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Brighton STM Developments Limited

Town Centre West, Uxbridge

Drainage Conditions 68, 69

Project No.	2025-103	
Checked by:	Karl Pritchard	Pages: 6
Date:	1st October 2025	
Issued to:	Brighton STM Developments Limited	
Issued by:	Matt Hayward	

Introduction

Nolan Associates were appointed as the drainage engineer for the Town Centre West, Uxbridge which formed part of the wider Uxbridge development.

The approved outline site wide drainage strategy comprises the 'Uxbridge Drainage Strategy' and associated appendices prepared by Atkins dated November 2012 on behalf VSM Estates Limited. This forms part of the strategic infrastructure for the wider Uxbridge development.

The Town Centre West drainage is to be developed in accordance with the agreed Atkins site wide strategy, as required by conditions 68 and 69 attached to the St. Andrew's Park Hybrid Planning Permission.

Condition 68 states:

> *'Unless otherwise agreed in writing by the Local Planning Authority, prior to commencement of each phase of the outline element of the development, or any of the elements of development for which full planning permission is hereby approved, a drainage strategy detailing any on and/or off-site drainage works for the relevant phase/relevant component of the full planning element (including the adoption of sustainable urban drainage initiatives into the development), shall be submitted to and approved in writing by the Local Planning Authority in consultation with the sewerage undertaker. No discharge of foul or surface water from the site shall be accepted into the public system until the drainage works referred to in the strategy have been completed. Thereafter and prior to occupation of each phase/relevant component of the full planning element, the scheme shall be completed in accordance with the approved details and thereafter maintained for the life of the development, unless consent to any variation is first obtained in writing from the Local Planning Authority.'*

Condition 69 states:

> *'Prior to commencement of each phase of the outline element of the development, or any of the elements of development for which full planning permission is hereby approved, a scheme to dispose of foul and surface water for the relevant phase/relevant component of the full planning element shall be submitted to and approved by the Local Planning Authority. Thereafter and prior to occupation of each phase/relevant component of the full planning element, the scheme shall be completed in strict accordance with the approved details and thereafter maintained for the life of the development, unless consent to any variation is first obtained in writing from the Local Planning Authority.'"*

This note has been prepared in order to demonstrate that the Town Centre West development meets the requirements of Conditions 68 and 69.

Site Wide Strategy

The 'Uxbridge Drainage Strategy' describes the surface water being discharged to the River Pinn via three catchments. Town Centre West site within western catchment W1 and the strategy comprises a combination of pervious paving and positive drainage within the highways combining to collect development runoff in a single retention basin system prior to discharge to the River Pinn. Individual development plot and highway catchment areas and permitted discharge rates into the site wide drainage are detailed on Atkins drawing 5105977/UXB/SR/0511 Rev A06, the 'catchment plan'.

Town Centre West Drainage

Discharge Rates

Nolan Associates Drawing 2025-103 101 shows the extract from the Atkins drainage strategy catchment plan with the Town Centre West development overlaid. The Town Centre West development sits within catchments 3, 4 and 5 of the Atkins 'catchment plan. The permitted impermeable areas discharge rates for these catchments are

Area 3: Impermeable Area: 5468m^2; Discharge Rate 15 l/s
Area 4: Impermeable Area 5140m^2; Discharge Rate 15 l/s
Area 5: Impermeable Area 9760m^2; Discharge Rate; 30 l/s

The discharge rates for each block of the Town Centre West development are detailed below in relation to catchment areas 3,4 and 5.

> *Note: Areas 3,4 and 5 are also occupied by the separate Town Centre Extension development. The drainage strategy for which has been prepared by Conisbee consulting Engineers, ref 220131/J. Courtney dated 4th June 2024. The Town Centre Extension Development discharges 2.8 l/s to Area 2 (permitted 10 l/s) and 4.8 l/s to Area 5. The discharge rates for this development are also shown on drawing 101.*

Town Centre West has 3 surface water drainage networks, one for each block.

The following sections demonstrate that Nolan Associates drainage design for Town Centre West complies with the approved Atkins drainage strategy, also considering the Town Centre Extension discharges. Refer also to the appended Drainage Layout 2021-189 100 and Microdrainage Calculations.

Block 1:

Block 1 predominantly sits in Area 3 of the approved 'catchment plan'. It has an impermeable area of 2590m^2. An attenuation tank is sized at 100m3 and located to the west of block 1 in a pedestrian area as per the attached drawing 2021-189 100. The surface water drainage discharges into the surface water drain located in St Andrews Road via manhole S1.2 at a pumped discharge rate of 13.4lts/sec. There is no contribution from the Town Centre Extension to Area 3.

The Atkins catchment plan allows 15lts/sec for area 3. The Nolan Associates design discharge rate of 13.4l/s is less than the permitted 15l/s and Block 1 complies with the overall strategy.

The foul drainage runs to the south of block 1 before discharging onto the existing stub for the Thames Water sewer in Churchill Road.

Block 2:

Block 2 predominantly sits in Area 4 of the approved 'catchment plan'. It has an impermeable area of 1760m^2. The attenuation tank is sized at 100m3 and located in the pedestrian / garden area to the south west of block 2 and the north of block 3 as per the attached drawing 2021-189 100. The surface water drainage is restricted by hydrobrake at 5 lts/sec, and discharges into the Thames Water sewer stub located to the north of the block before discharging into Churchill Road. There is no contribution from the Town Centre Extension to Area 4.

The Atkins catchment plan allows 15lts/sec for area 4. The Nolan Associates design discharge rate of 5 l/s is less than the permitted 15l/s and Block 2 complies with the overall strategy.

The foul drainage runs to the north of block 2 before discharging to the same stub as block 1 and discharging to the sewer in Churchill Road.

Block 3:

Block 3 predominantly sits in Area 5 of the approved 'catchment plan'. It has an impermeable area of 5490m^2. The attenuation tank is sized at 190m3 and located in the car park aisle to the south of block 3 as per the attached drawing 2021-189 100. The surface water drainage is restricted by hydrobrake to 15 l/s at MHS4.3A and discharges into the Thames Water sewer stub located to the south of the block before discharging into Churchill Road. There is also a contribution of 4.8 l/s from town centre extension into Area 5.

The Atkins catchment plan allows 30lts/sec for area 5. The Nolan Associates discharge rate of 15 l/s together with the contribution from Town Centre East of 4.8 l/s is less than the permitted 30l/s and Block 3 complies with the overall strategy.

The foul drainage runs to the south of the block before discharging into the Thames Water sewer in Churchill Road via a proposed manhole.

Summary

Overall, the total discharge rates for town centre west blocks 1, 2 and 3 are 33.4lts/sec and for town centre extension 7.6lts/sec. This is less than the total permitted discharge rates of 70lts/sec for areas 2, 3, 4 and 5 in the Atkins site wide strategy.

SuDS

The Atkins drainage strategy provides a SuDS strategy to be incorporated into the schemes and is included on drawing 2025-103 101. The Town Centre West development covers Areas 3, 4 and 5. These areas are to include "Permeable Paving / Cellular Storage".
The Town Centre West development incorporates the cellular storage as mentioned above, however permeable paving has been included where possible.

Block 1:

No permeable paving has been incorporated into block 1 due to the layout and design constraints. Block 1 has a basement and little external space therefore permeable paving has been deemed not feasible.

Block 2:

There is a small area of parking bays to the west of block 2 that are associated with the link road. These parking bays are being utilised for permeable paving.

Block 3:

There is a large basement for this block. The pedestrian / garden area has outlets in the slab that are taken down to basement level and therefore this area is not suitable for SUD's. The only other external area where permeable paving is possible is in the car park to the south of block 3. The car parking bays in this area are being utilised as permeable paving.

Conclusions

This note has been prepared to discharge Conditions 68 and 69 of the St. Andrew's Park Hybrid Planning Permission. It sets out details of the Drainage Strategy and confirms how this aligns with the requirements of the site-wide strategy and outlines the scheme to dispose of foul and surface water.

The above breakdown and summary table on the attached drawing demonstrates that Blocks 1, 2 and 3 of the Town Centre West Development comply with the overall strategy and that any outstanding drainage planning conditions can be discharged.

For and on behalf of Nolan Associates

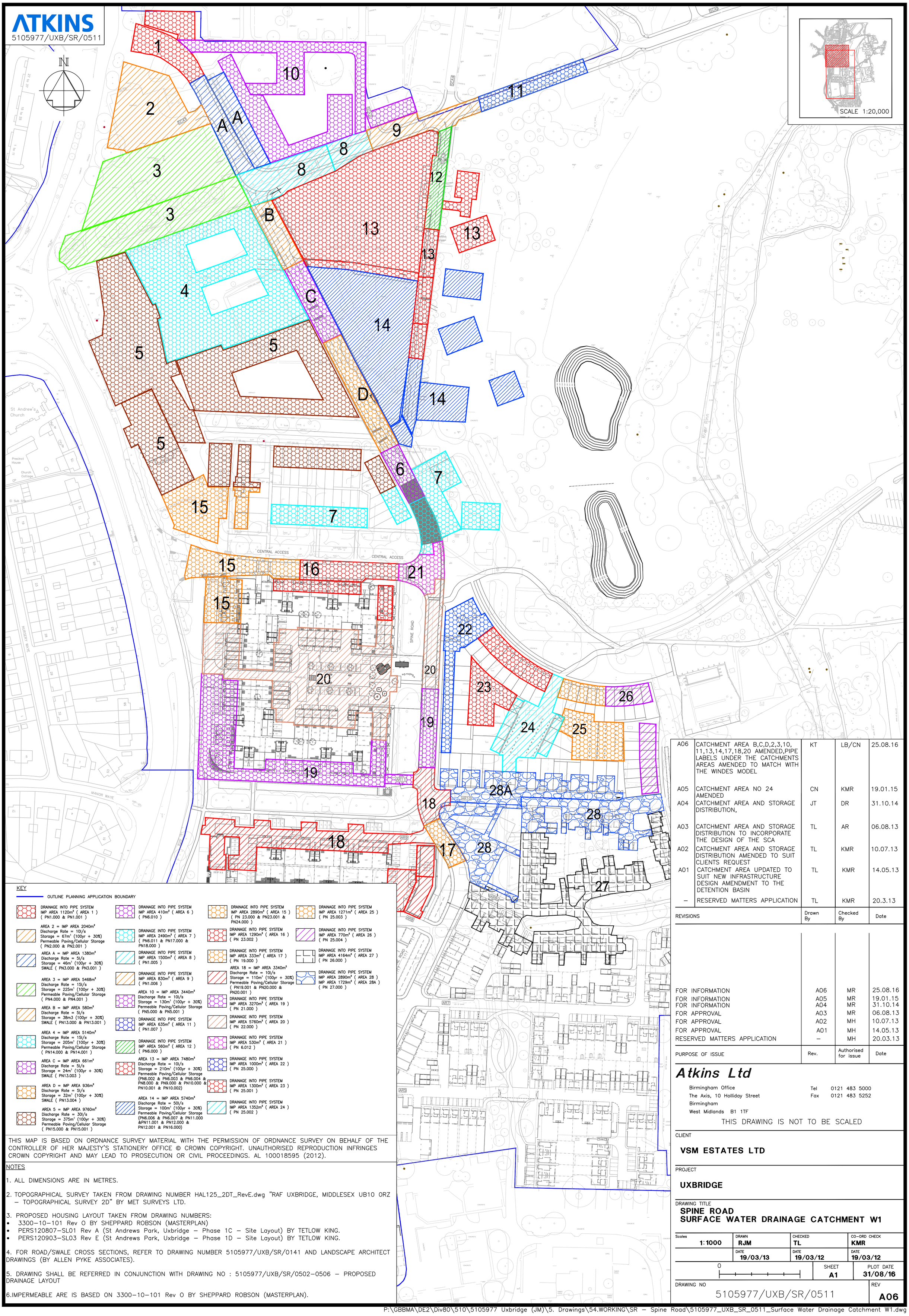
Matt Hayward.

Appendices

Atkins drawing 5105977/UXB/SR/0511 Rev A06. Surface Water Drainage Catchment W1
Nolan Associates drawing 2025-103 101. Area Overlay
Nolan Associates drawing 2021-189 100 Drainage Layout
Microdrainage Calculations

ATKINS
5105977/UXB/SR/0511

SCALE 1:20,000



KEY

OUTLINE PLANNING APPLICATION BOUNDARY

DRAINAGE INTO PIPE SYSTEM IMP AREA 1120m² (AREA 1) (PN1.000 & PN1.001)

AREA 2 = IMP AREA 2040m² Discharge Rate = 10l/s Storage = 67m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN2.000 & PN2.001)

AREA A = IMP AREA 1380m² Discharge Rate = 5l/s Storage = 46m³ (100yr + 30%) SWALE (PN3.000 & PN3.001)

AREA 3 = IMP AREA 5468m² Discharge Rate = 15l/s Storage = 225m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN4.000 & PN4.001)

AREA B = IMP AREA 580m² Discharge Rate = 5l/s Storage = 38m3 (100yr + 30%) SWALE (PN13.000 & PN13.001)

AREA 4 = IMP AREA 5140m² Discharge Rate = 15l/s Storage = 205m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN14.000 & PN14.001)

AREA C = IMP AREA 661m² Discharge Rate = 5l/s Storage = 24m³ (100yr + 30%) SWALE (PN13.003)

AREA D = IMP AREA 936m² Discharge Rate = 5l/s Storage = 32m³ (100yr + 30%) SWALE (PN13.004)

AREA 5 = IMP AREA 9760m² Discharge Rate = 30l/s Storage = 375m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN15.000 & PN15.001)

DRAINAGE INTO PIPE SYSTEM IMP AREA 410m² (AREA 6) (PN6.010)

DRAINAGE INTO PIPE SYSTEM IMP AREA 2490m² (AREA 7) (PN6.011 & PN17.000 & PN18.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1500m² (AREA 8) (PN1.005)

DRAINAGE INTO PIPE SYSTEM IMP AREA 830m² (AREA 9) (PN1.006)

AREA 10 = IMP AREA 3440m² Discharge Rate = 10l/s Storage = 130m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN5.000 & PN5.001)

DRAINAGE INTO PIPE SYSTEM IMP AREA 635m² (AREA 11) (PN1.007)

DRAINAGE INTO PIPE SYSTEM IMP AREA 560m² (AREA 12) (PN6.000)

AREA 13 = IMP AREA 7480m² Discharge Rate = 10l/s Storage = 210m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN6.002 & PN6.003 & PN6.004 & PN8.000 & PN9.000 & PN10.000 & PN10.001 & PN10.002)

AREA 14 = IMP AREA 5740m² Discharge Rate = 50l/s Storage = 100m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN6.006 & PN6.007 & PN11.000 &PN11.001 & PN12.000 & PN12.001 & PN16.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 2890m² (AREA 15) (PN 23.000 & PN23.001 & PN24.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1290m² (AREA 16) (PN 23.002)

DRAINAGE INTO PIPE SYSTEM IMP AREA 333m² (AREA 17) (PN 19.000)

AREA 18 = IMP AREA 3340m² Discharge Rate = 10l/s Storage = 110m³ (100yr + 30%) Permeable Paving/Cellular Storage (PN19.001 & PN20.000 & PN20.001)

DRAINAGE INTO PIPE SYSTEM IMP AREA 3270m² (AREA 19) (PN 21.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 5760m² (AREA 20) (PN 22.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 530m² (AREA 21) (PN 6.012)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1000m² (AREA 22) (PN 25.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1300m² (AREA 23) (PN 25.001)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1352m² (AREA 24) (PN 25.002)

DRAINAGE INTO PIPE SYSTEM IMP AREA 1271m² (AREA 25) (PN 25.003)

DRAINAGE INTO PIPE SYSTEM IMP AREA 770m² (AREA 26) (PN 25.004)

DRAINAGE INTO PIPE SYSTEM IMP AREA 4164m² (AREA 27) (PN 26.000)

DRAINAGE INTO PIPE SYSTEM IMP AREA 2890m² (AREA 28) IMP AREA 1729m² (AREA 28A) (PN 27.000)

NOTES

1. ALL DIMENSIONS ARE IN METRES.

2. TOPOGRAPHICAL SURVEY TAKEN FROM DRAWING NUMBER HAL125_2DT_RevE.dwg "RAF UXBRIDGE, MIDDLESEX UB10 0RZ – TOPOGRAPHICAL SURVEY 2D" BY MET SURVEYS LTD.

3. PROPOSED HOUSING LAYOUT TAKEN FROM DRAWING NUMBERS:
- 3300–10–101 Rev O BY SHEPPARD ROBSON (MASTERPLAN)
- PERS120807–SL01 Rev A (St Andrews Park, Uxbridge – Phase 1C – Site Layout) BY TETLOW KING.
- PERS120903–SL03 Rev E (St Andrews Park, Uxbridge – Phase 1D – Site Layout) BY TETLOW KING.

4. FOR ROAD/SWALE CROSS SECTIONS, REFER TO DRAWING NUMBER 5105977/UXB/SR/0141 AND LANDSCAPE ARCHITECT DRAWINGS (BY ALLEN PYKE ASSOCIATES).

5. DRAWING SHALL BE REFERRED IN CONJUNCTION WITH DRAWING NO : 5105977/UXB/SR/0502–0506 – PROPOSED DRAINAGE LAYOUT

6.IMPERMEABLE ARE IS BASED ON 3300–10–101 Rev O BY SHEPPARD ROBSON (MASTERPLAN).

A06	CATCHMENT AREA B,C,D,2,3,10, 11,13,14,17,18,20 AMENDED,PIPE LABELS UNDER THE CATCHMENTS AREAS AMENDED TO MATCH WITH THE WINDES MODEL	KT	LB/CN	25.08.16
A05	CATCHMENT AREA NO 24 AMENDED	CN	KMR	19.01.15
A04	CATCHMENT AREA AND STORAGE DISTRIBUTION,	JT	DR	31.10.14
A03	CATCHMENT AREA AND STORAGE DISTRIBUTION TO INCORPORATE THE DESIGN OF THE SCA	TL	AR	06.08.13
A02	CATCHMENT AREA AND STORAGE DISTRIBUTION AMENDED TO SUIT CLIENTS REQUEST	TL	KMR	10.07.13
A01	CATCHMENT AREA UPDATED TO SUIT NEW INFRASTRUCTURE DESIGN AMENDMENT TO THE DETENTION BASIN	TL	KMR	14.05.13
–	RESERVED MATTERS APPLICATION	TL	KMR	20.3.13

REVISIONS	Drawn By	Checked By	Date
FOR INFORMATION	A06	MR	25.08.16
FOR INFORMATION	A05	MR	19.01.15
FOR INFORMATION	A04	MR	31.10.14
FOR APPROVAL	A03	MR	06.08.13
FOR APPROVAL	A02	MH	10.07.13
FOR APPROVAL	A01	MH	14.05.13
RESERVED MATTERS APPLICATION	–	MH	20.03.13

PURPOSE OF ISSUE	Rev.	Authorised for issue	Date

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THIS DRAWING IS NOT TO BE SCALED

CLIENT
VSM ESTATES LTD

PROJECT
UXBRIDGE

DRAWING TITLE
SPINE ROAD
SURFACE WATER DRAINAGE CATCHMENT W1

Scales	DRAWN	CHECKED	CO–ORD CHECK
1:1000	RJM	TL	KMR
	DATE 19/03/13	DATE 19/03/12	DATE 19/03/12

0

SHEET A1 | PLOT DATE 31/08/16

DRAWING NO 5105977/UXB/SR/0511 | REV A06

P:\GBBMA\DE2\Div80\510\5105977 Uxbridge (JM)\5. Drawings\54.WORKING\SR – Spine Road\5105977_UXB_SR_0511_Surface Water Drainage Catchment W1.dwg