

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Company Address:			



PA (10)

Type : Catchment Area

Area (ha)	0.017
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



EA (3)

Type : Catchment Area

Area (ha)	0.323
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100



PA (25)

Type : Catchment Area

Area (ha)	0.008
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



EA (6)

Type : Catchment Area

Area (ha)	0.062
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100

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PA (8)

Type : Catchment Area

Area (ha)	0.011
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (21)

Type : Catchment Area

Area (ha)	0.058
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (14)

Type : Catchment Area

Area (ha)	0.007
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (7)

Type : Catchment Area

Area (ha)	0.022
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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PA (23)

Type : Catchment Area

Area (ha)	0.006
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (5)

Type : Catchment Area

Area (ha)	0.018
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (22)

Type : Catchment Area

Area (ha)	0.002
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (20)

Type : Catchment Area

Area (ha)	0.016
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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PA (17)

Type : Catchment Area

Area (ha)	0.055
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (15)

Type : Catchment Area

Area (ha)	0.025
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (18)

Type : Catchment Area

Area (ha)	0.022
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (9)

Type : Catchment Area

Area (ha)	0.021
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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PA (6)

Type : Catchment Area

Area (ha)	0.018
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (11)

Type : Catchment Area

Area (ha)	0.019
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (28)

Type : Catchment Area

Area (ha)	0.049
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (12)

Type : Catchment Area

Area (ha)	0.027
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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PA (24)

Type : Catchment Area

Area (ha)	0.002
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (2)

Type : Catchment Area

Area (ha)	0.022
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



EA (4)

Type : Catchment Area

Area (ha)	0.134
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100



PA (19)

Type : Catchment Area

Area (ha)	0.016
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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PA (29)

Type : Catchment Area

Area (ha)	0.021
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



EA (5)

Type : Catchment Area

Area (ha)	0.286
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100



EA (1)

Type : Catchment Area

Area (ha)	0.066
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100



EA (2)

Type : Catchment Area

Area (ha)	0.334
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	15
Percentage Impervious (%)	100

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PA (16)

Type : Catchment Area

Area (ha)	0.092
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	10
Percentage Impervious (%)	100



PA (3)

Type : Catchment Area

Area (ha)	0.033
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



PA (1)

Type : Catchment Area

Area (ha)	0.024
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



FA (1)

Type : Catchment Area

Area (ha)	0.122
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	10
Percentage Impervious (%)	100

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Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Sump Depth (m)	Chamber Shape
SW 1.1	Manhole	331418.670	187922.346	9.350	1.000	8.350	0.000	Circular
SW 1.9	Manhole	331439.615	187861.695	9.350	1.800	7.550	0.000	Circular
SW 1.2	Manhole	331426.444	187912.918	9.350	1.200	8.150	0.000	Circular
SW 1.3	Manhole	331431.686	187906.559	9.350	1.300	8.050	0.000	Circular
SW 1.4	Manhole	331442.052	187893.984	9.350	1.450	7.900	0.000	Circular
SW 1.5	Manhole	331444.205	187891.372	9.350	1.500	7.850	0.000	Circular
SW 1.7	Manhole	331456.908	187875.962	9.350	2.200	7.150	0.000	Circular
SW 1.8	Manhole	331445.306	187866.435	9.350	1.750	7.600	0.000	Circular
SW 3.3	Manhole	331384.003	187898.915	9.293	1.273	8.020	0.000	Circular
SW 3.5	Manhole	331391.278	187843.655	9.200	1.560	7.640	0.000	Circular
SW 3.6	Manhole	331417.682	187835.330	9.200	1.800	7.400	0.000	Circular
SW 2.2	Manhole	331389.107	187875.466	9.350	1.400	7.950	0.000	Circular
SW 2.6	Manhole	331393.266	187843.777	9.350	1.600	7.750	0.000	Circular
SW 2.7	Manhole	331411.093	187838.170	9.350	1.750	7.600	0.000	Circular
SW 2.8	Manhole	331418.298	187844.115	9.350	1.850	7.500	0.000	Circular
SW 1.11	Manhole	331428.969	187847.611	9.250	1.900	7.350	0.000	Circular
SW 3.4	Manhole	331387.926	187869.111	9.200	1.380	7.820	0.000	Circular
SW 1.13	Manhole	331449.075	187861.212	9.200	2.050	7.150	0.000	Circular
SW 1.12	Manhole	331447.624	187862.974	9.250	2.050	7.200	0.000	Circular
SW 1.14	Manhole	331461.575	187871.515	9.200	2.200	7.000	0.000	Circular
SW 1.16	Manhole	331493.537	187846.325	9.150	2.290	6.860	0.000	Circular
SW 1.17	Manhole	331538.553	187800.513	8.900	2.310	6.590	0.000	Circular
EX SW 1	Manhole	331541.063	187803.161	8.900	2.330	6.570	0.000	Circular
EX SW 2	Manhole	331563.311	187827.092	8.900	2.410	6.490	0.000	Circular
EX SW 3	Manhole	331589.375	187855.071	8.700	2.450	6.250	0.000	Circular
Outfall	Manhole	331591.779	187857.672	8.700	2.889	5.811	0.000	Circular
SW 6.4	Manhole	331457.064	187884.091	9.200	2.100	7.100	0.000	Circular
SW 1.10	Manhole	331426.363	187850.769	9.350	1.950	7.400	0.000	Circular
SW 1.15	Manhole	331487.727	187844.905	9.027	2.127	6.900	0.000	Circular
SW 3.2	Manhole	331382.070	187913.598	9.312	1.482	7.830	0.300	Circular

Name	Diameter (m)	Lock
SW 1.1	0.600	None
SW 1.9	1.200	None
SW 1.2	0.600	None
SW 1.3	0.600	None
SW 1.4	0.600	None
SW 1.5	0.600	None
SW 1.7	1.200	None
SW 1.8	1.200	None
SW 3.3	0.600	None
SW 3.5	0.600	None
SW 3.6	1.500	None
SW 2.2	0.600	None
SW 2.6	0.600	None
SW 2.7	0.600	None
SW 2.8	0.600	None
SW 1.11	1.200	None
SW 3.4	0.600	None
SW 1.13	1.200	None
SW 1.12	1.200	None
SW 1.14	1.800	None
SW 1.16	1.800	None
SW 1.17	1.800	None
EX SW 1	1.500	None
EX SW 2	1.500	None
EX SW 3	1.500	None
Outfall	1.200	None
SW 6.4	0.600	None
SW 1.10	1.200	None
SW 1.15	1.800	None
SW 3.2	0.600	None

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Inlets				
Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SW 1.1	Inlet	PA (1)	(None)	No Restriction
SW 1.9	Inlet	P1.06 PA (7)	(None)	No Restriction
	Inlet (1)	PA (8)	(None)	No Restriction
SW 1.2	Inlet	P1.00 PA (2)	(None)	No Restriction
SW 1.3	Inlet	P1.01	(None)	No Restriction
	Inlet (2)	PA (3)	(None)	No Restriction
SW 1.4	Inlet	P1.02 PA (4)	(None)	No Restriction
SW 1.5	Inlet	P1.03	(None)	No Restriction
	Inlet (1)	PA (5)	(None)	No Restriction
SW 1.7	Inlet	P1.04 P1.041	(None)	No Restriction
SW 1.8	Inlet	P1.05	(None)	No Restriction
	Inlet (2)	PA (6)	(None)	No Restriction
SW 3.3	Inlet	PA (13) PA (14)	(None)	No Restriction
	Inlet (3)	P3.01	(None)	No Restriction
SW 3.5	Inlet (1)	P3.03 PA (18)	(None)	No Restriction
SW 3.6	Inlet	P3.041	(None)	No Restriction
	Inlet (4)	P3.04	(None)	No Restriction
SW 2.2	Inlet	PA (16)	(None)	No Restriction
SW 2.6	Inlet	P2.00	(None)	No Restriction
	Inlet (1)	PA (17)	(None)	No Restriction
SW 2.7	Inlet	P2.01	(None)	No Restriction
SW 2.8	Inlet	P2.03	(None)	No Restriction
SW 1.11	Inlet	P1.08	(None)	No Restriction
SW 3.4	Inlet	P3.02 P3.021	(None)	No Restriction
SW 1.13	Inlet	P3.05	(None)	No Restriction
	Inlet (1)	P1.10	(None)	No Restriction
SW 1.12	Inlet (1)	P1.09	(None)	No Restriction
SW 1.14	Inlet	P4.01	(None)	No Restriction
	Inlet (1)	P1.11	(None)	No Restriction
SW 1.16	Inlet	FA (1)	(None)	No Restriction
	Inlet (1)	P1.13	(None)	No Restriction
SW 1.17	Inlet	P1.14	(None)	No Restriction
EX SW 1	Inlet	P1.15	(None)	No Restriction
	Inlet (2)	EA (3) EA (1)	(None)	No Restriction
	Inlet (3)	EA (6)	(None)	No Restriction
EX SW 2	Inlet	EX 1 EA (4)	(None)	No Restriction
	Inlet (2)	EA (5)	(None)	No Restriction
	Inlet (3)	EA (2)	(None)	No Restriction
EX SW 3	Inlet	EX 2	(None)	No Restriction
Outfall	Inlet	EX 3	(None)	No Restriction
SW 6.4	Inlet (2)	P4.00	(None)	No Restriction
SW 1.10	Inlet	P2.04	(None)	No Restriction
	Inlet (1)	P1.07 PA (10)	(None)	No Restriction
	Inlet (2)	PA (9)	(None)	No Restriction
SW 1.15	Inlet	P1.12	(None)	No Restriction
SW 3.2	Inlet	P3.00	(None)	No Restriction

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Outlets			
Junction	Outlet Name	Outgoing Connection	Outlet Type
SW 1.1	Outlet	P1.00	Free Discharge
SW 1.9	Outlet	P1.07	Free Discharge
SW 1.2	Outlet	P1.01	Free Discharge
SW 1.3	Outlet	P1.02	Free Discharge
SW 1.4	Outlet	P1.03	Free Discharge
SW 1.5	Outlet	P1.04	Free Discharge
SW 1.7	Outlet	P1.05	Free Discharge
SW 1.8	Outlet	P1.06	Free Discharge
SW 3.3	Outlet	P3.02	Free Discharge
SW 3.5	Outlet	P3.04	Free Discharge
SW 3.6	Outlet	P3.05	Free Discharge
SW 2.2	Outlet	P2.00	Free Discharge
SW 2.6	Outlet	P2.01	Free Discharge
SW 2.7	Outlet	P2.03	Free Discharge
SW 2.8	Outlet	P2.04	Free Discharge
SW 1.11	Outlet	P1.09	Free Discharge
SW 3.4	Outlet	P3.03	Free Discharge
SW 1.13	Outlet	P1.11	Free Discharge
SW 1.12	Outlet	P1.10	Free Discharge
SW 1.14	Outlet	P1.12	Free Discharge
SW 1.16	Outlet	P1.14	Free Discharge
SW 1.17	Outlet	P1.15	Free Discharge
EX SW 1	Outlet	EX 1	Free Discharge
EX SW 2	Outlet	EX 2	Free Discharge
EX SW 3	Outlet	EX 3	Free Discharge
Outfall	Outlet	(None)	Orifice
	Diameter (m)	0.600	
	Coefficient of Discharge	0.600	
	Invert Level (m)	5.811	
SW 6.4	Outlet	P4.01	Free Discharge
SW 1.10	Outlet	P1.08	Free Discharge
SW 1.15	Outlet	P1.13	Free Discharge
SW 3.2	Outlet	P3.01	Free Discharge

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RG3

Type : Bioretention

Ponding Area

Exceedance Level (m)	9.200
Depth (m)	0.250
Base Level (m)	8.950
Top Area (m²)	114.28
Side Slope (1:X)	1.00
Base Area (m²)	105.28
Freeboard (mm)	0
Porosity (%)	100
Length (m)	18.000
Long. Slope (1:X)	1000.00
Filtration Rate (m/hr)	1.0
Friction Scheme	Manning's n
n	0.04
Total Volume (m³)	41.879

Filter Area

Base Level (m)	8.500
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Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Friction Scheme	Manning's n
n	0.015
Release Height (m)	0.000

Filtration Layers

Use	Name	Filtration Layer Depth (mm)	Porosity (%)	Conductivity (m/hr)	Soil Type
☐	Soil	300	30	0.054	Soil Type
	Storage	450	30	200.0	

Advanced

Ponding Area

Base Perimeter (m)	47.697
Top Perimeter (m)	48.697

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RG1

Type : Bioretention

Ponding Area

Exceedance Level (m)	9.200
Depth (m)	0.250
Base Level (m)	8.950
Top Area (m²)	53.02
Side Slope (1:X)	1.00
Base Area (m²)	45.58
Freeboard (mm)	0
Porosity (%)	100
Length (m)	14.878
Long. Slope (1:X)	1000.00
Filtration Rate (m/hr)	1.0
Friction Scheme	Manning's n
n	0.04
Total Volume (m³)	16.610

Filter Area

Base Level (m)	8.650
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Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Friction Scheme	Manning's n
n	0.015
Release Height (m)	0.000

Filtration Layers

Use	Name	Filtration Layer Depth (mm)	Porosity (%)	Conductivity (m/hr)	Soil Type
☐	Soil	150	44	0.28	Soil Type
	Storage	300	30	200.0	

Advanced

Ponding Area

Base Perimeter (m)	35.882
Top Perimeter (m)	36.882

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RG2

Type : Bioretention

Ponding Area

Exceedance Level (m)	9.100
Depth (m)	0.250
Base Level (m)	8.850
Top Area (m²)	39.87
Side Slope (1:X)	1.00
Base Area (m²)	30.87
Freeboard (mm)	0
Porosity (%)	100
Length (m)	18.000
Long. Slope (1:X)	1000.00
Filtration Rate (m/hr)	1.0
Friction Scheme	Manning's n
n	0.04
Total Volume (m³)	21.193

Filter Area

Base Level (m)	8.450
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Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Friction Scheme	Manning's n
n	0.015
Release Height (m)	0.000

Filtration Layers

Use	Name	Filtration Layer Depth (mm)	Porosity (%)	Conductivity (m/hr)	Soil Type
☐	Soil	300	30	0.054	Soil Type
	Storage	400	100	1000.0	

Advanced

Ponding Area

Base Perimeter (m)	39.431
Top Perimeter (m)	40.431

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Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	9.225
Depth (m)	0.600
Base Level (m)	8.625
Paving Layer Depth (mm)	150
Membrane Percolation (m/hr)	1.0
Porosity (%)	30
Length (m)	52.458
Long. Slope (1:X)	100.00
Width (m)	10.997
Total Volume (m³)	78.342

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	200.0
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Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:			



Swale

Type : Swale

Swale

Exceedance Level (m)	9.275
Depth (m)	0.250
Base Level (m)	9.025
Top Width (m)	3.000
Side Slope (1:X)	1.00
Base Width (m)	2.500
Freeboard (mm)	0
Length (m)	42.000
Long. Slope (1:X)	1000.00
Filtration Rate (m/hr)	1.0
Friction Scheme	Manning's n
n	0.04
Total Volume (m³)	53.020

Trench

Trench Depth (m)	0.750
Trench Porosity (%)	30

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Colebrook-White Roughness
Roughness (mm)	0.6

Advanced

Swale

Porosity (%)	100
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Trench

Trench Conductivity (m/hr)	200.0
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Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026		
	Designed by: rclue	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		



Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
P3.00	16.183	Pipe	31.121		0.6	225	9.215	8.650
P3.04	27.685	Pipe	115.356		0.6	300	9.200	7.640
P1.00	12.219	Pipe	61.097		0.6	300	9.350	8.350
P1.01	8.241	Pipe	82.410		0.6	300	9.350	8.150
P1.08	4.095	Pipe	81.890		0.6	450	9.350	7.400
P1.02	16.296	Pipe	108.642		0.6	300	9.350	8.050
P1.03	3.385	Pipe	67.701		0.6	300	9.350	7.900
P1.04	19.972	Pipe	133.145		0.6	300	9.350	7.850
P1.05	15.012	Pipe	150.124		0.6	375	9.350	7.700
P1.06	7.406	Pipe	148.128		0.6	375	9.350	7.600
P2.00	31.961	Pipe	159.805		0.6	300	9.350	7.950
P2.01	18.688	Pipe	124.584		0.6	300	9.350	7.750
P2.03	9.341	Pipe	93.412		0.6	300	9.350	7.600
P1.07	17.175	Pipe	114.502		0.6	375	9.350	7.550
P1.09	24.166	Pipe	161.108		0.6	450	9.250	7.350
P2.04	10.455	Pipe	104.552		0.6	300	9.350	7.500
P1.11	16.199	Pipe	107.995		0.6	600	9.200	7.150
P1.12	37.309	Pipe	373.095		0.6	675	9.200	7.000
P1.14	64.228	Pipe	237.880		0.6	675	9.150	6.860
P3.021	11.092	Pipe	17.606		0.6	150	9.118	8.450
P1.10	2.283	Pipe	45.664		0.6	450	9.250	7.200
P3.02	30.061	Pipe	150.304		0.6	300	9.293	8.020
P3.03	25.676	Pipe	142.642		0.6	300	9.200	7.820
P4.01	13.360	Pipe	133.604		0.6	225	9.200	7.100
P1.15	3.648	Pipe	182.412		0.6	675	8.900	6.590
EX 1	32.675	Pipe	408.440		0.6	600	8.900	6.570
EX 2	38.238	Pipe	159.325		0.6	600	8.900	6.490
EX 3	3.542	Pipe	8.069		0.6	600	8.700	6.250
P3.05	40.686	Pipe	162.745		0.6	450	9.200	7.400
P3.01	14.810	Pipe	134.636		0.6	225	9.312	8.130
P3.041	6.781	Pipe	5.536		0.6	150	9.750	8.625
P1.041	3.714	Pipe	2.751		0.6	150	9.218	8.500
P4.00	6.358	Pipe	5.411		0.6	150	9.317	8.275
P1.13	5.981	Pipe	149.531		0.6	675	9.027	6.900

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations		Date: 27/05/2026			
		Designed by: rclue	Checked by:		Approved By:
Report Details: Type: Connections Storm Phase: Phase		Company Address:			

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
P3.00	9.312	8.130	Levels	0.0	(None)	(None)
P3.04	9.200	7.400	All		(None)	(None)
P1.00	9.350	8.150	All		(None)	(None)
P1.01	9.350	8.050	All		(None)	(None)
P1.08	9.250	7.350	All		(None)	(None)
P1.02	9.350	7.900	All		(None)	(None)
P1.03	9.350	7.850	All		(None)	(None)
P1.04	9.350	7.700	All		(None)	(None)
P1.05	9.350	7.600	All		(None)	(None)
P1.06	9.350	7.550	All		(None)	(None)
P2.00	9.350	7.750	All		(None)	(None)
P2.01	9.350	7.600	All		(None)	(None)
P2.03	9.350	7.500	All		(None)	(None)
P1.07	9.350	7.400	All		(None)	(None)
P1.09	9.250	7.200	All		(None)	(None)
P2.04	9.350	7.400	All		(None)	(None)
P1.11	9.200	7.000	None		(None)	(None)
P1.12	9.027	6.900	Levels		(None)	(None)
P1.14	8.900	6.590	Levels		(None)	(None)
P3.021	9.200	7.820	None	0.0	(None)	(None)
P1.10	9.200	7.150	All		(None)	(None)
P3.02	9.200	7.820	All		(None)	(None)
P3.03	9.200	7.640	All		(None)	(None)
P4.01	9.200	7.000	All		(None)	(None)
P1.15	8.900	6.570	All		(None)	(None)
EX 1	8.900	6.490	All		(None)	(None)
EX 2	8.700	6.250	All		(None)	(None)
EX 3	8.700	5.811	All		(None)	(None)
P3.05	9.200	7.150	All		(None)	(None)
P3.01	9.293	8.020	Levels		(None)	(None)
P3.041	9.200	7.400	None	0.0	(None)	(None)
P1.041	9.350	7.150	None	0.0	(None)	(None)
P4.00	9.200	7.100	None	0.0	(None)	(None)
P1.13	9.150	6.860	Levels		(None)	(None)

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW 1.1	9.350 8.350	Diameter / Length: 0.600					Manhole
E:331418.670 N:187922.346	1.000						
			{a} P1.00	Pipe	8.350	Diam/Width:300	Not Applicable
SW 1.9	9.350 7.550	Diameter / Length: 1.200	{1} P1.06	Pipe	7.550	Diam/Width:375	Manhole
E:331439.615 N:187861.695	1.800						
			{a} P1.07	Pipe	7.550	Diam/Width:375	Not Applicable
SW 1.2	9.350 8.150	Diameter / Length: 0.600	{1} P1.00	Pipe	8.150	Diam/Width:300	Manhole
E:331426.444 N:187912.918	1.200						
			{a} P1.01	Pipe	8.150	Diam/Width:300	Not Applicable
SW 1.3	9.350 8.050	Diameter / Length: 0.600	{1} P1.01	Pipe	8.050	Diam/Width:300	Manhole
E:331431.686 N:187906.559	1.300						
			{a} P1.02	Pipe	8.050	Diam/Width:300	Not Applicable
SW 1.4	9.350 7.900	Diameter / Length: 0.600	{1} P1.02	Pipe	7.900	Diam/Width:300	Manhole
E:331442.052 N:187893.984	1.450						
			{a} P1.03	Pipe	7.900	Diam/Width:300	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations		Date: 27/05/2026			
		Designed by: rclue	Checked by:		Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase		Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW 1.5	9.350 7.850	Diameter / Length: 0.600	{1} P1.03	Pipe	7.850	Diam/Width:300	Manhole
E:331444.205 N:187891.372	1.500						
			{a} P1.04	Pipe	7.850	Diam/Width:300	Not Applicable
SW 1.7	9.350 7.150	Diameter / Length: 1.200	{1} P1.04	Pipe	7.700	Diam/Width:300	Manhole
E:331456.908 N:187875.962	2.200		{2} P1.041	Pipe	7.150	Diam/Width:150	
			{a} P1.05	Pipe	7.700	Diam/Width:375	Not Applicable
SW 1.8	9.350 7.600	Diameter / Length: 1.200	{1} P1.05	Pipe	7.600	Diam/Width:375	Manhole
E:331445.306 N:187866.435	1.750						
			{a} P1.06	Pipe	7.600	Diam/Width:375	Not Applicable
SW 3.3	9.293 8.020	Diameter / Length: 0.600	{1} P3.01	Pipe	8.020	Diam/Width:225	Manhole
E:331384.003 N:187898.915	1.273						
			{a} P3.02	Pipe	8.020	Diam/Width:300	Not Applicable
SW 3.5	9.200 7.640	Diameter / Length: 0.600	{1} P3.03	Pipe	7.640	Diam/Width:300	Manhole
E:331391.278 N:187843.655	1.560						
			{a} P3.04	Pipe	7.640	Diam/Width:300	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations		Date: 27/05/2026			
		Designed by: rclue	Checked by:		Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase		Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW 3.6	9.200 7.400	Diameter / Length: 1.500	{1} P3.04	Pipe	7.400	Diam/Width:300	Manhole
E:331417.682 N:187835.330	1.800		{2} P3.041	Pipe	7.400	Diam/Width:150	
			{a} P3.05	Pipe	7.400	Diam/Width:450	Not Applicable
SW 2.2	9.350 7.950	Diameter / Length: 0.600					Manhole
E:331389.107 N:187875.466	1.400		{a} P2.00	Pipe	7.950	Diam/Width:300	Not Applicable
SW 2.6	9.350 7.750	Diameter / Length: 0.600	{1} P2.00	Pipe	7.750	Diam/Width:300	Manhole
E:331393.266 N:187843.777	1.600		{a} P2.01	Pipe	7.750	Diam/Width:300	Not Applicable
SW 2.7	9.350 7.600	Diameter / Length: 0.600	{1} P2.01	Pipe	7.600	Diam/Width:300	Manhole
E:331411.093 N:187838.170	1.750		{a} P2.03	Pipe	7.600	Diam/Width:300	Not Applicable
SW 2.8	9.350 7.500	Diameter / Length: 0.600	{1} P2.03	Pipe	7.500	Diam/Width:300	Manhole
E:331418.298 N:187844.115	1.850		{a} P2.04	Pipe	7.500	Diam/Width:300	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations		Date: 27/05/2026			
		Designed by: rclue	Checked by:		Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase		Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW 1.11	9.250 7.350	Diameter / Length: 1.200	{1} P1.08	Pipe	7.350	Diam/Width:450	Manhole
E:331428.969 N:187847.611	1.900						
			{a} P1.09	Pipe	7.350	Diam/Width:450	Not Applicable
SW 3.4	9.200 7.820	Diameter / Length: 0.600	{1} P3.02	Pipe	7.820	Diam/Width:300 Diam/Width:150	Manhole
E:331387.926 N:187869.111	1.380		{2} P3.021	Pipe	7.820		
			{a} P3.03	Pipe	7.820	Diam/Width:300	Not Applicable
SW 1.13	9.200 7.150	Diameter / Length: 1.200	{1} P3.05	Pipe	7.150	Diam/Width:450 Diam/Width:450	Manhole
E:331449.075 N:187861.212	2.050		{2} P1.10	Pipe	7.150		
			{a} P1.11	Pipe	7.150	Diam/Width:600	Not Applicable
SW 1.12	9.250 7.200	Diameter / Length: 1.200	{1} P1.09	Pipe	7.200	Diam/Width:450	Manhole
E:331447.624 N:187862.974	2.050						
			{a} P1.10	Pipe	7.200	Diam/Width:450	Not Applicable
SW 1.14	9.200 7.000	Diameter / Length: 1.800	{1} P4.01	Pipe	7.000	Diam/Width:225 Diam/Width:600	Manhole
E:331461.575 N:187871.515	2.200		{2} P1.11	Pipe	7.000		
			{a} P1.12	Pipe	7.000	Diam/Width:675	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SW 1.16	9.150 6.860	Diameter / Length: 1.800	{1} P1.13	Pipe	6.860	Diam/Width:675	Manhole
E:331493.537 N:187846.325	2.290						
			{a} P1.14	Pipe	6.860	Diam/Width:675	Not Applicable
SW 1.17	8.900 6.590	Diameter / Length: 1.800	{1} P1.14	Pipe	6.590	Diam/Width:675	Manhole
E:331538.553 N:187800.513	2.310						
			{a} P1.15	Pipe	6.590	Diam/Width:675	Not Applicable
EX SW 1	8.900 6.570	Diameter / Length: 1.500	{1} P1.15	Pipe	6.570	Diam/Width:675	Manhole
E:331541.063 N:187803.161	2.330						
			{a} EX 1	Pipe	6.570	Diam/Width:600	Not Applicable
EX SW 2	8.900 6.490	Diameter / Length: 1.500	{1} EX 1	Pipe	6.490	Diam/Width:600	Manhole
E:331563.311 N:187827.092	2.410						
			{a} EX 2	Pipe	6.490	Diam/Width:600	Not Applicable
EX SW 3	8.700 6.250	Diameter / Length: 1.500	{1} EX 2	Pipe	6.250	Diam/Width:600	Manhole
E:331589.375 N:187855.071	2.450						
			{a} EX 3	Pipe	6.250	Diam/Width:600	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations		Date: 27/05/2026			
		Designed by: rclue	Checked by:		Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase		Company Address:			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Outfall	8.700 5.811	Diameter / Length: 1.200	{1} EX 3	Pipe	5.811	Diam/Width:600	Manhole
E:331591.779 N:187857.672	2.889						
							Not Applicable
SW 6.4	9.200 7.100	Diameter / Length: 0.600	{1} P4.00	Pipe	7.100	Diam/Width:150	Manhole
E:331457.064 N:187884.091	2.100						
			{a} P4.01	Pipe	7.100	Diam/Width:225	Not Applicable
SW 1.10	9.350 7.400	Diameter / Length: 1.200	{1} P2.04	Pipe	7.400	Diam/Width:300	Manhole
E:331426.363 N:187850.769	1.950		{2} P1.07	Pipe	7.400	Diam/Width:375	
			{a} P1.08	Pipe	7.400	Diam/Width:450	Not Applicable
SW 1.15	9.027 6.900	Diameter / Length: 1.800	{1} P1.12	Pipe	6.900	Diam/Width:675	Manhole
E:331487.727 N:187844.905	2.127						
			{a} P1.13	Pipe	6.900	Diam/Width:675	Not Applicable
SW 3.2	9.312 7.830	Diameter / Length: 0.600	{1} P3.00	Pipe	8.130	Diam/Width:225	Manhole
E:331382.070 N:187913.598	1.482						
			{a} P3.01	Pipe	8.130	Diam/Width:225	Not Applicable

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026		
	Designed by: rclue	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address:		



Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
EA (1)	EX SW 1		Time of Concentration	0.066	100	0	100	0.066
EA (2)	EX SW 2		Time of Concentration	0.334	100	0	100	0.334
EA (3)	EX SW 1		Time of Concentration	0.323	100	0	100	0.323
EA (4)	EX SW 2		Time of Concentration	0.134	100	0	100	0.134
EA (5)	EX SW 2		Time of Concentration	0.286	100	0	100	0.286
EA (6)	EX SW 1		Time of Concentration	0.062	100	0	100	0.062
FA (1)	SW 1.16		Time of Concentration	0.122	100	0	100	0.122
PA (1)	SW 1.1		Time of Concentration	0.024	100	0	100	0.024
PA (2)	SW 1.2		Time of Concentration	0.022	100	0	100	0.022
PA (3)	SW 1.3		Time of Concentration	0.033	100	0	100	0.033
PA (4)	SW 1.4		Time of Concentration	0.039	100	0	100	0.039
PA (5)	SW 1.5		Time of Concentration	0.018	100	0	100	0.018
PA (6)	SW 1.8		Time of Concentration	0.018	100	0	100	0.018
PA (7)	SW 1.9		Time of Concentration	0.022	100	0	100	0.022
PA (8)	SW 1.9		Time of Concentration	0.011	100	0	100	0.011
PA (9)	SW 1.10		Time of Concentration	0.021	100	0	100	0.021
PA (10)	SW 1.10		Time of Concentration	0.017	100	0	100	0.017
PA (11)	RG1		Time of Concentration	0.019	100	0	100	0.019
PA (12)	RG1		Time of Concentration	0.027	100	0	100	0.027
PA (13)	SW 3.3		Time of Concentration	0.076	100	0	100	0.076
PA (14)	SW 3.3		Time of Concentration	0.007	100	0	100	0.007
PA (15)	RG2		Time of Concentration	0.025	100	0	100	0.025
PA (16)	SW 2.2		Time of Concentration	0.092	100	0	100	0.092
PA (17)	SW 2.6		Time of Concentration	0.055	100	0	100	0.055
PA (18)	SW 3.5		Time of Concentration	0.022	100	0	100	0.022
PA (19)	Porous Paving		Time of Concentration	0.016	100	0	100	0.016
PA (20)	Porous Paving		Time of Concentration	0.016	100	0	100	0.016
PA (21)	Porous Paving		Time of Concentration	0.058	100	0	100	0.058
PA (22)	Porous Paving		Time of Concentration	0.002	100	0	100	0.002
PA (23)	Porous Paving		Time of Concentration	0.006	100	0	100	0.006
PA (24)	Porous Paving		Time of Concentration	0.002	100	0	100	0.002
PA (25)	RG3		Time of Concentration	0.008	100	0	100	0.008
PA (26)	Porous Paving		Time of Concentration	0.011	100	0	100	0.011
PA (27)	RG3		Time of Concentration	0.013	100	0	100	0.013
PA (28)	Swale		Time of Concentration	0.049	100	0	100	0.049
PA (29)	RG3		Time of Concentration	0.021	100	0	100	0.021
TOTAL		0.0		2.077				2.077

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:			

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Manhole Options

Apply Offset	☐
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Coleg Gwent Knowledge Quarter:
Proposed SW Caclulations

Date:
27/05/2026

Designed by:
rclue

Checked by:

Approved By:

Report Details:
Type: Outfall Details
Storm Phase: Phase

Company Address:

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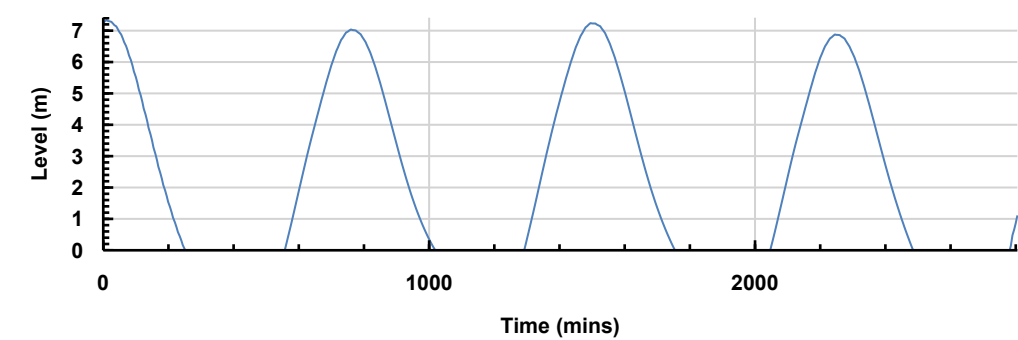
Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Outfall	Variable Surcharged Level	☒		Time Series High Tide Start
FEH : 100 years: +40 %: 15 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 15 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 30 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 30 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 60 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 60 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 120 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 120 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 240 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 240 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 360 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 360 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 480 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 480 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 960 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 960 mins: Winter				Time Series High Tide Start
FEH : 100 years: +40 %: 1440 mins: Summer				Time Series High Tide Start
FEH : 100 years: +40 %: 1440 mins: Winter				Time Series High Tide Start

Level Curves

Title	Duration (mins)	Max. Level (m)	Extension Option
PZN-JBA-XX-XX-CA-HM-0001-S3-P01-NEWP_LEIS_DEF_2100_MHWS_70_F002_1d_H_Time_Series	3000	7.340	Repeat Curve
Time Series High Tide Start	2805	7.340	Repeat Curve

Time Series High Tide Start



Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Title: Rainfall Analysis Criteria	Company Address:			

Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	150
Prefill Manhole Sumps	☐
Perform No Discharge Analysis	☐

Rainfall

FEH		Type: FEH
Site Location	GB 331420 187880 ST 31420 87880	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	40.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026		
	Designed by: rclue	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		



Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW 1.1	FEH: 100 years: +40 %: 30 mins: Summer	9.350	8.350	9.003	0.653	16.3	0.185	0.000	16.5	10.342	Surcharged
SW 1.9	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.550	8.839	1.289	91.1	1.458	0.000	87.6	95.819	Surcharged
SW 1.2	FEH: 100 years: +40 %: 30 mins: Summer	9.350	8.150	9.002	0.852	31.3	0.241	0.000	27.2	19.740	Surcharged
SW 1.3	FEH: 100 years: +40 %: 30 mins: Summer	9.350	8.050	8.997	0.947	47.8	0.268	0.000	46.3	34.161	Surcharged
SW 1.4	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.900	8.974	1.074	70.7	0.304	0.000	68.6	51.216	Surcharged
SW 1.5	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.850	8.949	1.099	79.9	0.311	0.000	77.9	58.929	Surcharged
SW 1.7	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.150	8.866	1.716	86.0	1.940	0.000	62.7	75.608	Surcharged
SW 1.8	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.600	8.851	1.251	71.9	1.415	0.000	68.4	81.427	Surcharged
SW 3.3	FEH: 100 years: +40 %: 30 mins: Summer	9.293	8.020	8.805	0.785	47.9	0.222	0.000	44.1	51.443	Surcharged
SW 3.5	FEH: 100 years: +40 %: 30 mins: Summer	9.200	7.640	8.732	1.092	59.3	0.309	0.000	46.3	70.442	Surcharged
SW 3.6	FEH: 100 years: +40 %: 30 mins: Summer	9.200	7.400	8.695	1.295	56.2	2.287	0.000	62.0	89.395	Surcharged
SW 2.2	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.950	9.070	1.120	46.3	0.317	0.000	46.9	40.216	Surcharged
SW 2.6	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.750	9.013	1.263	77.2	0.357	0.000	73.8	64.149	Surcharged
SW 2.7	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.600	8.922	1.322	73.8	0.374	0.000	71.4	64.179	Surcharged
SW 2.8	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.500	8.868	1.368	71.4	0.387	0.000	70.3	64.214	Surcharged
SW 1.11	FEH: 100 years: +40 %: 30 mins: Summer	9.250	7.350	8.780	1.430	172.5	1.617	0.000	165.9	177.039	Surcharged
SW 3.4	FEH: 100 years: +40 %: 30 mins: Summer	9.200	7.820	8.761	0.941	45.1	0.266	0.000	45.6	63.551	Surcharged
SW 1.13	FEH: 100 years: +40 %: 30 mins: Winter	9.200	7.150	8.683	1.533	306.8	1.734	0.000	178.7	258.328	Surcharged
SW 1.12	FEH: 100 years: +40 %: 30 mins: Winter	9.250	7.200	8.826	1.626	154.5	1.839	0.000	260.8	176.034	Surcharged
SW 1.14	FEH: 100 years: +40 %: 30 mins: Winter	9.200	7.000	8.674	1.674	178.7	4.259	0.000	186.0	276.209	Surcharged
SW 1.16	FEH: 100 years: +40 %: 30 mins: Winter	9.150	6.860	8.650	1.790	220.7	4.554	0.000	222.2	337.193	Surcharged
SW 1.17	FEH: 100 years: +40 %: 30 mins: Winter	8.900	6.590	8.609	2.019	222.2	5.139	0.000	217.9	344.851	Surcharged
EX SW 1	FEH: 100 years: +40 %: 30 mins: Winter	8.900	6.570	8.597	2.027	361.9	3.581	0.000	364.9	506.238	Surcharged
EX SW 2	FEH: 100 years: +40 %: 30 mins: Winter	8.900	6.490	8.471	1.981	607.3	3.501	0.000	606.6	762.316	Surcharged
EX SW 3	FEH: 100 years: +40 %: 30 mins: Winter	8.700	6.250	8.075	1.825	606.6	3.225	0.000	605.7	749.014	Surcharged
Outfall	FEH: 100 years: +40 %: 15 mins: Summer	8.700	5.811	8.439	2.628	548.2	5.714	2.446	751.8	455.052	OK
SW 6.4	FEH: 100 years: +40 %: 30 mins: Winter	9.200	7.100	8.669	1.569	23.2	0.444	0.000	25.9	23.098	Surcharged
SW 1.10	FEH: 100 years: +40 %: 30 mins: Summer	9.350	7.400	8.810	1.410	180.3	1.595	0.000	172.5	176.064	Surcharged
SW 1.15	FEH: 100 years: +40 %: 30 mins: Winter	9.027	6.900	8.657	1.757	186.0	4.472	0.000	192.8	277.479	Surcharged
SW 3.2	FEH: 100 years: +40 %: 30 mins: Summer	9.312	7.830	8.808	0.978	10.0	0.277	0.000	11.4	16.634	Surcharged

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026		
	Designed by: rclue	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		



Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Velocity (m/s)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
RG3	FEH: 100 years: +40 %: 15 mins: Summer	8.989	8.989	0.471	0.489	28.3	8.052	0.000	0.000		11.4	8.292	80.774
RG1	FEH: 100 years: +40 %: 60 mins: Summer	9.166	9.167	0.502	0.517	24.3	11.470	0.000	0.000		6.3	23.256	30.947
Porous Paving	FEH: 100 years: +40 %: 120 mins: Summer	9.253	8.843	0.104	0.218	38.4	32.236	0.000	0.000		17.8	72.956	58.852
Swale	FEH: 100 years: +40 %: 30 mins: Summer	9.100	9.100	0.783	0.825	38.1	18.134	0.000	0.000	0.1	22.1	22.648	65.797
RG2	FEH: 100 years: +40 %: 30 mins: Summer	9.004	9.004	0.536	0.554	24.7	13.708	0.000	0.000		16.4	13.840	35.321

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
	Report Details: Type: Stormwater Controls Summary Storm Phase: Phase			
Company Address:				

Status
OK
OK
OK
OK
OK

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations	Date: 27/05/2026			
	Designed by: rclue	Checked by:	Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:			



Critical Storm Per Item: Rank By: Max. Flow

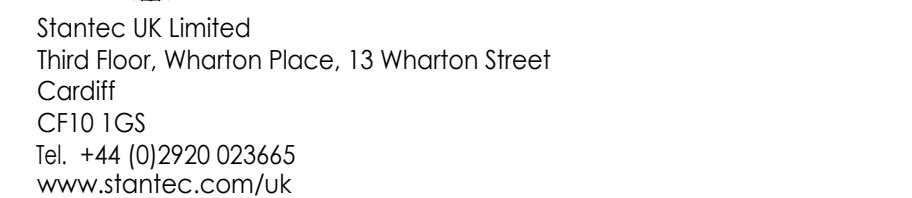
Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
P3.00	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	RG1	SW 3.2	9.215	9.158	0.225	15.489	1.0	0.11	10.0	Surcharged
P3.04	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 3.5	SW 3.6	9.200	8.557	0.300	42.482	1.5	0.64	66.1	Surcharged
P1.00	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.1	SW 1.2	9.350	8.773	0.300	7.605	0.8	0.12	17.5	Surcharged
P1.01	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.2	SW 1.3	9.350	8.769	0.300	14.529	0.9	0.27	33.1	Surcharged
P1.08	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.10	SW 1.11	9.350	8.598	0.450	125.985	1.5	0.54	194.6	Surcharged
P1.02	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.3	SW 1.4	9.350	8.761	0.300	25.101	0.9	0.51	54.3	Surcharged
P1.03	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.4	SW 1.5	9.350	8.729	0.300	37.611	1.2	0.6	81.2	Surcharged
P1.04	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.5	SW 1.7	9.350	8.701	0.300	43.173	1.4	0.97	93.0	Surcharged
P1.05	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.7	SW 1.8	9.350	8.654	0.375	50.050	1.1	0.56	90.9	Surcharged
P1.06	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.8	SW 1.9	9.350	8.647	0.375	55.801	1.1	0.59	96.1	Surcharged
P2.00	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	SW 2.2	SW 2.6	9.350	9.070	0.300	40.216	0.8	0.53	46.9	Surcharged
P2.01	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	SW 2.6	SW 2.7	9.350	9.013	0.300	64.149	1.2	0.74	73.8	Surcharged
P2.03	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 2.7	SW 2.8	9.350	8.697	0.300	47.227	1.1	0.62	71.6	Surcharged
P1.07	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.9	SW 1.10	9.350	8.636	0.375	66.202	1.1	0.6	112.9	Surcharged
P1.09	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 1.11	SW 1.12	9.250	8.569	0.450	125.841	1.5	0.74	187.5	Surcharged
P2.04	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 2.8	SW 1.10	9.350	8.654	0.300	47.172	1.0	0.65	71.2	Surcharged
P1.11	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SW 1.13	SW 1.14	9.200	8.570	0.600	177.239	1.3	0.43	287.9	Surcharged
P1.12	FEH: 100 years: +40 %: 120 mins: Summer	Pipe	SW 1.14	SW 1.15	9.200	7.637	0.674	523.858	1.0	0.42	203.3	OK
P1.14	FEH: 100 years: +40 %: 120 mins: Summer	Pipe	SW 1.16	SW 1.17	9.150	7.601	0.675	610.882	0.9	0.41	251.5	Surcharged
P3.021	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	RG2	SW 3.4	9.118	8.995	0.150	10.592	1.1	0.37	15.9	Surcharged
P1.10	FEH: 100 years: +40 %: 30 mins: Winter	Pipe	SW 1.12	SW 1.13	9.250	8.826	0.450	173.810	1.6	0.54	260.8	Surcharged

Coleg Gwent Knowledge Quarter: Proposed SW Caclulations				Date: 27/05/2026					
				Designed by: rclue	Checked by:	Approved By:			
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:					

P3.02	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 3.3	SW 3.4	9.293	8.652	0.300	32.028	1.2	0.54	48.5	Surcha rged
P3.03	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	SW 3.4	SW 3.5	9.200	8.596	0.300	35.623	1.1	0.53	48.9	Surcha rged
P4.01	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	SW 6.4	SW 1.14	9.200	8.667	0.225	20.979	0.7	0.61	27.2	Surcha rged
P1.15	FEH: 100 years: +40 %: 120 mins: Summer	Pipe	SW 1.17	EX SW 1	8.900	7.550	0.675	610.821	0.8	0.38	260.1	Surcha rged
EX 1	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	EX SW 1	EX SW 2	8.900	8.562	0.600	480.636	1.3	1.11	376.6	Surcha rged
EX 2	FEH: 100 years: +40 %: 30 mins: Winter	Pipe	EX SW 2	EX SW 3	8.900	8.471	0.600	755.009	2.1	1.11	606.6	Surcha rged
EX 3	FEH: 100 years: +40 %: 30 mins: Winter	Pipe	EX SW 3	Outfall	8.700	8.075	0.600	748.997	2.1	0.25	605.7	Surcha rged
P3.05	FEH: 100 years: +40 %: 60 mins: Summer	Pipe	SW 3.6	SW 1.13	9.200	8.560	0.450	134.523	1.0	0.26	66.4	Surcha rged
P3.01	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	SW 3.2	SW 3.3	9.312	8.808	0.225	15.272	0.8	0.25	11.4	Surcha rged
P3.041	FEH: 100 years: +40 %: 120 mins: Summer	Pipe	Porous Paving	SW 3.6	9.750	8.811	0.150	72.915	1.7	0.23	17.8	Surcha rged
P1.041	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	RG3	SW 1.7	9.218	8.979	0.150	15.028	1.3	0.21	23.2	Surcha rged
P4.00	FEH: 100 years: +40 %: 30 mins: Summer	Pipe	Swale	SW 6.4	9.317	9.078	0.150	20.972	1.4	0.3	23.3	Surcha rged
P1.13	FEH: 100 years: +40 %: 120 mins: Summer	Pipe	SW 1.15	SW 1.16	9.027	7.612	0.675	523.847	1.1	0.28	211.0	Surcha rged

Appendix E SAB Specific Drawings





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4. The drawing shall be used for the intended purpose only and this drawing has been based on information provided by other parties and stantec do not warrant the accuracy of this information.

P07	Updated to New Site Layout	DT	RC	20.08.2024
P06	Stage 3 Complete	DT	RC	11.08.2024
P05	Amended Easement to the North	DT	RC	31.07.2024
P04	Updated to Survey Info	DT	RC	22.07.2024
P03	Planning Pre-Response	RC	CD	31.03.2024
P02	Stage 1 Issue	BAI	CD	18.09.2023
P01	First Issue	SP	CD	26.08.2023
Issued/Revision		By	Appd	DD.MM.YYYY
		RC	CD	24.08.2025
	Dn.	Dsgn.	Chkd.	DD.MM.YYYY

A2 - PLANNING

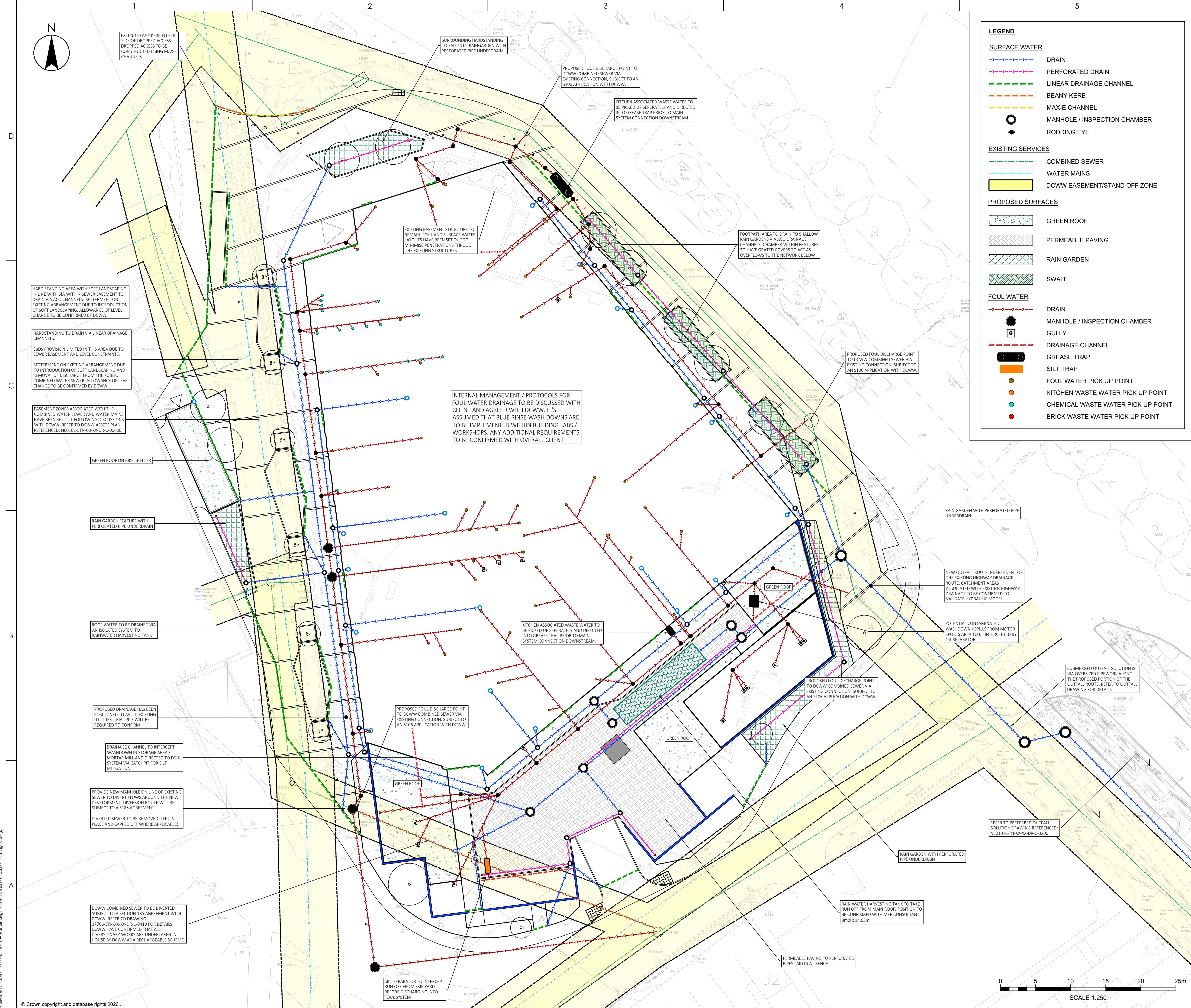
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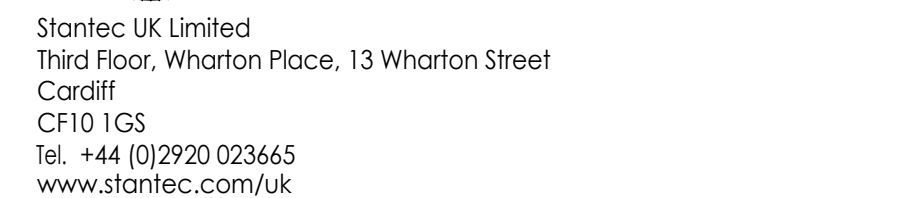
COLEG GWENT KNOWLEDGE QUARTER

Title

PROPOSED DRAINAGE STRATEGY

Project No. 333701109	A1 Scale 1:250
Revision P07	Drawing No. NE0101-STN-00-XX-DR-C-30000





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KEY

- | | |
|--|------------------------------------|
| | LANDSCAPED AREAS |
| | GREEN ROOF |
| | RAINWATER HARVESTING |
| | PERMEABLE PAVING |
| | PERMEABLE PAVING INTERCEPTED AREA |
| | RAIN GARDEN 1 |
| | RAIN GARDEN 1 INTERCEPTED AREA |
| | RAIN GARDEN 2 |
| | RAIN GARDEN 2 INTERCEPTED AREA |
| | RAIN GARDEN 3 |
| | RAIN GARDEN 3 INTERCEPTED AREA |
| | RAIN GARDEN 4 |
| | RAIN GARDEN 4 INTERCEPTED AREA |
| | IMPERMEABLE AREA - NOT INTERCEPTED |

P03 Updated to new site layout	DT	RC	20.08.2026
P02 Stage 3 complete	DT	RC	11.08.2026
P01 First issue	DT	RC	22.07.2026
Issued/Revision	By	Appd	DD.MM.YYYY
	DT	RC	CD
	Dwn.	Dsgn.	Chkd.
			DD.MM.YYYY

Issue Status

A2 - PLANNING

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Client/Project Logo

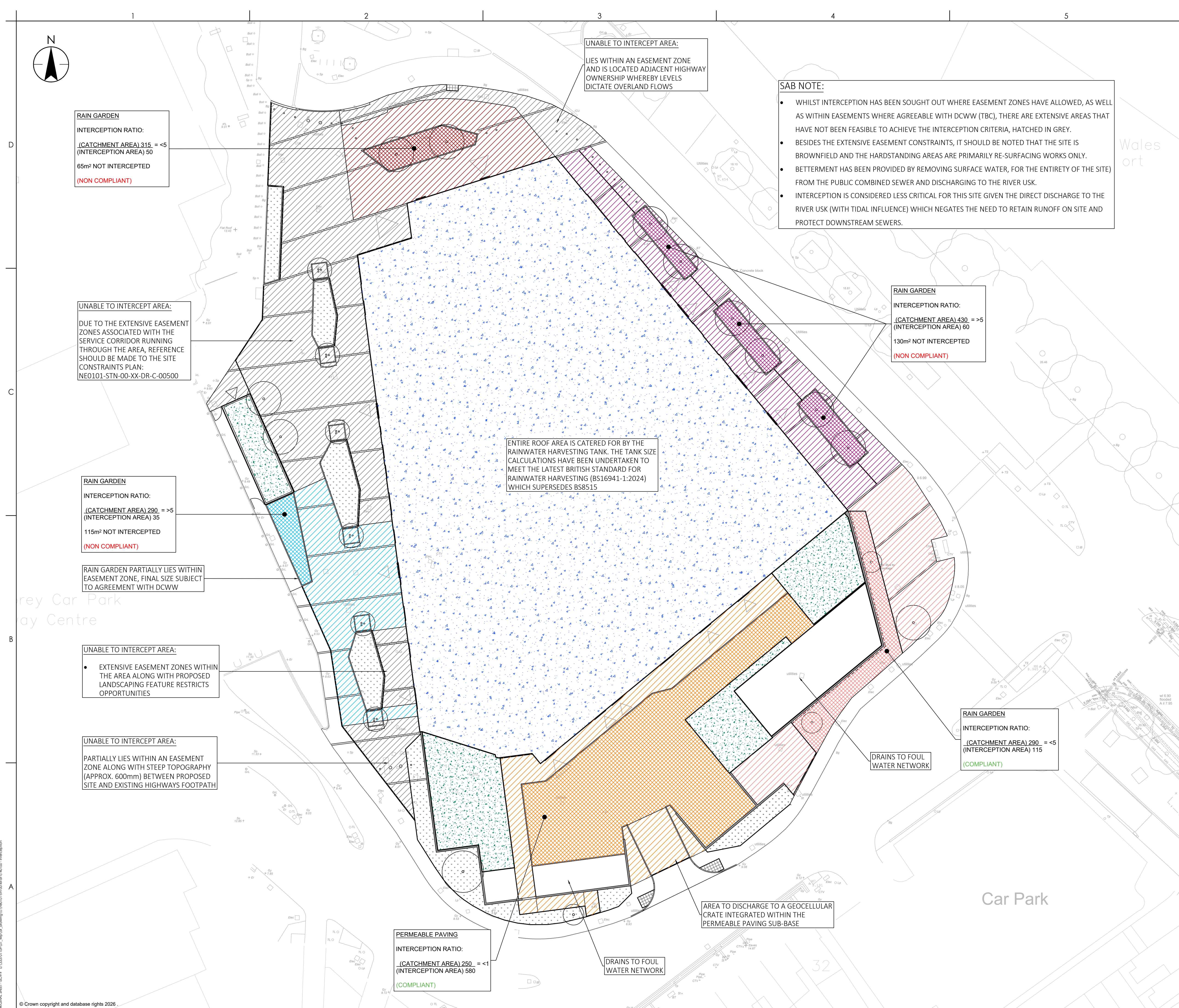


Client/Project
WEPco ON BEHALF OF COLEG GWENT

COLEG GWENT KNOWLEDGE QUARTER

Title
INTERCEPTION PLAN

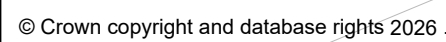
Project No. 333701109	A1 Scale 1:250
Revision P03	Drawing No. NE0101-STN-00-XX-DR-C-40100



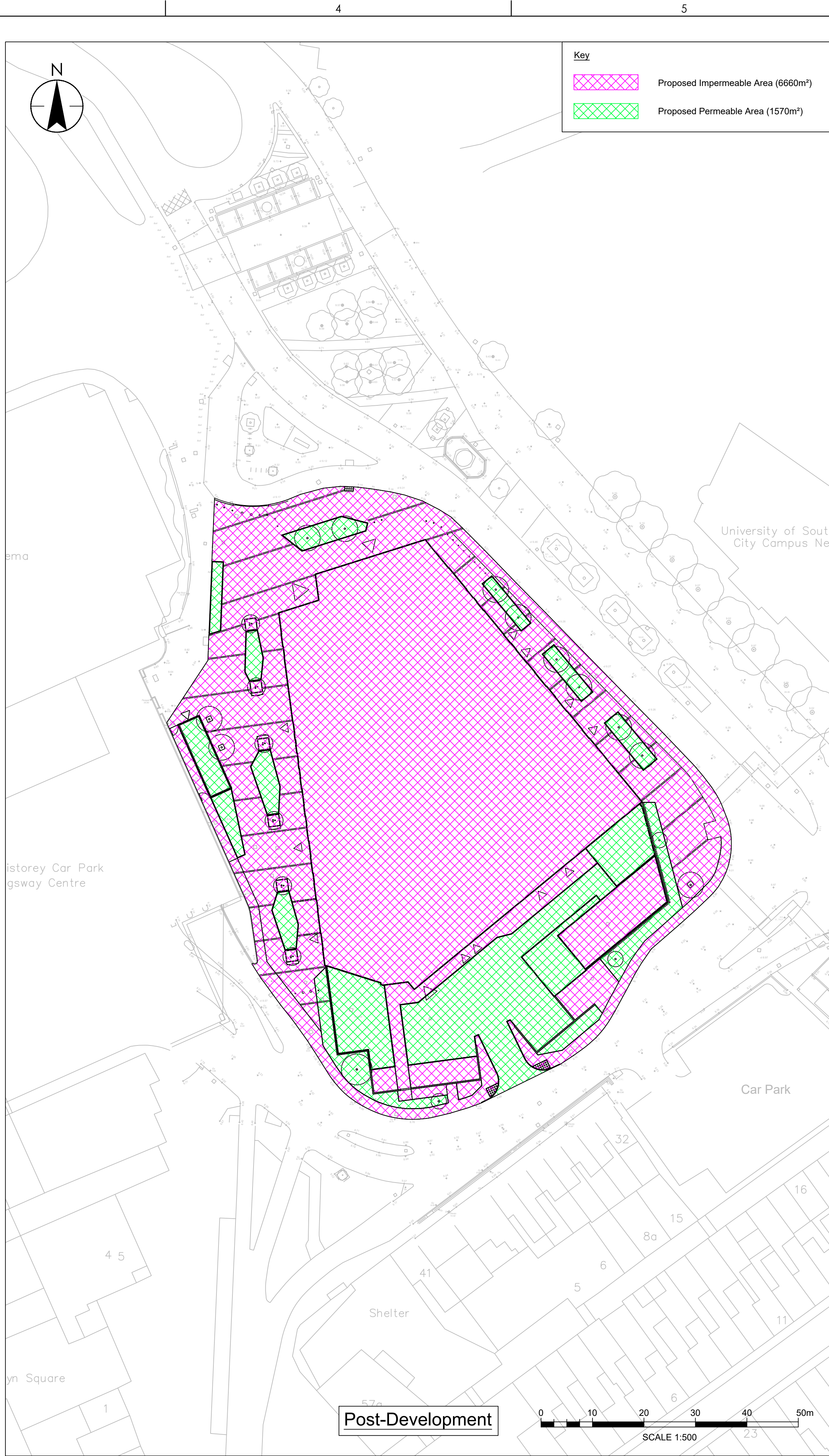
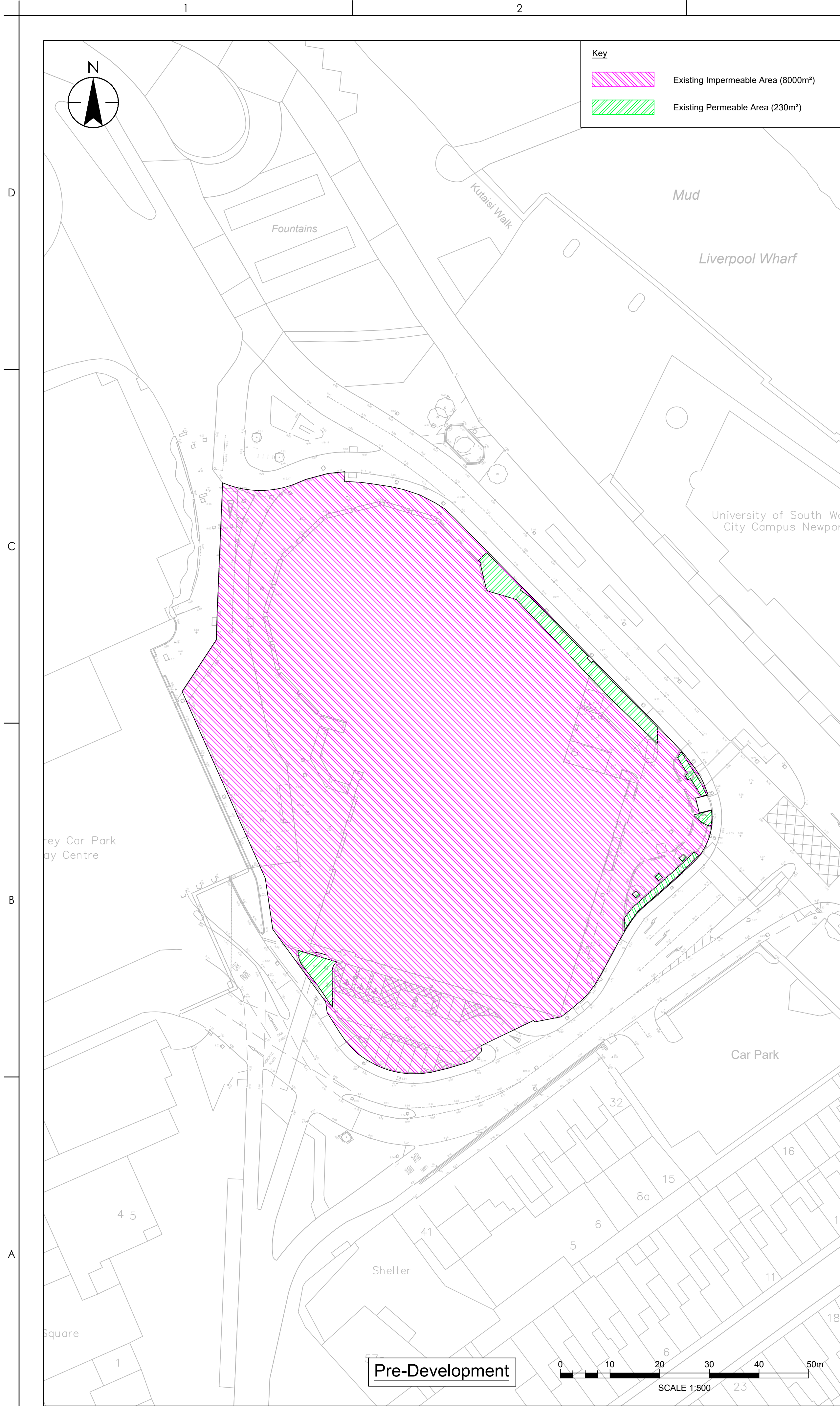


IN THE EVENT OF LOCAL FAILURE OF THE POROUS SURFACING, RUNOFF WILL CONTINUE TO FALL SOUTH TOWARDS THE PROPOSED LINEAR DRAINAGE, WHICH, IF ALSO FAILS, RUN-OFF WILL FALL INTO EMLYN STREET AND DRAIN VIA THE EXISTING GULLIES.

Car Park



Revised: 2024.08.29/2024.08.29 14:53:29 PM By: Chris Russell
C:\Users\A1\OneDrive\Documents\A1\NE0101-STN-00-XX-DR-C-40500 - pre and post development catchment plan



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P03 Updated to new site layout	DT	RC	20.08.2024
P02 Updated to new site layout	DT	RC	11.08.2024
P01 First issue	DT	RC	31.07.2024
Issued/Revision	By	Appd	DD.MM.YYYY

Issue Status

A2 - PLANNING

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Client/Project Logo



Client/Project

WEPco ON BEHALF OF COLEG GWENT

COLEG GWENT KNOWLEDGE QUARTER

Title

PRE AND POST DEVELOPMENT
CATCHMENT PLAN

Project No.
333701109

A1 Scale
1:500

Revision
P03

Drawing No.
NE0101-STN-00-XX-DR-C-40500