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|---|---|---|
| Firth Buildings | | |
| 99-101 Leeds Road | | |
| Dewsbury WF12 7BU | | |
| Date 01/01/0001 | Designed by j.mcbride | |
| File PRELIM DESIGN 4 FULL SI... | Checked by | |
| Micro Drainage | Network 2020.1 | |

Summary of Critical Results by Maximum Level (Rank 1) for PRELIM DESIGN 2.SWS

### Simulation Criteria

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

Number of Input Hydrographs 0 Number of Storage Structures 2
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

### Synthetic Rainfall Details

Rainfall Model   FSR   Ratio R 0.326
Return Period (years)   100 Cv (Summer) 0.750
Region England and Wales Cv (Winter) 0.840
M5-60 (mm)   19.000

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

Profile(s)   Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720
Sensitivity flows(s) (%)   0, +30

| PN | US/MH Name | Storm | Climate Change | First (X) Surcharge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|---|---|---|---|---|---|---|---|---|
| S1.000 | S1 | 15 Winter | +30% | | | | | 183.726 |
| S1.001 | S2 | 15 Winter | +30% | | | | | 181.723 |
| S2.000 | S18 | 15 Winter | +30% | +30%/15 Winter | | | | 181.386 |
| S1.002 | S3 | 15 Winter | +30% | +30%/15 Winter | | | | 181.123 |
| S1.003 | S4 | 15 Winter | +30% | | | | | 179.320 |
| S1.004 | S5 | 15 Winter | +30% | +30%/15 Winter | | | | 177.761 |
| S1.005 | S6 | 360 Winter | +30% | +0%/15 Winter | | | | 177.209 |
| S1.006 | S7 | 15 Winter | +30% | | | | | 175.367 |
| S1.007 | S8 | 15 Winter | +30% | | | | | 174.765 |
| S1.008 | S9 | 15 Winter | +30% | | | | | 174.273 |
| S3.000 | S19 | 15 Winter | +30% | | | | | 175.499 |
| S3.001 | S20 | 15 Winter | +30% | | | | | 174.594 |
| S1.009 | S10 | 15 Winter | +30% | | | | | 173.717 |
| S1.010 | S11 | 15 Winter | +30% | | | | | 172.952 |
| S4.000 | S21 | 15 Winter | +30% | +30%/15 Winter | | | | 172.639 |
| S1.011 | S12 | 15 Winter | +30% | +30%/15 Winter | | | | 172.523 |
| S1.012 | S13 | 15 Winter | +30% | +30%/15 Winter | | | | 171.511 |
| S5.000 | S22 | 15 Winter | +30% | +30%/15 Winter | | | | 175.053 |
| S5.001 | S23 | 15 Winter | +30% | +30%/15 Winter | | | | 173.837 |

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Summary of Critical Results by Maximum Level (Rank 1) for PRELIM DESIGN 2.SWS

| PN | US/MH Name | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Half Drain Time (mins) | Pipe Flow (l/s) | Status | Level Exceeded |
|---|---|---|---|---|---|---|---|---|---|
| S1.000 | S1 | -0.099 | 0.000 | 0.60 | | | 68.1 | OK | |
| S1.001 | S2 | -0.097 | 0.000 | 0.62 | | | 72.4 | OK | |
| S2.000 | S18 | 0.386 | 0.000 | 1.03 | | | 53.7 | SURCHARGED | |
| S1.002 | S3 | 0.354 | 0.000 | 1.12 | | | 136.4 | SURCHARGED | |
| S1.003 | S4 | -0.093 | 0.000 | 0.79 | | | 194.4 | OK | |
| S1.004 | S5 | 0.007 | 0.000 | 1.00 | | | 243.7 | SURCHARGED | |
| S1.005 | S6 | 1.416 | 0.000 | 0.09 | | | 4.5 | FLOOD RISK | |
| S1.006 | S7 | -0.175 | 0.000 | 0.36 | | | 60.7 | OK | |
| S1.007 | S8 | -0.177 | 0.000 | 0.35 | | | 60.7 | OK | |
| S1.008 | S9 | -0.140 | 0.000 | 0.56 | | | 96.7 | OK | |
| S3.000 | S19 | -0.151 | 0.000 | 0.24 | | | 27.8 | OK | |
| S3.001 | S20 | -0.110 | 0.000 | 0.52 | | | 56.1 | OK | |
| S1.009 | S10 | -0.115 | 0.000 | 0.69 | | | 152.8 | OK | |
| S1.010 | S11 | -0.103 | 0.000 | 0.76 | | | 167.2 | OK | |
| S4.000 | S21 | 0.145 | 0.000 | 0.77 | | | 64.3 | SURCHARGED | |
| S1.011 | S12 | 0.250 | 0.000 | 0.91 | | | 226.6 | SURCHARGED | |
| S1.012 | S13 | 0.515 | 0.000 | 1.09 | | | 291.3 | SURCHARGED | |
| S5.000 | S22 | 0.088 | 0.000 | 0.82 | | | 87.0 | SURCHARGED | |
| S5.001 | S23 | 0.866 | 0.000 | 0.98 | | | 125.6 | SURCHARGED | |

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Summary of Critical Results by Maximum Level (Rank 1) for PRELIM DESIGN 2.SWS

| PN | US/MH Name | Storm | Climate Change | First (X) Surcharge | First (Y) Flood | First (Z) Overflow | Overflow Act. | Water Level (m) |
|---|---|---|---|---|---|---|---|---|
| S5.002 | S24 | 15 Winter | +30% | +0%/15 Winter | | | | 171.316 |
| S5.003 | S25 | 15 Winter | +30% | +0%/15 Winter | | | | 169.578 |
| S6.000 | S26 | 360 Winter | +30% | +0%/120 Winter | | | | 169.554 |
| S1.013 | S14 | 360 Winter | +30% | +0%/15 Winter | | | | 169.564 |
| S1.014 | S15 | 600 Winter | +30% | | | | | 167.165 |
| S1.015 | S16 | 720 Winter | +30% | | | | | 166.938 |

| PN | US/MH Name | Surcharged Depth (m) | Flooded Volume (m³) | Flow / Cap. | Overflow (l/s) | Half Drain Time (mins) | Pipe Flow (l/s) | Status | Level Exceeded |
|---|---|---|---|---|---|---|---|---|---|
| S5.002 | S24 | 0.958 | 0.000 | 1.34 | | | 158.4 | FLOOD RISK | |
| S5.003 | S25 | 0.181 | 0.000 | 1.39 | | | 157.7 | SURCHARGED | |
| S6.000 | S26 | 0.866 | 0.000 | 0.01 | | | 13.2 | SURCHARGED | |
| S1.013 | S14 | 1.939 | 0.000 | 0.38 | | | 14.6 | SURCHARGED | |
| S1.014 | S15 | −0.385 | 0.000 | 0.05 | | | 14.6 | OK | |
| S1.015 | S16 | −0.362 | 0.000 | 0.09 | | | 14.6 | OK | |