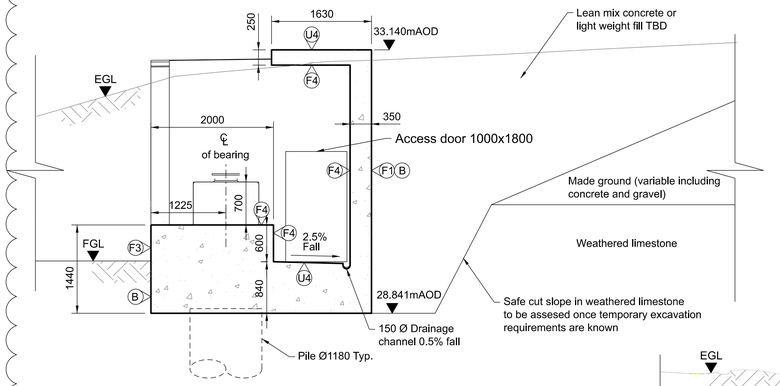
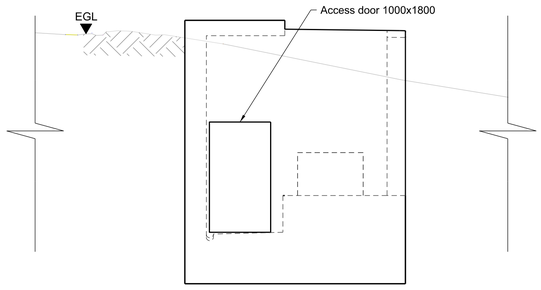
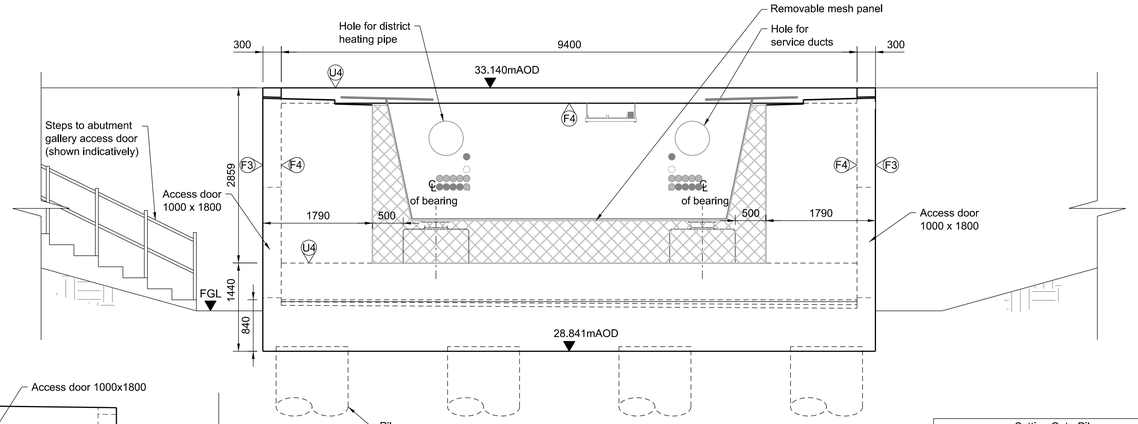


A - 1:50 Section



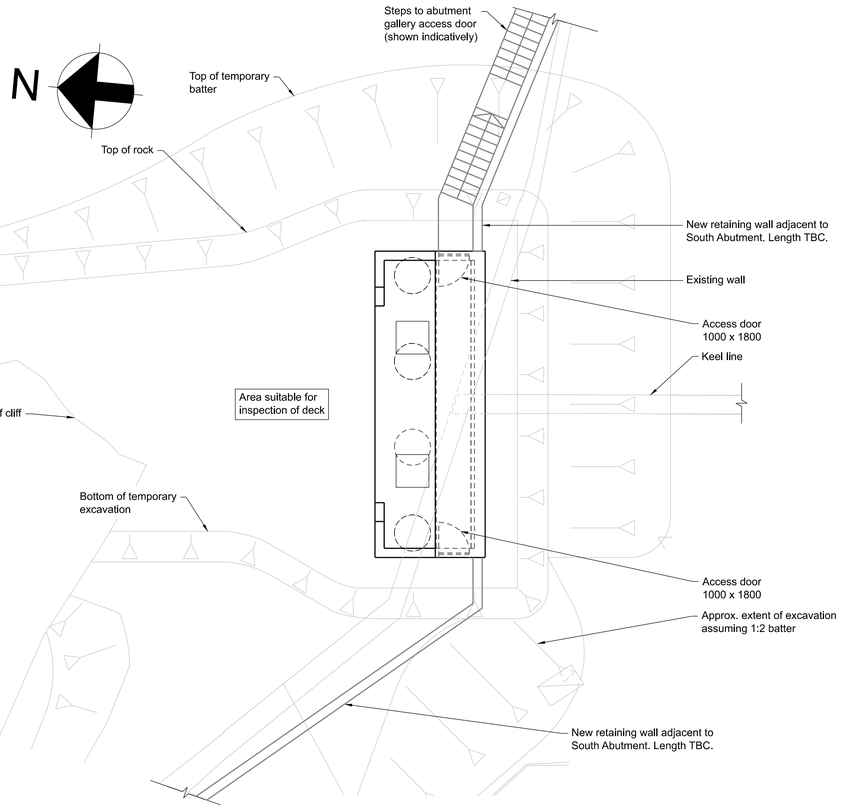
East Elevation of South Abutment
1:50



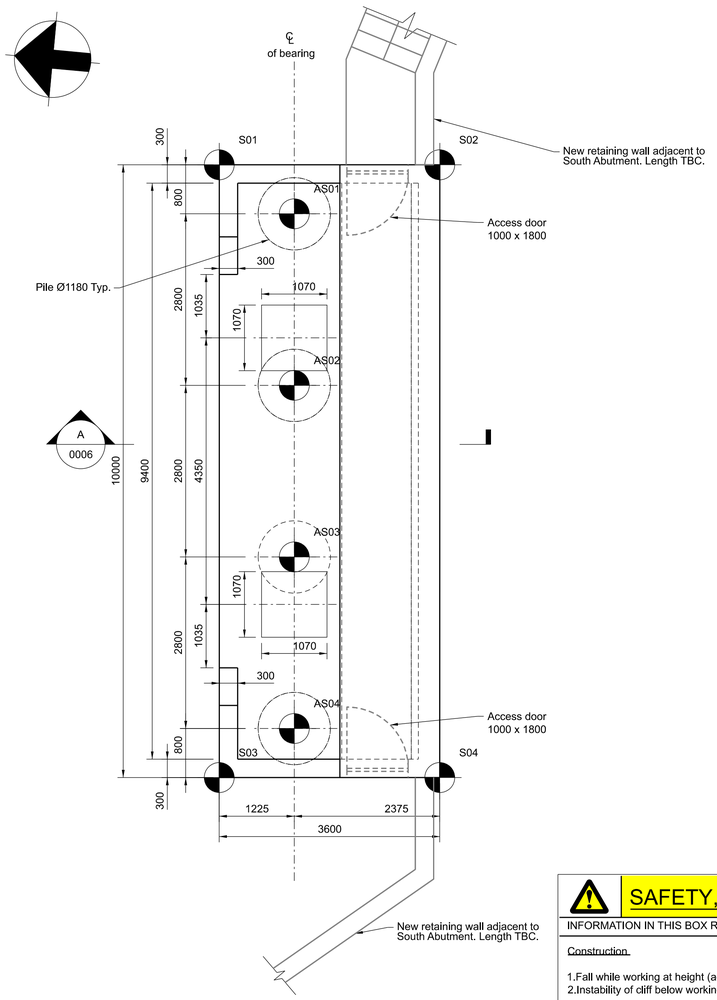
Front Elevation of South Abutment
1:50

Setting Out - Piles		
SOP	Easting (m)	Northing (m)
AS01	439393.923	557328.130
AS02	439391.135	557327.871
AS03	439388.347	557327.612
AS04	439385.559	557327.354

Setting Out - South Abutment Pile Cap			
SOP	Easting (m)	Northing (m)	Formation Level (m)
S01	439394.606	557329.423	28.841
S02	439394.939	557325.839	28.841
S03	439384.649	557328.500	28.841
S04	439384.981	557324.915	28.841



Plan of Working Area
1:100



Plan of South Abutment
1:50

0 0.5 1 1.5 2 2.5 Metres — Scale 1:50

0 0.5 1 1.5 2 3 4 5 Metres — Scale 1:100

Do not scale

General Notes:

1. This drawing shall be read in conjunction with all relevant structure drawings and details.
2. All dimensions are in millimetres and levels are in metres unless noted otherwise.
3. Drawing to be printed in colour.
4. All levels are in metres relative to ODN (Ordnance Datum Newlyn) unless noted otherwise.
5. Global co-ordinates are indicated by Eastings and Northings to OSGB36 grid.
6. All works shall be in accordance with the specification for highways works and all relevant specification appendices.
7. Concrete finishes to be in accordance with the Specification NWF-ARP-ZZ-ZZ-SP-Z-0001. Required in-situ concrete finishes stated on the drawing:

   Ⓕ Ⓤ - denotes surface finish

   Ⓑ - denotes cut back bitumen

8. All temporary and permanent cut slopes and excavation batters are shown indicatively only. Safe slope angles are to be determined during design.
9. Back of wall and abutment drainage to be channeled to a suitable soakaway detail at one side of the abutment.
10. All dimensions and levels are indicative at this stage and may be subject to minor changes during detailed design development.

Rev	Date	By	Chkd	Appd
P01	25/03/22	LB	GW	NAC
Approval in Principle				
P02	30/03/22	LB	GW	NAC
Volker Stevin comments addressed				
P03	11/05/22	LB	GW	NAC
SCC comments addressed				
P04	15/08/22	LB	GW	NAC
50% Design Submission (South Abutment)				

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Client
VolkerStevin

Project Title
New High-Level Wear Footbridge

Drawing Title
South Abutment
General Arrangement

Scale at A1: As Shown
Role: S-Structural
Suitability: S3 Issued for internal review and comment
Arup Job No: 285151-00
Rev: P04
Name: NWF-ARP-SB-04-DR-S-0006

SAFETY, HEALTH & ENVIRONMENT

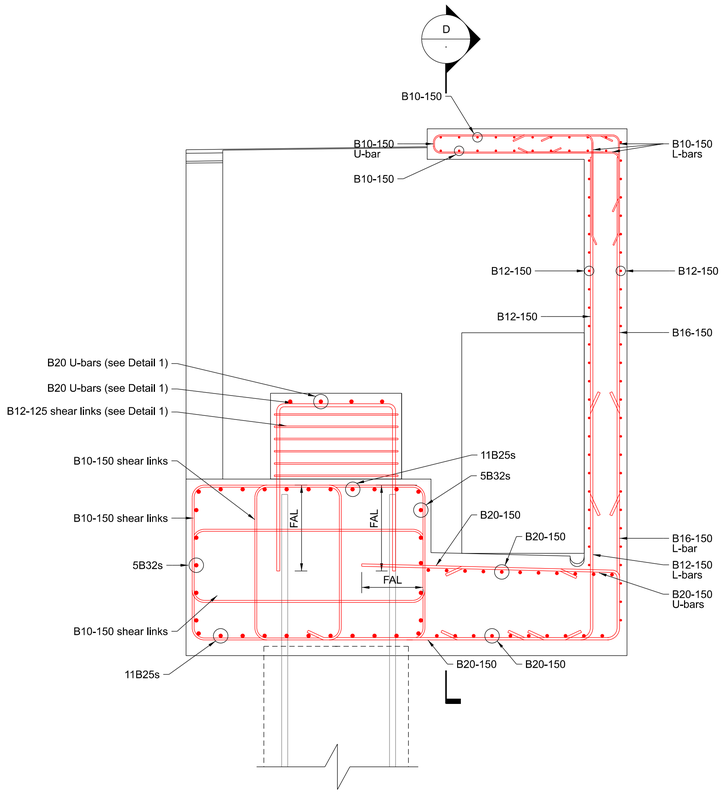
INFORMATION IN THIS BOX RELATES ONLY TO SIGNIFICANT OR UNUSUAL RISKS.

Construction

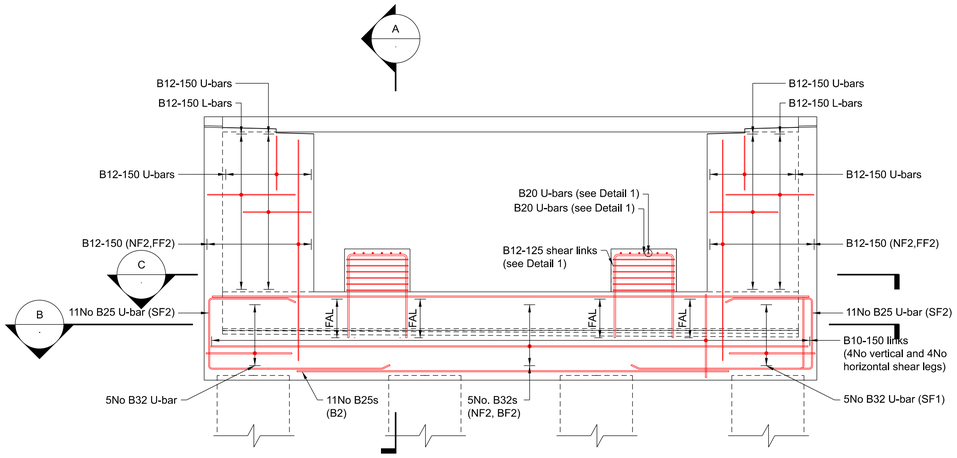
1.Fall while working at height (adjacent to cliff top)
2.Instability of cliff below working areas

Maintenance

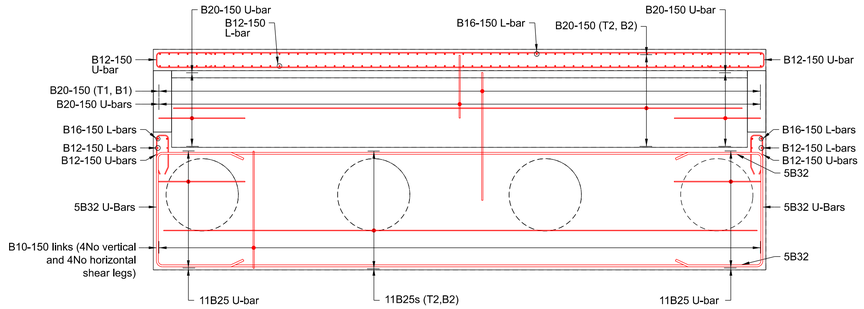
1.Fall while accessing bearing gallery



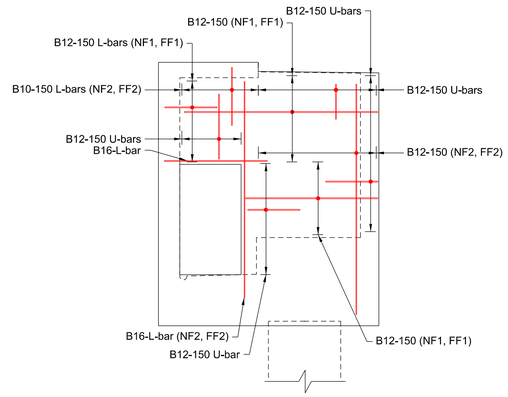
A Section
1:25



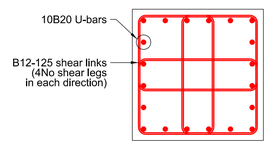
Elevation
1:50



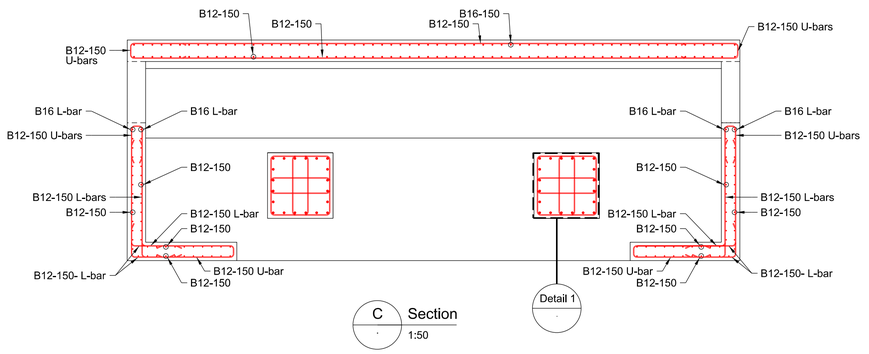
B Section
1:50



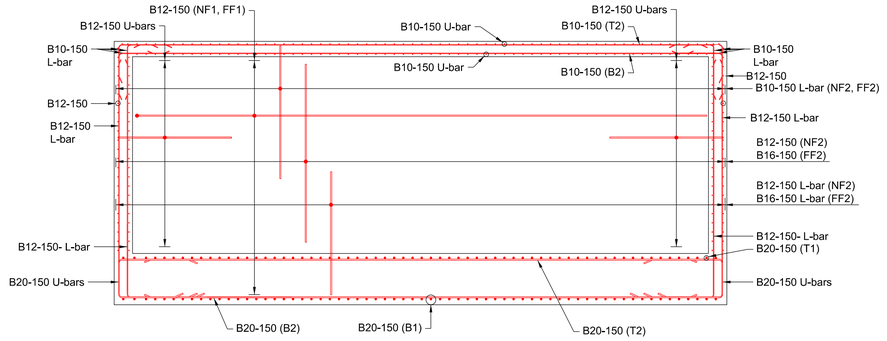
Eastern Elevation
1:25
(Western Elevation similar but handed)



Detail 1
1:25



C Section
1:50



D Section
1:50

SAFETY, HEALTH & ENVIRONMENT

INFORMATION IN THIS BOX RELATES ONLY TO SIGNIFICANT OR UNUSUAL RISKS.

Construction
1. Workers falling onto reinforcement starter bars.
2. Fall while working at height (adjacent to cliff top.)
3. Instability of cliff below working areas.

0 0.1 0.2 0.3 0.4 0.5 1 1.5 Metres
Scale 1:25

0 0.5 1 1.5 2 2.5 Metres
Scale 1:50

Do not scale

General Notes:

1. This drawing shall be read in conjunction with relevant structures drawings and details.
2. All dimensions are in millimetres and levels are in metres unless noted otherwise.
3. Drawing to be printed in colour.
4. All laps to be full tension laps unless otherwise noted.
5. Unless noted otherwise, all concrete to be Grade C40/50 and all reinforcement to be B500B.

Nominal Cover	
Gallery roof slab top face	35 + Δc = 45
Gallery inside faces	40 + Δc = 50
Bearing shelf top face	40 + Δc = 50
Bearing plinths	40 + Δc = 50
All other faces	50 + Δc = 60

Rev	Date	By	Chkd	Appd
P01	15/08/22	LB	GW	NAC
50% Design Submission (South Abutment)				

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Client
VolkerStevin

Project Title
New High-Level Wear Footbridge

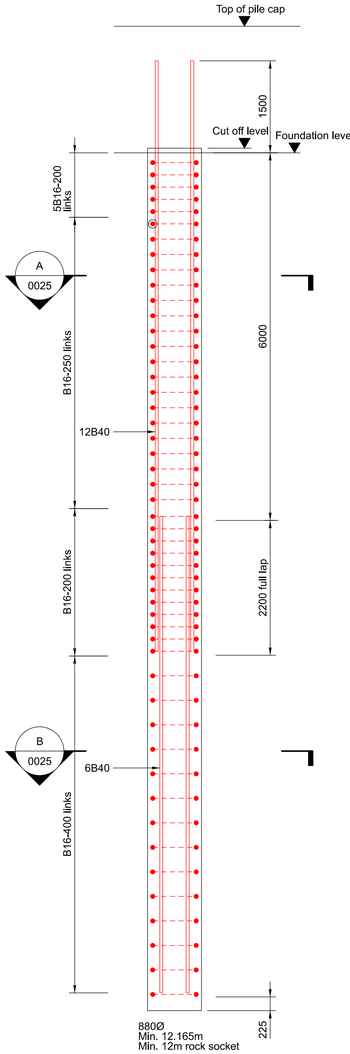
Drawing Title
South Abutment
Reinforcement Intent

Scale at A1: As Shown
Role: S-Structural
Suitability: S3 Issued for internal review and comment

Arup Job No: 285151-00
Rev: P01

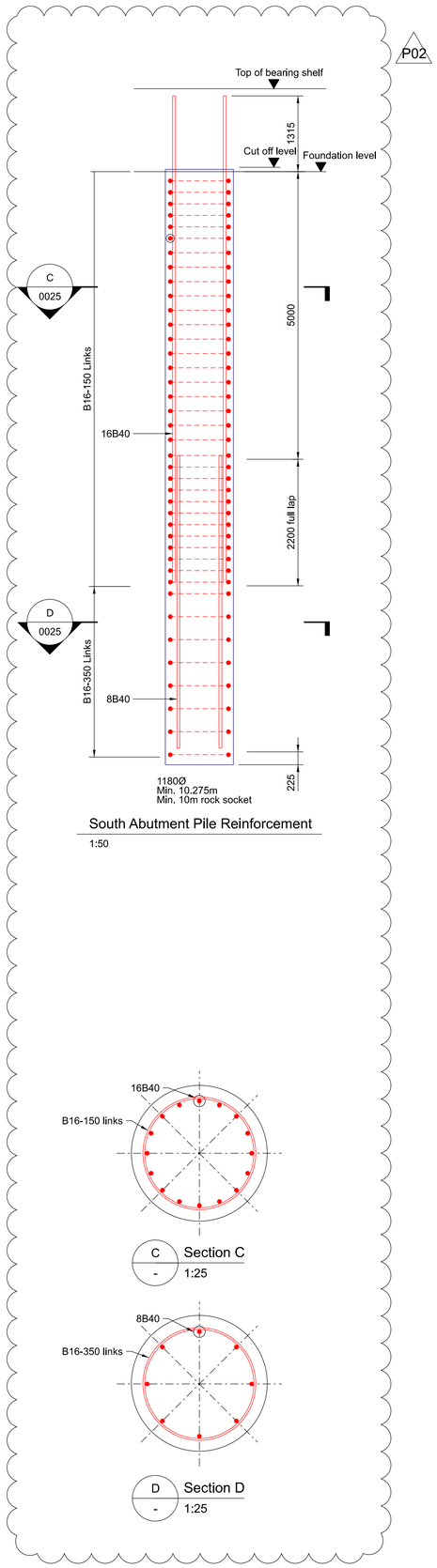
Name: NWF-ARP-SB-04-DR-S-0001

SP piles are 17mish, whereas NP piles are 12mish. SA are 9mish. All taken from GSA



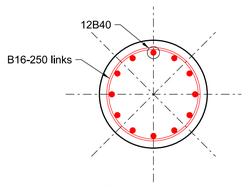
North Pier Pile Reinforcement

1:50



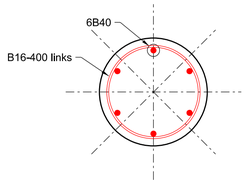
South Abutment Pile Reinforcement

1:50



A Section A

\- 1:25



B Section B

\- 1:25

C Section C

\- 1:25

D Section D

\- 1:25

0 0.1 0.2 0.3 0.4 0.5 1 1.5 Metres

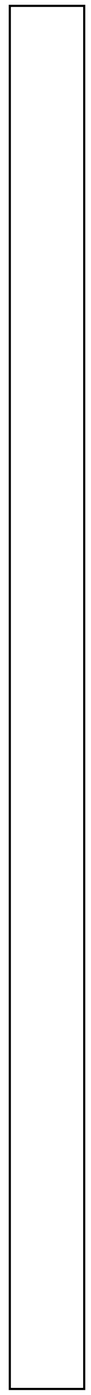
Scale 1:25

0 0.5 1 1.5 2 2.5 Metres

Scale 1:50

PS 01,03,05,07,09
Near River

PS 02,04,06,08,10
Away from river



General Notes:

1. This drawing shall be read in conjunction with relevant structures drawings and details.
2. All dimensions are in millimetres and levels are in metres unless noted otherwise.
3. Drawing to be printed in colour.
4. All laps to be full tension laps unless otherwise noted.
5. Design based on circular links. Contractor may use spiral links if preferred. Spiral links to be at spacing defined in the table below.

Circular link spacing (mm)	Alternative spiral link spacing (mm)
North Pier	
200	200
250	200
400	300
South Abutment	
150	125
350	300

P02

6. For pile setting out refer to drawing
   NWF-ARP-SB-01-DR-S-0001 - North Pier
   TBC - South Pier
   TBC - North Abutment
   NWF-ARP-SB-04-DR-S-0006 - South Abutment
7. Unless noted otherwise, all concrete to be grade C40/50 and all reinforcement to be grade B500B.
8. Design based on nominal pile diameter indicated on the drawing.
9. The top of the pile shall project 75mm ino the pilecap.
10. All piles to have minimum rock socket as noted on the drawing.

Nominal Cover	
Piles	50 + Δc = 100, or 70mm from inside face of casing, whichever is greater.

SAFETY, HEALTH & ENVIRONMENT

INFORMATION IN THIS BOX RELATES ONLY TO SIGNIFICANT OR UNUSUAL RISKS.

Construction
1. Workers falling onto exposed reinforcement
2. Breakout of pile heads causing HAVS
3. Working adjacent to river

Rev	Date	By	Chkd	Appd
P01	19/07/22	LB	GW	NAC
50% Design Submission (North Pier)				
P02	15/08/22	LB	GW	NAC
50% Design Submission (South Abutment)				

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Client

VolkerStevin

Project Title

New High-Level Wear Footbridge

Drawing Title

Piles
Reinforcement Intent

Scale at A1: As Shown

Role: S-Structural

Suitability: S3 Issued for internal review and comment

Arup Job No: **285151-00**

Rev: **P02**

Name: **NWF-ARP-SB-ZZ-DR-S-0025**

(A) GENERAL

1. This General Notes drawing is to be read in conjunction with the Specification for Highway Works and project appendices. Refer to the Specification, document no: NWF-ARP-ZZ-ZZ-SP-Z-0001.
2. In case of discrepancies between this General Notes drawing and specific notes on individual drawings, the specific notes shall prevail.
3. Refer to Designers Risk Assessment (document no NWF-ARP-ZZ-ZZ-RR-HS-0001) for relevant health and safety hazards.
4. Standard abbreviations shown on the drawings are:

CL	Centreline
CJ	Construction Joint
Dia	Diameter
EGL	Existing Ground Level
FAL	Full Anchorage Length
FGL	Finished Ground Level
FTL	Full Tension Lap
ID	Inner Diameter
MJ	Movement Joint
NTS	Not To Scale
OD	Outer Diameter
RC	Reinforced Concrete
SOP	Setting Out Point
TBC	To be confirmed
Typ	Typical
UNO	Unless Noted Otherwise

(B) LEVELS AND DIMENSIONS

1. Global Co-ordinates are indicated by Eastings and Northings to OSGB36 grid.
2. All levels are in metres relative to ODN (Ordnance Datum Newlyn) unless noted otherwise.
3. All dimensions are in millimetres unless noted otherwise.
4. All angles are in degrees unless noted otherwise.
5. Do not scale from drawings. Work to figured dimensions only. All dimensions and levels are to be checked by contractor prior to construction. Any discrepancies in dimensions are to be referred to Designer before fabrication or progressing with further work.

(C) SITE PREPARATION AND TEMPORARY WORKS

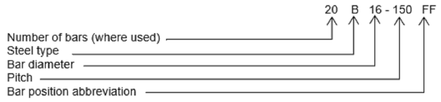
1. The contractor shall satisfy themselves and be totally responsible for determining the exact location of services where they are within close proximity to the works. If the Contractor requires any additional trial pits or information, then these shall be agreed with the Principal Contractor and dug or obtained by the Contractor before commencement of the works.
2. Where the Contractor proposes to cast any part of the temporary works into the permanent works, they shall first obtain the approval of the Principal Contractor.
3. The Contractor shall probe the ground and break out and remove any hard obstructions to an appropriate depth at each pile location. The depth of probing shall be at least to the bottom of made ground.
4. The construction sequence assumed in the design is shown on drawings NWF-ARP-ZZ-ZZ-DR-S-0001 to -0003. Where the Contractor proposes to make any change to the construction sequence, they shall first obtain the approval of the Designer.

(D) CONCRETE

1. Refer to Specification for Highway Works Series 1700 and project appendices, document no. NWF-ARP-ZZ-ZZ-SP-Z-0001.
2. All concrete finishes shall be in accordance with Specification for Highway Works Series 1700 and the project appendices, document no. NWF-ARP-ZZ-ZZ-SP-Z-0001. Required finishes are shown on drawings, including details of architectural pattern finishes where required.
3. All dimensions shown are structural dimensions of elements, excluding the architectural finish, unless noted otherwise.
4. Nominal cover shall be maintained at grooves and architectural finishes.
5. Where a formed finish is partly buried, the finish required on the exposed area shall continue to not less than 300mm below finished ground level.
6. All construction joints shall be as shown on the drawings unless otherwise agreed with the Designer.
7. The surfaces of all construction joints shall be treated to achieve a surface roughened to at least 3mm depth at 40mm spacing or equivalent and cleaned of any dust / laitance before undertaking the next pour.
8. All concrete soffits that are cast against ground shall be protected with minimum of 75mm blinding unless specified otherwise on drawings.
9. External arrises shall be chamfered 25/25 unless noted otherwise.
10. Mass concrete shall be minimum C25/30 unless noted otherwise.
11. Refer to the Specification (document no. NWF-ARP-ZZ-ZZ-SP-Z-0001) for concrete grades and exposure classes for each element. Nominal covers are noted on reinforcement intent drawings.

(E) REINFORCEMENT

1. Refer to Specification for Highways Series 1700 and project appendices, document no. NWF-ARP-ZZ-ZZ-SP-Z-0001.
2. Unless noted otherwise, normal reinforcement (B) shall be grade B500B complying with EN 10080 and BS 4449.
3. All laps and anchorage lengths are to be in accordance with BS EN 1992-1-1:2014 and the UK National Annex.
4. Notation of bar reinforcement:

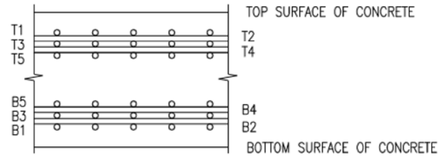


5. Abbreviations used:

T	Top (T1 closest to concrete surface)
B	Bottom (B1 closest to concrete surface)
AB	Alternate bars
ABR	Alternate bars reversed
ABS	Alternate bars staggered
NF	Near face (NF1 closest to concrete surface)
FF	Far face
EF	Each face
SF	Side face
AP	Alternately placed

NF and FF relate to reinforcement wall elevation drawings with NF being on the side of the wall facing the viewer and FF the side farthest from the viewer.

6. Key to reinforcement layers:



7. Reinforcement detailed represents the minimum design requirement. Additional bars to aid fixing or stability of the cage shall be detailed by the contractor.

(F) WATERPROOFING

1. Refer to Specification for Highway Works Series 2000 and project appendices, document no. NWF-ARP-ZZ-ZZ-SP-Z-0001.
2. Bridge deck waterproofing in accordance with CD358 to be applied in the locations shown on the drawings.
3. Two coats of bituminous paint or approved equivalent in accordance with Specification for Highway Works Clause 2004 shall be applied to all buried surfaces. The bituminous paint shall stop 100m below final ground level.
4. Immediately before the application of the primer or the layer of the waterproofing system or protective layer, the concrete surface or primed surface shall be clean, dry and free from ice, frost, loose aggregate, dust and other debris also where the adhesion to the concrete would be impaired, free from curing liquids, compounds and membranes.

(G) PILING

1. All Piles have been designed in accordance with Eurocode requirements (BS EN 1997 and BS EN 1992).
2. Piling to be carried out in accordance with BS EN 1536, ICE Specification for Piling Works and Embedded Retaining Walls (SPERW) 3rd edition and the project appendices (document no. NWF-ARP-ZZ-ZZ-SP-Z-0001).
3. Maximum installation tolerances for Piles are summarised in the table below:

Plan	+/- 75mm
Verticality	1:100

4. Monitoring of vibrations and ground movement to be undertaken in accordance with ICE SPERW and the project appendices (document no. NWF-ARP-ZZ-ZZ-SP-Z-0001).
5. For pile integrity and load test requirements refer to the ICE SPERW and the project appendices (document no. NWF-ARP-ZZ-ZZ-SP-Z-0001).
6. Temporary casing shall be withdrawn slowly and carefully whilst maintaining a positive head of concrete pressure, to reduce the risk of damage, inclusions, slumping or necking of piles.
7. Piles to be carefully hand trimmed. Any cracked or defective concrete shall be removed and the pile repaired in a manner to provide a full and sound section at cut off level. While cutting off and trimming pile to the specific level, the Contractor shall take care to avoid shattering or damaging the rest of the structural elements.
8. Pile design subject to confirmation following site specific ground investigation.
9. Top of rock level, and final pile toe level, to be agreed at each pile location
10. Where required, support fluids shall comply with the requirements of the ICE SPERW and the project appendices (document no. NWF-ARP-ZZ-ZZ-SP-Z-0001).

(H) STEEL

To be added in a subsequent revision.

Rev	Date	By	Chkd	Appd
P01	15/08/22	LB	GW	NAC
50% Design Submission (South Abutment)				

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Client

VolkerStevin

Project Title

New High-Level Wear Footbridge

Drawing Title

General Notes

Scale at A1: As Shown

Role: S-Structural

Suitability: S3 Issued for internal review and comment

Arup Job No: **285151-00**

Rev: **P01**

Name: **NWF-ARP-ZZ-ZZ-DR-S-0004**