



NOTES

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050100150200m

N

Key

Site Boundary

27.00Ha

Proposed dwellings

Proposed Green Infrastructure
(Includes indicative roads crossing green infrastructure)

23.09Ha

Proposed vehicular access

Indicative pedestrian / cycle access

Indicative emergency / cycle access

Indicative Primary Street

Indicative Informal Footpath route

Indicative segregated cycle link

Potential location for interpretation board

Potential location for bench / resting area

Proposed tree planting

Proposed historic hedge replanting

Proposed SuDS

Indicative LEAP Play Area with 20m offset

Existing Tree and hedgerows

Trees/hedges to be removed

Retained/ existing moat

Existing Public Right of Way / footpath

Existing contours

Indicative mown grass footpath route

P07 27.10.2023 Plan updated to client comments. OWB KMN

rev	date	description	dm	chk
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fpcr

masterplanning

environmental assessment

landscape design

urban design

ecology

architecture

arboriculture

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client

Wain Estates

project

Land north of Wilderness Lane,
Great Barr, Birmingham

drawing title

Illustrative Masterplan

scale

1:2000 @ A2

dm

OWB

chk

KMN

date created

18 AUGUST 2023

project number

9364

status

S1

issue

P07

document number

09364-FPCR-XX-ZZ-DR-L-0012

Project Code

Originator

Zone

Level

Type

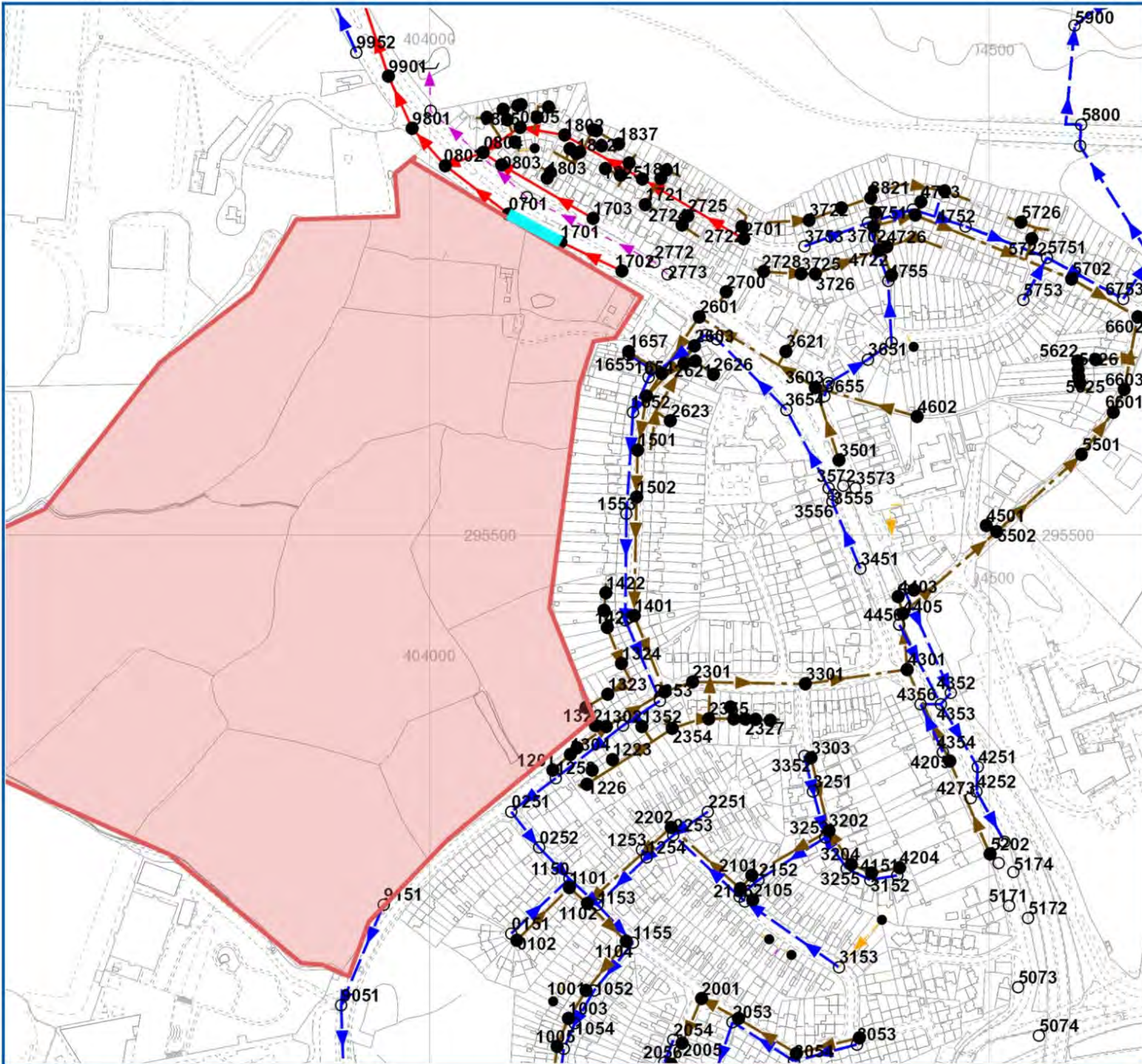
Role

Drawing Number

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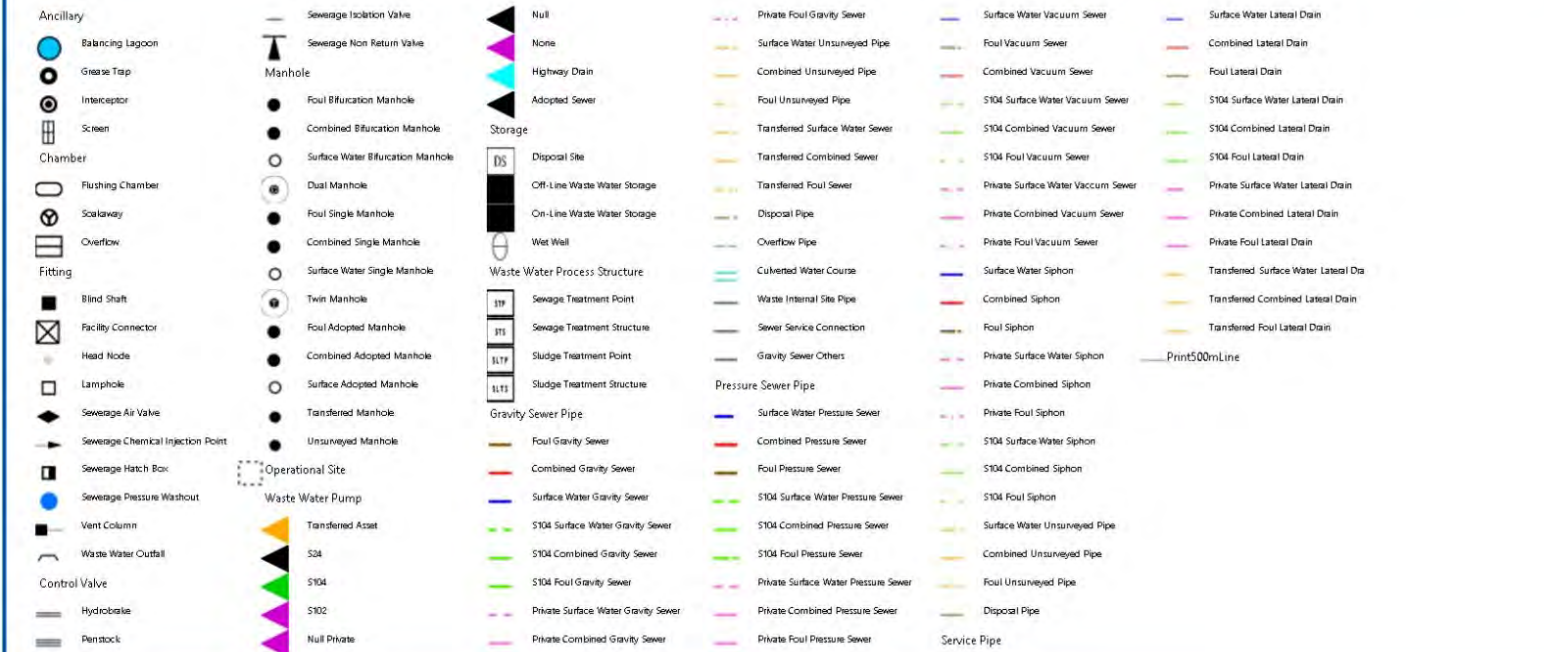


Appendix C Severn Trent Water Asset Mapping



Reference	Cover Level	Invert Level Upstream	Invert Level Downstream	Purpose	Material	Pipe Shape	Max Size	Min Size	Gradient	Year Laid
SP04951656	0	0	0	S	<UNK>	<UNK>	225	0	0	31/12/1899 00:00:00
SP04951655	0	0	0	S	<UNK>	<UNK>	225	0	0	31/12/1899 00:00:00
SP04952656	0	0	157.14	F	VC	C	225	0	<UNK>	31/12/1899 00:00:00
SP04951657	0	0	0	F	<UNK>	<UNK>	0	0	0	31/12/1899 00:00:00
SP04951104	151.9179	149.318	148.08	F	VC	C	225	<UNK>	45.85	31/12/1899 00:00:00
SP04951150	152.738	150.659	150.355	S	VC	C	225	<UNK>	113.23	31/12/1899 00:00:00
SP04951321	157.66	157.08	156.05	F	VC	C	100	<UNK>	17.67	31/12/1899 00:00:00
SP04952056	150.6909	147.691	<UNK>	S	VC	C	225	<UNK>	0	31/12/1899 00:00:00
SP04952251	157.054	155.539	153.22	S	VC	C	225	<UNK>	16.14	31/12/1899 00:00:00
SP04952728	<UNK>	<UNK>	158.41	F	VC	C	<UNK>	<UNK>	0	31/12/1899 00:00:00
SP04953101	159.1049	156.155	155.828	F	VC	C	225	<UNK>	59.7	31/12/1899 00:00:00
SP04953352	160.8139	158.154	157.172	S	VC	C	225	<UNK>	33.65	31/12/1899 00:00:00
SP04954651	159.9819	157.902	156.403	S	VC	C	225	<UNK>	36.72	31/12/1899 00:00:00
SP04954704	158.7129	156.383	154.446	F	VC	C	225	<UNK>	24.13	31/12/1899 00:00:00
SP04954722	157.27	155.68	<UNK>	F	VC	C	150	<UNK>	0	31/12/1899 00:00:00
SP04954251	162.6069	159.846	159.754	S	VC	C	300	<UNK>	244.67	31/12/1899 00:00:00
SP04955624	<UNK>	<UNK>	<UNK>	F	VC	C	<UNK>	<UNK>	0	31/12/1899 00:00:00
SP04956601	155.5299	151.26	151.199	F	VC	C	225	<UNK>	372.67	31/12/1899 00:00:00
SP04952773	160.662	0	0	S	<UNK>	<UNK>	0	0	0	31/12/1899 00:00:00
SP04950820	<UNK>	<UNK>	155.35	F	VC	C	<UNK>	<UNK>	0	31/12/1899 00:00:00
SP04950829	<UNK>	<UNK>	<UNK>	F	VC	C	<UNK>	<UNK>	0	31/12/1899 00:00:00
SP04951829	159.07	158.4	157.76	F	VC	C	100	<UNK>	23	31/12/1899 00:00:00
SP04951654	160.2189	158.819	158.62	S	VC	C	225	<UNK>	170.05	31/12/1899 00:00:00
SP04950252	153.6609	152.38	150.659	S	VC	C	225	<UNK>	22.62	31/12/1899 00:00:00
SP04951001	150.58	148.08	146.802	F	VC	C	225	<UNK>	23.19	31/12/1899 00:00:00
SP04951056	148.199	146.119	145.147	S	VC	C	225	<UNK>	23.91	31/12/1899 00:00:00
SP04951102	152.4759	150.013	149.318	F	VC	C	225	<UNK>	69.71	31/12/1899 00:00:00
SP04951553	159.11	157.83	157.079	S	VC	C	225	<UNK>	126.68	31/12/1899 00:00:00
SP04951601	159.96	157.14	156.84	F	VC	C	225	<UNK>	162.2	31/12/1899 00:00:00

LEGEND



MATERIALS

-	- NONE
AC	- ASBESTOS CEME
BR	- BRICK
CC	- CONCRETE BOX CULVERT
CI	- CAST IRON
CO	- CONCRETE
CSB	- CONCRETE SEGMENTS (BOLTED)
CSU	- CONCRETE SEGMENTS (UNBOLTED)
DI	- DUCTILE IRON
GRP	- GLASS REINFORCED PLASTIC
MAC	- MASONRY IN REGULAR COURSES
MAR	- MASONRY RANDOMLY COURSED
PE	- POLYETHYLENE
PF	- PITCH
PP	- POLYPROPYLENE
PSC	- PLASTIC STEEL COMPOSITE
PVC	- POLYVINYL CHLORIDE
RPM	- REINFORCED PLASTIC MATRIX
SI	- SPUN (GREY) IRON
ST	- STEEL
U	- UNKNOWN
VC	- VITRIFIED CLAY
XXX	- OTHER

CATEGORIES

W	- WEIR
C	- CASCADE
DB	- DAMBOARD
SE	- SIDE ENTRY
FV	- FLAP VALVE
SD	- BACK DROP
S	- SIPHON
D	- HIGHWAY DRAIN
S104	- SECTION 104

SHAPE

C	- CIRCULAR
E	- EGG SHAPED
O	- OTHER
R	- RECTANGLE
S	- SQUARE
T	- TRAPEZOIDAL
U	- UNKNOWN

PURPOSE

C	- COMBINED
E	- FINAL EFFLUENT
F	- FOUL
L	- SLUDGE
S	- SURFACE WATER



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Asset Data Management
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CV3 9FT
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SEWER RECORD (Tabular)

O/S Map Scale: 1:5,000

This map is centred upon:

Date of Issue: 16-12-22

X: 404129.81

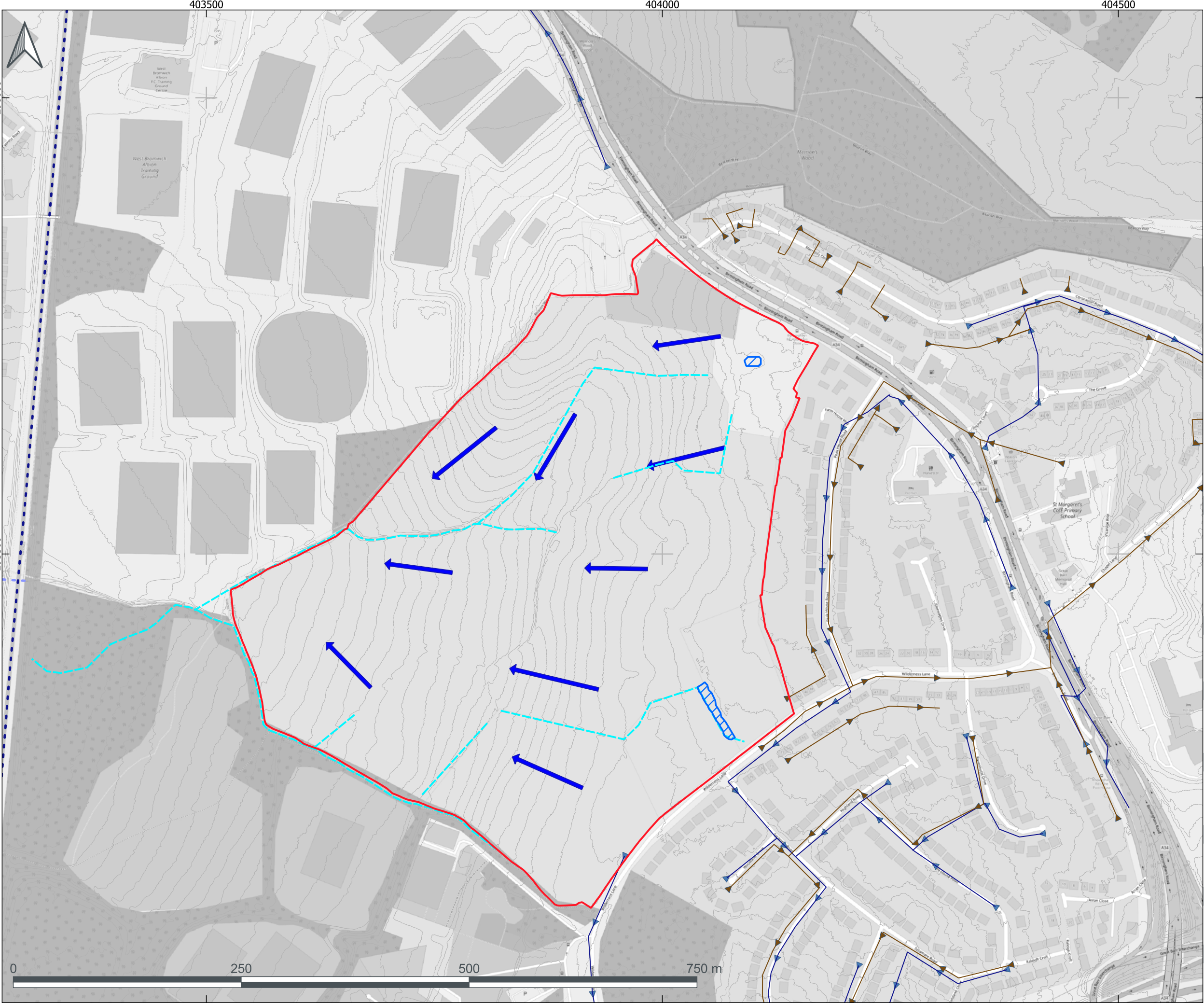
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- On 1 October 2011 most private sewers and private lateral drains in Severn Trent Water's sewerage area, which were connected to a public sewer as at 1 July 2011, transferred to the ownership of Severn Trent Water and became public sewers and public lateral drains. A further transfer takes place on 1 October 2012. Private pumping stations, which form part of these sewers or lateral drains, will transfer to ownership of Severn Trent Water on or before 1 October 2016. Severn Trent Water does not possess complete records of these assets. These assets may not be displayed on the map.
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Appendix D Existing Drainage Features Plan




- KEY:
- Site Boundary
 - Existing Severn Trent Water Combined Sewers
 - Existing Severn Trent Water Foul Water Sewers
 - Existing Severn Trent Water Surface Water Sewers
 - - - Ditch Network
 - - - Rushall Canal
 - ▨ Existing Topographical Depressions
 - ➡ Surface Water Flow Route
 - Contours produced from 1m DTM LiDAR

Notes

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction drawings and the design is subject to further design and construction details. This drawing is for information only and is not to be used for construction purposes without the written consent of the design team.

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Contain Severn Trent Water Asset Mapping
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Severn Trent Water sewers was traced from



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CLIENT

Wain Estates

PROJECT

Wilderness Park

DRAWING TITLE

Existing Drainage Features Plan

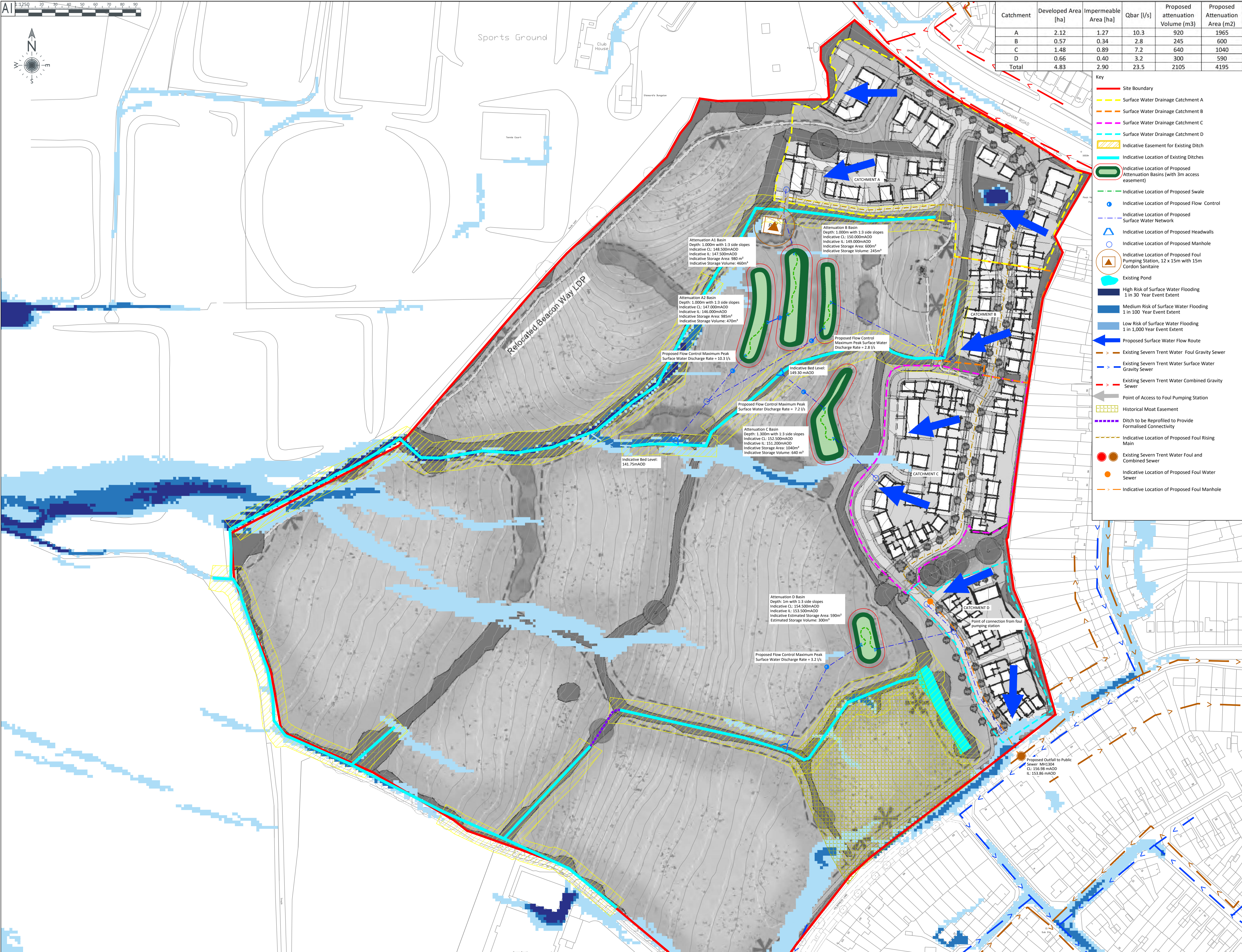
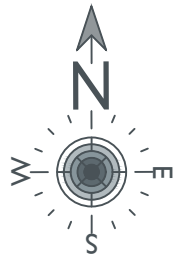
DRAWING INFORMATION STATUS

FOR INFORMATION

SCALE @ A3	DRAWN	REVIEWED	DATE
1:4,000	PR	AN	27/10/23
FIGURE NUMBER	REVISION		
01	P02		



Appendix E Drainage Strategy Drawings



Catchment	Developed Area [ha]	Impermeable Area [ha]	Qbar [l/s]	Proposed attenuation Volume (m3)	Proposed Attenuation Area (m2)
A	2.12	1.27	10.3	920	1965
B	0.57	0.34	2.8	245	600
C	1.48	0.89	7.2	640	1040
D	0.66	0.40	3.2	300	590
Total	4.83	2.90	23.5	2105	4195

- Key
- Site Boundary
 - Surface Water Drainage Catchment A
 - Surface Water Drainage Catchment B
 - Surface Water Drainage Catchment C
 - Surface Water Drainage Catchment D
 - Indicative Easement for Existing Ditch
 - Indicative Location of Existing Ditches
 - Indicative Location of Proposed Swale
 - Indicative Location of Proposed Flow Control
 - Indicative Location of Proposed Surface Water Network
 - Indicative Location of Proposed Headwalls
 - Indicative Location of Proposed Manhole
 - Indicative Location of Proposed Foul Pumping Station, 12 x 15m with 15m Cordon Sanitaire
 - Existing Pond
 - High Risk of Surface Water Flooding 1 in 30 Year Event Extent
 - Medium Risk of Surface Water Flooding 1 in 100 Year Event Extent
 - Low Risk of Surface Water Flooding 1 in 1,000 Year Event Extent
 - Proposed Surface Water Flow Route
 - Existing Severn Trent Water Foul Gravity Sewer
 - Existing Severn Trent Water Surface Water Gravity Sewer
 - Existing Severn Trent Water Combined Gravity Sewer
 - Point of Access to Foul Pumping Station
 - Historical Moat Easement
 - Ditch to be Reprofiled to Provide Formalised Connectivity
 - Indicative Location of Proposed Foul Rising Main
 - Existing Severn Trent Water Foul and Combined Sewer
 - Indicative Location of Proposed Foul Water Sewer
 - Indicative Location of Proposed Foul Manhole

- NOTES
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 - No assessment of earthworks and proposed levels has been undertaken at this stage.
 - No assessment of the potential impact of a Surcharged Outfall has been undertaken at this stage.
 - Drawing should be read in conjunction with all other relevant scheme drawings.
 - Drawing includes:
 - Illustrative Masterplan, FPCR, provided in October 2023.
 - Risk of Surface Water Mapping Extents downloaded from the Environment Agency, November 2022.
 - Sewer locations based on Severn Trent Records, December 2022.
 - Topographical Survey, JLP Surveying dated 27th July 2023.
 - Indicative Surface Water Drainage Strategy assumes:
 - Attenuation Basins are 1.3m deep or 1.0m deep with 1:3 side slopes for all Catchments.
 - Attenuation features to have a minimum of 300mm freeboard.
 - Volume within the conveyance features has not been included within attenuation calculations at this stage.
 - 60% impermeable area for residential development, with an additional 10% added for Urban Creep.
 - Discharge limited to Qbar rate for all events up to and including 100 year plus 40% Climate Change event.
 - FEH rainfall data.
 - Proposed foul water connection to existing public combined/foul sewer subject to approval from Severn Trent Water.
 - Point of foul connection to public sewer at MH1304 to be confirmed with Severn Trent Water Limited and subject to sewer capacity modeling.
 - Foul Pumping Station Compound Adoptable size is 12m x 15m with a 15m Cordon Sanitaire from any inhabitable development to be applied. Access to be achieved via adoptable highway.

REV	DATE	REVISION NOTE	BY
P7	30.10.23	UPDATED FOLLOWING SITE WALKOVER	PR
P6	28.09.23	FOUL EDITS	AB
P5	27.09.23	REVISED MASTERPLAN	AB
P4	19.09.2023	REVISED MASTERPLAN	AB
P3	01.09.2023	REVISED MASTERPLAN	PR
P2	31.08.2023	UPDATED FOR INCLUSION WITH FRA	MT
P1	29.08.2023	REVISED MASTERPLAN	MT
P0	17.08.2023	ISSUE	MT

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CLIENT **Wain Estates**

PROJECT **Wilderness Park**

DRAWING TITLE **Indicative Drainage Strategy**

DRAWING ISSUE STATUS **INFORMATION**

PJA JOB No. SUB-CODE DRAWING NO. REVISION
06832 - WR - 0503 - P7

Revision Letter: P - Prelim / A - Approval / T - Tender / C - Construction
BIM DRAWING CONFORMANCE

SCALE DRAWN REVIEWED DATE
AI@1:1250 MT AN September 2023