

Project Name : Yapton Metal Company, Burndell Road, Yapton  
Job No : 19-167  
Note Title : Drainage Strategy Technical Note  
Author : SG  
Checked : LH  
Approved : RS  
Date : August 2019

## 1.0 INTRODUCTION

- 1.1 Odyssey has been instructed by Lakewood Homes to prepare this drainage technical note in support of their Planning application for the 4-unit residential development at Burndell Road, Yapton.
- 1.2 The description of the development at Planning was:
- ‘4 No. dwellings with associated ancillary services and access (resubmission following Y/108/15/PL. This application affects the setting of a Listed Building\_
- 1.3 The aim of this report is to support the discharge of Conditions 3 and 4, which are set out below.

### Condition 3

‘Development shall not commence until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority.\_

### Condition 4

‘Development shall not commence until full details of the maintenance and management of the SuDS system is set out in a site-specific maintenance manual and submitted to, and approved in writing, by the Local Planning Authority. The manual is to include (a) details of financial management of the site including arrangement made in the event that the management company (or any subsequent management company) is no longer able to fulfil its duties; and (b) arrangements for the replacement of major components at the end of the manufacturers recommended design life.\_

## 2.0 EXISTING SITE

- 2.1 The proposed development site is a former scrap metal yard comprising of storage buildings, an area of hard standing, a car park and an area of green space formerly used by the listed cottage.
- 2.2 The site is bounded to the north by Burndell Road, residential dwellings to the east and south and an access road leading to a new residential development to the west.
- 2.3 The topographical survey shows the site to be generally flat with a slight fall from west to north-east. Levels range from 7.33m in the west to 6.44m in the north-east.
- 2.4 The existing drainage regime has not been confirmed but with no drainage features shown on the topographical survey, it is assumed that areas of existing hard standing drain to surrounding green areas.
- 2.5 Sewer records obtained from Southern Water indicate that there are no public surface water sewers in close proximity to the site.
- 2.6 Existing geology maps and further trial pit testing has proven that the underlying geology consists predominantly of sandy, gravelly clay above the Upper Chalk Formation. A mantle of Made Ground was also encountered overlying the natural strata in each trial pit.

### 3.0 SURFACE WATER DRAINAGE STRATEGY

- 3.1 The surface water drainage strategy for the proposed development is shown on the drawing listed below which can be found in Appendix A:

18-167/001 - Surface Water Drainage Strategy

- 3.2 It is proposed that the parking court area serving the 4 units be constructed as infiltrating permeable paving. Run off from roof areas and other non-porous surfaces will be collected and discharged into the base of the permeable paving via diffuser units. A surface water catchment plan showing the impermeable areas can be found within Appendix B.
- 3.3 The surface water drainage system has been designed to accommodate all rainfall events up to the 1 in 100 year event plus climate change (40%). Supporting calculations can be found within Appendix C.
- 3.4 During extreme events, excess flood water will be conveyed within the parking area to the north-east of the site towards Burndell Road. The overland flow routes can be found on drawing 19-167/003 in Appendix D.
- 3.5 Recent soakage testing undertaken by Geo-Environmental in February 2020, and in July 2019, recorded infiltration rates ranging from  $6.8 \times 10^{-6}$  m/s to  $1.2 \times 10^{-6}$  m/s. The worst case rate of  $1.2 \times 10^{-6}$  m/s recorded during testing in July 2019 has been used for this site.
- 3.6 Winter groundwater monitoring has been undertaken from the period of October 2019 to February 2020 to establish the peak annual groundwater level. Data obtained shows a maximum recorded elevation of 1.35m bgl which equates to a groundwater level of 5.850mAOD based on the topographical survey for the site. With the base of the permeable paving at 6.300mAOD, this would provide clearance to groundwater and ensure infiltration into the strata below.
- 3.7 Surface water treatment will be provided by the permeable paving via both the grit layer and geotextile that the blocks are bedded on, as well as the underlying gravel media comprising of washed no-fines material. These measures will provide filtration and the breakdown of hydrocarbons as the water is conveyed through the system and into the strata below. A detail showing the proposed construction of the paving is shown on drawing 19-167/004 in Appendix E.
- 3.8 A completed Arun District Council surface water drainage proposal checklist is provided in Appendix F.

#### 4.0 PROPOSED MANAGEMENT AND MAINTENANCE

4.1 All drainage, including the permeable paving is to remain to private and be maintained by a private management company in accordance with the following schedule and recommendations made by manufacturers.

##### Permeable Paving

| Maintenance Category   | Maintenance Activity                                       | Comments                                                                                                                                                                               | Frequency                                               |
|------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Routine Maintenance    | Visual inspection of paving.                               | Ensure joints are kept fully filled.                                                                                                                                                   | Monthly (depending on local environment)                |
|                        | Paving should be agitated (e.g. brushed, vacuumed, etc.)   | To ensure no vegetation of any sort is allowed to grow and develop in the joints.                                                                                                      | Six monthly or as required (Spring and Autumn seasons). |
|                        | Paving should be inspected after any heavy precipitations. | Ensure no displacement of any organic matter into the surface of the pavement.                                                                                                         | As required.                                            |
| Corrective Maintenance | Inspection of outfall should be undertaken.                | Non-infiltration systems to have outfall checked for debris and blockages.                                                                                                             | Six monthly or as required.                             |
|                        | Removal of weeds.                                          | To ensure weeds are killed effectively they should be actively growing so that the glyphosate will go down to the roots. Glyphosate based weed killers include Roundup and Tumbleweed. | As required.                                            |
|                        | Laying material may require cleaning and /or replacing.    | Depending on the environment the permeable pavement has received and been exposed to.                                                                                                  | 25 to 30-year period.                                   |

##### Pipe Systems, Gullies, and Manholes/Inspection Chambers

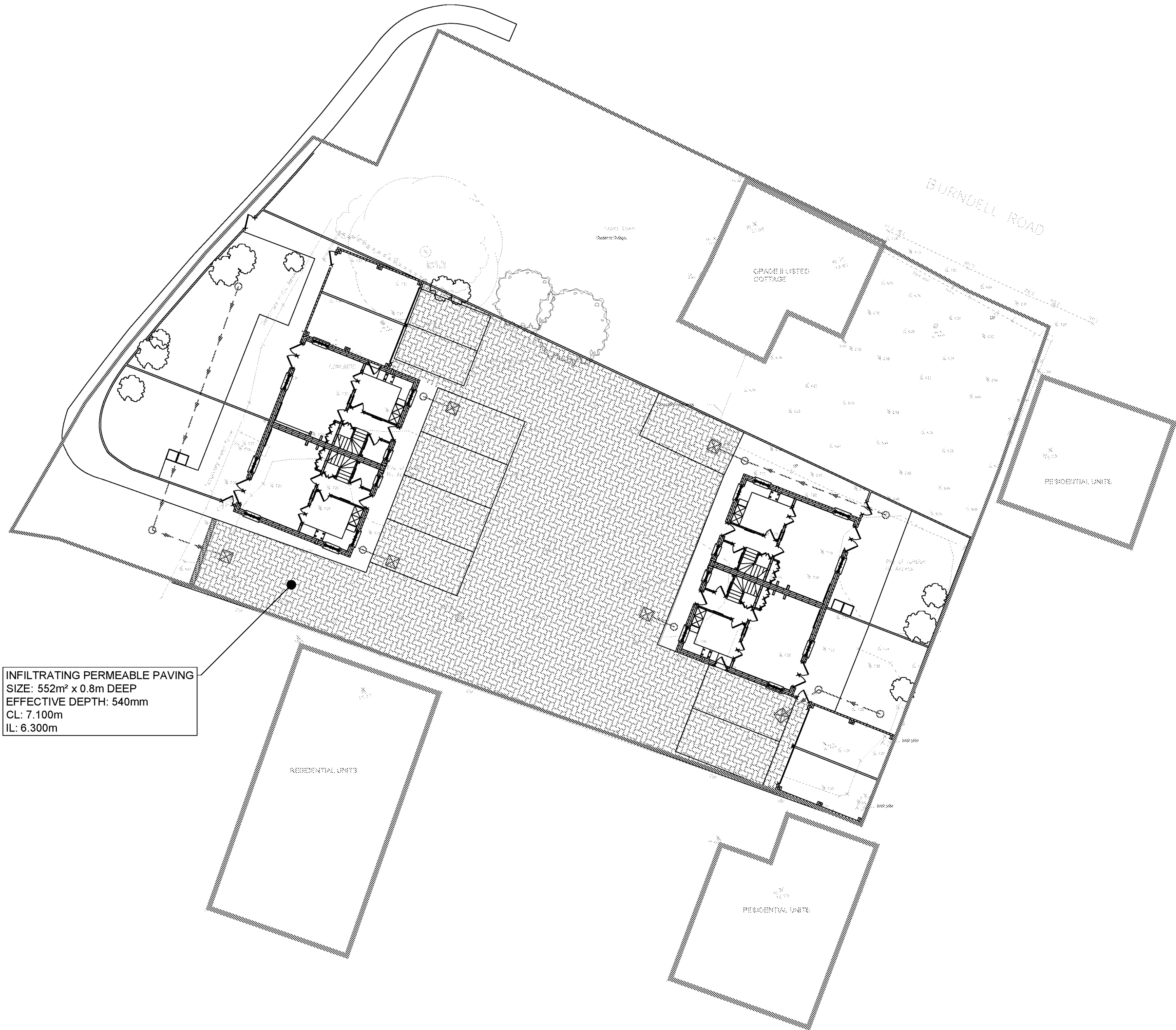
| Maintenance Category   | Maintenance Activity                                             | Comments                                             | Frequency                                       |
|------------------------|------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|
| Routine Maintenance    | Inspect and identify any areas that are not operating correctly. | Gullies and private manholes and inspection chambers | Monthly (for the first 3 months) then annually. |
|                        | Remove debris from gratings, sumps / silt traps.                 |                                                      | Annually                                        |
| Infrequent Maintenance | Clear blockages.                                                 | Piped system.                                        | As required.                                    |

## 5.0 CONCLUSION

- 5.1 This technical note has provided details of the proposed surface water drainage system within the proposed development at the Yapton Metal Company site in Burndell Road, Yapton.
- 5.2 This technical note, combined with other documents submitted as part of the Planning application provides the detail required to discharge Conditions 3 and 4.
- 5.3 This note has demonstrated how the proposals accord with the local planning policies with regards to surface water drainage.

## APPENDIX A

### Odyssey Surface Water Drainage Strategy



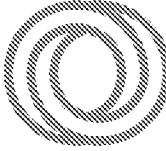
INFILTRATING PERMEABLE PAVING  
SIZE: 552m² x 0.8m DEEP  
EFFECTIVE DEPTH: 540mm  
CL: 7.100m  
IL: 6.300m

- NOTES
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
  - THIS DRAWING IS A PRELIMINARY REVIEW ONLY AND SUBJECT TO DETAILED DESIGN.
  - TOPOGRAPHICAL SURVEY HAS BEEN TAKEN FROM ARCHIDATA LIMITED DRAWING AD19080\_1\_01, DATED APRIL 19'.
  - PROPOSED SITE LAYOUT HAS BEEN PROVIDED BY LAKEWOOD HOMES.
  - ODYSSEY ACCEPT NO LIABILITY FOR THE ACCURACY OF SURVEY INFORMATION AND LAYOUTS SUPPLIED BY OTHERS.
  - INFILTRATING SUDS HAVE BEEN DESIGNED USING THE LOWEST RECORDED SOAKAGE RATE OF 1.2 x 10<sup>-6</sup> FROM TESTING UNDERTAKEN IN JULY 2019 AND FEBRUARY 2020 BY GEO-ENVIRONMENTAL SERVICES LIMITED.
  - WINTER GROUNDWATER MONITORING RECORDED A MAXIMUM GROUNDWATER LEVEL OF 1.35m bgl WHICH EQUATES TO 5.85m AOD BASED ON THE TOPOGRAPHICAL SURVEY FOR THE SITE.

- LEGEND
- DEVELOPMENT BOUNDARY
  - PROPOSED INFILTRATING PERMEABLE PAVING
  - PROPOSED SURFACE WATER CHAMBER
  - PROPOSED SURFACE WATER PIPE
  - PROPOSED DIFFUSER UNIT
  - PROPOSED LINEAR DRAINAGE CHANNEL

FOR PLANNING  
PURPOSES ONLY

|     |               |     |     |     |          |
|-----|---------------|-----|-----|-----|----------|
| A   | NOTES UPDATED | JA  | SG  | LH  | 17.03.20 |
| Rev | Amendments    | Drm | Chk | App | Date     |



# ODYSSEY

Tuscany House  
White Hart Lane  
Basingstoke  
Hampshire RG21 4AF

Telephone: 01256 331144  
Fax: 01256 331134  
E: info@odysseyconsult.co.uk  
W: www.odysseyconsult.co.uk

Job Title

YAPTON METAL COMPANY,  
BURNDELL ROAD, YAPTON

Drawing Title

SURFACE WATER  
DRAINAGE STRATEGY

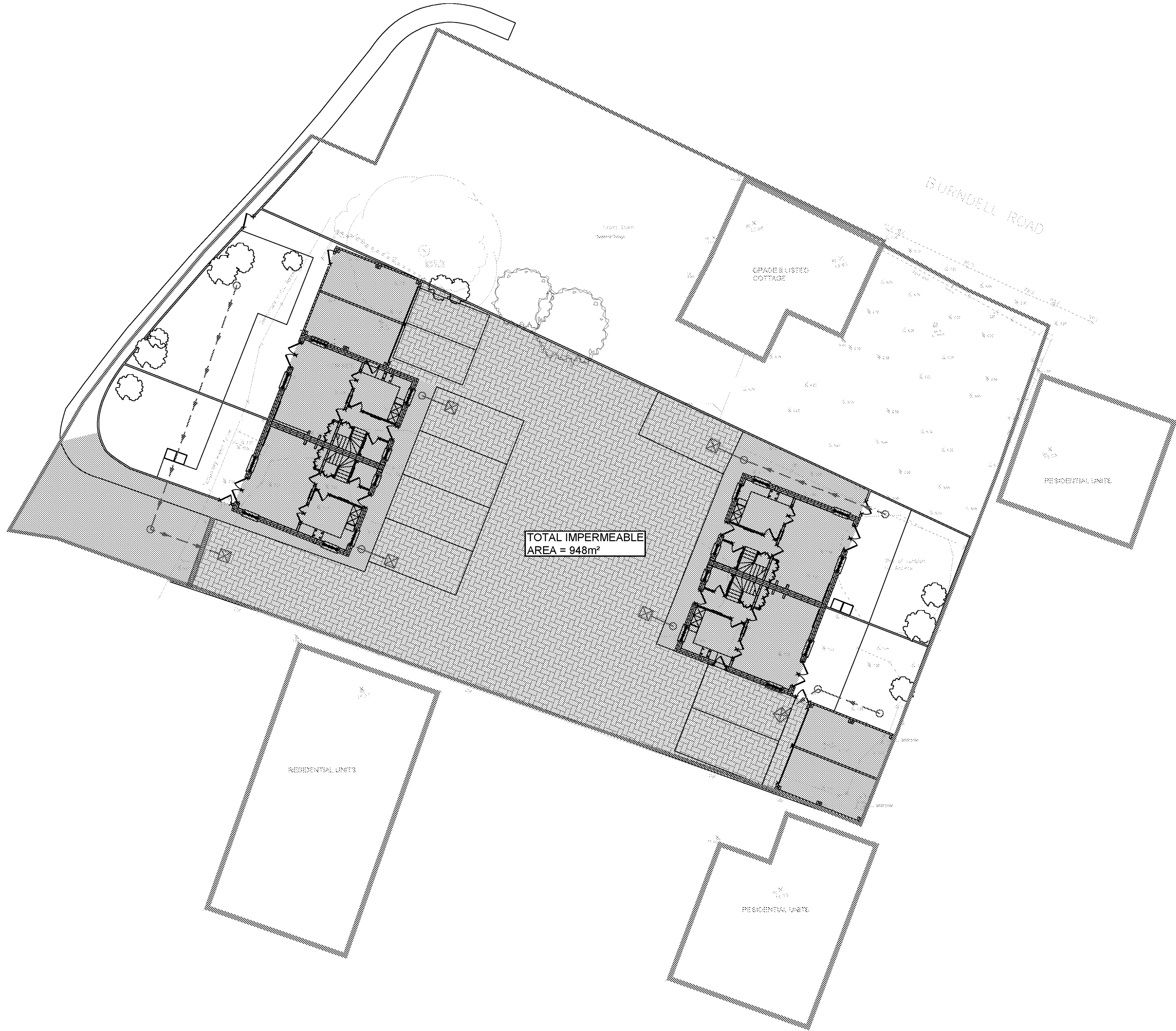
Client

LAKEWOOD HOMES

|            |            |          |
|------------|------------|----------|
| Scale      | Date       | Designed |
| 1:200 @ A2 | AUG 19     | SG       |
| Drawn      | Checked    | Approved |
| JA         | SG         | LH       |
| Job No     | Drawing No | Rev      |
| 19-167     | 19-167/001 | A        |

## APPENDIX B

### Odyssey Catchment Plan



- NOTES**
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
  - THIS DRAWING IS A PRELIMINARY REVIEW ONLY AND SUBJECT TO DETAILED DESIGN.
  - TOPOGRAPHICAL SURVEY HAS BEEN TAKEN FROM ARCHIDATA LIMITED DRAWING AD19080\_1\_01, DATED APRIL 19'.
  - ODYSSEY ACCEPT NO LIABILITY FOR THE ACCURACY OF SURVEY INFORMATION AND LAYOUTS SUPPLIED BY OTHERS.
  - PROPOSED SITE LAYOUT HAS BEEN PROVIDED BY LAKEWOOD HOMES.
  - FOR SURFACE WATER DRAINAGE STRATEGY REFER TO ODYSSEY DRAWING 19-167/001.

- LEGEND**
- ROOF/ HARD LANDSCAPING  
TOTAL AREA = 396m²
  - PERMEABLE PAVING  
TOTAL AREA = 552m²
  - PROPOSED SURFACE WATER CHAMBER
  - PROPOSED SURFACE WATER PIPE
  - PROPOSED DIFFUSER UNIT
  - PROPOSED LINEAR DRAINAGE CHANNEL

FOR PLANNING  
PURPOSES ONLY

|     |            |     |     |     |      |
|-----|------------|-----|-----|-----|------|
| Rev | Amendments | Drm | Chk | App | Date |
|     |            |     |     |     |      |

**ODYSSEY**

Tuscany House  
White Hart Lane  
Basingstoke  
Hampshire RG21 4AF

Telephone: 01256 331144  
Fax: 01256 331134  
E: info@odysseyconsult.co.uk  
W: www.odysseyconsult.co.uk

Job Title

**YAPTON METAL COMPANY,  
BURNDELL ROAD, YAPTON**

Drawing Title

**SURFACE WATER  
CATCHMENT PLAN**

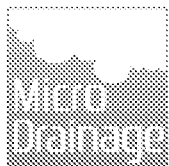
Client

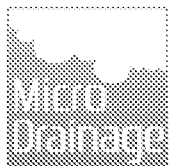
**LAKEWOOD HOMES**

|            |            |          |
|------------|------------|----------|
| Scale      | Date       | Designed |
| 1:200 @ A2 | AUG 19     | SG       |
| Drawn      | Checked    | Approved |
| JA         | SG         | LH       |
| Job No     | Drawing No | Rev      |
| 19-167     | 19-167/002 |          |

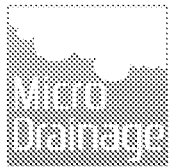
## APPENDIX C

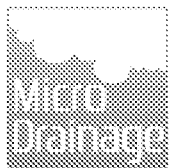
### Microdrainage Calculations

| Odyssey Markides LLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                                 |                        | Page 1                                                                              |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|--------|-------------|---------------|---------------|------------------------|-----------------|--------|---------------|-------|-------|-----|-----|-----|---------------|-------|-------|-----|------|-----|---------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|------------------|-------|-------|-----|------|-----|---------------|-------|-------|-----|------|-----|-------------|--------------|---------------------|------------------|---------------|--------|-----|----|---------------|--------|-----|----|---------------|--------|-----|----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|-------|-----|-----|----------------|-------|-----|-----|----------------|-------|-----|-----|----------------|-------|-----|-----|----------------|-------|-----|-----|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|------------------|-------|-----|------|---------------|--------|-----|----|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | Yapton Metal Company<br>Burndell Road<br>Yapton |                        |  |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| Date 21/08/2019 11:58<br>File 19-167 PAVING (10YR + 4...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | Designed by SG<br>Checked by LH                 |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | Source Control 2018.1                           |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| <p><u>Summary of Results for 10 year Return Period (+40%)</u></p> <p>Half Drain Time : 989 minutes.</p> <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>6.360</td><td>0.060</td><td>0.3</td><td>9.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>6.379</td><td>0.079</td><td>0.3</td><td>13.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>6.402</td><td>0.102</td><td>0.3</td><td>16.9</td><td>O K</td></tr><tr><td>120 min Summer</td><td>6.430</td><td>0.130</td><td>0.3</td><td>21.4</td><td>O K</td></tr><tr><td>180 min Summer</td><td>6.447</td><td>0.147</td><td>0.3</td><td>24.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>6.460</td><td>0.160</td><td>0.3</td><td>26.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>6.478</td><td>0.178</td><td>0.3</td><td>29.4</td><td>O K</td></tr><tr><td>480 min Summer</td><td>6.490</td><td>0.190</td><td>0.3</td><td>31.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>6.498</td><td>0.198</td><td>0.3</td><td>32.7</td><td>O K</td></tr><tr><td>720 min Summer</td><td>6.504</td><td>0.204</td><td>0.3</td><td>33.6</td><td>O K</td></tr><tr><td>960 min Summer</td><td>6.500</td><td>0.200</td><td>0.3</td><td>33.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>6.493</td><td>0.193</td><td>0.3</td><td>31.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>6.480</td><td>0.180</td><td>0.3</td><td>29.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>6.467</td><td>0.167</td><td>0.3</td><td>27.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>6.457</td><td>0.157</td><td>0.3</td><td>25.9</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>6.444</td><td>0.144</td><td>0.3</td><td>23.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>6.430</td><td>0.130</td><td>0.3</td><td>21.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>6.417</td><td>0.117</td><td>0.3</td><td>19.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>6.405</td><td>0.105</td><td>0.3</td><td>17.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>6.369</td><td>0.069</td><td>0.3</td><td>11.4</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>72.148</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>45.463</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>28.648</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>18.052</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>13.779</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>11.375</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>8.683</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.168</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>6.178</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.471</td><td>0.0</td><td>716</td></tr><tr><td>960 min Summer</td><td>4.332</td><td>0.0</td><td>818</td></tr><tr><td>1440 min Summer</td><td>3.118</td><td>0.0</td><td>1054</td></tr><tr><td>2160 min Summer</td><td>2.244</td><td>0.0</td><td>1452</td></tr><tr><td>2880 min Summer</td><td>1.777</td><td>0.0</td><td>1848</td></tr><tr><td>4320 min Summer</td><td>1.363</td><td>0.0</td><td>2680</td></tr><tr><td>5760 min Summer</td><td>1.130</td><td>0.0</td><td>3464</td></tr><tr><td>7200 min Summer</td><td>0.977</td><td>0.0</td><td>4248</td></tr><tr><td>8640 min Summer</td><td>0.867</td><td>0.0</td><td>5008</td></tr><tr><td>10080 min Summer</td><td>0.784</td><td>0.0</td><td>5744</td></tr><tr><td>15 min Winter</td><td>72.148</td><td>0.0</td><td>19</td></tr></table> |               |                                                 |                        |                                                                                     |        | Storm Event | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m³) | Status | 15 min Summer | 6.360 | 0.060 | 0.3 | 9.9 | O K | 30 min Summer | 6.379 | 0.079 | 0.3 | 13.1 | O K | 60 min Summer | 6.402 | 0.102 | 0.3 | 16.9 | O K | 120 min Summer | 6.430 | 0.130 | 0.3 | 21.4 | O K | 180 min Summer | 6.447 | 0.147 | 0.3 | 24.3 | O K | 240 min Summer | 6.460 | 0.160 | 0.3 | 26.4 | O K | 360 min Summer | 6.478 | 0.178 | 0.3 | 29.4 | O K | 480 min Summer | 6.490 | 0.190 | 0.3 | 31.3 | O K | 600 min Summer | 6.498 | 0.198 | 0.3 | 32.7 | O K | 720 min Summer | 6.504 | 0.204 | 0.3 | 33.6 | O K | 960 min Summer | 6.500 | 0.200 | 0.3 | 33.1 | O K | 1440 min Summer | 6.493 | 0.193 | 0.3 | 31.9 | O K | 2160 min Summer | 6.480 | 0.180 | 0.3 | 29.8 | O K | 2880 min Summer | 6.467 | 0.167 | 0.3 | 27.6 | O K | 4320 min Summer | 6.457 | 0.157 | 0.3 | 25.9 | O K | 5760 min Summer | 6.444 | 0.144 | 0.3 | 23.7 | O K | 7200 min Summer | 6.430 | 0.130 | 0.3 | 21.5 | O K | 8640 min Summer | 6.417 | 0.117 | 0.3 | 19.3 | O K | 10080 min Summer | 6.405 | 0.105 | 0.3 | 17.3 | O K | 15 min Winter | 6.369 | 0.069 | 0.3 | 11.4 | O K | Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Time-Peak (mins) | 15 min Summer | 72.148 | 0.0 | 19 | 30 min Summer | 45.463 | 0.0 | 34 | 60 min Summer | 28.648 | 0.0 | 64 | 120 min Summer | 18.052 | 0.0 | 122 | 180 min Summer | 13.779 | 0.0 | 182 | 240 min Summer | 11.375 | 0.0 | 242 | 360 min Summer | 8.683 | 0.0 | 362 | 480 min Summer | 7.168 | 0.0 | 480 | 600 min Summer | 6.178 | 0.0 | 600 | 720 min Summer | 5.471 | 0.0 | 716 | 960 min Summer | 4.332 | 0.0 | 818 | 1440 min Summer | 3.118 | 0.0 | 1054 | 2160 min Summer | 2.244 | 0.0 | 1452 | 2880 min Summer | 1.777 | 0.0 | 1848 | 4320 min Summer | 1.363 | 0.0 | 2680 | 5760 min Summer | 1.130 | 0.0 | 3464 | 7200 min Summer | 0.977 | 0.0 | 4248 | 8640 min Summer | 0.867 | 0.0 | 5008 | 10080 min Summer | 0.784 | 0.0 | 5744 | 15 min Winter | 72.148 | 0.0 | 19 |
| Storm Event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Max Level (m) | Max Depth (m)                                   | Max Infiltration (l/s) | Max Volume (m³)                                                                     | Status |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 15 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.360         | 0.060                                           | 0.3                    | 9.9                                                                                 | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 30 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.379         | 0.079                                           | 0.3                    | 13.1                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 60 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.402         | 0.102                                           | 0.3                    | 16.9                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 120 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.430         | 0.130                                           | 0.3                    | 21.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 180 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.447         | 0.147                                           | 0.3                    | 24.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 240 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.460         | 0.160                                           | 0.3                    | 26.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 360 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.478         | 0.178                                           | 0.3                    | 29.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 480 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.490         | 0.190                                           | 0.3                    | 31.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 600 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.498         | 0.198                                           | 0.3                    | 32.7                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 720 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.504         | 0.204                                           | 0.3                    | 33.6                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 960 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.500         | 0.200                                           | 0.3                    | 33.1                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 1440 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.493         | 0.193                                           | 0.3                    | 31.9                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 2160 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.480         | 0.180                                           | 0.3                    | 29.8                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 2880 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.467         | 0.167                                           | 0.3                    | 27.6                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 4320 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.457         | 0.157                                           | 0.3                    | 25.9                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 5760 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.444         | 0.144                                           | 0.3                    | 23.7                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 7200 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.430         | 0.130                                           | 0.3                    | 21.5                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 8640 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.417         | 0.117                                           | 0.3                    | 19.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 10080 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6.405         | 0.105                                           | 0.3                    | 17.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 15 min Winter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.369         | 0.069                                           | 0.3                    | 11.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| Storm Event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Rain (mm/hr)  | Flooded Volume (m³)                             | Time-Peak (mins)       |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 15 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 72.148        | 0.0                                             | 19                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 30 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 45.463        | 0.0                                             | 34                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 60 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 28.648        | 0.0                                             | 64                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 120 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 18.052        | 0.0                                             | 122                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 180 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 13.779        | 0.0                                             | 182                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 240 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11.375        | 0.0                                             | 242                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 360 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8.683         | 0.0                                             | 362                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 480 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7.168         | 0.0                                             | 480                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 600 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6.178         | 0.0                                             | 600                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 720 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.471         | 0.0                                             | 716                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 960 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4.332         | 0.0                                             | 818                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 1440 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3.118         | 0.0                                             | 1054                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 2160 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.244         | 0.0                                             | 1452                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 2880 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.777         | 0.0                                             | 1848                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 4320 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.363         | 0.0                                             | 2680                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 5760 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.130         | 0.0                                             | 3464                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 7200 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.977         | 0.0                                             | 4248                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 8640 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.867         | 0.0                                             | 5008                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 10080 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.784         | 0.0                                             | 5744                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| 15 min Winter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 72.148        | 0.0                                             | 19                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                                                 |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |     |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |        |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |        |     |    |

|                                                            |                     |                                                 |                              |                                                                                     |        |
|------------------------------------------------------------|---------------------|-------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|--------|
| Odyssey Markides LLP                                       |                     |                                                 |                              | Page 2                                                                              |        |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF   |                     | Yapton Metal Company<br>Burndell Road<br>Yapton |                              |  |        |
| Date 21/08/2019 11:58<br>File 19-167 PAVING (10YR + 4...   |                     | Designed by SG<br>Checked by LH                 |                              |                                                                                     |        |
| Innovyze                                                   |                     | Source Control 2018.1                           |                              |                                                                                     |        |
| <u>Summary of Results for 10 year Return Period (+40%)</u> |                     |                                                 |                              |                                                                                     |        |
| Storm<br>Event                                             | Max<br>Level<br>(m) | Max<br>Depth<br>(m)                             | Max<br>Infiltration<br>(l/s) | Max<br>Volume<br>(m³)                                                               | Status |
| 30 min Winter                                              | 6.391               | 0.091                                           | 0.3                          | 15.0                                                                                | O K    |
| 60 min Winter                                              | 6.417               | 0.117                                           | 0.3                          | 19.3                                                                                | O K    |
| 120 min Winter                                             | 6.448               | 0.148                                           | 0.3                          | 24.4                                                                                | O K    |
| 180 min Winter                                             | 6.468               | 0.168                                           | 0.3                          | 27.7                                                                                | O K    |
| 240 min Winter                                             | 6.483               | 0.183                                           | 0.3                          | 30.2                                                                                | O K    |
| 360 min Winter                                             | 6.504               | 0.204                                           | 0.3                          | 33.6                                                                                | O K    |
| 480 min Winter                                             | 6.518               | 0.218                                           | 0.3                          | 36.0                                                                                | O K    |
| 600 min Winter                                             | 6.529               | 0.229                                           | 0.3                          | 37.7                                                                                | O K    |
| 720 min Winter                                             | 6.533               | 0.233                                           | 0.3                          | 38.4                                                                                | O K    |
| 960 min Winter                                             | 6.533               | 0.233                                           | 0.3                          | 38.4                                                                                | O K    |
| 1440 min Winter                                            | 6.521               | 0.221                                           | 0.3                          | 36.5                                                                                | O K    |
| 2160 min Winter                                            | 6.503               | 0.203                                           | 0.3                          | 33.6                                                                                | O K    |
| 2880 min Winter                                            | 6.483               | 0.183                                           | 0.3                          | 30.3                                                                                | O K    |
| 4320 min Winter                                            | 6.463               | 0.163                                           | 0.3                          | 26.9                                                                                | O K    |
| 5760 min Winter                                            | 6.440               | 0.140                                           | 0.3                          | 23.0                                                                                | O K    |
| 7200 min Winter                                            | 6.417               | 0.117                                           | 0.3                          | 19.3                                                                                | O K    |
| 8640 min Winter                                            | 6.396               | 0.096                                           | 0.3                          | 15.8                                                                                | O K    |
| 10080 min Winter                                           | 6.378               | 0.078                                           | 0.3                          | 12.8                                                                                | O K    |
| Storm<br>Event                                             | Rain<br>(mm/hr)     | Flooded<br>Volume<br>(m³)                       | Time-Peak<br>(mins)          |                                                                                     |        |
| 30 min Winter                                              | 45.463              | 0.0                                             | 33                           |                                                                                     |        |
| 60 min Winter                                              | 28.648              | 0.0                                             | 62                           |                                                                                     |        |
| 120 min Winter                                             | 18.052              | 0.0                                             | 120                          |                                                                                     |        |
| 180 min Winter                                             | 13.779              | 0.0                                             | 180                          |                                                                                     |        |
| 240 min Winter                                             | 11.375              | 0.0                                             | 238                          |                                                                                     |        |
| 360 min Winter                                             | 8.683               | 0.0                                             | 354                          |                                                                                     |        |
| 480 min Winter                                             | 7.168               | 0.0                                             | 470                          |                                                                                     |        |
| 600 min Winter                                             | 6.178               | 0.0                                             | 584                          |                                                                                     |        |
| 720 min Winter                                             | 5.471               | 0.0                                             | 694                          |                                                                                     |        |
| 960 min Winter                                             | 4.332               | 0.0                                             | 908                          |                                                                                     |        |
| 1440 min Winter                                            | 3.118               | 0.0                                             | 1138                         |                                                                                     |        |
| 2160 min Winter                                            | 2.244               | 0.0                                             | 1584                         |                                                                                     |        |
| 2880 min Winter                                            | 1.777               | 0.0                                             | 2020                         |                                                                                     |        |
| 4320 min Winter                                            | 1.363               | 0.0                                             | 2896                         |                                                                                     |        |
| 5760 min Winter                                            | 1.130               | 0.0                                             | 3696                         |                                                                                     |        |
| 7200 min Winter                                            | 0.977               | 0.0                                             | 4472                         |                                                                                     |        |
| 8640 min Winter                                            | 0.867               | 0.0                                             | 5192                         |                                                                                     |        |
| 10080 min Winter                                           | 0.784               | 0.0                                             | 5856                         |                                                                                     |        |
| ©1982-2018 Innovyze                                        |                     |                                                 |                              |                                                                                     |        |

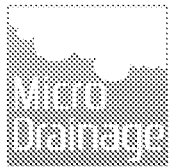


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|---------|-----------|------|------------------------------|------|------------|------|-----------------------|-------|-------------|-----|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|--------------------|-----|
| Odyssey Markides LLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 | Page 4                                                                              |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yapton Metal Company<br>Burndell Road<br>Yapton |  |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Date 21/08/2019 11:58<br>File 19-167 PAVING (10YR + 4...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Designed by SG<br>Checked by LH                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Innovyze Source Control 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| <p style="text-align: center;"><u>Model Details</u></p> <p style="text-align: center;">Storage is Online Cover Level (m) 7.100</p> <p style="text-align: center;"><u>Porous Car Park Structure</u></p> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00432</td> <td>Width (m)</td> <td>10.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>55.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>152.8</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.300</td> <td>Membrane Depth (m)</td> <td>260</td> </tr> </table> |                                                 |                                                                                     | Infiltration Coefficient Base (m/hr) | 0.00432 | Width (m) | 10.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 55.0 | Max Percolation (l/s) | 152.8 | Slope (1:X) | 0.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.300 | Membrane Depth (m) | 260 |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.00432                                         | Width (m)                                                                           | 10.0                                 |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1000                                            | Length (m)                                                                          | 55.0                                 |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 152.8                                           | Slope (1:X)                                                                         | 0.0                                  |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.0                                             | Depression Storage (mm)                                                             | 5                                    |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.30                                            | Evaporation (mm/day)                                                                | 3                                    |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6.300                                           | Membrane Depth (m)                                                                  | 260                                  |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |

| Odyssey Markides LLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                 |                        | Page 1                                                                              |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|--------|-------------|---------------|---------------|------------------------|-----------------|--------|---------------|-------|-------|-----|------|-----|---------------|-------|-------|-----|------|-----|---------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|-----------------|-------|-------|-----|------|-----|------------------|-------|-------|-----|------|-----|---------------|-------|-------|-----|------|-----|-------------|--------------|---------------------|------------------|---------------|---------|-----|----|---------------|--------|-----|----|---------------|--------|-----|----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|--------|-----|-----|----------------|-------|-----|-----|----------------|-------|-----|-----|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|-----------------|-------|-----|------|------------------|-------|-----|------|---------------|---------|-----|----|
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | Yapton Metal Company<br>Brundell Road<br>Yapton |                        |  |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| Date 21/08/2019 11:57<br>File 19-167 PAVING (100YR + ...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | Designed by SG<br>Checked by LH                 |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | Source Control 2018.1                           |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| <p><u>Summary of Results for 100 year Return Period (+40%)</u></p> <p>Half Drain Time : 2026 minutes.</p> <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>6.457</td><td>0.157</td><td>0.3</td><td>25.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>6.492</td><td>0.192</td><td>0.3</td><td>31.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>6.534</td><td>0.234</td><td>0.3</td><td>38.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>6.582</td><td>0.282</td><td>0.3</td><td>46.6</td><td>O K</td></tr><tr><td>180 min Summer</td><td>6.613</td><td>0.313</td><td>0.3</td><td>51.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>6.636</td><td>0.336</td><td>0.3</td><td>55.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>6.668</td><td>0.368</td><td>0.3</td><td>60.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>6.690</td><td>0.390</td><td>0.3</td><td>64.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>6.706</td><td>0.406</td><td>0.3</td><td>67.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>6.719</td><td>0.419</td><td>0.3</td><td>69.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>6.714</td><td>0.414</td><td>0.3</td><td>68.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>6.695</td><td>0.395</td><td>0.3</td><td>65.2</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>6.666</td><td>0.366</td><td>0.3</td><td>60.5</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>6.642</td><td>0.342</td><td>0.3</td><td>56.4</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>6.629</td><td>0.329</td><td>0.3</td><td>54.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>6.612</td><td>0.312</td><td>0.3</td><td>51.5</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>6.594</td><td>0.294</td><td>0.3</td><td>48.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>6.575</td><td>0.275</td><td>0.3</td><td>45.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>6.556</td><td>0.256</td><td>0.3</td><td>42.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>6.478</td><td>0.178</td><td>0.3</td><td>29.3</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>162.161</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>98.106</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>59.354</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>35.909</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.763</td><td>0.0</td><td>184</td></tr><tr><td>240 min Summer</td><td>21.725</td><td>0.0</td><td>244</td></tr><tr><td>360 min Summer</td><td>16.191</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>13.143</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>11.180</td><td>0.0</td><td>602</td></tr><tr><td>720 min Summer</td><td>9.796</td><td>0.0</td><td>722</td></tr><tr><td>960 min Summer</td><td>7.627</td><td>0.0</td><td>962</td></tr><tr><td>1440 min Summer</td><td>5.360</td><td>0.0</td><td>1426</td></tr><tr><td>2160 min Summer</td><td>3.767</td><td>0.0</td><td>1708</td></tr><tr><td>2880 min Summer</td><td>2.933</td><td>0.0</td><td>2072</td></tr><tr><td>4320 min Summer</td><td>2.197</td><td>0.0</td><td>2896</td></tr><tr><td>5760 min Summer</td><td>1.790</td><td>0.0</td><td>3744</td></tr><tr><td>7200 min Summer</td><td>1.527</td><td>0.0</td><td>4544</td></tr><tr><td>8640 min Summer</td><td>1.341</td><td>0.0</td><td>5360</td></tr><tr><td>10080 min Summer</td><td>1.202</td><td>0.0</td><td>6152</td></tr><tr><td>15 min Winter</td><td>162.161</td><td>0.0</td><td>19</td></tr></tbody></table> |               |                                                 |                        |                                                                                     |        | Storm Event | Max Level (m) | Max Depth (m) | Max Infiltration (l/s) | Max Volume (m³) | Status | 15 min Summer | 6.457 | 0.157 | 0.3 | 25.9 | O K | 30 min Summer | 6.492 | 0.192 | 0.3 | 31.7 | O K | 60 min Summer | 6.534 | 0.234 | 0.3 | 38.6 | O K | 120 min Summer | 6.582 | 0.282 | 0.3 | 46.6 | O K | 180 min Summer | 6.613 | 0.313 | 0.3 | 51.6 | O K | 240 min Summer | 6.636 | 0.336 | 0.3 | 55.4 | O K | 360 min Summer | 6.668 | 0.368 | 0.3 | 60.7 | O K | 480 min Summer | 6.690 | 0.390 | 0.3 | 64.4 | O K | 600 min Summer | 6.706 | 0.406 | 0.3 | 67.1 | O K | 720 min Summer | 6.719 | 0.419 | 0.3 | 69.1 | O K | 960 min Summer | 6.714 | 0.414 | 0.3 | 68.3 | O K | 1440 min Summer | 6.695 | 0.395 | 0.3 | 65.2 | O K | 2160 min Summer | 6.666 | 0.366 | 0.3 | 60.5 | O K | 2880 min Summer | 6.642 | 0.342 | 0.3 | 56.4 | O K | 4320 min Summer | 6.629 | 0.329 | 0.3 | 54.3 | O K | 5760 min Summer | 6.612 | 0.312 | 0.3 | 51.5 | O K | 7200 min Summer | 6.594 | 0.294 | 0.3 | 48.5 | O K | 8640 min Summer | 6.575 | 0.275 | 0.3 | 45.4 | O K | 10080 min Summer | 6.556 | 0.256 | 0.3 | 42.3 | O K | 15 min Winter | 6.478 | 0.178 | 0.3 | 29.3 | O K | Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Time-Peak (mins) | 15 min Summer | 162.161 | 0.0 | 19 | 30 min Summer | 98.106 | 0.0 | 34 | 60 min Summer | 59.354 | 0.0 | 64 | 120 min Summer | 35.909 | 0.0 | 124 | 180 min Summer | 26.763 | 0.0 | 184 | 240 min Summer | 21.725 | 0.0 | 244 | 360 min Summer | 16.191 | 0.0 | 362 | 480 min Summer | 13.143 | 0.0 | 482 | 600 min Summer | 11.180 | 0.0 | 602 | 720 min Summer | 9.796 | 0.0 | 722 | 960 min Summer | 7.627 | 0.0 | 962 | 1440 min Summer | 5.360 | 0.0 | 1426 | 2160 min Summer | 3.767 | 0.0 | 1708 | 2880 min Summer | 2.933 | 0.0 | 2072 | 4320 min Summer | 2.197 | 0.0 | 2896 | 5760 min Summer | 1.790 | 0.0 | 3744 | 7200 min Summer | 1.527 | 0.0 | 4544 | 8640 min Summer | 1.341 | 0.0 | 5360 | 10080 min Summer | 1.202 | 0.0 | 6152 | 15 min Winter | 162.161 | 0.0 | 19 |
| Storm Event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Max Level (m) | Max Depth (m)                                   | Max Infiltration (l/s) | Max Volume (m³)                                                                     | Status |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 15 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.457         | 0.157                                           | 0.3                    | 25.9                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 30 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.492         | 0.192                                           | 0.3                    | 31.7                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 60 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.534         | 0.234                                           | 0.3                    | 38.6                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 120 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.582         | 0.282                                           | 0.3                    | 46.6                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 180 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.613         | 0.313                                           | 0.3                    | 51.6                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 240 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.636         | 0.336                                           | 0.3                    | 55.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 360 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.668         | 0.368                                           | 0.3                    | 60.7                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 480 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.690         | 0.390                                           | 0.3                    | 64.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 600 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.706         | 0.406                                           | 0.3                    | 67.1                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 720 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.719         | 0.419                                           | 0.3                    | 69.1                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 960 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.714         | 0.414                                           | 0.3                    | 68.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 1440 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.695         | 0.395                                           | 0.3                    | 65.2                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 2160 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.666         | 0.366                                           | 0.3                    | 60.5                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 2880 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.642         | 0.342                                           | 0.3                    | 56.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 4320 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.629         | 0.329                                           | 0.3                    | 54.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 5760 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.612         | 0.312                                           | 0.3                    | 51.5                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 7200 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.594         | 0.294                                           | 0.3                    | 48.5                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 8640 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6.575         | 0.275                                           | 0.3                    | 45.4                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 10080 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 6.556         | 0.256                                           | 0.3                    | 42.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 15 min Winter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.478         | 0.178                                           | 0.3                    | 29.3                                                                                | O K    |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| Storm Event                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Rain (mm/hr)  | Flooded Volume (m³)                             | Time-Peak (mins)       |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 15 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 162.161       | 0.0                                             | 19                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 30 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 98.106        | 0.0                                             | 34                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 60 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 59.354        | 0.0                                             | 64                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 120 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 35.909        | 0.0                                             | 124                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 180 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 26.763        | 0.0                                             | 184                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 240 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 21.725        | 0.0                                             | 244                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 360 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 16.191        | 0.0                                             | 362                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 480 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 13.143        | 0.0                                             | 482                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 600 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 11.180        | 0.0                                             | 602                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 720 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9.796         | 0.0                                             | 722                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 960 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7.627         | 0.0                                             | 962                    |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 1440 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5.360         | 0.0                                             | 1426                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 2160 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.767         | 0.0                                             | 1708                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 2880 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.933         | 0.0                                             | 2072                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 4320 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.197         | 0.0                                             | 2896                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 5760 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.790         | 0.0                                             | 3744                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 7200 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.527         | 0.0                                             | 4544                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 8640 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.341         | 0.0                                             | 5360                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 10080 min Summer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.202         | 0.0                                             | 6152                   |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| 15 min Winter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 162.161       | 0.0                                             | 19                     |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                                                 |                        |                                                                                     |        |             |               |               |                        |                 |        |               |       |       |     |      |     |               |       |       |     |      |     |               |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                 |       |       |     |      |     |                  |       |       |     |      |     |               |       |       |     |      |     |             |              |                     |                  |               |         |     |    |               |        |     |    |               |        |     |    |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |        |     |     |                |       |     |     |                |       |     |     |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                 |       |     |      |                  |       |     |      |               |         |     |    |

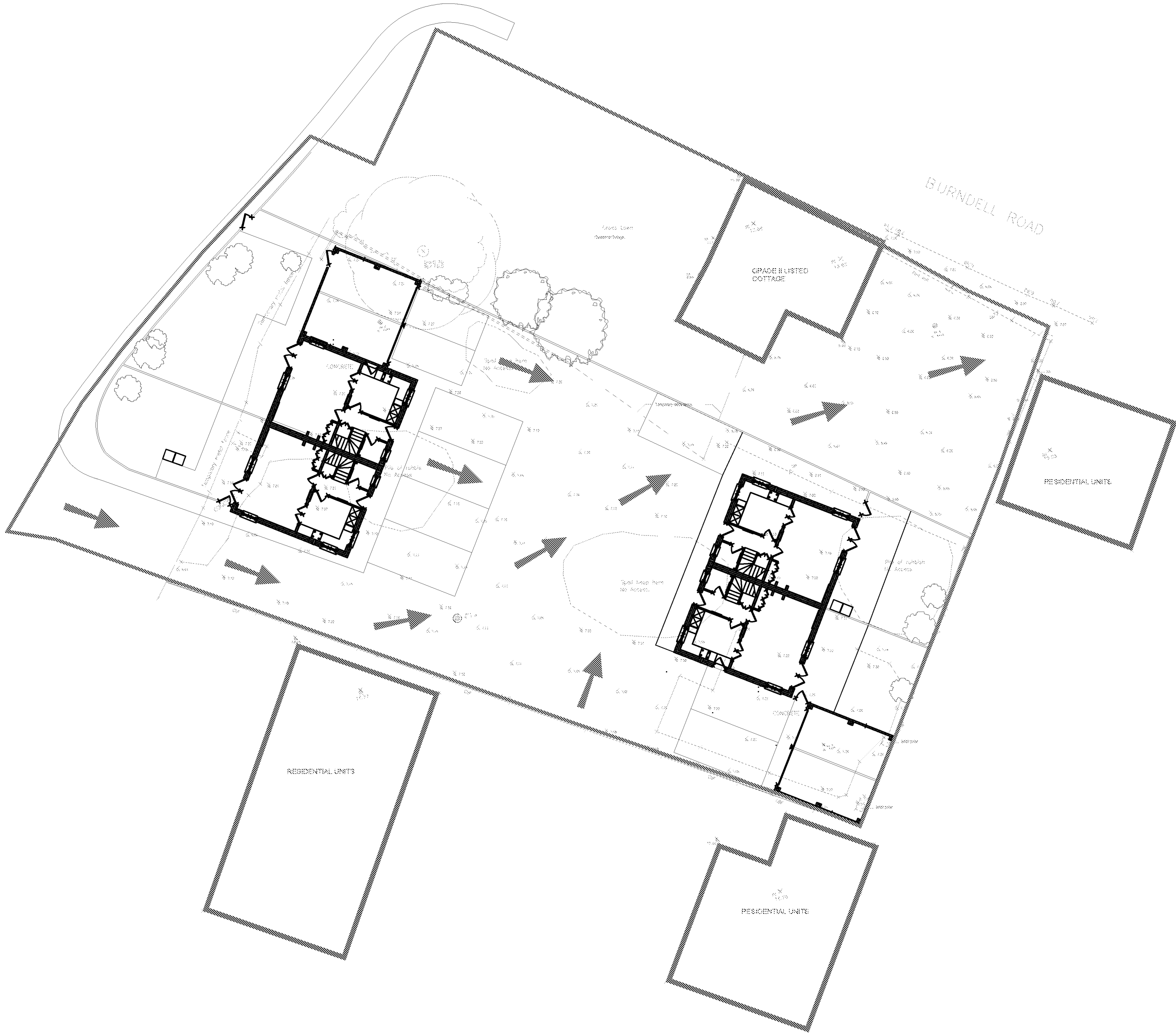
|                                                             |                     |                                                 |                              |                                                                                     |        |
|-------------------------------------------------------------|---------------------|-------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|--------|
| Odyssey Markides LLP                                        |                     |                                                 |                              | Page 2                                                                              |        |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF    |                     | Yapton Metal Company<br>Brundell Road<br>Yapton |                              |  |        |
| Date 21/08/2019 11:57<br>File 19-167 PAVING (100YR + ...    |                     | Designed by SG<br>Checked by LH                 |                              |                                                                                     |        |
| Innovyze                                                    |                     | Source Control 2018.1                           |                              |                                                                                     |        |
| <u>Summary of Results for 100 year Return Period (+40%)</u> |                     |                                                 |                              |                                                                                     |        |
| Storm<br>Event                                              | Max<br>Level<br>(m) | Max<br>Depth<br>(m)                             | Max<br>Infiltration<br>(l/s) | Max<br>Volume<br>(m³)                                                               | Status |
| 30 min Winter                                               | 6.518               | 0.218                                           | 0.3                          | 35.9                                                                                | O K    |
| 60 min Winter                                               | 6.565               | 0.265                                           | 0.3                          | 43.7                                                                                | O K    |
| 120 min Winter                                              | 6.619               | 0.319                                           | 0.3                          | 52.7                                                                                | O K    |
| 180 min Winter                                              | 6.654               | 0.354                                           | 0.3                          | 58.4                                                                                | O K    |
| 240 min Winter                                              | 6.680               | 0.380                                           | 0.3                          | 62.7                                                                                | O K    |
| 360 min Winter                                              | 6.717               | 0.417                                           | 0.3                          | 68.9                                                                                | O K    |
| 480 min Winter                                              | 6.744               | 0.444                                           | 0.3                          | 73.2                                                                                | O K    |
| 600 min Winter                                              | 6.764               | 0.464                                           | 0.3                          | 76.5                                                                                | O K    |
| 720 min Winter                                              | 6.773               | 0.473                                           | 0.3                          | 78.0                                                                                | O K    |
| 960 min Winter                                              | 6.776               | 0.476                                           | 0.3                          | 78.6                                                                                | O K    |
| 1440 min Winter                                             | 6.761               | 0.461                                           | 0.3                          | 76.1                                                                                | O K    |
| 2160 min Winter                                             | 6.727               | 0.427                                           | 0.3                          | 70.4                                                                                | O K    |
| 2880 min Winter                                             | 6.695               | 0.395                                           | 0.3                          | 65.2                                                                                | O K    |
| 4320 min Winter                                             | 6.674               | 0.374                                           | 0.3                          | 61.8                                                                                | O K    |
| 5760 min Winter                                             | 6.646               | 0.346                                           | 0.3                          | 57.1                                                                                | O K    |
| 7200 min Winter                                             | 6.615               | 0.315                                           | 0.3                          | 52.0                                                                                | O K    |
| 8640 min Winter                                             | 6.584               | 0.284                                           | 0.3                          | 46.9                                                                                | O K    |
| 10080 min Winter                                            | 6.553               | 0.253                                           | 0.3                          | 41.8                                                                                | O K    |
| Storm<br>Event                                              | Rain<br>(mm/hr)     | Flooded<br>Volume<br>(m³)                       | Time-Peak<br>(mins)          |                                                                                     |        |
| 30 min Winter                                               | 98.106              | 0.0                                             | 34                           |                                                                                     |        |
| 60 min Winter                                               | 59.354              | 0.0                                             | 64                           |                                                                                     |        |
| 120 min Winter                                              | 35.909              | 0.0                                             | 122                          |                                                                                     |        |
| 180 min Winter                                              | 26.763              | 0.0                                             | 180                          |                                                                                     |        |
| 240 min Winter                                              | 21.725              | 0.0                                             | 240                          |                                                                                     |        |
| 360 min Winter                                              | 16.191              | 0.0                                             | 358                          |                                                                                     |        |
| 480 min Winter                                              | 13.143              | 0.0                                             | 476                          |                                                                                     |        |
| 600 min Winter                                              | 11.180              | 0.0                                             | 592                          |                                                                                     |        |
| 720 min Winter                                              | 9.736               | 0.0                                             | 708                          |                                                                                     |        |
| 960 min Winter                                              | 7.627               | 0.0                                             | 940                          |                                                                                     |        |
| 1440 min Winter                                             | 5.360               | 0.0                                             | 1384                         |                                                                                     |        |
| 2160 min Winter                                             | 3.767               | 0.0                                             | 1992                         |                                                                                     |        |
| 2880 min Winter                                             | 2.933               | 0.0                                             | 2224                         |                                                                                     |        |
| 4320 min Winter                                             | 2.197               | 0.0                                             | 3156                         |                                                                                     |        |
| 5760 min Winter                                             | 1.790               | 0.0                                             | 4088                         |                                                                                     |        |
| 7200 min Winter                                             | 1.527               | 0.0                                             | 4968                         |                                                                                     |        |
| 8640 min Winter                                             | 1.341               | 0.0                                             | 5792                         |                                                                                     |        |
| 10080 min Winter                                            | 1.202               | 0.0                                             | 6560                         |                                                                                     |        |
| ©1982-2018 Innovyze                                         |                     |                                                 |                              |                                                                                     |        |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|---------|-----------|------|------------------------------|------|------------|------|-----------------------|-------|-------------|-----|---------------|-----|-------------------------|---|----------|------|----------------------|---|------------------|-------|--------------------|-----|
| Odyssey Markides LLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 | Page 4                                                                              |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Tuscany House<br>White Hart Lane<br>Basingstoke RG21 4AF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yapton Metal Company<br>Brundell Road<br>Yapton |  |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Date 21/08/2019 11:57<br>File 19-167 PAVING (100YR + ...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Designed by SG<br>Checked by LH                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Innovyze Source Control 2018.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| <p style="text-align: center;"><u>Model Details</u></p> <p style="text-align: center;">Storage is Online Cover Level (m) 7.100</p> <p style="text-align: center;"><u>Porous Car Park Structure</u></p> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00432</td> <td>Width (m)</td> <td>10.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>55.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>152.8</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.300</td> <td>Membrane Depth (m)</td> <td>260</td> </tr> </table> |                                                 |                                                                                     | Infiltration Coefficient Base (m/hr) | 0.00432 | Width (m) | 10.0 | Membrane Percolation (mm/hr) | 1000 | Length (m) | 55.0 | Max Percolation (l/s) | 152.8 | Slope (1:X) | 0.0 | Safety Factor | 2.0 | Depression Storage (mm) | 5 | Porosity | 0.30 | Evaporation (mm/day) | 3 | Invert Level (m) | 6.300 | Membrane Depth (m) | 260 |
| Infiltration Coefficient Base (m/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.00432                                         | Width (m)                                                                           | 10.0                                 |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Membrane Percolation (mm/hr)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1000                                            | Length (m)                                                                          | 55.0                                 |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Max Percolation (l/s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 152.8                                           | Slope (1:X)                                                                         | 0.0                                  |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Safety Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.0                                             | Depression Storage (mm)                                                             | 5                                    |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Porosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.30                                            | Evaporation (mm/day)                                                                | 3                                    |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| Invert Level (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6.300                                           | Membrane Depth (m)                                                                  | 260                                  |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |
| ©1982-2018 Innovyze                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 |                                                                                     |                                      |         |           |      |                              |      |            |      |                       |       |             |     |               |     |                         |   |          |      |                      |   |                  |       |                    |     |

## APPENDIX D

### Odyssey Overland Flow Routes

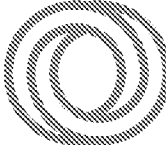


- NOTES
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
  - THIS DRAWING IS A PRELIMINARY REVIEW ONLY AND SUBJECT TO DETAILED DESIGN.
  - TOPOGRAPHICAL SURVEY HAS BEEN TAKEN FROM ARCHIDATA LIMITED DRAWING AD19080\_1\_01, DATED APRIL 19'.
  - PROPOSED SITE LAYOUT HAS BEEN PROVIDED BY LAKEWOOD HOMES.
  - ODYSSEY ACCEPT NO LIABILITY FOR THE ACCURACY OF SURVEY INFORMATION AND LAYOUTS SUPPLIED BY OTHERS.

- LEGEND
- DEVELOPMENT BOUNDARY
  - INDICATIVE DIRECTION OF OVERLAND FLOW

FOR PLANNING  
PURPOSES ONLY

|     |            |     |     |     |      |
|-----|------------|-----|-----|-----|------|
| Rev | Amendments | Drn | Chk | App | Date |
|     |            |     |     |     |      |



# ODYSSEY

Tuscany House  
White Hart Lane  
Basingstoke  
Hampshire RG21 4AF

Telephone: 01256 331144  
Fax: 01256 331134  
E: info@odysseyconsult.co.uk  
W: www.odysseyconsult.co.uk

Job Title

YAPTON METAL COMPANY,  
BURNDELL ROAD, YAPTON

Drawing Title

OVERLAND FLOW ROUTES

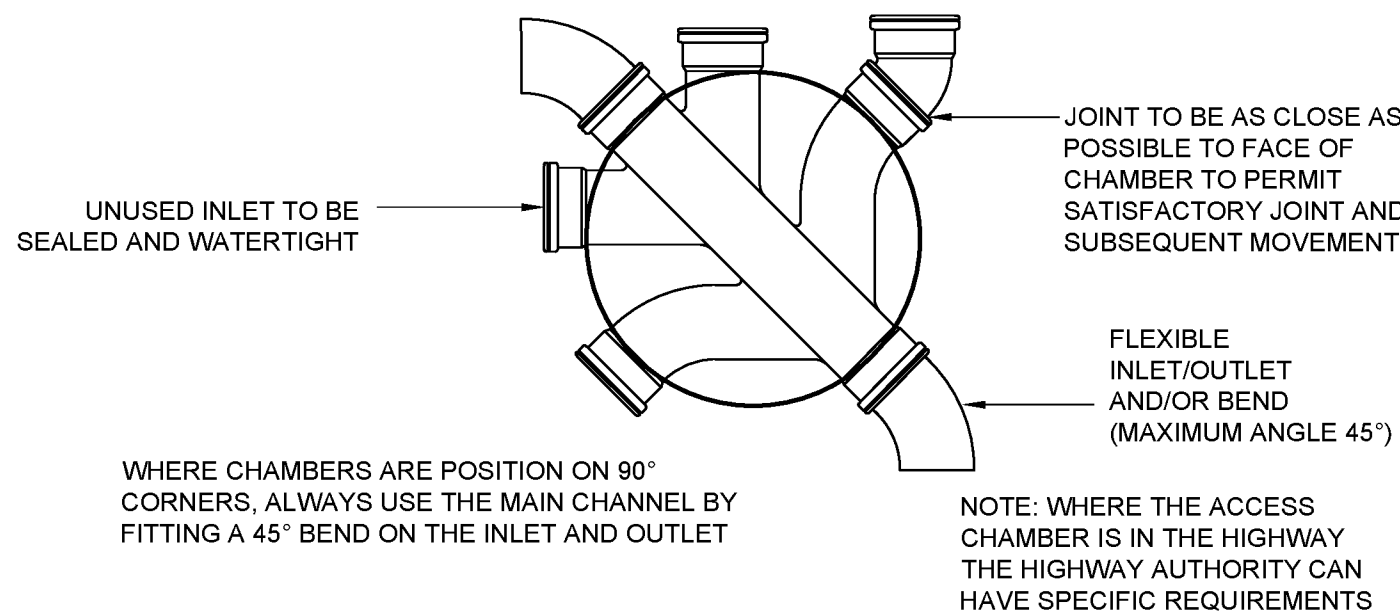
Client

LAKEWOOD HOMES

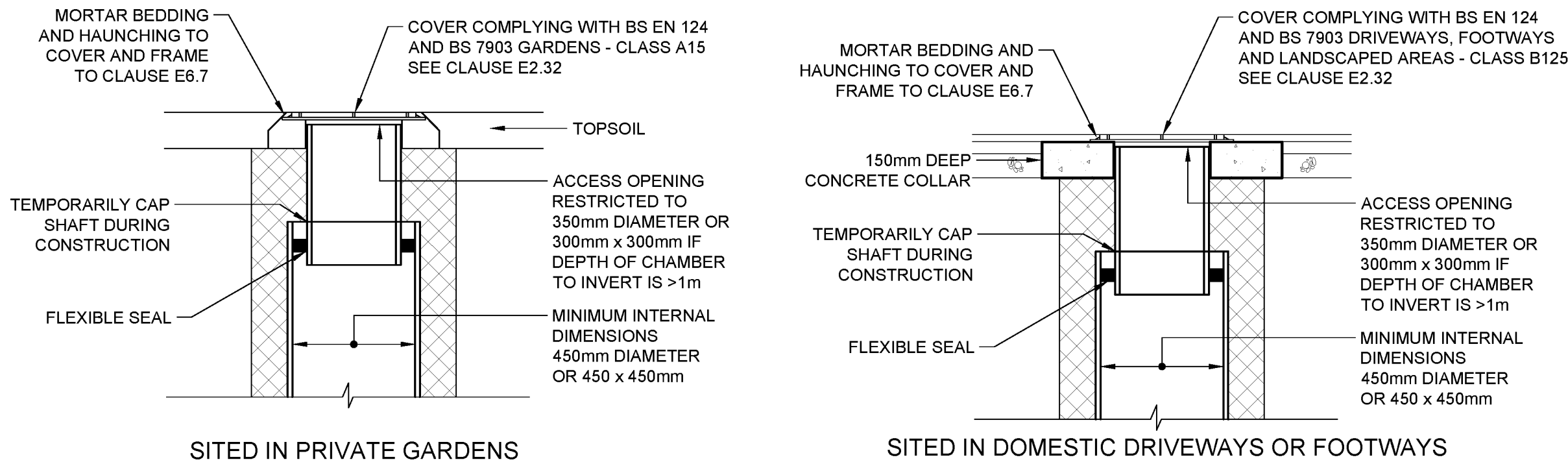
|            |            |          |
|------------|------------|----------|
| Scale      | Date       | Designed |
| 1:200 @ A2 | AUG 19     | SG       |
| Drawn      | Checked    | Approved |
| JA         | SG         | LH       |
| Job No     | Drawing No | Rev      |
| 19-167     | 19-167/003 |          |

## APPENDIX E

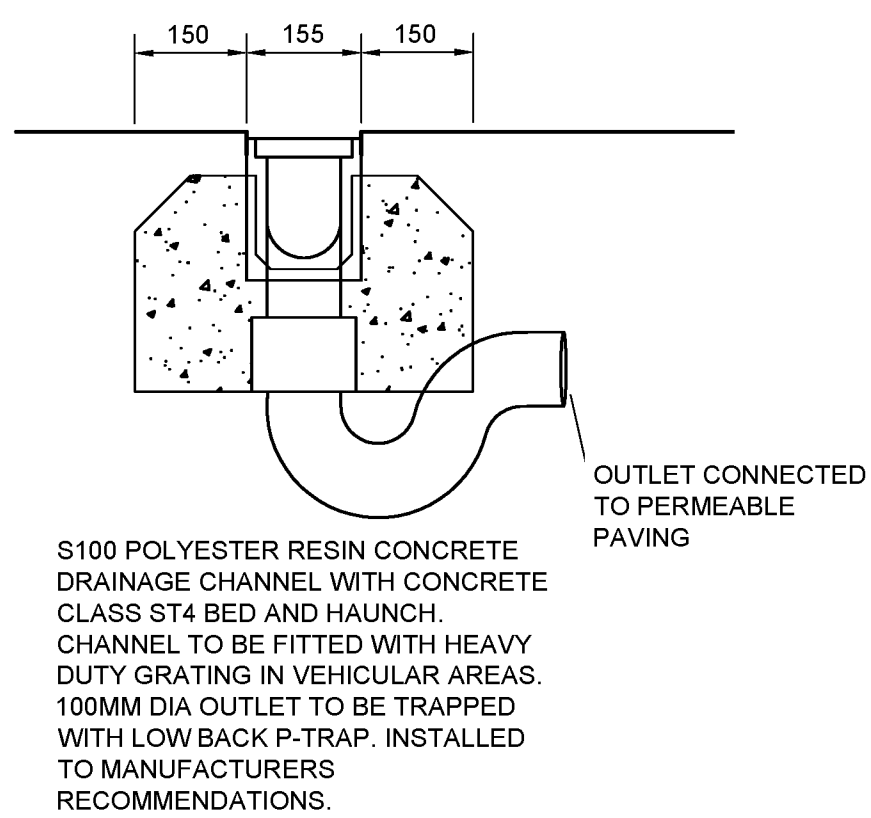
### Odyssey Construction Details



TYPICAL INSPECTION CHAMBER BASE LAYOUT - TYPE 3  
(FLEXIBLE MATERIAL DETAIL)

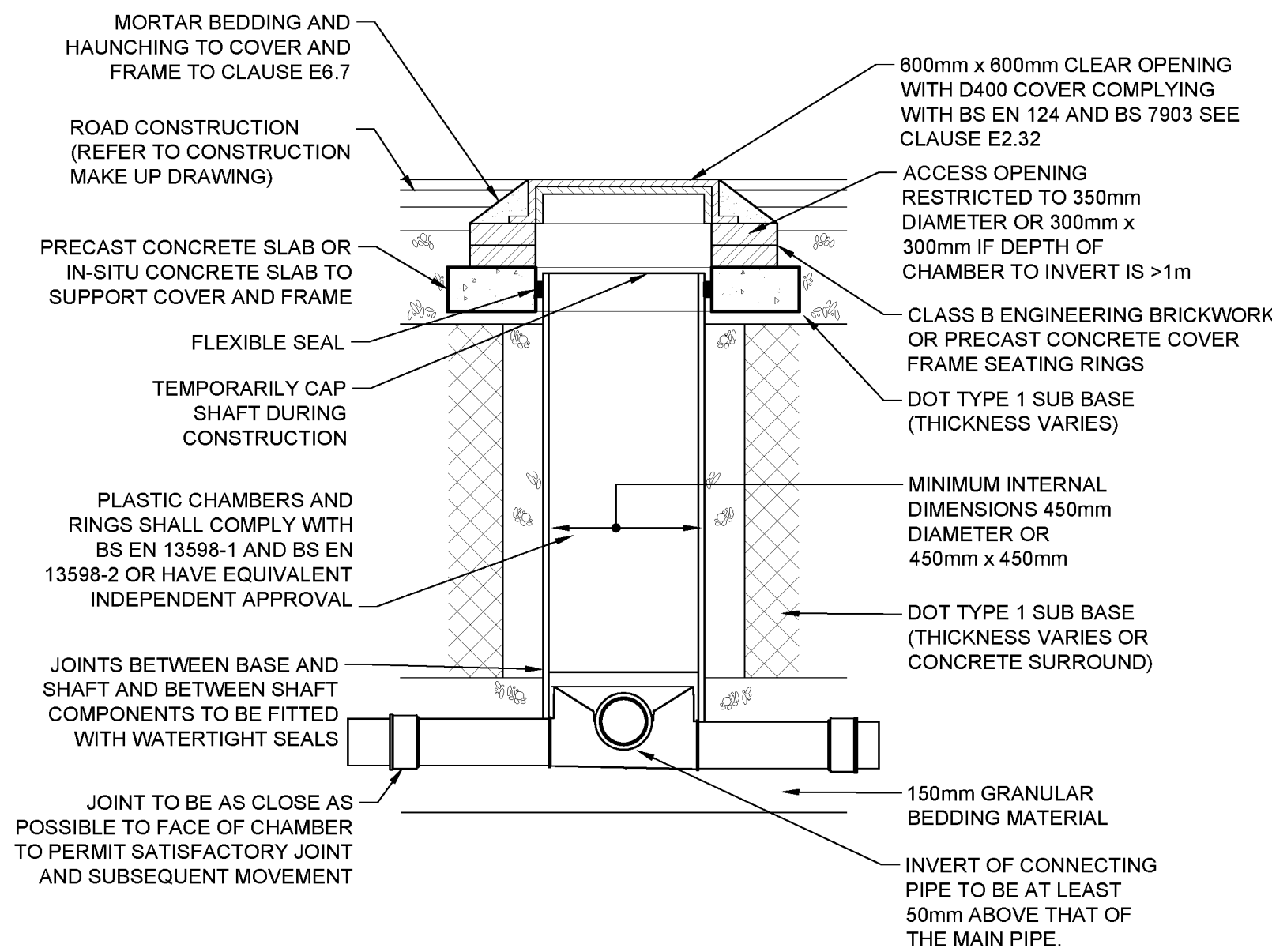


ALTERNATIVE TOP DETAILS FOR DOMESTIC DRIVEWAYS/  
FOOTWAYS/ LANDSCAPED AREAS - TYPE 3

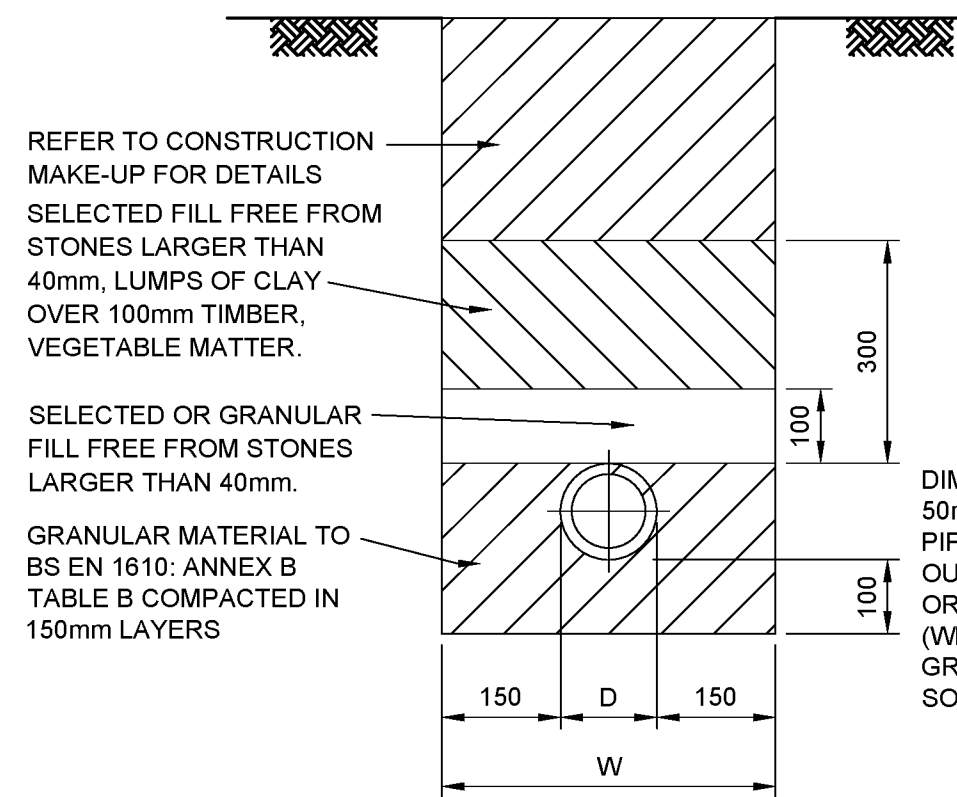


TYPICAL ACO DETAIL

- NOTES
- DO NOT SCALE FROM THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE MANUAL FOR CONTRACT DOCUMENTS, VOLUME 1, SPECIFICATION FOR HIGHWAY WORKS AND ALL OTHER RELATED DRAWINGS ISSUED.
  - IF THERE IS ANY AMBIGUITY BETWEEN THE SPECIFICATION AND THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER.
  - DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
  - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES.
  - ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS.
  - NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PERMISSION FROM THE ENGINEER.

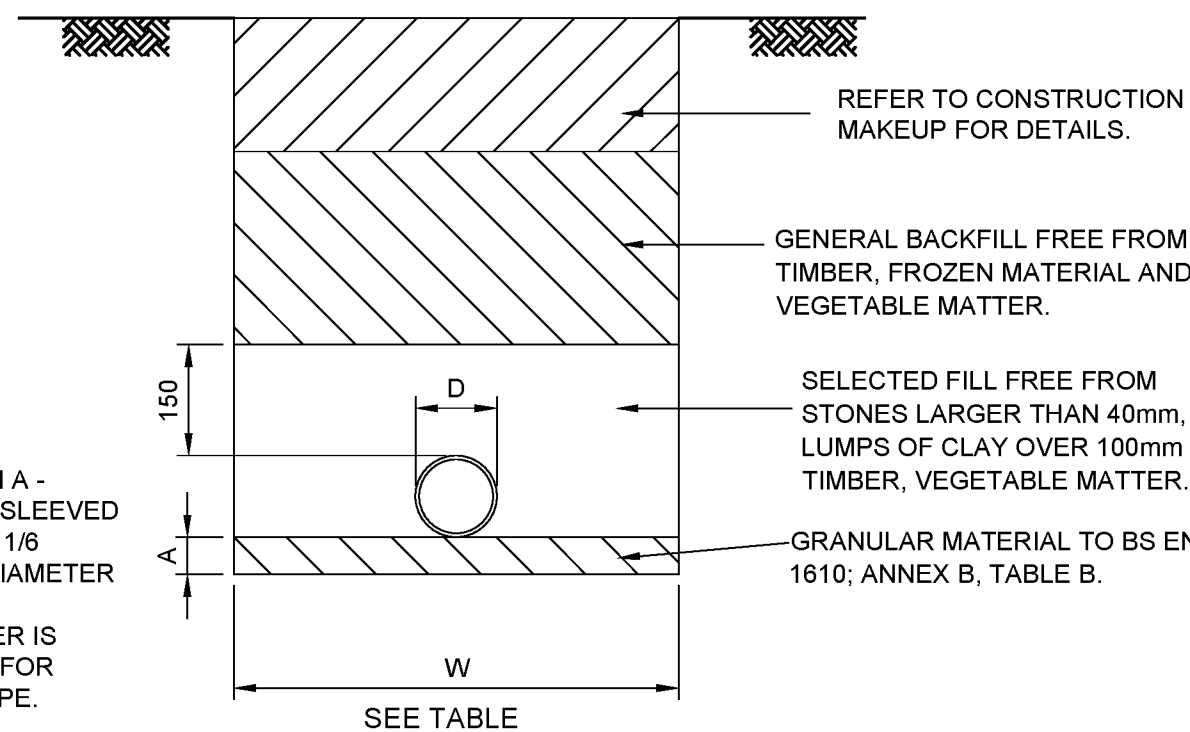


TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3  
(FLEXIBLE MATERIAL DETAIL) MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE IN AREAS SUBJECT TO VEHICLE LOADING 3m, NON-ENTRY



TYPICAL PIPE BEDDING DETAIL:  
TYPE 3 (UPVC PIPES)

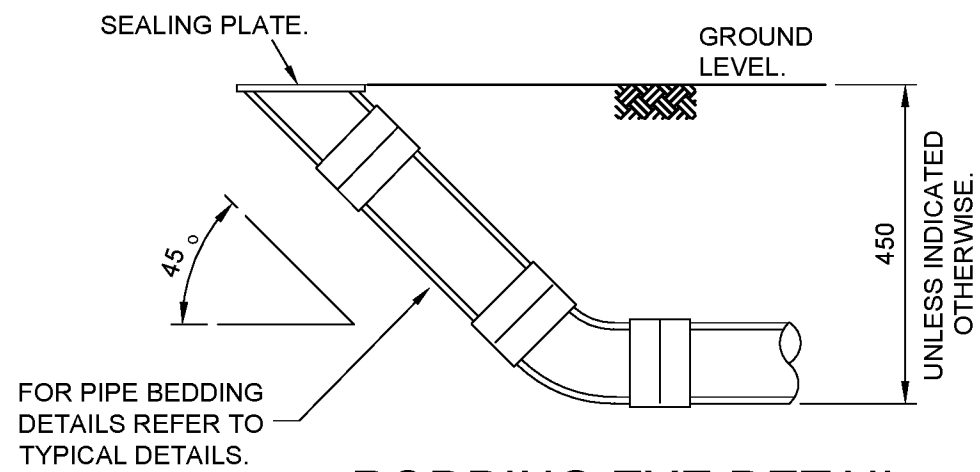
LOCATION: PEDESTRIAN AREAS: 0.6 m - 8.0 m DEEP.  
VEHICLE AREAS: 1.2 m - 8.0 m DEEP.



TYPICAL PIPE BEDDING DETAIL:  
TYPE 1 (CLAY PIPES) CLASS F

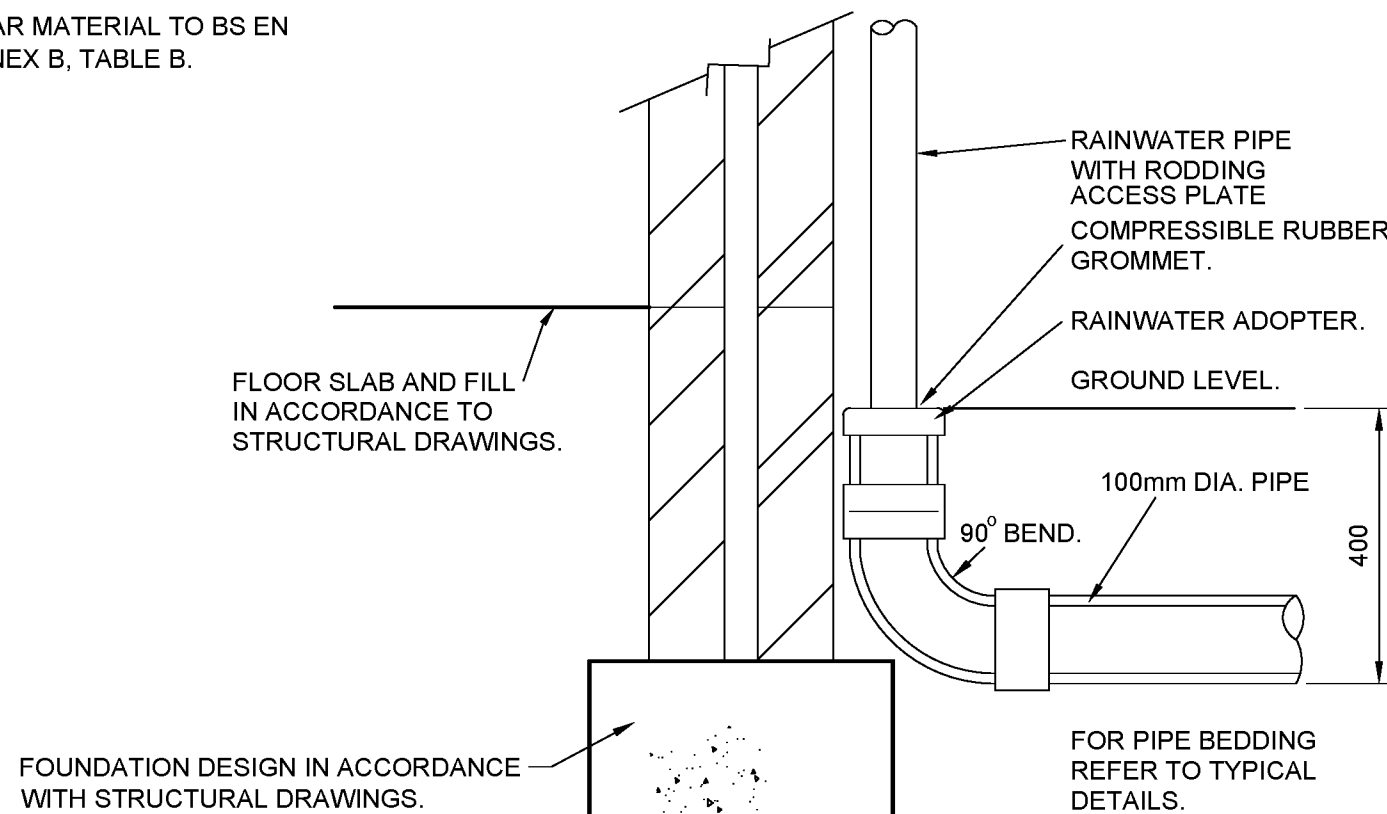
LOCATION: PEDESTRIAN AREAS UP TO 8.0 m DEEP.  
VEHICLE AREAS: 1.2 m - 8.0 m (100mm DIA. PIPE),  
1.2 m - 8 m (150mm DIA. PIPE).

| TRENCH WIDTHS FOR VARIOUS SIZE PIPES |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|
| D                                    | 100 | 150 | 225 | 300 | 375 |
| W                                    | 450 | 600 | 750 | 750 | 900 |



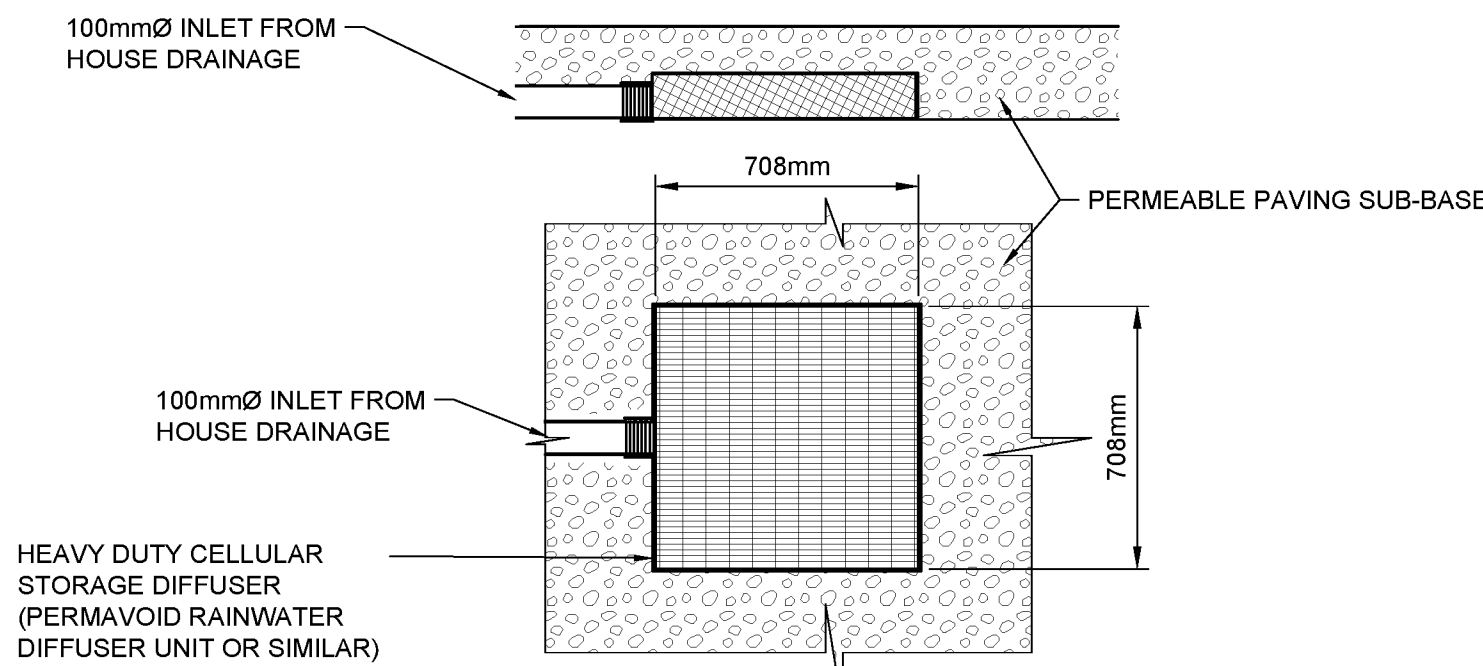
RODDING EYE DETAIL

TO BE USED IN PEDESTRIAN AND LANDSCAPED AREAS NOT SUBJECT TO VEHICULAR LOADING.  
MAXIMUM DEPTH TO INVERT 600mm.



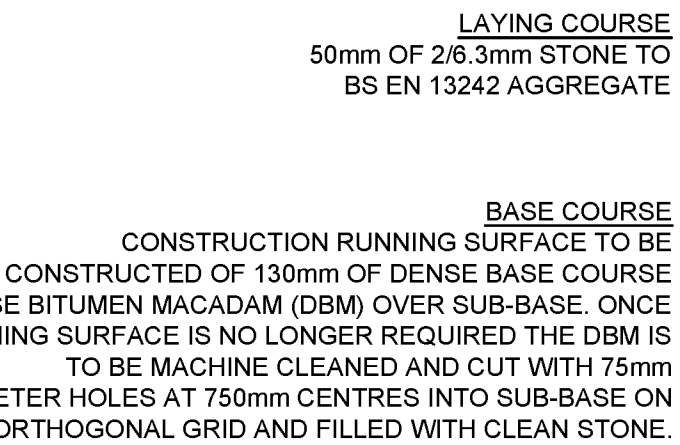
RAINWATER PIPE CONNECTION

FOR PLANNING PURPOSES ONLY



TYPICAL PLAN & SECTION  
THROUGH DIFFUSER DETAIL

PERMAVOID RAINWATER DIFFUSER UNIT OR SIMILAR APPROVED



TYPICAL SECTION THROUGH PERMEABLE  
COURTYARDS AND PRIVATE DRIVEWAYS  
(WITH CONSTRUCTION TRAFFIC / HGV's)

(BASED ON CBR 3%)

|                                                                                                                                                                                                                                                                                                 |                                 |                       |     |     |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------|-----|-----|------|
| Rev                                                                                                                                                                                                                                                                                             | Amendments                      | Dm                    | Chk | App | Date |
| <br><b>ODYSSEY</b><br>Tuscany House<br>White Hart Lane<br>Basingstoke<br>Hampshire RG21 4AF<br>Telephone: 01256 321144<br>Fax: 01256 321134<br>E: info@odysseyconsult.co.uk<br>W: www.odysseyconsult.co.uk |                                 |                       |     |     |      |
| Job Title<br><b>YAPTON METAL COMPANY,<br/>BURDELL ROAD, YAPTON</b>                                                                                                                                                                                                                              |                                 |                       |     |     |      |
| Drawing Title<br><b>CONSTRUCTION DETAILS</b>                                                                                                                                                                                                                                                    |                                 |                       |     |     |      |
| Client<br><b>LAKEWOOD HOMES</b>                                                                                                                                                                                                                                                                 |                                 |                       |     |     |      |
| Scale<br><b>NTS @ A1</b>                                                                                                                                                                                                                                                                        | Date<br><b>AUG 19</b>           | Designed<br><b>SG</b> |     |     |      |
| Drawn<br><b>TSB</b>                                                                                                                                                                                                                                                                             | Checked<br><b>SG</b>            | Approved<br><b>LH</b> |     |     |      |
| Job No<br><b>19-167</b>                                                                                                                                                                                                                                                                         | Drawing No<br><b>19-167/004</b> | Rev                   |     |     |      |

## APPENDIX F

### Arun DC Surface Water Drainage Proposal Checklist



## Surface Water Drainage Proposal Checklist

This 'Surface Water Drainage Proposals Checklist' has been designed to clearly define Arun District Council's and Chichester District Council's expectations and requirements for any surface water drainage proposals, submitted for appraisal by the council's Engineers, during the planning process.

Please be aware that it is in your interest to provide all of the requested information, as this will allow the council's Engineers to quickly and efficiently review your proposals. The omission of any requested information may lead to delays in the planning process.

This document will be of help to any applicant, or drainage consultant, preparing to submit a 'Discharge of Conditions Application' relating to surface water drainage conditions. Alternatively, it can also be used earlier in the planning process, if the applicant wishes to avoid pre-commencement conditions relating to surface water drainage. The Town and Country Planning Regulations now require pre-commencement conditions to have the prior agreement of the applicant regarding their wording and use. Therefore, if you wish to avoid pre-commencement conditions, in relation to surface water drainage, you will need to submit proposals that provide the information requested in this checklist and also align with the requirements of the following documents:

'Supplementary Requirements for Surface Water Drainage Proposals'. (Arun DC)

'Supplementary Requirements for Surface Water Drainage Proposals'. (Chichester DC)

By submitting all of the information requested by this checklist you will enable the council's Engineers to determine whether your proposals follow the hierarchy for sustainable drainage and will adequately drain the site.

Please be aware that it will be difficult for the council's Engineers to undertake a timely assessment of your application if you fail to provide any of the information requested.



## Surface Water Drainage Proposal Checklist

| Ground Investigation Results                                                                 |                   |                                     |    |
|----------------------------------------------------------------------------------------------|-------------------|-------------------------------------|----|
| Results Required                                                                             | Results Provided? |                                     |    |
| Winter groundwater monitoring results <small>(Please refer to guidance note 1 below)</small> | Yes               | <input checked="" type="checkbox"/> | No |
| Period of winter groundwater monitoring <small>Note 1</small>                                | From              | 24/10/2019                          |    |
|                                                                                              | To                | 26/02/2020                          |    |
| Maximum recorded groundwater level                                                           |                   | 5.850 mAOD<br>1.350 mBGL            |    |
| Winter infiltration test results <small>Note 2</small>                                       | Yes               | <input checked="" type="checkbox"/> | No |
| Date of winter infiltration testing                                                          |                   | 24/02/2020                          |    |
| Details of the location and depth of the infiltration testing <small>Note 3</small>          | Yes               | <input checked="" type="checkbox"/> | No |
| Minimum infiltration rate <small>Note 4</small>                                              |                   | 1.3 x 10 <sup>-6</sup> m/s          |    |

### Guidance Notes

- Groundwater monitoring should be undertaken during the wet winter months, (October to March) to enable the peak annual groundwater levels to be established. The extent of winter monitoring should be discussed with the council's Engineers.
- Infiltration testing should be undertaken during the wet winter months, (October to March) and in line with BRE365, or a similar approved method. Tests should be repeated 3x, to replicate saturated ground conditions.
- Infiltration testing should be undertaken at the location and depth of any proposed infiltration structures. This must be above the maximum recorded groundwater level in that vicinity.
- The minimum infiltration rate obtained at the location and depth of the proposed infiltration structures should be used to inform the design of the structures.

| Proposed Method of Surface Water Disposal                                                                  |     |                                     |    |
|------------------------------------------------------------------------------------------------------------|-----|-------------------------------------|----|
| Infiltration                                                                                               | Yes | <input checked="" type="checkbox"/> | No |
| On-site, via soak-away structures                                                                          |     |                                     |    |
| If on-site infiltration is not to be used, has justification for this been provided? <small>Note 5</small> | Yes | <input type="checkbox"/>            | No |
| Attenuation (on-site) with a restricted discharge to a watercourse on, or adjacent to, the site            | Yes | <input type="checkbox"/>            | No |
| Attenuation (on-site) with a restricted discharge to a surface water sewer on, or adjacent to, the site    | Yes | <input type="checkbox"/>            | No |
| Attenuation (on-site) with a restricted discharge to a foul water sewer on, or adjacent to, the site       | Yes | <input type="checkbox"/>            | No |

### Guidance Notes

- If on-site infiltration is not being used to drain the site you will need to provide evidence that demonstrates on-site infiltration is unviable.

| Drainage Design: Supporting Calculations        |                                                                                                                                                                                                                                                                 |     |                                     |                        |                          |       |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------|------------------------|--------------------------|-------|
| Calculations Required                           |                                                                                                                                                                                                                                                                 |     |                                     | Calculations Provided? |                          |       |
| Infiltration Structures                         | Half-drain time for 10 year event (plus climate change allowance)                                                                                                                                                                                               | Yes | <input checked="" type="checkbox"/> | No                     |                          |       |
|                                                 |                                                                                                                                                                                                                                                                 |     |                                     |                        | 16.5                     | Hours |
|                                                 | Half-drain time for 100 year event (plus climate change allowance)                                                                                                                                                                                              | Yes | <input checked="" type="checkbox"/> | No                     |                          |       |
|                                                 |                                                                                                                                                                                                                                                                 |     |                                     |                        | 34                       | Hours |
|                                                 | Calculations demonstrating that the 1 in 100 year event, plus climate change allowance can be accommodated on-site. <small>Note 7</small>                                                                                                                       | Yes | <input checked="" type="checkbox"/> | No                     |                          |       |
| Attenuation and Subsequent Restricted Discharge | Lowest base level of infiltration structure                                                                                                                                                                                                                     |     |                                     |                        | 6.300 mAOD<br>0.800 mBGL |       |
|                                                 | Has the design sought to provide treatment of potential contaminants? i.e. hydrocarbons.                                                                                                                                                                        | Yes | <input checked="" type="checkbox"/> | No                     |                          |       |
|                                                 | Pre-development run-off rate calculations                                                                                                                                                                                                                       | Yes |                                     | No                     |                          |       |
|                                                 | Proposed discharge rate <small>Note 6</small>                                                                                                                                                                                                                   |     |                                     |                        |                          | l/s   |
|                                                 | Calculations demonstrating that the 1 in 100 year event, plus climate change allowance can be accommodated on-site. <small>Note 7</small>                                                                                                                       | Yes |                                     | No                     |                          |       |
| Attenuation and Subsequent Restricted Discharge | Has the design sought to provide treatment of potential contaminants? i.e. hydrocarbons.                                                                                                                                                                        | Yes |                                     | No                     |                          |       |
|                                                 | If your proposed scheme incorporates any impermeable lined attenuation features we require calculations to demonstrate that appropriate resistance to floatation (due to groundwater levels) is catered for in the design                                       | Yes |                                     | No                     |                          |       |
|                                                 | If you propose discharging into or altering an ordinary watercourse; have you sought Ordinary Watercourse/Land Drainage Consent? <small>Note 8</small>                                                                                                          | Yes |                                     | No                     |                          |       |
|                                                 | If discharging to a watercourse, piped system or the sea, has the proposed drainage network been modelled against predicted top water levels for the 1 in 100 year storm event plus climate change allowance, within the existing system? <small>Note 9</small> | Yes |                                     | No                     |                          |       |

#### Guidance Notes

- Any proposed discharge rate must be less than, or equal to, the pre-development rate. Greenfield sites must use the mean flow rate (Q<sub>bar</sub>). Additionally, if you are developing a brownfield site, we expect you to provide fully detailed plans of the existing surface water drainage arrangements on site, including impermeable areas, gullies, outfalls, pipes & diameters, manholes, etc.
- The appropriate factor of safety from the table below must be applied to your calculations to ensure your design is fully in accordance with CIRIA R156/ CIRIA C609.

| Factor of Safety Table                  |                            |         |                                                     |         |                                             |         |
|-----------------------------------------|----------------------------|---------|-----------------------------------------------------|---------|---------------------------------------------|---------|
| Size of Area to be Drained              | Consequences of failure    |         |                                                     |         |                                             |         |
|                                         | No damage or inconvenience |         | Minor inconvenience, e.g. surface water on car park |         | Damage to buildings or structures or roads. |         |
|                                         | Cv=1.0                     | Cv=0.75 | Cv=1.0                                              | Cv=0.75 | Cv=1.0                                      | Cv=0.75 |
| <100 m <sup>2</sup>                     | 1.5                        | 2       | 2                                                   | 3       | 10                                          | 13      |
| 100m <sup>2</sup> to 1000m <sup>2</sup> | 1.5                        | 2       | 3                                                   | 4       | 10                                          | 13      |
| >1000m <sup>2</sup>                     | 1.5                        | 2       | 5                                                   | 6.5     | 10                                          | 13      |



8. Ordinary Watercourse/Land Drainage Consent will need to be sought, ideally in parallel with planning permission, if you propose discharging into, culverting or altering a watercourse.
9. Modelling is required to ensure that problems, such as surcharged outfalls, are addressed.

| Plans/Drawings/Diagrams                                                                                                                                                                                                                                                       |           |                                     |    |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------|----|-------------------------------------|
| Required                                                                                                                                                                                                                                                                      | Provided? |                                     |    |                                     |
| Plan detailing the location of groundwater monitoring and infiltration testing                                                                                                                                                                                                | Yes       | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Detailed drainage layout plan <small>Note 10</small>                                                                                                                                                                                                                          | Yes       | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Construction detail plans <small>Note 11</small>                                                                                                                                                                                                                              | Yes       | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Exceedance flow route plans <small>Note 12</small>                                                                                                                                                                                                                            | Yes       | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Impermeable area plan                                                                                                                                                                                                                                                         | Yes       | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| If ground levels are being raised $\geq 300\text{mm}$ above existing levels and is unavoidable, have fully detailed plans been provided, together with drainage proposals, to address any potential drainage related issues.                                                  | Yes       | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |
| If any part of the development site is within recognised flood plain i.e. 1 in 100 & 1 in 200 year fluvial/tidal events, have plans been provided showing the extents, together with any proposals for ground raising/displacement within these areas. <small>Note 13</small> | Yes       | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |

#### Guidance Notes

10. Drainage layout plans should include:
  - All surface water drainage pipes labelled with; diameters, pipe materials, falls and invert levels.
  - All infiltrating and attenuating structures (including permeable paving) labelled with; dimensions, invert and cover levels.
  - All manholes labelled with; cover levels, invert levels, cover types detailed.
  - All silt traps clearly labelled with sump depths.
  - Control structures with outflow rates and invert levels.
  - Proposed/existing levels of any areas subject to ground raising, together with suitable measures/detailed drawings for the associated management of surface water runoff. Please note that ground raising should be avoided unless there are exceptional circumstances.
11. Site specific construction detail plans should be supplied if your proposed drainage scheme includes any of the following elements: pipe bed and surround; infiltrating structures; attenuating structures; manholes; catch-pits/silt traps; control devices; permeable paving; headwalls.
12. Unless specifically requested by the council's drainage engineers 'Exceedance Flow Route Plans' are only required for developments of more than 5 properties.
13. Product 4 'Detailed flood risk assessment mapping data' (available from the Environment Agency) must also be provided in support. Plans/details will be required to mitigate any unavoidable loss of flood plain/storage. Please also be aware that Environment Agency approval of such proposals will also be required.

Version 2.0 (13.06.2019)