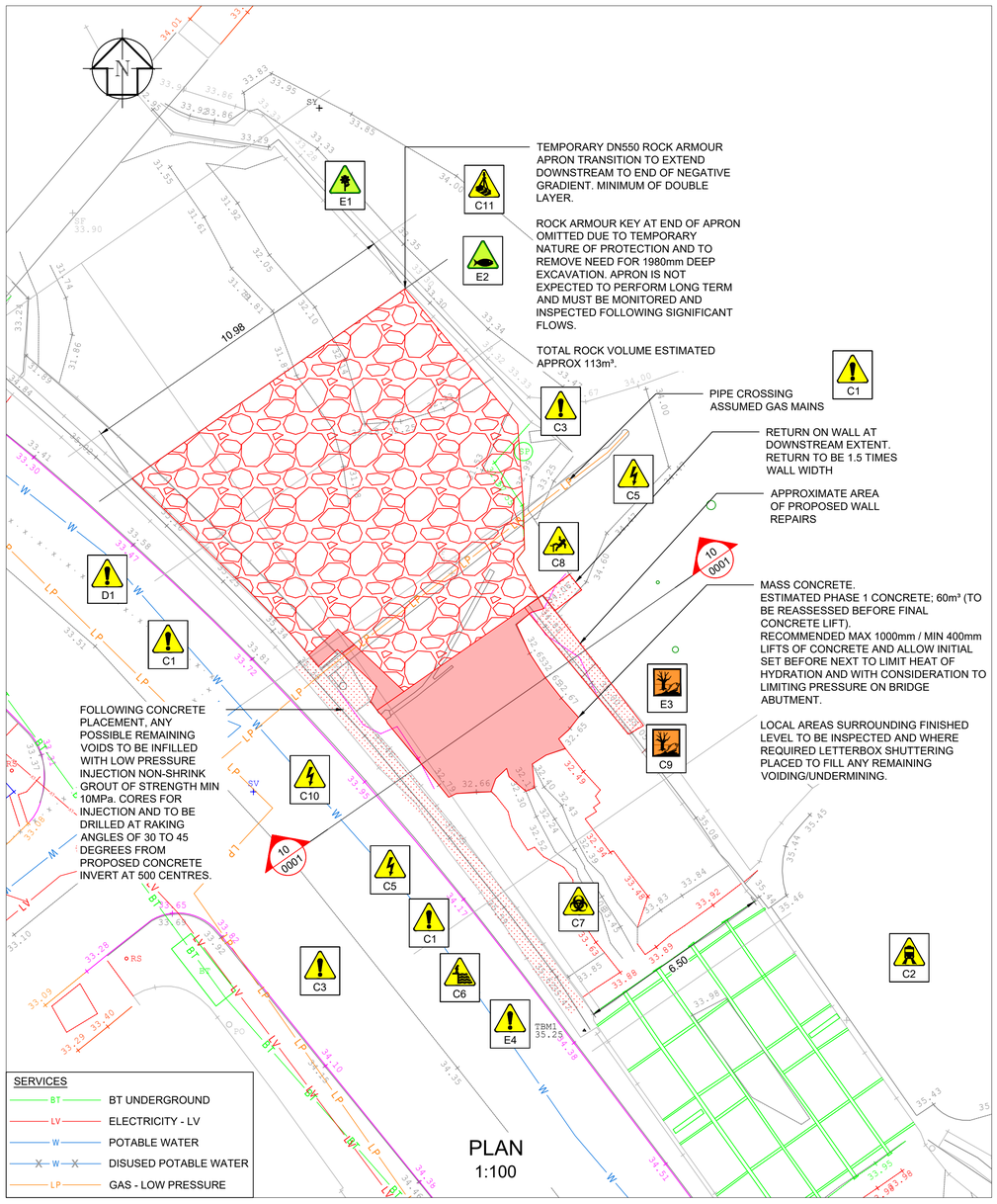


PLAN
1:100

Safety, Health and Environment information		
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant risks		
Design		
D1	⚠	Limited extent of concrete apron not sufficient for hydraulic jump causing highly turbulent flows on rock armour resulting in scour causing undermining of structures and collapse and injuries.
Construction		
C1	⚠	Unstable structure - Risk of collapse of wall without warning and potential loss of the road. Leading to fatal injury.
C2	⚠	Live Railway - Works adjacent to a live railway line, risk of collision with train resulting in injury and damage
C3	⚠	Restricted access to the site. Risk of pedestrian / vehicle interface resulting in collision and injury.
C4	⚠	working limits to be detailed
C5	⚠	Buried Services - Unchartered third party service connections causing service strike risk, causing property damage and personnel injury.
C6	⚠	Working in a watercourse - Risk of flooding / falls into watercourse resulting in damage to or loss of plant/materials, loss of road, drowning.
C7	☣	Water bourne diseases such as Leptospirosis - Ill health, death
C8	⚠	Working at height - Risk of fall from height resulting in fall related injury.
C9	⚠	Risk of chemical burns, poisoning, skin and lung irritation. Pollution to river environment
C10	⚠	Failure of phase 1 weir works or scour damage to downstream channel/footbridge
C11	⚠	Heavy lifting - Risk of failure of lift resulting in damage or injury.
Environment		
E1	⚠	Protected Habitat - NRW license required for working within and adjacent to the Afon Llan, risk of prosecution
E2	⚠	Working within a protected habitat - Risk of disturbing nesting birds, migrating fish etc - resulting in endangering wildlife or spreading INNS, risk of prosecution
E3	⚠	Working with concrete near/within a watercourse - risk of concrete spill resulting in pollution.
E4	⚠	Delays to construction and design

UTILITY SERVICES INVESTIGATION GAUGE TO PAS 128

TYPE D: DESK STUDY

TYPE C: DESK STUDY AND SITE RECONNAISSANCE

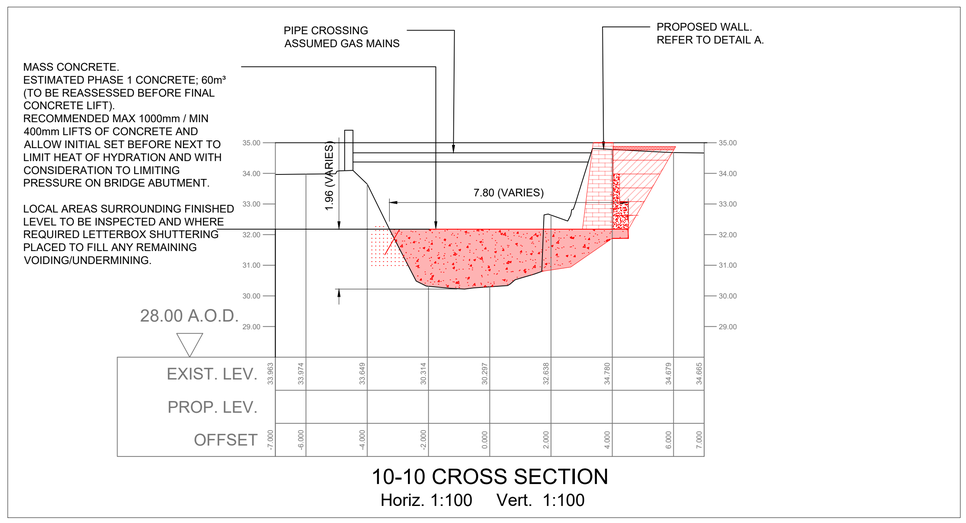
TYPE B: DESK STUDY WITH SITE RECON AND UTILITY DETECTION SURVEY

TYPE A: DESK STUDY WITH SITE RECON, UTILITY DETECTION SURVEY & TRIAL HOLES

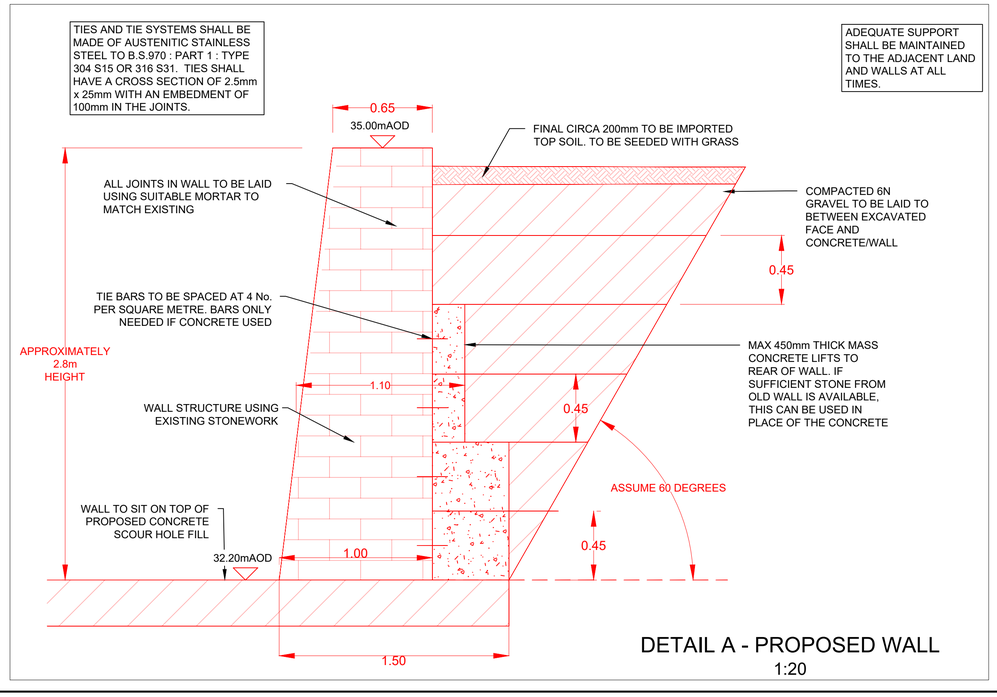
TYPE D	TYPE C	TYPE B	TYPE A
None			

THE POSITION OF ANY EXISTING PUBLIC OR PRIVATE SEWERS, UTILITY SERVICES, PLANT OR APPARATUS SHOWN ON THIS DRAWING HAS BEEN OBTAINED FROM STATUTORY RECORDS. THE INFORMATION SHOWN IS BELIEVED TO BE CORRECT BUT NO WARRANTY TO THIS IS EXPRESSED OR IMPLIED. OTHER SUCH PLANT OR APPARATUS MAY ALSO BE PRESENT BUT NOT SHOWN. INVESTIGATIONS SHOULD BE UNDERTAKEN ON SITE CONFIRMING LOCATIONS BEFORE BREAKING GROUND.

APPROVED FOR CONSTRUCTION			
Position	Signature	Name	Date
CEM			
CRE construction			
DPE			
PE			
AE			
CRE designs		Scott Riddlestone	22/09/2023
Designer		Scott Riddlestone	22/09/2023
Checker		Scott Riddlestone	22/09/2023



10-10 CROSS SECTION
Horiz. 1:100 Vert. 1:100



DETAIL A - PROPOSED WALL
1:20

GENERAL NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN (OD) UNLESS NOTED OTHERWISE.
3. ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
4. DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS MUST BE CHECKED/VERIFIED ON SITE.
5. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE SUPERVISOR IMMEDIATELY.
6. THE ELECTRONIC VERSION OF THIS DRAWING IS NOT TO BE USED FOR SETTING OUT.
7. REFER TO CONTRACT SPECIFICATION FOR DETAILS OF MATERIALS AND WORKMANSHIP TO BE USED FOR THE WORKS SHOWN ON THIS DRAWING.
8. **HAZARDS TO BE CLEARLY DEFINED AND DISPLAYED AT DESIGN STAGE**

KEY
CONSTRUCTION - PHASE ONE
CONSTRUCTION PHASE TWO
EXISTING
TO BE REMOVED

DESIGNED CONCRETE SPECIFICATION FOR PHASE 1 WEIR REPAIR

THE CONCRETE SHALL BE PRODUCED IN ACCORDANCE WITH BS8500-2.

COMPRESSIVE STRENGTH CLASS;	C25/30
MAXIMUM WATER/CEMENT RATIO;	0.55
MINIMUM CEMENT/COMBINATION CONTENT;	360 kg/m3
RECOMMENDED CEMENT/COMBINATIONS TYPES;	
IIB-P + SR, IIB-Q + SR, IIB-V + SR, IIIA + SR, IIIB + SR, IVB-P, IVB-Q, IVB-V (DC-2)	
MAXIMUM AGGREGATE SIZE;	10 mm
CONSISTENCE CLASS;	S4 (SELF COMPACTING)

Wall rebuild Notes

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. CONCRETE SHALL BE CLASS 32/40 (IF USED).
3. CONCRETE SHALL BE ADEQUATELY COMPACTED USING MECHANICAL MEANS.
4. ALL RE-USED MASONRY SHALL BE THOROUGHLY CLEANED AND MATCH ADJACENT WALLS.
5. MORTAR SHALL BE CEMENT MORTAR DESIGNATION (ii), AN ADDITIVE SHALL BE USED WITH THE MORTAR TO GIVE A SIMILAR COLOUR MATCH WITH NEW AND ADJACENT MASONRY. THE COLOUR MATCH SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK COMMENCING. MORTAR SHALL BE MIXED THOROUGHLY TO GIVE A UNIFORM COLOUR AND CONSISTENCY. ALL MORTARED JOINTS SHALL BE OF UNIFORM THICKNESS NOT EXCEEDING 20mm. POINTING SHALL BE FORMED AS THE WORK PROCEEDS WITH A BUCKET HANDLE FINISH (CONCAVE).
6. FACEWORK SHALL BE ANCHORED TO THE CONCRETE BY (IF SURPLUS STONE WORK NOT AVAILABLE): -
 A) TIES SPACED AT 4 No. PER SQUARE METRE. TIES AND TIE SYSTEMS SHALL BE MADE OF AUSTENITIC STAINLESS STEEL TO B.S.970 : PART 1 : TYPE 304 S15 OR 316 S31. TIES SHALL HAVE A CROSS SECTION OF 2.5mm x 25mm WITH AN EMBEDMENT OF 100mm IN THE JOINTS.
7. THE BASE OF THE WALL SHALL BE CONCRETED ON THE SAME DAY IT IS EXCAVATED. BAYS SHALL BE CONSTRUCTED IN LENGTHS OF NOT GREATER THAN 5.0m.
8. ALL FORMATION LEVELS SHALL BE INSPECTED AND VERIFIED ON SITE BY THE ENGINEER.
9. ANY SOFT SPOTS IN THE FORMATION SHALL BE EXCAVATED AND BACKFILLED WITH GRADE ST2 CONCRETE.
10. SELECTED GRANULAR FILL SHALL COMPLY WITH CLAUSE 610 OF THE SPECIFICATION FOR HIGHWAY WORKS.
11. ADEQUATE SUPPORT SHALL BE MAINTAINED TO THE ADJACENT LAND AND WALLS AT ALL TIMES.
12. THE CONTRACTOR SHALL PROVIDE SECURITY FENCING, WHENEVER THE SITE IS VACATED TO PREVENT ACCESS BY CHILDREN. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE SECURITY OF THE SITE FOR THE DURATION OF THE WORKS.

SKETCH

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Project
RESOLVEN AQUEDUCT & WEIR

Title
SCOUR HOLE URGENT REPAIR
WALL REBUILD

for

Client
DYER & BUTLER
A part of IMGroup Services
NetworkRail

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Drawn:	A.BOSOMWORTH	09/10/23	Designed:	S.RIDDLESTONE	09/10/23
Checked:	S RIDDLESTONE	09/10/23	Approved:		
Project Reference:	2022S1041		Scale:	As shown at A1	
Drawing Number:	IUY-JBAU-00-00-SK-C-0001		Status: A1	Revision: P01	Sheet Size: A1