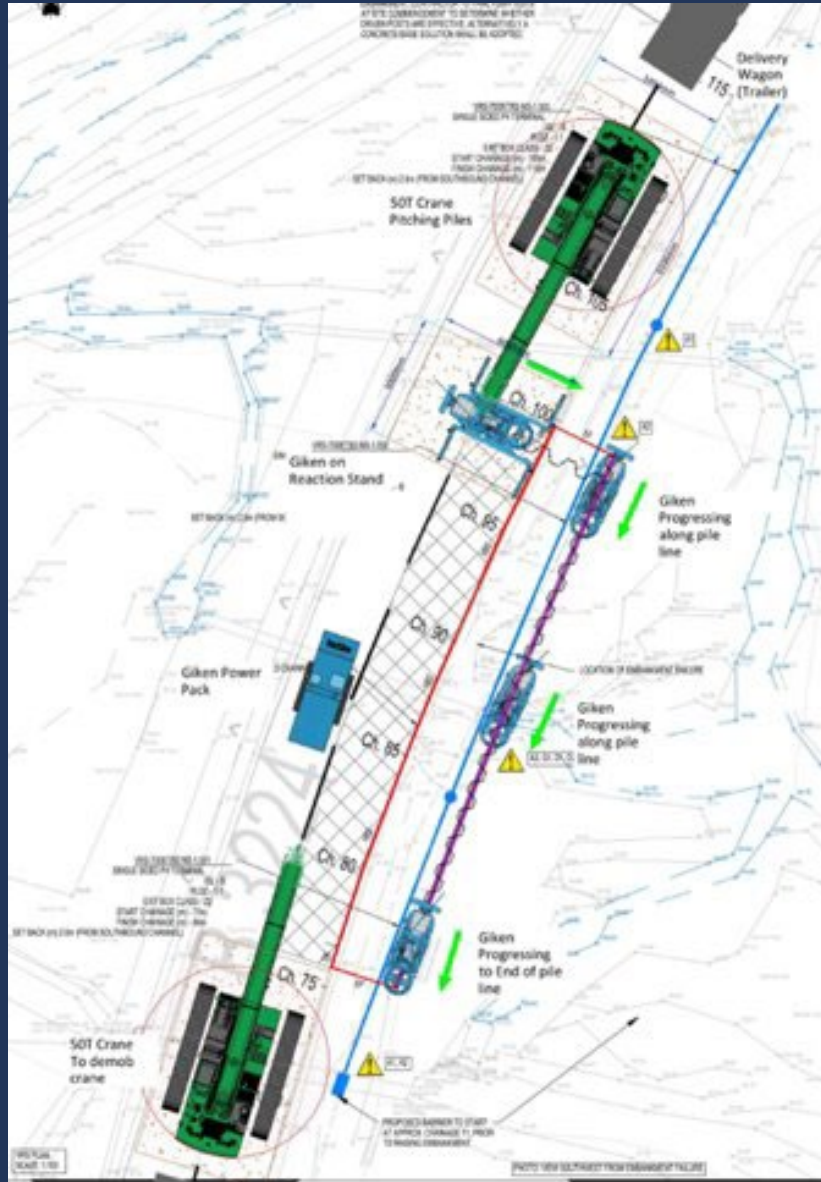


- Giken Supercrush
- Very efficient installation method
- Low noise
- Low vibration
- Environmentally friendly
- Cost effective solution

ROUNDWATERS

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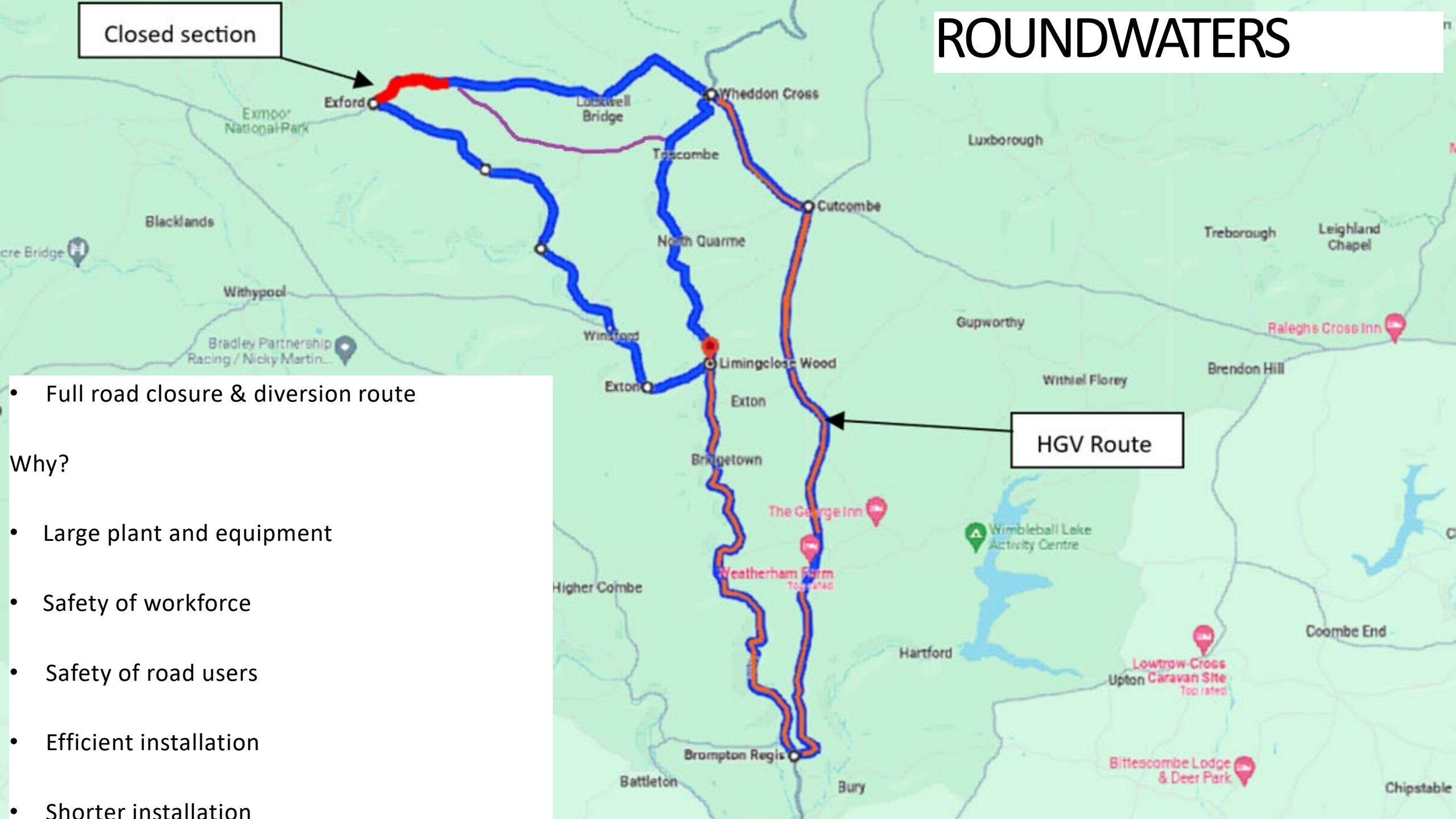
An aerial photograph of a construction site. A large, dark-colored pile is being installed in a trench. The surrounding area is green and appears to be a field or park. The text 'GIKEN SUPERCRUSH SILENT PILING' is overlaid on the image in a white box.

GIKEN SUPERCRUSH SILENT PILING

Minimum Vibration Technology for High Density Urban Areas

ROUNDWATERS

Closed section



HGV Route

• Full road closure & diversion route

Why?

• Large plant and equipment

• Safety of workforce

• Safety of road users

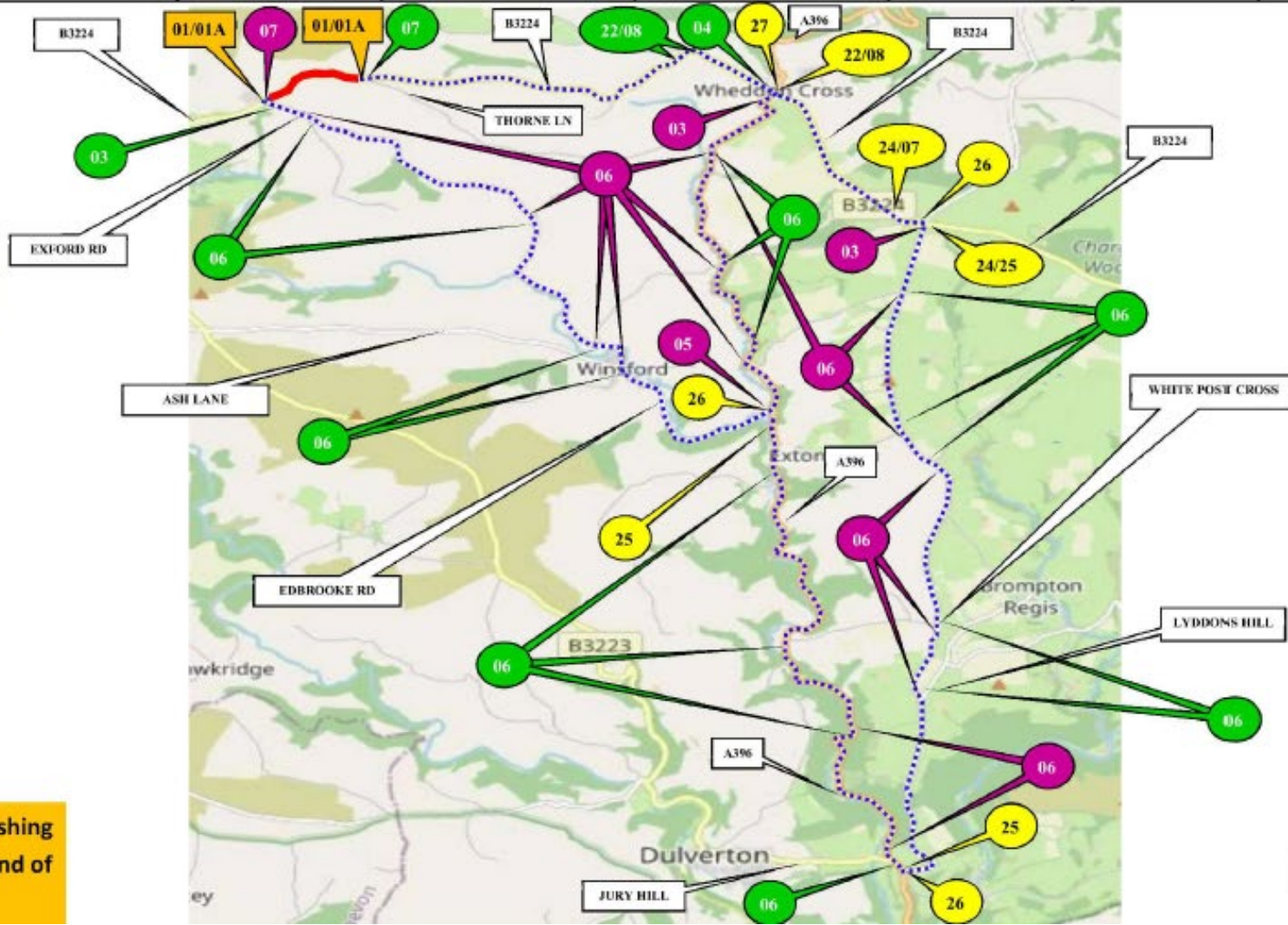
• Efficient installation

• Shorter installation

Key 01A ADVANCED WARNING ACCESS TO ROAD AHEAD CLOSED ON ___ TO ___ FOR ___ DAY(S) FROM ___ TO ___	 01	 02	 04	 06	 08	 10	 12	 14	 15
		 03	 05	 07	 09	 11	 13		

- 22** ROAD AHEAD CLOSED ACCESS AS FAR AS THORNE LANE NO THROUGH ROUTE
- 24** HGV'S B3224 CLOSED AHEAD FOR EXFORD FOLLOW DIVERSION
- 25** HGV B3224 DIVERTED TRAFFIC (Left arrow)
- 26** HGV B3224 DIVERTED TRAFFIC (Right arrow)
- 27** HGV B3224 DIVERTED TRAFFIC (Up arrow)

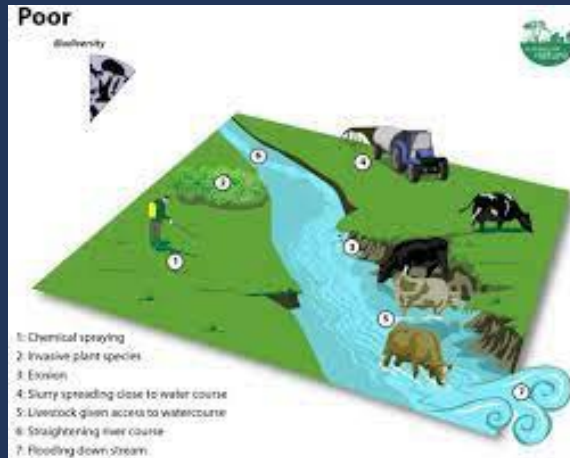
Barriers, cones and flashing lamps required each end of road closure



16 ROAD AHEAD CLOSED (Left arrow)

17 ROAD AHEAD CLOSED (Right arrow)

Both ends of closure



ROUNDWATERS

Environmental factors:

- Planned and executed to avoid negative impact
- Watercourse management
- Endangered species
- Low noise solution
- Low vibration solution
- Keep surrounding road network clean
- Recycling of soils and granular arisings

ROUNDWATERS

Supply chain:

- Directly employed, local labour
- Locally sourced supply chain
- Use of recycled arisings from project
- Utilising local accommodation and business
- Supported by 4 specialist sub- contractors:
 - Traffic management
 - Sheet piling
 - Vehicle Restraint System
 - Road Surfacing



THANK YOU



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Rockingham South, Smoke
Lane, Avonmouth BS11 0YA



0117 9827400



www.walters-group.co.uk

We look forward to working for you

Time for Questions

If there are any questions that have not been answered this evening for:-

Technical queries email

BRIDGES@SOMERSET.GOV.UK

Press and media queries email

PRESSOFFICE@SOMERSET.GOV.UK

Bridges@somerset.gov.uk



**Thank you for your time.
Good night and safe journey home.**



Bridges@somerset.gov.uk