Engreen Environmental Consultants Ltd.

Report Title:	**Site Drawings**
Client:	**Woolley Bros. (Wholesale Meats) Limited**
Issue Date:	**October 2020**
Report Reference:	**P179-R06-F1**

Submitted to:

Environment Agency

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Report Issue History		
Report Number	Date	Comments
P179-R06-D1	September 2020	Draft for Client Review
P179-R06-F1	19.10.2020	Final for EA Issue

1 Introduction

1.1 Introduction

This report contains relevant site drawings for the Permit application for Woolley Bros. It should be read in conjunction with all other supporting information reports submitted with the application.

Table 1.1 below outlines the plans provided:

Reference	Drawing Content
Figure 1	Installation Boundary (1:5000)
Figure 2	Proposed Drainage Layout (1:250)
Figure 3	Sensitive Receptor Plan

Figure 1: Installation Boundary

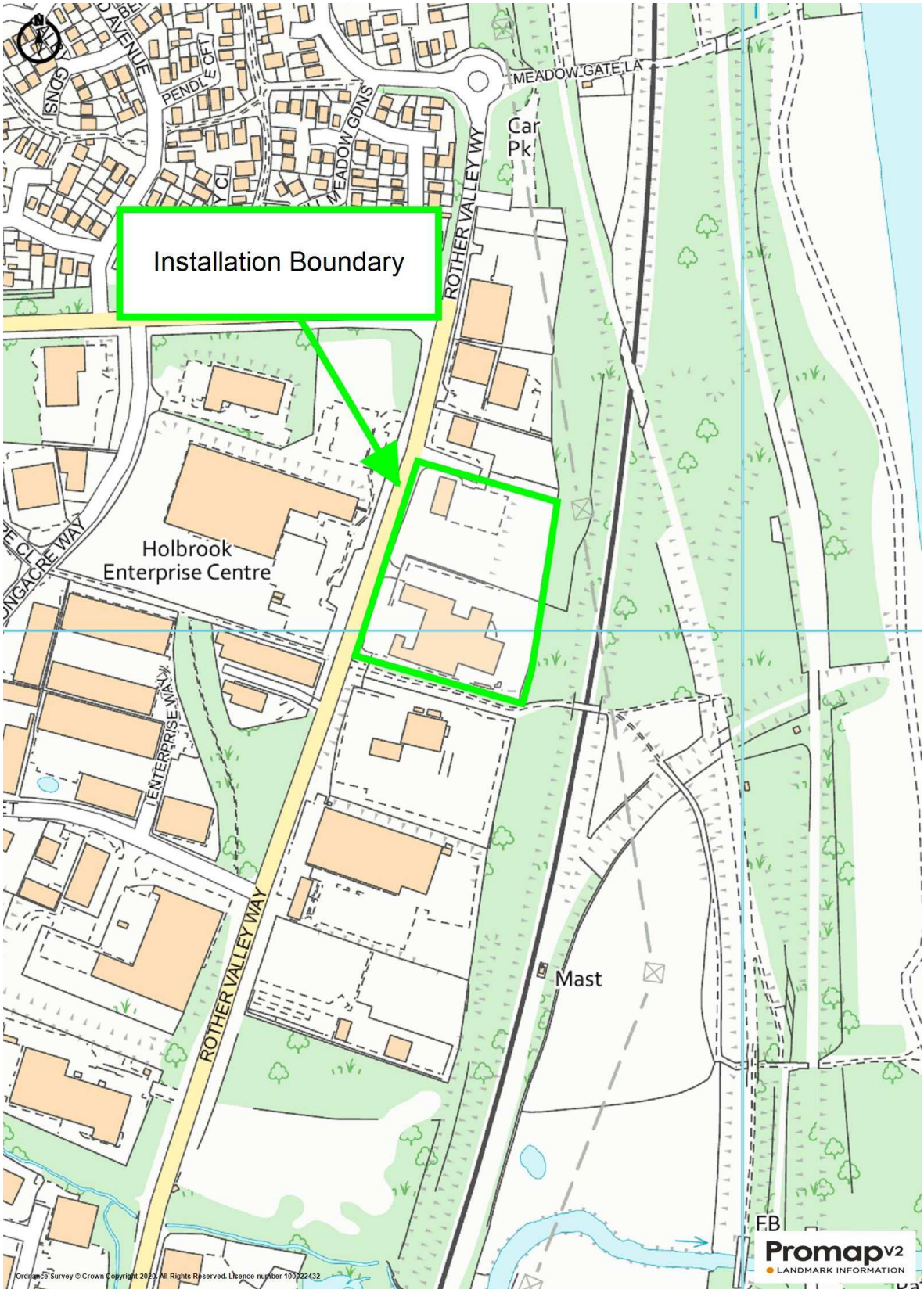

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Figure 2 - Proposed Drainage Layout

Design Notes

For all runoff criteria and projected flows, refer to CDS Drainage Assessment Ref 2019.8317.

This drawing should be read in conjunction with all other CDS Drawings ref 2019.8317.

Storm Drainage

The existing brownfield & greenfield runoff from the development running to the SE combined pipe is calculated as 26.5 l/s.
Whilst a 30% reduction in flow would be our primary objective to comply with the NPPF, the limiting factor in this case is the low capacity of the existing 150mm combined outfall. We estimate the capacity of this outfall as circa 18 l/s, given the information available. It appears this outfall pipe is currently under capacity for the existing flows and probably pressurises during storm events. Following discussions with YW, this capacity was agreed as being lower than this figure.

Given the above restriction, the storm flow for the main new site development, including the yards and roof of the new building will be limited to 10.0 l/s for all storm events up to and including the 100 year event with an allowance for 40% climate change. This will give a significant reduction over the existing situation and ease the capacity issues on this pipe. As above, a vortex flow control device will be used to restrict the forward flow.The flow will be significantly less than the typical 30% reduction as required by the NPPF.

The storm attenuation systems will be sized to accommodate balanced storm water for the 100 year storm event and make an allowance for 40% climate change. A limited amount of surface ponding (approx 75mm deep) may be evident in th elower yard in long duration exceedence events. Kerbs are set such that NO water will overspill for the design events.

All drainage systems within the site will be separate private storm or foul systems until their point of connection to the existing private combined system.

The storm drainage collection system within the site is designed for up to and including the 30 year design storm with no surface flooding, in accordance with Building regulations Part H.

An assessment of the overland flow routes for exceedence or blockage events can be seen on CDS drawing 8317 56.

The Geotechnical Engineer has completed a Phase 2 intrusive ground investigation for the project. They have confirmed the sub strata as UNSUITABLE for storm water percolation. As such, SUDs Soakaways are deemed non-feasible in the local area.

Existing connection points to the receiving sewers will remain and be re-used. All drainage works will be private and a re-arrangement of private drainage within the developer's ownership. NO new connections are to be made to the existing sewer network.

Water quality and the level of hydrocarbon contamination risk will be improved significantly by the introduction of the new infrastructure.

New connections to the private drainage network within the site should be made under 'indirect' Section 106 agreement(s) with Yorkshire water. The lead contractor is responsible for these applications.

New petrol interceptors will be provided, treating hard-standing areas within the new development. These are commensurate to the size of each catchment. Any new petrol interceptors will have audible hydrocarbon alarms on a switchboard in a location to be decided by the Client.

Reference to Individual Planning Condition 3

A Drainage Management Plan document is provided by CDS as part of the Planning Discharge package. This details the maintenance regime for the lifetime of the development.

A discussion of SUDs systems is provided within the Drainage Assessment. Whilst percolation systems are not viable, water quality treatment is achieved by the introduction of the Triton Storage system. Proof of the non-viability of SUDs percolation systems is provided and an assessment of the water quality treatment opportunities are discussed within the report.

By the implementation of the Triton system, we have introduced 3 trains of water quality treatment. Petrol interceptors will also be provided for specific hydrocarbon and silt removal.

Runoff rates will be reduced significantly post development.

Foul Drainage

The foul drainage from the development will collect in a positive gravity system and outfall to the existing combined sewer to the SE of the site.

Any liquids from the factory processes will be contained in separate sealed systems and held at source, to be taken away by professional specialists.

The foul flow from the new development to the sewer system will only consist of typical WC, wash hand basins and small kitchen flows etc. There are no commercial kitchens within the new development and fat traps are not envisaged. If these plans change, then above ground fat/grease traps should be added at a later date.

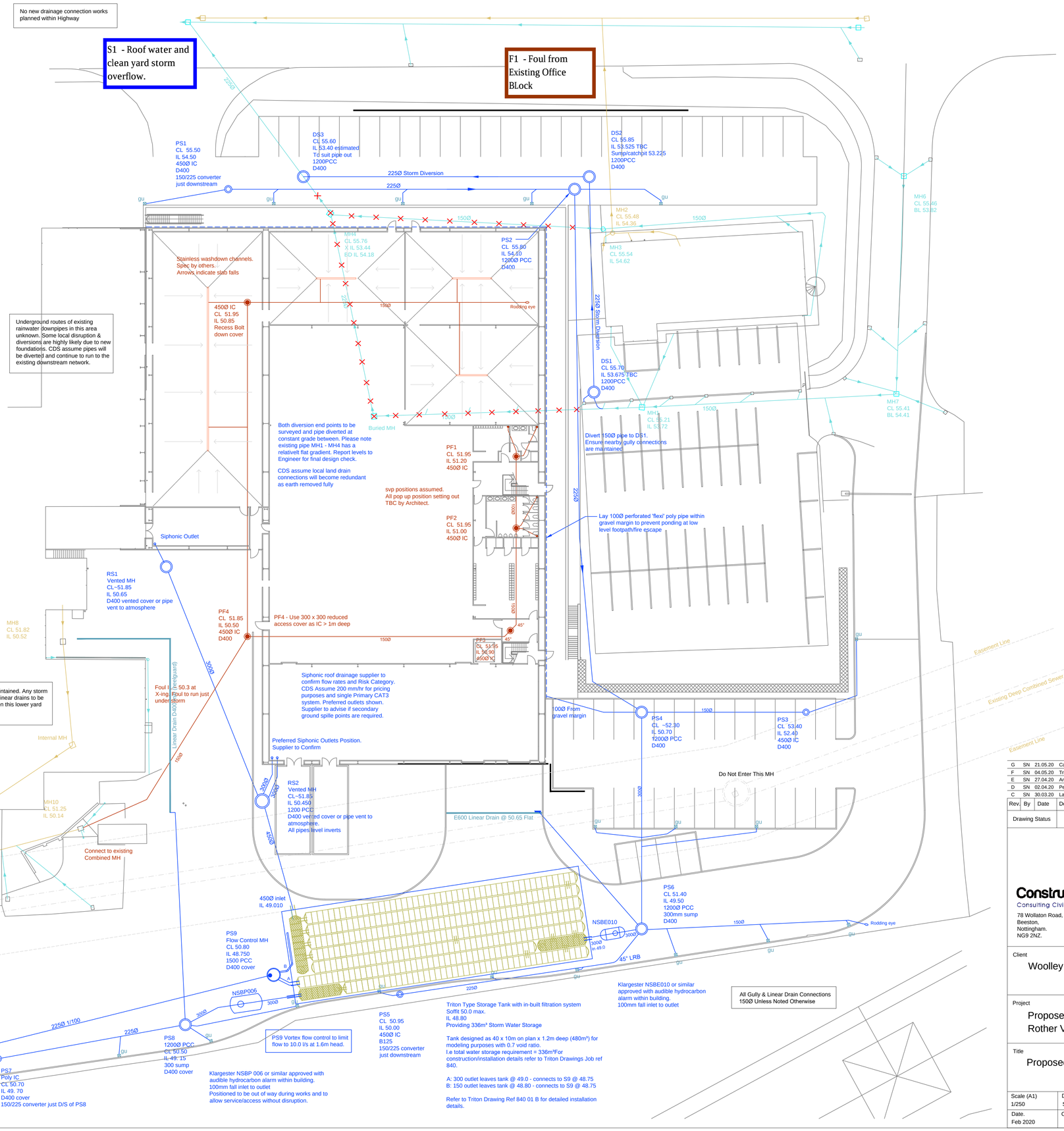
The new foul flow to the public sewer is to be approved under an 'indirect' Section 106 application to YW. It is the responsibility of the lead contractor to make this application.

The anticipated foul flow has been approved by YW.

All drainage works are understood to be private up until the points of connection.

All flow rates, pipe sizes, attenuation volumes and outfall points are subject to LLFA approval of the drainage strategy. Any drainage works completed prior to full Planning Condition discharge are done completely at the Client's risk.

Yorkshire Water have approved the flow of all foul and Storm Water at 10.0 l/s to the point shown in writing 01.04.20



Rev.	By	Date	Details	Chkd
G	SN	21.05.20	Car Parking & Jetwash Areas Amended	
F	SN	04.05.20	Triton Tank Arrangement Updated	
E	SN	27.04.20	Amended to SP01F	
D	SN	02.04.20	Peak Storm Flow Rate Amended	
C	SN	30.03.20	Layout Updated to Highlane SP01E	

Drawing Status: LPA Approval

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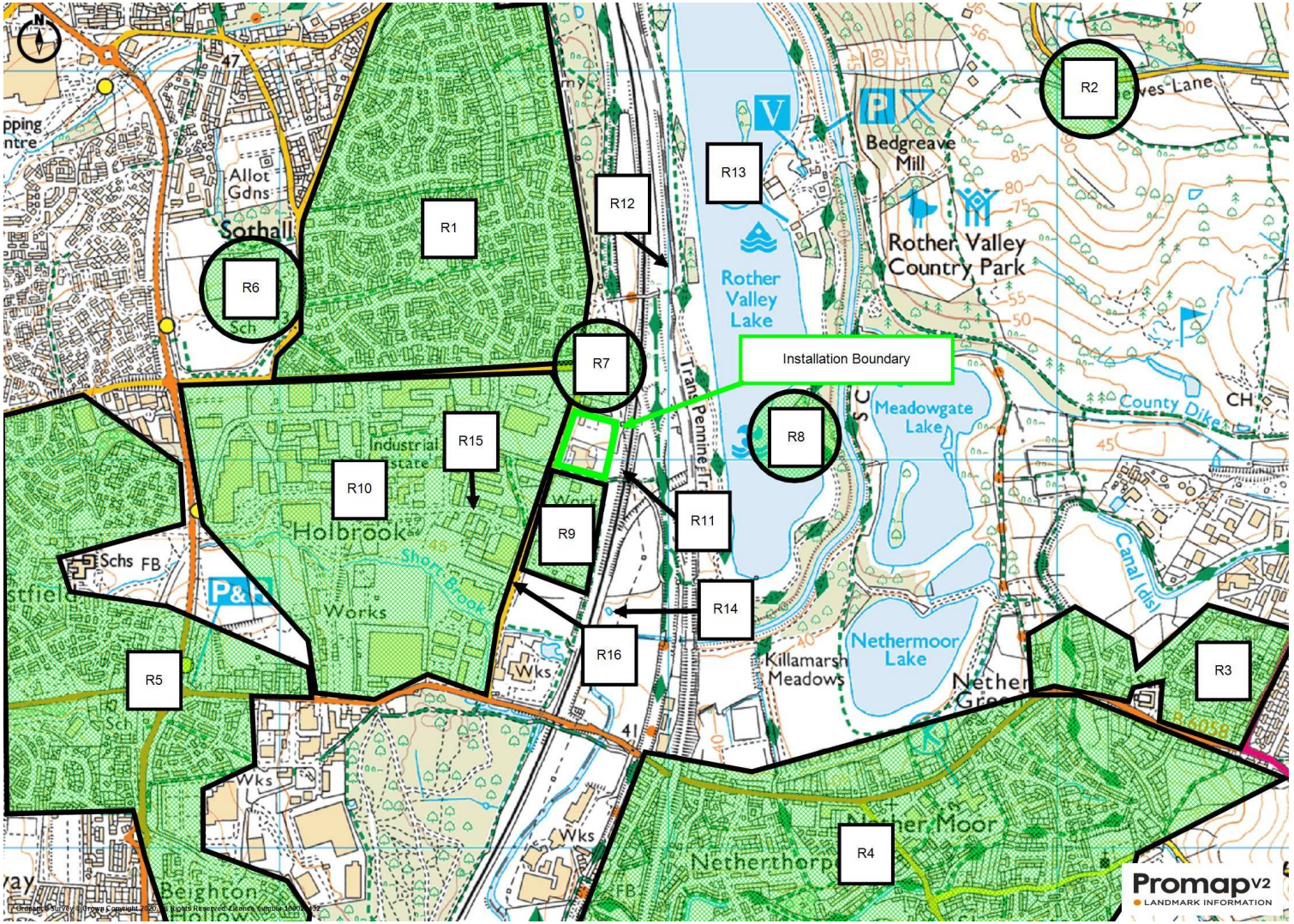
Client: Woolley Bros. Wholesale Meats Ltd.

Project: Proposed Extension Works. Rother Valley Way

Title: Proposed Drainage Layout

Scale (A1)	Drawn by.	Job. No.	Drg. No.
1/250	SN	2019 8317	54G
Date. Feb 2020	Checked by.		

Figure 3: Sensitive Receptors



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