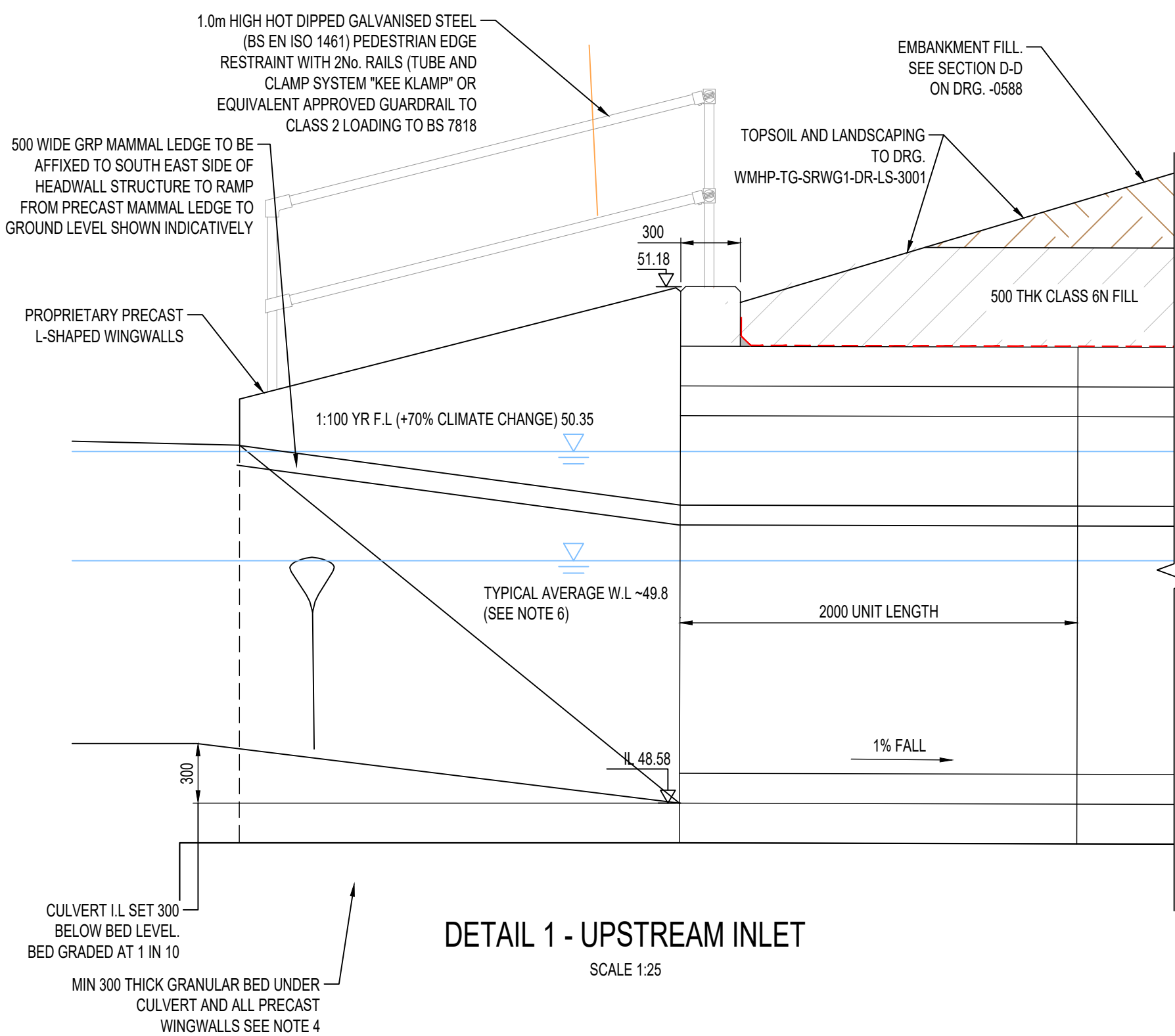
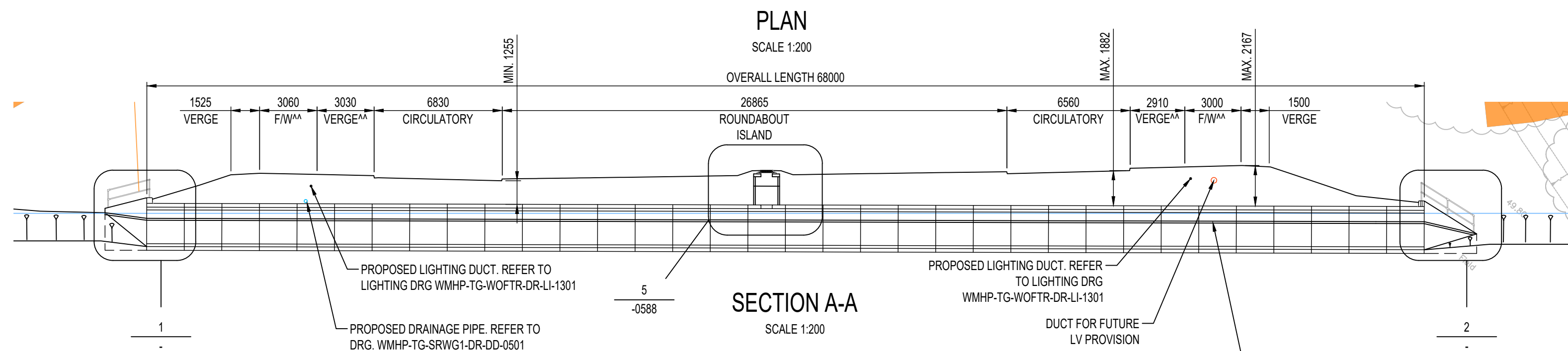
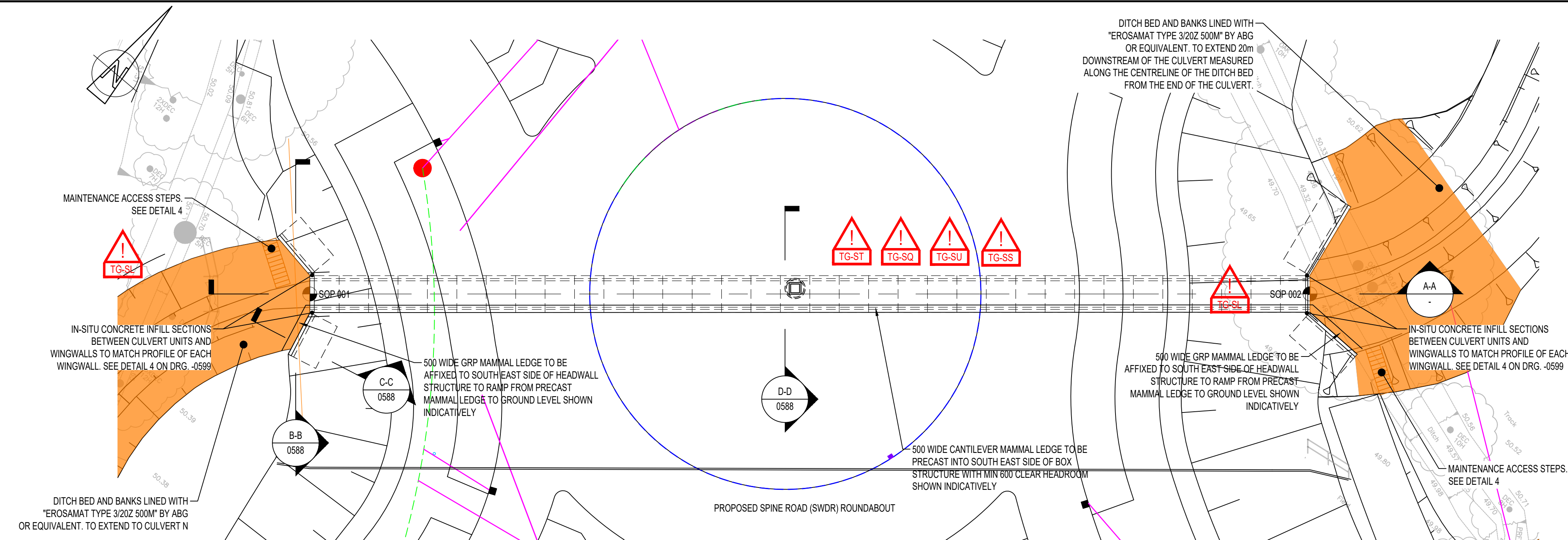
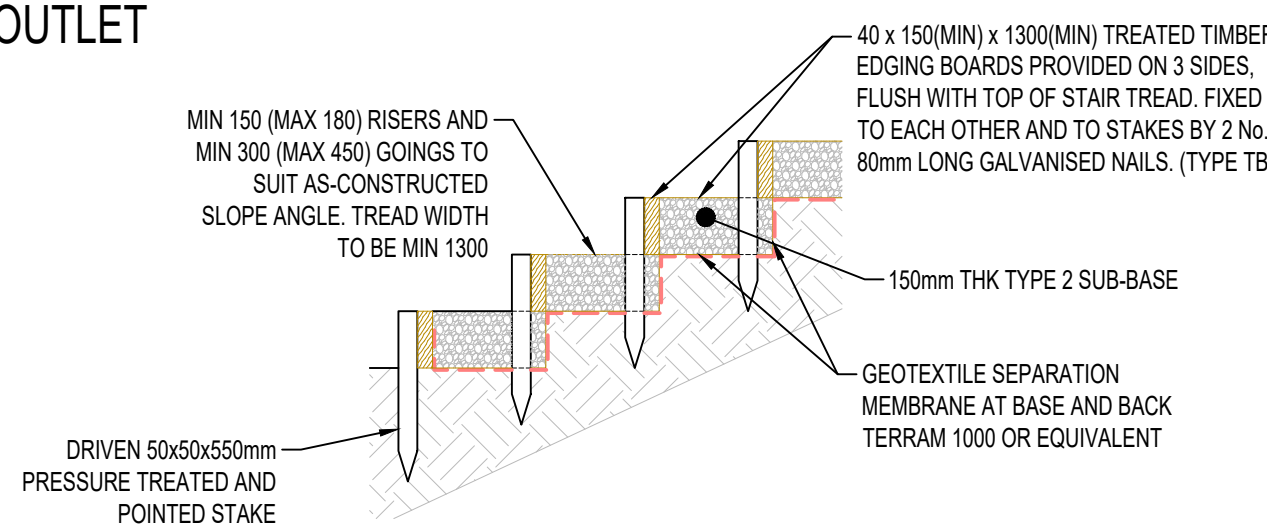
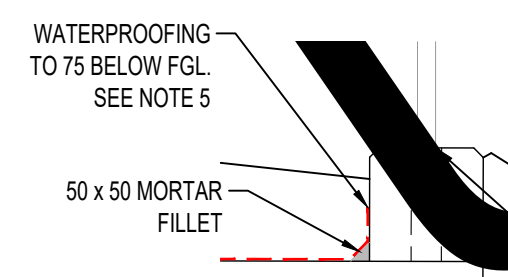
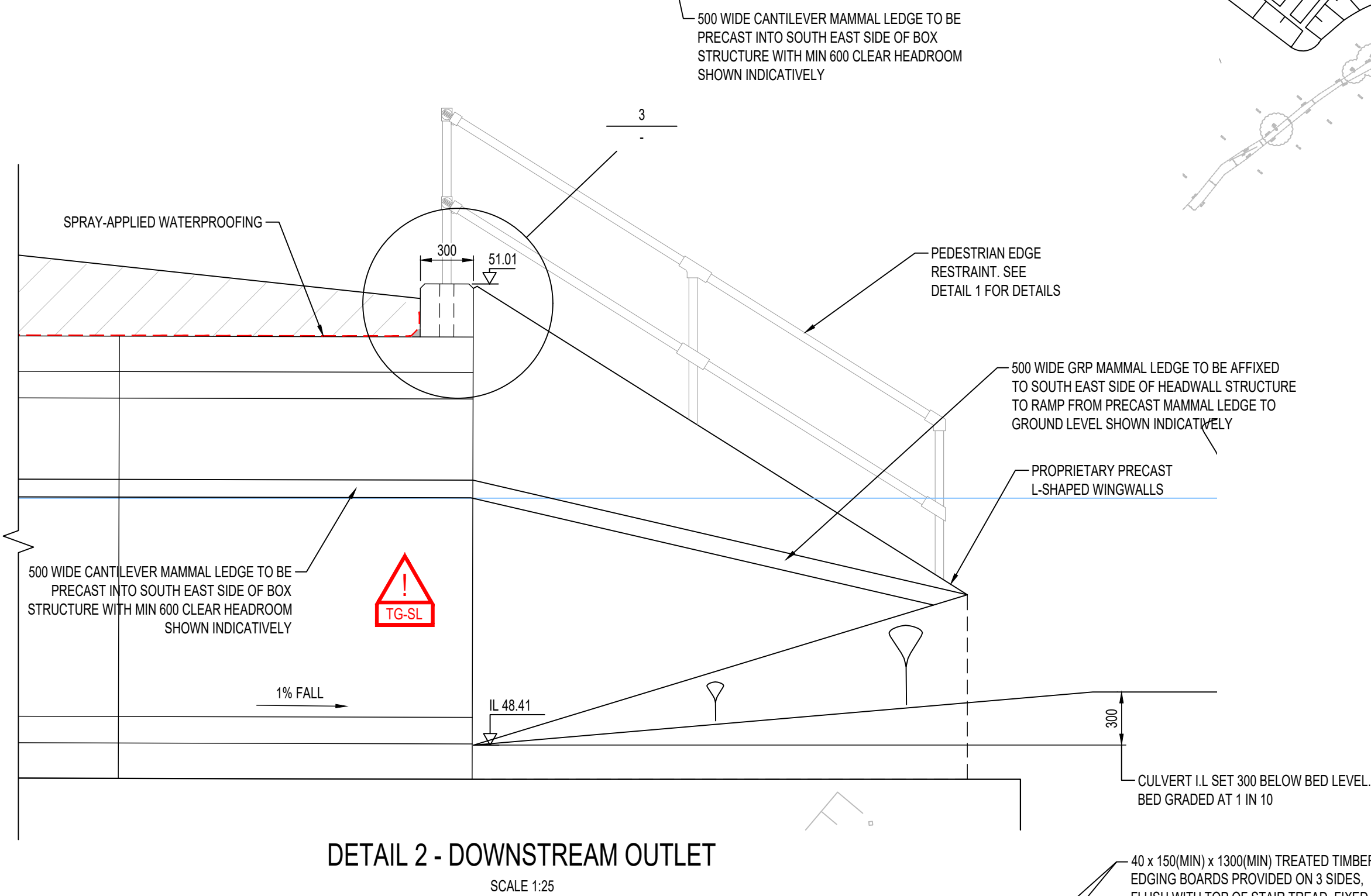


File name: P:\BOLDATA\PROJECTS\2018\01\180418\WIP\DRAWINGS\WMPH-TG-SRWG1-DR-SE-0587.DWG, printed on 24 January 2024 13:34:34, by Matt Hallon



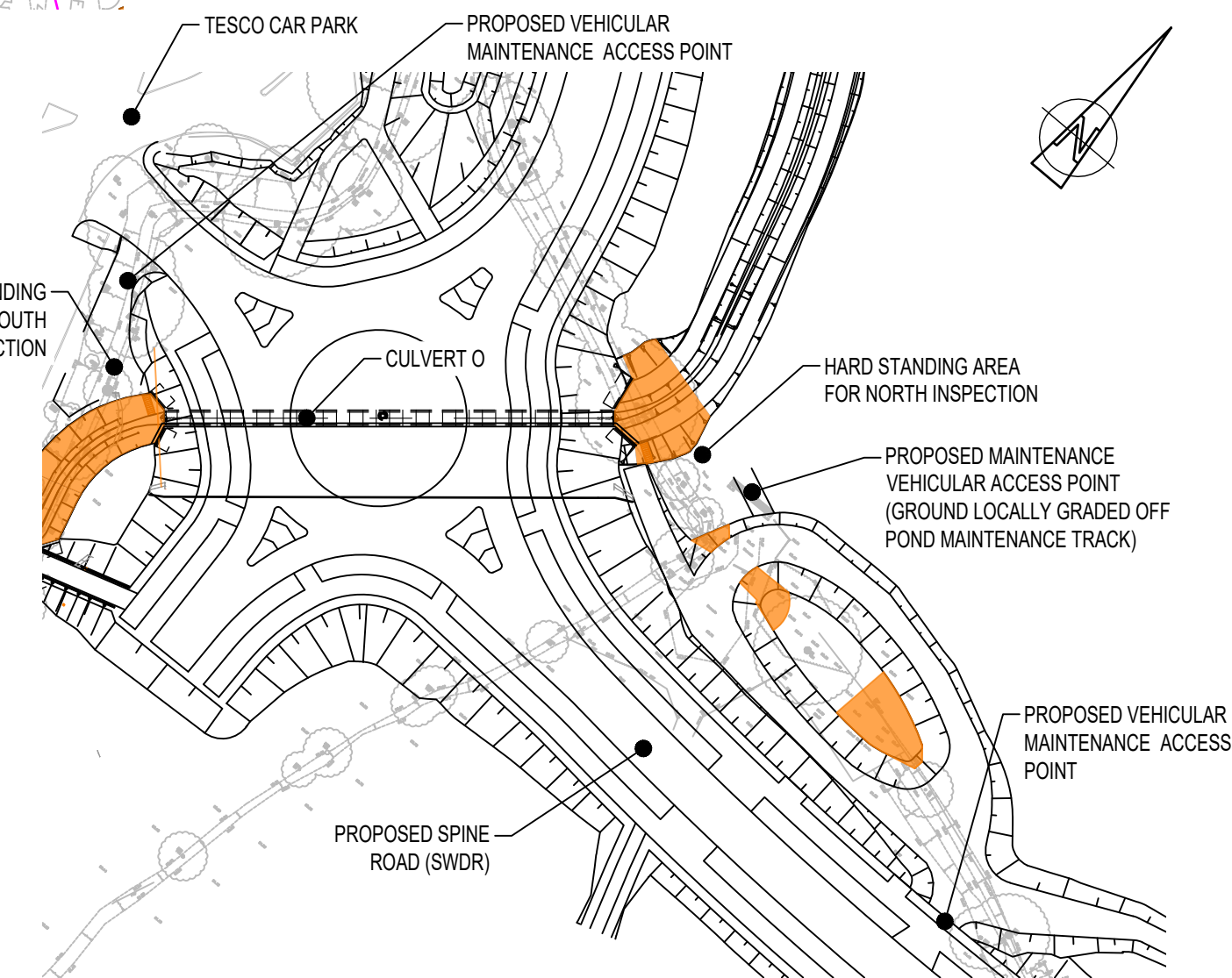
SOP COORDINATES		
SOP_NO.	EASTING	NORTHING
SOP 001	481026.901	167703.489
SOP 002	481078.893	167747.326

TABLE 1



NOTES:

- TYPICAL WATER LEVEL TAKEN FROM CHANNEL SURVEY CARRIED OUT BY MURPHY SURVEYS ON 05/04/2015. DRG. REF. 11888. REACH B. WORKINGHAN. XS. 2 DATED 17/04/15. COMMISSIONED BY WSP. 1 IN 100 YEAR FLOOD LEVEL BASED ON FLOOD MODELLING BY WSP SHOWN ON DRG. 66439-CUL-001 REV A. DATED 30/09/20.
- EXISTING UTILITIES INFORMATION TAKEN FROM WSP DRAWING WMHP-WSP-SR-DR-UT-0001 BASED ON C2 SEARCH INFORMATION. THE CONTRACTOR SHALL UNDERTAKE FURTHER SURVEYS, SCANS AND TRIAL HOLES TO CONFIRM AND LOCATE UTILITIES PRIOR TO CONSTRUCTION.
- EXISTING BACKGROUND INFORMATION TAKEN FROM SURVEY FILE "XTOPOSURVEY" BY MURPHY SURVEYS, COMMISSIONED BY WSP. SUPPLIED BY WBC, AND FILE "XTOPO_ALL" SUPPLIED BY WSP. EMM BROOK INFORMATION IN LOCATION OF CULVERT TAKEN FROM SURVEY FILE "SD20583-01_Emm Brook_Topo 3D_FINAL" BY TECHNICS. CONTRACTOR TO VERIFY SURVEY ACCURACY PRIOR TO CONSTRUCTION.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS WMP-TG-SRWG1-DR-SE-0588, -0599 AND WMHP-TG-SRWG1-DR-DD-0534. REFER TO DRG. SE-0599 FOR STANDARD DETAILS AND DD-0534 FOR LOCATION PLAN.
- MAINTENANCE ACCESS TO BE VIA ACCESS POINTS SHOWN ON KEY PLAN. IT IS ANTICIPATED THAT WHERE INSPECTIONS ARE REQUIRED INSIDE THE BOX CULVERT AND REMOTE METHODS ARE NOT POSSIBLE, SPECIALIST DIVE INSPECTIONS WILL BE REQUIRED. ACCESS STEPS HAVE BEEN PROVIDED TO AID ACCESS. SUCH ACCESS ENTRY SHOULD TAKE PLACE DURING DRIER MONTHS WHEN WATER LEVELS AND FLOWS ARE LOWER

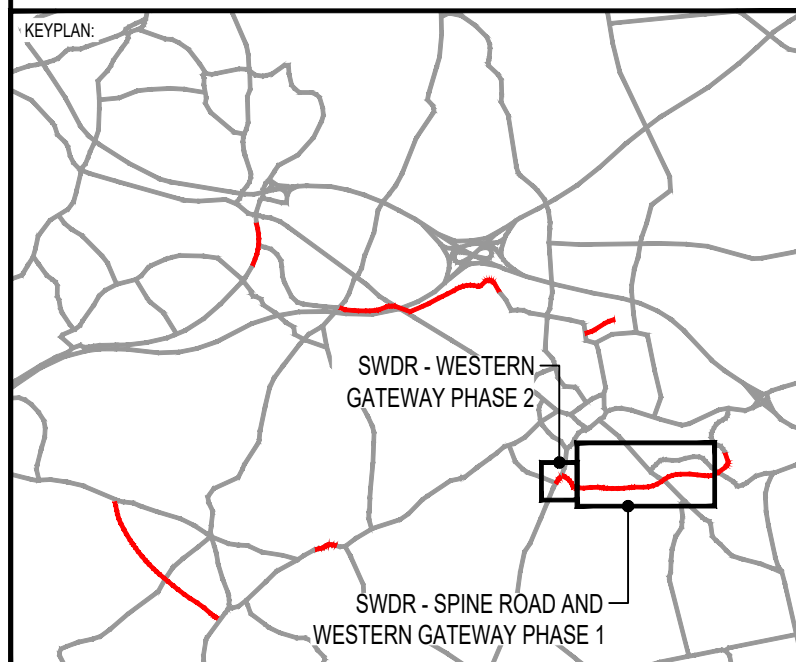


KEY PLAN
SHOWING MAINTENANCE ACCESS POINTS
SCALE 1:1000

SIGNIFICANT RESIDUAL HAZARDS		
RESIDUAL HAZARD	STAGE	SUGGESTED CONTROL MEASURE
UNEXPLODED ORDNANCE	C	"LOW RISK" CATEGORY IDENTIFIED BY "1ST LINE DEFENCE" DESK STUDY RA. UXO RISK MANAGEMENT PLAN AND SITE SPECIFIC UXO AWARENESS BRIEFINGS TO BE GIVEN TO ALL PERSONNEL CONDUCTING INTRUSIVE WORKS.
POSSIBLE PRESENCE OF BURIED SERVICES	C	SEARCH RESULTS HAVE INDICATED NO SERVICES IN CULVERT LOCATION (SEE NOTE 7). HOWEVER, CONTRACTOR TO CONFIRM VIA LATEST STATUTORY UNDERTAKERS' SEARCHES AND SCAN AREA PRIOR TO CONSTRUCTION.
ENCOUNTERING GROUND WATER IN EXCAVATION	C/D	CONTRACTOR TO IMPLEMENT SUITABLE WATER MANAGEMENT AS NECESSARY.
UNBALANCED BACKFILL TO CULVERT WALLS CAUSING CULVERT INSTABILITY	C/D	BACKFILL CULVERTS IN UNIFORM AND BALANCED MANNER, WITH NO MORE THAN 200mm LEVEL DIFFERENCE BETWEEN THE 2 OPPOSING WALLS. ENSURE THE SAME PLAN EXTENTION / WIDTH OF FILL ON BOTH WALLS IN DIRECTION PARALLEL TO WALLS AND PLAN WIDTHS ARE ALIGNED IN DIRECTION PERPENDICULAR TO WALL FACE.
ACCESS INSIDE BOX CULVERTS FOR INSPECTION / MAINTENANCE	M	INSPECTIONS TO BE CARRIED OUT FROM OUTSIDE OF THE CULVERT OR USING REMOTE METHODS WHEREVER POSSIBLE. WHERE ACCESS INTO THE CULVERT IS REQUIRED, WORKS ARE TO BE CARRIED OUT BY OPERATIVES SUITABLY TRAINED AND EQUIPPED TO WORK IN WATER, E.G. DIVING PERSONNEL. SEE NOTE 10
NOTE: The above hazards do not include every hazard or assumption, but identify significant residual construction hazards that are not likely to be obvious to a competent contractor and those that could be difficult to manage effectively. Refer also to the designer's risk documentation.		

DO NOT SCALE

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
 - (a) CULVERT UNITS TO BE CE-MARKED TO BS EN 14844 WITH SPIGOT AND SOCKET JOINING BETWEEN UNITS. PRECAST WINGWALL UNITS TO BE CE-MARKED TO BS EN 15258. UNITS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DESIGN SHALL BE IN ACCORDANCE WITH THIS DRAWING AND DRGS. WMHP-TG-SRWG1-DR-SE-0588 AND -0599.
(b) ALL PRECAST ELEMENTS TO HAVE A MIN COMPRESSIVE STRENGTH OF C40/50. ALL FACES TO BE DESIGNED FOR EXPOSURE CLASSES XC3/4, XD3 AND XF3. CONCRETE MIXES TO BE IN ACCORDANCE WITH MCHW VOL. 1 SPECIFICATION FOR HIGHWAY WORKS, SERIES 1700 AND BS EN 13369.
(c) ALL FINISHES TO BE IN ACCORDANCE WITH BS EN 13369. UNFORMED SURFACES TO HAVE A U1 FINISH. FORMED SURFACES TO HAVE A F3 FINISH. SEE 5 FOR U4 FINISH TO FACES RECEIVING SPRAY-APPLIED WATERPROOFING.
(d) ALL BURIED SURFACES TO HAVE TWO COATS OF CUT-BACK BITUMEN WATERPROOFING OR EQUIVALENT TO SHW CLAUSE 2004. FOR INTERFACE WITH SPRAY-APPLIED WATERPROOFING, SEE DETAILS ON DRG. -0599.
(e) ALL PRECAST CONCRETE EDGES TO HAVE 10 x 10 CHAMFERS UNLESS NOTED OTHERWISE.
(f) PRECAST BOX CULVERT UNITS TO BE DESIGNED FOR LM1 + LM3 SV 80, SV 100 IN ACCORDANCE WITH BS EN 1991-2, THE UK N/A TO BS EN 1992-1 AND PD 6694-1 WITH COVER DEPTHS AS SHOWN IN SECTION A-A ON DRG. -0587. WINGWALLS TO BE DESIGNED FOR RETAINED HEIGHTS SHOWN PLUS MIN 5kN/m² SURCHARGE LOADING ON TOP AND FULL WATER PRESSURE BEHIND. MIN Ø = 35° FOR CLASS 6N BACKFILL. FORMATION LEVEL TO BE INSPECTED AND ANY SOFT AREAS (WHERE UNDRAINED SHEAR STRENGTH Cu < 30 kPa) TESTED IN ACCORDANCE WITH EARTHWORKS SPECIFICATION WMHP-TG-SRWG1-SP-GE-0601 WITH HAND SHEAR VANE TESTING. SOFT AREAS TO BE DUG AND REPLACED WITH MIN 300 THK CLASS 6A SELF-COMPACTING GRANULAR FILL WHERE WORKING IN GROUND WATER, OTHERWISE CLASS 1 GRANULAR FILL TO EARTHWORKS SPECIFICATION WMHP-TG-SRWG1-SP-GE-0601 GENERALLY. THIS IS TO BE OVERLAIN BY BY 300 THK CLASS 6A (OR CLASS 1 IF DRY) BEDDING TO CULVERT. SPRAY-APPLIED WATERPROOFING TO COMPLY WITH APPENDIX 20/1 (WMHP-TG-WOFTR-SP-SE-2000). WATERPROOFING TERMINATION DETAIL TO BE IN ACCORDANCE WITH SUPPLIERS INSTRUCTIONS. TERMINATION AT TAPED EDGE ASSUMED. FORMED "F3" MOULD FINISH TO BE WATER-JETTED IN ACCORDANCE WITH SHW 1708.4 TO ACHIEVE U4 FINISH PRIOR TO WATERPROOFING APPLICATION.



P04	26/01/2024	MH	REVISED FOR PLANNING DISCHARGE	DJF	JC
P03	02/06/2022	HD	MATTERS OUTSTANDING WMHP-TG-SRWG1-RG-DM-0010	BH	JC
P02	07/10/2021	WA	TAA COMMENTS ADDRESSED	KL	CMF
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **PARTIALLY SIGNED-OFF** **B**

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PROJECT: **WOKINGHAM MAJOR HIGHWAYS PROGRAMME
SPINE ROAD AND WESTERN GATEWAY PHASE 1**

TITLE: **CULVERT O - LUCKLEY BROOK
STRUCTURE REFERENCE: 3109
GENERAL ARRANGEMENT**

SCALE @ A1:	CHECKED:	APPROVED:
AS SHOWN	KL	CMF
PROJECT NO:	DESIGNED:	DRAWN:
C118047	VIA	TCH
DRAWING NO:	DATE:	REV:
WMHP-TG-SRWG1-DR-SE-0587	Aug 21	P04