

|                                                             |                                                                         |                                                                                     |
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| Lancaster Court<br>Fareham<br>Hampshire, PO15 5TU           | 1:10+40%CC PLOTS 18-20<br>SIDE INFILTRATION ONLY<br>INFILTRATION CRATES |  |
| Date 18/08/2021 10:02<br>File 108.5009 - Plot 19,19&20.SRCX | Designed by CLP<br>Checked by RW                                        |                                                                                     |
| Innovyze                                                    | Source Control 2020.1.3                                                 |                                                                                     |

### Summary of Results for 10 year Return Period (+40%)

Half Drain Time : 579 minutes.

| Storm<br>Event   | Max<br>Level<br>(m) | Max<br>Depth<br>(m) | Max<br>Infiltration<br>(l/s) | Max<br>Volume<br>(m <sup>3</sup> ) | Status |
|------------------|---------------------|---------------------|------------------------------|------------------------------------|--------|
| 15 min Summer    | 15.472              | 0.122               | 0.0                          | 2.6                                | O K    |
| 30 min Summer    | 15.512              | 0.162               | 0.1                          | 3.4                                | O K    |
| 60 min Summer    | 15.555              | 0.205               | 0.1                          | 4.3                                | O K    |
| 120 min Summer   | 15.598              | 0.248               | 0.1                          | 5.2                                | O K    |
| 180 min Summer   | 15.622              | 0.272               | 0.1                          | 5.7                                | O K    |
| 240 min Summer   | 15.637              | 0.287               | 0.1                          | 6.0                                | O K    |
| 360 min Summer   | 15.653              | 0.303               | 0.1                          | 6.3                                | O K    |
| 480 min Summer   | 15.662              | 0.312               | 0.1                          | 6.5                                | O K    |
| 600 min Summer   | 15.669              | 0.319               | 0.1                          | 6.7                                | O K    |
| 720 min Summer   | 15.674              | 0.324               | 0.1                          | 6.8                                | O K    |
| 960 min Summer   | 15.680              | 0.330               | 0.1                          | 6.9                                | O K    |
| 1440 min Summer  | 15.682              | 0.332               | 0.1                          | 6.9                                | O K    |
| 2160 min Summer  | 15.676              | 0.326               | 0.1                          | 6.8                                | O K    |
| 2880 min Summer  | 15.665              | 0.315               | 0.1                          | 6.6                                | O K    |
| 4320 min Summer  | 15.641              | 0.291               | 0.1                          | 6.1                                | O K    |
| 5760 min Summer  | 15.620              | 0.270               | 0.1                          | 5.6                                | O K    |
| 7200 min Summer  | 15.601              | 0.251               | 0.1                          | 5.2                                | O K    |
| 8640 min Summer  | 15.585              | 0.235               | 0.1                          | 4.9                                | O K    |
| 10080 min Summer | 15.572              | 0.222               | 0.1                          | 4.6                                | O K    |
| 15 min Winter    | 15.487              | 0.137               | 0.1                          | 2.9                                | O K    |
| 30 min Winter    | 15.531              | 0.181               | 0.1                          | 3.8                                | O K    |
| 60 min Winter    | 15.579              | 0.229               | 0.1                          | 4.8                                | O K    |
| 120 min Winter   | 15.629              | 0.279               | 0.1                          | 5.8                                | O K    |
| 180 min Winter   | 15.656              | 0.306               | 0.1                          | 6.4                                | O K    |

| Storm<br>Event   | Rain<br>(mm/hr) | Flooded<br>Volume<br>(m <sup>3</sup> ) | Time-Peak<br>(mins) |
|------------------|-----------------|----------------------------------------|---------------------|
| 15 min Summer    | 76.566          | 0.0                                    | 23                  |
| 30 min Summer    | 51.183          | 0.0                                    | 37                  |
| 60 min Summer    | 32.926          | 0.0                                    | 66                  |
| 120 min Summer   | 20.664          | 0.0                                    | 124                 |
| 180 min Summer   | 15.602          | 0.0                                    | 184                 |
| 240 min Summer   | 12.744          | 0.0                                    | 242                 |
| 360 min Summer   | 9.573           | 0.0                                    | 350                 |
| 480 min Summer   | 7.806           | 0.0                                    | 400                 |
| 600 min Summer   | 6.660           | 0.0                                    | 462                 |
| 720 min Summer   | 5.849           | 0.0                                    | 522                 |
| 960 min Summer   | 4.762           | 0.0                                    | 658                 |
| 1440 min Summer  | 3.561           | 0.0                                    | 930                 |
| 2160 min Summer  | 2.660           | 0.0                                    | 1344                |
| 2880 min Summer  | 2.162           | 0.0                                    | 1736                |
| 4320 min Summer  | 1.613           | 0.0                                    | 2512                |
| 5760 min Summer  | 1.311           | 0.0                                    | 3288                |
| 7200 min Summer  | 1.116           | 0.0                                    | 4032                |
| 8640 min Summer  | 0.978           | 0.0                                    | 4760                |
| 10080 min Summer | 0.875           | 0.0                                    | 5544                |
| 15 min Winter    | 76.566          | 0.0                                    | 22                  |
| 30 min Winter    | 51.183          | 0.0                                    | 37                  |
| 60 min Winter    | 32.926          | 0.0                                    | 66                  |
| 120 min Winter   | 20.664          | 0.0                                    | 122                 |
| 180 min Winter   | 15.602          | 0.0                                    | 180                 |

|                                                             |                                                                         |                                                                                     |
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| Innovyze                                                    | Source Control 2020.1.3                                                 |                                                                                     |

Summary of Results for 10 year Return Period (+40%)

| Storm Event      | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m <sup>3</sup> ) | Status |
|------------------|---------------|---------------|------------------------|------------------------------|--------|
| 240 min Winter   | 15.673        | 0.323         | 0.1                    | 6.7                          | O K    |
| 360 min Winter   | 15.692        | 0.342         | 0.1                    | 7.1                          | O K    |
| 480 min Winter   | 15.700        | 0.350         | 0.1                    | 7.3                          | O K    |
| 600 min Winter   | 15.707        | 0.357         | 0.1                    | 7.5                          | O K    |
| 720 min Winter   | 15.711        | 0.361         | 0.1                    | 7.6                          | O K    |
| 960 min Winter   | 15.715        | 0.365         | 0.1                    | 7.6                          | O K    |
| 1440 min Winter  | 15.711        | 0.361         | 0.1                    | 7.5                          | O K    |
| 2160 min Winter  | 15.694        | 0.344         | 0.1                    | 7.2                          | O K    |
| 2880 min Winter  | 15.675        | 0.325         | 0.1                    | 6.8                          | O K    |
| 4320 min Winter  | 15.639        | 0.289         | 0.1                    | 6.0                          | O K    |
| 5760 min Winter  | 15.609        | 0.259         | 0.1                    | 5.4                          | O K    |
| 7200 min Winter  | 15.585        | 0.235         | 0.1                    | 4.9                          | O K    |
| 8640 min Winter  | 15.565        | 0.215         | 0.1                    | 4.5                          | O K    |
| 10080 min Winter | 15.549        | 0.199         | 0.1                    | 4.2                          | O K    |

| Storm Event      | Rain (mm/hr) | Flooded Volume (m <sup>3</sup> ) | Time-Peak (mins) |
|------------------|--------------|----------------------------------|------------------|
| 240 min Winter   | 12.744       | 0.0                              | 236              |
| 360 min Winter   | 9.573        | 0.0                              | 346              |
| 480 min Winter   | 7.806        | 0.0                              | 442              |
| 600 min Winter   | 6.660        | 0.0                              | 474              |
| 720 min Winter   | 5.849        | 0.0                              | 550              |
| 960 min Winter   | 4.762        | 0.0                              | 704              |
| 1440 min Winter  | 3.561        | 0.0                              | 1000             |
| 2160 min Winter  | 2.660        | 0.0                              | 1432             |
| 2880 min Winter  | 2.162        | 0.0                              | 1848             |
| 4320 min Winter  | 1.613        | 0.0                              | 2640             |
| 5760 min Winter  | 1.311        | 0.0                              | 3408             |
| 7200 min Winter  | 1.116        | 0.0                              | 4184             |
| 8640 min Winter  | 0.978        | 0.0                              | 4928             |
| 10080 min Winter | 0.875        | 0.0                              | 5656             |

|                                                             |                                                                         |                                                                                     |
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#### Rainfall Details

|                       |                   |                       |       |
|-----------------------|-------------------|-----------------------|-------|
| Rainfall Model        | FSR               | Winter Storms         | Yes   |
| Return Period (years) | 10                | Cv (Summer)           | 0.750 |
| Region                | England and Wales | Cv (Winter)           | 0.840 |
| M5-60 (mm)            | 19.600            | Shortest Storm (mins) | 15    |
| Ratio R               | 0.322             | Longest Storm (mins)  | 10080 |
| Summer Storms         | Yes               | Climate Change %      | +40   |

#### Time Area Diagram

Total Area (ha) 0.018

| Time (mins) Area |     |       | Time (mins) Area |     |       |
|------------------|-----|-------|------------------|-----|-------|
| From:            | To: | (ha)  | From:            | To: | (ha)  |
| 0                | 4   | 0.009 | 4                | 8   | 0.009 |

|                                                             |                                                                         |                                                                                     |
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Model Details

Storage is Online Cover Level (m) 16.700

Cellular Storage Structure

Invert Level (m) 15.350 Safety Factor 4.0  
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.30852

| Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) | Depth (m) | Area (m <sup>2</sup> ) | Inf. Area (m <sup>2</sup> ) |
|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|-----------|------------------------|-----------------------------|
| 0.000     | 22.0                   | 22.0                        | 0.800     | 22.0                   | 37.0                        | 0.801     | 0.0                    | 37.0                        |