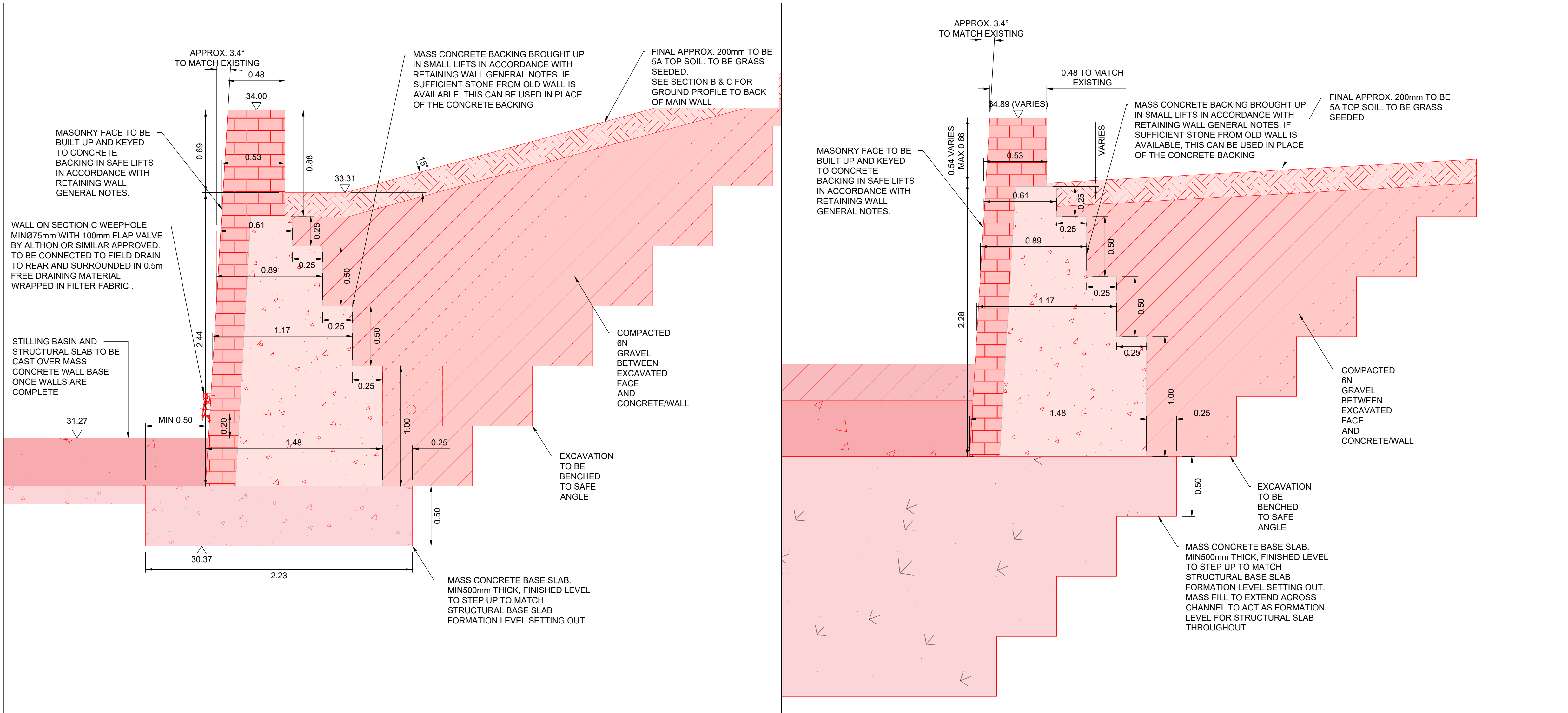




WALL TYPICAL DETAIL BASED ON SECTION G-G

1:20

WALL TYPICAL DETAIL BASED ON SECTION E-E

1:20

RETAINING WALL GENERAL NOTES

- CONCRETE SHALL BE ADEQUATELY COMPACTED USING MECHANICAL MEANS.
- ALL MASONRY SHALL BE FULLY MORTARED COURSED, LAID ON BED.
- ALL RE-USED MASONRY SHALL BE THOROUGHLY CLEANED.
- ALL NEW MASONRY IS TO MATCH EXISTING IN COLOUR, TYPE, STRENGTH, DURABILITY AND BE FREEZE THAW RESISTANT.
- MORTAR SHALL BE CEMENT MORTAR DESIGNATION (ii), AN ADDITIVE SHALL BE USED WITH THE MORTAR TO GIVE A SIMILAR COLOUR MATCH WITH EXISTING MASONRY.
- FACEWORK SHALL BE ANCHORED TO THE CONCRETE BY EITHER:
 - TIES SPACED AT 4No. PER SQUARE METRE. TIES AND TIE SYSTEMS SHALL BE MADE OF AUTENTITIC STAINLESS STEEL TO BS970 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 JOINTS.
 - 1No THROUGH STONE PER SQUARE METRE, MINIMUM DIMENSIONS 100mm HIGH X 250mm LONG AND EXTENDING INTO THE MASS CONCRETE BY A MINIMUM OF 400mm BEYOND THE REAR FACE OF MASONRY.
- WHERE THERE IS A STABILITY RISK TO THE SIDE WALLS OF THE EXCAVATION, THE BASE OF THE WALL SHALL BE CONCRETED ON THE SAME DAY IT IS EXCAVATED.
- ALL FORMATION LEVELS SHALL BE INSPECTED AND VERIFIED ON SITE BY THE ENGINEER.
- ANY SOFT SPOTS IN THE FORMATION SHALL BE EXCAVATED AND BACKFILLED WITH MASS CONCRETE.
- SELECTED GRANULAR BACKFILL SHALL COMPLY WITH CLAUSE 610 OF THE SPECIFICATION FOR HIGHWAY WORKS.
- ADEQUATE SUPPORT SHALL BE MAINTAINED TO THE ADJACENT LAND AND WALLS AT ALL TIMES.
- CONCRETE BACKING MAY BE REPLACED WITH FULLY MORTARED DENSE CONCRETE MASONRY WHERE PREFERABLE. THIS IS TO BE COURSED/KEYED/ANCHORED INTO THE FACEWORK AND HAVE AT LEAST A UNIT WEIGHT OF 18kN/m³.
- CONCRETE BACKING AND FACEWORK LIFTS ARE TO BE PROGRESSED IN SAFE LIFTS TO MAINTAIN STABILITY OF THE FACEWORK OR THE CONCRETE CAST USING FORMWORK AT APPROPRIATE COLLAR JOINTING WALL TIES USED TO SECURE THE FACING. NOTE THAT FRESHLY CONSTRUCTED MASONRY WILL NOT HAVE SUFFICIENT STRENGTH TO RESIST LATERAL FORCES. TEMPORARY WORKS DESIGN MAY BE REQUIRED TO DETERMINE A SAFE CONSTRUCTION METHODOLOGY.
- PLACEMENT AND COMPACTION OF GRANULAR BACK WILL TO BE CARRIED OUT IN LAYERS IN ACCORDANCE WITH SERIES 600 OF THE SPECIFICATION OF HIGHWAY WORKS - TO BE CARRIED OUT ONLY ONCE MASONRY AND CONCRETE HAS ACHIEVED SUFFICIENT STRENGTH.
- COPING STONES AND GENERAL MASONRY COURSING STYLE IS TO BE MATCHED TO EXISTING.
- STONE FACING OF WALLS TO BE JOINTED WITH EXPANSION / MOVEMENT JOINTS AT ANY LOCATION WHERE THERE IS A SIGNIFICANT CHANGE IN SECTION OR FOUNDATION ARRANGEMENT OR AT MAXIMUM OF 10m SPACING FOR EXPANSION ONLY. JOINTS TO BE 10mm AND COMPRISE 10mm COMPRESSIBLE FILLER BOARD RECESSED 20mm AND COVERED WITH A 10x20mm BEAD OF FOSROC NITOSEAL MS600, OR SIMILAR APPROVED, IN COLOUR TO MATCH MORTAR. JOINTING BEHIND FACING JOINT WITHIN MASS CONCRETE BACKING MAY CONSIST OF AN DEBONDED BUTT-TYPE CONSTRUCTION JOINT, WITHOUT ANY COMPRESSIBLE FILLER.

DESIGNED CONCRETE SPECIFICATION FOR REINFORCED CONCRETE WITH 50 mm COVER BELOW GROUND

- THE CONCRETE SHALL BE PRODUCED IN ACCORDANCE WITH BS8500-2.
- COMPRESSIVE STRENGTH CLASS C28/35
- MAXIMUM WATER/CEMENT RATIO 0.45
- MINIMUM CEMENT/COMBINATION CONTENT 360 kg/m³
- CEMENT AND COMBINATION DESIGNATION IIIB
- MAXIMUM AGGREGATE SIZE 20 mm
- CHLORIDE CONTENT CLASS CL 0, 30
- CONSISTENCE CLASS S3

DESIGNED CONCRETE SPECIFICATION FOR REINFORCED CONCRETE WITH 50 mm COVER EXPOSED TO FREEZE THAW

- THE CONCRETE SHALL BE PRODUCED IN ACCORDANCE WITH BS8500-2.
- COMPRESSIVE STRENGTH CLASS C28/35
- MAXIMUM WATER/CEMENT RATIO 0.45
- MINIMUM CEMENT/COMBINATION CONTENT 360 kg/m³
- CEMENT AND COMBINATION DESIGNATION IIIB
- AIR-ENTRAINMENT REQUIRED 4.5 %
- MAXIMUM AGGREGATE SIZE 20 mm
- AGGREGATES FREEZE THAW RESISTING
- CHLORIDE CONTENT CLASS CL 0, 30
- CONSISTENCE CLASS S3

DESIGNATED CONCRETE SPECIFICATION FOR MASS CONCRETE EXPOSED TO FREEZE THAW

- THE CONCRETE SHALL BE PRODUCED IN ACCORDANCE WITH BS8500-2.
- COMPRESSIVE STRENGTH CLASS C25/30
- MAXIMUM WATER/CEMENT RATIO 0.60
- MINIMUM CEMENT/COMBINATION CONTENT 280 kg/m³
- CEMENT AND COMBINATION DESIGNATION IIIB + SR
- AIR-ENTRAINMENT REQUIRED 4.5 %
- MAXIMUM AGGREGATE SIZE 20 mm
- AGGREGATES FREEZE THAW RESISTING
- CONSISTENCE CLASS S3

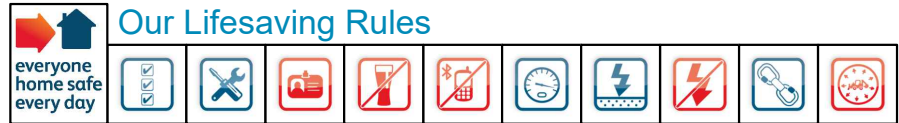
DESIGNATED CONCRETE SPECIFICATION FOR MASS CONCRETE BELOW GROUND

- THE CONCRETE SHALL BE PRODUCED IN ACCORDANCE WITH BS8500-2.
- COMPRESSIVE STRENGTH CLASS C25/30
- MAXIMUM WATER/CEMENT RATIO 0.60
- MINIMUM CEMENT/COMBINATION CONTENT 280 kg/m³
- CEMENT AND COMBINATION DESIGNATION IIIB + SR
- MAXIMUM AGGREGATE SIZE 20 mm
- CONSISTENCE CLASS S3

WEIR SURFACE STONE SPECIFICATION

- ALL UN-WEATHERED EXISTING STONWORK IS TO BE CLEANED AND REUSED WHERE POSSIBLE.
- ALL NEW MASONRY IS TO MATCH EXISTING IN COLOUR, LITHOLOGY, STRENGTH, DURABILITY AND BE FREEZE THAW RESISTANT.
- ALL NEW STONE DIMENSIONS ARE TO BE MATCHED TO EXISTING. AS A RANGE OF EXISTING STONE SIZE IS PRESENT ON SITE, AT LEAST THREE VARIATIONS IN ON-PLAN DIMENSIONS ARE TO BE PRODUCED.
- THE STONE VERTICAL THICKNESS IS TO BE 300mm +/-5mm.
- THE ALIGNMENT OF THE MASONRY COURSING IS TO REFLECT THAT OF THE EXISTING. ARCHIVE SITE PHOTOGRAPHS ARE TO BE USED DURING THE REBUILDING TO ACHIEVE A SIMILAR ARRANGEMENT TO EXISTING.
- STONE IS TO BE LAID ON A MORTAR BED OF NOMINALLY 5mm.
- JOINTING OF MASONRY IS TO BE DRY JOINTED AND STONE DIMENSIONED TO ALLOW CLOSED GAPS WITH A TOLERANCE OF BETWEEN 0mm AND 5mm.
- UPON COMPLETION OF PLACEMENT OF STONE SETTS THE DRY JOINTS ARE TO BE BRUSHED WITH A FINE GROUT TO FILL ANY SMALL GAPS TO FULL DEPTH.
- THE MORTAR BED SHALL BE CEMENT MORTAR DESIGNATION (ii) / COMPRESSIVE STRENGTH CLASS M6.
- THE GROUT SHALL BE OF MINIMUM COMPRESSIVE STRENGTH OF 6MPa.
- THE STONE SETTS ARE TO BE LAID AND COMPACTED INTO PLACE FROM THE WEIR BOTTOM AND WORK PROGRESS TOWARDS THE WEIR CREST.
- THE REMAINING TOLERANCE AND ADJUSTMENT GAP AT THE CREST BETWEEN THE STONE SETTS AND THE EXISTING BRIDGE DECK IS TO BE FILLED WITH MASS CONCRETE.
- A TOLERANCE GAP TO THE LEFT BANK AND RIGHT BACK OF THE WEIR IS ACCEPTABLE AND IF ADOPTED IT IS TO MAINTAIN A CONSISTENT GAP OF MINIMUM 50mm OR MAXIMUM OF 200mm. THE GAP IS TO BE CONSISTENT +20mm/-0mm. THE GAP SHALL BE IN FILLED WITH MASS CONCRETE.
- SHOULD A SIDE TOLERANCE GAP OF LESS THAN 50mm BE PREFERRED THEN A MORTAR OR GROUT SHALL BE USED TO FILL THE GAP.

RESOLVEN AQUEDUCT - WEIR DRAWINGS	
DWG No.	DWG Title.
IUY-JBA-00-00-DR-C-1002	GENERAL ARRANGEMENT
IUY-JBA-00-00-DR-C-1003	WEIR LONG SECTION
IUY-JBA-00-00-DR-C-1004	CONCRETE LAYOUT
IUY-JBA-00-00-DR-C-1005	REINFORCEMENT DETAILING
IUY-JBA-00-00-DR-C-1006	SETTING OUT
IUY-JBA-00-00-DR-C-1007	WALL LONG SECTIONS
IUY-JBA-00-00-DR-C-1008	TYPICAL CROSS SECTIONS
IUY-JBA-00-00-DR-C-1009	TYPICAL DETAILS

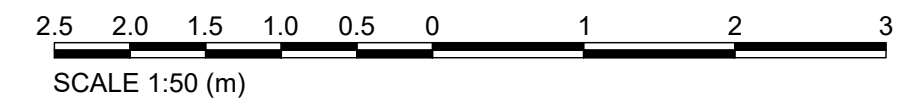
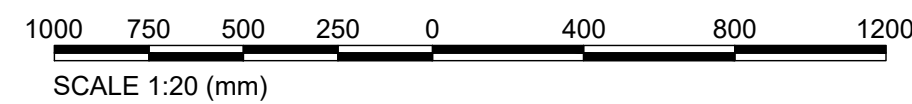


GENERAL NOTES

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

KEY
PROPOSED
EXISTING
TO BE REMOVED

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
22/09/23			
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.			



B01	FORM B		14/05/25	AB	EH	SR
Rev.	Description	Date	Author	Designer	Checker	Approver
Document Control						

Status FORM B

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Project Title

RESOLVEN AQUEDUCT & WEIR

Drawing Title

DETAILS



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Parent Model			
NOT FROM MODEL			
Security Classification		Scale	
OFFICIAL		AS SHOWN	
Author	Designer	Checker	Approver
A.BOSOMWORTH	E HOGAN	S RIDDLESTONE	E PARKER
Suitability			Revision
FORM B			B01
Information Container			
IUY-JBA-00-00-DR-C-1009-B01-DETAILS.dwg			
A1 Sheet Size			