The 150 Ø outlet from MH1 is via a clay intercepting trap and 150 Ø clay outfall to the public sewer below Highgate Hill. On route to the sewer the 150 Ø clay changes to 225 Ø clay.

7.2 System 2

This system commences at MH5, which is located in an access road.

MH5 receives at its head a 100 Ø clay sealed connection.

MH5 also receives 5 No. branches, including:-

100 Ø clay [A] from OTBIG4. A 68 Ø UPVC RWP from above is believed to connect to the gully.

100 Ø clay [B] from a buried trap below the access road.

100 Ø clay [C] from an open top gully.

A 110 Ø UPVC RWP from above discharges over the gully.

A 68 Ø UPVC RWP from above discharges to the surface near the gully.

100 Ø clay [D] from an untraced, trapped source.

The final branch is 100 Ø clay [E] from a 100 Ø clay DP in a kitchen. A 54 Ø UPVC WP from sinks is assumed to connect to the DP.

On route to MH5 the run receives 2 No. blind, branch connections, the first is from a 100 Ø clay DP, a 42 Ø copper [cu] WP is believed to connect to the DP.

The second blind branch is from an assumed 100 Ø clay DP.

A 54 Ø UPVC WP from sinks is assumed to connect to the DP. On route this branch is also believed to receive a blind, branch connection from a 100 Ø DP which receives a 54 Ø UPVC WP.

Returning to MH5, the 150 Ø clay outlet runs to the head of MH6, which is located in a footpath.

In this general area, there is an OTG in the access road, its outlet could not be traced due to debris, but it did not appear to run towards System 2.

MH6 receives one branch, 100 Ø clay [A] from an OTBIG in a passage-way. A 68 Ø UPVC RWP from above connects to 82 Ø UPVC at mid level, receives a 42 Ø UPVC WP from 2 No. sinks and drops to below ground and is believed to connect to the gully.

The assumed route of the 100 Ø clay outlet from the OTG receives a blind, branch connection from a surface water drainage channel, with 2 No. back inlets.

A 110 Ø UPVC RWP from above discharges over the OTG outlet into the channel and darian connection.

The run to MH6 then receives a further blind, branch connection from a 100 Ø channel outlet. On route this branch also receives 2 No. blind, branch connections, the first is from a 42 Ø UPVC WP, the second is from a 110 Ø UPVC RWP from above.

Returning to MH6, the 150 Ø clay outlet runs, via a change of direction to the head of MH7 which is located in a footpath.

MH7 receives no branches.

The 225 Ø clay outlet from MH7 runs to the head of MH8. On route it receives a blind, branch connection from an OTG. A 110 Ø UPVC RWP from above is believed to connect to the OTG. A 110 Ø UPVC RWP outlet from a channel at a terrace drops and discharges over the OTG.

MH8 is located in a footpath and receives 2 No. branches, including:-

110 Ø UPVC [A] from a 110 Ø UPVC stub stack, which receives connections from a 110 Ø UPVC SP and a 54 Ø UPVC WP at low level, both from Temporary Toilets.

The other branch, 100 Ø clay at high level from a 100 Ø CI pipe which terminates at low level [probably as a VP].

The 225 Ø clay outlet from MH8 is via an intercepting trap and 225 Ø clay outfall to the public sewer below Highgate Hill.

There was a 'temporary' Sports Hall and associated buildings. All rainwater drainage from these areas discharges to the ground. No drainage was found in the area.

8.0 FINDINGS OF THE SURVEY

8.1 General

System 1 and System 2 are combined as they receive connections from foul and surface water drainage.

The systems on site were comparatively limited because much of the surface area drains off downhill onto the sports field.

The drainage pipe work below ground was of clay, with only a very few runs of UPVC, from later modifications.

The manholes were constructed as follows:-

MH1, MH2, MH3, MH4, MH6, MH7 & MH8.	Rendered Brick
MH5	Brickwork

All manholes have open channels of clay and benching of concrete.

Manhole covers were as follows:-

MH1, MH2, MH4, MH6, MH7 & MH8	CI single seal
MH3	Galvanised mild steel, infill, single seal

The structural condition of the manholes was visually as follows:-

Good	MH2, MH3, MH6 & MH7
Reasonable	MH1, MH4 & MH5
Poor	MH8

There were defects at manholes including the following:-

MH1	The interceptor trap was blocked, it was cleared to enable the survey. The rodding eye cap on the interceptor rodding arm was missing.
MH8	The interceptor trap was blocked, it was cleared to enable the survey. The chamber walls and benchings were covered with grease.

The gullies were of clay with gratings of CI or UPVC.

The condition of the gullies was reasonable although some were heavily obstructed with debris.

The channels were of proprietary, pre-formed type with gratings of cast iron.

The condition of the channels and gratings was reasonable, although some sections were heavily obstructed with debris.

The soil waste and ventilation stacks from above were of UPVC with some sections of CI.

WPs were of UPVC, with some of copper.

The rainwater pipes from above were of UPVC.

The layout of the drainage system appeared generally to be reasonably orthodox, although there were various areas where drain connections were made via blind, branch connections.

There were obsolete drain runs which have been sealed, including sealing in a location remote from their respective manholes. This was indicative of changes to the system layout subsequent to original construction.

8.2 PUMPING STATIONS

Pumping station PS1 – in the Boiler Room

There was no access directly into the sump due to equipment stacked over the chamber cover. So the chamber could not be fully surveyed. Also see the final note.

The chamber appeared to be dirty and contained debris.

The cover appears to be of steel and in two parts.

The pump comprises a vertical spindle pump with a motor mounted on top

The power supply is from a main wall mounted isolation switch and MEM emergency stop switch.

The electrical supply was switched off and so the pump could not be tested.

The metalwork at the pump and motor appeared to be old and rusty. It looked to be derelict and we were concerned for safety so did not touch it.

The Pumping Station PS2 at Basement Level

The pump unit is located within a service duct near a classroom and comprises a floor mounted package unit with a rectangular chamber of GRP or similar, it contained an internal free standing submersible pump with an integral float arm switch. The discharge pipe has a non-return valve. As found its cover was off. The Maintenance Manager informed us he has problems with this pumping station due to waste paper etc. being discharged to it.

8.3 The findings of the CCTV Survey

The findings of the CCTV survey are shown in detail for each surveyed pipe run in the CCTV report sheets in Appendix 10.2.

Only general comments or comments on specific defects are repeated in the following text:-

Where pipe runs have several defects of a similar nature in general only the most significant will be repeated here.

There was Debris and/or Grease:-

MH1	-	SEWER	-	Debris 5% cross sectional area loss From 4 o'clock to 8 o'clock
MH1	-	BRANCH A	-	Survey abandoned unable to pass debris in pipe
MH1	-	BRANCH B	-	Debris 20% cross sectional area loss From 4 o'clock to 8 o'clock
MH2	-	UNKNOWN UPSTREAM	-	Survey abandoned unable to pass debris in pipe [pipe possibly sealed]
MH2	-	BRANCH D	-	Debris 5% cross sectional area loss From 5 o'clock to 7 o'clock
OTBIG1	-	BRANCH A	-	Debris 10% cross sectional area loss From 4 o'clock to 8 o'clock
OTBIG1	-	BRANCH B	-	Survey abandoned Unable to pass debris/scale in pipe
OTBIG3		BRANCH A		Survey abandoned Unable to pass debris in pipe
MH5	-	BRANCH B	-	Debris 5% cross sectional area loss From 4 o'clock to 8 o'clock
MH5	-	BRANCH C	-	Debris 5% cross sectional area loss From 4 o'clock to 8 o'clock
MH5	-	UNKNOWN DOWNSTREAM	-	Survey abandoned unable to pass debris and grease in pipe
MH5	-	UNKNOWN DOWNSTREAM	-	Survey abandoned unable to pass debris, grease and roots in pipe
MH6	-	UNKNOWN UPSTREAM	-	Survey abandoned unable to pass grease/debris in pipe
MH6	-	UNKNOWN DOWNSTREAM	-	Survey abandoned unable to pass grease in pipe
MH7	-	UNKNOWN UPSTREAM	-	Survey abandoned unable to pass grease in pipe – total blockage

MH7	-	UNKNOWN DOWNSTREAM	-	Debris/grease from 12 o'clock to 12 o'clock
MH6	-	UNKNOWN DOWNSTREAM	-	Survey abandoned unable to pass grease in pipe
MH8	-	SEWER	-	Survey abandoned unable to pass grease in pipe
MH8	-	VENT	-	Survey abandoned unable to pass debris in pipe

There was Scale:-

MH1	-	UNKNOWN UPSTREAM	-	Medium scale 10% cross sectional area loss From 2 o'clock to 10 o'clock
MH2	-	UNKNOWN UPSTREAM	-	Encrustation 5% cross sectional area loss From 3 o'clock to 6 o'clock at joint
MH2	-	BRANCH A	-	Heavy scale 40% cross sectional area loss From 3 o'clock to 9 o'clock
MH3	-	UNKNOWN UPSTREAM	-	Heavy scale 40% cross sectional area loss From 4 o'clock to 8 o'clock
OTBIG1	-	BRANCH B	-	Survey abandoned unable to pass scale/debris in pipe
MH4	-	UNKNOWN UPSTREAM	-	Encrustation 10% cross sectional area loss From 6 o'clock to 12 o'clock

There was a drain point broken into the pipe:-

MH3	-	BRANCH D	-	Drain point broken into the pipe
MH4	-	UNKNOWN UPSTREAM	-	Connection broken into the pipe at 9 o'clock

There was Standing Water:-

MH1	-	SEWER	-	Water level 5% height/diameter
MH1	-	BRANCH A	-	Water level 5% height/diameter
MH3	-	UNKNOWN UPSTREAM	-	Water level 5% height/diameter
MH5	-	UNKNOWN DOWNSTREAM	-	Camera underwater
MH6	-	UNKNOWN DOWNSTREAM	-	Camera underwater
MH8	-	SEWER	-	Camera underwater
MH8	-	SEWER	-	Water level 20% height/diameter

There were Cracked/Fractured pipes:-

MH1	-	BRANCH A	-	Multiple cracks at 12 o'clock
MH4	-	UNKNOWN UPSTREAM	-	Circumferential crack from 12 o'clock to 12 o'clock
MH5	-	UNKNOWN UPSTREAM	-	Circumferential crack from 12 o'clock to 12 o'clock [2 no. Locations assumed sealed pipe

MH5	-	BRANCH A	-	Circumferential crack from 12 o'clock to 12 o'clock pipe appears to be lined
MH5	-	BRANCH B	-	Multiple cracks/fractures at joint from 12 o'clock to 12 o'clock
MH5	-	BRANCH C	-	Possibly fractured at joint and circumferential fracture from 12 o'clock to 12 o'clock
MH5	-	BRANCH E	-	Circumferential crack from 12 o'clock to 12 o'clock
MH6	-	UNKNOWN UPSTREAM	-	Circumferential crack From 12 o'clock to 12 o'clock
MH6	-	BRANCH A	-	Circumferential crack From 12 o'clock to 12 o'clock

There was a possible hole in pipe:-

MH2	-	BRANCH B	-	Possible hole at 2 o' clock

There were displaced joints:-

MH1	-	SEWER	-	Displaced joint slight
MH4	-	UNKNOWN DOWNSTREAM	-	Displaced joint medium
MH5	-	BRANCH C	-	Displaced joint slight

There was a poor connection:-

MH3	-	BRANCH E	-	poor connection from bend to stack visible

There were Roots:-

MH1	-	BRANCH D	-	Fine roots visible
MH4	-	UNKNOWN DOWNSTREAM	-	Fine roots visible at joint
MH5	-	BRANCH C	-	Fine roots visible

There was were lined pipes:-

MH5	-	BRANCH A	-	Pipe material changes to 100 Ø liner
MH5	-	BRANCH D	-	Pipe material changes to 100 Ø liner

Note: The existence of lined pipes in indication of previous problems:-

9.0 RECOMMENDATIONS

These recommendations are given as though the system is to be retained as now existing, without taking into account any future re-developments of which we are not aware. Therefore some recommendations may be superfluous.

The system should be fully cleaned and de-scaled and blockages removed.

Any runs which could not be surveyed or fully traced for any reason should be surveyed by CCTV for completion of the survey.

After cleaning, previously un-surveyed runs should be re-CCTV surveyed to verify their condition and any identified defects should be remedied.

All manhole covers and frames which are to be retained should be cleaned, de-rusted, re-painted and re-bedded with new seals or grease as necessary.
Manholes should be fully cleaned by high pressure jetting and re-inspected, especially to remove grease.

The source of grease [presumably a kitchen], should be identified and measures put in place to eliminate greasy discharges, including installation of a grease separator.

All visible defects at manholes, walls, top slabs, benching or channels etc., should be repaired.

Including at the following manholes:-

MH1	The interceptor trap was blocked, but was cleared to enable the survey. The rodding eye cap on the interceptor rodding arm was missing and needs to be replaced.
MH8	The interceptor trap was blocked, but was cleared to enable the survey. The chamber walls and benchings were covered with grease.

The buried or concealed gullies should be exposed to enable them to be inspected and surveyed including:-

At light-well [A], and the trap below the access road.

All gully gratings should be cleaned, checked, rust removed, repainted [where of metal] and reinstalled. Missing or damaged gratings should be replaced.

All drainage channels should be cleaned and inspected, channel covers and gratings should be cleaned, rust removed, repainted [where appropriate] and re-fitted, including securing fixtures or screws. Defective gratings should be replaced.

The defective terminal on the vent to MH8 should be replaced.

All defects identified by CCTV on pipe-work during the survey or subsequent cleaning, should be repaired.

Including the following:-

There was a drain point broken into the pipe:-

MH3	-	BRANCH D	-	Drain point broken into the pipe
MH4	-	UNKNOWN UPSTREAM	-	Connection broken into the pipe at 9 o'clock

These should be reviewed after cleaning and testing, to confirm whether repair is necessary

There were Cracked/Fractured pipes:-

MH1	-	BRANCH A	-	Multiple cracks at 12 o'clock
MH4	-	UNKNOWN UPSTREAM	-	Circumferential crack from 12 o'clock to 12 o'clock
MH5	-	UNKNOWN UPSTREAM	-	Circumferential crack from 12 o'clock to 12 o'clock [2 no. Locations assumed sealed pipe

MH5	-	BRANCH A	-	Circumferential crack from 12 o'clock to 12 o'clock pipe appears to be lined
MH5	-	BRANCH B	-	Multiple cracks/fractures at joint from 12 o'clock to 12 o'clock
MH5	-	BRANCH C	-	Possibly broken at joint and circumferential fracture from 12 o'clock to 12 o'clock
MH5	-	BRANCH E	-	Circumferential crack from 12 o'clock to 12 o'clock
MH6	-	UNKNOWN UPSTREAM	-	Circumferential crack From 12 o'clock to 12 o'clock
MH6	-	BRANCH A	-	Circumferential crack From 12 o'clock to 12 o'clock

There was a possible hole in pipe:-

MH2	-	BRANCH B	-	Possible hole at 2 o' clock

There was a poor connection:-

MH3	-	BRANCH E	-	poor connection from bend to stack visible

There were Roots:-

MH1	-	BRANCH D	-	Fine roots visible
MH4	-	UNKNOWN DOWNSTREAM	-	Fine roots visible at joint
MH5	-	BRANCH C	-	Fine roots visible

These defects and the necessary repairs should be considered after the system has been cleaned. Some may require excavation and replacement, others may be repaired by re-lining

Obsolete or unused drain connections should be fully sealed at each end, including at their connection to a manhole to prevent their being used as a rat refuge:-

MH2 – The connection into the head of the manhole

MH2 to branch [F] and [G]

MH5 to branch [B] if this is confirmed as obsolete

All pipe-work which is to be retained should be tested by air or water for leaks.

The pumping stations should be pumped out, drained and fully cleaned internally to enable an internal survey. Including PS1 where no access was available at the time of survey.

All pumps should be removed, cleaned, inspected and tested for condition. PS1 in particular looks to be very old and the system should be replaced.

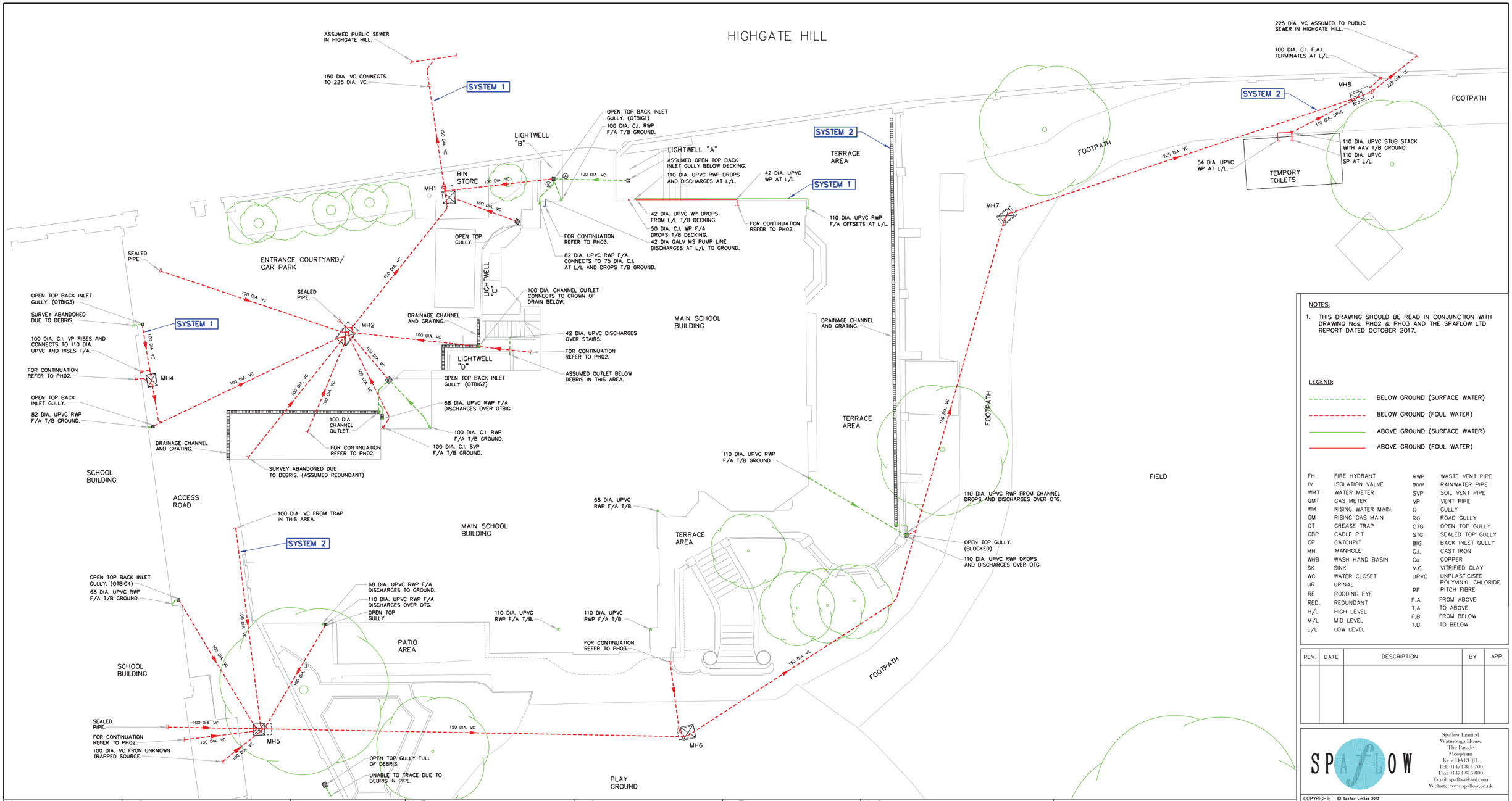
All pump controls and switch gear should be inspected and tested for function and compliance with current IEE regulations and replaced where necessary, especially at PS1.

All assumed connections from pipes from above should be confirmed for purpose [foul or rainwater], including, where necessary, opening wall ducts to expose them.

The CAD drawings should be updated once the system has been fully surveyed by CCTV to verify any unknown data.

The record drawings should be updated, preferably on CAD to record any changes due to refurbishment or from further investigations.

END OF TEXT



NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING Nos. PH02 & PH03 AND THE SPAFLOW LTD REPORT DATED OCTOBER 2017.

LEGEND:

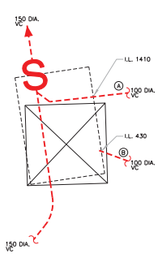
- BELOW GROUND (SURFACE WATER)
- BELOW GROUND (FOUL WATER)
- ABOVE GROUND (SURFACE WATER)
- ABOVE GROUND (FOUL WATER)

FH	FIRE HYDRANT	RWP	WASTE VENT PIPE
IV	ISOLATION VALVE	WVP	RAINWATER PIPE
WMT	WATER METER	SVP	SOIL VENT PIPE
GMT	GAS METER	VP	VENT PIPE
WM	RISING WATER MAIN	G	GULLY
GM	RISING GAS MAIN	RG	ROAD GULLY
GT	GREASE TRAP	OTG	OPEN TOP GULLY
CBP	CABLE PIT	STG	SEALED TOP GULLY
CP	CATCHPIT	BIG.	BACK INLET GULLY
MH	MANHOLE	C.I.	CAST IRON
WHB	WASH HAND BASIN	Cu	COPPER
SK	SINK	V.C.	VITRIFIED CLAY
WC	WATER CLOSET	UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UR	URINAL	PF	PITCH FIBRE
RE	RODDING EYE	F.A.	FROM ABOVE
RED.	REDUNDANT	T.A.	TO ABOVE
H/L	HIGH LEVEL	F.B.	FROM BELOW
M/L	MID LEVEL	T.B.	TO BELOW
L/L	LOW LEVEL		

REV.	DATE	DESCRIPTION	BY	APP.

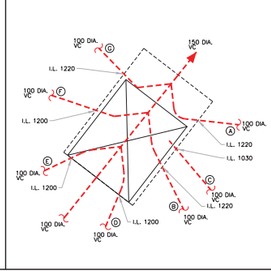
MH1

C/S	655 x 655 C.I.
C/O	600 x 600
CH/S	880 x 610
INLET	1520
OUTLET	1530
CONST	BRICK RENDER
COND	REASONABLE
SEAL	SINGLE
NOTES	INTERCEPTOR TRAP FOUND BLOCKED. (CLEARED TO ENABLE SURVEY) R.E. CAP MISSING.



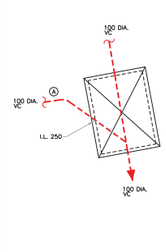
MH2

C/S	780 x 630 C.I.
C/O	750 x 600
CH/S	1070 x 710
INLET	1300
OUTLET	1330
CONST	BRICK RENDER
COND	GOOD
SEAL	SINGLE
NOTES	COVER SLOPING.



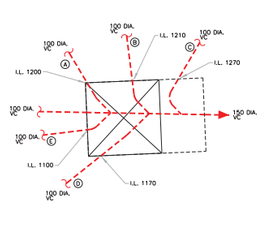
MH4

C/S	660 x 510 C.I.
C/O	600 x 450
CH/S	610 x 450
INLET	380
OUTLET	350
CONST	BRICK RENDER
COND	GOOD
SEAL	SINGLE
NOTES	COVER SLOPING.



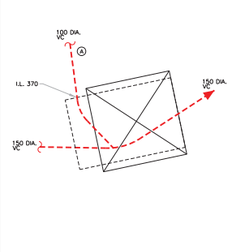
MH5

C/S	600 x 600 C.I. SPLIT
C/O	600 x 600
CH/S	960 x 600
INLET	1315
OUTLET	1330
CONST	BRICK
COND	REASONABLE
SEAL	SINGLE
NOTES	COVER SLOPING.



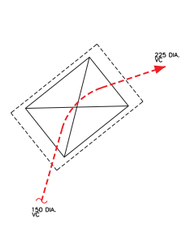
MH6

C/S	695 x 695 C.I.
C/O	610 x 610
CH/S	880 x 580
INLET	490
OUTLET	510
CONST	BRICK RENDER
COND	GOOD
SEAL	SINGLE
NOTES	-



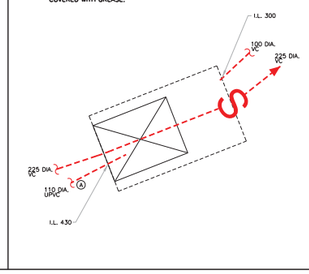
MH7

C/S	670 x 510 C.I.
C/O	600 x 450
CH/S	900 x 600
INLET	1710
OUTLET	1770
CONST	BRICK RENDER
COND	GOOD
SEAL	SINGLE
NOTES	COVER SLOPING



MH8

C/S	640 x 490 C.I.
C/O	600 x 450
CH/S	1120 x 660
INLET	1800
OUTLET	1830
CONST	BRICK RENDER
COND	POOR
SEAL	SINGLE
NOTES	INTERCEPTOR TRAP BLOCKED. (CLEARED TO ENABLE SURVEY) CHAMBER WALLS AND BENCHING COVERED WITH GREASE.



SPAFLOW
Spaflow Limited
Wainwough House
The Parade
Meopham
Kent DA13 0JL
Tel: 01474 814 700
Fax: 01474 815 800
Email: spaflow@aol.com
Website: www.spaflow.co.uk

CLIENT:

HEYNE TILLETT STEEL
4 PEAR TREE COURT
LONDON
EC1R ODS

PROJECT:

CHANNING JUNIOR SCHOOL
LONDON

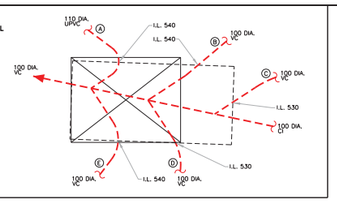
TITLE:

RECORD OF TRACING, MAPPING AND CCTV SURVEY OF DRAINAGE.
EXTERNAL DRAINAGE LAYOUT

PROJECT REF:		REV:
DRAWN: SWW	DATE: OCT 17	SCALES: NTS
CHECKED: DWH	APPROVED: DWH	
CLIENT DRG. No:	CAD Q.A.:	PLOT SIZE:
MICROFILM REF:	SHEET:	DRG. No: PH01

MH3

C/S	670 x 520 GALV MS INFILL
C/O	600 x 450
CH/S	990 x 480
INLET	640
OUTLET	680
CONST	BRICK RENDER
COND	GOOD
SEAL	DOUBLE
NOTES	-



HIGHGATE HILL

ENTRANCE COURTYARD/ CAR PARK

TERRACE

ENTRANCE LOBBY.

TO SYSTEM 1

FOR CONTINUATION REFER TO PH01.

42 DIA. UPVC WP AT L/L.

CLASSROOM

42 DIA. UPVC WP DROPS AND DISCHARGES OVER CHANNEL.

100 DIA. CHANNEL OUTLET.

100 DIA. C.I. RWP DROPS AND DISCHARGES OVER CHANNEL.

42 DIA. UPVC WP DROPS AND DISCHARGES OVER CHANNEL.

100 DIA. VC TO MH2. FOR CONTINUATION REFER TO PH01.

TO SYSTEM 1

DRAINAGE CHANNEL AND GRATING.

MH3

42 DIA. UPVC WP AT L/L.

ASSUMED 100 DIA. DP/STUB STACK T/B GROUND. (BOXED IN)

42 DIA. UPVC WP TO 100 DIA. DP.

100 DIA. SP AT L/L. (BOXED IN)

ASSUMED 100 DIA. STACK F/A T/B GROUND. (BOXED IN)

100 DIA. SP AT L/L. (BOXED IN)

100 DIA. DRAIN POINT.

100 DIA. STACK F/A T/B GROUND.

42 DIA. UPVC WP AT L/L.

54 DIA. UPVC PUMP LINE F/B. FOR CONTINUATION REFER TO PH03. APPEARS TO BE 100 DIA. VC DRAIN WITH 54 DIA. UPVC PIPE BROKEN INTO IT.

CLASSROOM

CORRIDOR

CLASSROOM

TERRACE

36 DIA. UPVC WP DROPS T/B GROUND AND ASSUMED TO CONNECT TO 110 DIA. UPVC DP.

36 DIA. UPVC WP DROPS T/B GROUND AND CONNECTS TO 110 DIA. UPVC DRAIN.

110 DIA. UPVC TO MH4. FOR CONTINUATION REFER TO PH01.

TO SYSTEM 1

110 DIA. UPVC

110 DIA. UPVC SP DROPS FROM H/L T/B GROUND.

110 DIA. UPVC SP F/A OFFSETS AT H/L.

TO SYSTEM 1

100 DIA. VC TO MH2. FOR CONTINUATION REFER TO PH01.

100 DIA. VC

110 DIA. UPVC STUB STACK T/B GROUND.

110 DIA. UPVC SP AT L/L.

OFFICE

42 DIA. UPVC WP TO 100 DIA. DP.

STAFF TOILETS

42 DIA. UPVC WP TO 100 DIA. DP.

WAITING AREA

42 DIA. UPVC WP AT L/L.

42 DIA. UPVC WP TO 100 DIA. DP.

DINNING ROOM

KITCHEN

STAFF ROOM

HEADS OFFICE

CLASSROOM

TERRACE

ACCESS ROAD

TO SYSTEM 2

100 DIA. VC TO MH5. FOR CONTINUATION REFER TO PH01.

54 DIA. UPVC WP DROPS T/B GROUND AND ASSUMED TO CONNECT TO 100 DIA. VC DP.

54 DIA. UPVC WP DROPS T/B GROUND AND ASSUMED TO CONNECT TO 100 DIA. VC DP.

42 DIA. Cu WP DROPS T/B GROUND AND ASSUMED TO CONNECT TO 100 DIA. VC DP.

KITCHEN

54 DIA. UPVC WP DROPS T/B GROUND AND ASSUMED TO CONNECT TO 100 DIA. VC DP.

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING Nos. PH01 & PH03 AND THE SPAFLOW LTD REPORT DATED OCTOBER 2017.

LEGEND:

- BELOW GROUND (SURFACE WATER)
- BELOW GROUND (FOUL WATER)
- ABOVE GROUND (SURFACE WATER)
- ABOVE GROUND (FOUL WATER)

FH	FIRE HYDRANT	RWP	WASTE VENT PIPE
IV	ISOLATION VALVE	WVP	RAINWATER PIPE
WMT	WATER METER	SVP	SOIL VENT PIPE
GMT	GAS METER	VP	VENT PIPE
WM	RISING WATER MAIN	G	GULLY
GM	RISING GAS MAIN	RG	ROAD GULLY
GT	GREASE TRAP	OTG	OPEN TOP GULLY
CBP	CABLE PIT	STG	SEALED TOP GULLY
CP	CATCHPIT	BIG.	BACK INLET GULLY
MH	MANHOLE	C.I.	CAST IRON
WHB	WASH HAND BASIN	Cu	COPPER
SK	SINK	V.C.	VITRIFIED CLAY
WC	WATER CLOSET	UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UR	URINAL	PF	PITCH FIBRE
RE	RODDING EYE	F.A.	FROM ABOVE
RED.	REDUNDANT	T.A.	TO ABOVE
H/L	HIGH LEVEL	F.B.	FROM BELOW
M/L	MID LEVEL	T.B.	TO BELOW
L/L	LOW LEVEL		

REV.	DATE	DESCRIPTION	BY	APP.

Spaflow Limited
Watmough House
The Parade
Meopham
Kent DA13 0JL
Tel: 01474 814 700
Fax: 01474 815 800
Email: spaflow@aol.com
Website: www.spaflow.co.uk

CLIENT:
HEYNE TILLETT STEEL
4 PEAR TREE COURT
LONDON
EC1R ODS

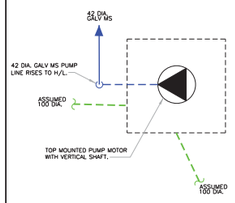
PROJECT:
CHANNING JUNIOR SCHOOL
LONDON

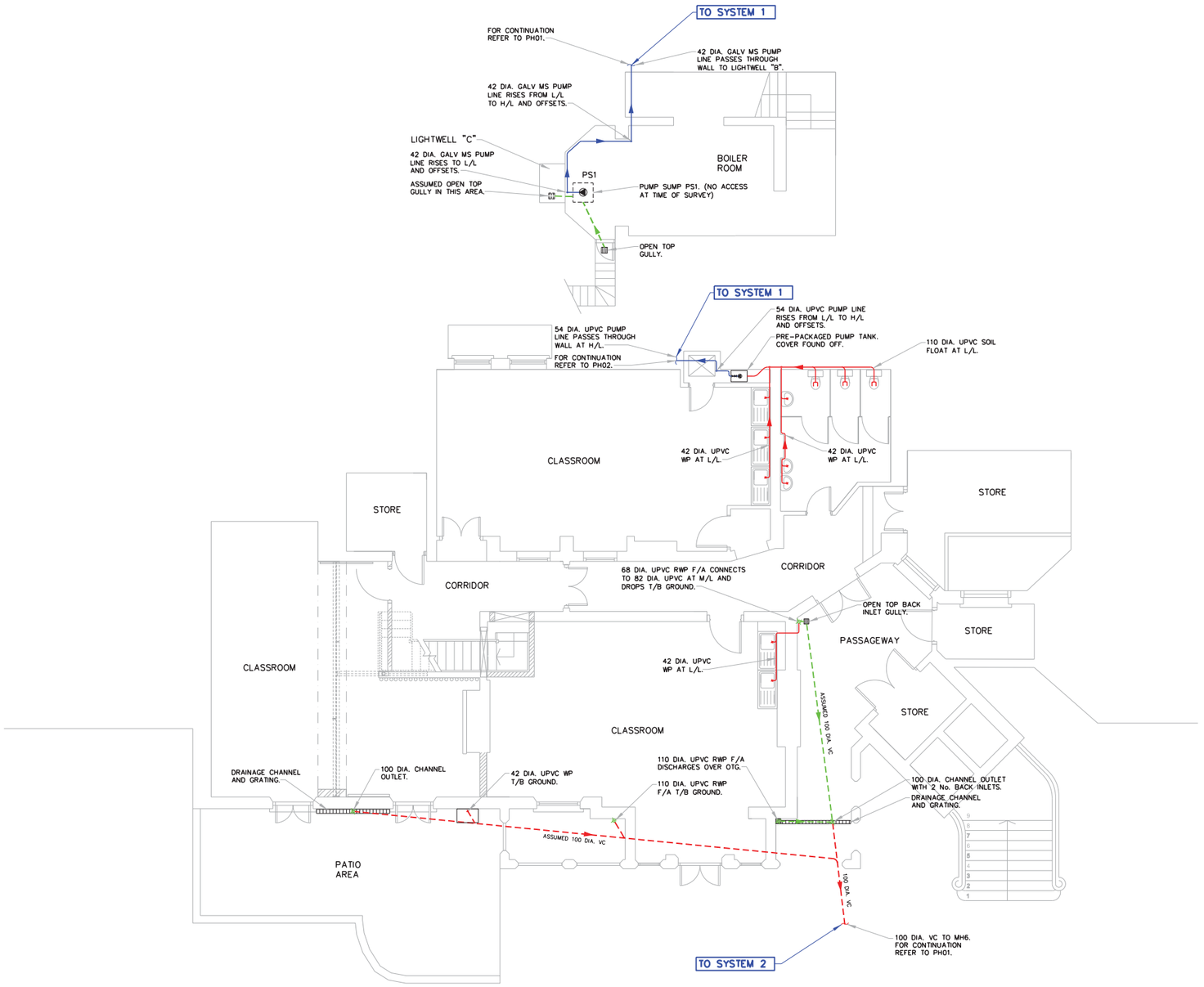
TITLE:
RECORD OF TRACING, MAPPING AND CCTV SURVEY OF DRAINAGE.
GROUND FLOOR LAYOUT

PROJECT REF:		REV:
DRAWN: SWW	DATE: OCT 17	SCALES: NTS
CHECKED: DWH	APPROVED: DWH	
CLIENT DRG. No:	CAD Q.A.:	PLOT SIZE:
MICROFILM REF:	SHEET:	DRG. No: PH02

PS1

C/S	-
C/O	-
CH/S	-
INLET	-
OUTLET	-
CONST	CONCRETE
COND	POOR
SEAL	SINGLE
NOTES	NO ACCESS TO PUMP SUMP AT TIME OF SURVEY DUE TO EQUIPMENT OVER COVER. SUMP APPEARS TO BE DRY. POWER SUPPLY APPEARS TO BE TURNED OFF.





NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING Nos. PH01 & PH02 AND THE SPAFLOW LTD REPORT DATED OCTOBER 2017.

LEGEND:

- BELOW GROUND (SURFACE WATER)
- BELOW GROUND (FOUL WATER)
- ABOVE GROUND (SURFACE WATER)
- ABOVE GROUND (FOUL WATER)

FH	FIRE HYDRANT	RWP	WASTE VENT PIPE
IV	ISOLATION VALVE	WVP	RAINWATER PIPE
WMT	WATER METER	SVP	SOIL VENT PIPE
GMT	GAS METER	VP	VENT PIPE
WM	RISING WATER MAIN	G	GULLY
GM	RISING GAS MAIN	RG	ROAD GULLY
GT	GREASE TRAP	OTG	OPEN TOP GULLY
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CP	CATCHPIT	BIG.	BACK INLET GULLY
MH	MANHOLE	C.I.	CAST IRON
WHB	WASH HAND BASIN	Cu	COPPER
SK	SINK	V.C.	VITRIFIED CLAY
WC	WATER CLOSET	UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UR	URINAL	PF	PITCH FIBRE
RE	RODDING EYE	F.A.	FROM ABOVE
RED.	REDUNDANT	T.A.	TO ABOVE
H/L	HIGH LEVEL	F.B.	FROM BELOW
M/L	MID LEVEL	T.B.	TO BELOW
L/L	LOW LEVEL		

REV.	DATE	DESCRIPTION	BY	APP.

Spaflow Limited
Watmough House
The Parade
Meopham
Kent DA13 0JL
Tel: 01474 814 700
Fax: 01474 815 800
Email: spaflow@aol.com
Website: www.spaflow.co.uk

CLIENT:
HEYNE TILLETT STEEL
4 PEAR TREE COURT
LONDON
EC1R ODS

PROJECT:
CHANNING JUNIOR SCHOOL
LONDON

TITLE:
RECORD OF TRACING, MAPPING AND CCTV SURVEY OF DRAINAGE.
BASEMENT LAYOUT

PROJECT REF:		REV:
DRAWN: SWW	DATE: OCT 17	SCALES: NTS
CHECKED: DWH	APPROVED: DWH	
CLIENT DRG. No:	CAD Q.A.:	PLOT SIZE:
MICROFILM REF:	SHEET:	DRG. No: PH03

Appendix F

Thames Water Asset Location Plan

HEYNE TILLETT STEEL

Asset location search

Heyne Tillett Steel Limited
44 Peartree Court
LONDON
EC1R 0DS

Search address supplied	Channing Junior School 1 Highgate High Street London N6 5JR
Your reference	1843
Our reference	ALS/ALS Standard/2017_3672053
Search date	18 October 2017

Keeping you up-to-date

Knowledge of features below the surface is essential in every development. The benefits of this not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility for any commercial or residential project.

An asset location search provides information on the location of known Thames Water clean and/or wastewater assets, including details of pipe sizes, direction of flow and depth. Please note that information on cover and invert levels will only be provided where the data is available.

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0845 070 9148

Asset location search

Search address supplied: Channing Junior School, 1, Highgate High Street, London, N6 5JR

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This searchprovides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk
Web: www.thameswater-propertysearches.co.uk

Asset location search

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an ‘as constructed’ record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

Asset location search

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Asset location search

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

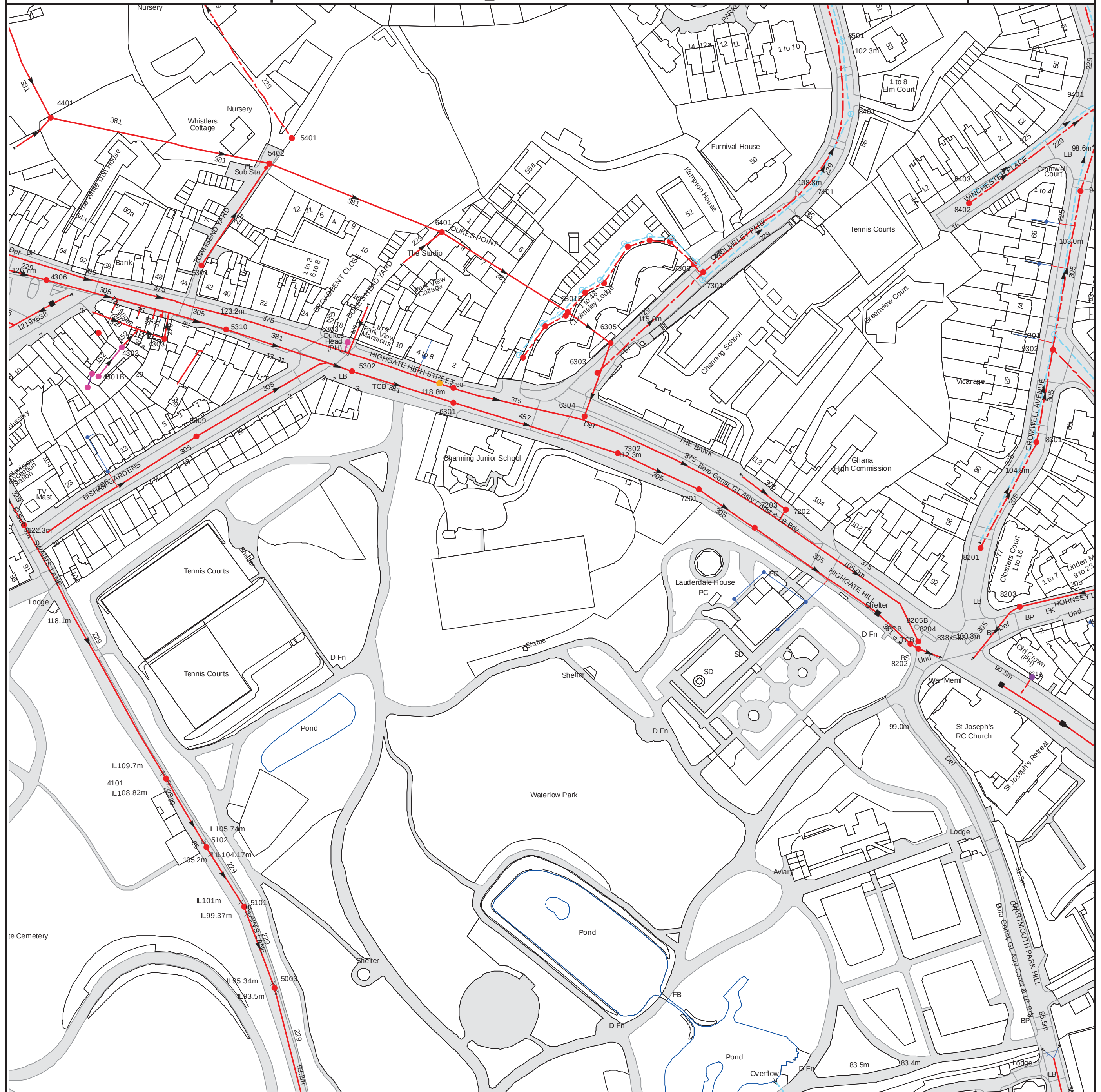
Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2017_3672053



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 528673,187268

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
63YV	n/a	n/a
6305	115.11	111.25
74ZR	n/a	n/a
74ZV	n/a	n/a
74ZQ	n/a	n/a
74ZT	n/a	n/a
74ZS	n/a	n/a
74ZP	n/a	n/a
73YZ	n/a	n/a
73YX	n/a	n/a
7301	114.05	112.14
7303	113.99	112.01
7401	108.02	106.29
8501	101.39	99.38
8401	104.69	102.63
8402	102.84	100
8403	n/a	n/a
831A	n/a	n/a
941A	n/a	n/a
9302	104.9	96.97
9301	104.64	98.19
9408	100.1	95.33
43DF	n/a	n/a
4302	125.39	124
431C	n/a	n/a
4303	124.47	122.07
5301	124.04	121.14
5310	122.82	120.65
5402	119.19	113.62
5401	118.02	115.88
5303	120.83	n/a
5302	120.31	118.32
631A	n/a	n/a
6401	120.03	n/a
63YT	n/a	n/a
63YZ	n/a	n/a
63YS	n/a	n/a
63YY	n/a	n/a
63YR	n/a	n/a
63YX	n/a	n/a
6301B	117.16	111.61
63YQ	n/a	n/a
63YW	n/a	n/a
6303	114.96	113.77
63YP	n/a	n/a
7203	107.57	105.89
721B	n/a	n/a
721D	n/a	n/a
7202	108.54	105.64
721C	n/a	n/a
8205B	101.11	99.43
8204	101.31	99.44
8202	100.82	96.17
8201	102.37	99.5
8203	100.69	96.05
821A	n/a	n/a
8301	105.12	97.96
921A	n/a	n/a
5003	96.22	n/a
5101	101.88	n/a
5102	106.77	n/a
4101	110.58	n/a
721A	n/a	n/a
7201	109.71	107.73
431A	n/a	n/a
7302	112.39	109.98
431B	n/a	n/a
5309	121.97	119.09
6304	113.74	110.64
6301	117.61	115.72
6308	n/a	n/a
4301B	125.48	124.57
4201	122.72	121.17
4306	126.18	124.49
4401	121.19	116.93
43EC	n/a	n/a
43EB	n/a	n/a

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

Trunk Surface Water

Trunk Foul

Storm Relief

Trunk Combined

Vent Pipe

Bio-solids (Sludge)

Proposed Thames Surface Water Sewer

Proposed Thames Water Foul Sewer

Gallery

Foul Rising Main

Surface Water Rising Main

Combined Rising Main

Sludge Rising Main

Proposed Thames Water Rising Main

Vacuum

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

Air Valve

Dam Chase

Fitting

Meter

Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

Control Valve

Drop Pipe

Ancillary

Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

Outfall

Undefined End

Inlet

Other Symbols

Symbols used on maps which do not fall under other general categories

Public/Private Pumping Station

Change of characteristic indicator (C.O.C.I.)

Invert Level

Summit

Areas

Lines denoting areas of underground surveys, etc.

Agreement

Operational Site

Chamber

Tunnel

Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

Foul Sewer

Surface Water Sewer

Combined Sewer

Gulley

Culverted Watercourse

Proposed

Abandoned Sewer

Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.
2) All measurements on the plans are metric.
3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
5) 'na' or '0' on a manhole level indicates that data is unavailable.
6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in milimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

Asset Location Search Water Map - ALS/ALS Standard/2017_3672053

The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 528673, 187268.

ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Other Water Pipes (Not Operated or Maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indiates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL`s terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	**BACS Payment**	**Telephone Banking**	**Cheque**
Call **0845 070 9148** quoting your invoice number starting CBA or ADS / OSS	Account number **90478703** Sort code **60-00-01** A remittance advice must be sent to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW.** or email **ps.billing@thameswater.co.uk**	By calling your bank and quoting: Account number **90478703** Sort code **60-00-01** and your invoice number	Made payable to '**Thames Water Utilities Ltd**' Write your Thames Water account number on the back. Send to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW** or by DX to **151280 Slough 13**

Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles
Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints
If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details
The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Appendix G

Construction Management Plan - CURO

HEYNE TILLETT STEEL

Construction Management Plan

pro forma v2.2

Contents

Camden

Camden

Revisions & additional material

Please list all iterations here:

Date	Version	Produced by
20/11/2017	Draft	Matthew Stimpson (BA (Hons), MPlan, MCIHT)

Additional sheets

Please note – the review process will be quicker if these are submitted as Word documents or searchable PDFs.

Date	Version	Produced by

Introduction

The purpose of the **Construction Management Plan (CMP)** is to help developers to minimise construction impacts, and relates to both on site activity and the transport arrangements for vehicles servicing the site.

It is intended to be a live document whereby different stages will be completed and submitted for application as the development progresses.

The completed and signed CMP must address the way in which any impacts associated with the proposed works, and any **cumulative impacts of other nearby construction sites**, will be mitigated and managed. The level of detail required in a CMP will depend on the scale and kind of development. Further policy guidance is set out in Camden Planning Guidance **(CPG)** 6: Amenity and **(CPG)** 8: Planning Obligations.

This CMP follows the best practice guidelines as described in Transport for London's (TfL's Standard for Construction Logistics and Community Safety (**CLOCS**) scheme) and Camden's Minimum Requirements for Building Construction **(CMRBC)**.

The approved contents of this CMP must be complied with unless otherwise agreed with the Council in writing. The project manager shall work with the Council to review this CMP if problems arise in relation to the construction of the development. Any future revised plan must also be approved by the Council and complied with thereafter.

It should be noted that any agreed CMP does not prejudice or override the need to obtain any separate consents or approvals such as for road closures or hoarding licences.

If your scheme involves any demolition, you need to make an application to the Council's Building Control Service. Please complete the "**Demolition Notice.**"

Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary. **It is preferable if this document, and all additional documents, are completed electronically and submitted as Word files to allow**

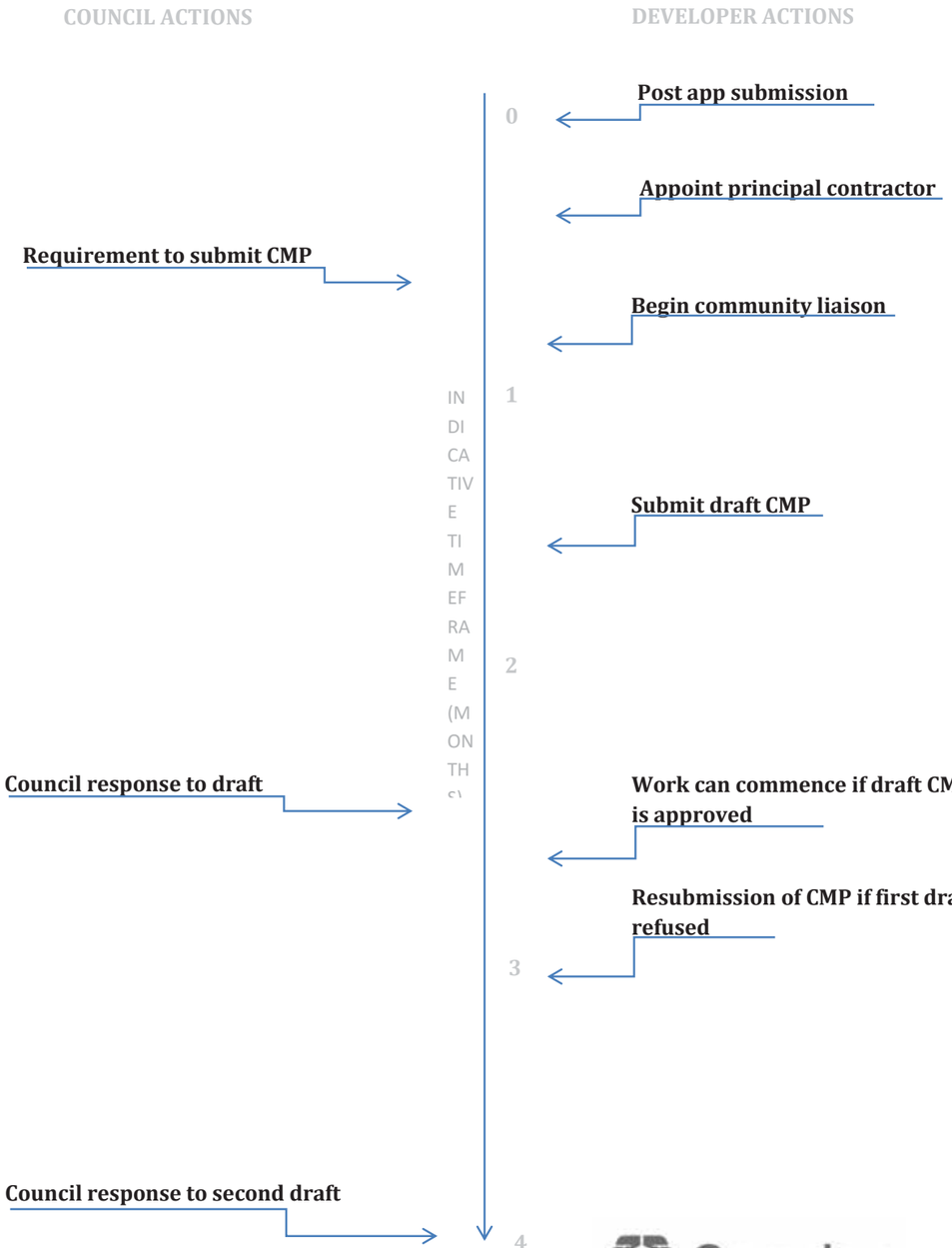
comments to be easily documented. These should be clearly referenced/linked to from the CMP.

Please notify that council when you intend to start work on site. Please also notify the council when works are approximately **3 months from completion.**

(Note the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearance, delivery of plant & materials, construction, etc.)

Revisions to this document may take place periodically.

Timeframe



Contact

1. Please provide the full postal address of the site and the planning reference relating to the construction works.

Address: Channing Junior School, 1 Highgate High Street, Highgate, London, N6 5JR

Planning reference number to which the CMP applies: 2017/2451/PRE

Type of CMP: Framework CMP to support Planning Application. A full CMP will be conditioned as part of the planning consent.

2. Please provide contact details for the person responsible for submitting the CMP.

Name: Matthew Stimpson

Address: Elizabeth House, 39 York Road, London, SE1 7NQ

Email: mstimpson@odysseyconsult.co.uk

Phone: 0207 620 2444

3. Please provide full contact details of the site project manager responsible for day-to-day management of the works and dealing with any complaints from local residents and businesses.

Name: Peter Wylie

Address: Suite 6, Sandhurst House, 297 Yorktown Road, Sandhurst, Berkshire, GU47 0QA

Email: Peterwylie@curoconstruction.com

Phone: 07944855201

4. Please provide full contact details of the person responsible for community liaison and dealing with any complaints from local residents and businesses if different from question 3. In the case of **Community Investment Programme (CIP)**, please provide contact details of the Camden officer responsible.

Name: (same response as question 3)

Address:

Email:

Phone:

5. Please provide full contact details including the address where the main contractor accepts receipt of legal documents for the person responsible for the implementation of the CMP.

Name: Peter Wylie

Address: Suite 6, Sandhurst House, 297 Yorktown Road, Sandhurst, Berkshire, GU47 0QA

Email: Peterwylie@curoconstruction.com

Phone: 07944855201

Site

6. Please provide a site location plan and a brief description of the site, surrounding area and development proposals for which the CMP applies.

The Channing School is an independent day school for girls comprising a junior school, senior school and sixth form. The junior school is primarily located on the western side of Highgate Hill and is in the jurisdiction of the London Borough of Camden (Of which this planning application relates to). The senior school and sixth form are located on the eastern (opposite) side of Highgate Hill and are within the jurisdiction of the London Borough of Haringey. Facilities between the two sites are shared when necessary by the school.

A Site Location Plan is attached at **Figure 1**.

7. Please provide a very brief description of the construction works including the size and nature of the development and details of the main issues and challenges (e.g. narrow streets, close proximity to residential dwellings etc).

Proposed southern rear extension to provide a new hall at ground floor level and minor alteration to the eastern elevation at lower ground level of the existing building. Creation of a sports changing room facility at subterranean level adjacent to the existing tennis courts.

8. Please identify the nearest potential receptors (dwellings, business, etc.) likely to be affected by the activities on site (i.e. noise, vibration, dust, fumes, lighting etc.).

The nearest potential receptors that could be affected by the development are parishioners of St Joseph's RC Church, delegates and employees of the Ghana High Commission and residents of 104 -112 Highgate Hill.

9. Please provide a scaled plan detailing the local highway network layout in the vicinity of the site. This should include details of on-street parking bay locations, cycle lanes, footway extents and proposed site access locations.

Odyssey drawing **17-282-001** shows the existing highway arrangement in the vicinity of the site.

10. Please provide the proposed start and end dates for each phase of construction as well as an overall programme timescale. (A Gantt chart with key tasks, durations and milestones would be ideal).

Phase 1 June 18-Sept 19	Expected Duration	Expected Average Daily Vehicle Trips	Typical Vehicle Type(s)	Anticipated Number of Staff on Site
Site Establishment	4 Weeks	8	3.5t Panel Van 10m Rigid 15m Articulated Flatbed	12
Piling & Ground Beams	6 Weeks	12	10m Rigid	20
Basement Bulk Excavation	4 Weeks	12	10m 4-Axle Tipper	20
Structure (steel frame, concrete floors, cladding, roof).	20 Weeks	12	9m Concrete Mixer 10m Rigid / 15m Articulated Flatbed	25
M&E Services & Fit-out	20 Weeks	12	9m Concrete Mixer 10m Rigid / 15m Articulated Flatbed	25
External Works	4 Weeks	8	7.5tonne Box Van 3.5tonne Panel Van	25
Final finishing, commissioning & snagging	4 Weeks	12	3.5t Panel Van 10m Rigid / 15m Articulated Flatbed	35
Total	15 Months	-	-	-

Phase 2 June 19-Sept 20	Expected Duration	Expected Average Daily Vehicle Trips	Typical Vehicle Type(s)	Anticipated Number of Staff on Site
Site Establishment (June 2018)	4 Weeks	8	3.5t Panel Van 10m Rigid 15m Articulated Flatbed	12
Piling & Ground Beams (July-Sept 2018)	6 Weeks	12	10m Rigid	20
Basement Bulk Excavation	4 Weeks	12	10m 4-Axle Tipper	20
Structure (steel frame, concrete floors, cladding, roof).	20 Weeks	12	9m Concrete Mixer 10m Rigid / 15m Articulated Flatbed	25
M&E Services & Fit-out	20 Weeks	12	9m Concrete Mixer 10m Rigid / 15m Articulated Flatbed	25
External Works	4 Weeks	8	7.5tonne Box Van 3.5tonne Panel Van	25
Final finishing, commissioning & snagging	4 Weeks	12	3.5t Panel Van 10m Rigid / 15m Articulated Flatbed	35
Total	15 Months	-	-	-

11. Please confirm the standard working hours for the site, noting that the standard working hours for construction sites in Camden are as follows:

- 8.00am to 6pm on Monday to Friday
- 8.00am to 1.00pm on Saturdays
- No working on Sundays or Public Holidays

The provisional working hours for the site will be 0800-1800 Monday to Friday and 0800 to 1300 on Saturday. No work will be permitted on Sundays, Bank Holidays and Public Holidays.

12. Please indicate if any changes to services are proposed to be carried out that would be linked to the site during the works (i.e. connections to public utilities and/or statutory undertakers' plant). Larger developments may require new utility services. If so, a strategy and programme for coordinating the connection of services will be required. If new utility services are required, please confirm which utility companies have been contacted (e.g. Thames Water, National Grid, EDF Energy, BT etc.) You must explore options for the utility companies to share the same excavations and traffic management proposals. Please supply details of your discussions.

There are not expected to be any changes to services as a result of the development proposals. This will be confirmed by a contractor once appointed.

Community Liaison

A neighbourhood consultation process must have been undertaken prior to submission of the CMP first draft. This consultation must relate to construction impacts, and should take place following the granting of planning permission in the lead up to the submission of the CMP. A consultation process specifically relating to construction impacts must take place regardless of any prior consultations relating to planning matters. This consultation must include all of those individuals that stand to be affected by the proposed construction works. These individuals should be provided with a copy of the draft CMP, or a link to an online document. They should be given adequate time with which to respond to the draft CMP, and any subsequent amended drafts. Contact details which include a phone number and email address of the site manager should also be provided.

Significant time savings can be made by running an effective neighbourhood consultation process. This must be undertaken in the spirit of cooperation rather than one that is dictatorial and unsympathetic to the wellbeing of local residents and businesses.

These are most effective when initiated as early as possible and conducted in a manner that involves the local community. Involving locals in the discussion and decision making process helps with their understanding of what is being proposed in terms of the development process. **The consultation and discussion process should have already started, with the results incorporated into the CMP first draft submitted to the Council for discussion and sign off.** This communication should then be ongoing during the works, with neighbours and any community liaison groups being regularly updated with programmed works and any changes that may occur due to unforeseen circumstances through newsletters, emails and meetings.

Please note that for larger sites, details of a construction working group may be required as a separate S106 obligation. If this is necessary, it will be set out in the S106 Agreement as a separate requirement on the developer.

Cumulative impact

Sites located within high concentrations of construction activity that will attract large numbers of vehicle movements and/or generate significant sustained noise levels should consider establishing contact with other sites in the vicinity in order to manage these impacts.

The Council can advise on this if necessary.

13. Consultation

The Council expects meaningful consultation. For large sites, this may mean two or more meetings with local residents **prior to submission of the first draft CMP**.

Evidence of who was consulted, how the consultation was conducted and a summary of the comments received in response to the consultation should be included. Details of meetings including minutes, lists of attendees etc. should be appended.

In response to the comments received, the CMP should then be amended where appropriate and, where not appropriate, a reason given. The revised CMP should also include a list of all the comments received. Developers are advised to check proposed approaches to consultation with the Council before carrying them out. If your site is on the boundary between boroughs then we would recommend contacting the relevant neighbouring planning authority.

Please provide details of consultation of draft CMP with local residents, businesses, local groups (e.g. residents/tenants and business associations) and Ward Councillors.

It is planned that the developer /parishioners of St Joseph's RC Church, users of the Ghana High Commission and residents of 104 -112 Highgate Hill will be consulted.

14. Construction Working Group

Please provide details of community liaison proposals including any Construction Working Group that will be set up, addressing the concerns of the community affected by the works, the way in which the contact details of the person responsible for community liaison will be advertised to the local community, and how the community will be updated on the upcoming works i.e. in the form of a newsletter/letter drop, or weekly drop in sessions for residents.

TBC following planning approval.

15. Schemes

Please provide details of your 'Considerate Constructors Scheme' registration, and details of any other similar relevant schemes as appropriate. Contractors will also be required to follow the "Guide for Contractors Working in Camden" also referred to as "Camden's Considerate Contractors Manual".

Curo will enrol this scheme in the CCS and measures will be put in place to follow the initiatives set out by this scheme.

16. Neighbouring sites

Please provide a plan of existing or anticipated construction sites in the local area and please state how your CMP takes into consideration and mitigates the cumulative impacts of construction in the vicinity of the site. The council can advise on this if necessary.

Council to advise.

Transport

This section must be completed in conjunction with your principal contractor. If one is not yet assigned, please leave the relevant sections blank until such time when one has been appointed.

Camden is a CLOCS Champion, and is committed to maximising road safety for Vulnerable Road Users (VRUs) as well as minimising negative environmental impacts created by motorised road traffic. As such, all vehicles and their drivers servicing construction sites within the borough are bound by the conditions laid out in the CLOCS Standard.

This section requires details of the way in which you intend to manage traffic servicing your site, including your road safety obligations with regard to VRU safety. It is your responsibility to ensure that your principal contractor is fully compliant with the terms laid out in the CLOCS Standard. It is your principal contractor's responsibility to ensure that all contractors and sub-contractors attending site are compliant with the terms laid out in the CLOCS Standard.

Checks of the proposed measures will be carried out by the council to ensure compliance. Please refer to the CLOCS Standard when completing this section. Guidance material which details CLOCS requirements can be accessed here, details of the monitoring process are available here.

Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Please refer to the CLOCS Overview and Monitoring Overview documents referenced above which give a breakdown of requirements.

CLOCS Contractual Considerations

17. Name of Principal contractor:

Curo Construction.

18. Please submit the proposed method for checking operational, vehicle and driver compliance with the CLOCS Standard throughout the duration of the contract (please refer to our CLOCS Overview document and Q18 example response).

A delivery booking system will be used which will require the entry of a FORS ID number in order for a delivery to be booked onto site.

Checks of FORS ID numbers will form part of the periodic checks and will be carried out as per an appropriate risk scale.

Random spot checks will be carried out by site staff on vehicles and drivers servicing the site at a frequency based on the aforementioned risk scale. These will include evidence of further training, license checks, evidence of routing information, and checks of vehicle safety equipment. Results from these checks will be logged and retained, and enforced upon accordingly.

19. Please confirm that you as the client/developer and your principal contractor have read and understood the CLOCS Standard and included it in your contracts. Please sign-up to join the CLOCS Community to receive up to date information on the standard by expressing an interest online.

I confirm that I have included the requirement to abide by the CLOCS Standard in my contracts to my contractors and suppliers:

Where the contractor's own vehicles and drivers are used the above approach will be modified accordingly.

Collision reporting data will be requested from operators and acted upon when necessary

Please contact CLOCS@camden.gov.uk for further advice or guidance on any aspect of this section.

Site Traffic

Sections below shown in blue directly reference the CLOCS Standard requirements. The CLOCS Standard should be read in conjunction with this section.

20. Traffic routing: *"Clients shall ensure that a suitable, risk assessed vehicle route to the site is specified and that the route is communicated to all contractors and drivers. Clients shall make contractors and any other service suppliers aware that they are to use these routes at all times unless unavoidable diversions occur."* (P19, 3.4.5)

Routes should be carefully considered and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, public buildings, museums etc. Where appropriate, on routes that use high risk junctions (i.e. those that attract high volumes of cycling traffic) installing Trixi mirrors to aid driver visibility should be considered.

Consideration should also be given to weight restrictions, low bridges and cumulative impacts of construction (including neighbouring construction sites) on the public highway network. The route(s) to and from the site should be suitable for the size of vehicles that are to be used.

a. Please indicate routes on a drawing or diagram showing the public highway network in the vicinity of the site including details of how vehicles will be routed to the Transport for London Road Network (TLRN) on approach and departure from the site.

The site has a large frontage onto Highgate High Street (B519), a broad carriageway which in total measures some 14 metres in width. It is proposed that a temporary construction vehicle access point is formed on to this road by partially demolishing an existing wall and suspending some 12 metres (2 bays) of pay and display bay.

Given that the site will benefit from direct access onto the B519, it will not be necessary to route construction vehicles along narrow or minor roads. Construction vehicles will access the B519 from the A1 Archway Road from either the north or the south depending upon origin.

b. Please confirm how contractors, delivery companies and visitors will be made aware of the route (to and from the site) and of any on-site restrictions, prior to undertaking journeys.

All major deliveries will be managed and co-ordinated by key members of the site team. Weekly Delivery Schedules will be agreed with Supply Chain to ensure main routes do not become congested with 'waiting' vehicles. The delivery schedules will take account of peak traffic times on and around the site and delivery times will need to be limited to ensure deliveries do not arrive at school day start & end times. Traffic marshals will control the movement of lorries in and around the site

All deliveries will be given prior notification of the time restrictions when an order/delivery is scheduled during term time. Any delivery that arrives within the above hours will be sent away. We can confirm that NO waiting on the public Highway will be permitted.

21. Control of site traffic, particularly at peak hours: "*Clients shall consider other options to plan and control vehicles and reduce peak hour deliveries"* (P20, 3.4.6)

Construction vehicle movements are generally acceptable between 9.30am to 4.30pm on weekdays and between 8.00am and 1.00pm on Saturdays). If there is a school in the vicinity of the site or on the proposed access and/or egress routes, then deliveries must be restricted to between 9.30am and 3pm on weekdays during term time. (Refer to the *Guide for Contractors Working in Camden*).

A delivery plan should ensure that deliveries arrive at the correct part of site at the correct time. Instructions explaining such a plan should be sent to all suppliers and contractors**.** Consideration should be given to the location of any necessary holding areas for large sites with high volumes of traffic. Vehicles must not wait or circulate on the public highway. Whilst deliveries should be given set times to arrive, dwell and depart, no undue time pressures should be placed upon the driver at any time.

a. Please provide details of the typical sizes of all vehicles and the approximate frequency and times of day when they will need access to the site, for each phase of construction. You should estimate the average daily number of vehicles during each major phase of the work, including their dwell time at the site. High numbers of vehicles per day and/or long dwell times may require vehicle holding procedures.

It is anticipated that the following construction vehicles would be utilised during the works:

- Small skip lorry – 6.26m in length;
- Concrete mixer – 8.36m in length;
- Rigid truck – up to13.5m in length;
- Large tipper – 10.2m in length;
- Low Loader (piling rig delivery) – 17.9m in length;
- Mobile Crane – 19.0m in length.

It is reasonably assumed that the maximum number of heavy vehicles would not exceed 15 HGVs per day during the peak periods of the construction phase. These vehicles would include tipper-type vehicles, delivery and concrete mixer trucks. The number of heavy vehicles accessing the site is expected to be considerably less during the demolition and fit out phases.
In view of the strict management of construction vehicle activity at the site it is considered unlikely that more than one large vehicle would access the site simultaneously.

b. Please provide details of other developments in the local area or on the route.

Council to Advise

c. Please outline the system that is to be used to ensure that the correct vehicle attends the correct part of site at the correct time.

Pre-arranged delivery times will be set by the site manager and will be strictly adhered to in order to prevent more than one delivery vehicle accessing the site at any one time. The site manager will detail out weekly deliveries, so all the site team are aware of what will be arriving.

The above requirement will form part of all contract documentation with suppliers. In view of the above procedure, no 'wider' off-site vehicle holding areas are proposed in association with the proposed works.

It has previously been discussed that the site will make sufficient/ suitable provision in the event that more than one (large) vehicle simultaneously attends. This situation is however not expected to regularly occur owing to strict management of arrivals.

Fully trained and competent Traffic Marshalls (TM's) will be in attendance at all times to coordinate deliveries. Traffic Marshals will be instructed to turn away any un-scheduled delivery, with follow-up contact by the logistics manager to the delivery company involved to ensure adherence to contracts.

d. Please identify the locations of any off-site holding areas (an appropriate location outside the borough may need to be identified, particularly if a large number of delivery vehicles are expected) and any measures that will be taken to ensure the prompt admission of vehicles to site in light of time required for any vehicle/driver compliance checks. Please refer to question 24 if any parking bay suspensions will be required for the holding area.

There will be no off site holding areas required for the duration of the works. The site will work with other nearby construction sites as described earlier within this CMP.

e. Please provide details of any other measures designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres).

The site manager, and by delegation the site foreman, will take ownership of the final/ approved CMP and will ultimately be responsible for implementing the measures set out therein. The Contractor will contact Camden Highways Officers prior to commencement of works to agree any final matters relating to the Construction Management strategy.

Delivery Times

Pre-arranged delivery times will be set by the site manager and will be strictly adhered to in order to prevent more than one delivery vehicle accessing the site at any one time. The above requirement will form part of all contract documentation with suppliers. In view of the above procedure, no off-site vehicle holding areas are proposed in association with the proposed works.

Co-ordination with Other Construction Activity

The site manager will, prior to commencement on site and at regular intervals during the construction and in liaison with relevant officers at Camden, check for other local construction activity for the purpose of liaising with those sites on matters relating to construction activity (including vehicle movements). Camden Council should inform the Site Manager of any other construction activity in the vicinity of the site (Including Greenwood Place)

Co-ordination with Domestic Waste Collections

The LB Camden's website states that domestic rubbish and recycling collection activity in the vicinity of the site takes place on Mondays. The Contractor, all sub-contractors and suppliers will be made aware of the existing collection activity and will ensure that waste collection vehicles are not unduly obstructed by the construction works. To this end, priority will be given by banksmen to waste collection vehicles where relevant.

Road Sweeping and Wheel Washing

A wheel washing facility will, in accordance with good practice, be provided at the site for use throughout the construction period. Any mud or debris that might find their way onto the public highways will be removed by a dedicated member of the Contractor's staff (road sweeper).

Pollution and Dust Control

Camden Council require the control of construction vehicle and plant emissions, with particular emphasis on PM10 and NOx emissions. Upon appointment of a Contractor, and prior to any works taking place, a Method Statement will be prepared and submitted in line with the minimum recommendations set out in Camden's Local policy guidance.

Similarly, the Method Statement will include details relating to the control of dust emissions from demolition and construction activity.

The method Statements should include measures to reduce dust pollution and other airborne debris such as:

- Ensuring that all materials transported to and from site are in enclosed containers or fully sheeted;
- Ensuring stock piles of topsoil etc. are kept below hoarding heights and kept damp in dry windy conditions;
- All vehicles removing dust generating materials or waste are to be completely sheeted with tarpaulin/ netting;
- Ensuring materials have a minimum of packaging;
- Ensuring all polystyrene and similar lightweight materials are weighted down;
- Making sure all dust generating materials are adequately packaged;
- Ensuring all vehicles leaving the site have been through the wheel wash and that loads are covered where spoil or demolition material is being removed;
- Keeping the loading drop heights of soil into lorries as low as possible;
- Establish air quality procedures to minimise dust generation and control plant and vehicle dust emissions;
- Undertaking regular air quality sampling to monitor air quality levels.

In addition to the above provisions, the following measures will be taken to reduce any further negative effects on the environment:

- Ensuring all contaminants on site are safely stored with the necessary procedures put in place for leaks and spillages etc.
- A waste management system will be implemented on site.

Noise / Vibration

A variety of measures will be used to minimise the noise levels at the site, including:

- Coordinated delivery times and efficient traffic management to prevent queuing of traffic accessing the site;
- Ensuring all plant has sound reduction measures (mufflers, baffles or silencers);
- Utilising construction techniques that minimise the production of noise;
- Strict adherence to the site working hours;
- Implement an action plan where noise levels exceed acceptable levels;
- Positioning plant away from properties;
- Machines not in use will be throttled down to a minimum;
- Cutting operations will be kept off site as much as possible by pre-fabrication;
- Localised shrouding of plant in accordance with BS5228; and
- Toolbox talks to site operatives.

22. Site access and egress: "*Clients shall ensure that access to and egress from the site is appropriately managed, clearly marked, understood and clear of obstacles.*" (P18, 3.4.3)

Vehicles entering and leaving the site should be carefully managed, using gates that are clearly marked and free from obstacles. Traffic marshals must ensure the safe passage of all traffic on the public highway, in particular pedestrians and cyclists, when vehicles are entering and leaving site, particularly if reversing.

Traffic marshals, or site staff acting as traffic marshals, should hold the relevant qualifications required for directing large vehicles when reversing. Marshals should be equipped with 'STOP – WORKS' signs (not STOP/GO signs) if control of traffic on the public highway is required. Marshals should have radio contact with one another where necessary.

a. Please detail the proposed access and egress routes to and from the site

Construction vehicles will enter the site directly from the adjacent B519 Highgate High Street. A temporary access and crossover arrangement onto Highgate High Street will be formed by removing part of a boundary wall and suspending 2 parking bays.

b. Please describe how the access and egress arrangements for construction vehicles will be managed.

Appropriately trained banksmen will assist vehicle movements in an out of the site and manage the interaction between the construction vehicle and other road users.

c. Please provide swept path drawings for any tight manoeuvres on vehicle routes to and from the site including proposed access and egress arrangements at the site boundary (if necessary).

Swept Path drawings are provided as follows:

Phase One: Odyssey Drawing **17-282-002**; and,

Phase Two: Odyssey Drawing **17-282-004.**

d. Provision of wheel washing facilities should be considered if necessary. If so, please provide details of how this will be managed and any run-off controlled.

A wheel washing facility will, in accordance with good practice, be provided at the site for use throughout the construction period. Any mud or debris that might find their way onto the public highways will be removed by a dedicated member of the Contractor's staff. Liquid or spoil run-off will be controlled on site via regular inspections and protecting mats. The site will also contain a store for diesel generator oil, fuel and other similar liquids.

23. Vehicle loading and unloading: *"Clients shall ensure that vehicles are loaded and unloaded on-site as far as is practicable."* (P19, 3.4.4)

If this is not possible, Traffic Marshalls must ensure the safe passage of pedestrians, cyclists and motor traffic in the street when vehicles are being loaded or unloaded.

Please provide details of the parking and loading arrangements for construction vehicles with regard to servicing and deliveries associated with the site (e.g. delivery of materials and plant, removal of excavated material). This is required as a scaled site plan, showing all points of access and where materials, skips and plant will be stored, and how vehicles will access and egress the site. If loading is to take place off site, please identify where this is due to take place and outline the measures you will take to ensure that loading/unloading is carried out safely. Please outline in question 24 if any parking bay suspensions will be required.

Suitably qualified banksmen will assist construction vehicles as they enter and leave the site. The banksmen will manage the interaction between the construction vehicles and other road users. Banksmen will be permanently stationed at the site entrance throughout site open hours.

Highway interventions

Please note that Temporary Traffic Orders (TTOs) and hoarding/scaffolding licenses may be applied for prior to CMP submission but won't be granted until the CMP is signed-off.

If the site is on or adjacent to the TLRN, please provide details of preliminary discussions with Transport for London in the relevant sections below.

24. Parking bay suspensions and temporary traffic orders

Please note, parking bay suspensions should only be requested where absolutely necessary. Parking bay suspensions are permitted for a maximum of 6 months, requirement of exclusive access to a bay for longer than 6 months you will be required to obtain Temporary Traffic Order (TTO) for which there is a separate cost.

Please provide details of any proposed parking bay suspensions and TTO's which would be required to facilitate construction. **Building materials and equipment must not cause obstructions on the highway as per your Considerate Contractors obligations unless the requisite permissions are secured.**

Information regarding parking suspensions can be found here.

A Traffic Regulation Order is required for the suspension of two parking bays on Highgate road as shown on **Drawing 17-282-003**

25. Scaled drawings of highway works

Please note that use of the public highway for storage, site accommodation or welfare facilities is at the discretion of the Council and is generally not permitted. If you propose such use you must supply full justification, setting out why it is impossible to allocate space on-site. You must submit a detailed (to-scale) plan showing the impact on the public highway that includes the extent of any hoarding, pedestrian routes, parking bay suspensions and remaining road width for vehicle movements. We prefer not to close footways but if this is unavoidable, you should submit a scaled plan of the proposed diversion route showing key dimensions.

a. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses).

Please see drawings **17-282-03** and **17-282-04** which provide an indicative site set-up arrangement

b. Please provide details of all safety signage, barriers and accessibility measures such as ramps and lighting etc.

Pedestrian flows at the site entrances will accordingly be controlled by qualified banksmen, who will be on duty at all relevant periods. Additionally, deliveries will be programmed to avoid peak school periods at the start and end of each day.

A temporary hoarding line will be erected to isolate the construction phases from the school playing/activities area.

During Phase 1 there will be a pupil crossover installed `to allow pupils to pass through the construction area in order to access the activity area. This facility will be managed strictly by banksmen and gates to ensure pupils can only cross at safe times.

26. Diversions

Where applicable, please supply details of any diversion, disruption or other anticipated use of the public highway during the construction period (alternatively a plan may be submitted).

N/A

27. VRU and pedestrian diversions, scaffolding and hoarding

Pedestrians and/or cyclist safety must be maintained if diversions are put in place. Vulnerable footway users should also be considered. These include wheelchair users, the elderly, those with walking difficulties, young children, those with prams, the blind and

partially sighted. Appropriate ramping must be used if cables, hoses, etc. are run across the footway.

Any work above ground floor level may require a covered walkway adjacent to the site. A licence must be obtained for scaffolding and gantries. The adjoining public highway must be kept clean and free from obstructions. Lighting and signage should be used on temporary structures/skips/hoardings etc.

A secure hoarding will generally be required at the site boundary with a lockable access.

a. Please provide details describing how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any Traffic Marshall arrangements.

N/A

b. Please provide details of any temporary structures which would overhang the public highway (e.g. scaffolding, gantries, cranes etc.) and details of hoarding requirements or any other occupation of the public highway.

N/A

SYMBOL IS FOR INTERNAL USE

Environment

To answer these sections please refer to the relevant sections of **Camden's Minimum Requirements for Building Construction (CMRBC).**

28. Please list all noisy operations and the construction method used, and provide details of the times that each of these are due to be carried out.

Having considered the issue of Noise Pollution on the Channing School Project we have identified the main sources of noise on the project as:

- Piling
- Groundworks
- Demolitions
- Site Vehicles and Site Plant operating on the site

29. Please confirm when the most recent noise survey was carried out (before any works were carried out) and provide a copy. If a noise survey has not taken place please indicate the date (before any works are being carried out) that the noise survey will be taking place, and agree to provide a copy.

Noise survey will be carried out during the first quarter of 2018 and a copy will be provided.

30. Please provide predictions for noise and vibration levels throughout the proposed works.

Predictions to follow once a suitably qualified acoustician has reviewed the proposed construction methodology.

31. Please provide details describing mitigation measures to be incorporated during the construction/demolition works to prevent noise and vibration disturbances from the activities on the site, including the actions to be taken in cases where these exceed the predicted levels.

The measures we will take to reduce noise pollution will be as follows:

- We will work closely and cooperate fully in terms of working in normal site hours,as set out by London Borough of Camden which also takes into account the planning condition that has been stipulated regarding working hours.
- Well maintained, sound attenuated plant will be used to carry out all operations
- Reducing plant noise to acceptable levels
- Solid hoarding will be used along the boundary of the construction compound. Thiswill reflect sound back into the site to a significant extent. This will be supplemented locally to machinery with movable sound reflecting/absorbing barriers.
- Noise arising from Site Vehicles and plant will be managed first of all by rigorously implementing the site hours.

Careful selection of plant and vehicles is essential. All plant used on the Channing Junior School site will be sound attanuated and will be regularly serviced/maintained to ensure it is operating correctly. The site induction for plant operators will cover the issue of noise specifically and they will be warned against over revving of plant and the operation of horns in all but necessary situations. Machine operatives will be advised to isolate plant/ equipment during idle periods reducing not only noise levels but encouraging efficient running of equipment and reduced fumes.

In terms of misbehaviour of operatives and staff on the site this will be guarded against by strict rules being out in place that will form part of Supply Chain method statements and will be covered in site induction and tool box talks. Any operative found in contravention of the required standards will be warned for a first offence and removed from the site should there be a re-occurrence.

All the measures mentioned above and others will be captured and monitored in our proposals under the Considerate Contractors scheme.

As part of the CCS requirement and in line with our Company Policy, we will put in place a complaints procedure which will include 24/7 contact details for the Site Management Team, a logging system for complaints and a process for remedial action to be identified and implemented

32. Please provide evidence that staff have been trained on BS 5228:2009

Curo Construction to provide ahead of the proposed start on site date.

33. Please provide details on how dust nuisance arising from dusty activities, on site, will be prevented.

In relation to dust, groundworks & demolitions is again likely to be the main source of disruption. Prior to starting daily operations wind speed and direction will be assessed and method/ sequence of works adjusted if necessary. Water spraying techniques will be utilised in necessary to suppress dust.

Apart from groundwork activities dust is likely to present a problem during long dry spells and in these periods damping down across the site will be employed to avoid windborne dust crossing the site boundary and causing inconvenience.

34. Please provide details describing how any significant amounts of dirt or dust that may be spread onto the public highway will be prevented and/or cleaned.

With regard to the risk of mud being spread to adjacent highways, Curo will maintain wheel washing facilities on site and carefully maintain clean hardstanding's across the site to ensure the surrounding highways remain in a clean acceptable condition and are not impacted on by our work.

35. Please provide details describing arrangements for monitoring of noise, vibration and dust levels.

Please also refer to the answers shown at 21e.

36. Please confirm that a Risk Assessment has been undertaken at planning application stage in line with the GLA policy. The Control of Dust and Emissions During Demolition and Construction 2104 (SPG), that the risk level that has been identified, and that the appropriate measures within the GLA mitigation measures checklist have been applied. Please attach the risk assessment and mitigation checklist as an appendix.

Please see attached our Air Pollution Risk Assessment Score Sheet for Construction Activities.

37. Please confirm that all of the GLA's 'highly recommended' measures from the SPG document relative to the level of risk identified in question 36 have been addressed by completing the GLA mitigation measures checklist.

The GLA mitigation measures checklist has been reviewed and where applicable covered by the Air Pollution Risk Assessment. Any further mitigation measures not covered by this will be dealt with via the Curo Construction SHEQ plan and further RAMS.

38. If the site is a 'High Risk Site', 4 real time dust monitors will be required. If the site is a 'Medium Risk Site', 2 real time dust monitors will be required. The risk assessment must take account of proximity to sensitive receptors (e.g. schools, care homes etc), as detailed in the SPG. Please confirm the location, number and specification of the monitors in line with the SPG and confirm that these will be installed 3 months prior to the commencement of works, and that real time data and quarterly reports will be provided to the Council detailing any exceedances of the threshold and measures that were implemented to address these.

The Air Pollution Risk Assessment score is within the Medium Risk range. Two number real time dust monitors will be installed as required and the data issued back to the council as requested. Specification of the monitors will be confirmed in due course.

39. Please provide details about how rodents, including rats, will be prevented from spreading out from the site. You are required to provide information about site inspections carried out and present copies of receipts (if work undertaken).

As our site is within the confines of the school grounds we will comply with the school policy unless we feel extra measures need to be undertaken, in which case we will engage with a specialist vermin control subcontractor and implement a plan in line with their recommendations.

40. Please confirm when an asbestos survey was carried out at the site and include the key findings.

An asbestos survey has not yet been carried out.

41. Complaints often arise from the conduct of builders in an area. Please confirm steps being taken to minimise this e.g. provision of a suitable smoking area, tackling bad language and unnecessary shouting.

In terms of misbehaviour of operatives and staff on the site this will be guarded against by strict rules being out in place that will form part of Supply Chain method statements and will be covered in site induction and tool box talks. Any operative found in contravention of the required standards will be warned for a first offence and removed from the site should there be a re-occurrence.

All the measures mentioned above and others will be captured and monitored in our proposals under the Considerate Contractors scheme.

42. If you will be using non-road mobile machinery (NRMM) on site with net power between 37kW and 560kW it will be required to meet the standards set out below. The standards are applicable to both variable and constant speed engines and apply for both PM and NOx emissions.

From 1st September 2015

(i) Major Development Sites – NRMM used on the site of any major development will be required to meet Stage IIIA of EU Directive 97/68/EC

(ii) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IIIB of EU Directive 97/68/EC

From 1st September 2020

(iii) Any development site - NRMM used on any site within Greater London will be required to meet Stage IIIB of EU Directive 97/68/EC

(iv) Any development site within the Central Activity Zone - NRMM used on any site within the Central Activity Zone will be required to meet Stage IV of EU Directive 97/68/EC

Please provide evidence demonstrating the above requirements will be met by answering the following questions:

a) Construction time period (mm/yy - mm/yy):

b) Is the development within the CAZ? (Y/N):

c) Will the NRMM with net power between 37kW and 560kW meet the standards outlined above? (Y/N):

d) Please provide evidence to demonstrate that all relevant machinery will be registered on the NRMM Register, including the site name under which it has been registered:

e) Please confirm that an inventory of all NRMM will be kept on site and that all machinery will be regularly serviced and service logs kept on site for inspection:

f) Please confirm that records will be kept on site which details proof of emission limits, including legible photographs of individual engine plates for all equipment, and that this documentation will be made available to local authority officers as required:

SYMBOL IS FOR INTERNAL USE

Agreement

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed in writing by the Council. This may require the CMP to be revised by the Developer and reapproved by the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council in writing and complied with thereafter.

It should be noted that any agreed Construction Management Plan does not prejudice further agreements that may be required such as road closures or hoarding licences.

Please notify that council when you intend to start work on site. Please also notify the council when works are approximately 3 months from completion.

Signed: ……

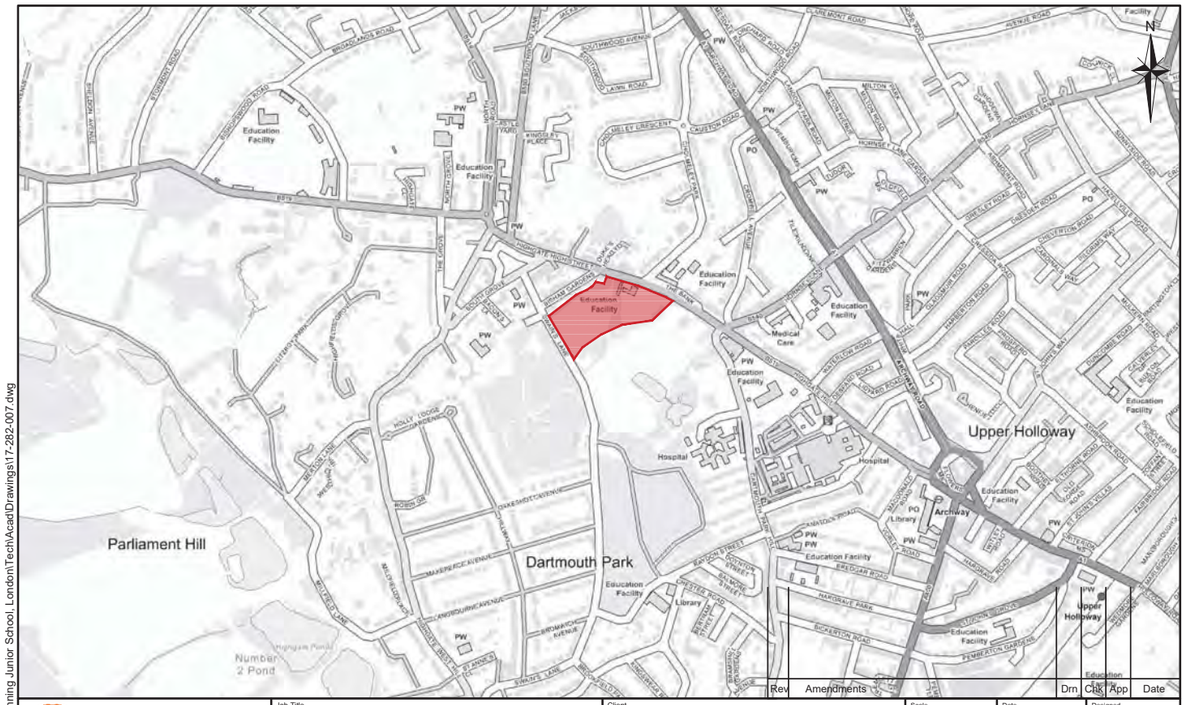
Date: ……..

Print Name: ……

Position: ……

Please submit to: planningobligations@camden.gov.uk

End of form.



Rev	Amendments	Drn	Chk	App	Date

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ODYSSEY

Elizabeth House,
39 York Road,
London,
SE1 7NQ

Telephone: 02076 202444
Fax: 02076 201168
E: info@odysseyconsult.co.uk
W: www.odysseyconsult.co.uk

Job Title: Channing Junior School	Client: Curo Construction	Scale: NTS @A4	Date: ???? ??
Drawing Title: Site Location Plan		Drawn: MJS	Checked: MJB
		Job No: 17-282	Drawing No: Figure 1

Designed: MJS
Approved: SRB
Rev: -

Q:\17-282 - Channing Junior School, London\Tech\Acad\Drawings\17-282-001.dwg

ODYSSEY

Elizabeth House,
39 York Road,
London,
SE1 7NQ

Telephone: 02076 202444
Fax: 02076 201168
E: info@odysseyconsult.co.uk
W: www.odysseyconsult.co.uk

Job Title: Channing Junior School	Client: Curo Construction	Scale: 1:200 @A1	Date: Nov 2017
Drawing Title: Development Phasing Plan Option 1		Drawn: MJS	Checked: MJB
		Job No: 17-282	Drawing No: 17-282-001

Designed: MJS
Approved: SRB
Rev: -