

|                                                             |                                                                     |                                                                                     |
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| Lancaster Court<br>8 Barnes Wallis Road<br>Fareham PO15 5TU | 1:10+40%CC PLOT 15<br>SIDE INFILTRATION ONLY<br>INFILTRATION CRATES |  |
| Date 02.02.2022<br>File 108.5009 - Plot 15-rw-10.SRCX       | Designed by RD<br>Checked by RW                                     |                                                                                     |
| XP Solutions                                                | Source Control 2014.1                                               |                                                                                     |

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

Half Drain Time : 357 minutes.

| Storm Event      | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m <sup>3</sup> ) | Status |
|------------------|---------------|---------------|------------------------|------------------------------|--------|
| 15 min Summer    | 15.158        | 0.178         | 0.1                    | 1.7                          | O K    |
| 30 min Summer    | 15.215        | 0.235         | 0.1                    | 2.2                          | O K    |
| 60 min Summer    | 15.274        | 0.294         | 0.1                    | 2.8                          | O K    |
| 120 min Summer   | 15.329        | 0.349         | 0.1                    | 3.3                          | O K    |
| 180 min Summer   | 15.355        | 0.375         | 0.1                    | 3.6                          | O K    |
| 240 min Summer   | 15.367        | 0.387         | 0.1                    | 3.7                          | O K    |
| 360 min Summer   | 15.384        | 0.404         | 0.1                    | 3.8                          | O K    |
| 480 min Summer   | 15.394        | 0.414         | 0.1                    | 3.9                          | O K    |
| 600 min Summer   | 15.400        | 0.420         | 0.1                    | 4.0                          | O K    |
| 720 min Summer   | 15.403        | 0.423         | 0.1                    | 4.0                          | O K    |
| 960 min Summer   | 15.403        | 0.423         | 0.1                    | 4.0                          | O K    |
| 1440 min Summer  | 15.392        | 0.412         | 0.1                    | 3.9                          | O K    |
| 2160 min Summer  | 15.368        | 0.388         | 0.1                    | 3.7                          | O K    |
| 2880 min Summer  | 15.344        | 0.364         | 0.1                    | 3.5                          | O K    |
| 4320 min Summer  | 15.302        | 0.322         | 0.1                    | 3.1                          | O K    |
| 5760 min Summer  | 15.270        | 0.290         | 0.1                    | 2.8                          | O K    |
| 7200 min Summer  | 15.245        | 0.265         | 0.1                    | 2.5                          | O K    |
| 8640 min Summer  | 15.224        | 0.244         | 0.1                    | 2.3                          | O K    |
| 10080 min Summer | 15.207        | 0.227         | 0.1                    | 2.2                          | O K    |
| 15 min Winter    | 15.179        | 0.199         | 0.1                    | 1.9                          | O K    |
| 30 min Winter    | 15.243        | 0.263         | 0.1                    | 2.5                          | O K    |
| 60 min Winter    | 15.310        | 0.330         | 0.1                    | 3.1                          | O K    |
| 120 min Winter   | 15.373        | 0.393         | 0.1                    | 3.7                          | O K    |
| 180 min Winter   | 15.402        | 0.422         | 0.1                    | 4.0                          | O K    |

| Storm Event      | Rain (mm/hr) | Flooded Volume (m <sup>3</sup> ) | Time-Peak (mins) |
|------------------|--------------|----------------------------------|------------------|
| 15 min Summer    | 76.566       | 0.0                              | 19               |
| 30 min Summer    | 51.183       | 0.0                              | 33               |
| 60 min Summer    | 32.926       | 0.0                              | 62               |
| 120 min Summer   | 20.664       | 0.0                              | 122              |
| 180 min Summer   | 15.602       | 0.0                              | 180              |
| 240 min Summer   | 12.744       | 0.0                              | 220              |
| 360 min Summer   | 9.573        | 0.0                              | 278              |
| 480 min Summer   | 7.806        | 0.0                              | 340              |
| 600 min Summer   | 6.660        | 0.0                              | 410              |
| 720 min Summer   | 5.849        | 0.0                              | 478              |
| 960 min Summer   | 4.762        | 0.0                              | 616              |
| 1440 min Summer  | 3.561        | 0.0                              | 882              |
| 2160 min Summer  | 2.660        | 0.0                              | 1280             |
| 2880 min Summer  | 2.162        | 0.0                              | 1672             |
| 4320 min Summer  | 1.613        | 0.0                              | 2420             |
| 5760 min Summer  | 1.311        | 0.0                              | 3168             |
| 7200 min Summer  | 1.116        | 0.0                              | 3896             |
| 8640 min Summer  | 0.978        | 0.0                              | 4664             |
| 10080 min Summer | 0.875        | 0.0                              | 5352             |
| 15 min Winter    | 76.566       | 0.0                              | 19               |
| 30 min Winter    | 51.183       | 0.0                              | 33               |
| 60 min Winter    | 32.926       | 0.0                              | 62               |
| 120 min Winter   | 20.664       | 0.0                              | 118              |
| 180 min Winter   | 15.602       | 0.0                              | 174              |

|                                                             |                                                                     |                                                                                     |
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| Lancaster Court<br>8 Barnes Wallis Road<br>Fareham PO15 5TU | 1:10+40%CC PLOT 15<br>SIDE INFILTRATION ONLY<br>INFILTRATION CRATES |  |
| Date 02.02.2022<br>File 108.5009 - Plot 15-rw-10.SRCX       | Designed by RD<br>Checked by RW                                     |                                                                                     |
| XP Solutions                                                | Source Control 2014.1                                               |                                                                                     |

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   | 15.417        | 0.437         | 0.1                    | 4.2                          | O K    |
| 360 min Winter   | 15.433        | 0.453         | 0.1                    | 4.3                          | O K    |
| 480 min Winter   | 15.442        | 0.462         | 0.1                    | 4.4                          | O K    |
| 600 min Winter   | 15.445        | 0.465         | 0.1                    | 4.4                          | O K    |
| 720 min Winter   | 15.444        | 0.464         | 0.1                    | 4.4                          | O K    |
| 960 min Winter   | 15.436        | 0.456         | 0.1                    | 4.3                          | O K    |
| 1440 min Winter  | 15.412        | 0.432         | 0.1                    | 4.1                          | O K    |
| 2160 min Winter  | 15.372        | 0.392         | 0.1                    | 3.7                          | O K    |
| 2880 min Winter  | 15.337        | 0.357         | 0.1                    | 3.4                          | O K    |
| 4320 min Winter  | 15.282        | 0.302         | 0.1                    | 2.9                          | O K    |
| 5760 min Winter  | 15.243        | 0.263         | 0.1                    | 2.5                          | O K    |
| 7200 min Winter  | 15.213        | 0.233         | 0.1                    | 2.2                          | O K    |
| 8640 min Winter  | 15.190        | 0.210         | 0.1                    | 2.0                          | O K    |
| 10080 min Winter | 15.171        | 0.191         | 0.1                    | 1.8                          | O K    |

| Storm Event      | Rain (mm/hr) | Flooded Volume (m <sup>3</sup> ) | Time-Peak (mins) |
|------------------|--------------|----------------------------------|------------------|
| 240 min Winter   | 12.744       | 0.0                              | 228              |
| 360 min Winter   | 9.573        | 0.0                              | 286              |
| 480 min Winter   | 7.806        | 0.0                              | 362              |
| 600 min Winter   | 6.660        | 0.0                              | 438              |
| 720 min Winter   | 5.849        | 0.0                              | 514              |
| 960 min Winter   | 4.762        | 0.0                              | 662              |
| 1440 min Winter  | 3.561        | 0.0                              | 940              |
| 2160 min Winter  | 2.660        | 0.0                              | 1360             |
| 2880 min Winter  | 2.162        | 0.0                              | 1756             |
| 4320 min Winter  | 1.613        | 0.0                              | 2508             |
| 5760 min Winter  | 1.311        | 0.0                              | 3280             |
| 7200 min Winter  | 1.116        | 0.0                              | 4032             |
| 8640 min Winter  | 0.978        | 0.0                              | 4752             |
| 10080 min Winter | 0.875        | 0.0                              | 5448             |

|                                                             |                                                                     |                                                                                     |
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| XP Solutions                                                | Source Control 2014.1                                               |                                                                                     |

#### 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) 0.012

|                    |             |
|--------------------|-------------|
| <b>Time (mins)</b> | <b>Area</b> |
| <b>From: To:</b>   | <b>(ha)</b> |

|   |   |       |
|---|---|-------|
| 0 | 4 | 0.012 |
|---|---|-------|

|                                                             |                                                                     |                                                                                     |
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#### Model Details

Storage is Online Cover Level (m) 16.500

#### Trench Soakaway Structure

|                                      |         |                            |       |
|--------------------------------------|---------|----------------------------|-------|
| Infiltration Coefficient Base (m/hr) | 0.00000 | Trench Width (m)           | 2.0   |
| Infiltration Coefficient Side (m/hr) | 0.30852 | Trench Length (m)          | 5.0   |
| Safety Factor                        | 4.0     | Slope (1:X)                | 0.0   |
| Porosity                             | 0.95    | Cap Volume Depth (m)       | 0.000 |
| Invert Level (m)                     | 14.980  | Cap Infiltration Depth (m) | 0.000 |