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| AECOM | | Page 1 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

| | | | | | |
|--------------------------------------|--------|-------------------------------|-------|---------------------------------------|-------|
| Return Period (years) | 100 | Foul Sewage (l/s/ha) | 0.000 | Maximum Backdrop Height (m) | 1.500 |
| M5-60 (mm) | 20.000 | Volumetric Runoff Coeff. | 1.000 | Min Design Depth for Optimisation (m) | 1.200 |
| Ratio R | 0.400 | PIMP (%) | 100 | Min Vel for Auto Design only (m/s) | 1.00 |
| Maximum Rainfall (mm/hr) | 120 | Add Flow / Climate Change (%) | 0 | Min Slope for Optimisation (1:X) | 500 |
| Maximum Time of Concentration (mins) | 30 | Minimum Backdrop Height (m) | 0.200 | | |


Designed with Level Soffits

Time Area Diagram for Storm

| Time (mins) | Area (ha) | Time (mins) | Area (ha) | Time (mins) | Area (ha) |
|-------------|-----------|-------------|-----------|-------------|-----------|
| 0-4 | 0.846 | 4-8 | 1.145 | 8-12 | 0.021 |


Total Area Contributing (ha) = 2.012

Total Pipe Volume (m³) = 120.017

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Area Summary for Storm

| Pipe Number | PIMP Type | PIMP Name | PIMP (%) | Gross Area (ha) | Imp. Area (ha) | Pipe Total (ha) |
|-------------|-----------|-----------|----------|-----------------|----------------|-----------------|
| 1.000 | - | - | 100 | 0.028 | 0.028 | 0.028 |
| 2.000 | - | - | 100 | 0.007 | 0.007 | 0.007 |
| 3.000 | - | - | 100 | 0.008 | 0.008 | 0.008 |
| 1.001 | - | - | 100 | 0.028 | 0.028 | 0.028 |
| 4.000 | - | - | 100 | 0.007 | 0.007 | 0.007 |
| 4.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 4.002 | - | - | 100 | 0.006 | 0.006 | 0.006 |
| 1.002 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.003 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 5.000 | - | - | 100 | 0.019 | 0.019 | 0.019 |
| 5.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.004 | - | - | 100 | 0.058 | 0.058 | 0.058 |
| 1.005 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 6.000 | - | - | 100 | 0.023 | 0.023 | 0.023 |
| 6.001 | - | - | 100 | 0.017 | 0.017 | 0.017 |
| 1.006 | - | - | 100 | 0.004 | 0.004 | 0.004 |
| 1.007 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 7.000 | - | - | 100 | 0.056 | 0.056 | 0.056 |
| 7.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 8.000 | - | - | 100 | 0.013 | 0.013 | 0.013 |
| 1.008 | - | - | 100 | 0.018 | 0.018 | 0.018 |
| 1.009 | - | - | 100 | 0.009 | 0.009 | 0.009 |
| 9.000 | - | - | 100 | 0.035 | 0.035 | 0.035 |
| 9.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.010 | - | - | 100 | 0.006 | 0.006 | 0.006 |
| 10.000 | - | - | 100 | 0.017 | 0.017 | 0.017 |
| 1.011 | - | - | 100 | 0.017 | 0.017 | 0.017 |
| 1.012 | - | - | 100 | 0.030 | 0.030 | 0.030 |
| 11.000 | - | - | 100 | 0.014 | 0.014 | 0.014 |
| 11.001 | - | - | 100 | 0.023 | 0.023 | 0.023 |
| 12.000 | - | - | 100 | 0.024 | 0.024 | 0.024 |
| 13.000 | - | - | 100 | 0.008 | 0.008 | 0.008 |
| 14.000 | - | - | 100 | 0.006 | 0.006 | 0.006 |

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Area Summary for Storm

| Pipe Number | PIMP Type | PIMP Name | PIMP (%) | Gross Area (ha) | Imp. Area (ha) | Pipe Total (ha) |
|-------------|-----------|-----------|----------|-----------------|----------------|-----------------|
| 15.000 | - | - | 100 | 0.007 | 0.007 | 0.007 |
| 12.001 | - | - | 100 | 0.019 | 0.019 | 0.019 |
| 16.000 | - | - | 100 | 0.018 | 0.018 | 0.018 |
| 12.002 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 17.000 | - | - | 100 | 0.006 | 0.006 | 0.006 |
| 18.000 | - | - | 100 | 0.042 | 0.042 | 0.042 |
| 18.001 | - | - | 100 | 0.024 | 0.024 | 0.024 |
| 19.000 | - | - | 100 | 0.019 | 0.019 | 0.019 |
| 18.002 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 20.000 | - | - | 100 | 0.007 | 0.007 | 0.007 |
| 20.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 18.003 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 11.002 | - | - | 100 | 0.019 | 0.019 | 0.019 |
| 11.003 | - | - | 100 | 0.006 | 0.006 | 0.006 |
| 11.004 | - | - | 100 | 0.022 | 0.022 | 0.022 |
| 1.013 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.014 | - | - | 100 | 0.029 | 0.029 | 0.029 |
| 1.015 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 21.000 | - | - | 100 | 0.104 | 0.104 | 0.104 |
| 21.001 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 21.002 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 22.000 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 22.001 | - | - | 100 | 0.097 | 0.097 | 0.097 |
| 22.002 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 23.000 | - | - | 100 | 0.104 | 0.104 | 0.104 |
| 22.003 | - | - | 100 | 0.080 | 0.080 | 0.080 |
| 24.000 | - | - | 100 | 0.134 | 0.134 | 0.134 |
| 21.003 | - | - | 100 | 0.027 | 0.027 | 0.027 |
| 25.000 | - | - | 100 | 0.579 | 0.579 | 0.579 |
| 26.000 | - | - | 100 | 0.188 | 0.188 | 0.188 |
| 21.004 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.016 | - | - | 100 | 0.000 | 0.000 | 0.000 |
| 1.017 | - | - | 100 | 0.000 | 0.000 | 0.000 |

Midpoint
 Alencon Link
 Basingstoke, RG21 7PP

Attenuation pond
 Including existing area
 HCHQ-ACM-HQ-00-00-M2-CE-1000



Date 18/05/2023
 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX


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Area Summary for Storm

| Pipe Number | PIMP Type | PIMP Name | PIMP (%) | Gross Area (ha) | Imp. Area (ha) | Pipe Total (ha) |
|-------------|-----------|-----------|----------|-----------------|----------------|-----------------|
| | | | | Total | Total | Total |
| | | | | 2.012 | 2.012 | 2.012 |

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Online Controls for Storm

Orifice Manhole: 6, DS/PN: A1.001, Volume (m³): 0.8

Diameter (m) 0.100 Discharge Coefficient 0.600 Invert Level (m) 77.650

Orifice Manhole: 2, DS/PN: A4.001, Volume (m³): 0.2

Diameter (m) 0.075 Discharge Coefficient 0.600 Invert Level (m) 77.704

Orifice Manhole: RG03, DS/PN: A7.001, Volume (m³): 0.4

Diameter (m) 0.075 Discharge Coefficient 0.600 Invert Level (m) 74.250

Orifice Manhole: 21, DS/PN: A9.001, Volume (m³): 1.4

Diameter (m) 0.075 Discharge Coefficient 0.600 Invert Level (m) 74.028

Orifice Manhole: RG05, DS/PN: A12.001, Volume (m³): 0.8


Diameter (m) 0.100 Discharge Coefficient 0.600 Invert Level (m) 77.950

Orifice Manhole: 44, DS/PN: A20.001, Volume (m³): 1.4

Diameter (m) 0.020 Discharge Coefficient 0.600 Invert Level (m) 77.542

Orifice Manhole: 56, DS/PN: A22.001, Volume (m³): 3.3

Diameter (m) 0.022 Discharge Coefficient 0.600 Invert Level (m) 77.081

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Hydro-Brake® Optimum Manhole: 19, DS/PN: A1.016, Volume (m³): 15.6

| | | | |
|-------------------|----------------------------|-----------------------------------|--------|
| Unit Reference | MD-SHE-0210-2620-1950-2620 | Sump Available | Yes |
| Design Head (m) | 1.950 | Diameter (mm) | 210 |
| Design Flow (l/s) | 26.2 | Invert Level (m) | 71.250 |
| Flush-Flo™ | Calculated | Minimum Outlet Pipe Diameter (mm) | 225 |
| Objective | Minimise upstream storage | Suggested Manhole Diameter (mm) | 1800 |
| Application | Surface | | |

| Control Points | Head (m) | Flow (l/s) | Control Points | Head (m) | Flow (l/s) |
|---------------------------|----------|------------|---------------------------|----------|------------|
| Design Point (Calculated) | 1.950 | 26.1 | Kick-Flo® | 1.228 | 21.0 |
| Flush-Flo™ | 0.572 | 26.0 | Mean Flow over Head Range | - | 22.6 |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 0.100 | 7.1 | 0.600 | 26.0 | 1.600 | 23.8 | 2.600 | 30.0 | 5.000 | 41.1 | 7.500 | 50.0 |
| 0.200 | 20.2 | 0.800 | 25.6 | 1.800 | 25.2 | 3.000 | 32.1 | 5.500 | 43.0 | 8.000 | 51.6 |
| 0.300 | 24.3 | 1.000 | 24.4 | 2.000 | 26.4 | 3.500 | 34.6 | 6.000 | 44.9 | 8.500 | 53.1 |
| 0.400 | 25.5 | 1.200 | 21.6 | 2.200 | 27.7 | 4.000 | 36.9 | 6.500 | 46.6 | 9.000 | 54.6 |
| 0.500 | 26.0 | 1.400 | 22.3 | 2.400 | 28.9 | 4.500 | 39.1 | 7.000 | 48.3 | 9.500 | 56.1 |

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Storage Structures for Storm

Complex Manhole: 6, DS/PN: A1.001

Cellular Storage


| | | | | | | | | |
|--------------------------|-----------------------------|----------------------------------|------------------|-----------------------------|----------------------------------|------------------|-----------------------------|----------------------------------|
| Invert Level (m) | 77.650 | Infiltration Coefficient | Side (m/hr) | 0.00000 | Porosity | 0.95 | | |
| Infiltration Coefficient | Base (m/hr) | 0.00000 | Safety Factor | 2.0 | | | | |
| Depth (m) | Area (m²) | Inf. Area (m²) | Depth (m) | Area (m²) | Inf. Area (m²) | Depth (m) | Area (m²) | Inf. Area (m²) |
| 0.000 | 40.0 | 0.0 | 0.400 | 40.0 | 0.0 | 0.401 | 0.0 | 0.0 |

Bio-Retention Area

| | | | | | | | | |
|------------------|-----------------------------|--------------------------|------------------|-----------------------------|----------------------|------------------|-----------------------------|----------------------|
| Invert Level (m) | 78.050 | Infiltration Coefficient | Base (m/hr) | 0.00000 | Safety Factor | 2.0 | | |
| Porosity | 0.30 | Infiltration Coefficient | Side (m/hr) | 0.00000 | | | | |
| Depth (m) | Area (m²) | Perimeter (m) | Depth (m) | Area (m²) | Perimeter (m) | Depth (m) | Area (m²) | Perimeter (m) |
| 0.000 | 40.0 | 38.000 | 0.300 | 40.0 | 38.000 | 0.301 | 0.0 | 38.000 |

Tank or Pond

| | | | | | |
|------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|
| Invert Level (m) | 78.350 | | | | |
| Depth (m) | Area (m²) | Depth (m) | Area (m²) | Depth (m) | Area (m²) |
| 0.000 | 40.0 | 0.150 | 40.0 | 0.151 | 0.0 |

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Bio-Retention Area Manhole: RG01, DS/PN: A4.000

Invert Level (m) 77.750 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
Porosity 0.30 Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 40.0 | 38.000 | 0.400 | 40.0 | 38.000 | 0.401 | 0.0 | 38.000 |

Complex Manhole: RG02, DS/PN: A1.004

Cellular Storage

Invert Level (m) 76.951 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 40.0 | 0.0 | 0.800 | 40.0 | 0.0 | 0.801 | 0.0 | 0.0 |


Bio-Retention Area

Invert Level (m) 77.751 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
Porosity 0.30 Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 40.0 | 38.000 | 0.300 | 40.0 | 38.000 | 0.301 | 0.0 | 38.000 |

Tank or Pond

Invert Level (m) 78.051

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Tank or Pond

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 40.0 | 0.150 | 40.0 | 0.151 | 0.0 |

Complex Manhole: RG03, DS/PN: A7.001

Cellular Storage

| Invert Level (m) | 74.250 | Infiltration Coefficient | Side (m/hr) | 0.00000 | Porosity | 0.95 | | |
|--------------------------|------------------------|-----------------------------|---------------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| Infiltration Coefficient | Base (m/hr) | 0.00000 | Safety Factor | 2.0 | | | | |
| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
| 0.000 | 40.0 | 0.0 | 0.400 | 40.0 | 0.0 | 0.401 | 0.0 | 0.0 |


Bio-Retention Area

| Invert Level (m) | 74.650 | Infiltration Coefficient | Base (m/hr) | 0.00000 | Safety Factor | 2.0 | | |
|------------------|------------------------|--------------------------|-------------|------------------------|---------------|-----------|------------------------|---------------|
| Porosity | 0.30 | Infiltration Coefficient | Side (m/hr) | 0.00000 | | | | |
| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
| 0.000 | 40.0 | 38.000 | 0.300 | 40.0 | 38.000 | 0.301 | 0.0 | 38.000 |

Tank or Pond

Invert Level (m) 74.950

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 40.0 | 0.250 | 40.0 | 0.251 | 0.0 |

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Complex Manhole: 16, DS/PN: A9.000

Cellular Storage

Invert Level (m) 74.250 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.30
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 40.0 | 0.0 | 0.400 | 40.0 | 0.0 | 0.401 | 0.0 | 0.0 |

Bio-Retention Area

Invert Level (m) 74.650 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
 Porosity 0.30 Infiltration Coefficient Side (m/hr) 0.00000


| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 40.0 | 38.000 | 0.300 | 40.0 | 38.000 | 0.301 | 0.0 | 38.000 |

Tank or Pond

Invert Level (m) 74.950

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 40.0 | 0.150 | 40.0 | 0.151 | 0.0 |

Complex Manhole: SW22, DS/PN: A11.001

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Cellular Storage

Invert Level (m) 77.900 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.30
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 40.0 | 0.0 | 0.399 | 40.0 | 0.0 | 0.400 | 0.0 | 0.0 |

Bio-Retention Area

Invert Level (m) 78.700 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
 Porosity 0.40 Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 40.0 | 38.000 | 0.499 | 40.0 | 38.000 | 0.500 | 0.0 | 38.000 |

Tank or Pond


Invert Level (m) 78.850

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 40.0 | 0.050 | 40.0 | 0.051 | 0.0 |

Complex Manhole: RG05, DS/PN: A12.001

Cellular Storage

Invert Level (m) 77.950 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

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Cellular Storage

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 40.0 | 0.0 | 0.400 | 40.0 | 0.0 | 0.401 | 0.0 | 0.0 |

Bio-Retention Area

Invert Level (m) 78.350 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
Porosity 0.30 Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 40.0 | 38.000 | 0.300 | 40.0 | 38.000 | 0.301 | 0.0 | 38.000 |

Tank or Pond

Invert Level (m) 78.650


| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 40.0 | 0.150 | 40.0 | 0.151 | 0.0 |

Complex Manhole: RG04, DS/PN: A19.000

Cellular Storage

Invert Level (m) 78.000 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.30
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 22.0 | 0.0 | 0.400 | 22.0 | 0.0 | 0.401 | 0.0 | 0.0 |

| | | |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 13 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
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Bio-Retention Area

Invert Level (m) 78.400 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0
Porosity 0.30 Infiltration Coefficient Side (m/hr) 0.00000

| Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) | Depth (m) | Area (m ²) | Perimeter (m) |
|-----------|------------------------|---------------|-----------|------------------------|---------------|-----------|------------------------|---------------|
| 0.000 | 22.0 | 20.000 | 0.300 | 22.0 | 20.000 | 0.301 | 0.0 | 20.000 |

Tank or Pond

Invert Level (m) 78.700

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 20.0 | 0.150 | 20.0 | 0.151 | 0.0 |

Porous Car Park Manhole: 43, DS/PN: A20.000

Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.30 Slope (1:X) 85.0
Membrane Percolation (mm/hr) 1000 Invert Level (m) 77.650 Depression Storage (mm) 5
Max Percolation (l/s) 19.4 Width (m) 7.0 Evaporation (mm/day) 3
Safety Factor 2.0 Length (m) 10.0 Cap Volume Depth (m) 0.350

Cellular Storage Manhole: 56, DS/PN: A22.001

Invert Level (m) 77.081 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) | Depth (m) | Area (m ²) | Inf. Area (m ²) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000 | 80.0 | 0.0 | 0.800 | 80.0 | 0.0 | 0.801 | 0.0 | 0.0 |

| | |
|---------------------------------------------------|-----------------------------------------------------------------------------|
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |
|---------------------------------------------------|-----------------------------------------------------------------------------|




| | |
|-----------------------------------------------------------------------|---------------------------------|
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR |
|-----------------------------------------------------------------------|---------------------------------|

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Infiltration Basin Manhole: 19, DS/PN: A1.016

Invert Level (m) 71.250 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 1.00
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

| Depth (m) | Area (m ²) | Depth (m) | Area (m ²) | Depth (m) | Area (m ²) |
|-----------|------------------------|-----------|------------------------|-----------|------------------------|
| 0.000 | 745.0 | 1.949 | 1418.1 | 1.950 | 1418.5 |

| | | |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 15 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
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| Innovyze | Network 2020.1 | |

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coefficient 0.800
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 8 Number of Storage Structures 11 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 522900 211350 TL 22900 11350 Cv (Summer) 1.000
FEH Rainfall Version 2013 Data Type Catchment Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status ON
DTS Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 2, 30, 100
Climate Change (%) 0, 0, 40

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|--------|------------|----------|------------------------------|-----------------|-----------|-----------------|----------------------|----------------------------------|------------------------|-----------------|--------|
| A1.000 | SW01 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 78.017 | -0.083 | 0.000 | 1.0 | 7.8 | OK |
| A2.000 | SW03 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.977 | -0.123 | 0.000 | 0.9 | 1.9 | OK |
| A3.000 | SW02 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.983 | -0.117 | 0.000 | 0.8 | 2.2 | OK |
| A1.001 | 6 | | 30 minute 2 year Summer I+0% | 30 | 78.600 | 77.768 | -0.032 | 0.000 | 1.0 | 4.9 | OK |
| A4.000 | RG01 | | 15 minute 2 year Summer I+0% | 15 | 78.600 | 77.777 | -0.123 | 0.000 | 0.5 | 1.0 | OK |
| A4.001 | 2 | | 15 minute 2 year Summer I+0% | 15 | 78.800 | 77.754 | -0.100 | 0.000 | 0.5 | 1.0 | OK |
| A4.002 | SW04 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.689 | -0.119 | 0.000 | 0.7 | 1.9 | OK |
| A1.002 | SW05 | | 30 minute 2 year Summer I+0% | 30 | 78.600 | 77.482 | -0.168 | 0.000 | 0.8 | 6.4 | OK |

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|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 16 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
| Innovyze | Network 2020.1 | |

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|----------|-------------------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A1.003 | SW06 | | 30 minute 2 year Summer I+0% | 30 | 78.600 | 77.359 | -0.178 | 0.000 | 1.0 | 6.4 | OK |
| A5.000 | SW26 | | 15 minute 2 year Summer I+0% | 15 | 78.900 | 77.924 | -0.076 | 0.000 | 0.6 | 5.3 | OK |
| A5.001 | SW27 | | 15 minute 2 year Summer I+0% | 15 | 78.900 | 77.863 | -0.110 | 0.000 | 1.4 | 5.3 | OK |
| A1.004 | RG02 | | 120 minute 2 year Summer I+0% | 120 | 78.600 | 77.128 | 0.027 | 0.000 | 0.6 | 10.3 | SURCHARGED |
| A1.005 | SW07 | | 120 minute 2 year Summer I+0% | 120 | 78.000 | 77.004 | -0.096 | 0.000 | 1.8 | 10.3 | OK |
| A6.000 | 14 | | 15 minute 2 year Summer I+0% | 15 | 78.150 | 76.865 | -0.085 | 0.000 | 0.9 | 5.9 | OK |
| A6.001 | 15 | | 15 minute 2 year Summer I+0% | 15 | 77.800 | 76.539 | -0.061 | 0.000 | 0.8 | 8.7 | OK |
| A1.006 | SW08 | | 30 minute 2 year Summer I+0% | 30 | 78.000 | 76.434 | -0.104 | 0.000 | 2.9 | 13.2 | OK |
| A1.007 | SW09 | | 30 minute 2 year Summer I+0% | 30 | 75.200 | 74.095 | -0.205 | 0.000 | 0.7 | 13.3 | OK |
| A7.000 | 15 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.412 | -0.113 | 0.000 | 0.8 | 15.6 | OK |
| A7.001 | RG03 | | 120 minute 2 year Summer I+0% | 120 | 75.200 | 74.360 | -0.115 | 0.000 | 1.3 | 3.2 | OK |
| A8.000 | SW28 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.195 | -0.105 | 0.000 | 0.8 | 3.6 | OK |
| A1.008 | SW10 | | 30 minute 2 year Summer I+0% | 30 | 75.200 | 74.067 | -0.195 | 0.000 | 0.9 | 20.1 | OK |
| A1.009 | SW11 | | 30 minute 2 year Summer I+0% | 30 | 75.200 | 73.923 | -0.187 | 0.000 | 0.9 | 21.2 | OK |
| A9.000 | 16 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.318 | -0.082 | 0.000 | 1.4 | 6.9 | OK |
| A9.001 | 21 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.305 | 0.127 | 0.000 | 1.6 | 5.7 | SURCHARGED |
| A1.010 | SW12 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 73.854 | -0.178 | 0.000 | 1.0 | 27.4 | OK |
| A10.000 | SW13 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.190 | -0.110 | 0.000 | 1.2 | 4.7 | OK |
| A1.011 | SW14 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 73.767 | -0.160 | 0.000 | 1.0 | 31.8 | OK |
| A1.012 | SW15 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 73.713 | -0.132 | 0.000 | 0.9 | 36.2 | OK |
| A11.000 | SW23 | | 15 minute 2 year Summer I+0% | 15 | 78.850 | 78.137 | -0.103 | 0.000 | 0.8 | 3.9 | OK |
| A11.001 | SW22 | | 15 minute 2 year Summer I+0% | 15 | 78.850 | 77.947 | -0.103 | 0.000 | 1.5 | 7.0 | OK |
| A12.000 | SW27 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 78.160 | -0.090 | 0.000 | 1.0 | 6.7 | OK |
| A13.000 | SW30 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 78.134 | -0.116 | 0.000 | 0.7 | 2.2 | OK |
| A14.000 | SW31 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 78.127 | -0.123 | 0.000 | 0.8 | 1.7 | OK |
| A15.000 | SW32 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 78.146 | -0.104 | 0.000 | 0.4 | 1.9 | OK |
| A12.001 | RG05 | | 30 minute 2 year Summer I+0% | 30 | 79.000 | 78.058 | -0.042 | 0.000 | 1.5 | 4.2 | OK |
| A16.000 | SW29 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.992 | -0.108 | 0.000 | 1.2 | 5.0 | OK |
| A12.002 | SW28 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.667 | -0.094 | 0.000 | 1.1 | 6.3 | OK |
| A17.000 | SW33 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.895 | -0.131 | 0.000 | 1.3 | 1.7 | OK |
| A18.000 | SW18 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.960 | -0.140 | 0.000 | 0.8 | 11.2 | OK |

Midpoint
 Alencon Link
 Basingstoke, RG21 7PP

Attenuation pond
 Including existing area
 HCHQ-ACM-HQ-00-00-M2-CE-1000




Date 18/05/2023
 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX

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2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|----------|-------------------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A18.001 | SW19 | | 15 minute 2 year Summer I+0% | 15 | 79.000 | 77.779 | -0.123 | 0.000 | 0.9 | 14.7 | OK |
| A19.000 | RG04 | | 15 minute 2 year Summer I+0% | 15 | 78.850 | 77.939 | -0.111 | 0.000 | 1.5 | 5.3 | OK |
| A18.002 | SW20 | | 15 minute 2 year Summer I+0% | 15 | 78.850 | 77.689 | -0.083 | 0.000 | 0.7 | 18.8 | OK |
| A20.000 | 43 | | 120 minute 2 year Summer I+0% | 120 | 78.700 | 77.689 | -0.061 | 0.000 | 0.6 | 0.6 | OK |
| A20.001 | 44 | | 120 minute 2 year Summer I+0% | 120 | 78.775 | 77.687 | 0.045 | 0.000 | 0.5 | 0.3 | SURCHARGED |
| A18.003 | SW21 | | 15 minute 2 year Summer I+0% | 15 | 78.850 | 77.469 | -0.115 | 0.000 | 1.0 | 18.8 | OK |
| A11.002 | SW24 | | 15 minute 2 year Summer I+0% | 15 | 78.100 | 77.212 | -0.157 | 0.000 | 3.4 | 34.4 | OK |
| A11.003 | SW25 | | 15 minute 2 year Summer I+0% | 15 | 76.421 | 75.384 | -0.137 | 0.000 | 2.5 | 35.6 | OK |
| A11.004 | SW26 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 74.166 | -0.127 | 0.000 | 2.4 | 39.3 | OK |
| A1.013 | SW16 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 73.548 | -0.240 | 0.000 | 1.0 | 75.1 | OK |
| A1.014 | SW17 | | 15 minute 2 year Summer I+0% | 15 | 75.200 | 73.296 | -0.253 | 0.000 | 1.2 | 79.2 | OK |
| A1.015 | SW30 | | 15 minute 2 year Summer I+0% | 15 | 75.020 | 73.088 | -0.332 | 0.000 | 2.4 | 79.4 | OK |
| A21.000 | 52 | | 15 minute 2 year Summer I+0% | 15 | 78.190 | 77.186 | -0.139 | 0.000 | 2.1 | 28.7 | OK |
| A21.001 | 53 | | 15 minute 2 year Summer I+0% | 15 | 76.462 | 75.350 | -0.125 | 0.000 | 1.7 | 28.5 | OK |
| A21.002 | 54 | | 15 minute 2 year Summer I+0% | 15 | 77.000 | 75.005 | -0.140 | 0.000 | 2.1 | 27.4 | OK |
| A22.000 | 55 | | 360 minute 2 year Winter I+0% | 360 | 78.900 | 77.331 | 0.099 | 0.000 | 0.0 | 0.0 | SURCHARGED |
| A22.001 | 56 | | 360 minute 2 year Winter I+0% | 360 | 78.900 | 77.331 | -0.425 | 0.000 | 0.1 | 0.5 | OK |
| A22.002 | 57 | | 360 minute 2 year Winter I+0% | 360 | 79.323 | 77.081 | -0.674 | 0.000 | 0.1 | 0.5 | OK |
| A23.000 | 58 | | 15 minute 2 year Summer I+0% | 15 | 77.060 | 75.043 | -0.142 | 0.000 | 2.2 | 29.0 | OK |
| A22.003 | 58 | | 15 minute 2 year Summer I+0% | 15 | 75.320 | 73.719 | -0.556 | 0.000 | 1.0 | 40.8 | OK |
| A24.000 | 60 | | 15 minute 2 year Summer I+0% | 15 | 74.980 | 73.855 | -0.070 | 0.000 | 1.3 | 32.7 | OK |
| A21.003 | 55 | | 15 minute 2 year Summer I+0% | 15 | 74.900 | 73.410 | -0.551 | 0.000 | 2.4 | 107.4 | OK |
| A25.000 | 56 | | 15 minute 2 year Summer I+0% | 15 | 74.105 | 72.302 | -0.003 | 0.000 | 1.6 | 143.6 | OK |
| A26.000 | 57 | | 15 minute 2 year Summer I+0% | 15 | 72.960 | 72.310 | 0.245 | 0.000 | 1.0 | 36.6 | SURCHARGED |
| A21.004 | 56 | | 15 minute 2 year Summer I+0% | 15 | 73.612 | 71.945 | 0.000 | 0.000 | 0.8 | 265.1 | OK |
| A1.016 | 19 | | 360 minute 2 year Summer I+0% | 360 | 73.200 | 71.639 | -0.136 | 0.000 | 0.8 | 23.0 | OK |
| A1.017 | 21 | | 360 minute 2 year Summer I+0% | 360 | 73.345 | 71.372 | -0.053 | 0.000 | 0.7 | 23.0 | OK |

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| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
| Innovyze | Network 2020.1 | |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coefficient 0.800
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 8 Number of Storage Structures 11 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 522900 211350 TL 22900 11350 Cv (Summer) 1.000
FEH Rainfall Version 2013 Data Type Catchment Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status ON
DTS Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 2, 30, 100
Climate Change (%) 0, 0, 40

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|--------|------------|----------|-------------------------------|-----------------|-----------|-----------------|----------------------|----------------------------------|------------------------|-----------------|------------|
| A1.000 | SW01 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 78.083 | -0.017 | 0.000 | 1.2 | 17.9 | OK |
| A2.000 | SW03 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 77.992 | -0.108 | 0.000 | 1.1 | 4.4 | OK |
| A3.000 | SW02 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 78.000 | -0.100 | 0.000 | 1.0 | 5.0 | OK |
| A1.001 | 6 | | 30 minute 30 year Summer I+0% | 30 | 78.600 | 77.918 | 0.118 | 0.000 | 1.2 | 9.7 | SURCHARGED |
| A4.000 | RG01 | | 15 minute 30 year Summer I+0% | 15 | 78.600 | 77.811 | -0.089 | 0.000 | 0.5 | 2.4 | OK |
| A4.001 | 2 | | 15 minute 30 year Summer I+0% | 15 | 78.800 | 77.810 | -0.044 | 0.000 | 0.7 | 2.5 | OK |
| A4.002 | SW04 | | 15 minute 30 year Winter I+0% | 15 | 79.000 | 77.704 | -0.104 | 0.000 | 0.9 | 4.3 | OK |
| A1.002 | SW05 | | 30 minute 30 year Summer I+0% | 30 | 78.600 | 77.511 | -0.139 | 0.000 | 1.0 | 13.5 | OK |

Midpoint
 Alencon Link
 Basingstoke, RG21 7PP

Attenuation pond
 Including existing area
 HCHQ-ACM-HQ-00-00-M2-CE-1000



Date 18/05/2023
 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX


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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|----------|-------------------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A1.003 | SW06 | | 30 minute 30 year Summer I+0% | 30 | 78.600 | 77.382 | -0.155 | 0.000 | 1.3 | 13.6 | OK |
| A5.000 | SW26 | | 15 minute 30 year Summer I+0% | 15 | 78.900 | 78.001 | 0.001 | 0.000 | 0.7 | 11.9 | SURCHARGED |
| A5.001 | SW27 | | 15 minute 30 year Summer I+0% | 15 | 78.900 | 77.886 | -0.087 | 0.000 | 1.7 | 12.0 | OK |
| A1.004 | RG02 | | 30 minute 30 year Summer I+0% | 30 | 78.600 | 77.287 | 0.186 | 0.000 | 1.4 | 24.1 | SURCHARGED |
| A1.005 | SW07 | | 30 minute 30 year Summer I+0% | 30 | 78.000 | 77.039 | -0.061 | 0.000 | 2.2 | 24.1 | OK |
| A6.000 | 14 | | 15 minute 30 year Summer I+0% | 15 | 78.150 | 76.929 | -0.021 | 0.000 | 1.0 | 13.2 | OK |
| A6.001 | 15 | | 15 minute 30 year Summer I+0% | 15 | 77.800 | 76.681 | 0.081 | 0.000 | 1.2 | 21.1 | SURCHARGED |
| A1.006 | SW08 | | 15 minute 30 year Summer I+0% | 15 | 78.000 | 76.472 | -0.066 | 0.000 | 3.9 | 39.0 | OK |
| A1.007 | SW09 | | 30 minute 30 year Summer I+0% | 30 | 75.200 | 74.425 | 0.125 | 0.000 | 0.9 | 38.1 | SURCHARGED |
| A7.000 | 15 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.542 | 0.017 | 0.000 | 0.9 | 34.8 | SURCHARGED |
| A7.001 | RG03 | | 60 minute 30 year Summer I+0% | 60 | 75.200 | 74.494 | 0.019 | 0.000 | 1.5 | 5.3 | SURCHARGED |
| A8.000 | SW28 | | 30 minute 30 year Summer I+0% | 30 | 75.200 | 74.343 | 0.043 | 0.000 | 1.0 | 6.3 | SURCHARGED |
| A1.008 | SW10 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.337 | 0.075 | 0.000 | 1.1 | 50.4 | SURCHARGED |
| A1.009 | SW11 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.235 | 0.125 | 0.000 | 1.0 | 55.0 | SURCHARGED |
| A9.000 | 16 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.474 | 0.074 | 0.000 | 1.3 | 7.9 | SURCHARGED |
| A9.001 | 21 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.463 | 0.285 | 0.000 | 1.7 | 7.3 | SURCHARGED |
| A1.010 | SW12 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.116 | 0.084 | 0.000 | 1.2 | 63.2 | SURCHARGED |
| A10.000 | SW13 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.213 | -0.087 | 0.000 | 1.5 | 10.7 | OK |
| A1.011 | SW14 | | 30 minute 30 year Summer I+0% | 30 | 75.200 | 73.988 | 0.061 | 0.000 | 1.1 | 72.0 | SURCHARGED |
| A1.012 | SW15 | | 30 minute 30 year Summer I+0% | 30 | 75.200 | 73.880 | 0.035 | 0.000 | 1.1 | 79.0 | SURCHARGED |
| A11.000 | SW23 | | 15 minute 30 year Summer I+0% | 15 | 78.850 | 78.163 | -0.077 | 0.000 | 1.0 | 8.8 | OK |
| A11.001 | SW22 | | 15 minute 30 year Summer I+0% | 15 | 78.850 | 77.984 | -0.066 | 0.000 | 1.9 | 19.1 | OK |
| A12.000 | SW27 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 78.199 | -0.051 | 0.000 | 1.2 | 15.0 | OK |
| A13.000 | SW30 | | 30 minute 30 year Summer I+0% | 30 | 79.000 | 78.189 | -0.061 | 0.000 | 0.8 | 3.9 | OK |
| A14.000 | SW31 | | 30 minute 30 year Summer I+0% | 30 | 79.000 | 78.187 | -0.063 | 0.000 | 0.9 | 2.9 | OK |
| A15.000 | SW32 | | 30 minute 30 year Summer I+0% | 30 | 79.000 | 78.188 | -0.062 | 0.000 | 0.5 | 3.4 | OK |
| A12.001 | RG05 | | 30 minute 30 year Summer I+0% | 30 | 79.000 | 78.184 | 0.084 | 0.000 | 1.9 | 9.0 | SURCHARGED |
| A16.000 | SW29 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 78.016 | -0.084 | 0.000 | 1.5 | 11.3 | OK |
| A12.002 | SW28 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 77.710 | -0.051 | 0.000 | 1.4 | 16.2 | OK |
| A17.000 | SW33 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 77.906 | -0.120 | 0.000 | 1.5 | 3.8 | OK |
| A18.000 | SW18 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 78.033 | -0.067 | 0.000 | 1.0 | 25.3 | OK |

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|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 20 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
| Innovyze | Network 2020.1 | |

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|----------|--------------------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A18.001 | SW19 | | 15 minute 30 year Summer I+0% | 15 | 79.000 | 77.956 | 0.054 | 0.000 | 0.9 | 31.2 | SURCHARGED |
| A19.000 | RG04 | | 15 minute 30 year Summer I+0% | 15 | 78.850 | 77.960 | -0.090 | 0.000 | 1.8 | 11.9 | OK |
| A18.002 | SW20 | | 15 minute 30 year Summer I+0% | 15 | 78.850 | 77.866 | 0.094 | 0.000 | 1.0 | 37.8 | SURCHARGED |
| A20.000 | 43 | | 120 minute 30 year Summer I+0% | 120 | 78.700 | 77.747 | -0.003 | 0.000 | 0.6 | 0.5 | OK |
| A20.001 | 44 | | 120 minute 30 year Summer I+0% | 120 | 78.775 | 77.745 | 0.103 | 0.000 | 0.6 | 0.4 | SURCHARGED |
| A18.003 | SW21 | | 15 minute 30 year Summer I+0% | 15 | 78.850 | 77.529 | -0.055 | 0.000 | 1.2 | 37.6 | OK |
| A11.002 | SW24 | | 15 minute 30 year Summer I+0% | 15 | 78.100 | 77.251 | -0.118 | 0.000 | 4.3 | 80.0 | OK |
| A11.003 | SW25 | | 15 minute 30 year Summer I+0% | 15 | 76.421 | 75.442 | -0.079 | 0.000 | 3.0 | 82.3 | OK |
| A11.004 | SW26 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 74.241 | -0.052 | 0.000 | 2.9 | 91.9 | OK |
| A1.013 | SW16 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 73.685 | -0.103 | 0.000 | 1.2 | 159.0 | OK |
| A1.014 | SW17 | | 15 minute 30 year Summer I+0% | 15 | 75.200 | 73.425 | -0.124 | 0.000 | 1.4 | 172.1 | OK |
| A1.015 | SW30 | | 15 minute 30 year Summer I+0% | 15 | 75.020 | 73.150 | -0.270 | 0.000 | 2.9 | 171.7 | OK |
| A21.000 | 52 | | 15 minute 30 year Summer I+0% | 15 | 78.190 | 77.239 | -0.086 | 0.000 | 2.5 | 64.7 | OK |
| A21.001 | 53 | | 15 minute 30 year Summer I+0% | 15 | 76.462 | 75.420 | -0.055 | 0.000 | 2.0 | 64.3 | OK |
| A21.002 | 54 | | 15 minute 30 year Summer I+0% | 15 | 77.000 | 75.058 | -0.087 | 0.000 | 2.5 | 61.7 | OK |
| A22.000 | 55 | | 360 minute 30 year Winter I+0% | 360 | 78.900 | 77.586 | 0.354 | 0.000 | 0.0 | 0.0 | SURCHARGED |
| A22.001 | 56 | | 360 minute 30 year Winter I+0% | 360 | 78.900 | 77.586 | -0.170 | 0.000 | 0.1 | 0.7 | OK |
| A22.002 | 57 | | 360 minute 30 year Winter I+0% | 360 | 79.323 | 77.081 | -0.674 | 0.000 | 0.1 | 0.7 | OK |
| A23.000 | 58 | | 15 minute 30 year Summer I+0% | 15 | 77.060 | 75.094 | -0.091 | 0.000 | 2.7 | 65.2 | OK |
| A22.003 | 58 | | 15 minute 30 year Summer I+0% | 15 | 75.320 | 73.793 | -0.482 | 0.000 | 1.2 | 99.7 | OK |
| A24.000 | 60 | | 15 minute 30 year Summer I+0% | 15 | 74.980 | 74.694 | 0.769 | 0.000 | 1.7 | 63.7 | FLOOD RISK |
| A21.003 | 55 | | 15 minute 30 year Summer I+0% | 15 | 74.900 | 73.473 | -0.488 | 0.000 | 3.0 | 238.9 | OK |
| A25.000 | 56 | | 15 minute 30 year Summer I+0% | 15 | 74.105 | 73.878 | 1.573 | 0.000 | 2.7 | 290.8 | FLOOD RISK |
| A26.000 | 57 | | 15 minute 30 year Summer I+0% | 15 | 72.960 | 72.965 | 0.900 | 4.719 | 1.6 | 61.9 | FLOOD |
| A21.004 | 56 | | 15 minute 30 year Summer I+0% | 15 | 73.612 | 72.107 | 0.162 | 0.000 | 1.7 | 583.6 | SURCHARGED |
| A1.016 | 19 | | 240 minute 30 year Summer I+0% | 240 | 73.200 | 72.006 | 0.231 | 0.000 | 0.8 | 26.0 | SURCHARGED |
| A1.017 | 21 | | 240 minute 30 year Summer I+0% | 240 | 73.345 | 71.433 | 0.008 | 0.000 | 0.7 | 26.0 | SURCHARGED |

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|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 21 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
| Innovyze | Network 2020.1 | |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coefficient 0.800
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 8 Number of Storage Structures 11 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 522900 211350 TL 22900 11350 Cv (Summer) 1.000
FEH Rainfall Version 2013 Data Type Catchment Cv (Winter) 1.000

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status ON
DTS Status OFF

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 2, 30, 100
Climate Change (%) 0, 0, 40

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m ³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|--------|------------|----------|---------------------------------|-----------------|-----------|-----------------|----------------------|----------------------------------|------------------------|-----------------|------------|
| A1.000 | SW01 | | 15 minute 100 year Summer I+40% | 15 | 79.000 | 78.508 | 0.408 | 0.000 | 1.8 | 31.2 | SURCHARGED |
| A2.000 | SW03 | | 30 minute 100 year Summer I+40% | 30 | 79.000 | 78.318 | 0.218 | 0.000 | 1.2 | 6.2 | SURCHARGED |
| A3.000 | SW02 | | 30 minute 100 year Summer I+40% | 30 | 79.000 | 78.321 | 0.221 | 0.000 | 1.1 | 7.1 | SURCHARGED |
| A1.001 | 6 | | 30 minute 100 year Summer I+40% | 30 | 78.600 | 78.314 | 0.514 | 0.000 | 1.3 | 16.3 | FLOOD RISK |
| A4.000 | RG01 | | 30 minute 100 year Summer I+40% | 30 | 78.600 | 77.874 | -0.026 | 0.000 | 0.5 | 3.2 | OK |
| A4.001 | 2 | | 30 minute 100 year Summer I+40% | 30 | 78.800 | 77.869 | 0.015 | 0.000 | 0.8 | 3.4 | SURCHARGED |
| A4.002 | SW04 | | 15 minute 100 year Summer I+40% | 15 | 79.000 | 77.722 | -0.086 | 0.000 | 1.1 | 7.3 | OK |
| A1.002 | SW05 | | 30 minute 100 year Summer I+40% | 30 | 78.600 | 77.598 | -0.052 | 0.000 | 1.1 | 20.8 | OK |

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|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| AECOM | | Page 22 |
| Midpoint Alencon Link Basingstoke, RG21 7PP | Attenuation pond Including existing area HCHQ-ACM-HQ-00-00-M2-CE-1000 |  |
| Date 18/05/2023 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX | Designed by AR Checked by TR | |
| Innovyze | Network 2020.1 | |

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|-----------|-----------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A1.003 | SW06 | 30 minute | 100 year Summer I+40% | 30 | 78.600 | 77.568 | 0.031 | 0.000 | 1.3 | 20.6 | SURCHARGED |
| A5.000 | SW26 | 15 minute | 100 year Summer I+40% | 15 | 78.900 | 78.083 | 0.083 | 0.000 | 1.2 | 21.5 | SURCHARGED |
| A5.001 | SW27 | 15 minute | 100 year Summer I+40% | 15 | 78.900 | 77.913 | -0.060 | 0.000 | 2.0 | 21.6 | OK |
| A1.004 | RG02 | 30 minute | 100 year Summer I+40% | 30 | 78.600 | 77.549 | 0.448 | 0.000 | 2.1 | 36.7 | SURCHARGED |
| A1.005 | SW07 | 30 minute | 100 year Summer I+40% | 30 | 78.000 | 77.139 | 0.039 | 0.000 | 2.4 | 36.7 | SURCHARGED |
| A6.000 | 14 | 15 minute | 100 year Summer I+40% | 15 | 78.150 | 77.467 | 0.517 | 0.000 | 1.2 | 19.8 | SURCHARGED |
| A6.001 | 15 | 15 minute | 100 year Summer I+40% | 15 | 77.800 | 76.998 | 0.398 | 0.000 | 1.8 | 31.7 | SURCHARGED |
| A1.006 | SW08 | 15 minute | 100 year Summer I+40% | 15 | 78.000 | 76.752 | 0.214 | 0.000 | 4.0 | 60.5 | SURCHARGED |
| A1.007 | SW09 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.887 | 0.587 | 0.000 | 0.9 | 62.9 | SURCHARGED |
| A7.000 | 15 | 30 minute | 100 year Summer I+40% | 30 | 75.200 | 74.954 | 0.429 | 0.000 | 1.2 | 46.9 | FLOOD RISK |
| A7.001 | RG03 | 30 minute | 100 year Summer I+40% | 30 | 75.200 | 74.946 | 0.471 | 0.000 | 1.8 | 9.5 | FLOOD RISK |
| A8.000 | SW28 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.830 | 0.530 | 0.000 | 1.1 | 13.6 | SURCHARGED |
| A1.008 | SW10 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.809 | 0.547 | 0.000 | 1.1 | 76.5 | SURCHARGED |
| A1.009 | SW11 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.673 | 0.563 | 0.000 | 1.1 | 81.2 | SURCHARGED |
| A9.000 | 16 | 30 minute | 100 year Summer I+40% | 30 | 75.200 | 74.811 | 0.411 | 0.000 | 1.4 | 9.0 | SURCHARGED |
| A9.001 | 21 | 30 minute | 100 year Summer I+40% | 30 | 75.200 | 74.799 | 0.621 | 0.000 | 1.8 | 9.4 | SURCHARGED |
| A1.010 | SW12 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.569 | 0.537 | 0.000 | 1.3 | 91.3 | SURCHARGED |
| A10.000 | SW13 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.494 | 0.194 | 0.000 | 1.8 | 18.2 | SURCHARGED |
| A1.011 | SW14 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.440 | 0.513 | 0.000 | 1.6 | 110.4 | SURCHARGED |
| A1.012 | SW15 | 15 minute | 100 year Summer I+40% | 15 | 75.200 | 74.235 | 0.390 | 0.000 | 1.9 | 133.7 | SURCHARGED |
| A11.000 | SW23 | 15 minute | 100 year Summer I+40% | 15 | 78.850 | 78.198 | -0.042 | 0.000 | 1.2 | 15.8 | OK |
| A11.001 | SW22 | 15 minute | 100 year Summer I+40% | 15 | 78.850 | 78.031 | -0.019 | 0.000 | 2.1 | 33.0 | OK |
| A12.000 | SW27 | 15 minute | 100 year Summer I+40% | 15 | 79.000 | 78.499 | 0.249 | 0.000 | 1.5 | 26.4 | SURCHARGED |
| A13.000 | SW30 | 30 minute | 100 year Summer I+40% | 30 | 79.000 | 78.475 | 0.225 | 0.000 | 0.9 | 6.7 | SURCHARGED |
| A14.000 | SW31 | 30 minute | 100 year Summer I+40% | 30 | 79.000 | 78.473 | 0.223 | 0.000 | 0.9 | 5.0 | SURCHARGED |
| A15.000 | SW32 | 30 minute | 100 year Summer I+40% | 30 | 79.000 | 78.475 | 0.225 | 0.000 | 0.5 | 5.8 | SURCHARGED |
| A12.001 | RG05 | 30 minute | 100 year Summer I+40% | 30 | 79.000 | 78.469 | 0.369 | 0.000 | 2.1 | 14.3 | SURCHARGED |
| A16.000 | SW29 | 15 minute | 100 year Summer I+40% | 15 | 79.000 | 78.089 | -0.011 | 0.000 | 1.7 | 20.0 | OK |
| A12.002 | SW28 | 15 minute | 100 year Summer I+40% | 15 | 79.000 | 77.965 | 0.204 | 0.000 | 1.5 | 27.3 | SURCHARGED |
| A17.000 | SW33 | 15 minute | 100 year Summer I+40% | 15 | 79.000 | 77.916 | -0.110 | 0.000 | 1.8 | 6.8 | OK |
| A18.000 | SW18 | 15 minute | 100 year Summer I+40% | 15 | 79.000 | 78.758 | 0.658 | 0.000 | 1.0 | 38.3 | FLOOD RISK |

Midpoint
 Alencon Link
 Basingstoke, RG21 7PP

Attenuation pond
 Including existing area
 HCHQ-ACM-HQ-00-00-M2-CE-1000



Date 18/05/2023
 File HCHQ-ACM-HQ-00-00-M2-CE-1000_Rev3.1_COND5.MDX

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

| PN | US/MH Name | US Label | Event | Duration (mins) | US/CL (m) | Water Level (m) | Surcharged Depth (m) | Flooded Volume (m³) | Maximum Velocity (m/s) | Pipe Flow (l/s) | Status |
|---------|------------|----------|-----------------------------------|-----------------|-----------|-----------------|----------------------|---------------------|------------------------|-----------------|------------|
| A18.001 | SW19 | | 15 minute 100 year Summer I+40% | 15 | 79.000 | 78.498 | 0.596 | 0.000 | 1.5 | 59.1 | SURCHARGED |
| A19.000 | RG04 | | 15 minute 100 year Summer I+40% | 15 | 78.850 | 78.223 | 0.173 | 0.000 | 1.8 | 18.7 | SURCHARGED |
| A18.002 | SW20 | | 15 minute 100 year Summer I+40% | 15 | 78.850 | 78.208 | 0.436 | 0.000 | 1.6 | 59.4 | SURCHARGED |
| A20.000 | 43 | | 120 minute 100 year Summer I+40% | 120 | 78.700 | 77.818 | 0.068 | 0.000 | 0.6 | 0.5 | SURCHARGED |
| A20.001 | 44 | | 120 minute 100 year Summer I+40% | 120 | 78.775 | 77.816 | 0.174 | 0.000 | 0.6 | 0.4 | SURCHARGED |
| A18.003 | SW21 | | 15 minute 100 year Summer I+40% | 15 | 78.850 | 77.785 | 0.201 | 0.000 | 1.5 | 57.0 | SURCHARGED |
| A11.002 | SW24 | | 15 minute 100 year Summer I+40% | 15 | 78.100 | 77.357 | -0.012 | 0.000 | 4.7 | 123.1 | OK |
| A11.003 | SW25 | | 15 minute 100 year Summer I+40% | 15 | 76.421 | 76.422 | 0.901 | 0.627 | 3.1 | 123.5 | FLOOD |
| A11.004 | SW26 | | 15 minute 100 year Summer I+40% | 15 | 75.200 | 74.945 | 0.652 | 0.000 | 3.5 | 139.3 | FLOOD RISK |
| A1.013 | SW16 | | 15 minute 100 year Summer I+40% | 15 | 75.200 | 73.930 | 0.142 | 0.000 | 1.7 | 273.1 | SURCHARGED |
| A1.014 | SW17 | | 15 minute 100 year Summer I+40% | 15 | 75.200 | 73.680 | 0.131 | 0.000 | 1.9 | 294.3 | SURCHARGED |
| A1.015 | SW30 | | 15 minute 100 year Summer I+40% | 15 | 75.020 | 73.215 | -0.205 | 0.000 | 3.3 | 289.9 | OK |
| A21.000 | 52 | | 15 minute 100 year Summer I+40% | 15 | 78.190 | 77.971 | 0.646 | 0.000 | 2.5 | 97.9 | FLOOD RISK |
| A21.001 | 53 | | 15 minute 100 year Summer I+40% | 15 | 76.462 | 75.794 | 0.319 | 0.000 | 2.5 | 97.4 | SURCHARGED |
| A21.002 | 54 | | 15 minute 100 year Summer I+40% | 15 | 77.000 | 75.190 | 0.045 | 0.000 | 2.7 | 95.7 | SURCHARGED |
| A22.000 | 55 | | 480 minute 100 year Winter I+40% | 480 | 78.900 | 78.904 | 1.672 | 4.292 | 0.1 | 1.1 | FLOOD |
| A22.001 | 56 | | 360 minute 100 year Winter I+40% | 360 | 78.900 | 78.906 | 1.150 | 5.897 | 0.1 | 1.1 | FLOOD |
| A22.002 | 57 | | 1440 minute 100 year Summer I+40% | 1440 | 79.323 | 77.082 | -0.673 | 0.000 | 0.1 | 1.1 | OK |
| A23.000 | 58 | | 15 minute 100 year Summer I+40% | 15 | 77.060 | 75.718 | 0.533 | 0.000 | 2.8 | 111.4 | SURCHARGED |
| A22.003 | 58 | | 15 minute 100 year Summer I+40% | 15 | 75.320 | 73.862 | -0.413 | 0.000 | 1.4 | 181.6 | OK |
| A24.000 | 60 | | 15 minute 100 year Summer I+40% | 15 | 74.980 | 74.988 | 1.063 | 7.935 | 2.0 | 78.0 | FLOOD |
| A21.003 | 55 | | 15 minute 100 year Summer I+40% | 15 | 74.900 | 73.521 | -0.440 | 0.000 | 3.4 | 374.3 | OK |
| A25.000 | 56 | | 15 minute 100 year Summer I+40% | 15 | 74.105 | 74.143 | 1.838 | 37.686 | 3.1 | 335.7 | FLOOD |
| A26.000 | 57 | | 15 minute 100 year Summer I+40% | 15 | 72.960 | 72.985 | 0.920 | 24.794 | 1.7 | 65.2 | FLOOD |
| A21.004 | 56 | | 360 minute 100 year Summer I+40% | 360 | 73.612 | 72.679 | 0.734 | 0.000 | 0.6 | 200.7 | SURCHARGED |
| A1.016 | 19 | | 360 minute 100 year Summer I+40% | 360 | 73.200 | 72.678 | 0.903 | 0.000 | 0.8 | 26.0 | SURCHARGED |
| A1.017 | 21 | | 1440 minute 100 year Summer I+40% | 1440 | 73.345 | 71.433 | 0.008 | 0.000 | 0.7 | 26.0 | SURCHARGED |