

Our ref: 7464SWMP

Surface Water Maintenance Plan
for
5 White House Mews,
at
Worthenbury, Wrexham

For : Mr Antony Priest Jones
5 White House Mews
Worthenbury
Wrexham
LL13 0AE

14 Aug 2020

Surface Water Management Plan for 5 White House Mews, Worthenbury

Document Verification

Project Title	5 White House Mews, Worthenbury, Wrexham
Project Number	7464
Document Title	Surface Water Management Plan
Document Number	7464 SWMP
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Prepared by



A Jones

*Senior Infrastructure Engineer***Document Revision**

Report Reference	Date	Description	Prepared	Checked and Approved
7464SMP	14/08/2020	Surface Water Management Plan	A Jones	A Jones

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Surface Water Management Plan for 5 White House Mews, Worthenbury

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Surface Water Management Plan for 5 White House Mews, Worthenbury

1.0 Introduction

White House Mews is a small residential estate in Worthenbury, Wrexham constructed in 2004 / 2005 by Gordon Mytton Developments. The surface water drainage for the estate discharges into the watercourse. The flow rate is restricted with a Hydrobrake flow control device fitted to the last manhole before flows are passed forward to the watercourse. Attenuation is provided within 4 No. 1200mm diameter storage pipes which are located in open space to the side of No.5 White House Mews.

The owners of 5 White House Mews are proposing an extension to the side of their property. This will require building over the existing 1200 Diameter storage pipes and ensuring a structural solution is proposed that does not compromise the structural integrity of the existing pipes.

Coopers (Chester) Ltd have been appointed by Mr Antony Priest Jones to prepare a Surface Water Management Plan to demonstrate that the proposed extension will not impact on the future maintenance of the storage pipes and hydrobrake manhole.

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2.0 Operation and Maintenance

Any drainage system requires regular inspection and maintenance to ensure that they continue to operate as designed and are fully functional at all times. The existing White House Mews attenuated network consists of a flow control device, buried pipes, manholes, highway gullies and associated upstream pipework and inspection chambers.

The components require regular inspection/clearing to prevent blockages due to accumulation of silt and debris. In general, it is recommended that they are initially inspected and cleared by a suitably trained person every 6 month for at least the first 2 years of operation and then establish a long-term regular inspection/clearing regime appropriate for the site.

Inspection/clearing should also be carried out after every major storm event and to the manufacturer's recommendations.

The upstream pipework and inspection chambers will generally be taking clean roof run-off so maintenance requirements should be minimal and will require occasional lifting of covers to ensure no silt build ups within the chambers.

White House Mews is an adopted highway and the gullies will be maintained by Wrexham Highways Department. The gullies allow water to pass through the trap whilst retaining any silt and debris. As the gullies prevent silt from entering the main line drainage it is necessary to empty them occasionally, which will prevent any silt / debris being passed forward to the private attenuation system.

We understand the original developer (Gordon Mytton Developments) set up a management company to maintain the drainage network in perpetuity. Normally, the residents will fund this with annual payments.

The proposed extension will not impact on the current or future maintenance activities. The inspection chambers upstream will still be located within open ground and fully accessible. The downstream manholes will now be located within the rear garden of 5 White House Mews, but the boundary is a gravel board with panel fencing which can be removed for access to undertake maintenance. See Photo 3.

The large diameter storage pipes and associated manholes are constructed to a standard that meets the design life of the dwellings. However; Mr Priest Jones is aware should a defect ever occur requiring intrusive works to the pipes / flow control manhole, then this will be undertaken on his land.

Mr Priest Jones is also aware of the constraints the existing pipes will have on the proposed extension construction works. It is essential that any works do not compromise the structural integrity of the existing pipes. Any foundations will need to be taken to a sufficient depth that does not impose any loading on the pipes. We understand the structural proposal is to bridge the pipe with lintels above and below or to build a cantilevered approach. The Structural Engineer will be responsible for undertaking a design ensuring the pipes are not impact by the construction activities or future maintenance activities.

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3.0 Photographs



Photo 1 - Access to storage pipes. 5 White House mews to the right

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Photo 2 - View looking south over pipes. 5 White House Mews to the right with new fence line shown extended

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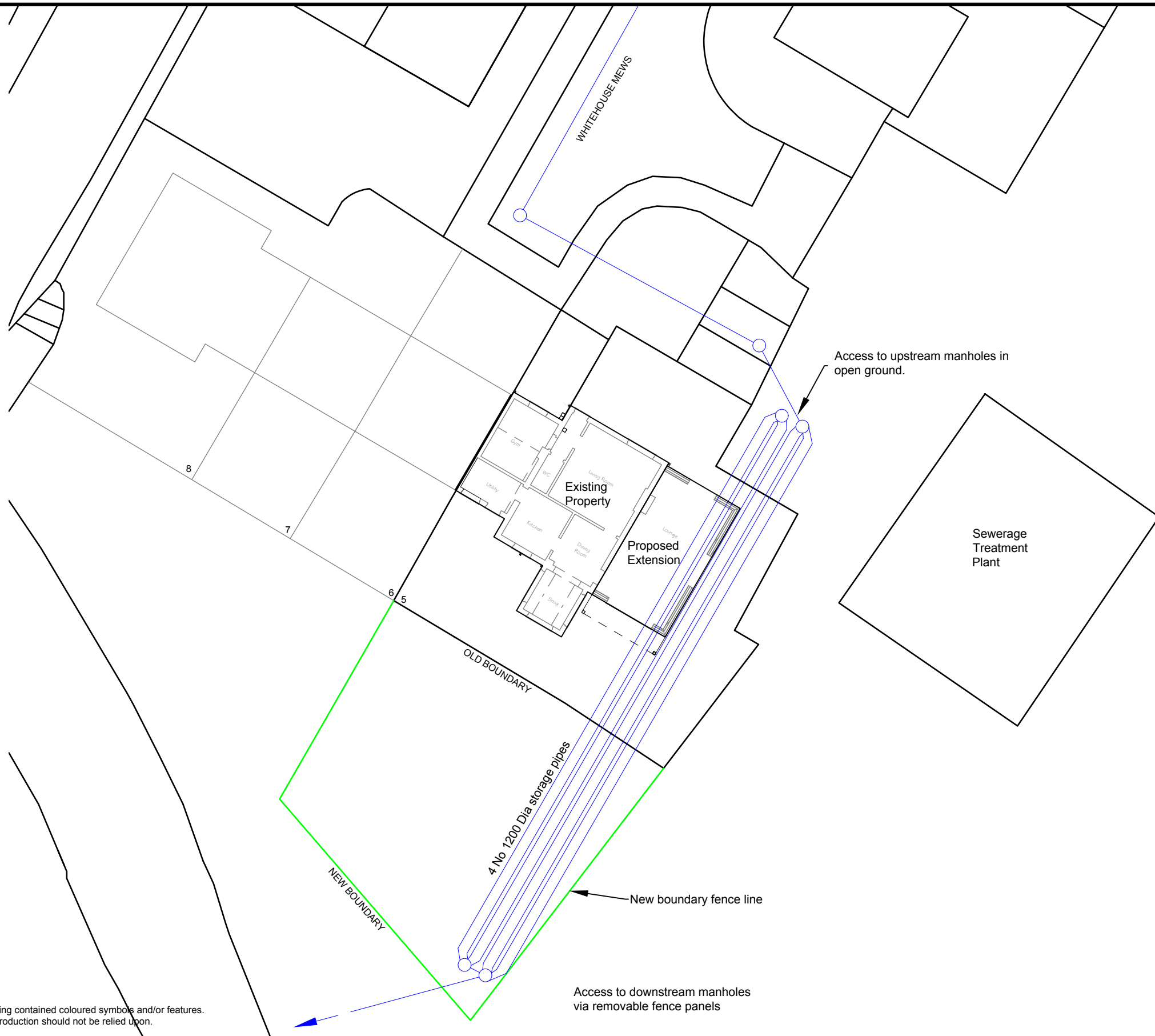


Photo 3 – Downstream manhole covers located within rear garden of 5 White House Mews. Removable fence panels providing access. Hydrobrake flow control chamber on left.

Surface Water Management Plan for 5 White House Mews, Worthenbury

4.0 Reference Drawings

7464 01 Proposed Layout



DO NOT SCALE

SCALE	1 : 500 @ A3						Mr Antony Priest Jones 5 White House Mews Worthenbury, Wrexham Proposed Layout	 coopers chartered consulting engineers Tel: 01244 684910 Email: admin@coopers.co.uk Web: http://coopers.co.uk Park House Sandpiper Court Chester Business Park Chester CH4 9QU	Drawing No. 7464 / 01	Rev. -
DATE	13.08.20									
DRAWN	PW									
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