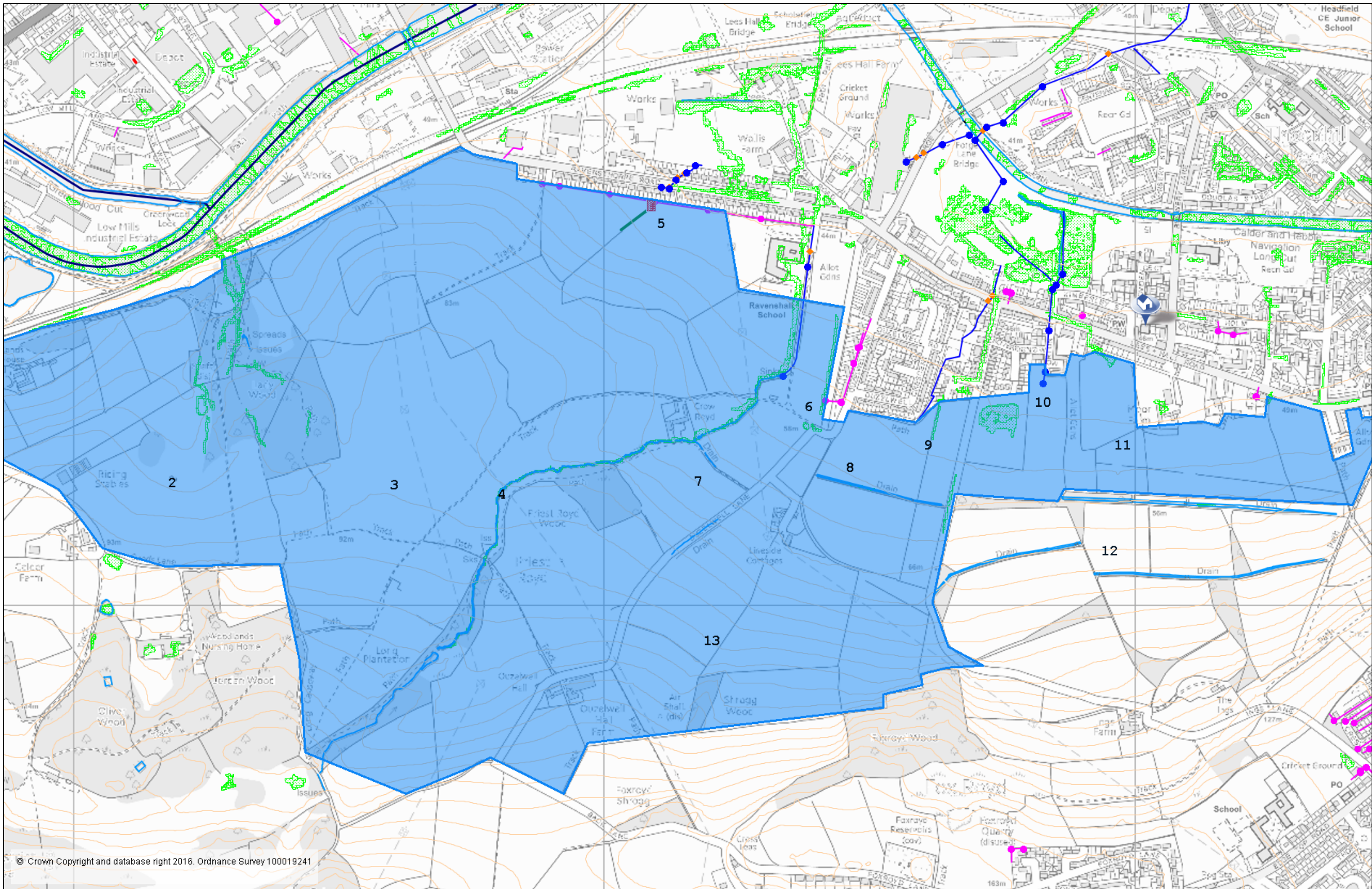
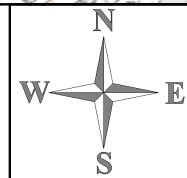
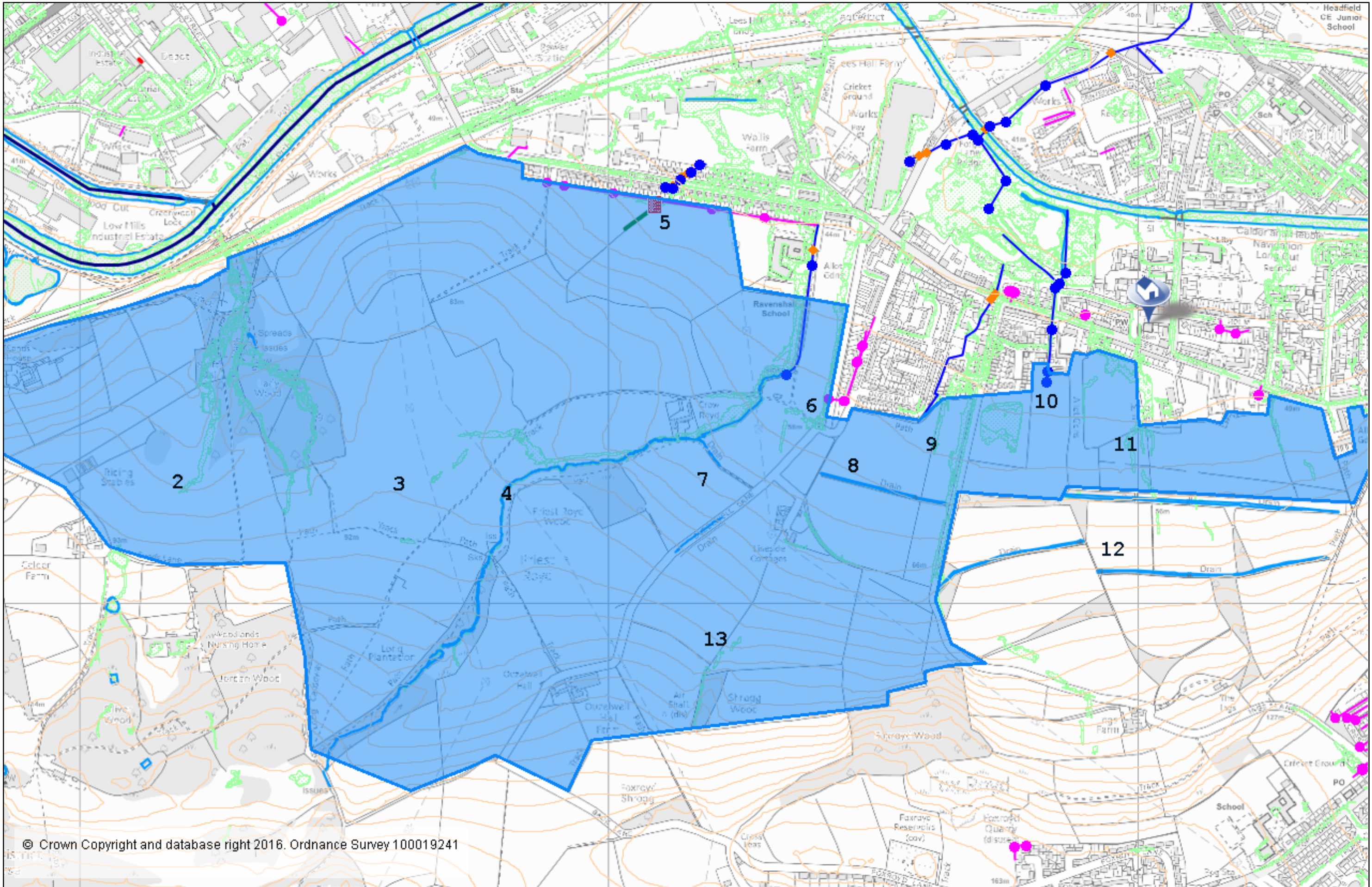




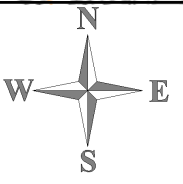
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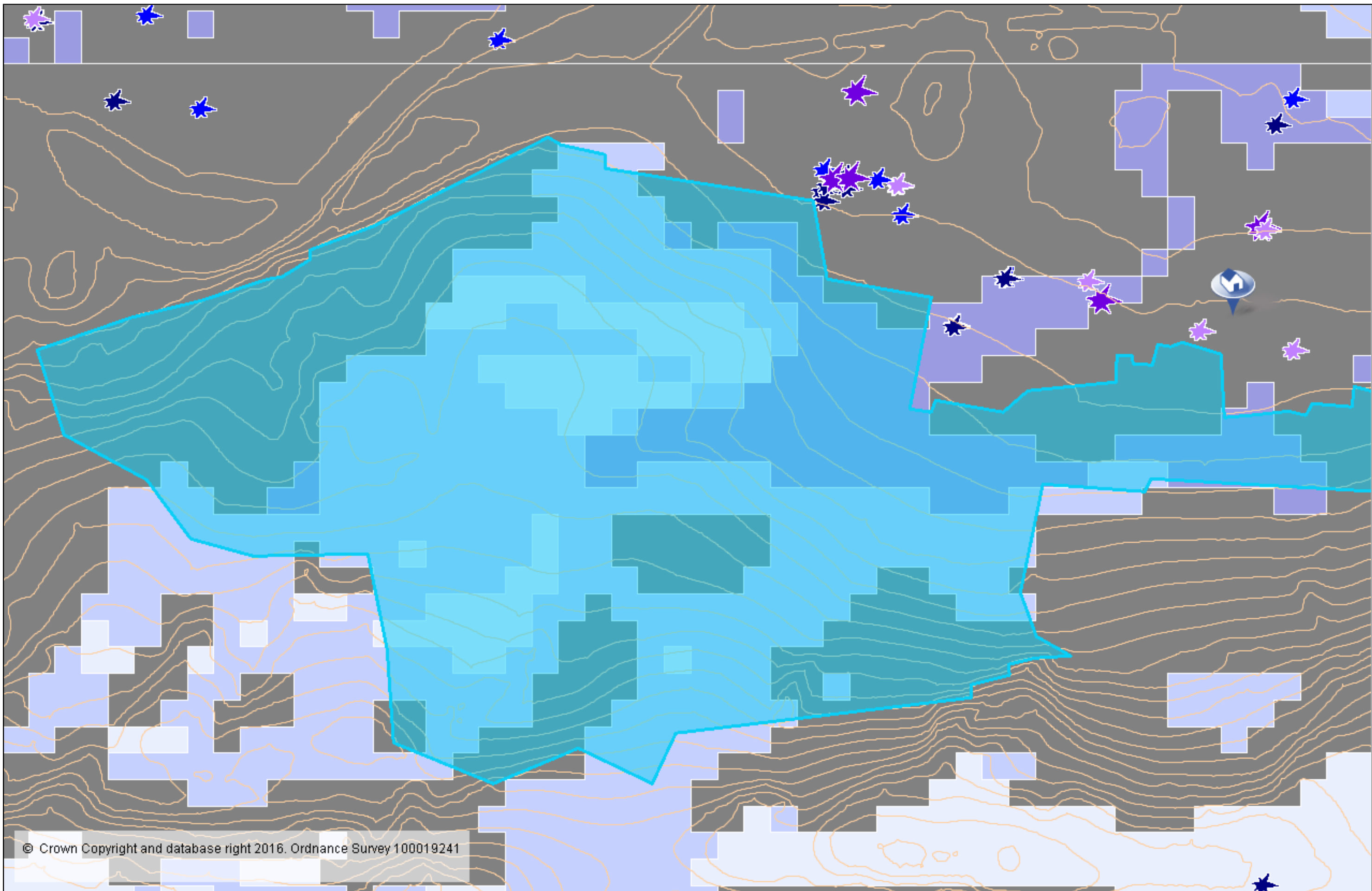




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Thornhill Lees Methodist Church, Lees Hall Road, Thornhill Lees, Dewsbury, WF12 9HF, UPRN=83193498





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Thornhill Lees Methodist Church, Lees Hall Road, Thornhill Lees, Dewsbury, WF12 9HF, UPRN=83193498

0 m 300 m 600 m

Scale 1: 6592



APPENDIX F

PROPOSED LAYOUT

KEY

- Approximate Site Boundary
- Dwellings
- Garages
- Driveway
- Footpath / Bridleway
- Highway
- Shared Surface
- Private Drive
- Back Gardens
- Front Gardens
- Soft Landscape
- Verge Tree Planting



South Dewsbury | Indicative Masterplan A

CLIENT: MILLER HOMES
SCALE: NOT TO SCALE
DATE: 01/11/2016

STATUS:
REVISION:
DRAWN BY:

SKETCH
A
AS

CHECKED BY:
FILE NAME:
PSD NAME:

CM
P0-MP-SPA-IL-P3565-0001-00
PR-ILLUSTRIVE_MASTERPLAN_A

NOTES:

Important Notice: Do not scale off this drawing. Critical dimensions should be checked on site prior to works commencing. Dimensional conflicts should be brought to the company's attention as soon as they become apparent. Failure to do so could render the contractor liable for subsequent losses. Copyright in this drawing and any work executed from this drawing remains the property of Spawforth. © Copyright Spawforth 2013

APPENDIX G

EXISTING SURFACE WATER RUN-OFF CALCULATIONS

ARP Associates

Northwest House

Servia Hill

Leeds LS6 2QH

Date 17/11/16

File 1in30yr Ravensthorpe Rd...

Elstree Computing Ltd

Miller Homes Yorkshire

425/64 Ravensthorpe Rd, S Dews

1in30yr Storage at 7.3l/s

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Page 1



Summary of Results for 30 year Return Period

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	100.292	0.292	7.3	0.0	7.3	408.2	OK
30 min Summer	100.386	0.386	7.3	0.0	7.3	540.7	OK
60 min Summer	100.488	0.488	7.3	0.0	7.3	683.4	OK
120 min Summer	100.595	0.595	7.3	0.0	7.3	832.9	OK
180 min Summer	100.657	0.657	7.3	0.0	7.3	920.2	OK
240 min Summer	100.700	0.700	7.3	0.0	7.3	979.9	OK
360 min Summer	100.757	0.757	7.3	0.0	7.3	1059.5	OK
480 min Summer	100.793	0.793	7.3	0.0	7.3	1110.8	OK
600 min Summer	100.818	0.818	7.3	0.0	7.3	1145.2	Flood Risk
720 min Summer	100.835	0.835	7.3	0.0	7.3	1168.4	Flood Risk
960 min Summer	100.852	0.852	7.3	0.0	7.3	1193.4	Flood Risk
1440 min Summer	100.854	0.854	7.3	0.0	7.3	1196.2	Flood Risk
2160 min Summer	100.839	0.839	7.3	0.0	7.3	1174.2	Flood Risk
2880 min Summer	100.816	0.816	7.3	0.0	7.3	1142.8	Flood Risk
4320 min Summer	100.763	0.763	7.3	0.0	7.3	1068.9	OK
5760 min Summer	100.705	0.705	7.3	0.0	7.3	986.9	OK
7200 min Summer	100.637	0.637	7.3	0.0	7.3	892.0	OK
8640 min Summer	100.575	0.575	7.3	0.0	7.3	804.4	OK
10080 min Summer	100.518	0.518	7.3	0.0	7.3	725.6	OK
15 min Winter	100.327	0.327	7.3	0.0	7.3	457.5	OK
30 min Winter	100.433	0.433	7.3	0.0	7.3	606.4	OK

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
15 min Summer	68.836	0.0	362.6	0.0	19
30 min Summer	45.828	0.0	479.3	0.0	34
60 min Summer	29.238	0.0	672.4	0.0	64
120 min Summer	18.112	0.0	831.3	0.0	124
180 min Summer	13.534	0.0	926.7	0.0	184
240 min Summer	10.952	0.0	992.2	0.0	242
360 min Summer	8.106	0.0	1077.3	0.0	362
480 min Summer	6.544	0.0	1117.8	0.0	482
600 min Summer	5.539	0.0	1120.0	0.0	602
720 min Summer	4.832	0.0	1107.8	0.0	722
960 min Summer	3.892	0.0	1079.1	0.0	960
1440 min Summer	2.866	0.0	1024.2	0.0	1368
2160 min Summer	2.108	0.0	1783.6	0.0	1708
2880 min Summer	1.693	0.0	1893.1	0.0	2100
4320 min Summer	1.242	0.0	1904.8	0.0	2936
5760 min Summer	0.996	0.0	2284.5	0.0	3752
7200 min Summer	0.839	0.0	2404.3	0.0	4544
8640 min Summer	0.730	0.0	2506.3	0.0	5280
10080 min Summer	0.648	0.0	2589.8	0.0	6048
15 min Winter	68.836	0.0	406.4	0.0	19
30 min Winter	45.828	0.0	529.6	0.0	33

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Summary of Results for 30 year Return Period

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
60 min Winter	100.548	0.548	7.3	0.0	7.3	767.0	OK
120 min Winter	100.669	0.669	7.3	0.0	7.3	937.2	OK
180 min Winter	100.741	0.741	7.3	0.0	7.3	1037.1	OK
240 min Winter	100.789	0.789	7.3	0.0	7.3	1104.5	OK
360 min Winter	100.854	0.854	7.3	0.0	7.3	1195.3	Flood Risk
480 min Winter	100.897	0.897	7.3	0.0	7.3	1255.5	Flood Risk
600 min Winter	100.927	0.927	7.3	0.0	7.3	1297.1	Flood Risk
720 min Winter	100.948	0.948	7.3	0.0	7.3	1326.5	Flood Risk
960 min Winter	100.973	0.973	7.3	0.0	7.3	1361.7	Flood Risk
1440 min Winter	100.985	0.985	7.3	0.0	7.3	1378.5	Flood Risk
2160 min Winter	100.961	0.961	7.3	0.0	7.3	1344.8	Flood Risk
2880 min Winter	100.932	0.932	7.3	0.0	7.3	1305.3	Flood Risk
4320 min Winter	100.858	0.858	7.3	0.0	7.3	1200.5	Flood Risk
5760 min Winter	100.772	0.772	7.3	0.0	7.3	1081.1	OK
7200 min Winter	100.674	0.674	7.3	0.0	7.3	944.1	OK
8640 min Winter	100.569	0.569	7.3	0.0	7.3	796.7	OK
10080 min Winter	100.481	0.481	7.3	0.0	7.3	673.3	OK

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
60 min Winter	29.238	0.0	753.0	0.0	64
120 min Winter	18.112	0.0	926.6	0.0	122
180 min Winter	13.534	0.0	1025.8	0.0	180
240 min Winter	10.952	0.0	1088.2	0.0	240
360 min Winter	8.106	0.0	1141.3	0.0	358
480 min Winter	6.544	0.0	1135.5	0.0	474
600 min Winter	5.539	0.0	1122.6	0.0	590
720 min Winter	4.832	0.0	1109.6	0.0	706
960 min Winter	3.892	0.0	1086.2	0.0	932
1440 min Winter	2.866	0.0	1047.8	0.0	1370
2160 min Winter	2.108	0.0	1986.4	0.0	1796
2880 min Winter	1.693	0.0	2084.3	0.0	2220
4320 min Winter	1.242	0.0	1971.7	0.0	3156
5760 min Winter	0.996	0.0	2558.7	0.0	4088
7200 min Winter	0.839	0.0	2692.7	0.0	4976
8640 min Winter	0.730	0.0	2808.2	0.0	5704
10080 min Winter	0.648	0.0	2904.5	0.0	6448

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	100.248	0.248	7.3	0.0	7.3	743.2	0 K
30 min Summer	100.332	0.332	7.3	0.0	7.3	996.5	0 K
60 min Summer	100.424	0.424	7.3	0.0	7.3	1272.9	0 K
120 min Summer	100.521	0.521	7.3	0.0	7.3	1564.2	0 K
180 min Summer	100.578	0.578	7.3	0.0	7.3	1733.7	0 K
240 min Summer	100.616	0.616	7.3	0.0	7.3	1848.4	0 K
360 min Summer	100.670	0.670	7.3	0.0	7.3	2010.2	0 K
480 min Summer	100.709	0.709	7.3	0.0	7.3	2126.8	0 K
600 min Summer	100.738	0.738	7.3	0.0	7.3	2213.6	0 K
720 min Summer	100.760	0.760	7.3	0.0	7.3	2280.6	0 K
960 min Summer	100.792	0.792	7.3	0.0	7.3	2375.8	0 K
1440 min Summer	100.826	0.826	7.3	0.0	7.3	2477.3	Flood Risk
2160 min Summer	100.840	0.840	7.3	0.0	7.3	2519.1	Flood Risk
2880 min Summer	100.832	0.832	7.3	0.0	7.3	2496.7	Flood Risk
4320 min Summer	100.806	0.806	7.3	0.0	7.3	2417.6	Flood Risk
5760 min Summer	100.776	0.776	7.3	0.0	7.3	2327.9	0 K
7200 min Summer	100.745	0.745	7.3	0.0	7.3	2233.8	0 K
8640 min Summer	100.713	0.713	7.3	0.0	7.3	2139.7	0 K
10080 min Summer	100.680	0.680	7.3	0.0	7.3	2039.0	0 K
15 min Winter	100.278	0.278	7.3	0.0	7.3	832.7	0 K
30 min Winter	100.372	0.372	7.3	0.0	7.3	1116.8	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	513.5	0.0	19
30 min Summer	83.789	0.0	609.3	0.0	34
60 min Summer	53.779	0.0	1087.2	0.0	64
120 min Summer	33.337	0.0	1217.7	0.0	124
180 min Summer	24.832	0.0	1216.7	0.0	184
240 min Summer	20.006	0.0	1201.2	0.0	244
360 min Summer	14.706	0.0	1160.3	0.0	364
480 min Summer	11.818	0.0	1118.4	0.0	484
600 min Summer	9.966	0.0	1087.2	0.0	602
720 min Summer	8.665	0.0	1063.1	0.0	722
960 min Summer	6.943	0.0	1027.4	0.0	962
1440 min Summer	5.071	0.0	985.1	0.0	1442
2160 min Summer	3.696	0.0	2120.1	0.0	2160
2880 min Summer	2.949	0.0	2036.7	0.0	2796
4320 min Summer	2.142	0.0	1882.9	0.0	3460
5760 min Summer	1.705	0.0	3794.4	0.0	4216
7200 min Summer	1.427	0.0	3877.6	0.0	5048
8640 min Summer	1.235	0.0	3805.0	0.0	5880
10080 min Summer	1.093	0.0	3657.8	0.0	6752
15 min Winter	124.633	0.0	559.8	0.0	19
30 min Winter	83.789	0.0	620.4	0.0	34

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Overflow (l/s)	Max Outflow (l/s)	Max Volume (m³)	Status
60 min Winter	100.476	0.476	7.3	0.0	7.3	1427.0	0 K
120 min Winter	100.585	0.585	7.3	0.0	7.3	1755.3	0 K
180 min Winter	100.649	0.649	7.3	0.0	7.3	1947.7	0 K
240 min Winter	100.693	0.693	7.3	0.0	7.3	2078.8	0 K
360 min Winter	100.754	0.754	7.3	0.0	7.3	2263.4	0 K
480 min Winter	100.798	0.798	7.3	0.0	7.3	2395.0	0 K
600 min Winter	100.831	0.831	7.3	0.0	7.3	2493.9	Flood Risk
720 min Winter	100.857	0.857	7.3	0.0	7.3	2571.1	Flood Risk
960 min Winter	100.894	0.894	7.3	0.0	7.3	2683.1	Flood Risk
1440 min Winter	100.937	0.937	7.3	0.0	7.3	2809.7	Flood Risk
2160 min Winter	100.959	0.959	7.3	0.0	7.3	2877.3	Flood Risk
2880 min Winter	100.958	0.958	7.3	0.0	7.3	2873.4	Flood Risk
4320 min Winter	100.924	0.924	7.3	0.0	7.3	2771.5	Flood Risk
5760 min Winter	100.886	0.886	7.3	0.0	7.3	2658.7	Flood Risk
7200 min Winter	100.845	0.845	7.3	0.0	7.3	2534.8	Flood Risk
8640 min Winter	100.802	0.802	7.3	0.0	7.3	2406.0	Flood Risk
10080 min Winter	100.758	0.758	7.3	0.0	7.3	2272.6	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
60 min Winter	53.779	0.0	1175.8	0.0	64
120 min Winter	33.337	0.0	1224.2	0.0	122
180 min Winter	24.832	0.0	1198.1	0.0	182
240 min Winter	20.006	0.0	1164.1	0.0	242
360 min Winter	14.706	0.0	1115.0	0.0	360
480 min Winter	11.818	0.0	1085.3	0.0	478
600 min Winter	9.966	0.0	1066.0	0.0	596
720 min Winter	8.665	0.0	1053.1	0.0	714
960 min Winter	6.943	0.0	1040.9	0.0	946
1440 min Winter	5.071	0.0	1039.3	0.0	1412
2160 min Winter	3.696	0.0	2138.9	0.0	2096
2880 min Winter	2.949	0.0	2079.5	0.0	2764
4320 min Winter	2.142	0.0	1990.7	0.0	3936
5760 min Winter	1.705	0.0	4161.3	0.0	4488
7200 min Winter	1.427	0.0	4088.5	0.0	5408
8640 min Winter	1.235	0.0	3906.4	0.0	6320
10080 min Winter	1.093	0.0	3718.1	0.0	7264

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