HAWLEY WHARF
(CAMDEN LOCK VILLAGE)
MASTERPLAN

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Audit Sheet

Rev.	Description	Prepared and checked by	Reviewed by	Date
T1	Tender Issue	CG	MMW	09.12.14

Contents

1.0 INTRODUCTION

This report has been prepared by Hoare Lea in conjunction with Thames Water on behalf of Stanley Sidings Ltd. It is intended to discharge condition 56 of an application for the redevelopment of an area of land, located within the administrative boundary of London Borough of Camden (LBC), north London.

This report is to evaluate the results of the flow and pressure test undertaken by Thames Water to ascertain the availability of capacity within the existing local mains network and its ability to supply the proposed new domestic peak demand profile 170 residential flats, 42 commercial units (A1, A3, A5) plus employment areas, restaurant and cinema.

The investigation will also determine whether or not any enhancement to the existing network is necessary to supply your requirement, while maintaining existing flows and pressures to our present customers.

Should the development proposal change, this report would become invalid and a further test would be required. If other developments are completed within the Water Pressure Zone before your development and depending on their size and location, this may also necessitate the test to be retaken.

Summary of the wording of condition 56.

No development (save for the demolition of 9–11 Hawley Road and any works to facilitate or in consequence of the delivery of the school on Site B, including the bricking up or knocking through of railway arches and any temporary works and arrangements) shall commence until impact studies of the existing water supply infrastructure have been submitted to, and approved in writing by, the local planning authority in consultation with Thames Water. The studies should determine the magnitude of any new additional capacity required in the system and a suitable connection point.

The above condition has been met and permission granted by Thames Water.

2.0 RESPONSES TO PLANNING CONDITIONS:

2.1 Existing Work

The local mains network is hydraulically dominated by the Maiden Lane Reservoir located to the north-west. Demand to the zone is supplied by the Tunnel Water Ring Main from the Barrow Hill and Stoke Newington pumping shafts.

The principle supply in the rea is from the 16" trunk main in Kentish Town Road through a District Metered 250mm HPPE inlet. Water gravity feeds south towards the site.

2.2 Existing Demand Type

The local demand type is predominately residential and residential amenities, which have an overall peak morning water demand profile from the distribution mains network.

2.3 Domestic Demand

The redevelopment of the site consists of 170 residential flats, 42 commercial units (A1, A3, A5) plus employment areas, restaurant and cinema.

Based on empirical and historical data for this type of use, site wide maximum daily consumption estimated at 129,192 litres. With 114,421 litres storage proposed across the site, this equates to a residential peak flow of 2.2 l/s and a commercial peak flow of 4.2 l/s.

2.4 Test Location

It was essential to select a suitable washout to induce your flow requirements on our existing network. The following three criteria have determined the location of this washout:

a) Must be located on the main proposed to supply your domestic demand;

b) Must be closest to the point of entry of your connection; and

c) Located in such a manner that when the calibrated flow gauge is operated to induce the required flow rates, the discharged water will not cause flooding of existing properties.

The washout selected was on the 125mm diameter main in Leybourne Road, London NW1 8RR. Please refer to appendix for plan of the test location.

3.0 PRESSURE LOGGER LOCATIONS

Pressure Logger locations have been selected to comprehensively monitor the impact of the morning domestic peak demand profile on the existing mains network. Please refer to appendix for pressure logger location plans.

- Logger 1. 125mm Main 1A, Hawley Road, London, NW1 8RP
- Logger 2. 125mm Main 1-25, Leybourne St, London, NW1 8BX
- Logger 3. 160mm Main 29, Chalk Farm Road, London, NW1 8AJ
- Logger 4. 152mm Main 36, Harmood St, London, NW1 8DP
- Logger 5. 180mm Main 84, Castlehaven Rd, London, NW1 8PL

See Appendix for the location of the site, test and pressure loggers.

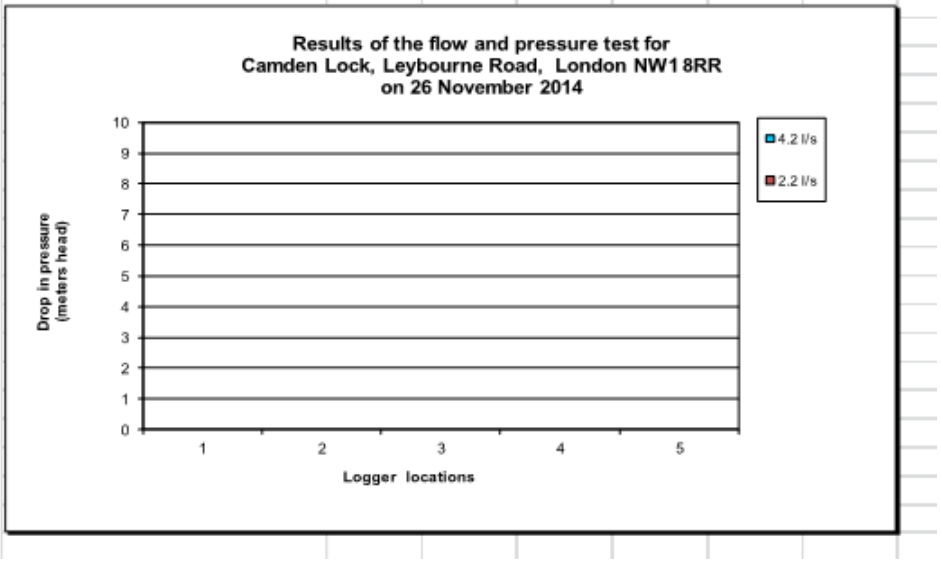
4.0 INDUCED FLOWS

For the domestic demand, flow rates of 4.2 l/s and 2.2 l/s were induced for 3 minute periods. The flow rate was induced during the weekday peak morning demand period, Monday to Friday 07:00 - 08:30 inclusive. The pressure loggers monitoring the investigation will show a significant drop in pressure, if the network has insufficient spare capacity to supply the new peak demand.

5.0 INVESTIGATION RESULTS

The investigation was undertaken on 26 November 2014. All five pressure loggers provided the field data for the duration of the investigation. The drops in pressure recorded during the test are represented in the table and graph below.

Flow rates	4.2 l/s	2.2 l/s
Logger location 1	<0.1	<0.1
Logger location 2	<0.1	<0.1
Logger location 3	<0.1	<0.1
Logger location 4	<0.1	<0.1
Logger location 5	<0.1	<0.1



These are within acceptable levels and show that the mains network has sufficient capacity to supply the peak residential and commercial water demands.

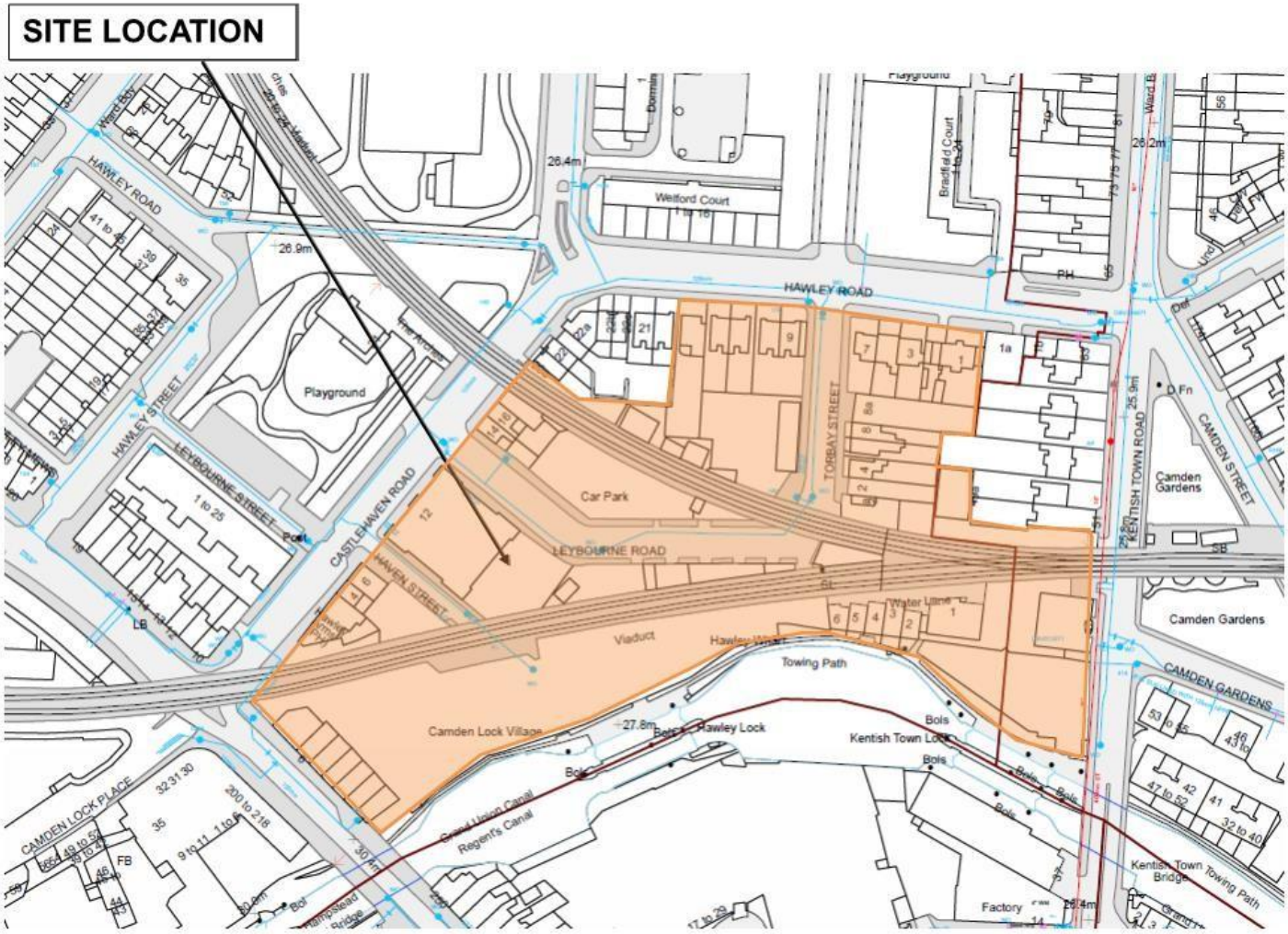
The result of the seven day pressure logger showed the minimum pressure available at the site was 32.44 meters head, (3.244 Bar). A temporary operational incident reduced pressures on 27 and 28 November.

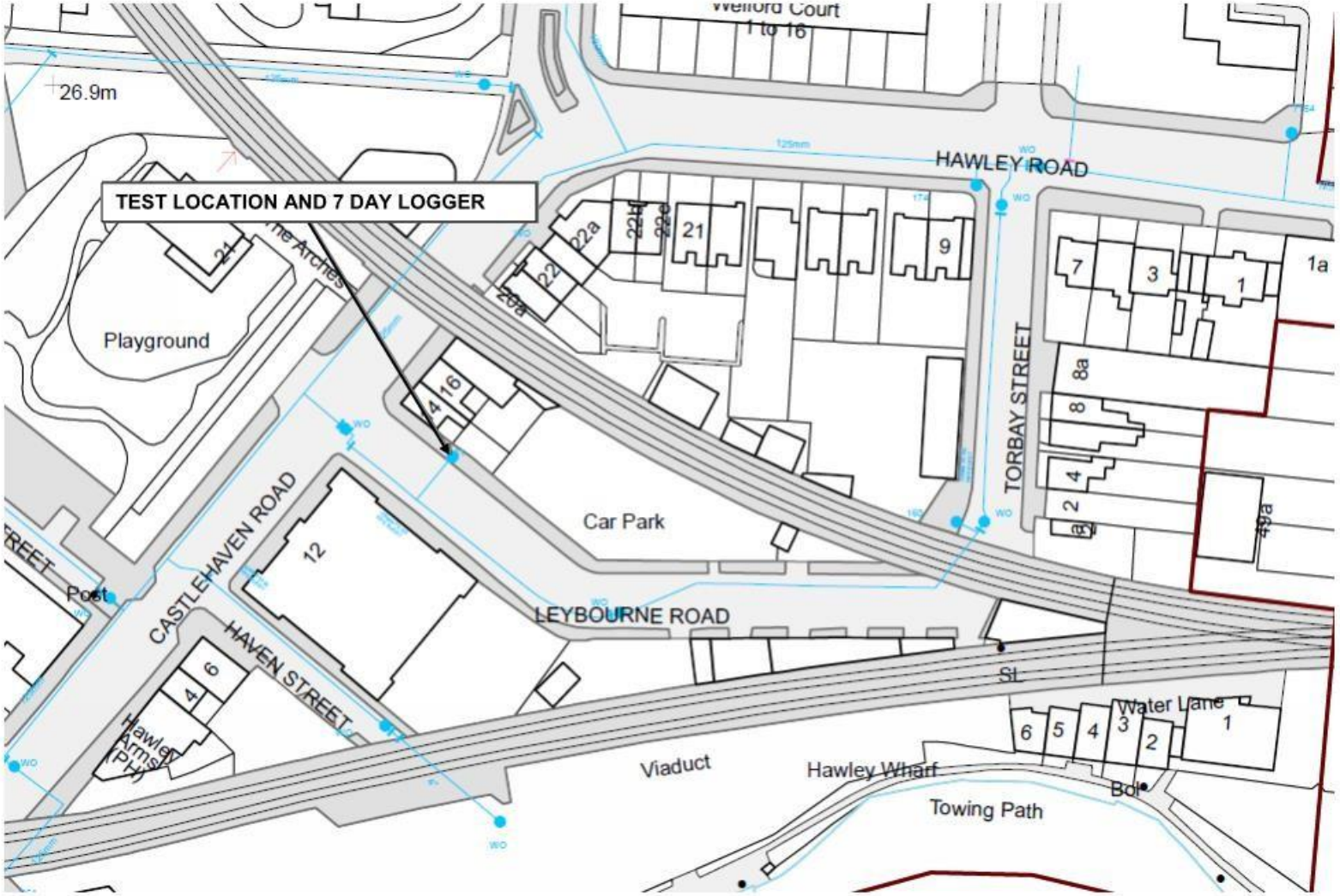
Please note that irrespective of the pressure which currently exists within the local mains network, Thames Water's minimum level of service is 10 metres head of pressure at the boundary stop valve.

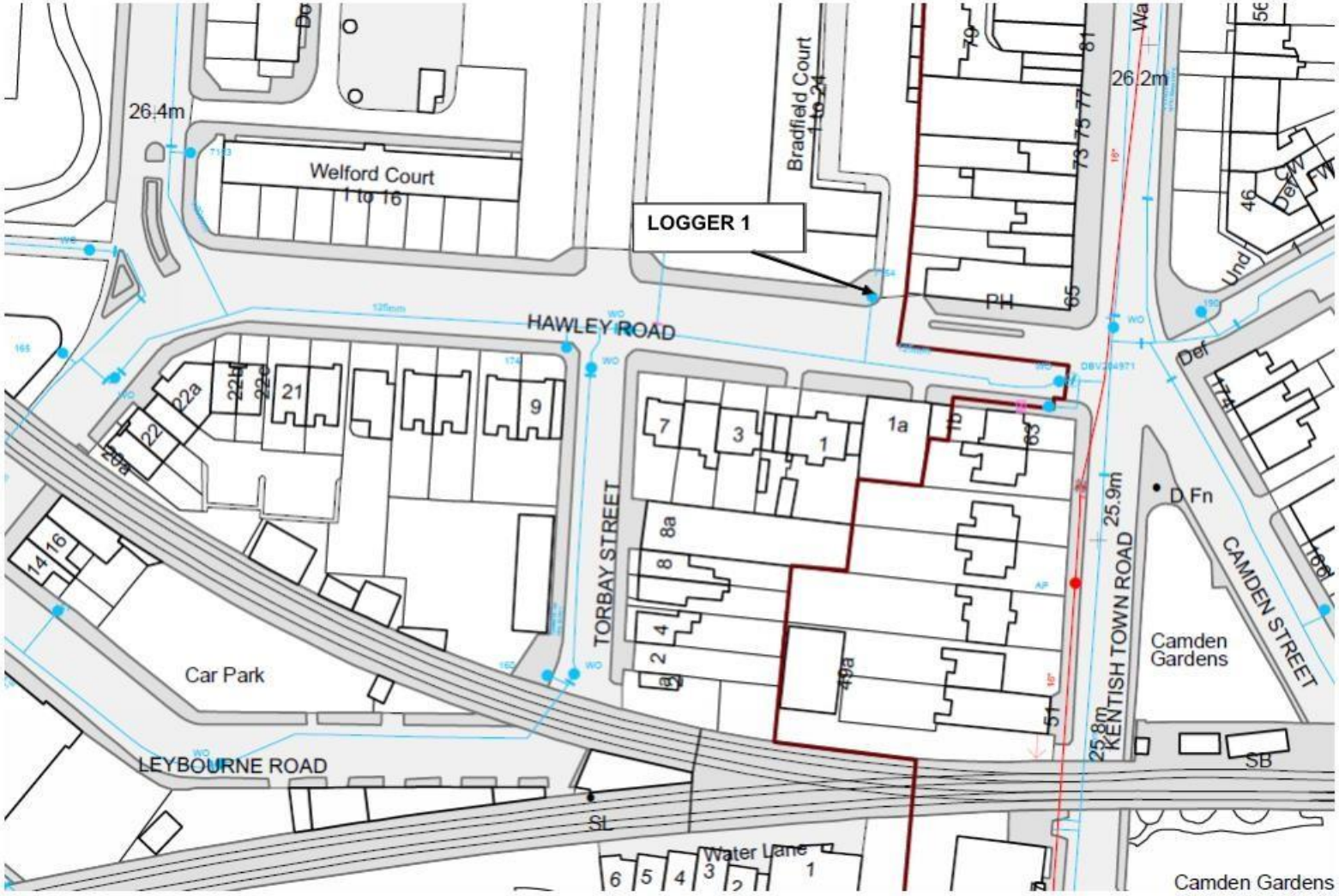
See Appendix for the results graph of the 7 day pressure logger.

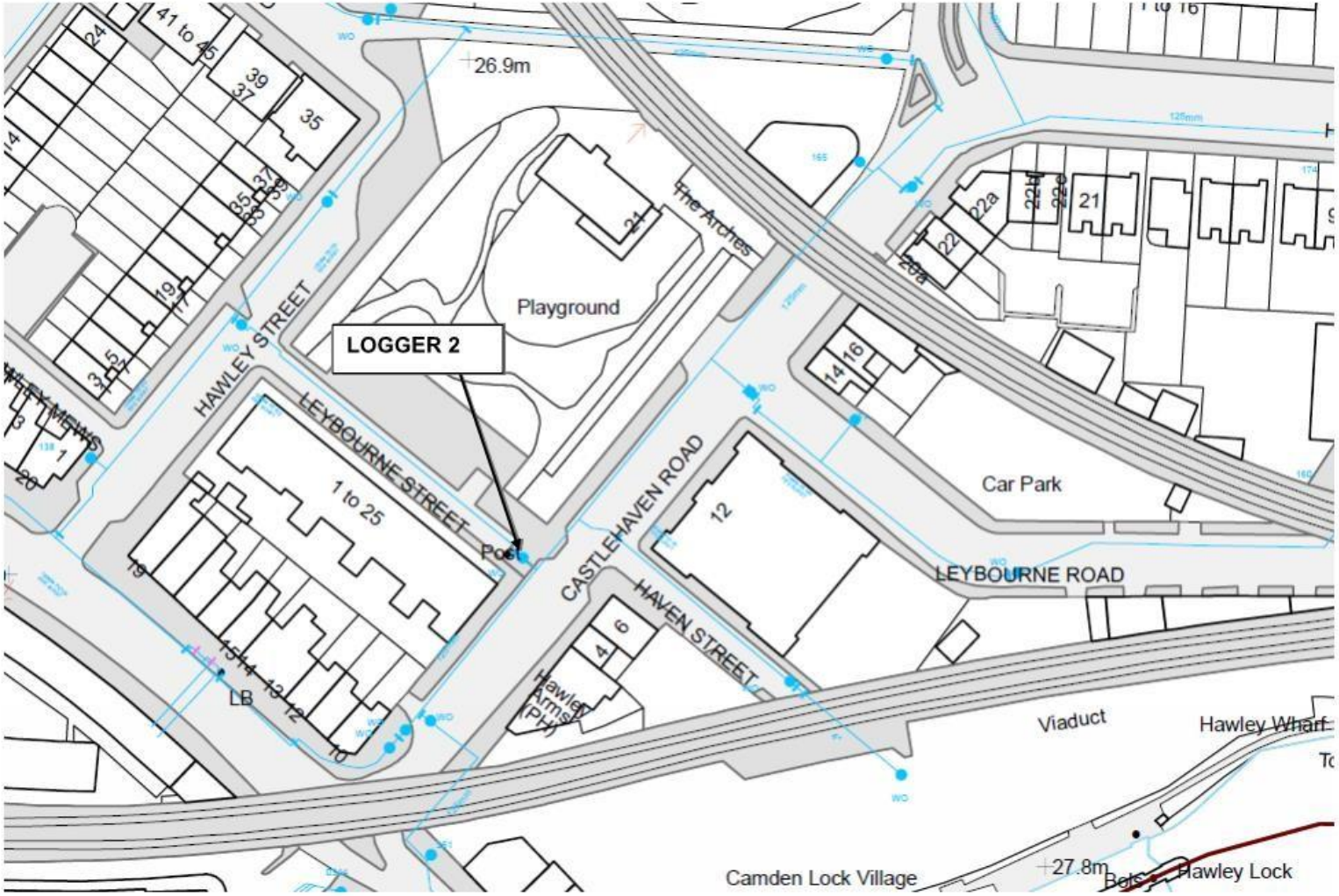
6.0 CONCLUSION

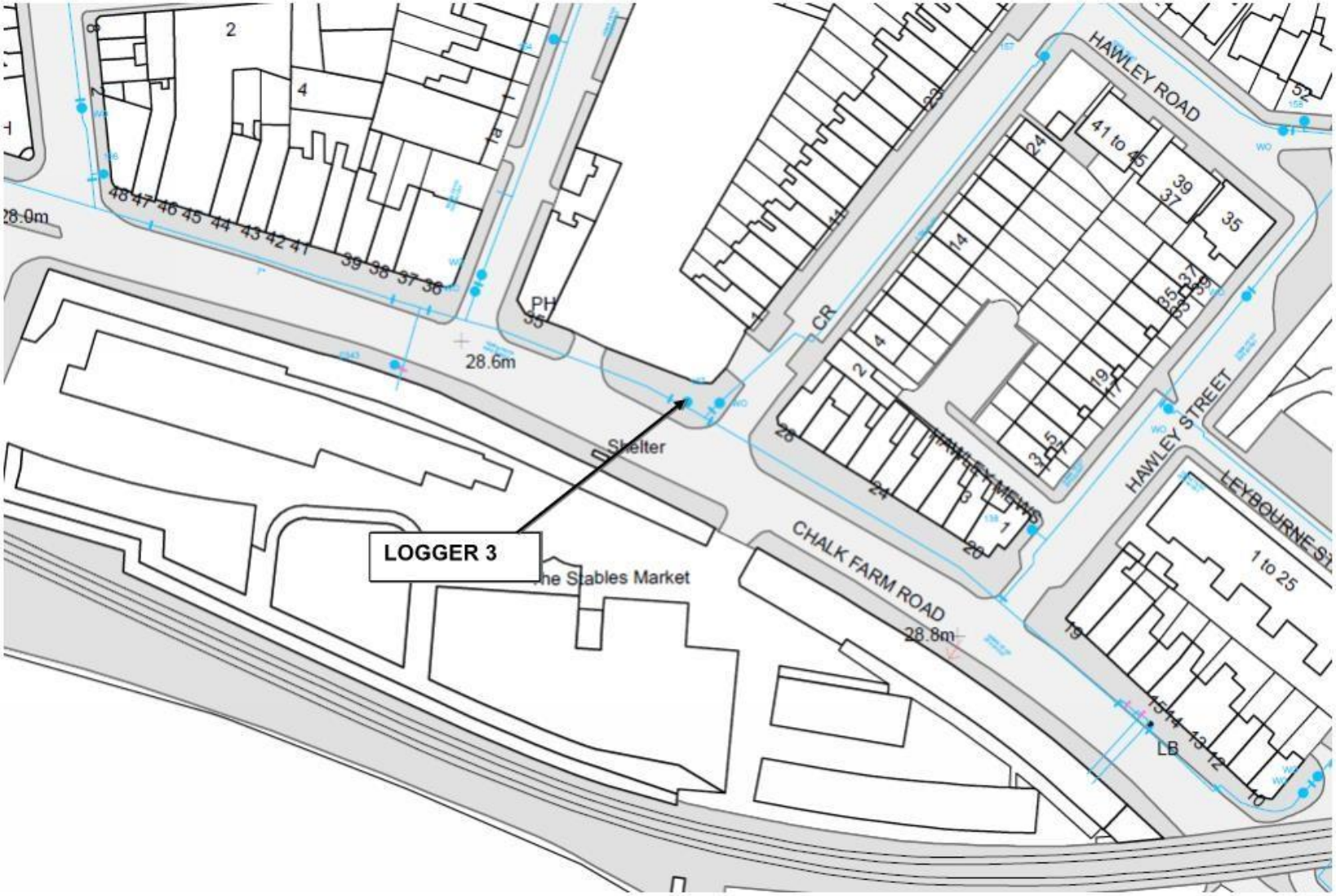
The result of the investigation has established the following: The network has sufficient spare capacity in the distribution mains network in and around the site to supply your domestic peak demand profile for the approved 2013 development of 170 residential flats, employment, retail, restaurant and cinema. In addition there is also capacity for a proposed redevelopment at 39-45 Kentish Town Road (which adjoins the approved masterplan) where a planning application will be submitted next year.

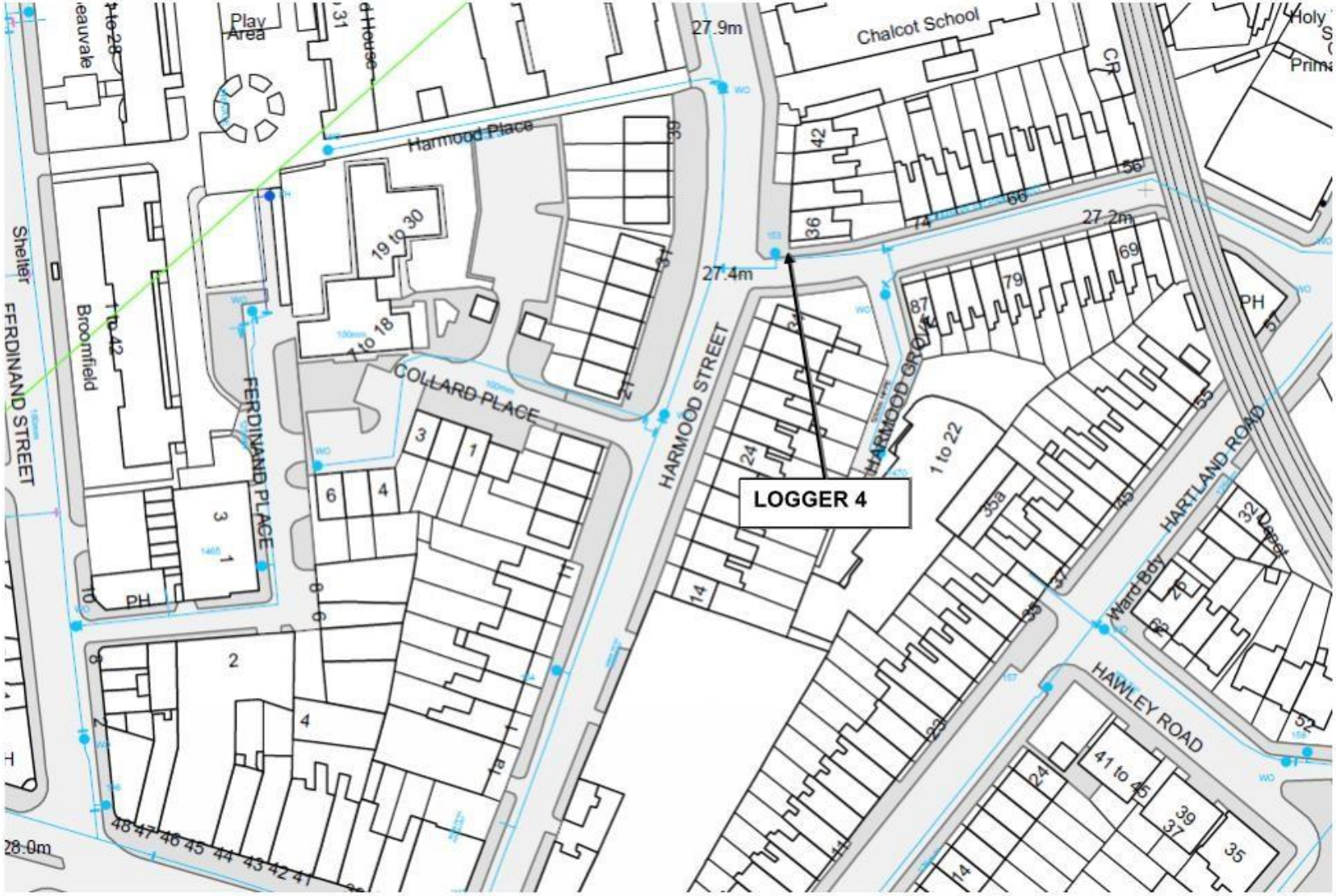

SITE LOCATION
HAWLEY ROAD
Playground
Car Park
LEYBOURNE ROAD
TORBAY STREET
KENTISH TOWN ROAD
CASTLEHAVEN ROAD
HAVEN STREET
LEYBOURNE STREET
HAWLEY STREET
CAMDEN STREET
Camden Gardens
CAMDEN GARDENS
Viaduct
Towing Path
Camden Lock Village
Hawley Lock
Kentish Town Lock
Grand Union Canal
Regent's Canal
CAMDEN LOCK PLACE
Kentish Town Bridge
Factory
Wellford Court
Bradfield Court
PH

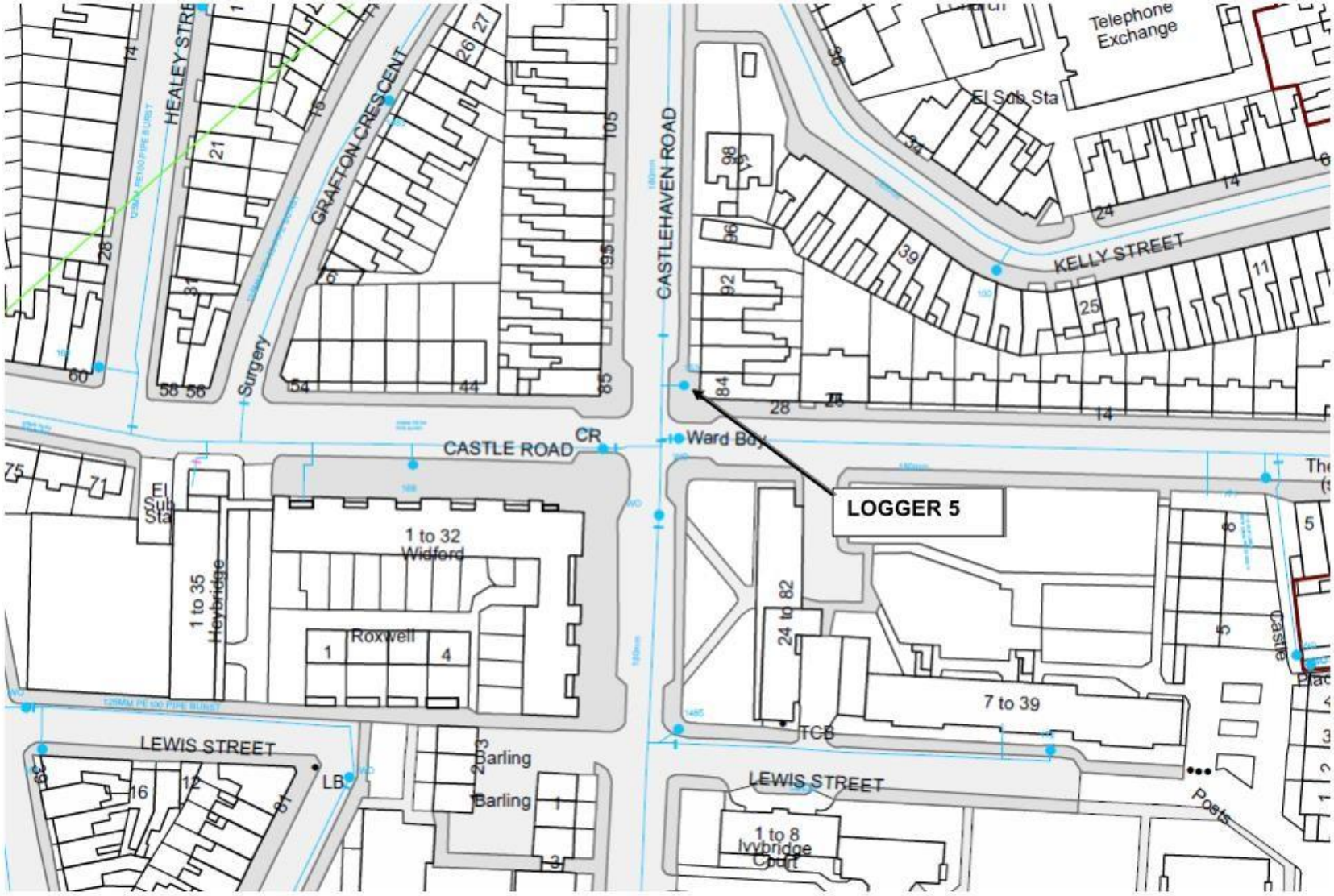

TEST LOCATION AND 7 DAY LOGGER
HAWLEY ROAD
TORBAY STREET
CASTLEHAVEN ROAD
HAVEN STREET
LEYBOURNE ROAD
Car Park
Playground
Viaduct
Hawley Wharf
Towing Path
Water Lane
Wellford Court
1 to 16
26.9m


LOGGER 1
HAWLEY ROAD
Welford Court
1 to 16
Bradfield Court
1 to 24
26.4m
26.2m
25.9m
25.8m
PH
TORBAY STREET
KENTISH TOWN ROAD
CAMDEN STREET
Camden Gardens
Car Park
LEYBOURNE ROAD
Water Lane
SL
SB
D Fn

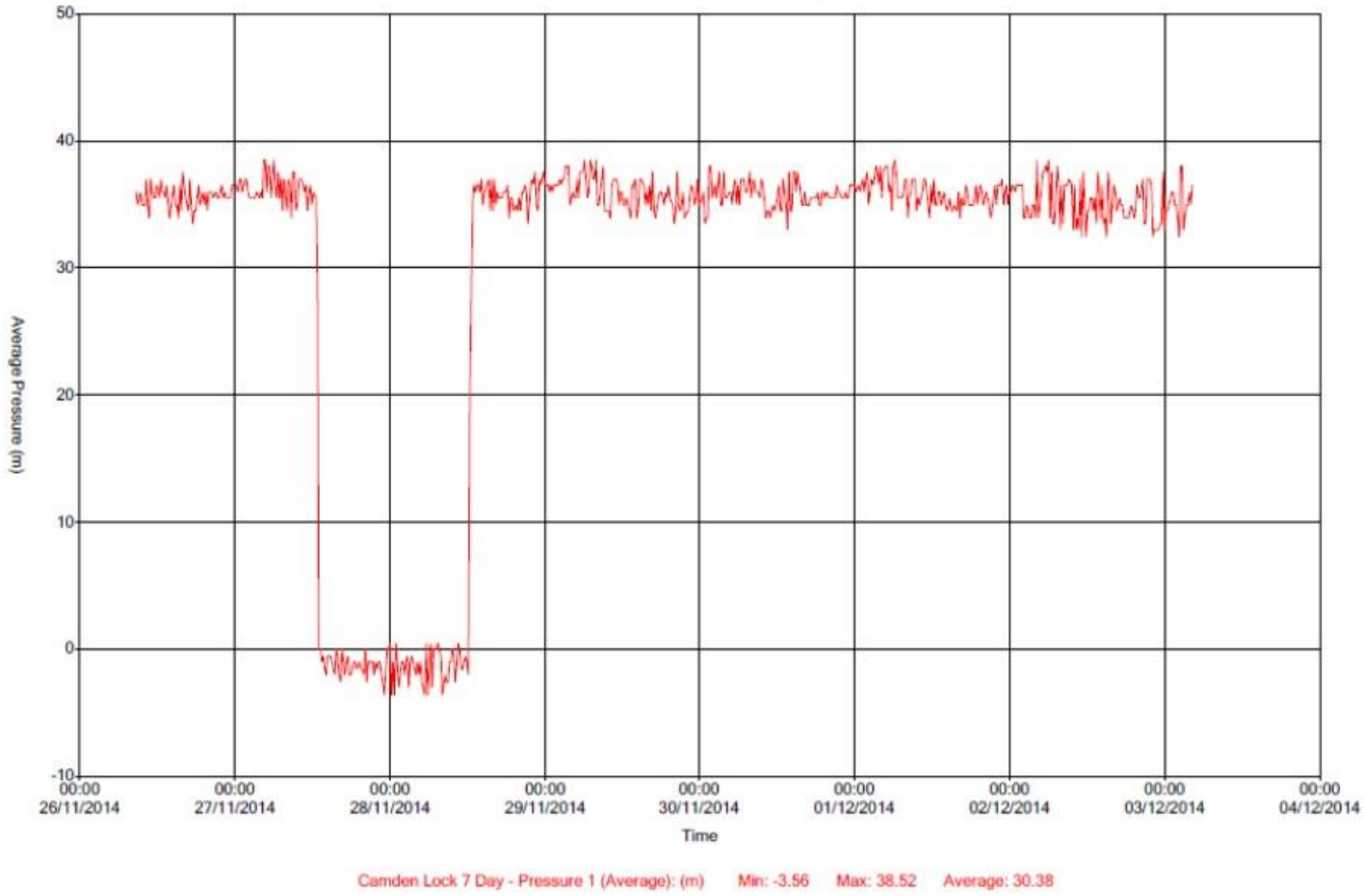

LOGGER 2
Playground
HAWLEY STREET
LEYBOURNE STREET
CASTLEHAVEN ROAD
HAVEN STREET
LEYBOURNE ROAD
Car Park
The Arches
Viaduct
Hawley Wharf
Camden Lock Village
Hawley Lock
26.9m
27.8m
1 to 25
41 to 45
1 to 16


LOGGER 3
HAWLEY ROAD
HAWLEY STREET
CHALK FARM ROAD
LEYBOURNE ST
HAWLEY MEWS
Shelter
PH
28.6m
28.8m
28.0m
The Stables Market
41 to 45
1 to 25
LB


LOGGER 4
Play Area
Harmood Place
Chalcot School
27.9m
27.4m
27.2m
Shelter
FERDINAND STREET
Broomfield
1 to 42
19 to 30
1 to 18
FERDINAND PLACE
COLLARD PLACE
HARMOOD STREET
HARMOOD GROVE
1 to 22
HARTLAND ROAD
HAWLEY ROAD
Ward Boy
PH
28.0m


HEALEY STREET
GRAFTON CRESCENT
CASTLEHAVEN ROAD
Telephone Exchange
El Sub Sta
KELLY STREET
Surgery
CASTLE ROAD
CR
Ward Boy
LOGGER 5
1 to 32 Widford
1 to 35 Heybridge
Roxwell
LEWIS STREET
LB
Barling
24 to 82
7 to 39
TCB
1 to 8 Ivybridge Court
Posts

7 DAY PRESSURE TREND FOR CAMDEN LOCK, LEYBOURNE ROAD, LONDON NW1 8RR
MINIMUM PRESSURE 32.44m MAXIMUM PRESSURE 38.52m



Camden Lock 7 Day - Pressure 1 (Average): (m) Min: -3.56 Max: 38.52 Average: 30.38

PLEASE NOTE, THAMES WATER'S MINIMUM LEVEL OF SERVICE IS 10M HEAD AT THE PROPERTY BOUNDARY VALVE