## DRAINAGE STRATEGY CATCHMENT SCHEDULE

| Catchment | Impermeable Area (ha) | Greenfield Equivalent Q100 Discharge Rate (l/s) | Estimated Storage 100yr+30%CC Required ($m^3$) | Outfall | Storage volume shown in Green Infrastructure ($m^3$) | Storage volume shown within plot ($m^3$) | Storage volume shown in Green Infrastructure (%) | Storage volume shown within plot (%) |
|---|---|---|---|---|---|---|---|---|
| 2015 HAZEBROUCK DRAINAGE STRATEGY AS PER DRAWING 60312043/CIV/001 REV P4 | | | | | | | | |
| 15 | 2.531 | 35.0 | 1625 | T | 950 | 675 | 58.46 | 41.54 |
| 16 | 1.190 | 16.4 | 760 | O | 760 | 0 | 100.00 | 0.00 |
| 17 | 1.310 | 18.9 | 880 | O | 550 | 330 | 62.50 | 37.50 |
| 18 | 3.140 | 43.4 | 2010 | S | 1016 | 994.5 | 50.52 | 49.48 |
| 19 | 4.580 | 63.2 | 2950 | O | 2512 | 438 | 85.15 | 14.85 |
| 20 | 1.370 | 18.8 | 880 | P | 745 | 135 | 84.66 | 15.34 |
| 21 | 1.900 | 26.2 | 1250 | R | 394 | 856.5 | 31.48 | 68.52 |
| 2024 WATERBROOK DRAINAGE STRATEGY | | | | | | | | |
| 15b | 0.805 | 11.1 | 411 | T | 0 | 411 | 0.00 | 100 |
| 16 | 1.879 | 25.9 | 1138 | O | 1145 | 0 | 100.00 | 0.00 |
| 17 | 1.038 | 14.3 | 641 | O | 634 | 0 | 98.60 | 0.00 |
| 18a | 0.885 | 12.2 | 520 | S | 520 | 0 | 100 | 0.00 |
| 18b | 2.165 | 29.8 | 1324 | S | 1324 | 0 | 100 | 0.00 |
| 19a | 0.266 | 3.7 | 153 | O | 153 | 0 | 100 | 0.00 |
| 19c1 | 1.575 | 21.7 | 941 | O | 885 | 56 | 94.04 | 5.96 |
| 19c2 | 0.288 | 4.0 | 144 | O | 318 | 0 | 100 | 0.00 |
| 19c3 | 1.609 | 22.2 | 1098 | O | 881 | 312 | 73.85 | 26.15 |
| 19d | 0.512 | 7.1 | 299 | O | 0 | 299 | 0.00 | 100 |
| 19e | 0.137 | 1.9 | 44 | T | 0 | 0 | 0.00 | 0.00 |
| 19f | 0.163 | 2.2 | 74 | O | 0 | 0 | 0.00 | 0.00 |
| 20 | 0.136 | 1.9 | 52 | P | 0 | 52 | 0.00 | 100 |
| 21 | 1.718 | 21.2 | 1059 | R | 0 | 1059 | 0.00 | 100 |
| 22 | 0.544 | 7.5 | 221 | O | 221 | 0 | 100 | 0.00 |
| A1 | 0.367 | 5.1 | 169 | T | 0 | 169 | 0.00 | 100 |
| A2 | 0.462 | 6.4 | 292 | S | 0 | 292 | 0.00 | 100 |
| A3 | 0.579 | 5.0 | 370 | R | 0 | 370 | 0.00 | 100 |
| A4 | 0.742 | 10.2 | 221 | P | 0 | 221 | 0.00 | 100 |

## POND STORAGE SCHEDULE

| Pond Reference | Pond Base Level | Minimum Permitted Berm Level | Freeboard Level (300mm below berm) | Actual Top Water Level (100yr+30%cc) | Maximum Water Depth (m) | Actual Water Depth (100yr+30%cc) | Provided Storage to Freeboard ($m^3$) | Peak Storage Volume ($m^3$) | Design Discharge Rate (l/s) |
|---|---|---|---|---|---|---|---|---|---|
| 15b ^ | 51.130 | 53.075 | 52.775 | 52.775 | 1.645 | 1.645 | 349.1 | 411.0 # | 9.80 |
| 16 | 53.800 | 55.650 | 55.350 | 55.201 | 1.550 | 1.401 | 1327.0 | 1144.6 | 34.80 |
| 17 | 54.735 | 56.100 | 55.800 | 55.750 | 1.065 | 1.015 | 663.0 | 633.3 | 11.00 |
| 18a | 54.800 | 56.510 | 56.210 | 56.209 | 1.410 | 1.409 | 586.5 | 519.6 | 12.20 |
| 18b | 53.500 | 55.325 | 55.025 | 54.019 | 1.525 | 0.519 | 1360.0 | 1354.1 | 38.40 |
| 19a | 53.215 | 55.300 | 55.000 | 54.200 | 1.785 | 0.985 | 444.6 | 152.5 | 5.00 |
| 19c1 ^ | 51.100 | 53.300 | 53.000 | 53.072 * | 1.900 | 1.972 | 884.9 | 943.3 | 56.00 |
| 19c2 | 50.800 | 52.400 | 52.100 | 51.574 | 1.300 | 0.774 | 354.3 | 144.3 | 11.00 |
| 19c3 ^ ~ | 50.000 | 51.800 | 51.500 | 51.410 | 1.500 | 1.410 | 1192.9 | 1103.9 | 73.40 |
| V2E Tanks ~ | 49.900 | 51.500 | N/A | 51.410 | 1.600 | 1.510 | - | - | - |
| 19d * | 50.400 | 52.200 | 51.900 | 51.900 | 1.500 | 1.500 | 252.3 | 298.9 # | 7.50 |
| 20 (Tank) * | * | * | N/A | * | * | * | 40.0 | 52.0 | 13.80 |
| 21 | 48.970 | 50.270 | 49.970 | 49.968 | 1.000 | 0.998 | 1061.9 | 1058.5 | 21.20 |
| 22 | 49.200 | 51.000 | 50.700 | 49.425 | 1.500 | 0.225 | 234.3 | 63.5 | 7.50 |
| A1 * | 48.970 | 55.385 | 50.270 | 49.214 | 1.300 | 0.244 | 253.0 | 168.5 | 7.31 |
| A2 | 53.555 | 55.000 | 54.700 | 54.697 | 1.145 | 1.142 | 320.6 | 291.7 | 5.00 |
| A3 | 49.250 | 51.000 | 50.700 | 50.653 | 1.450 | 1.403 | 392.6 | 369.3 | 5.00 |
| A4 * | 48.900 | 50.150 | 49.850 | 49.392 | 1.250 | 0.492 | 234.3 | 66.5 | 5.00 |

* To be determined by parcel V2E developer
\# Additional attenuation for excess volume to be provided on-pot by developer
^ Details as built
~ Pond 19c3 and V2E tanks assessed as a combined attenuation structure
* Minimum 300mm freeboard has been compromised, additional 58.4m3 of attenuation required in Parcel V1.

SCHEDULE AMENDED TO SUIT UPDATES TO GREEN CORRIDOR DRAINAGE DESIGN

TABLE AMENDED TO SUIT UPDATES TO GREEN CORRIDOR DRAINAGE DESIGN

## PIPE NETWORK VALIDATION - DEVELOPMENT PARCEL NETWORKS

| Manhole | Cover Level | Manhole Depth | Manhole Size | Cover Size | Cover Type | Outgoing Pipe Number | Outgoing Invert Level | Incoming Pipe Number | Incoming Invert Level |
|---|---|---|---|---|---|---|---|---|---|
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 80b | | | | | | | | | |
| Pond 21 | 50.270 | 1.300 | - | - | - | 1.000 | 48.970 | - | - |
| S8012 # | 50.270 | 1.340 | 1200 | 600 | C250 | 1.001 | 48.930 | 1.000 | 48.930 |
| | | | | | | | | Network 80a | 48.930 |
| S8013 | 48.855 ^ | - | - | - | - | Watercourse | 48.855 * | 1.001 | 48.855 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 81 | | | | | | | | | |
| Pond 20 | 51.650 | 1.550 | - | - | - | 1.000 | 49.300 | - | - |
| S8100 # | 50.290 | 1.040 | 1200 | 600 | C250 | 1.001 | 49.250 | 1.000 | 49.250 |
| S8101 | 49.040 | - | - | - | - | Watercourse | 49.040 | 1.001 | 49.040 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 83 | | | | | | | | | |
| Pond 19d | 51.900 | 1.500 | - | - | - | 1.000 | 50.400 | - | - |
| U1S13 # | 51.900 | 1.550 | 1200 | 600 | C250 | 1.001 | 50.350 | 1.000 | 50.350 |
| U1S13a | 50.880 | - | - | - | - | Watercourse | 50.010 | 1.001 | 50.010 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 87 | | | | | | | | | |
| Pond 15b | 52.400 | 1.270 | - | - | - | 1.000 | 51.130 | - | - |
| V2S28 # | 53.075 | 1.970 | 1200 | 600 | C250 | 1.001 | 51.105 | 1.000 | 51.105 |
| V2S27 | 52.175 | 1.180 | 1200 | 600 | C250 | 1.002 | 50.995 | 1.001 | 50.995 |
| V2S29 | 51.650 | 0.825 | 1200 | 600 | C250 | 1.003 | 50.825 | 1.002 | 50.825 |
| V2S30 | 51.650 | 0.890 | 1200 | 600 | C250 | 1.004 | 50.760 | 1.003 | 50.760 |
| V2S31 | 51.830 | 1.155 | 1200 | 600 | C250 | 1.005 | 50.675 | 1.004 | 50.675 |
| V2S32 | 51.630 | - | - | - | - | Watercourse | 50.630 | 1.005 | 50.630 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 88 | | | | | | | | | |
| Pond 18a | 56.300 | 1.500 | - | - | - | 1.000 | 54.800 | - | - |
| S8800 # | 56.300 | 1.520 | 1200 | 600 | C250 | 1.001 | 54.780 | 1.000 | 54.985 |
| S8801 | 54.610 | 0.000 | 1200 | 600 | C250 | 1.002 | 54.610 | 1.001 | 54.610 |
| Pond 18b | 55.300 | 1.800 | - | - | - | 1.003 | 53.500 | 1.002 | 53.500 |
| S8802 # | 54.325 | 0.900 | 1200 | 600 | C250 | 1.004 | 53.425 | 1.003 | 53.425 |
| S8803 | 53.400 | - | - | - | - | Watercourse | 53.400 | 1.004 | 53.400 |

* Level to be confirmed on site
\# Control chamber

## PIPE NETWORK VALIDATION - HIGHWAY NETWORKS

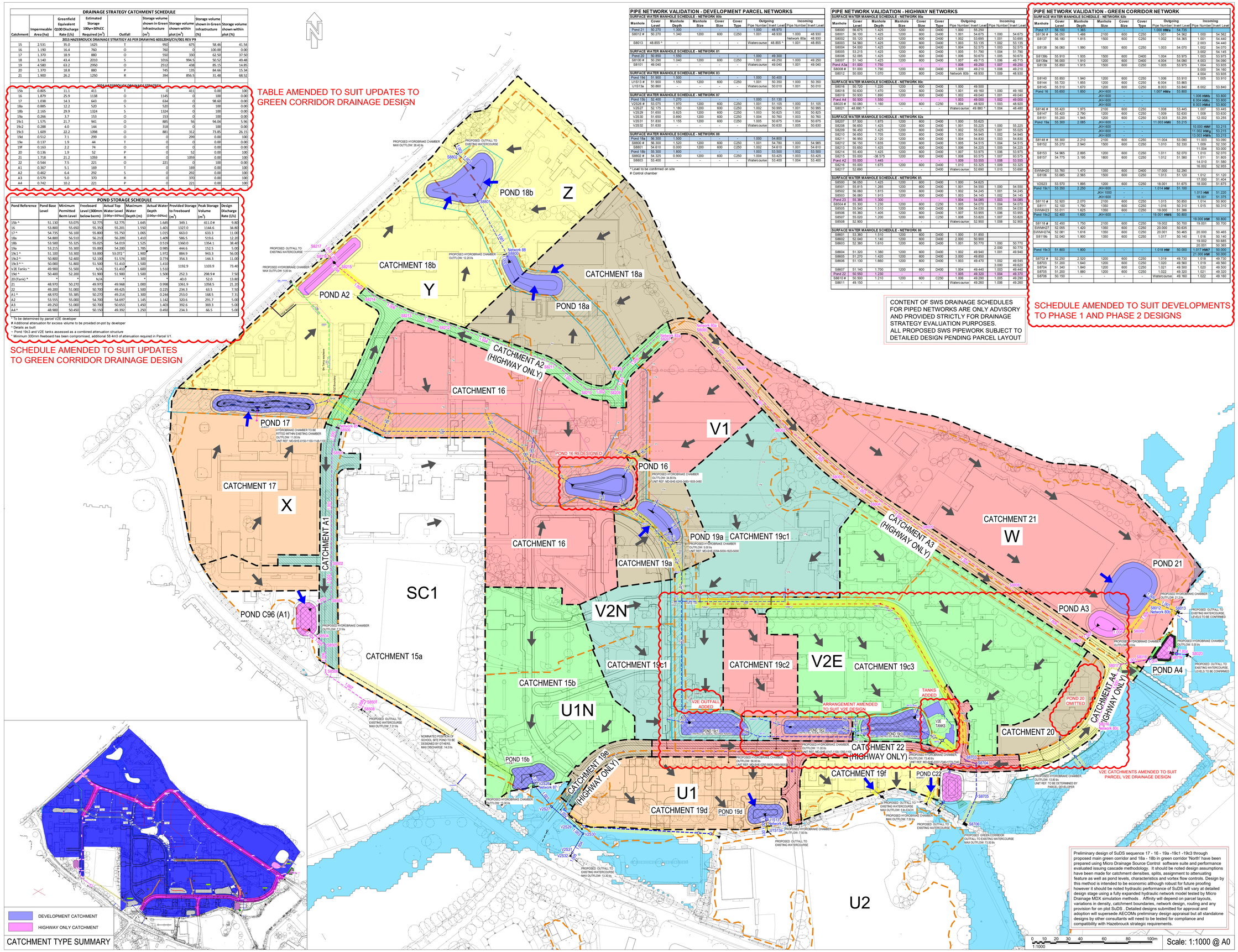
| Manhole | Cover Level | Manhole Depth | Manhole Size | Cover Size | Cover Type | Outgoing Pipe Number | Outgoing Invert Level | Incoming Pipe Number | Incoming Invert Level |
|---|---|---|---|---|---|---|---|---|---|
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 80a | | | | | | | | | |
| S8000 | 56.675 | 1.425 | 1200 | 600 | D400 | 1.000 | 55.250 | - | - |
| S8001 | 56.100 | 1.425 | 1200 | 600 | D400 | 1.001 | 54.675 | 1.000 | 54.675 |
| S8002 | 55.120 | 1.425 | 1200 | 600 | D400 | 1.002 | 53.695 | 1.001 | 53.695 |
| S8003 | 54.560 | 1.425 | 1200 | 600 | D400 | 1.003 | 53.135 | 1.002 | 53.135 |
| S8004 | 54.000 | 1.425 | 1200 | 600 | D400 | 1.004 | 52.575 | 1.003 | 52.575 |
| S8005 | 53.215 | 1.425 | 1200 | 600 | D400 | 1.005 | 51.790 | 1.004 | 51.790 |
| S8006 | 52.095 | 1.425 | 1200 | 600 | D400 | 1.006 | 50.670 | 1.005 | 50.670 |
| S8007 | 51.140 | 1.425 | 1200 | 600 | D400 | 1.007 | 49.715 | 1.006 | 49.715 |
| Pond A3a | 51.000 | 1.750 | - | - | - | 1.008 | 49.250 | 1.007 | 49.250 |
| S8008 # | 51.000 | 1.790 | 1200 | 600 | D400 | 1.009 | 49.210 | 1.008 | 49.210 |
| S8012 | 50.000 | 1.070 | 1200 | 600 | D400 | Network 80b | 48.930 | 1.009 | 48.930 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 80c | | | | | | | | | |
| S8016 | 50.720 | 1.035 | 1200 | 600 | D400 | 1.000 | 49.685 | - | - |
| S8018 | 50.630 | 1.470 | 1200 | 600 | D400 | 1.001 | 49.160 | 1.000 | 49.160 |
| S8019 | 50.930 | 1.890 | 1200 | 600 | D400 | 1.002 | 49.040 | 1.001 | 49.040 |
| Pond A4 | 50.500 | 1.550 | - | - | - | 1.003 | 49.000 | 1.002 | 49.000 |
| S8020 # | 50.080 | 1.160 | 1200 | 600 | C250 | 1.004 | 48.920 | 1.003 | 48.920 |
| S8021 | 48.880 ^ | - | - | - | - | Watercourse | 49.880 * | 1.004 | 49.480 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 82a | | | | | | | | | |
| S8207 | 57.500 | 1.875 | 1200 | 600 | D400 | 1.000 | 55.625 | - | - |
| S8208 | 56.650 | 1.425 | 1200 | 600 | D400 | 1.001 | 55.225 | 1.000 | 55.225 |
| S8209 | 56.450 | 1.425 | 1200 | 600 | D400 | 1.002 | 55.025 | 1.001 | 55.025 |
| S8210 | 56.650 | 1.705 | 1200 | 600 | D400 | 1.003 | 54.945 | 1.002 | 54.945 |
| S8211 | 56.950 | 2.120 | 1200 | 600 | D400 | 1.004 | 54.830 | 1.003 | 54.830 |
| S8212 | 56.150 | 1.635 | 1200 | 600 | D400 | 1.005 | 54.515 | 1.004 | 54.515 |
| S8213 | 55.650 | 1.425 | 1200 | 600 | D400 | 1.006 | 54.225 | 1.005 | 54.225 |
| S8214 | 55.400 | 1.425 | 1200 | 600 | D400 | 1.007 | 53.975 | 1.006 | 53.975 |
| S8215 # | 55.000 | -38.375 | 1200 | 600 | D400 | 1.008 | 93.575 | 1.007 | 93.575 |
| Pond A2 | 55.000 | 1.445 | - | - | - | 1.009 | 53.555 | 1.008 | 53.555 |
| S8216 | 55.000 | 1.675 | 1200 | 600 | D400 | 1.010 | 53.325 | 1.009 | 53.325 |
| S8217 | 52.690 | - | - | - | D400 | Watercourse | 52.690 | 1.010 | 53.690 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 85 | | | | | | | | | |
| S8500 | 56.050 | 1.425 | 1200 | 600 | D400 | 1.000 | 54.625 | - | - |
| S8501 | 55.815 | 1.265 | 1200 | 600 | D400 | 1.001 | 54.550 | 1.000 | 54.550 |
| S8502 | 56.060 | 1.815 | 1200 | 600 | D400 | 1.002 | 54.245 | 1.001 | 54.245 |
| S8503 | 56.060 | 1.915 | 1200 | 600 | D400 | 1.003 | 54.145 | 1.002 | 54.145 |
| Pond 23 | 55.385 | 1.300 | - | - | - | 1.004 | 54.085 | 1.003 | 54.085 |
| S8504 # | 55.300 | 1.230 | 1200 | 600 | C250 | 1.005 | 54.070 | 1.004 | 54.070 |
| S8505 | 55.540 | 1.510 | 1200 | 600 | D400 | 1.006 | 54.030 | 1.005 | 54.030 |
| S8506 | 55.360 | 1.405 | 1200 | 600 | D400 | 1.007 | 53.955 | 1.006 | 53.955 |
| S8507 | 55.020 | 1.200 | 1200 | 600 | C250 | 1.008 | 53.820 | 1.007 | 53.820 |
| S8508 | 52.900 | - | - | - | - | Watercourse | 52.900 | 1.008 | 52.900 |
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 86 | | | | | | | | | |
| S8601 | 53.360 | 1.510 | 1200 | 600 | D400 | 1.000 | 51.850 | - | - |
| S8602 | 52.040 | 1.140 | 1200 | 600 | D400 | 2.000 | 50.900 | - | - |
| S8603 | 52.380 | 1.610 | 1200 | 600 | D400 | 1.001 | 50.770 | 1.000 | 50.770 |
| | | | | | | | | 2.000 | 50.770 |
| S8604 | 51.320 | 1.380 | 1200 | 600 | D400 | 1.002 | 49.940 | 1.001 | 49.940 |
| S8605 | 51.270 | 1.420 | 1200 | 600 | D400 | 3.000 | 49.850 | - | - |
| S8606 | 51.130 | 1.660 | 1200 | 600 | D400 | 1.003 | 49.470 | 1.002 | 49.545 |
| | | | | | | | | 3.000 | 49.620 |
| S8607 | 51.140 | 1.700 | 1200 | 600 | D400 | 1.004 | 49.440 | 1.003 | 49.440 |
| Pond 22 | 50.550 | 1.675 | - | - | - | 1.005 | 49.330 | 1.004 | 49.370 |
| S8610 # | 50.500 | 1.210 | 1200 | 600 | C250 | 1.006 | 49.290 | 1.005 | 49.290 |
| S8611 | 49.150 | - | - | - | - | Watercourse | 49.260 | 1.006 | 49.260 |

CONTENT OF SWS DRAINAGE SCHEDULES FOR PIPED NETWORKS ARE ONLY ADVISORY AND PROVIDED STRICTLY FOR DRAINAGE STRATEGY EVALUATION PURPOSES. ALL PROPOSED SWS PIPEWORK SUBJECT TO DETAILED DESIGN PENDING PARCEL LAYOUT

## PIPE NETWORK VALIDATION - GREEN CORRIDOR NETWORK

| Manhole | Cover Level | Manhole Depth | Manhole Size | Cover Size | Cover Type | Outgoing Pipe Number | Outgoing Invert Level | Incoming Pipe Number | Incoming Invert Level |
|---|---|---|---|---|---|---|---|---|---|
| SURFACE WATER MANHOLE SCHEDULE - NETWORK 60b | | | | | | | | | |
| Pond 17 | 56.100 | 1.365 | - | - | - | 1.000 HW# | 54.735 | - | - |
| S8136 # | 56.050 | 1.488 | 2100 | 600 | C250 | 1.001 | 54.562 | 1.000 | 54.562 |
| S8137 | 56.180 | 1.815 | 1500 | 600 | C250 | 1.002 | 54.365 | 1.001 | 54.440 |
| | | | | | | | | 2.003 | 54.440 |
| S8138 | 56.060 | 1.990 | 1500 | 600 | C250 | 1.003 | 54.070 | 1.002 | 54.070 |
| | | | | | | | | 3.002 | 54.145 |
| S8139a | 55.910 | 1.935 | 1500 | 600 | D400 | 1.004 | 53.975 | 1.003 | 53.975 |
| S8139a | 56.000 | 1.910 | 1200 | 600 | D400 | 4.004 | 54.090 | 4.003 | 54.090 |
| S8139 | 55.850 | 1.915 | 1500 | 600 | C250 | 1.005 | 53.975 | 1.004 | 53.975 |
| | | | | | | | | 5.000 | 54.165 |
| | | | | | | | | 4.004 | 53.935 |
| S8140 | 55.850 | 1.940 | 1200 | 600 | C250 | 1.006 | 53.910 | 1.005 | 53.910 |
| S8144 | 55.720 | 1.855 | 1200 | 600 | C250 | 6.004 | 53.865 | - | - |
| S8145 | 55.510 | 1.670 | 1200 | 600 | C250 | 5.003 | 53.840 | 8.002 | 53.840 |
| Pond 18 | 55.650 | 1.850 | JKH 600 | - | - | 1.007 HW# | 53.800 | - | - |
| | | | JKH 600 | - | - | | | 1.008 HW# | 53.800 |
| | | | JKH 600 | - | - | | | 6.004 HW# | 53.800 |
| | | | JKH 600 | - | - | | | 8.003 HW# | 53.800 |
| S8146 # | 55.420 | 1.975 | 2100 | 600 | C250 | 1.008 | 53.445 | 1.007 | 53.445 |
| S8147 | 55.420 | 2.790 | 1200 | 600 | C250 | 1.009 | 52.630 | 1.008 | 53.630 |
| S8151 | 55.200 | 1.945 | 1200 | 600 | C250 | 12.003 | 53.255 | 12.002 | 53.255 |
| Pond 19a | 55.300 | 2.085 | JKH 600 | - | - | 11.003 HW# | 53.215 | - | - |
| | | | JKH 600 | - | - | | | 10.000 HW# | 53.215 |
| | | | JKH 600 | - | - | | | 11.002 HW# | 53.215 |
| | | | JKH 600 | - | - | | | 13.003 HW# | 53.215 |
| S8148 # | 55.300 | 2.210 | 2100 | 600 | C250 | 11.004 | 53.090 | 11.003 | 53.090 |
| S8152 | 55.270 | 2.940 | 1500 | 600 | C250 | 1.010 | 52.330 | 1.009 | 52.330 |
| | | | | | | | | 11.004 | 53.000 |
| S8153 | 54.965 | 2.895 | 1200 | 600 | C250 | 1.011 | 52.070 | 1.010 | 52.070 |
| S8157 | 54.775 | 3.195 | 1800 | 600 | C250 | 1.012 | 51.580 | 1.011 | 51.805 |
| | | | | | | | | 14.010 | 51.580 |
| | | | | | | | | 16.002 | 52.955 |
| SWMH20 | 53.760 | 1.470 | 1350 | 600 | D400 | 17.000 | 52.290 | - | - |
| S8106 | 53.685 | 2.565 | 1500 | 600 | C250 | 1.013 | 51.120 | 1.012 | 51.120 |
| | | | | | | | | 17.000 | 51.404 |
| V2S23 | 53.570 | 1.895 | 1200 | 600 | C250 | 18.001 | 51.675 | 18.000 | 51.675 |
| Pond 19c1 | 53.350 | 2.250 | JKH 600 | - | - | 1.014 HW | 51.100 | - | - |
| | | | JKH 1000 | - | - | | | 1.013 HW | 51.220 |
| | | | JKH 600 | - | - | | | 18.001 | 51.375 |
| S8110 # | 52.920 | 2.070 | 2100 | 600 | C250 | 1.015 | 50.850 | 1.014 | 50.900 |
| S8111 | 52.100 | 1.790 | 1350 | 600 | C250 | 1.016 | 50.310 | 1.015 | 50.310 |
| SWMH23 | 53.011 | 1.625 | 1350 | 600 | C250 | 19.000 | 51.386 | - | - |
| Pond 19c2 | 52.400 | 1.600 | JKH 600 | - | - | 19.001 HW# | 50.800 | - | - |
| | | | | | | | | 19.000 HW | 50.800 |
| S8118 # | 52.450 | 1.750 | 2100 | 600 | C250 | 19.002 | 50.700 | 19.001 | 50.700 |
| SWMH27 | 52.085 | 1.420 | 1350 | 600 | C250 | 20.000 | 50.635 | - | - |
| SWMH27A | 52.081 | 1.616 | 1350 | 600 | C250 | 20.001 | 50.465 | 20.000 | 50.465 |
| S8119b | 52.040 | 1.900 | 1350 | 600 | C250 | 1.017 | 50.140 | 1.016 | 50.140 |
| | | | | | | | | 19.002 | 50.685 |
| | | | | | | | | 20.001 | 50.365 |
| Pond 19c3 | 51.800 | 1.800 | - | - | - | 1.018 HW | 50.000 | 1.017 HW# | 50.000 |
| | | | | | | | | 21.000 HW | 50.000 |
| S8702 # | 52.250 | 2.520 | 1200 | 600 | C250 | 1.019 | 49.730 | 1.018 | 49.730 |
| S8703 | 51.200 | 1.640 | 1200 | 600 | C250 | 1.020 | 49.560 | 1.019 | 49.560 |
| S8704 | 51.340 | 1.840 | 1200 | 600 | C250 | 1.021 | 49.500 | 1.020 | 49.500 |
| S8705 | 51.200 | 1.880 | 1200 | 600 | C250 | 1.022 | 49.320 | 1.021 | 49.320 |
| S8706 | 50.150 | - | - | - | - | Watercourse | 49.160 | 1.022 | 49.160 |

SCHEDULE AMENDED TO SUIT DEVELOPMENTS TO PHASE 1 AND PHASE 2 DESIGNS

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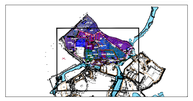
**KEY**
- Parcel Boundary
- Catchment Area Boundary
- Revised Green Corridor
- Proposed Development Pond
- Proposed Highway Pond
- Development Pond (Constructed)
- Highway Pond (Constructed)
- Indicative Flood Extent
- Extent of Development Catchment
- Extent of Highway Catchment
- Proposed Development SW Sewer
- Proposed Highway SW Sewer
- Proposed Temporary SW Sewer
- Proposed Indicative Dev SW Sewer
- Indicative Proposed Flow Direction
- Proposed Parcel Outfall

**NOTE**
1. This drawing is not to be scaled.
2. All errors and omissions to be reported to the Engineer for clarification.
3. All discrepancies in the design information shall be immediately reported to the Engineer by the Contactor.
4. This drawing is to be read in conjunction with Arborfield Garrison SDL Drainage Strategy Report Rev 3, AECOM drawing 60312043/CIV/300 - Hazebrouck Foul Water Strategy rev P4, and all other relevant drawings, details and specifications.
5. This is a strategy document to be used for strategic master planning purposes. The layout of this surface water drainage network is subject to amendments based on development parcel layouts and strategic green and grey infrastructure design.
6. This drawing has been based on the following drawings and information:
   - Topographical Survey Drawing No. 13:4714 Rev.6 by K.A.Rylance Limited.
   - Arborfield Garrison SDL Drainage Strategy Report Rev 3 by AECOM
   - Flood Extents: Aborfield_100yrCC_5hr_BIGGS_022_v2_dMax_g001_2_contour "Model 22v2" by AECOM.
   - Impermeable areas within parcels U1 & V2 South based on: 1329-D-1300 by Gardner Stewart Architect as per RMA application.
   - Parcel V2E drainage and catchments based on: GTA drawing ref 11343-160181602 rev C11.
7. Indicative routing of proposed drainage subject to confirmation of landscape strategy in relation to existing trees and associated root protection areas.
8. Impermeable areas based on a percentage of catchments being developed to the following assumptions:
   - 65% developed area within residential parcels
   - 50% developed area within school parcels
   - 100% developed within strategic roads.
9. Attenuation pond sizing based on accommodating flows up to the 1 in 100 year return period, plus a 30% allowance for climate change.
10. Attenuation ponds may be reduced in size with the provision of surface water storage within development parcels.
11. Ponds have been designed hydraulically to the following parameters:
    - Type: Dry
    - Side slopes: 1 in 3
    - Minimum freeboard: 300mm
12. Greenfield run-off rate calculated as 13.8 l/s/ha for the 1 in 100 year return period in accordance with the 'Arborfield Garrison SDL, Foul and Surface Water Drainage Strategy', revision 3.
13. Surface water discharge to be limited to Greenfield run-off rate, minimum of 5.0 l/s in accordance with guidance contained in EA/DEFRA publication 'Rainfall Run-off Management for Development'.
14. Designed discharge rates have been developed to optimise upstream attenuation features and may vary from the Q100 Greenfield Equivalent discharge rate.
15. Content of drainage schedules for piped networks are only advisory and provided strictly for drainage strategy evaluation purposes. All proposed SWS pipework subject to detailed design pending parcel layouts.

**KEY PLAN**



**ISSUE/REVISION**

| Rev | Date | Detail | Made | Chk'd | App'd |
|---|---|---|---|---|---|
| P13 | 30.08.24 | Proposed drainage arrangement and catchment areas updated to suit Phase 1 and Phase 2 developments. | AB | DM | CP |
| P12 | 21.04.22 | Ponds 18a and 19C2 taken offline in cascade. Green corridor design updated to suit Parcel V2N development. | AB | AC | CP |
| P11 | 13.10.20 | Pond 19c2 reinstated, Pond 19c3 reduced in size, flow rates amended. | AB | AC | CP |
| P10 | 25.02.20 | Pond C96 amended as per WBC comments (24/02/2020) | AB | AC | CP |
| P9 | 12.02.20 | Amended in accordance with additional comments from Crest Nicholson's for issue to WBC LLFA | AB | AC | CP |
| P8 | 18.12.19 | Amended in accordance with client review | AB | AC | CP |
| P7 | 22.10.19 | Amended to split highway and development drainage. Ponds A2, A3 and A4 added. Catchments revised and green corridor ponds and pond C22 discharge rates amended to suit. | AB | AC | CP |
| P6 | 30.07.19 | Pond 19a and 19c1 discharge rates amended. | AB | AC | CP |
| P5 | 20.05.19 | Pond 17 base level lowered to suit Parcel X outfall. Ponds 19b and 19c2 omitted. Ponds 19c1 and 19c3 enlarged to suit. | AB | AC | CP |
| P4 | 11.01.19 | Catchments revised to suit Parcel U1 / V2S works. Proposed pond sequence 17-16-19a-19b-19c1-19c2-19c3-C22 and 18a-18b revised to preliminary design. | AB | AC | CP |
| P3 | 03.04.18 | Catchments and ponds revised to suit new green corridor route. | AB | DM | CP |
| P2 | 02.01.18 | Attenuation volumes revised, drainage networks added to highway ponds. | AB | DM | CP |
| P1 | 31.10.17 | Preliminary issue | AB | DM | CP |

**PROJECT NUMBER**
60312043

**SHEET TITLE**
Hazebrouck Drainage Strategy
Attenuation Assessment
Surface Water

**SHEET NUMBER**
60312043/CIV/298

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