



ADVICE NOTE

AN05:

SERVICE CROSSINGS

REVISION RECORD				
Version	Date	Description	Originator	Checked
	26.03.2012	DRAFT	AMD	--
1	24.05.2012	BOARD APPROVED		
2	08.10.2013	LOGO ADDED & AMENDED CONTACT DETAILS	LSQ	
3	17.01.2018	AMENDED ADDRESS AND CONTACT DETAILS	LSQ	
4	30.07.2018	AMENDMENTS	LSQ	DJS

The Board reserves the right to update or change this living document at any time without notice.

BYELAW 17 - FENCES, EXCAVATIONS, PIPES ETC

The Board's Byelaw No. 17 states:

No person shall without the previous consent of the Board –

- (a) place or affix or cause or permit to be placed or affixed any gas or water main or any pipe or appliance whatsoever or any electrical main or cable or wire in, under or over any watercourse or in, over or through any bank of any watercourse;*
- (b) cut, pare, damage or remove or cause or permit to be cut, pared, damaged or removed any turf forming part of any bank of any watercourse, or dig for or remove or cause or permit to be dug for or removed any stone, gravel, clay, earth, timber or other material whatsoever forming part of any bank of any watercourse or do or cause or permit to be done anything in, to or upon such bank or any land adjoining such bank of such a nature as to cause damage to or endanger the stability of the bank;*
- (c) make or cut or cause or permit to be made or cut any excavation or any tunnel or any drain, culvert or other passage for water in, into or out of any watercourse or in or through any bank of any watercourse;*
- (d) erect or construct or cause or permit to be erected or constructed any fence, post, pylon, wall, wharf, jetty, pier, quay, bridge, loading stage, piling, groyne, revetment or any other building or structure whatsoever in, over or across any watercourse or in or on any bank thereof;*
- (e) place or fix or cause or permit to be placed or fixed any engine or mechanical contrivance whatsoever in, under or over any watercourse or in, over or on any bank of any watercourse in such a manner or for such length of time as to cause damage to the watercourse or banks thereof or obstruct the flow of water in, into or out of such watercourse;*

Provided that this Byelaw shall not apply to any temporary work executed in an emergency but a person executing any work so expected shall, as soon as practicable, inform the Board in writing of the execution and of the circumstances in which it was executed and comply with any reasonable directions the Board may give with regard thereto.

SERVICE CROSSINGS

Subject to the Board's formal consent, service crossings under the bed of a watercourse may be acceptable if:

- the crossing is installed using directional drilling techniques (or similar)
- the crossing is perpendicular to the watercourse
- a minimum of 1.5 metre of cover is maintained between hard bed level and the uppermost part of the duct or protective cover. This depth should be maintained 9.0 metres each side of the watercourse
- marker posts indicating the type and depth of crossing along with emergency contact details are installed at the top edge of each bank. Marker posts must be visible at all stages of vegetation growth.

The Board's preference is for crossings to be constructed below the bed of the watercourse and installation by directional drilling; other techniques or arrangements will be considered where directional drilling is technically or environmentally unfeasible. Crossing underneath the bed of a watercourse is preferred as;

- It avoids any impediment to flows,
- It avoids the introduction of potential hazards which may endanger the Board's operatives and maintenance operations, and,
- It avoids disturbance to water voles and their habitat, which may require licensing by Natural England.

A typical cross section drawing showing the Board's requirements for under crossings is provided in Appendix A.

Applications not complying with the above criteria will only be considered in exceptional circumstances. Such applications must be supported by a full written justification statement.

Overhead crossings must:

- ensure all support structures are a minimum of 9.0 metres from the bank top
- provide a minimum 10 metres vertical clearance (further details in Appendices B and C)
- ensure the crossing is perpendicular to the watercourse
- consider the use of Bird Flight Deflectors for electrical crossings

Applications for in channel crossings and where the relevant height for overhead crossings **cannot** be met must ensure the watercourse beneath the crossing is lined with concrete or provided with a culvert with low level backfill. For hazardous installations the lining or backfill must extend a minimum of 6.0 metres upstream and downstream of the crossing. For less hazardous installations a minimum of 1.0 metre upstream and downstream may be appropriate. Applicants should note this requirement may result in the loss of wildlife habitat, which would require the provision of appropriate environmental mitigation. Please see the Board's advice note *AN03: Environmental Considerations* for further details

A typical cross section drawing showing the Boards requirements for overhead crossings is provided in Appendices B and C.

FURTHER GUIDANCE

The Board has the following documents available:

- Consent Application Form
- Trent Valley Internal Drainage Board's Byelaws
- Planning and Byelaw Policy

The Board has also produced a series of other advice notes including:

- AN01: Buildings, Structures, Planting and Fencing
- AN02: Culverts and Bridges
- AN03: Environmental Considerations
- AN04: Stability of Garden Fences Close to Board Maintained Watercourses
- AN06: Surface Water

The above documents are available from the Board's office during normal working hours or alternatively, can be downloaded electronically from www.wmc-idbs.org.uk/TVIDB/Services/byelaws-and-planning.aspx

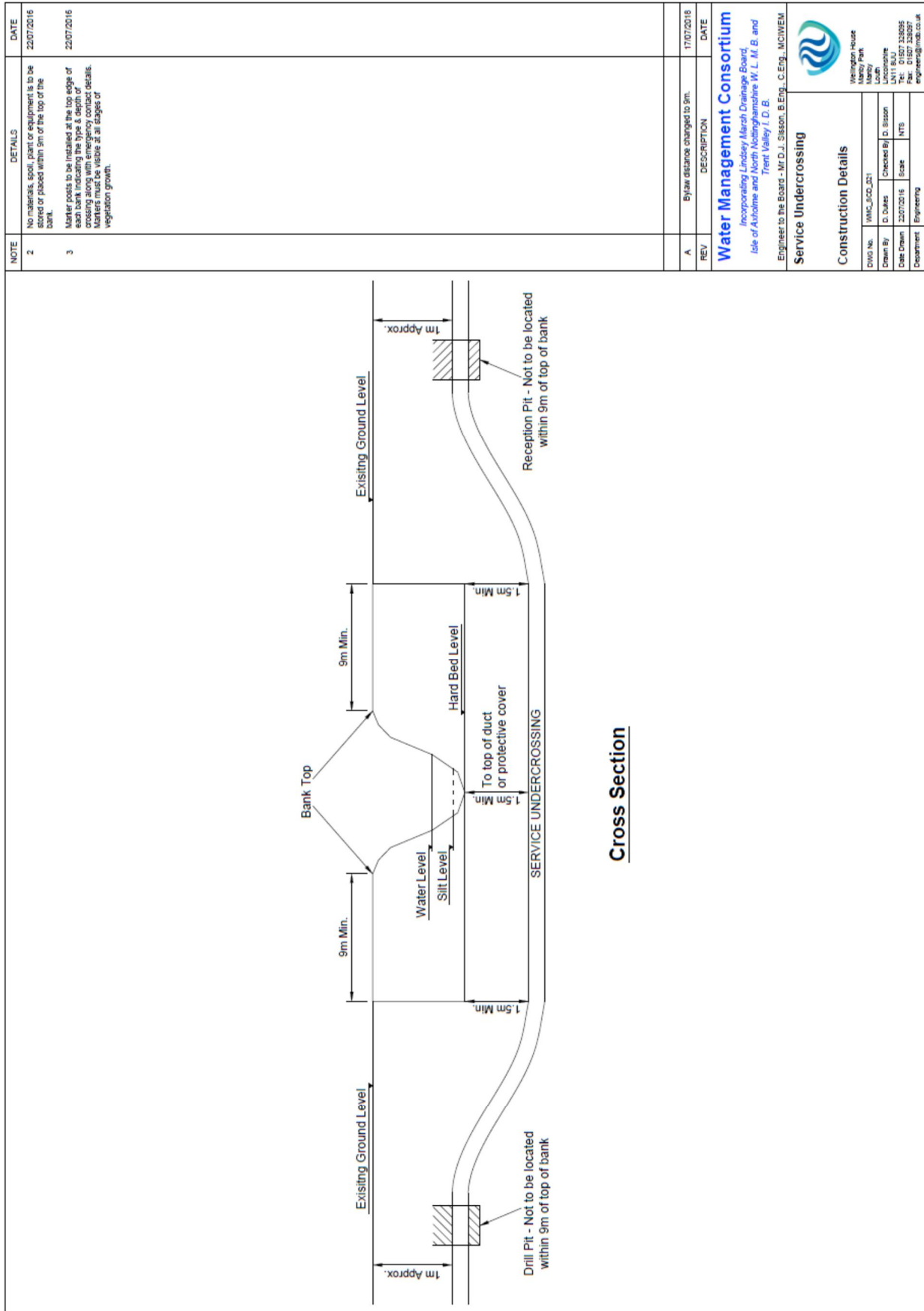
If you would like to discuss any of the information in this document or associated advice notes, please do not hesitate to contact the Newark Office using the details provided below.

**TRENT VALLEY INTERNAL DRAINAGE BOARD
BEACON HILL BUSINESS PARK,
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NOTTS. NG24 2TN**

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Email: planning@tvidb.co.uk

APPENDIX A – CROSS SECTION OF UNDERCROSSING



Cross Section

NOTE	DETAILS	DATE
2	No materials, spoil, plant or equipment is to be stored or placed within 5m of the top of the bank.	22/07/2016
3	Marker posts to be installed at the top edge of each bank indicating the type & depth of crossing along with emergency contact details. Markers must be visible at all stages of vegetation growth.	22/07/2016


REV	DESCRIPTION	DATE
A	Bylaw distance changed to 9m.	17/07/2016

Water Management Consortium
 Incorporating Lindsey March Drainage Board,
 Isle of Auldhame and North Nottinghamshire W. L. M. B. and
 Trent Valley I. D. B.
 Engineer to the Board - Mr D.J. Sisson, B.Eng., C.Eng., MCIWEM

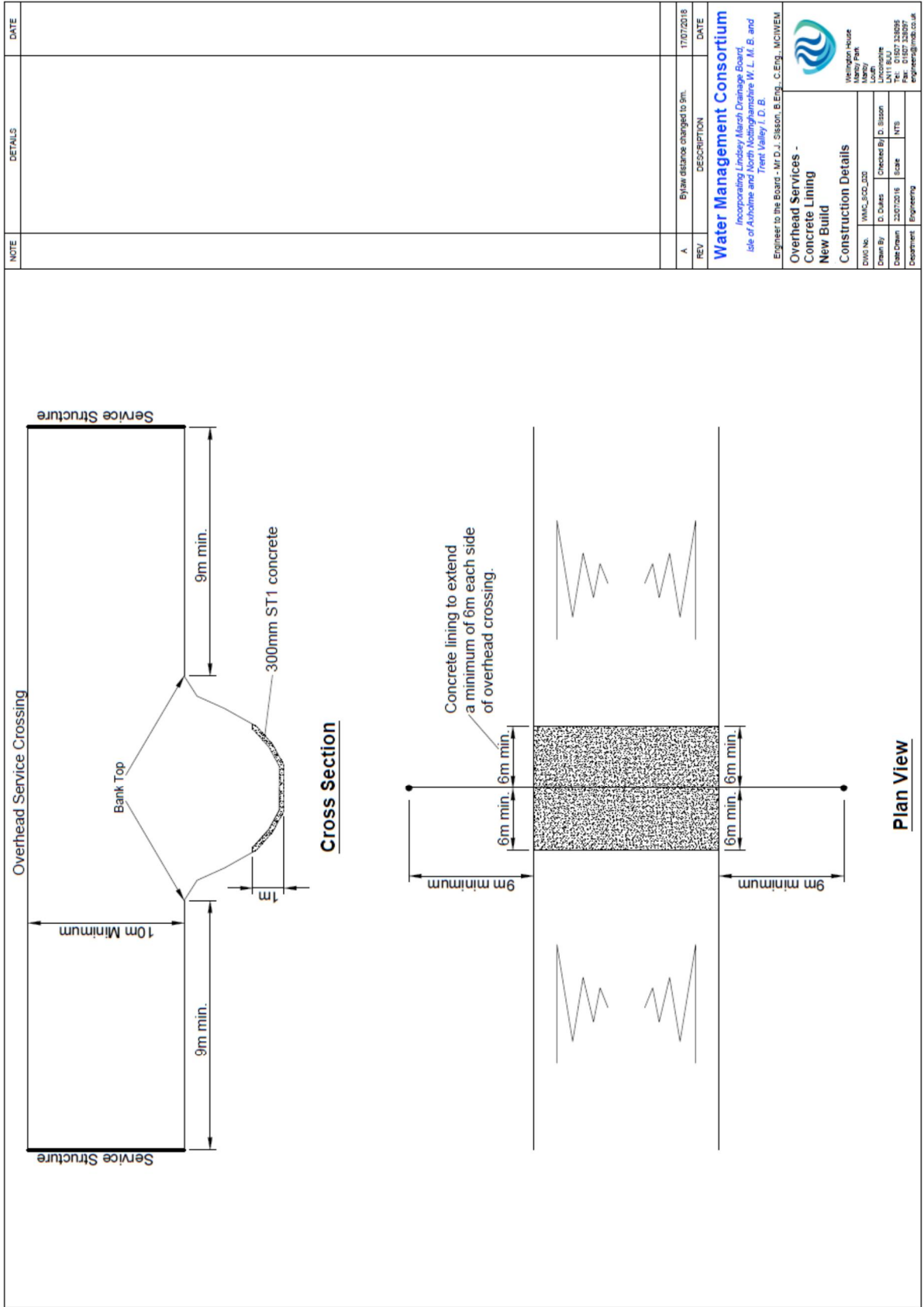
Service Undercrossing

Construction Details

DWG No.	WMCL_GCD_021
Drawn By	D. Oates
Checked By	D. Sisson
Scale	1:1
Date Drawn	22/07/2016
Scale	NTS
Department	Engineering

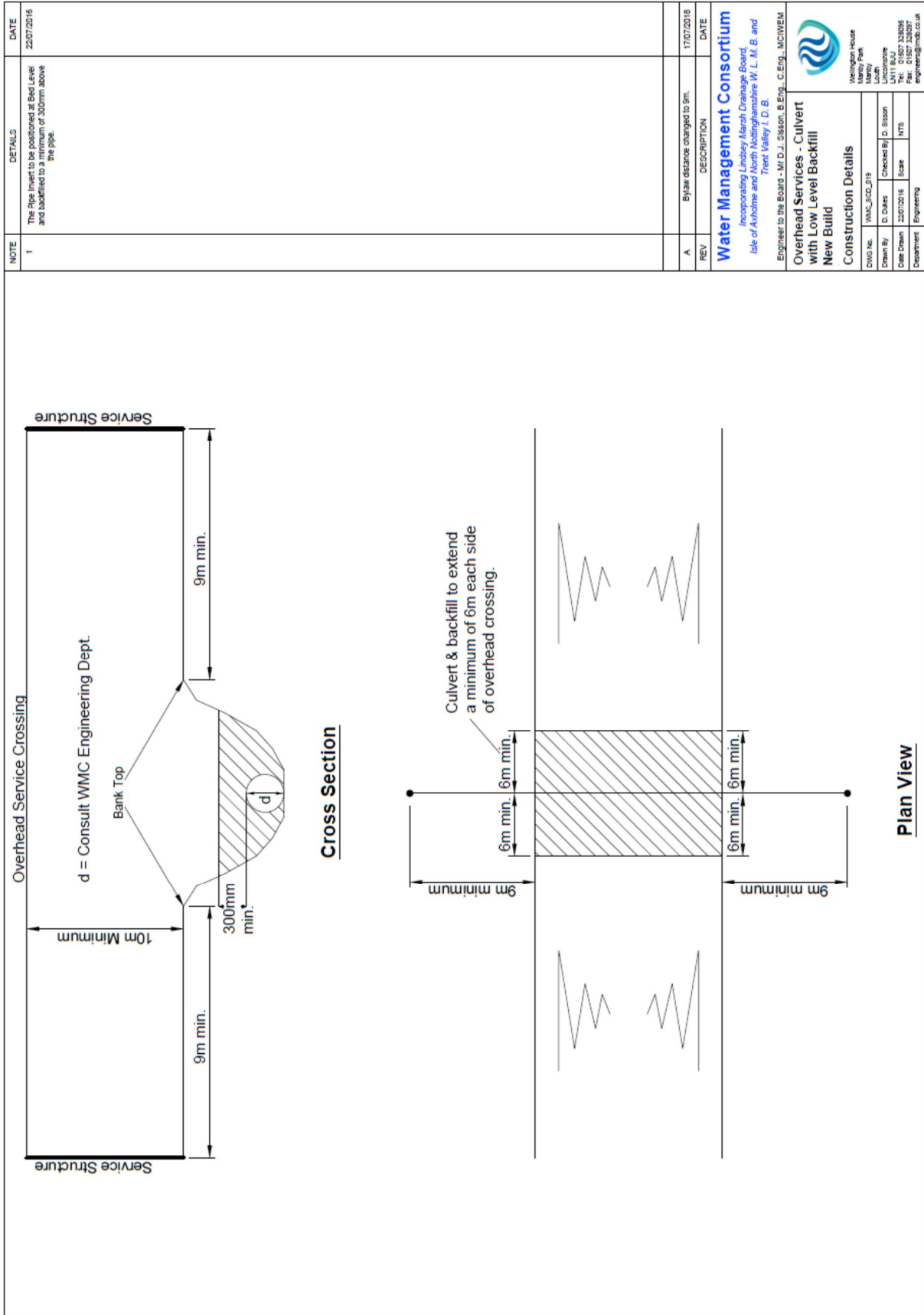

 Water Management Consortium
 Mansby Park
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 LN11 8JU
 Fax: 01507 338597
 engineers@wmc.co.uk

APPENDIX B – CROSS SECTION WITH CONCRETE LINING MITIGATION



NOTE	DETAILS	DATE
A	Bylaw distance changed to 9m.	17/07/2018
REV	DESCRIPTION	DATE
<p>Water Management Consortium Incorporating Lindsey Marsh Drainage Board, Isle of Aylsham and North Nottinghamshire W. L. M. B. and Trent Valley I. D. B.</p> <p>Engineer to the Board - Mr D.J. Sisson, B.Eng., C.Eng., MCIWEM</p> <p>Overhead Services - Concrete Lining New Build</p> <p>Construction Details</p> <p>DWG No: WMC_SCO_030 Drawn By: J. Dukes Date Drawn: 22/07/2016 Scale: NTS Department: Engineering</p>		
<p>Wellington House Mansel Park Louth Leicestershire LN11 8AU Tel: 01507 332898 Fax: 01507 332899 engineers@wmc.co.uk</p>		

APPENDIX C – CROSS SECTION WITH LOW LEVEL BACKFILL CULVERT MITIGATION





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