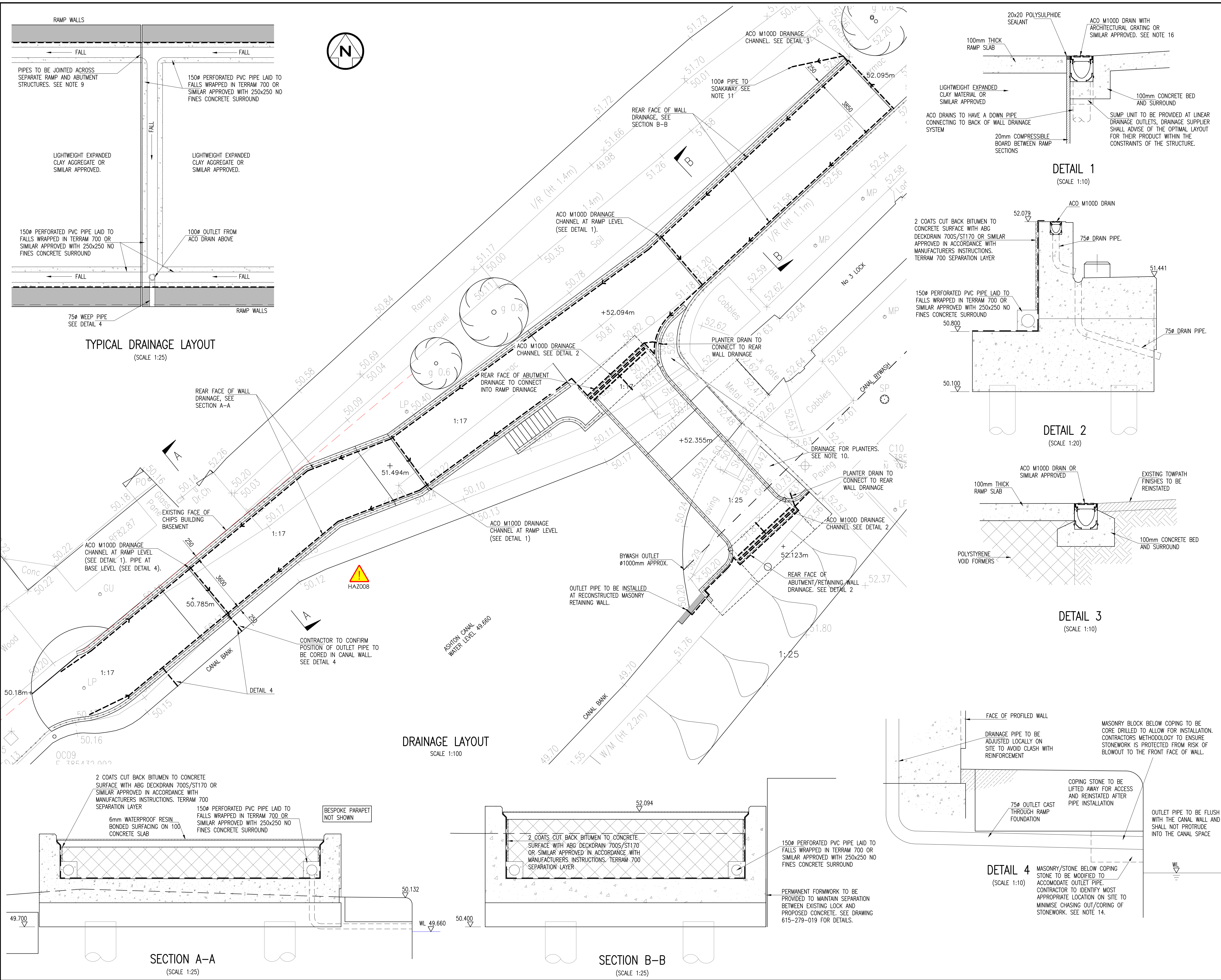
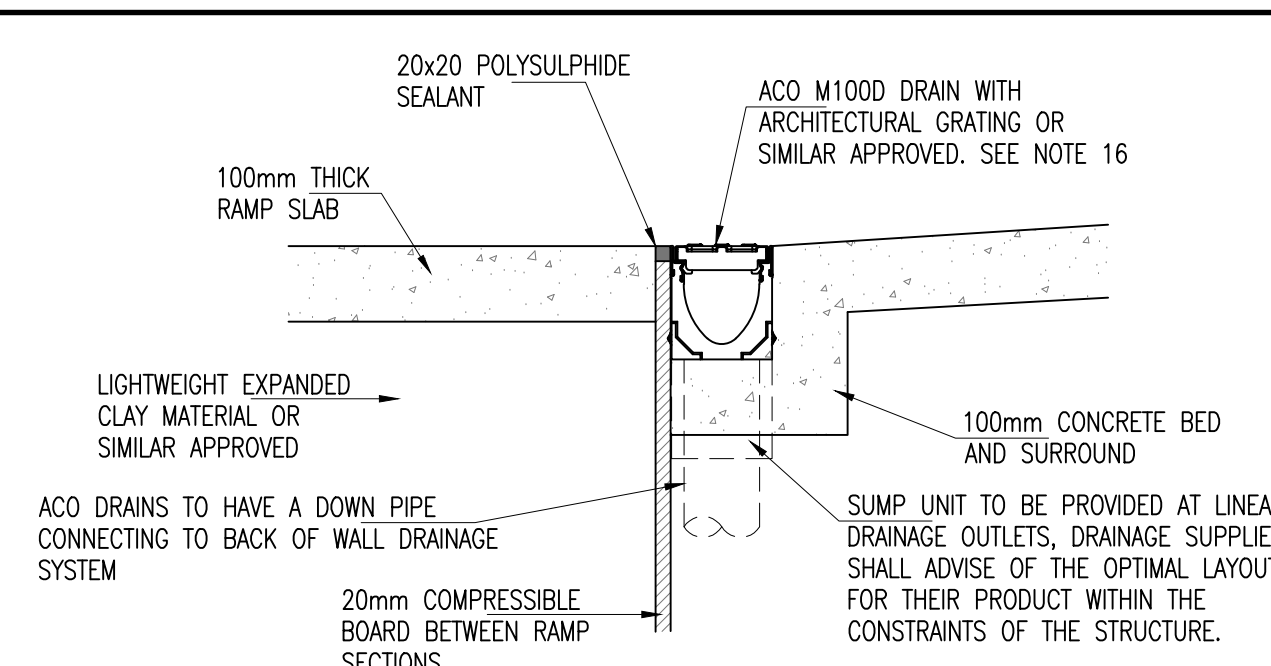
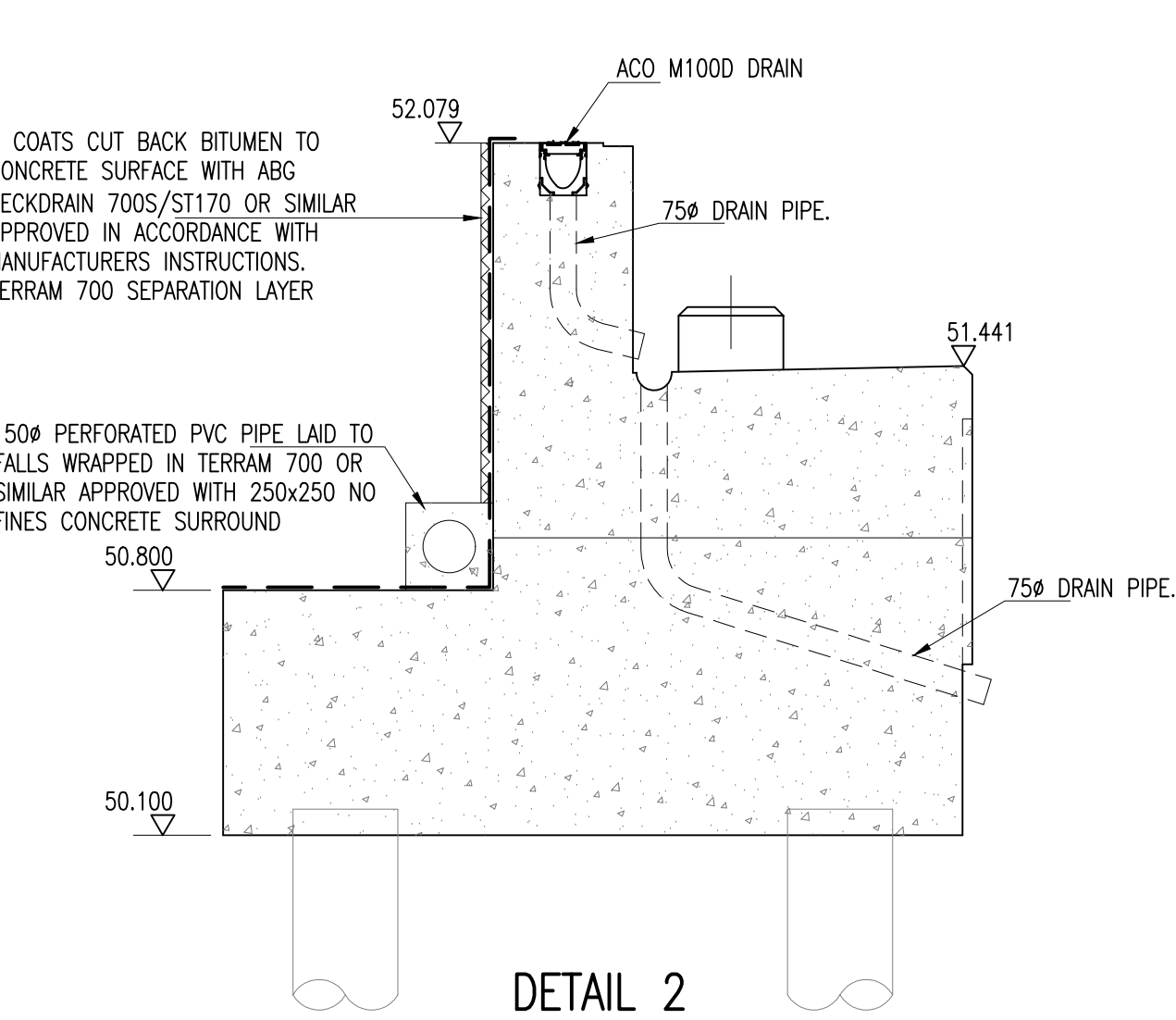
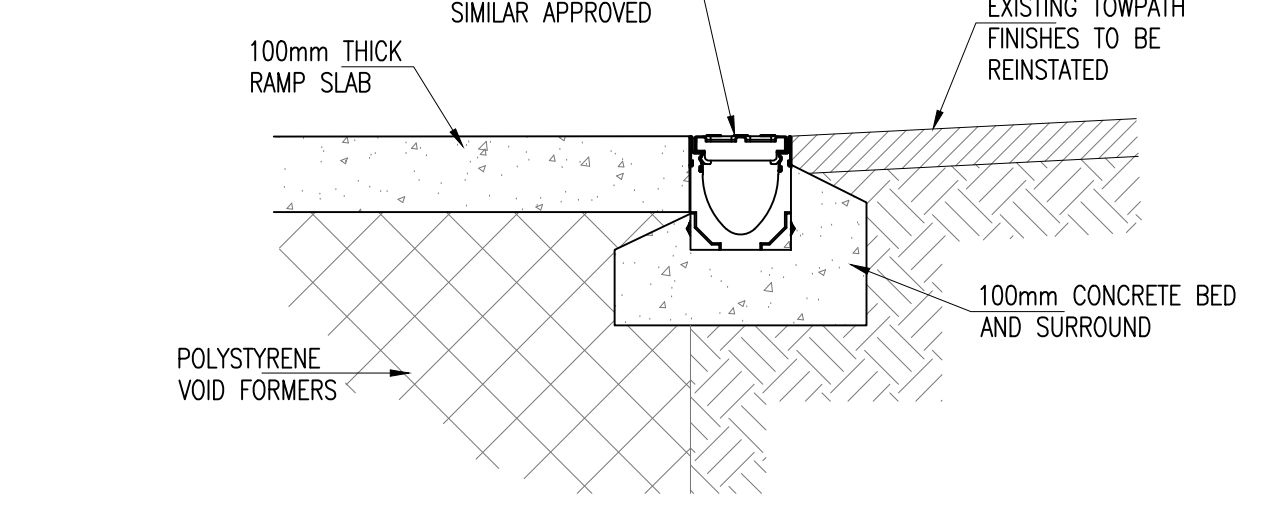




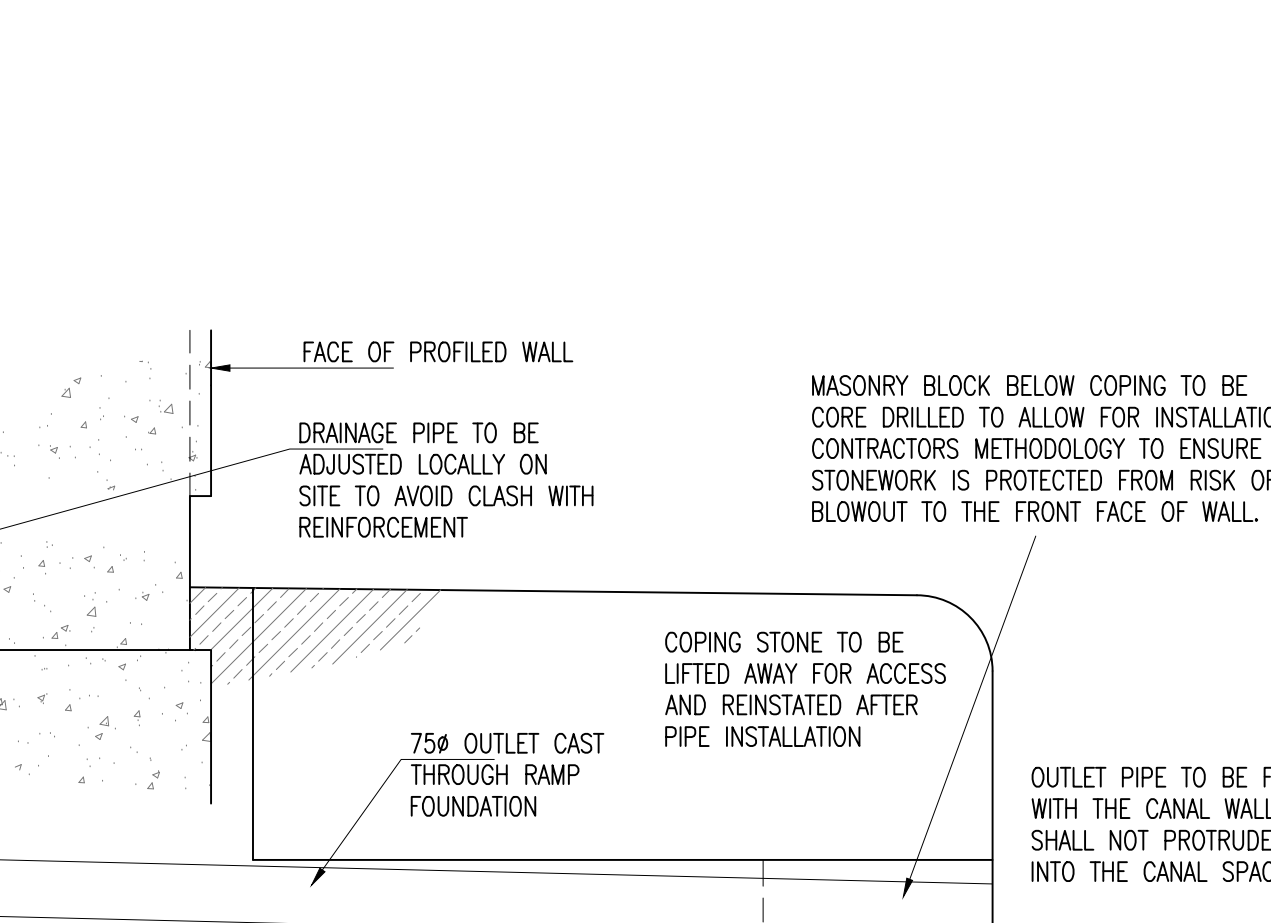
DETAIL 1
(SCALE 1:10)



DETAIL 2
(SCALE 1:20)



DETAIL 3
(SCALE 1:10)



DETAIL 4
(SCALE 1:10)

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE STATED IN METRES AND ARE RELATIVE TO LOCAL SURVEY DATUM.
 3. NO DIMENSIONS OR LEVELS SHALL BE SCALED FROM THIS DRAWING.
 4. PLASTIC PIPES INCLUDING THERMOPLASTIC SOLID WALL PIPES SHALL HAVE ULTIMATE PIPE STIFFNESS (STES) VALUE IN EXCESS OF 1400N/mm² WHEN TESTED IN ACCORDANCE WITH BS 4962 AND A RESISTANCE TO IMPACT COMPLYING WITH BS 4962.
 5. PERFORATED FILTER DRAINS SHALL HAVE LESS THAN 1000mm² OF HOLES PER METRE LENGTH OF PIPE. PERFORATION SHALL NOT REDUCE THE PIPE STIFFNESS BY MORE THAN 5%. CIRCULAR PERFORATIONS NOT GREATER THAN 10mm NOR LESS THAN 3mm IN DIAMETER OR RECTANGULAR SLOTS NOT GREATER THAN 0.6mm IN WIDTH.
 6. ALL JOINTS IN SURFACE WATER CARRIER PIPES SHALL BE WATERTIGHT IN ACCORDANCE WITH SUB-CLAUSE 504.3 OF THE SPECIFICATION FOR HIGHWAY WORKS (SHW).
 7. CONCRETE SURFACE WATER CHANNELS SHALL COMPLY WITH SERIES 1103 OF THE SHW.
 8. PRECAST CONCRETE CHANNEL BLOCKS SHALL COMPLY WITH BS EN 1340. THE CONTRACTOR SHALL PROVIDE PRODUCE DECLARATION OF PERFORMANCE CERTIFICATES TO THE OVERSEEING ORGANISATION.
 9. JOINTS FOR PIPES SHALL BE PROVIDED WHERE THE PIPE CROSSES BETWEEN RAMP AND ABUTMENT STRUCTURES. PIPE JOINING TO COMPLY WITH CLAUSE 504 OF THE SHW.
 10. PLANTER DRAINAGE REQUIREMENTS TO BE DETERMINED BY THE LANDSCAPE DESIGNER.
 11. WHERE DRAIN PIPE PASSES THROUGH CONCRETE ELEMENT (ABUTMENT, WALL, RAMP OR FOUNDATION) THE PIPE SHALL BE ADJUSTED LOCALLY AROUND THE REINFORCEMENT BY THE CONTRACTOR ON SITE.
 12. ALL OUTLET PIPES WHICH PASS THROUGH THE CANAL WALL SHALL BE FLUSH WITH THE CANAL WALL FRONT FACE AND SHALL NOT PROTRUDE.
 13. OUTLET PIPES SHALL BE INSTALLED BELOW THE COPING STONE WHERE THEY ARE REQUIRED TO GO THROUGH THE CANAL WALL. CONTRACTOR SHALL CORE THROUGH STONE WALL BELOW AND SHALL FILL THE ANGULAR SPACE AROUND THE INSTALLED DRAIN PIPE WITH COLOURED MORTAR TO MATCH THE SURROUNDING STONE. MORTAR FINISH TO BE FLUSH WITH STONWORK.
 14. CONTRACTOR SHALL DETERMINE THE LEVEL OF OUTLET PIPES DISCHARGING INTO THE CANAL. THE INVERT OF THE OUTLET PIPES SHALL BE EQUAL TO OR ABOVE 50m AOD. SHOULD THIS NOT BE POSSIBLE, THE PROJECT MANAGER SHOULD BE CONSULTED FOR THE DESIGNER TO COMMENT.
 15. ACO M1000 CHANNEL DRAIN TO HAVE ACO HEXDRAIN AND RAINDRAIN HEELGUARD IRON GRATING ATEC OR APPROVED SIMILAR. ALTERNATIVE GRATING OPTIONS TO BE APPROVED BY HAWKINS BROWN.

HAZARD DIRECTORY	
HAZARD REF No.	SIGNIFICANT DESIGNER'S HAZARDS
HAZ008	WORKING ADJACENT TO ASHTON CANAL.

B	SD	JH	MG	30.10.24	MINOR DRAINAGE UPDATES
A	SD	JH	MG	04.04.24	ISSUED FOR CONSTRUCTION
REV	DRN	CHK	APP	DATE	DESCRIPTION
 					
Consulting Civil & Structural Engineers					
Client MANCHESTER CITY COUNCIL					
Project ASHTON CANAL BRIDGE					
Title PROPOSED DRAINAGE LAYOUT AND DETAILS					
Scale AS SHOWN	Drawn SD	Date 05.04.22	Chkd WH	Approved MG	Revision B
Status CONSTRUCTION					Sheet Size A1