



Mann Williams  
Consulting Civil and  
Structural Engineers

# Drainage Strategy Report

## Mount Pleasant Farm

Job Number:	7860
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# Contents

- 1.0 Introduction
  - 1.1 Introduction
- 2.0 Foul Water Drainage
  - 2.1 Foul Drainage
- 3.0 Storm Water Drainage
  - 3.1 Storm Drainage
- Appendix A
- Appendix B

# Quality Assurance

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## 1.0 Introduction

### 1.1 Introduction

- 1.1.1 Mann Williams were asked by Nick Kirkham to prepare a foul and stormwater drainage design for the proposed farm redevelopment works development at Mount Pleasant Farm, Faulkland, Nr Radstock, BA3 5XH.
- 1.1.2 Mount Pleasant Farm is located on the A366 between Norton St Philip and Faulkland.
- 1.1.3 The proposed development is to convert the existing farm buildings, create a new walled garden together with an upgraded fold yard with studio buildings.
- 1.1.4 Mount pleasant farm sits above a valley to the north in which the Norton Brook flows in an easterly direction. With reference to the Wessex Water public sewer map enclosed in appendix A, there is a 150mm diameter public sewer that follows the save river valley also flowing in an easterly direction.
- 1.1.5 According to the British Geological Society maps, the general underlying geology in this area is noted as Forest Marble on the farm plateau, described as greenish grey silicate mudstone with cross-bedded limestone. Beneath this lies the Frome Clay Formation described as a blue/olive grey silicate mudstone with fine grained limestone units.
- 1.1.6 Trial pits were excavated on site which proved the above **geological conditions** to be **those that are** present on site, with the fringes of the farm plateau having weathered layers of limestone present in the clay matrix.
- 1.1.7 This report summarises the approach taken to the storm and foul water design strategy taken on the site.
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## 2.0 Foul Water Drainage

### 2.1 Foul Drainage

- 2.1.1 With reference to the Wessex Water sewerage map in appendix A, the existing farmhouse and its complex of buildings makes a connection to the public sewer at Wessex Water (WW) manhole reference 2601. This connection is to be maintained with a new sewer laid down to the locality of the WW manhole as the existing pipe was in poor condition. The existing connection into manhole 2601 will be maintained to ensure no works are required to the public sewer.
- 2.1.2 All foul sewers up to the connection point will remain in private ownership and maintained by the owners of Mount Pleasant Farm.
- 2.1.3 The levels across the site are such that gravity sewers can be utilised without the need for any pumping of effluent.

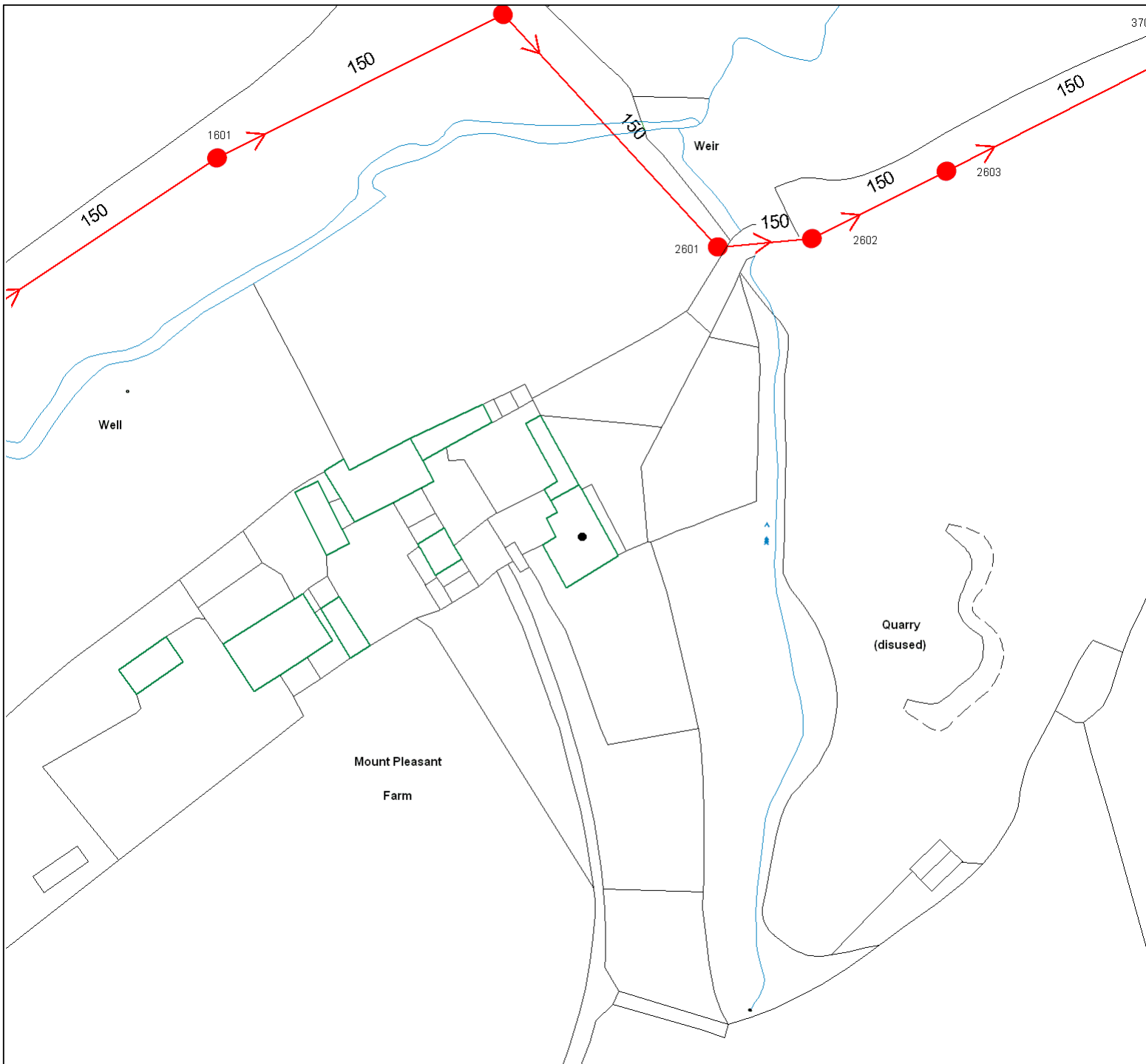
## 3.0 Storm Water Drainage

### 3.1 Storm Drainage

- 3.1.1 Two soakaway test were carried out on site in the locations for soakaways 3 & 4 as shown on the proposed drainage drawing enclosed in appendix B. The findings were as follows:
- Soakaway 3 – 1200 litre bowser emptied into hole; water drained away to ground at same rate as outflow from bowser and hole could not be adequately filled or timed.
  - Soakaway 4 – 1200 litre bowser emptied into hole; water drained away to ground at same rate as outflow from bowser and hole could not be adequately filled or timed.
- 3.1.2 Carrying out a formal BRE Digest 365 soakage calculation is therefore not applicable to the drainage characteristics of this site. Using the above results though, the approach being taken on site is to convey all storm water runoff from roofs and paved areas to the northern edge of the site where the weathered rock was found and to distribute the storm runoff flows to ground via the use of 4no soakaways distributed along the northern edge of the development.
- 3.1.3 This approach replicates the basic SUDS approach of naturally infiltrating storm flows to ground and into the natural below ground water routeing in the area helping to recharge the water table in the local area.
- 3.1.4 A slip trench will be excavated prior to each soakaway being constructed to ensure the ground remains suitable for an infiltration trench to be used.
- 3.1.5 All storm sewers on site will remain in private ownership and maintained by the owners of Mount Pleasant Farm.
- 3.1.6 Reference should be made to Mann Williams SuDS Maintenance Manual for guidance with respect to ongoing maintenance of the pipework, chambers and SuDS features constructed on the site.

## Appendix A

Wessex Water Sewerage Map



### Mount Pleasant Farm

WATER MAINS		Public	Private
Public		—————	- - - - -
Raw Water		.....	.....
Abandoned		.....	.....
Valve	X	Hydrant	●
		PRV	◀
		Meter	M
SEWERS		Public - Section 104 - Private	
Foul		—————	●
Combined		—————	●
Surface		—————	○
Abandoned sewers		* * * *	* * * *
OTHER WESSEX PIPES			
Rising Mains		—————	→
Effluent Disposal Main		.....	→
Overflow		—————	→
NON-WESSEX PIPES			
Private Rising Mains		.....	→
Culverted Water Course		—————	→
Highway Drain		.....	→

Information in this plan is provided for identification purposes only. No warranty as to accuracy is given or implied. The precise route of pipe work may not exactly match that shown. Wessex Water does not accept liability for inaccuracies.

Sewers and lateral drains adopted by Wessex Water under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011 are to be plotted over time and may not yet be shown.

In carrying out any works, you accept liability for the cost of your repairs to Wessex Water apparatus damaged as a result of your works. You are advised to commence excavations using hand tools only. Mechanical digging equipment should not be used until pipe work has been precisely located.

If you are considering any form of building works and pipe work is shown within the boundary of your property or a property to be purchased (or very close by) a surveyor should plot its exact position prior to commencing works or purchase. Building over or near Wessex Water's apparatus is not normally permitted.

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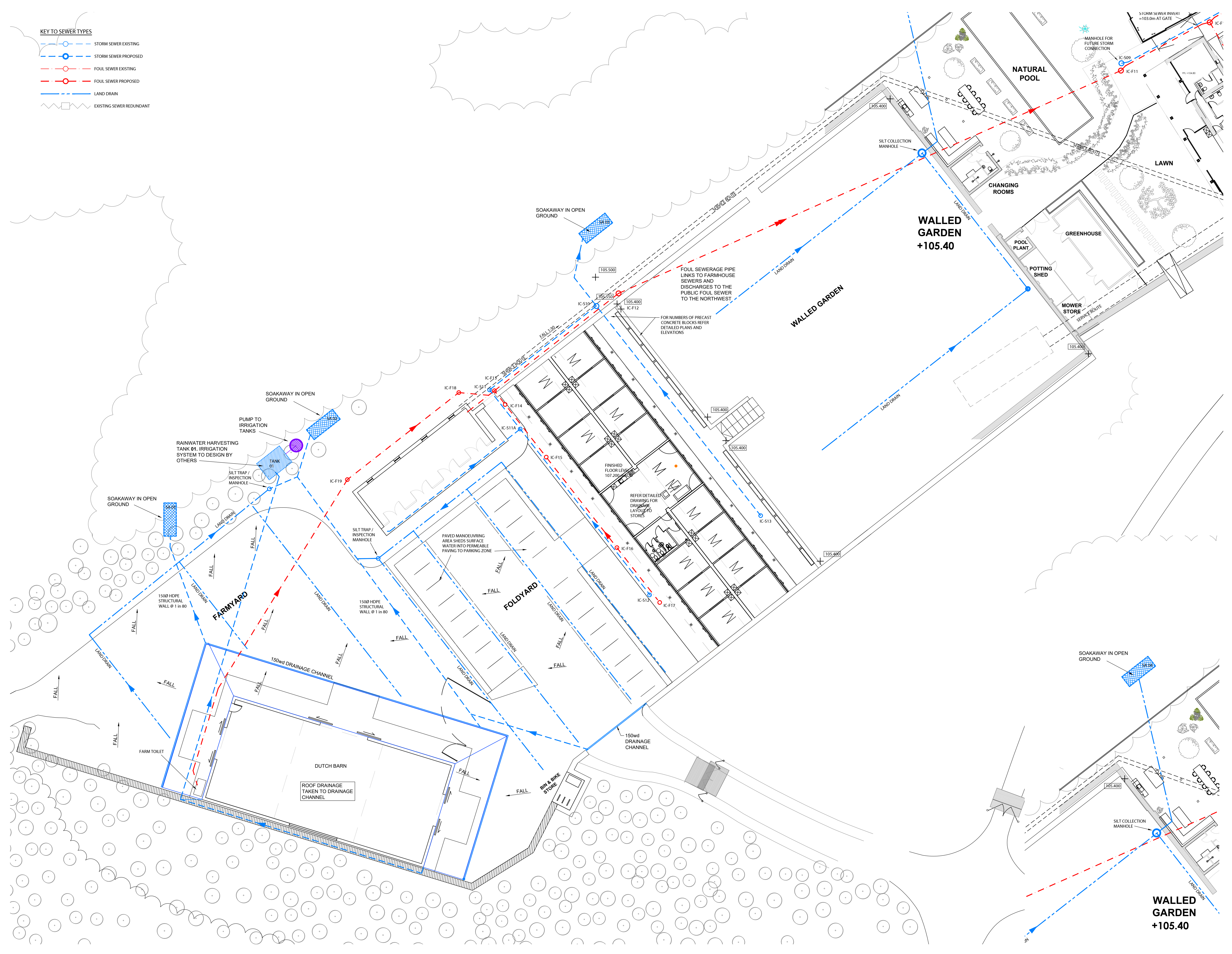
## Appendix B

### Proposed Drainage Plan

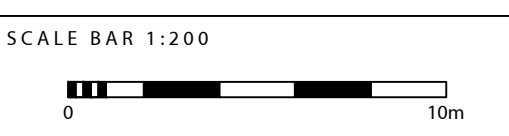


**KEY TO SEWER TYPES**

	STORM SEWER EXISTING
	STORM SEWER PROPOSED
	FOUL SEWER EXISTING
	FOUL SEWER PROPOSED
	LAND DRAIN
	EXISTING SEWER REDUNDANT



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REV	DESCRIPTION	BY	DATE
P1	PRELIMINARY ISSUE	PB	02.12.20
P2	LAND DRAINS UPDATED	PB	04.12.20
P3	WALLED GARDEN LAND DRAINS UPDATED	PB	13.12.23
P4	OUTFALLS UPDATED	PB	19.12.23

PROJECT  
**MOUNT PLEASANT FARM**  
**NORTON ST PHILIP**

TITLE  
**OUTLINE DRAINAGE LAYOUT**  
**WEST BARN**

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PROJECT	DRAWING	REV
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**PRELIMINARY**