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| Project Sale, Manchester | | | | Job no. 1/21541 | |
| Calcs for | | | | Start page no./Revision 1 | |
| Calcs by CN | Calcs date 27/01/2023 | Checked by | Checked date | Approved by | Approved date |

DESIGN RAINFALL

In accordance with the Wallingford Procedure

Tedds calculation version 2.0.01

Design rainfall intensity

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| Location of catchment area | Manchester |
| Storm duration | D = 15 min |
| Return period | Period = 1 yr |
| Ratio 60 min to 2 day rainfall of 5 yr return period | r = 0.360 |
| 5-year return period rainfall of 60 minutes duration | M5_60min = 18.0 mm |
| Increase of rainfall intensity due to global warming | p _{climate} = 0 % |
| Factor Z1 (Wallingford procedure) | Z1 = 0.62 |
| Rainfall for 15min storm with 5 year return period | M5_15min _i = Z1 * M5_60min = 11.2 mm |
| Factor Z2 (Wallingford procedure) | Z2 = 0.61 |
| Rainfall for 15min storm with 1 year return period | M1_15min = Z2 * M5_15min _i = 6.8 mm |
| Design rainfall intensity | I _{max} = M1_15min / D = 27.3 mm/hr |

Maximum surface water runoff

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| Catchment area | A _{catch} = 2158 m ² |
| Percentage of area that is impermeable | p = 59 % |
| Maximum surface water runoff | Q _{max} = A _{catch} * p * I _{max} = 9.7 l/s |