

**APPENDIX D:
EXISTING SYSTEM MODEL RESULTS**



Existing Conditions Hydrologic Model Results Summary

Point of Interest / Culvert Crossing	Peak Flow (m ³ /s) – SCS 6 Hour Design Storms				
	1:5 Year	1:10 Year	1:25 Year	1:50 Year	1:100 Year
Howard Crescent	3.7	5.0	6.8	8.3	9.8
Grove Street (A)	5.7	7.6	10.4	12.8	15.0
St. Vincent Street	6.9	9.3	12.5	15.4	18.0
Ottaway Avenue/Rose Street	4.7	7.7	11.3	14.1	17.0
Laurie Crescent	5.4	8.5	12.4	15.4	18.7
Bothwell Crescent	15.0	21.2	30.4	37.3	44.4
Grove Street (C)	16.3	22.7	32.5	39.9	47.4
Parkdale Street	16.2	22.6	32.3	39.8	47.3
Davidson Street/Gunn Street	16.9	23.5	33.6	41.3	49.1
Wellington Street/Berczy Street	18.3	25.2	36.0	44.3	52.4
Peel Street (Trunk Storm Sewer)	19.2	26.4	37.5	46.3	54.9

Point of Interest / Culvert Crossing	Peak Flow (m ³ /s) – Chicago 4 Hour Design Storms				
	1:5 Year	1:10 Year	1:25 Year	1:50 Year	1:100 Year
Howard Crescent	2.8	3.6	4.8	5.7	6.9
Grove Street (A)	4.2	5.5	7.4	8.8	10.7
St. Vincent Street	5.1	6.7	8.9	10.7	12.8
Ottaway Avenue/Rose Street	3.2	4.6	7.3	9.2	11.2
Laurie Crescent	3.7	5.3	8.2	10.2	12.5
Bothwell Crescent	10.8	14.5	20.5	25.2	30.2
Grove Street (C)	11.8	15.7	22.0	27.0	32.4
Parkdale Street	11.8	15.7	22.0	26.9	32.4
Davidson Street/Gunn Street	12.3	16.4	22.8	28.0	33.6
Wellington Street/Berczy Street	13.4	17.9	24.6	30.1	36.2
Peel Street (Trunk Storm Sewer)	14.1	18.8	25.7	31.5	37.8

Point of Interest / Culvert Crossing	Peak Flow (m ³ /s)			
	1:100 Year SCS	Timmins	Hurricane Hazel	Regulatory Storm
Howard Crescent	9.8	4.8	6.5	9.8
Grove Street (A)	15.0	7.0	9.4	15.0
St. Vincent Street	18.0	8.7	11.7	18.0
Ottaway Avenue/Rose Street	17.0	8.3	11.4	17.0
Laurie Crescent	18.7	10.3	13.8	18.7
Bothwell Crescent	44.4	23.0	30.6	44.4
Grove Street (C)	47.4	24.6	32.8	47.4
Parkdale Street	47.3	25.0	33.3	47.3
Davidson Street/Gunn Street	49.1	26.1	34.8	49.1
Wellington Street/Berczy Street	52.4	28.5	37.9	52.4
Peel Street (Trunk Storm Sewer)	54.9	30.3	40.6	54.9

Note: Regulatory Storm – 100 Year 6 Hour SCS Design Storm

Existing Conditions Hydrologic Model Results Summary

Point of Interest / Culvert Crossing	Peak Flow (m ³ /s) – SCS 12 Hour Design Storms				
	1:5 Year	1:10 Year	1:25 Year	1:50 Year	1:100 Year
Howard Crescent	3.5	4.6	6.3	7.5	8.9
Grove Street (A)	5.4	7.1	9.6	11.3	13.6
St. Vincent Street	6.5	8.6	11.5	13.7	16.3
Ottaway Avenue/Rose Street	4.1	7.0	10.4	12.8	15.2
Laurie Crescent	4.8	7.7	11.2	14.1	16.8
Bothwell Crescent	14.0	19.3	27.4	33.8	40.0
Grove Street (C)	15.2	20.7	29.4	36.2	42.6
Parkdale Street	15.1	20.7	29.2	36.0	42.5
Davidson Street/Gunn Street	15.8	21.5	30.3	37.4	44.2
Wellington Street/Berczy Street	17.1	23.1	32.4	40.1	47.4
Peel Street (Trunk Storm Sewer)	18.0	24.3	33.8	41.8	49.6

Point of Interest / Culvert Crossing	Peak Flow (m ³ /s) – SCS 24 Hour Design Storms				
	1:5 Year	1:10 Year	1:25 Year	1:50 Year	1:100 Year
Howard Crescent	3.7	4.9	6.7	8.0	9.5
Grove Street (A)	5.7	7.6	10.2	12.0	14.4
St. Vincent Street	6.9	9.2	12.3	14.5	17.2
Ottaway Avenue/Rose Street	4.8	7.7	11.2	14.0	16.3
Laurie Crescent	5.5	8.4	12.3	15.4	18.1
Bothwell Crescent	15.0	20.9	29.5	36.1	42.6
Grove Street (C)	16.3	22.5	31.7	38.6	45.5
Parkdale Street	16.1	22.3	31.4	38.5	45.4
Davidson Street/Gunn Street	16.9	23.2	32.6	39.9	47.2
Wellington Street/Berczy Street	18.4	24.9	34.9	42.8	50.7
Peel Street (Trunk Storm Sewer)	19.3	26.1	36.5	44.8	53.0

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V V I SSSSS U U A L
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***** SUMMARY OUTPUT *****

Input filename: C:\Program Files (x86)\VH Suite 3.0\VO2\vo1n.dat
 Output filename: C:\Users\dtwiggger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\Scenario.out
 Summary filename: C:\Users\dtwiggger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\Scenario.sum

DATE: 09/29/2016 TIME: 10:00:46
 USER:

EXISTING CONDITIONS HYDROLOGIC MODEL RESULTS

COMMENTS: _____

 ** SIMULATION NUMBER: 1 ** **1:2 Year Chicago Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								

READ STORM								
[Ptot= 36.95 mm]								
fname : C:\Users\dtwiggger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\dc48ef45-2ee5-4cc7-9c0								
remark: * City of Barrie - 2 yr Chicago (4hr) + 15%								
** CALIB STANDHYD [I%=28.2; S%= 2.00]	0100	1 2.0	31.13	1.26	1.47	14.45	0.39	0.000
CHANNEL[2 : 0100]	0302	1 2.0	31.13	1.25	1.50	14.45	n/a	0.000
** CALIB STANDHYD [I%=24.8; S%= 2.00]	0105	1 2.0	9.01	0.50	1.33	16.59	0.45	0.000
** CALIB STANDHYD [I%=25.4; S%= 2.00]	0110	1 2.0	12.37	0.53	1.40	14.76	0.40	0.000
CHANNEL[2 : 0110]	0303	1 2.0	12.37	0.51	1.43	14.76	n/a	0.000
ADD [0105 + 0302]	0802	3 2.0	40.14	1.58	1.50	14.93	n/a	0.000
ADD [0802 + 0303]	0802	1 2.0	52.51	2.08	1.47	14.89	n/a	0.000
PIPE [2 : 0802]	0400	1 2.0	52.51	2.08	1.47	14.89	n/a	0.000
** CALIB STANDHYD [I%=39.4; S%= 2.00]	0113	1 2.0	9.41	0.70	1.37	18.88	0.51	0.000
CHANNEL[2 : 0113]	0301	1 2.0	9.41	0.60	1.40	18.88	n/a	0.000
** CALIB STANDHYD [I%=27.5; S%= 2.00]	0118	1 2.0	4.11	0.22	1.37	14.32	0.39	0.000
RESRVR [2 : 0118] {ST= 0.00 ha.m }	0600	1 2.0	4.11	0.19	1.43	14.36	n/a	0.000
CHANNEL[2 : 0600]	0300	1 2.0	4.11	0.15	1.53	14.35	n/a	0.000
** CALIB STANDHYD [I%=22.9; S%= 2.00]	0101	1 2.0	8.68	0.39	1.37	12.11	0.33	0.000
ADD [0101 + 0300]	0801	3 2.0	12.79	0.50	1.37	12.83	n/a	0.000

*	CHANNEL[2 : 0801]	0304	1 2.0	12.79	0.42	1.43	12.82	n/a	0.000
**	CALIB STANDHYD [I%=27.1; S%= 2.00]	0123	1 2.0	22.81	0.91	1.47	15.50	0.42	0.000
*	ADD [0123 + 0301]	0800	3 2.0	32.22	1.49	1.43	16.48	n/a	0.000
*	ADD [0800 + 0304]	0800	1 2.0	45.01	1.91	1.43	15.44	n/a	0.000
*	ADD [0800 + 0400]	0800	3 2.0	97.52	3.97	1.47	15.15	n/a	0.000
*	RESRVR [2 : 0800] {ST= 0.55 ha.m }	0601	1 2.0	97.52	1.64	2.03	14.86	n/a	0.000
*	PIPE [2 : 0601]	0403	1 2.0	97.52	1.64	2.07	14.86	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1 2.0	97.52	1.59	2.17	14.85	n/a	0.000
**	CALIB STANDHYD [I%=22.0; S%= 2.00]	0102	1 2.0	19.41	0.79	1.40	16.20	0.44	0.000
*	ADD [0102 + 0317]	0803	3 2.0	116.93	1.92	2.10	15.08	n/a	0.000
**	CALIB STANDHYD [I%=37.1; S%= 2.00]	0103	1 2.0	35.79	2.34	1.43	20.81	0.56	0.000
**	CALIB STANDHYD [I%=20.7; S%= 2.00]	0104	1 2.0	5.22	0.25	1.37	17.54	0.47	0.000
**	CALIB STANDHYD [I%=21.1; S%= 2.00]	0106	1 2.0	13.71	0.54	1.40	15.16	0.41	0.000
*	CALIB STANDHYD [I%=18.1; S%= 2.00]	0107	1 5.0	8.53	0.38	1.33	16.69	0.45	0.000
*	CALIB STANDHYD [I%=24.4; S%= 2.00]	0108	1 2.0	58.75	1.82	1.53	13.74	0.37	0.000
*	CHANNEL[2 : 0108]	0307	1 2.0	58.75	1.76	1.60	13.74	n/a	0.000
*	CALIB STANDHYD [I%= 3.0; S%= 2.00]	0109	1 2.0	13.70	0.50	1.57	13.94	0.38	0.000
*	ADD [0109 + 0307]	0806	3 2.0	72.45	2.25	1.60	13.78	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1 2.0	72.45	2.24	1.60	13.78	n/a	0.000
*	ADD [0107 + 0308]	0807	3 2.0	80.98	2.54	1.60	14.09	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1 2.0	80.98	2.52	1.63	14.09	n/a	0.000
*	ADD [0106 + 0306]	0804	3 2.0	94.69	2.95	1.63	14.24	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1 2.0	94.69	2.84	1.67	14.24	n/a	0.000
*	ADD [0104 + 0305]	0093	3 2.0	99.91	3.03	1.67	14.42	n/a	0.000
*	ADD [0103 + 0093]	0805	3 2.0	135.70	4.83	1.60	16.10	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1 2.0	135.70	4.71	1.63	16.10	n/a	0.000
*	ADD [0312 + 0803]	0094	3 2.0	252.63	6.21	1.67	15.63	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1 2.0	252.63	6.21	1.67	15.63	n/a	0.000
*	CALIB STANDHYD [I%=22.2; S%= 2.00]	0111	1 2.0	3.57	0.16	1.37	16.46	0.45	0.000
*	ADD [0111 + 0309]	0808	3 2.0	256.20	6.32	1.67	15.64	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1 2.0	256.20	6.32	1.70	15.64	n/a	0.000
*	CALIB STANDHYD [I%=23.9; S%= 2.00]	0112	1 2.0	16.90	0.76	1.43	17.76	0.48	0.000
*	ADD [0112 + 0310]	0809	3 2.0	273.10	6.93	1.67	15.77	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1 2.0	273.10	6.76	1.77	15.77	n/a	0.000
*	CALIB STANDHYD [I%=17.3; S%= 2.00]	0114	1 2.0	4.95	0.21	1.40	16.40	0.44	0.000
*	ADD [0114 + 0311]	0810	3 2.0	278.05	6.91	1.73	15.78	n/a	0.000

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* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 6.91 1.77 15.78 n/a 0.000
* CALI B STANDHYD [I%=28.8: S%= 2.00] 0115 1 2.0 12.66 0.59 1.43 15.75 0.43 0.000
* ADD [0115 + 0313] 0811 3 2.0 290.71 7.26 1.73 15.78 n/a 0.000
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 7.25 1.77 15.78 n/a 0.000
* CALI B STANDHYD [I%=25.5: S%= 2.00] 0116 1 2.0 26.63 1.24 1.40 15.42 0.42 0.000
* ADD [0116 + 0314] 0812 3 2.0 317.34 7.94 1.73 15.75 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 7.94 1.73 15.75 n/a 0.000
* CALI B STANDHYD [I%=25.1: S%= 2.00] 0117 1 2.0 27.32 1.10 1.40 12.10 0.33 0.000
* ADD [0117 + 0401] 0813 3 2.0 344.66 8.45 1.70 15.46 n/a 0.000
* CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 8.43 1.73 15.46 n/a 0.000
* CALI B STANDHYD [I%=26.9: S%= 2.00] 0119 1 2.0 16.91 0.69 1.43 13.30 0.36 0.000
* ADD [0119 + 0315] 0814 3 2.0 361.57 8.80 1.73 15.36 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 8.81 1.73 15.36 n/a 0.000
* CALI B STANDHYD [I%=20.9: S%= 2.00] 0120 1 2.0 17.04 0.60 1.40 10.98 0.30 0.000
* CHANNEL[ 2 : 0120] 0316 1 2.0 17.04 0.58 1.43 10.98 n/a 0.000
* CALI B STANDHYD [I%=14.6: S%= 2.00] 0121 1 2.0 1.39 0.05 1.33 7.97 0.22 0.000
* CALI B STANDHYD [I%=26.5: S%= 2.00] 0122 1 2.0 3.13 0.18 1.33 12.36 0.33 0.000
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.23 1.33 11.00 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 0.71 1.37 10.99 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 9.17 1.73 15.11 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 9.17 1.73 15.11 n/a 0.000
* CALI B STANDHYD [I%=33.4: S%= 2.00] 0124 1 2.0 21.61 1.30 1.37 14.88 0.40 0.000
* ADD [0124 + 0404] 0816 3 2.0 404.74 9.61 1.70 15.10 n/a 0.000
* DUHYD MAJOR SYSTEM: 0500 1 2.0 404.74 9.61 1.70 15.10 n/a 0.000
* MINOR SYSTEM: 0500 2 2.0 304.99 8.74 1.70 15.10 n/a 0.000
* 0500 3 2.0 99.74 0.87 1.17 15.10 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 304.99 8.74 1.73 15.10 n/a 0.000
* CALI B STANDHYD [I%=44.1: S%= 2.00] 0125 1 2.0 18.74 1.28 1.43 18.67 0.51 0.000
* ADD [0125 + 0405] 0817 3 2.0 323.73 9.41 1.70 15.31 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 99.74 0.87 1.53 15.10 n/a 0.000
* CALI B STANDHYD [I%=32.1: S%= 2.00] 0126 1 2.0 22.26 1.35 1.37 13.99 0.38 0.000
* ADD [0126 + 0408] 0820 3 2.0 122.00 2.22 1.37 14.90 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 122.00 2.22 1.37 14.90 n/a 0.000
* CALI B STANDHYD [I%=27.4: S%= 2.00] 0127 1 2.0 9.98 0.49 1.37 12.24 0.33 0.000
* ADD [0127 + 0406] 0818 3 2.0 131.98 2.70 1.37 14.70 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 131.98 2.65 1.40 14.70 n/a 0.000
* CALI B STANDHYD [I%=45.4: S%= 2.00] 0128 1 2.0 14.87 1.30 1.37 19.55 0.53 0.000

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* ADD [0128 + 0407] 0819 3 2.0 146.85 3.89 1.37 15.19 n/a 0.000
*****
** SIMULATION NUMBER: 2 ** 1:5 Year Chicago Design Storm
*****
W/E COMMAND HYD ID DT AREA Opeak Tpeak R.V. R.C. Obase
mi n ha cms hrs mm cms
START @ 0.00 hrs
READ STORM 10.0
[ Ptot= 50.52 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\A780b9b3-7787-4bbe-812
remark: * Ci ty of Barrie - 5 yr Chicago (4hr) + 15%
** CALI B STANDHYD 0100 1 2.0 31.13 1.90 1.43 22.20 0.44 0.000
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 1.88 1.47 22.20 n/a 0.000
** CALI B STANDHYD 0105 1 2.0 9.01 0.76 1.33 26.06 0.52 0.000
* CALI B STANDHYD 0110 1 2.0 12.37 0.80 1.40 23.03 0.46 0.000
* CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 0.77 1.43 23.03 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 2.48 1.47 23.07 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 3.25 1.47 23.06 n/a 0.000
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 3.25 1.47 23.06 n/a 0.000
** CALI B STANDHYD 0113 1 2.0 9.41 1.04 1.37 28.32 0.56 0.000
* CHANNEL[ 2 : 0113] 0301 1 2.0 9.41 0.92 1.43 28.31 n/a 0.000
** CALI B STANDHYD 0118 1 2.0 4.11 0.32 1.33 22.10 0.44 0.000
* RESRVR [ 2 : 0118] 0600 1 2.0 4.11 0.21 1.47 22.12 n/a 0.000
{ST= 0.01 ha.m }
* CHANNEL[ 2 : 0600] 0300 1 2.0 4.11 0.20 1.67 22.09 n/a 0.000
** CALI B STANDHYD 0101 1 2.0 8.68 0.57 1.33 18.90 0.37 0.000
* ADD [0101 + 0300] 0801 3 2.0 12.79 0.69 1.33 19.93 n/a 0.000
* CHANNEL[ 2 : 0801] 0304 1 2.0 12.79 0.59 1.40 19.92 n/a 0.000
** CALI B STANDHYD 0123 1 2.0 22.81 1.42 1.43 24.22 0.48 0.000
* ADD [0123 + 0301] 0800 3 2.0 32.22 2.34 1.43 25.41 n/a 0.000
* ADD [0800 + 0304] 0800 1 2.0 45.01 2.91 1.43 23.85 n/a 0.000
* ADD [0800 + 0400] 0800 3 2.0 97.52 6.15 1.43 23.43 n/a 0.000
* RESRVR [ 2 : 0800] 0601 1 2.0 97.52 3.16 1.90 23.14 n/a 0.000
{ST= 0.76 ha.m }
* PIPE [ 2 : 0601] 0403 1 2.0 97.52 3.16 1.90 23.14 n/a 0.000
* CHANNEL[ 2 : 0403] 0317 1 2.0 97.52 3.06 2.00 23.13 n/a 0.000
** CALI B STANDHYD 0102 1 2.0 19.41 1.30 1.43 25.79 0.51 0.000
* ADD [0102 + 0317] 0803 3 2.0 116.93 3.70 1.93 23.57 n/a 0.000
** CALI B STANDHYD 0103 1 2.0 35.79 3.52 1.43 31.47 0.62 0.000
* CALI B STANDHYD 0104 1 2.0 5.22 0.42 1.37 27.72 0.55 0.000
* CALI B STANDHYD 0106 1 2.0 13.71 0.87 1.43 24.05 0.48 0.000

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[I%=21.1:S%= 2.00]										
* *	CALI B STANDHYD	0107	1	5.0	8.53	0.63	1.33	26.62	0.53	0.000
*	[I%=18.1:S%= 2.00]									
* *	CALI B STANDHYD	0108	1	2.0	58.75	2.87	1.53	21.43	0.42	0.000
*	[I%=24.4:S%= 2.00]									
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	2.80	1.57	21.43	n/a	0.000
* *	CALI B STANDHYD	0109	1	2.0	13.70	0.95	1.50	23.38	0.46	0.000
*	[I%= 3.0:S%= 2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	3.70	1.53	21.80	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	3.69	1.57	21.80	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	4.23	1.57	22.31	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	4.20	1.60	22.31	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	4.99	1.57	22.56	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	4.79	1.63	22.56	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	5.10	1.63	22.83	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	7.90	1.57	25.11	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	7.70	1.60	25.11	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	10.61	1.70	24.40	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	10.62	1.70	24.40	n/a	0.000
* *	CALI B STANDHYD	0111	1	2.0	3.57	0.26	1.40	26.03	0.52	0.000
*	[I%=22.2:S%= 2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	10.79	1.70	24.42	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	10.79	1.70	24.42	n/a	0.000
* *	CALI B STANDHYD	0112	1	2.0	16.90	1.25	1.43	27.86	0.55	0.000
*	[I%=23.9:S%= 2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	11.76	1.67	24.63	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	11.54	1.73	24.63	n/a	0.000
* *	CALI B STANDHYD	0114	1	2.0	4.95	0.35	1.50	26.26	0.52	0.000
*	[I%=17.3:S%= 2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	11.78	1.73	24.66	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	11.77	1.73	24.66	n/a	0.000
* *	CALI B STANDHYD	0115	1	2.0	12.66	0.88	1.40	24.25	0.48	0.000
*	[I%=28.8:S%= 2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	12.31	1.73	24.64	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	12.30	1.73	24.64	n/a	0.000
* *	CALI B STANDHYD	0116	1	2.0	26.63	1.87	1.37	24.10	0.48	0.000
*	[I%=25.5:S%= 2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	13.39	1.73	24.60	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	13.39	1.73	24.60	n/a	0.000
* *	CALI B STANDHYD	0117	1	2.0	27.32	1.57	1.40	18.49	0.37	0.000
*	[I%=25.1:S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	14.22	1.70	24.11	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	14.10	1.77	24.11	n/a	0.000
* *	CALI B STANDHYD	0119	1	2.0	16.91	1.01	1.40	20.44	0.40	0.000
*	[I%=26.9:S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	14.65	1.73	23.94	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	14.65	1.77	23.94	n/a	0.000

* *	CALI B STANDHYD	0120	1	2.0	17.04	0.88	1.37	17.09	0.34	0.000
*	[I%=20.9:S%= 2.00]									
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	0.85	1.40	17.09	n/a	0.000
* *	CALI B STANDHYD	0121	1	2.0	1.39	0.06	1.33	12.68	0.25	0.000
*	[I%=14.6:S%= 2.00]									
* *	CALI B STANDHYD	0122	1	2.0	3.13	0.25	1.33	18.74	0.37	0.000
*	[I%=26.5:S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.31	1.33	16.88	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.09	1.37	17.05	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	15.22	1.73	23.55	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	15.21	1.77	23.55	n/a	0.000
* *	CALI B STANDHYD	0124	1	2.0	21.61	1.91	1.37	22.21	0.44	0.000
*	[I%=33.4:S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	15.85	1.73	23.48	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	15.85	1.73	23.48	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	334.35	14.98	1.73	23.48	n/a	0.000
*	MINOR SYSTEM:	0500	3	2.0	70.38	0.87	1.03	23.48	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	334.35	14.98	1.77	23.48	n/a	0.000
* **	CALI B STANDHYD	0125	1	2.0	18.74	1.85	1.40	27.38	0.54	0.000
*	[I%=44.1:S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	353.09	15.80	1.73	23.69	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	70.38	0.87	1.37	23.48	n/a	0.000
* **	CALI B STANDHYD	0126	1	2.0	22.26	1.93	1.33	20.87	0.41	0.000
*	[I%=32.1:S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	92.64	2.80	1.33	22.85	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	92.64	2.75	1.37	22.85	n/a	0.000
* **	CALI B STANDHYD	0127	1	2.0	9.98	0.68	1.37	18.45	0.37	0.000
*	[I%=27.4:S%= 2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	102.62	3.43	1.37	22.42	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	102.62	3.37	1.37	22.42	n/a	0.000
* **	CALI B STANDHYD	0128	1	2.0	14.87	1.84	1.37	28.69	0.57	0.000
*	[I%=45.4:S%= 2.00]									
*	ADD [0128 + 0407]	0819	3	2.0	117.49	5.21	1.37	23.22	n/a	0.000

 ** SIMULATION NUMBER: 3 **

I:10 Year Chicago Design Storm

W/E COMMAND	HYD ID	DT min	AREA ha	Opeak cms	Tpeak hrs	R.V. mm	R.C.	Qbase cms		
START @ 0.00 hrs										

READ STORM 10.0										
[Ptot= 59.69 mm]										
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\def0ee31-d85f-455f-975										
remark: * City of Barrie - 10 yr Chicago (4hr) + 15%										
* **	CALI B STANDHYD	0100	1	2.0	31.13	2.40	1.40	27.92	0.47	0.000
*	[I%=28.2:S%= 2.00]									
*	CHANNEL[2 : 0100]	0302	1	2.0	31.13	2.39	1.43	27.91	n/a	0.000
* **	CALI B STANDHYD	0105	1	2.0	9.01	0.94	1.33	32.98	0.55	0.000
*	[I%=24.8:S%= 2.00]									
* **	CALI B STANDHYD	0110	1	2.0	12.37	1.02	1.40	29.15	0.49	0.000
*	[I%=25.4:S%= 2.00]									
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	0.99	1.43	29.15	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	3.18	1.43	29.05	n/a	0.000

*	ADD [0802 + 0303]	0802	1	2.0	52.51	4.17	1.43	29.07	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	4.17	1.43	29.07	n/a	0.000
**	CALI B STANDHYD [I%=39.4; S%= 2.00]	0113	1	2.0	9.41	1.30	1.37	35.12	0.59	0.000
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.16	1.43	35.11	n/a	0.000
**	CALI B STANDHYD [I%=27.5; S%= 2.00]	0118	1	2.0	4.11	0.40	1.33	27.85	0.47	0.000
*	RESRVR [2 : 0118] {ST= 0.01 ha.m }	0600	1	2.0	4.11	0.24	1.57	27.91	n/a	0.000
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.23	1.70	27.88	n/a	0.000
**	CALI B STANDHYD [I%=22.9; S%= 2.00]	0101	1	2.0	8.68	0.69	1.33	23.99	0.40	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	0.83	1.33	25.24	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	0.72	1.40	25.23	n/a	0.000
**	CALI B STANDHYD [I%=27.4; S%= 2.00]	0123	1	2.0	22.81	1.80	1.43	30.64	0.51	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	2.96	1.43	31.95	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	3.66	1.43	30.04	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	7.83	1.43	29.52	n/a	0.000
*	RESRVR [2 : 0800] {ST= 0.90 ha.m }	0601	1	2.0	97.52	4.56	1.80	29.23	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	4.56	1.80	29.23	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	4.34	1.87	29.23	n/a	0.000
**	CALI B STANDHYD [I%=22.0; S%= 2.00]	0102	1	2.0	19.41	1.69	1.40	32.80	0.55	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	5.26	1.87	29.82	n/a	0.000
**	CALI B STANDHYD [I%=37.1; S%= 2.00]	0103	1	2.0	35.79	4.36	1.43	39.08	0.65	0.000
**	CALI B STANDHYD [I%=20.7; S%= 2.00]	0104	1	2.0	5.22	0.53	1.37	35.10	0.59	0.000
**	CALI B STANDHYD [I%=21.1; S%= 2.00]	0106	1	2.0	13.71	1.12	1.40	30.61	0.51	0.000
*	CALI B STANDHYD [I%=18.1; S%= 2.00]	0107	1	5.0	8.53	0.81	1.50	33.85	0.57	0.000
*	CALI B STANDHYD [I%=24.4; S%= 2.00]	0108	1	2.0	58.75	3.69	1.50	27.14	0.45	0.000
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	3.59	1.57	27.14	n/a	0.000
*	CALI B STANDHYD [I%= 3.0; S%= 2.00]	0109	1	2.0	13.70	1.32	1.50	30.36	0.51	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	4.84	1.53	27.75	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	4.83	1.53	27.75	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	5.58	1.53	28.39	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	5.53	1.57	28.39	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	6.59	1.53	28.71	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	6.28	1.60	28.71	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	6.70	1.60	29.05	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	10.33	1.53	31.69	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	10.09	1.60	31.69	n/a	0.000

*	ADD [0312 + 0803]	0094	3	2.0	252.63	14.23	1.67	30.83	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	14.22	1.67	30.83	n/a	0.000
**	CALI B STANDHYD [I%=22.2; S%= 2.00]	0111	1	2.0	3.57	0.35	1.40	33.03	0.55	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	14.46	1.67	30.86	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	14.44	1.67	30.86	n/a	0.000
**	CALI B STANDHYD [I%=23.9; S%= 2.00]	0112	1	2.0	16.90	1.68	1.43	35.18	0.59	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	15.72	1.67	31.12	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	15.41	1.73	31.12	n/a	0.000
*	CALI B STANDHYD [I%=17.3; S%= 2.00]	0114	1	2.0	4.95	0.47	1.50	33.45	0.56	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	15.72	1.73	31.16	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	15.73	1.73	31.16	n/a	0.000
**	CALI B STANDHYD [I%=28.8; S%= 2.00]	0115	1	2.0	12.66	1.11	1.40	30.48	0.51	0.000
*	ADD [0115 + 0313]	0811	3	2.0	290.71	16.43	1.70	31.13	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	16.42	1.73	31.13	n/a	0.000
**	CALI B STANDHYD [I%=25.5; S%= 2.00]	0116	1	2.0	26.63	2.38	1.40	30.49	0.51	0.000
*	ADD [0116 + 0314]	0812	3	2.0	317.34	17.86	1.70	31.08	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	17.86	1.70	31.08	n/a	0.000
*	CALI B STANDHYD [I%=25.1; S%= 2.00]	0117	1	2.0	27.32	1.92	1.40	23.23	0.39	0.000
*	ADD [0117 + 0401]	0813	3	2.0	344.66	18.95	1.70	30.46	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	18.83	1.73	30.46	n/a	0.000
**	CALI B STANDHYD [I%=26.9; S%= 2.00]	0119	1	2.0	16.91	1.26	1.40	25.72	0.43	0.000
*	ADD [0119 + 0315]	0814	3	2.0	361.57	19.56	1.73	30.24	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	19.56	1.73	30.24	n/a	0.000
**	CALI B STANDHYD [I%=20.9; S%= 2.00]	0120	1	2.0	17.04	1.09	1.37	21.69	0.36	0.000
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.07	1.40	21.69	n/a	0.000
*	CALI B STANDHYD [I%=14.6; S%= 2.00]	0121	1	2.0	1.39	0.08	1.33	16.30	0.27	0.000
**	CALI B STANDHYD [I%=26.5; S%= 2.00]	0122	1	2.0	3.13	0.30	1.33	23.46	0.39	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.38	1.33	21.26	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.36	1.37	21.60	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	20.31	1.73	29.75	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	20.30	1.73	29.75	n/a	0.000
**	CALI B STANDHYD [I%=33.4; S%= 2.00]	0124	1	2.0	21.61	2.30	1.37	27.55	0.46	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	21.15	1.73	29.63	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	21.15	1.73	29.63	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	346.73	20.28	1.73	29.63	n/a	0.000
*	MINOR SYSTEM:	0500	3	2.0	58.01	0.87	0.93	29.63	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	346.73	20.29	1.73	29.63	n/a	0.000
**	CALI B STANDHYD	0125	1	2.0	18.74	2.29	1.40	33.61	0.56	0.000

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* [I%=44.1:S%= 2.00]
* ADD [0125 + 0405] 0817 3 2.0 365.47 21.32 1.70 29.84 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 58.01 0.87 1.03 29.63 n/a 0.000
** CALI B STANDHYD [I%=32.1:S%= 2.00]
* 0126 1 2.0 22.26 2.40 1.33 25.89 0.43 0.000
* ADD [0126 + 0408] 0820 3 2.0 80.27 3.26 1.33 28.59 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 80.27 3.22 1.37 28.59 n/a 0.000
** CALI B STANDHYD [I%=27.4:S%= 2.00]
* 0127 1 2.0 9.98 0.82 1.37 23.02 0.39 0.000
* ADD [0127 + 0406] 0818 3 2.0 90.25 4.04 1.37 27.98 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 90.25 3.96 1.37 27.98 n/a 0.000
** CALI B STANDHYD [I%=45.4:S%= 2.00]
* 0128 1 2.0 14.87 2.22 1.37 35.21 0.59 0.000
* ADD [0128 + 0407] 0819 3 2.0 105.12 6.17 1.37 29.00 n/a 0.000

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** SIMULATION NUMBER: 4 ** **1:25 Year Chicago Design Storm**

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W/E COMMAND HYD ID DT AREA Qpeak Tpeak R.V. R.C. Qbase
mi n ha cms hrs mm cms
START @ 0.00 hrs
READ STORM 10.0
[ Ptot= 71.24 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\c30c094f-4cd4-4ea4-93c
remark: * City of Barrie - 25 yr Chicago (4hr) + 15%
** CALI B STANDHYD [I%=28.2:S%= 2.00]
* 0100 1 2.0 31.13 3.11 1.43 35.55 0.50 0.000
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 3.10 1.43 35.55 n/a 0.000
** CALI B STANDHYD [I%=24.8:S%= 2.00]
* 0105 1 2.0 9.01 1.27 1.37 42.13 0.59 0.000
** CALI B STANDHYD [I%=25.4:S%= 2.00]
* 0110 1 2.0 12.37 1.31 1.40 37.31 0.52 0.000
* CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 1.28 1.43 37.31 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 4.20 1.43 37.03 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 5.48 1.43 37.09 n/a 0.000
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 5.48 1.43 37.09 n/a 0.000
** CALI B STANDHYD [I%=39.4:S%= 2.00]
* 0113 1 2.0 9.41 1.59 1.33 44.05 0.62 0.000
* CHANNEL[ 2 : 0113] 0301 1 2.0 9.41 1.43 1.40 44.05 n/a 0.000
** CALI B STANDHYD [I%=27.5:S%= 2.00]
* 0118 1 2.0 4.11 0.50 1.33 35.53 0.50 0.000
* RESRVR [ 2 : 0118] {ST= 0.02 ha.m }
* 0600 1 2.0 4.11 0.29 1.60 35.60 n/a 0.000
* CHANNEL[ 2 : 0600] 0300 1 2.0 4.11 0.28 1.73 35.58 n/a 0.000
** CALI B STANDHYD [I%=22.9:S%= 2.00]
* 0101 1 2.0 8.68 0.86 1.33 30.86 0.43 0.000
* ADD [0101 + 0300] 0801 3 2.0 12.79 1.02 1.33 32.38 n/a 0.000
* CHANNEL[ 2 : 0801] 0304 1 2.0 12.79 0.89 1.40 32.37 n/a 0.000
** CALI B STANDHYD [I%=27.1:S%= 2.00]
* 0123 1 2.0 22.81 2.36 1.43 39.19 0.55 0.000
* ADD [0123 + 0301] 0800 3 2.0 32.22 3.75 1.40 40.61 n/a 0.000
* ADD [0800 + 0304] 0800 1 2.0 45.01 4.65 1.40 38.27 n/a 0.000

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* ADD [0800 + 0400] 0800 3 2.0 97.52 10.09 1.43 37.63 n/a 0.000
* RESRVR [ 2 : 0800] {ST= 0.99 ha.m }
* 0601 1 2.0 97.52 7.32 1.67 37.34 n/a 0.000
* PIPE [ 2 : 0601] 0403 1 2.0 97.52 7.32 1.70 37.34 n/a 0.000
* CHANNEL[ 2 : 0403] 0317 1 2.0 97.52 6.84 1.80 37.34 n/a 0.000
** CALI B STANDHYD [I%=22.0:S%= 2.00]
* 0102 1 2.0 19.41 2.33 1.40 42.06 0.59 0.000
* ADD [0102 + 0317] 0803 3 2.0 116.93 8.21 1.77 38.13 n/a 0.000
** CALI B STANDHYD [I%=37.1:S%= 2.00]
* 0103 1 2.0 35.79 5.69 1.43 48.98 0.69 0.000
** CALI B STANDHYD [I%=20.7:S%= 2.00]
* 0104 1 2.0 5.22 0.74 1.37 44.78 0.63 0.000
** CALI B STANDHYD [I%=21.1:S%= 2.00]
* 0106 1 2.0 13.71 1.44 1.40 39.33 0.55 0.000
* CALI B STANDHYD [I%=18.1:S%= 2.00]
* 0107 1 5.0 8.53 1.08 1.50 43.37 0.61 0.000
* CALI B STANDHYD [I%=24.4:S%= 2.00]
* 0108 1 2.0 58.75 4.87 1.50 34.80 0.49 0.000
* CHANNEL[ 2 : 0108] 0307 1 2.0 58.75 4.79 1.57 34.80 n/a 0.000
** CALI B STANDHYD [I%= 3.0:S%= 2.00]
* 0109 1 2.0 13.70 1.80 1.47 39.62 0.56 0.000
* ADD [0109 + 0307] 0806 3 2.0 72.45 6.43 1.53 35.71 n/a 0.000
* CHANNEL[ 2 : 0806] 0308 1 2.0 72.45 6.42 1.53 35.71 n/a 0.000
* ADD [0107 + 0308] 0807 3 2.0 80.98 7.43 1.53 36.52 n/a 0.000
* CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 7.36 1.53 36.52 n/a 0.000
* ADD [0106 + 0306] 0804 3 2.0 94.69 8.78 1.53 36.92 n/a 0.000
* CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 8.35 1.60 36.92 n/a 0.000
* ADD [0104 + 0305] 0093 3 2.0 99.91 8.89 1.60 37.33 n/a 0.000
* ADD [0103 + 0093] 0805 3 2.0 135.70 13.51 1.53 40.41 n/a 0.000
* CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 13.19 1.57 40.41 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 20.23 1.67 39.35 n/a 0.000
* CHANNEL[ 2 : 0094] 0309 1 2.0 252.63 20.23 1.70 39.35 n/a 0.000
** CALI B STANDHYD [I%=22.2:S%= 2.00]
* 0111 1 2.0 3.57 0.43 1.37 42.27 0.59 0.000
* ADD [0111 + 0309] 0808 3 2.0 256.20 20.51 1.70 39.39 n/a 0.000
* CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 20.49 1.70 39.39 n/a 0.000
* CALI B STANDHYD [I%=23.9:S%= 2.00]
* 0112 1 2.0 16.90 2.20 1.40 44.79 0.63 0.000
* ADD [0112 + 0310] 0809 3 2.0 273.10 21.99 1.70 39.73 n/a 0.000
* CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 21.60 1.73 39.72 n/a 0.000
* CALI B STANDHYD [I%=17.3:S%= 2.00]
* 0114 1 2.0 4.95 0.64 1.43 42.93 0.60 0.000
* ADD [0114 + 0311] 0810 3 2.0 278.05 21.97 1.73 39.78 n/a 0.000
* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 21.97 1.73 39.78 n/a 0.000
** CALI B STANDHYD [I%=28.8:S%= 2.00]
* 0115 1 2.0 12.66 1.46 1.43 38.77 0.54 0.000
* ADD [0115 + 0313] 0811 3 2.0 290.71 22.84 1.73 39.74 n/a 0.000
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 22.81 1.73 39.74 n/a 0.000

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*	*	CALIB STANDHYD	0116	1	2.0	26.63	3.17	1.40	39.00	0.55	0.000
		[I%=25.5; S%= 2.00]									
*		ADD [0116 + 0314]	0812	3	2.0	317.34	24.57	1.73	39.68	n/a	0.000
*		PIPE [2 : 0812]	0401	1	2.0	317.34	24.57	1.73	39.68	n/a	0.000
*	*	CALIB STANDHYD	0117	1	2.0	27.32	2.46	1.37	29.62	0.42	0.000
		[I%=25.1; S%= 2.00]									
*		ADD [0117 + 0401]	0813	3	2.0	344.66	25.85	1.73	38.88	n/a	0.000
*		CHANNEL[2 : 0813]	0315	1	2.0	344.66	25.72	1.77	38.88	n/a	0.000
*	*	CALIB STANDHYD	0119	1	2.0	16.91	1.60	1.40	32.82	0.46	0.000
		[I%=26.9; S%= 2.00]									
*		ADD [0119 + 0315]	0814	3	2.0	361.57	26.64	1.73	38.60	n/a	0.000
*		PIPE [2 : 0814]	0402	1	2.0	361.57	26.63	1.77	38.60	n/a	0.000
*	*	CALIB STANDHYD	0120	1	2.0	17.04	1.37	1.37	27.91	0.39	0.000
		[I%=20.9; S%= 2.00]									
*		CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.37	1.40	27.91	n/a	0.000
*	*	CALIB STANDHYD	0121	1	2.0	1.39	0.09	1.33	21.28	0.30	0.000
		[I%=14.6; S%= 2.00]									
*	*	CALIB STANDHYD	0122	1	2.0	3.13	0.38	1.33	29.81	0.42	0.000
		[I%=26.5; S%= 2.00]									
*		ADD [0121 + 0122]	0815	3	2.0	4.52	0.48	1.33	27.18	n/a	0.000
*		ADD [0815 + 0316]	0815	1	2.0	21.56	1.77	1.37	27.76	n/a	0.000
*		ADD [0815 + 0402]	0815	3	2.0	383.13	27.60	1.73	37.99	n/a	0.000
*		PIPE [2 : 0815]	0404	1	2.0	383.13	27.58	1.77	37.99	n/a	0.000
*	*	CALIB STANDHYD	0124	1	2.0	21.61	2.82	1.37	34.65	0.49	0.000
		[I%=33.4; S%= 2.00]									
*		ADD [0124 + 0404]	0816	3	2.0	404.74	28.63	1.73	37.81	n/a	0.000
*		DUHYD	0500	1	2.0	404.74	28.63	1.73	37.81	n/a	0.000
		MAJOR SYSTEM:	0500	2	2.0	357.56	27.76	1.73	37.81	n/a	0.000
		MINOR SYSTEM:	0500	3	2.0	47.18	0.87	0.83	37.81	n/a	0.000
*		PIPE [2 : 0500]	0405	1	2.0	357.56	27.73	1.73	37.81	n/a	0.000
*	**	CALIB STANDHYD	0125	1	2.0	18.74	2.81	1.40	41.78	0.59	0.000
		[I%=44.1; S%= 2.00]									
*		ADD [0125 + 0405]	0817	3	2.0	376.30	28.98	1.73	38.01	n/a	0.000
*		PIPE [2 : 0500]	0408	1	2.0	47.18	0.87	0.93	37.81	n/a	0.000
*	**	CALIB STANDHYD	0126	1	2.0	22.26	2.96	1.33	32.57	0.46	0.000
		[I%=32.1; S%= 2.00]									
*		ADD [0126 + 0408]	0820	3	2.0	69.44	3.82	1.33	36.13	n/a	0.000
*		PIPE [2 : 0820]	0406	1	2.0	69.44	3.79	1.37	36.13	n/a	0.000
*	**	CALIB STANDHYD	0127	1	2.0	9.98	1.01	1.37	29.15	0.41	0.000
		[I%=27.4; S%= 2.00]									
*		ADD [0127 + 0406]	0818	3	2.0	79.42	4.80	1.37	35.25	n/a	0.000
*		PIPE [2 : 0818]	0407	1	2.0	79.42	4.69	1.37	35.25	n/a	0.000
*	**	CALIB STANDHYD	0128	1	2.0	14.87	2.79	1.33	43.76	0.61	0.000
		[I%=45.4; S%= 2.00]									
*		ADD [0128 + 0407]	0819	3	2.0	94.29	7.43	1.37	36.59	n/a	0.000

 ** SIMULATION NUMBER: 5 ** **1:50 Year Chicago Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Opeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
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		START @ 0.00 hrs									

		READ STORM					10.0				
		[Ptot= 79.45 mm]									
		fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\751284ce-ac28-47ed-abd									
		remark: * City of Barrile - 50 yr Chicago (4hr) + 15%									
*	**	CALIB STANDHYD	0100	1	2.0	31.13	3.73	1.43	41.25	0.52	0.000
		[I%=28.2; S%= 2.00]									
*		CHANNEL[2 : 0100]	0302	1	2.0	31.13	3.70	1.43	41.25	n/a	0.000
*	**	CALIB STANDHYD	0105	1	2.0	9.01	1.48	1.37	48.87	0.62	0.000
		[I%=24.8; S%= 2.00]									
*	**	CALIB STANDHYD	0110	1	2.0	12.37	1.52	1.40	43.38	0.55	0.000
		[I%=25.4; S%= 2.00]									
*		CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.49	1.43	43.38	n/a	0.000
*		ADD [0105 + 0302]	0802	3	2.0	40.14	5.01	1.43	42.96	n/a	0.000
*		ADD [0802 + 0303]	0802	1	2.0	52.51	6.49	1.43	43.06	n/a	0.000
*		PIPE [2 : 0802]	0400	1	2.0	52.51	6.49	1.43	43.06	n/a	0.000
*	**	CALIB STANDHYD	0113	1	2.0	9.41	1.81	1.33	50.63	0.64	0.000
		[I%=39.4; S%= 2.00]									
*		CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.64	1.40	50.62	n/a	0.000
*	**	CALIB STANDHYD	0118	1	2.0	4.11	0.59	1.33	41.27	0.52	0.000
		[I%=27.5; S%= 2.00]									
*		RESRVR [2 : 0118]	0600	1	2.0	4.11	0.33	1.60	41.32	n/a	0.000
		{ST= 0.03 ha.m }									
*		CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.32	1.73	41.29	n/a	0.000
*	**	CALIB STANDHYD	0101	1	2.0	8.68	1.01	1.33	36.03	0.45	0.000
		[I%=22.9; S%= 2.00]									
*		ADD [0101 + 0300]	0801	3	2.0	12.79	1.18	1.37	37.72	n/a	0.000
*		CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.05	1.40	37.72	n/a	0.000
*	**	CALIB STANDHYD	0123	1	2.0	22.81	2.76	1.43	45.53	0.57	0.000
		[I%=27.1; S%= 2.00]									
*		ADD [0123 + 0301]	0800	3	2.0	32.22	4.35	1.40	47.02	n/a	0.000
*		ADD [0800 + 0304]	0800	1	2.0	45.01	5.40	1.40	44.37	n/a	0.000
*		ADD [0800 + 0400]	0800	3	2.0	97.52	11.86	1.43	43.67	n/a	0.000
*		RESRVR [2 : 0800]	0601	1	2.0	97.52	9.18	1.63	43.38	n/a	0.000
		{ST= 1.05 ha.m }									
*		PIPE [2 : 0601]	0403	1	2.0	97.52	9.17	1.63	43.38	n/a	0.000
*		CHANNEL[2 : 0403]	0317	1	2.0	97.52	8.49	1.77	43.38	n/a	0.000
*	**	CALIB STANDHYD	0102	1	2.0	19.41	2.75	1.40	48.90	0.62	0.000
		[I%=22.0; S%= 2.00]									
*		ADD [0102 + 0317]	0803	3	2.0	116.93	10.21	1.73	44.29	n/a	0.000
*	**	CALIB STANDHYD	0103	1	2.0	35.79	6.58	1.43	56.20	0.71	0.000
		[I%=37.1; S%= 2.00]									
*	**	CALIB STANDHYD	0104	1	2.0	5.22	0.87	1.37	51.88	0.65	0.000
		[I%=20.7; S%= 2.00]									
*	**	CALIB STANDHYD	0106	1	2.0	13.71	1.80	1.40	45.79	0.58	0.000
		[I%=21.1; S%= 2.00]									
*	*	CALIB STANDHYD	0107	1	5.0	8.53	1.28	1.50	50.37	0.63	0.000
		[I%=18.1; S%= 2.00]									
*	*	CALIB STANDHYD	0108	1	2.0	58.75	5.73	1.47	40.53	0.51	0.000
		[I%=24.4; S%= 2.00]									
*		CHANNEL[2 : 0108]	0307	1	2.0	58.75	5.67	1.57	40.53	n/a	0.000


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* ADD [0126 + 0408] 0820 3 2.0 59.19 4.64 1.33 47.27 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 59.19 4.60 1.37 47.26 n/a 0.000
** CALI B STANDHYD 0127 1 2.0 9.98 1.37 1.33 38.47 0.44 0.000
  [I%=27.4; S%= 2.00]
* ADD [0127 + 0406] 0818 3 2.0 69.17 5.94 1.37 46.00 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 69.17 5.85 1.37 46.00 n/a 0.000
** CALI B STANDHYD 0128 1 2.0 14.87 3.58 1.33 56.38 0.64 0.000
  [I%=45.4; S%= 2.00]
* ADD [0128 + 0407] 0819 3 2.0 84.04 9.36 1.37 47.83 n/a 0.000

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** SIMULATION NUMBER: 7 ** **1:2 Year 6 Hour SCS Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								

READ STORM [Ptot= 42.30 mm] 15.0								
fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\Fd87eff8-a95f-40b7-aea								
remark: 2yr/6hr Barrie Wpcc +15% SCS								
** CALI B STANDHYD [I%=28.2; S%= 2.00]	0100	1 2.0	31.13	1.38	3.33	17.40	0.41	0.000
CHANNEL [2 : 0100]	0302	1 2.0	31.13	1.38	3.37	17.40	n/a	0.000
** CALI B STANDHYD [I%=24.8; S%= 2.00]	0105	1 2.0	9.01	0.54	3.27	20.20	0.48	0.000
** CALI B STANDHYD [I%=25.4; S%= 2.00]	0110	1 2.0	12.37	0.59	3.33	17.90	0.42	0.000
CHANNEL [2 : 0110]	0303	1 2.0	12.37	0.58	3.37	17.90	n/a	0.000
ADD [0105 + 0302]	0802	3 2.0	40.14	1.80	3.30	18.03	n/a	0.000
ADD [0802 + 0303]	0802	1 2.0	52.51	2.37	3.33	18.00	n/a	0.000
PIPE [2 : 0802]	0400	1 2.0	52.51	2.37	3.33	18.00	n/a	0.000
** CALI B STANDHYD [I%=39.4; S%= 2.00]	0113	1 2.0	9.41	0.70	3.27	22.50	0.53	0.000
CHANNEL [2 : 0113]	0301	1 2.0	9.41	0.64	3.30	22.50	n/a	0.000
** CALI B STANDHYD [I%=27.5; S%= 2.00]	0118	1 2.0	4.11	0.22	3.27	17.28	0.41	0.000
RESRVR [2 : 0118] {ST= 0.00 ha.m }	0600	1 2.0	4.11	0.19	3.33	17.28	n/a	0.000
CHANNEL [2 : 0600]	0300	1 2.0	4.11	0.17	3.43	17.27	n/a	0.000
** CALI B STANDHYD [I%=22.9; S%= 2.00]	0101	1 2.0	8.68	0.39	3.27	14.67	0.35	0.000
ADD [0101 + 0300]	0801	3 2.0	12.79	0.53	3.27	15.51	n/a	0.000
CHANNEL [2 : 0801]	0304	1 2.0	12.79	0.48	3.33	15.50	n/a	0.000
** CALI B STANDHYD [I%=27.1; S%= 2.00]	0123	1 2.0	22.81	1.04	3.37	18.81	0.44	0.000
ADD [0123 + 0301]	0800	3 2.0	32.22	1.67	3.33	19.89	n/a	0.000
ADD [0800 + 0304]	0800	1 2.0	45.01	2.15	3.33	18.64	n/a	0.000
ADD [0800 + 0400]	0800	3 2.0	97.52	4.52	3.33	18.29	n/a	0.000
RESRVR [2 : 0800] {ST= 0.63 ha.m }	0601	1 2.0	97.52	2.15	3.80	18.00	n/a	0.000
PIPE [2 : 0601]	0403	1 2.0	97.52	2.15	3.80	18.00	n/a	0.000
CHANNEL [2 : 0403]	0317	1 2.0	97.52	2.09	3.90	18.00	n/a	0.000

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** CALI B STANDHYD [I%=22.0; S%= 2.00] 0102 1 2.0 19.41 1.00 3.33 19.85 0.47 0.000
* ADD [0102 + 0317] 0803 3 2.0 116.93 2.51 3.83 18.31 n/a 0.000
** CALI B STANDHYD [I%=37.1; S%= 2.00] 0103 1 2.0 35.79 2.51 3.33 24.92 0.59 0.000
* CALI B STANDHYD [I%=20.7; S%= 2.00] 0104 1 2.0 5.22 0.33 3.30 21.43 0.51 0.000
** CALI B STANDHYD [I%=21.1; S%= 2.00] 0106 1 2.0 13.71 0.64 3.30 18.54 0.44 0.000
* CALI B STANDHYD [I%=18.1; S%= 2.00] 0107 1 5.0 8.53 0.47 3.25 20.47 0.48 0.000
* CALI B STANDHYD [I%=24.4; S%= 2.00] 0108 1 2.0 58.75 2.13 3.43 16.66 0.39 0.000
* CHANNEL [ 2 : 0108] 0307 1 2.0 58.75 2.09 3.47 16.66 n/a 0.000
* CALI B STANDHYD [I%= 3.0; S%= 2.00] 0109 1 2.0 13.70 0.71 3.40 17.52 0.41 0.000
* ADD [0109 + 0307] 0806 3 2.0 72.45 2.77 3.43 16.82 n/a 0.000
* CHANNEL [ 2 : 0806] 0308 1 2.0 72.45 2.76 3.47 16.82 n/a 0.000
* ADD [0107 + 0308] 0807 3 2.0 80.98 3.14 3.47 17.20 n/a 0.000
* CHANNEL [ 2 : 0807] 0306 1 2.0 80.98 3.12 3.47 17.20 n/a 0.000
* ADD [0106 + 0306] 0804 3 2.0 94.69 3.66 3.47 17.40 n/a 0.000
* CHANNEL [ 2 : 0804] 0305 1 2.0 94.69 3.55 3.53 17.40 n/a 0.000
* ADD [0104 + 0305] 0093 3 2.0 99.91 3.77 3.50 17.61 n/a 0.000
* ADD [0103 + 0093] 0805 3 2.0 135.70 5.82 3.40 19.53 n/a 0.000
* CHANNEL [ 2 : 0805] 0312 1 2.0 135.70 5.69 3.47 19.53 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 7.69 3.53 18.97 n/a 0.000
* CHANNEL [ 2 : 0094] 0309 1 2.0 252.63 7.69 3.53 18.97 n/a 0.000
* CALI B STANDHYD [I%=22.2; S%= 2.00] 0111 1 2.0 3.57 0.20 3.30 20.11 0.48 0.000
* ADD [0111 + 0309] 0808 3 2.0 256.20 7.82 3.53 18.98 n/a 0.000
* CHANNEL [ 2 : 0808] 0310 1 2.0 256.20 7.82 3.53 18.98 n/a 0.000
* CALI B STANDHYD [I%=23.9; S%= 2.00] 0112 1 2.0 16.90 0.97 3.33 21.62 0.51 0.000
* ADD [0112 + 0310] 0809 3 2.0 273.10 8.58 3.50 19.15 n/a 0.000
* CHANNEL [ 2 : 0809] 0311 1 2.0 273.10 8.41 3.57 19.15 n/a 0.000
* CALI B STANDHYD [I%=17.3; S%= 2.00] 0114 1 2.0 4.95 0.27 3.30 20.16 0.48 0.000
* ADD [0114 + 0311] 0810 3 2.0 278.05 8.59 3.57 19.16 n/a 0.000
* CHANNEL [ 2 : 0810] 0313 1 2.0 278.05 8.59 3.57 19.16 n/a 0.000
* CALI B STANDHYD [I%=28.8; S%= 2.00] 0115 1 2.0 12.66 0.64 3.33 18.98 0.45 0.000
* ADD [0115 + 0313] 0811 3 2.0 290.71 9.01 3.57 19.16 n/a 0.000
* CHANNEL [ 2 : 0811] 0314 1 2.0 290.71 9.00 3.57 19.16 n/a 0.000
* CALI B STANDHYD [I%=25.5; S%= 2.00] 0116 1 2.0 26.63 1.36 3.30 18.72 0.44 0.000
* ADD [0116 + 0314] 0812 3 2.0 317.34 9.84 3.57 19.12 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 9.85 3.57 19.12 n/a 0.000
* CALI B STANDHYD 0117 1 2.0 27.32 1.10 3.30 14.52 0.34 0.000

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* [I%=25.1;S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 10.49 3.53 18.75 n/a 0.000
* CHANNEL [ 2 : 0813] 0315 1 2.0 344.66 10.46 3.57 18.75 n/a 0.000
* ** CALI B STANDHYD
* [I%=26.9;S%= 2.00] 0119 1 2.0 16.91 0.73 3.30 16.01 0.38 0.000
* ADD [0119 + 0315] 0814 3 2.0 361.57 10.92 3.53 18.63 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 10.92 3.53 18.63 n/a 0.000
* ** CALI B STANDHYD
* [I%=20.9;S%= 2.00] 0120 1 2.0 17.04 0.62 3.30 13.29 0.31 0.000
* CHANNEL [ 2 : 0120] 0316 1 2.0 17.04 0.60 3.33 13.29 n/a 0.000
* ** CALI B STANDHYD
* [I%=14.6;S%= 2.00] 0121 1 2.0 1.39 0.04 3.23 9.73 0.23 0.000
* ** CALI B STANDHYD
* [I%=26.5;S%= 2.00] 0122 1 2.0 3.13 0.16 3.23 14.79 0.35 0.000
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.20 3.23 13.23 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 0.77 3.27 13.28 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 11.37 3.53 18.32 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 11.36 3.57 18.32 n/a 0.000
* ** CALI B STANDHYD
* [I%=33.4;S%= 2.00] 0124 1 2.0 21.61 1.24 3.27 17.68 0.42 0.000
* ADD [0124 + 0404] 0816 3 2.0 404.74 11.90 3.53 18.29 n/a 0.000
* DUHYD 0500 1 2.0 404.74 11.90 3.53 18.29 n/a 0.000
* MAJOR SYSTEM: 0500 2 2.0 305.79 11.03 3.53 18.29 n/a 0.000
* MINOR SYSTEM: 0500 3 2.0 98.94 0.87 2.50 18.29 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 305.79 11.03 3.53 18.29 n/a 0.000
* ** CALI B STANDHYD
* [I%=44.1;S%= 2.00] 0125 1 2.0 18.74 1.31 3.30 22.03 0.52 0.000
* ADD [0125 + 0405] 0817 3 2.0 324.53 11.79 3.50 18.51 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 98.94 0.87 2.93 18.29 n/a 0.000
* ** CALI B STANDHYD
* [I%=32.1;S%= 2.00] 0126 1 2.0 22.26 1.26 3.27 16.62 0.39 0.000
* ADD [0126 + 0408] 0820 3 2.0 121.20 2.13 3.27 17.98 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 121.20 2.13 3.27 17.98 n/a 0.000
* ** CALI B STANDHYD
* [I%=27.4;S%= 2.00] 0127 1 2.0 9.98 0.46 3.27 14.61 0.35 0.000
* ADD [0127 + 0406] 0818 3 2.0 131.18 2.59 3.27 17.73 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 131.18 2.56 3.30 17.73 n/a 0.000
* ** CALI B STANDHYD
* [I%=45.4;S%= 2.00] 0128 1 2.0 14.87 1.27 3.27 23.08 0.55 0.000
* ADD [0128 + 0407] 0819 3 2.0 146.05 3.81 3.27 18.27 n/a 0.000

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**** SIMULATION NUMBER: 8 ****

1:2 Year 12 Hour SCS Design Storm

```

W/E COMMAND      HYD ID  DT  AREA  *  Qpeak  Tpeak  R. V.  R. C.  Qbase
                min   ha   '  cms   hrs   mm
START @ 0.00 hrs
-----
READ STORM              15.0
[ Ptot= 46.69 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\95346834-7c01-4b85-b75
remark: 2yr/12hr Barri e Wpcc +15% SCS
* ** CALI B STANDHYD  0100 1 2.0 31.13 1.32 6.33 19.92 0.43 0.000

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* [I%=28.2;S%= 2.00]
* CHANNEL [ 2 : 0100] 0302 1 2.0 31.13 1.31 6.37 19.92 n/a 0.000
* ** CALI B STANDHYD
* [I%=24.8;S%= 2.00] 0105 1 2.0 9.01 0.53 6.27 23.29 0.50 0.000
* ** CALI B STANDHYD
* [I%=25.4;S%= 2.00] 0110 1 2.0 12.37 0.57 6.33 20.60 0.44 0.000
* CHANNEL [ 2 : 0110] 0303 1 2.0 12.37 0.56 6.37 20.60 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 1.73 6.33 20.68 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 2.28 6.33 20.66 n/a 0.000
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 2.28 6.33 20.66 n/a 0.000
* ** CALI B STANDHYD
* [I%=39.4;S%= 2.00] 0113 1 2.0 9.41 0.66 6.27 25.57 0.55 0.000
* CHANNEL [ 2 : 0113] 0301 1 2.0 9.41 0.61 6.30 25.57 n/a 0.000
* ** CALI B STANDHYD
* [I%=27.5;S%= 2.00] 0118 1 2.0 4.11 0.21 6.27 19.81 0.42 0.000
* RESRVR [ 2 : 0118]
* {ST= 0.00 ha.m } 0600 1 2.0 4.11 0.19 6.33 19.87 n/a 0.000
* CHANNEL [ 2 : 0600] 0300 1 2.0 4.11 0.17 6.43 19.85 n/a 0.000
* ** CALI B STANDHYD
* [I%=22.9;S%= 2.00] 0101 1 2.0 8.68 0.37 6.27 16.89 0.36 0.000
* ADD [0101 + 0300] 0801 3 2.0 12.79 0.51 6.27 17.84 n/a 0.000
* CHANNEL [ 2 : 0801] 0304 1 2.0 12.79 0.46 6.33 17.84 n/a 0.000
* ** CALI B STANDHYD
* [I%=27.1;S%= 2.00] 0123 1 2.0 22.81 1.01 6.37 21.66 0.46 0.000
* ADD [0123 + 0301] 0800 3 2.0 32.22 1.60 6.33 22.80 n/a 0.000
* ADD [0800 + 0304] 0800 1 2.0 45.01 2.07 6.33 21.39 n/a 0.000
* ADD [0800 + 0400] 0800 3 2.0 97.52 4.35 6.33 21.00 n/a 0.000
* RESRVR [ 2 : 0800]
* {ST= 0.62 ha.m } 0601 1 2.0 97.52 2.07 6.80 20.70 n/a 0.000
* PIPE [ 2 : 0601] 0403 1 2.0 97.52 2.07 6.83 20.70 n/a 0.000
* CHANNEL [ 2 : 0403] 0317 1 2.0 97.52 2.01 6.90 20.70 n/a 0.000
* ** CALI B STANDHYD
* [I%=22.0;S%= 2.00] 0102 1 2.0 19.41 1.00 6.33 22.97 0.49 0.000
* ADD [0102 + 0317] 0803 3 2.0 116.93 2.43 6.83 21.08 n/a 0.000
* ** CALI B STANDHYD
* [I%=37.1;S%= 2.00] 0103 1 2.0 35.79 2.35 6.33 28.38 0.61 0.000
* ** CALI B STANDHYD
* [I%=20.7;S%= 2.00] 0104 1 2.0 5.22 0.33 6.30 24.75 0.53 0.000
* ** CALI B STANDHYD
* [I%=21.1;S%= 2.00] 0106 1 2.0 13.71 0.64 6.33 21.44 0.46 0.000
* ** CALI B STANDHYD
* [I%=18.1;S%= 2.00] 0107 1 5.0 8.53 0.47 6.25 23.71 0.51 0.000
* ** CALI B STANDHYD
* [I%=24.4;S%= 2.00] 0108 1 2.0 58.75 2.06 6.43 19.16 0.41 0.000
* CHANNEL [ 2 : 0108] 0307 1 2.0 58.75 2.02 6.47 19.16 n/a 0.000
* ** CALI B STANDHYD
* [I%= 3.0;S%= 2.00] 0109 1 2.0 13.70 0.71 6.40 20.60 0.44 0.000
* ADD [0109 + 0307] 0806 3 2.0 72.45 2.69 6.43 19.43 n/a 0.000
* CHANNEL [ 2 : 0806] 0308 1 2.0 72.45 2.68 6.47 19.43 n/a 0.000
* ADD [0107 + 0308] 0807 3 2.0 80.98 3.06 6.47 19.88 n/a 0.000

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* CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 3.04 6.47 19.88 n/a 0.000
* ADD [0106 + 0306] 0804 3 2.0 94.69 3.60 6.47 20.11 n/a 0.000
* CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 3.49 6.53 20.11 n/a 0.000
* ADD [0104 + 0305] 0093 3 2.0 99.91 3.71 6.50 20.35 n/a 0.000
* ADD [0103 + 0093] 0805 3 2.0 135.70 5.65 6.40 22.47 n/a 0.000
* CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 5.53 6.47 22.47 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 7.51 6.53 21.83 n/a 0.000
* CHANNEL[ 2 : 0094] 0309 1 2.0 252.63 7.51 6.53 21.83 n/a 0.000
* * CALI B STANDHYD 0111 1 2.0 3.57 0.19 6.30 23.23 0.50 0.000
* [I%=22.2: S%= 2.00]
* ADD [0111 + 0309] 0808 3 2.0 256.20 7.64 6.53 21.85 n/a 0.000
* CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 7.64 6.53 21.85 n/a 0.000
* * CALI B STANDHYD 0112 1 2.0 16.90 0.95 6.33 24.91 0.53 0.000
* [I%=23.9: S%= 2.00]
* ADD [0112 + 0310] 0809 3 2.0 273.10 8.39 6.50 22.04 n/a 0.000
* CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 8.22 6.57 22.04 n/a 0.000
* * CALI B STANDHYD 0114 1 2.0 4.95 0.27 6.30 23.37 0.50 0.000
* [I%=17.3: S%= 2.00]
* ADD [0114 + 0311] 0810 3 2.0 278.05 8.40 6.57 22.06 n/a 0.000
* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 8.40 6.57 22.06 n/a 0.000
* * CALI B STANDHYD 0115 1 2.0 12.66 0.61 6.33 21.75 0.47 0.000
* [I%=28.8: S%= 2.00]
* ADD [0115 + 0313] 0811 3 2.0 290.71 8.82 6.57 22.05 n/a 0.000
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 8.81 6.57 22.05 n/a 0.000
* * CALI B STANDHYD 0116 1 2.0 26.63 1.32 6.30 21.55 0.46 0.000
* [I%=25.5: S%= 2.00]
* ADD [0116 + 0314] 0812 3 2.0 317.34 9.65 6.57 22.00 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 9.65 6.57 22.00 n/a 0.000
* * CALI B STANDHYD 0117 1 2.0 27.32 1.04 6.30 16.61 0.36 0.000
* [I%=25.1: S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 10.28 6.53 21.58 n/a 0.000
* CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 10.26 6.57 21.58 n/a 0.000
* * CALI B STANDHYD 0119 1 2.0 16.91 0.69 6.30 18.34 0.39 0.000
* [I%=26.9: S%= 2.00]
* ADD [0119 + 0315] 0814 3 2.0 361.57 10.69 6.53 21.42 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 10.70 6.57 21.42 n/a 0.000
* * CALI B STANDHYD 0120 1 2.0 17.04 0.59 6.30 15.28 0.33 0.000
* [I%=20.9: S%= 2.00]
* CHANNEL[ 2 : 0120] 0316 1 2.0 17.04 0.58 6.33 15.28 n/a 0.000
* * CALI B STANDHYD 0121 1 2.0 1.39 0.04 6.23 11.27 0.24 0.000
* [I%=14.6: S%= 2.00]
* * CALI B STANDHYD 0122 1 2.0 3.13 0.16 6.23 16.87 0.36 0.000
* [I%=26.5: S%= 2.00]
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.20 6.23 15.14 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 0.73 6.27 15.25 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 11.14 6.53 21.08 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 11.13 6.57 21.08 n/a 0.000

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* CALI B STANDHYD 0124 1 2.0 21.61 1.17 6.27 20.07 0.43 0.000
* [I%=33.4: S%= 2.00]
* ADD [0124 + 0404] 0816 3 2.0 404.74 11.65 6.53 21.02 n/a 0.000
* DUHYD 0500 1 2.0 404.74 11.65 6.53 21.02 n/a 0.000
* MAJOR SYSTEM: 0500 2 2.0 270.63 10.78 6.53 21.02 n/a 0.000
* MINOR SYSTEM: 0500 3 2.0 134.11 0.87 5.10 21.02 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 270.63 10.77 6.57 21.02 n/a 0.000
* ** CALI B STANDHYD 0125 1 2.0 18.74 1.21 6.30 24.86 0.53 0.000
* [I%=44.1: S%= 2.00]
* ADD [0125 + 0405] 0817 3 2.0 289.37 11.47 6.50 21.27 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 134.11 0.87 5.53 21.02 n/a 0.000
* ** CALI B STANDHYD 0126 1 2.0 22.26 1.19 6.27 18.86 0.40 0.000
* [I%=32.1: S%= 2.00]
* ADD [0126 + 0408] 0820 3 2.0 156.37 2.06 6.27 20.71 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 156.37 2.06 6.27 20.71 n/a 0.000
* ** CALI B STANDHYD 0127 1 2.0 9.98 0.43 6.27 16.63 0.36 0.000
* [I%=27.4: S%= 2.00]
* ADD [0127 + 0406] 0818 3 2.0 166.35 2.49 6.27 20.47 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 166.35 2.46 6.30 20.47 n/a 0.000
* ** CALI B STANDHYD 0128 1 2.0 14.87 1.20 6.27 26.04 0.56 0.000
* [I%=45.4: S%= 2.00]
* ADD [0128 + 0407] 0819 3 2.0 181.22 3.64 6.27 20.93 n/a 0.000

```

1:2 Year 24 Hour SCS Design Storm

** SIMULATION NUMBER: 9 **

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R.V mm	R.C.	Qbase cms
START @ 0.00 hrs								

READ STORM		15.0						
[Ptot= 55.00 mm]								
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\ae5e6e16c-58bd-4d00-855								
remark: 2yr/24hr Barrie Wpcc +15% SCS								
** CALI B STANDHYD	0100	1	2.0	31.13	1.36	12.33	24.95	0.45 0.000
[I%=28.2: S%= 2.00]								
CHANNEL[2 : 0100]	0302	1	2.0	31.13	1.36	12.37	24.95	n/a 0.000
** CALI B STANDHYD	0105	1	2.0	9.01	0.58	12.27	29.40	0.53 0.000
[I%=24.8: S%= 2.00]								
** CALI B STANDHYD	0110	1	2.0	12.37	0.60	12.33	25.98	0.47 0.000
[I%=25.4: S%= 2.00]								
CHANNEL[2 : 0110]	0303	1	2.0	12.37	0.59	12.37	25.98	n/a 0.000
ADD [0105 + 0302]	0802	3	2.0	40.14	1.82	12.33	25.95	n/a 0.000
ADD [0802 + 0303]	0802	1	2.0	52.51	2.41	12.33	25.96	n/a 0.000
PIPE [2 : 0802]	0400	1	2.0	52.51	2.40	12.33	25.96	n/a 0.000
** CALI B STANDHYD	0113	1	2.0	9.41	0.67	12.27	31.60	0.57 0.000
[I%=39.4: S%= 2.00]								
CHANNEL[2 : 0113]	0301	1	2.0	9.41	0.62	12.30	31.60	n/a 0.000
** CALI B STANDHYD	0118	1	2.0	4.11	0.22	12.27	24.87	0.45 0.000
[I%=27.5: S%= 2.00]								
RESRVR [2 : 0118]	0600	1	2.0	4.11	0.19	12.33	24.92	n/a 0.000
{ST= 0.00 ha.m }								
CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.17	12.43	24.91	n/a 0.000

**	CALI B STANDHYD	0101	1	2.0	8.68	0.39	12.27	21.34	0.39	0.000
*	[I%=22.9: S%= 2.00]									
*	ADD [0101 + 0300]	0801	3	2.0	12.79	0.53	12.27	22.49	n/a	0.000
*	CHANNEL [2 : 0801]	0304	1	2.0	12.79	0.49	12.33	22.48	n/a	0.000
**	CALI B STANDHYD	0123	1	2.0	22.81	1.08	12.37	27.32	0.50	0.000
*	[I%=27.1: S%= 2.00]									
*	ADD [0123 + 0301]	0800	3	2.0	32.22	1.69	12.33	28.57	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	2.18	12.33	26.84	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	4.58	12.33	26.36	n/a	0.000
*	RESRVR [2 : 0800]	0601	1	2.0	97.52	2.25	12.80	26.07	n/a	0.000
*	{ST= 0.65 ha.m }									
*	PIPE [2 : 0601]	0403	1	2.0	97.52	2.25	12.80	26.07	n/a	0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	2.18	12.90	26.07	n/a	0.000
**	CALI B STANDHYD	0102	1	2.0	19.41	1.07	12.33	29.17	0.53	0.000
*	[I%=22.0: S%= 2.00]									
*	ADD [0102 + 0317]	0803	3	2.0	116.93	2.63	12.80	26.59	n/a	0.000
**	CALI B STANDHYD	0103	1	2.0	35.79	2.43	12.33	35.16	0.64	0.000
*	[I%=37.1: S%= 2.00]									
**	CALI B STANDHYD	0104	1	2.0	5.22	0.35	12.30	31.29	0.57	0.000
*	[I%=20.7: S%= 2.00]									
**	CALI B STANDHYD	0106	1	2.0	13.71	0.68	12.33	27.21	0.49	0.000
*	[I%=21.1: S%= 2.00]									
*	CALI B STANDHYD	0107	1	5.0	8.53	0.50	12.25	30.11	0.55	0.000
*	[I%=18.1: S%= 2.00]									
**	CALI B STANDHYD	0108	1	2.0	58.75	2.15	12.43	24.18	0.44	0.000
*	[I%=24.4: S%= 2.00]									
*	CHANNEL [2 : 0108]	0307	1	2.0	58.75	2.11	12.47	24.18	n/a	0.000
**	CALI B STANDHYD	0109	1	2.0	13.70	0.79	12.37	26.74	0.49	0.000
*	[I%= 3.0: S%= 2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	2.85	12.43	24.66	n/a	0.000
*	CHANNEL [2 : 0806]	0308	1	2.0	72.45	2.84	12.47	24.66	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	3.25	12.47	25.24	n/a	0.000
*	CHANNEL [2 : 0807]	0306	1	2.0	80.98	3.23	12.47	25.24	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	3.83	12.47	25.52	n/a	0.000
*	CHANNEL [2 : 0804]	0305	1	2.0	94.69	3.72	12.50	25.52	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	3.96	12.50	25.82	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	5.99	12.43	28.28	n/a	0.000
*	CHANNEL [2 : 0805]	0312	1	2.0	135.70	5.87	12.47	28.28	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	8.04	12.53	27.50	n/a	0.000
*	CHANNEL [2 : 0094]	0309	1	2.0	252.63	8.04	12.53	27.50	n/a	0.000
*	CALI B STANDHYD	0111	1	2.0	3.57	0.21	12.30	29.41	0.53	0.000
*	[I%=22.2: S%= 2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	8.19	12.53	27.52	n/a	0.000
*	CHANNEL [2 : 0808]	0310	1	2.0	256.20	8.18	12.53	27.52	n/a	0.000
*	CALI B STANDHYD	0112	1	2.0	16.90	1.01	12.33	31.40	0.57	0.000
*	[I%=23.9: S%= 2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	8.97	12.53	27.76	n/a	0.000
*	CHANNEL [2 : 0809]	0311	1	2.0	273.10	8.79	12.57	27.76	n/a	0.000

*	CALI B STANDHYD	0114	1	2.0	4.95	0.29	12.30	29.73	0.54	0.000
*	[I%=17.3: S%= 2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	8.99	12.57	27.80	n/a	0.000
*	CHANNEL [2 : 0810]	0313	1	2.0	278.05	8.98	12.57	27.80	n/a	0.000
**	CALI B STANDHYD	0115	1	2.0	12.66	0.65	12.33	27.25	0.50	0.000
*	[I%=28.8: S%= 2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	9.42	12.57	27.78	n/a	0.000
*	CHANNEL [2 : 0811]	0314	1	2.0	290.71	9.41	12.57	27.78	n/a	0.000
*	CALI B STANDHYD	0116	1	2.0	26.63	1.43	12.30	27.18	0.49	0.000
*	[I%=25.5: S%= 2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	10.29	12.53	27.73	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	10.29	12.57	27.73	n/a	0.000
**	CALI B STANDHYD	0117	1	2.0	27.32	1.08	12.30	20.77	0.38	0.000
*	[I%=25.1: S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	10.98	12.53	27.17	n/a	0.000
*	CHANNEL [2 : 0813]	0315	1	2.0	344.66	10.95	12.57	27.17	n/a	0.000
*	CALI B STANDHYD	0119	1	2.0	16.91	0.71	12.30	22.98	0.42	0.000
*	[I%=26.9: S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	11.43	12.53	26.98	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	11.43	12.53	26.98	n/a	0.000
*	CALI B STANDHYD	0120	1	2.0	17.04	0.62	12.30	19.30	0.35	0.000
*	[I%=20.9: S%= 2.00]									
*	CHANNEL [2 : 0120]	0316	1	2.0	17.04	0.61	12.33	19.30	n/a	0.000
**	CALI B STANDHYD	0121	1	2.0	1.39	0.04	12.23	14.41	0.26	0.000
*	[I%=14.6: S%= 2.00]									
**	CALI B STANDHYD	0122	1	2.0	3.13	0.16	12.23	21.01	0.38	0.000
*	[I%=26.5: S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.20	12.23	18.98	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	0.76	12.27	19.23	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	11.93	12.53	26.54	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	11.91	12.53	26.54	n/a	0.000
*	CALI B STANDHYD	0124	1	2.0	21.61	1.19	12.27	24.79	0.45	0.000
*	[I%=33.4: S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	12.48	12.53	26.45	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	12.48	12.53	26.45	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	229.83	11.61	12.53	26.45	n/a	0.000
*	MINOR SYSTEM:	0500	3	2.0	174.90	0.87	10.93	26.45	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	229.83	11.60	12.53	26.45	n/a	0.000
**	CALI B STANDHYD	0125	1	2.0	18.74	1.22	12.30	30.39	0.55	0.000
*	[I%=44.1: S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	248.57	12.33	12.50	26.75	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	174.90	0.87	11.33	26.45	n/a	0.000
**	CALI B STANDHYD	0126	1	2.0	22.26	1.22	12.27	23.29	0.42	0.000
*	[I%=32.1: S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	197.16	2.08	12.27	26.09	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	197.16	2.08	12.27	26.09	n/a	0.000
**	CALI B STANDHYD	0127	1	2.0	9.98	0.44	12.27	20.64	0.38	0.000
*	[I%=27.4: S%= 2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	207.14	2.52	12.27	25.83	n/a	0.000

```

* PIPE [ 2 : 0818] 0407 1 2.0 207.14 2.50 12.30 25.83 n/a 0.000
** CALI B STANDHYD 0128 1 2.0 14.87 1.19 12.27 31.85 0.58 0.000
[1%=45.4: S%= 2.00]
*
* ADD [0128 + 0407] 0819 3 2.0 222.01 3.66 12.27 26.23 n/a 0.000

```

**** SIMULATION NUMBER: 10 ** 1:5 Year 6 Hour SCS Design Storm**

```

W/E COMMAND HYD ID DT AREA Qpeak Tpeak R.V. R.C. Qbase
mi n ha cms hrs mm

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START @ 0.00 hrs
-----
READ STORM 15.0
[ Ptot= 59.50 mm ]
fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\fe28f0f5-464a-4b49-8d6
remark: 5yr/6hr Barrie Wpcc +15% SCS

```

```

** CALI B STANDHYD 0100 1 2.0 31.13 2.32 3.33 27.79 0.47 0.000
[1%=28.2: S%= 2.00]
*
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 2.30 3.33 27.79 n/a 0.000
** CALI B STANDHYD 0105 1 2.0 9.01 0.98 3.27 32.83 0.55 0.000
[1%=24.8: S%= 2.00]
*
** CALI B STANDHYD 0110 1 2.0 12.37 1.03 3.30 29.01 0.49 0.000
[1%=25.4: S%= 2.00]
*
* CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 1.01 3.33 29.01 n/a 0.000
*
* ADD [0105 + 0302] 0802 3 2.0 40.14 3.14 3.30 28.92 n/a 0.000
*
* ADD [0802 + 0303] 0802 1 2.0 52.51 4.13 3.33 28.94 n/a 0.000
*
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 4.13 3.33 28.94 n/a 0.000
** CALI B STANDHYD 0113 1 2.0 9.41 1.16 3.27 34.97 0.59 0.000
[1%=39.4: S%= 2.00]
*
* CHANNEL[ 2 : 0113] 0301 1 2.0 9.41 1.09 3.30 34.97 n/a 0.000
** CALI B STANDHYD 0118 1 2.0 4.11 0.37 3.27 27.72 0.47 0.000
[1%=27.5: S%= 2.00]
*
* RESRVR [ 2 : 0118] 0600 1 2.0 4.11 0.24 3.40 27.73 n/a 0.000
{ST= 0.01 ha.m }
*
* CHANNEL[ 2 : 0600] 0300 1 2.0 4.11 0.23 3.53 27.70 n/a 0.000
** CALI B STANDHYD 0101 1 2.0 8.68 0.63 3.27 23.88 0.40 0.000
[1%=22.9: S%= 2.00]
*
* ADD [0101 + 0300] 0801 3 2.0 12.79 0.81 3.27 25.10 n/a 0.000
*
* CHANNEL[ 2 : 0801] 0304 1 2.0 12.79 0.74 3.30 25.10 n/a 0.000
** CALI B STANDHYD 0123 1 2.0 22.81 1.87 3.33 30.50 0.51 0.000
[1%=27.1: S%= 2.00]
*
* ADD [0123 + 0301] 0800 3 2.0 32.22 2.93 3.33 31.81 n/a 0.000
*
* ADD [0800 + 0304] 0800 1 2.0 45.01 3.67 3.33 29.90 n/a 0.000
*
* ADD [0800 + 0400] 0800 3 2.0 97.52 7.80 3.33 29.39 n/a 0.000
*
* RESRVR [ 2 : 0800] 0601 1 2.0 97.52 4.72 3.60 29.09 n/a 0.000
{ST= 0.90 ha.m }
*
* PIPE [ 2 : 0601] 0403 1 2.0 97.52 4.72 3.63 29.09 n/a 0.000
*
* CHANNEL[ 2 : 0403] 0317 1 2.0 97.52 4.48 3.70 29.09 n/a 0.000
** CALI B STANDHYD 0102 1 2.0 19.41 1.80 3.33 32.65 0.55 0.000
[1%=22.0: S%= 2.00]
*
* ADD [0102 + 0317] 0803 3 2.0 116.93 5.39 3.67 29.68 n/a 0.000
** CALI B STANDHYD 0103 1 2.0 35.79 4.18 3.33 38.92 0.65 0.000
[1%=37.1: S%= 2.00]
*

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```

** CALI B STANDHYD 0104 1 2.0 5.22 0.59 3.27 34.94 0.59 0.000
[1%=20.7: S%= 2.00]
*
** CALI B STANDHYD 0106 1 2.0 13.71 1.18 3.33 30.47 0.51 0.000
[1%=21.1: S%= 2.00]
*
* CALI B STANDHYD 0107 1 5.0 8.53 0.93 3.25 33.70 0.57 0.000
[1%=18.1: S%= 2.00]
*
* CALI B STANDHYD 0108 1 2.0 58.75 3.78 3.37 27.02 0.45 0.000
[1%=24.4: S%= 2.00]
*
* CHANNEL[ 2 : 0108] 0307 1 2.0 58.75 3.70 3.43 27.02 n/a 0.000
*
* CALI B STANDHYD 0109 1 2.0 13.70 1.41 3.33 30.21 0.51 0.000
[1%= 3.0: S%= 2.00]
*
* ADD [0109 + 0307] 0806 3 2.0 72.45 5.01 3.40 27.62 n/a 0.000
*
* CHANNEL[ 2 : 0806] 0308 1 2.0 72.45 5.00 3.40 27.62 n/a 0.000
*
* ADD [0107 + 0308] 0807 3 2.0 80.98 5.74 3.40 28.26 n/a 0.000
*
* CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 5.70 3.40 28.26 n/a 0.000
*
* ADD [0106 + 0306] 0804 3 2.0 94.69 6.78 3.40 28.58 n/a 0.000
*
* CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 6.50 3.47 28.58 n/a 0.000
*
* ADD [0104 + 0305] 0093 3 2.0 99.91 6.92 3.43 28.91 n/a 0.000
*
* ADD [0103 + 0093] 0805 3 2.0 135.70 10.63 3.40 31.55 n/a 0.000
*
* CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 10.37 3.43 31.55 n/a 0.000
*
* ADD [0312 + 0803] 0094 3 2.0 252.63 14.74 3.50 30.68 n/a 0.000
*
* CHANNEL[ 2 : 0094] 0309 1 2.0 252.63 14.74 3.50 30.68 n/a 0.000
*
* CALI B STANDHYD 0111 1 2.0 3.57 0.36 3.30 32.88 0.55 0.000
[1%=22.2: S%= 2.00]
*
* ADD [0111 + 0309] 0808 3 2.0 256.20 14.99 3.50 30.71 n/a 0.000
*
* CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 14.97 3.50 30.71 n/a 0.000
*
* CALI B STANDHYD 0112 1 2.0 16.90 1.70 3.33 35.02 0.59 0.000
[1%=23.9: S%= 2.00]
*
* ADD [0112 + 0310] 0809 3 2.0 273.10 16.30 3.50 30.98 n/a 0.000
*
* CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 15.87 3.53 30.98 n/a 0.000
*
* CALI B STANDHYD 0114 1 2.0 4.95 0.53 3.30 33.30 0.56 0.000
[1%=17.3: S%= 2.00]
*
* ADD [0114 + 0311] 0810 3 2.0 278.05 16.18 3.53 31.02 n/a 0.000
*
* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 16.17 3.53 31.02 n/a 0.000
*
* CALI B STANDHYD 0115 1 2.0 12.66 1.08 3.30 30.35 0.51 0.000
[1%=28.8: S%= 2.00]
*
* ADD [0115 + 0313] 0811 3 2.0 290.71 16.90 3.53 30.99 n/a 0.000
*
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 16.86 3.57 30.99 n/a 0.000
*
* CALI B STANDHYD 0116 1 2.0 26.63 2.35 3.30 30.35 0.51 0.000
[1%=25.5: S%= 2.00]
*
* ADD [0116 + 0314] 0812 3 2.0 317.34 18.33 3.53 30.94 n/a 0.000
*
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 18.33 3.53 30.94 n/a 0.000
*
* CALI B STANDHYD 0117 1 2.0 27.32 1.80 3.30 23.13 0.39 0.000
[1%=25.1: S%= 2.00]
*
* ADD [0117 + 0401] 0813 3 2.0 344.66 19.40 3.53 30.32 n/a 0.000
*
* CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 19.24 3.57 30.32 n/a 0.000
*
* CALI B STANDHYD 0119 1 2.0 16.91 1.19 3.33 25.61 0.43 0.000
[1%=26.9: S%= 2.00]
*

```

*	ADD [0119 + 0315]	0814	3	2.0	361.57	19.99	3.57	30.10	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	20.00	3.57	30.10	n/a	0.000
**	CALI B STANDHYD [I%=20.9: S%= 2.00]	0120	1	2.0	17.04	1.04	3.30	21.59	0.36	0.000
*	CHANNEL [2 : 0120]	0316	1	2.0	17.04	1.03	3.33	21.59	n/a	0.000
**	CALI B STANDHYD [I%=14.6: S%= 2.00]	0121	1	2.0	1.39	0.07	3.23	16.22	0.27	0.000
*	CALI B STANDHYD [I%=26.5: S%= 2.00]	0122	1	2.0	3.13	0.26	3.23	23.36	0.39	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.32	3.23	21.16	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.29	3.27	21.50	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	20.75	3.57	29.62	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	20.75	3.57	29.62	n/a	0.000
**	CALI B STANDHYD [I%=33.4: S%= 2.00]	0124	1	2.0	21.61	1.97	3.27	27.43	0.46	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	21.52	3.57	29.50	n/a	0.000
*	DUHYD MAJOR SYSTEM: MI NOR SYSTEM:	0500 0500 0500	1 2 3	2.0 2.0 2.0	404.74 336.20 68.54	21.52 20.65 0.87	3.57 3.57 2.07	29.50 29.50 29.50	n/a n/a n/a	0.000 0.000 0.000
*	PIPE [2 : 0500]	0405	1	2.0	336.20	20.64	3.57	29.50	n/a	0.000
**	CALI B STANDHYD [I%=44.1: S%= 2.00]	0125	1	2.0	18.74	2.04	3.30	33.48	0.56	0.000
*	ADD [0125 + 0405]	0817	3	2.0	354.94	21.61	3.57	29.71	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	68.54	0.87	2.47	29.50	n/a	0.000
**	CALI B STANDHYD [I%=32.1: S%= 2.00]	0126	1	2.0	22.26	1.97	3.27	25.78	0.43	0.000
*	ADD [0126 + 0408]	0820	3	2.0	90.80	2.83	3.27	28.59	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	90.80	2.83	3.27	28.59	n/a	0.000
**	CALI B STANDHYD [I%=27.4: S%= 2.00]	0127	1	2.0	9.98	0.73	3.27	22.92	0.39	0.000
*	ADD [0127 + 0406]	0818	3	2.0	100.78	3.56	3.27	28.02	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	100.78	3.51	3.30	28.02	n/a	0.000
**	CALI B STANDHYD [I%=45.4: S%= 2.00]	0128	1	2.0	14.87	1.96	3.27	35.07	0.59	0.000
*	ADD [0128 + 0407]	0819	3	2.0	115.65	5.45	3.27	28.93	n/a	0.000

1:5 Year 12 Hour SCS Design Storm

 ** SIMULATION NUMBER: 11 **

W/E COMMAND HYD ID DT AREA * Qpeak Tpeak R. V. R. C. Qbase
 min ha * cms hrs mm

START @ 0.00 hrs

READ STORM 15.0

[Ptot= 64.31 mm]
 fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\cd5b1e2c-2029-4ef0-acc
 remark: 5yr/12hr Barrie Wpcc +15% SCS

**	CALI B STANDHYD [I%=28.2: S%= 2.00]	0100	1	2.0	31.13	2.16	6.33	30.91	0.48	0.000
*	CHANNEL [2 : 0100]	0302	1	2.0	31.13	2.14	6.37	30.91	n/a	0.000
**	CALI B STANDHYD [I%=24.8: S%= 2.00]	0105	1	2.0	9.01	0.93	6.27	36.59	0.57	0.000
**	CALI B STANDHYD [I%=25.4: S%= 2.00]	0110	1	2.0	12.37	0.97	6.30	32.35	0.50	0.000

*	CHANNEL [2 : 0110]	0303	1	2.0	12.37	0.95	6.33	32.35	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	2.94	6.30	32.19	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	3.87	6.33	32.23	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	3.88	6.33	32.23	n/a	0.000
**	CALI B STANDHYD [I%=39.4: S%= 2.00]	0113	1	2.0	9.41	1.04	6.27	38.65	0.60	0.000
*	CHANNEL [2 : 0113]	0301	1	2.0	9.41	0.97	6.30	38.64	n/a	0.000
**	CALI B STANDHYD [I%=27.5: S%= 2.00]	0118	1	2.0	4.11	0.35	6.27	30.86	0.48	0.000
*	RESRVR [2 : 0118] {ST= 0.01 ha.m }	0600	1	2.0	4.11	0.24	6.40	30.94	n/a	0.000
*	CHANNEL [2 : 0600]	0300	1	2.0	4.11	0.22	6.53	30.92	n/a	0.000
**	CALI B STANDHYD [I%=22.9: S%= 2.00]	0101	1	2.0	8.68	0.60	6.27	26.68	0.41	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	0.78	6.27	28.04	n/a	0.000
*	CHANNEL [2 : 0801]	0304	1	2.0	12.79	0.72	6.33	28.03	n/a	0.000
**	CALI B STANDHYD [I%=27.1: S%= 2.00]	0123	1	2.0	22.81	1.70	6.33	34.00	0.53	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	2.66	6.33	35.36	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	3.38	6.33	33.28	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	7.26	6.33	32.71	n/a	0.000
*	RESRVR [2 : 0800] {ST= 0.88 ha.m }	0601	1	2.0	97.52	4.11	6.67	32.42	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	4.11	6.67	32.42	n/a	0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	3.96	6.77	32.42	n/a	0.000
**	CALI B STANDHYD [I%=22.0: S%= 2.00]	0102	1	2.0	19.41	1.71	6.33	36.45	0.57	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	4.77	6.70	33.09	n/a	0.000
**	CALI B STANDHYD [I%=37.1: S%= 2.00]	0103	1	2.0	35.79	3.88	6.33	43.00	0.67	0.000
**	CALI B STANDHYD [I%=20.7: S%= 2.00]	0104	1	2.0	5.22	0.57	6.30	38.93	0.61	0.000
*	** CALI B STANDHYD [I%=21.1: S%= 2.00]	0106	1	2.0	13.71	1.12	6.33	34.04	0.53	0.000
*	CALI B STANDHYD [I%=18.1: S%= 2.00]	0107	1	5.0	8.53	0.88	6.25	37.61	0.58	0.000
*	CALI B STANDHYD [I%=24.4: S%= 2.00]	0108	1	2.0	58.75	3.58	6.40	30.14	0.47	0.000
*	CHANNEL [2 : 0108]	0307	1	2.0	58.75	3.51	6.43	30.14	n/a	0.000
*	CALI B STANDHYD [I%= 3.0: S%= 2.00]	0109	1	2.0	13.70	1.30	6.37	34.00	0.53	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	4.71	6.40	30.87	n/a	0.000
*	CHANNEL [2 : 0806]	0308	1	2.0	72.45	4.70	6.43	30.87	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	5.36	6.43	31.58	n/a	0.000
*	CHANNEL [2 : 0807]	0306	1	2.0	80.98	5.35	6.43	31.58	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	6.33	6.43	31.94	n/a	0.000
*	CHANNEL [2 : 0804]	0305	1	2.0	94.69	6.10	6.47	31.94	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	6.49	6.47	32.30	n/a	0.000

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* ADD [0103 + 0093] 0805 3 2.0 135.70 9.86 6.40 35.12 n/a 0.000
* CHANNEL [ 2 : 0805] 0312 1 2.0 135.70 9.62 6.43 35.12 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 13.74 6.50 34.18 n/a 0.000
* CHANNEL [ 2 : 0094] 0309 1 2.0 252.63 13.73 6.50 34.18 n/a 0.000
* CALI B STANDHYD [1%=22.2: S%= 2.00] 0111 1 2.0 3.57 0.34 6.30 36.67 0.57 0.000
* ADD [0111 + 0309] 0808 3 2.0 256.20 13.96 6.50 34.22 n/a 0.000
* CHANNEL [ 2 : 0808] 0310 1 2.0 256.20 13.92 6.50 34.22 n/a 0.000
* CALI B STANDHYD [1%=23.9: S%= 2.00] 0112 1 2.0 16.90 1.60 6.33 38.98 0.61 0.000
* ADD [0112 + 0310] 0809 3 2.0 273.10 15.17 6.50 34.51 n/a 0.000
* CHANNEL [ 2 : 0809] 0311 1 2.0 273.10 14.80 6.57 34.51 n/a 0.000
* CALI B STANDHYD [1%=17.3: S%= 2.00] 0114 1 2.0 4.95 0.50 6.30 37.19 0.58 0.000
* ADD [0114 + 0311] 0810 3 2.0 278.05 15.07 6.53 34.56 n/a 0.000
* CHANNEL [ 2 : 0810] 0313 1 2.0 278.05 15.08 6.57 34.56 n/a 0.000
* CALI B STANDHYD [1%=28.8: S%= 2.00] 0115 1 2.0 12.66 1.02 6.33 33.74 0.52 0.000
* ADD [0115 + 0313] 0811 3 2.0 290.71 15.76 6.53 34.52 n/a 0.000
* CHANNEL [ 2 : 0811] 0314 1 2.0 290.71 15.75 6.57 34.52 n/a 0.000
* CALI B STANDHYD [1%=25.5: S%= 2.00] 0116 1 2.0 26.63 2.26 6.30 33.84 0.53 0.000
* ADD [0116 + 0314] 0812 3 2.0 317.34 17.14 6.53 34.46 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 17.14 6.53 34.46 n/a 0.000
* CALI B STANDHYD [1%=25.4: S%= 2.00] 0117 1 2.0 27.32 1.68 6.30 25.73 0.40 0.000
* ADD [0117 + 0401] 0813 3 2.0 344.66 18.16 6.53 33.77 n/a 0.000
* CHANNEL [ 2 : 0813] 0315 1 2.0 344.66 18.02 6.57 33.77 n/a 0.000
* CALI B STANDHYD [1%=26.9: S%= 2.00] 0119 1 2.0 16.91 1.11 6.33 28.51 0.44 0.000
* ADD [0119 + 0315] 0814 3 2.0 361.57 18.74 6.57 33.53 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 18.74 6.57 33.53 n/a 0.000
* CALI B STANDHYD [1%=20.9: S%= 2.00] 0120 1 2.0 17.04 0.98 6.30 24.12 0.38 0.000
* CHANNEL [ 2 : 0120] 0316 1 2.0 17.04 0.97 6.33 24.12 n/a 0.000
* CALI B STANDHYD [1%=14.6: S%= 2.00] 0121 1 2.0 1.39 0.06 6.23 18.23 0.28 0.000
* CALI B STANDHYD [1%=26.5: S%= 2.00] 0122 1 2.0 3.13 0.24 6.23 25.95 0.40 0.000
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.30 6.23 23.57 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 1.21 6.30 24.00 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 19.47 6.57 32.99 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 19.47 6.57 32.99 n/a 0.000
* CALI B STANDHYD [1%=33.4: S%= 2.00] 0124 1 2.0 21.61 1.83 6.27 30.34 0.47 0.000
* ADD [0124 + 0404] 0816 3 2.0 404.74 20.20 6.57 32.85 n/a 0.000
* DUHYD 0500 1 2.0 404.74 20.20 6.57 32.85 n/a 0.000
* MAJOR SYSTEM: 0500 2 2.0 307.56 19.33 6.57 32.85 n/a 0.000
* MI NOR SYSTEM: 0500 3 2.0 97.17 0.87 4.47 32.85 n/a 0.000

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* PIPE [ 2 : 0500] 0405 1 2.0 307.56 19.33 6.57 32.85 n/a 0.000
** CALI B STANDHYD [1%=44.1: S%= 2.00] 0125 1 2.0 18.74 1.85 6.30 36.84 0.57 0.000
* ADD [0125 + 0405] 0817 3 2.0 326.30 20.27 6.53 33.08 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 97.17 0.87 4.83 32.85 n/a 0.000
** CALI B STANDHYD [1%=32.1: S%= 2.00] 0126 1 2.0 22.26 1.82 6.27 28.51 0.44 0.000
* ADD [0126 + 0408] 0820 3 2.0 119.43 2.69 6.27 32.04 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 119.43 2.68 6.27 32.04 n/a 0.000
** CALI B STANDHYD [1%=27.4: S%= 2.00] 0127 1 2.0 9.98 0.67 6.27 25.42 0.40 0.000
* ADD [0127 + 0406] 0818 3 2.0 129.41 3.35 6.27 31.53 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 129.41 3.31 6.30 31.53 n/a 0.000
** CALI B STANDHYD [1%=45.4: S%= 2.00] 0128 1 2.0 14.87 1.78 6.27 38.59 0.60 0.000
* ADD [0128 + 0407] 0819 3 2.0 144.28 5.07 6.27 32.26 n/a 0.000
*****
** SIMULATION NUMBER: 12 **
*****
1:5 Year 24 Hour SCS Design Storm
W/E COMMAND HYD ID DT AREA Opeak Tpeak R. V. R. C. Qbase
mi n ha cms hrs mm cms
START @ 0.00 hrs
-----
READ STORM 15.0
[ Ptot= 76.01 mm ]
fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\d435a3a6-b591-4239-b51
remark: 5yr/24hr Barrie Wpcc +15% SCS
** CALI B STANDHYD [1%=28.2: S%= 2.00] 0100 1 2.0 31.13 2.27 12.33 38.84 0.51 0.000
* CHANNEL [ 2 : 0100] 0302 1 2.0 31.13 2.25 12.37 38.84 n/a 0.000
** CALI B STANDHYD [1%=24.8: S%= 2.00] 0105 1 2.0 9.01 0.98 12.27 46.02 0.61 0.000
** CALI B STANDHYD [1%=25.4: S%= 2.00] 0110 1 2.0 12.37 1.03 12.30 40.81 0.54 0.000
* CHANNEL [ 2 : 0110] 0303 1 2.0 12.37 1.01 12.33 40.81 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 3.09 12.30 40.45 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 4.09 12.33 40.54 n/a 0.000
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 4.09 12.33 40.54 n/a 0.000
** CALI B STANDHYD [1%=39.4: S%= 2.00] 0113 1 2.0 9.41 1.08 12.27 47.85 0.63 0.000
* CHANNEL [ 2 : 0113] 0301 1 2.0 9.41 1.00 12.30 47.85 n/a 0.000
** CALI B STANDHYD [1%=27.5: S%= 2.00] 0118 1 2.0 4.11 0.37 12.27 38.84 0.51 0.000
* RESRVR [ 2 : 0118] 0600 1 2.0 4.11 0.24 12.43 38.88 n/a 0.000
{ST= 0.01 ha.m }
* CHANNEL [ 2 : 0600] 0300 1 2.0 4.11 0.23 12.57 38.86 n/a 0.000
** CALI B STANDHYD [1%=22.9: S%= 2.00] 0101 1 2.0 8.68 0.66 12.27 33.84 0.45 0.000
* ADD [0101 + 0300] 0801 3 2.0 12.79 0.83 12.27 35.45 n/a 0.000
* CHANNEL [ 2 : 0801] 0304 1 2.0 12.79 0.78 12.33 35.44 n/a 0.000
** CALI B STANDHYD [1%=27.1: S%= 2.00] 0123 1 2.0 22.81 1.86 12.33 42.84 0.56 0.000

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*	ADD [0123 + 0301]	0800	3	2.0	32.22	2.85	12.33	44.31	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	3.63	12.33	41.79	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	7.72	12.33	41.11	n/a	0.000
*	RESRVR [2 : 0800 {ST= 0.91 ha.m }	0601	1	2.0	97.52	4.83	12.60	40.82	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	4.82	12.60	40.82	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	4.56	12.70	40.82	n/a	0.000
**	CALI B STANDHYD [I%=22.0: S%= 2.00]	0102	1	2.0	19.41	1.83	12.33	46.01	0.61	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	5.47	12.67	41.68	n/a	0.000
**	CALI B STANDHYD [I%=37.1: S%= 2.00]	0103	1	2.0	35.79	4.01	12.33	53.16	0.70	0.000
**	CALI B STANDHYD [I%=20.7: S%= 2.00]	0104	1	2.0	5.22	0.60	12.30	48.89	0.64	0.000
**	CALI B STANDHYD [I%=21.1: S%= 2.00]	0106	1	2.0	13.71	1.19	12.33	43.06	0.57	0.000
*	CALI B STANDHYD [I%=18.1: S%= 2.00]	0107	1	5.0	8.53	0.94	12.25	47.42	0.62	0.000
*	CALI B STANDHYD [I%=24.4: S%= 2.00]	0108	1	2.0	58.75	3.80	12.40	38.10	0.50	0.000
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	3.73	12.43	38.10	n/a	0.000
**	CALI B STANDHYD [I%= 3.0: S%= 2.00]	0109	1	2.0	13.70	1.41	12.33	43.57	0.57	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	5.02	12.40	39.13	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	5.01	12.43	39.13	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	5.72	12.40	40.00	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	5.70	12.43	40.00	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	6.75	12.43	40.45	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	6.51	12.47	40.44	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	6.92	12.47	40.89	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	10.44	12.40	44.12	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	10.19	12.43	44.12	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	14.73	12.50	42.99	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	14.73	12.50	42.99	n/a	0.000
**	CALI B STANDHYD [I%=22.2: S%= 2.00]	0111	1	2.0	3.57	0.36	12.30	46.20	0.61	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	14.97	12.50	43.04	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	14.94	12.50	43.04	n/a	0.000
*	CALI B STANDHYD [I%=23.9: S%= 2.00]	0112	1	2.0	16.90	1.70	12.33	48.87	0.64	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	16.26	12.50	43.40	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	15.86	12.57	43.40	n/a	0.000
*	CALI B STANDHYD [I%=17.3: S%= 2.00]	0114	1	2.0	4.95	0.54	12.30	46.96	0.62	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	16.15	12.53	43.46	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	16.16	12.57	43.46	n/a	0.000
*	CALI B STANDHYD [I%=28.8: S%= 2.00]	0115	1	2.0	12.66	1.07	12.33	42.32	0.56	0.000

*	ADD [0115 + 0313]	0811	3	2.0	290.71	16.89	12.53	43.41	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	16.87	12.57	43.41	n/a	0.000
*	CALI B STANDHYD [I%=25.5: S%= 2.00]	0116	1	2.0	26.63	2.39	12.30	42.64	0.56	0.000
*	ADD [0116 + 0314]	0812	3	2.0	317.34	18.37	12.53	43.35	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	18.37	12.53	43.35	n/a	0.000
*	CALI B STANDHYD [I%=25.1: S%= 2.00]	0117	1	2.0	27.32	1.78	12.30	32.38	0.43	0.000
*	ADD [0117 + 0401]	0813	3	2.0	344.66	19.46	12.53	42.48	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	19.31	12.57	42.48	n/a	0.000
**	CALI B STANDHYD [I%=26.9: S%= 2.00]	0119	1	2.0	16.91	1.16	12.33	35.89	0.47	0.000
*	ADD [0119 + 0315]	0814	3	2.0	361.57	20.07	12.57	42.17	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	20.08	12.57	42.17	n/a	0.000
*	CALI B STANDHYD [I%=20.9: S%= 2.00]	0120	1	2.0	17.04	1.03	12.30	30.62	0.40	0.000
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.02	12.33	30.62	n/a	0.000
*	CALI B STANDHYD [I%=14.6: S%= 2.00]	0121	1	2.0	1.39	0.07	12.23	23.47	0.31	0.000
*	CALI B STANDHYD [I%=26.5: S%= 2.00]	0122	1	2.0	3.13	0.25	12.23	32.55	0.43	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.32	12.23	29.75	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.27	12.30	30.44	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	20.88	12.53	41.51	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	20.88	12.57	41.51	n/a	0.000
*	CALI B STANDHYD [I%=33.4: S%= 2.00]	0124	1	2.0	21.61	1.87	12.27	37.69	0.50	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	21.64	12.57	41.31	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	21.64	12.57	41.31	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	267.61	20.77	12.57	41.31	n/a	0.000
*	MINOR SYSTEM:	0500	3	2.0	137.13	0.87	9.83	41.31	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	267.61	20.78	12.57	41.31	n/a	0.000
**	CALI B STANDHYD [I%=44.1: S%= 2.00]	0125	1	2.0	18.74	1.88	12.30	45.25	0.60	0.000
*	ADD [0125 + 0405]	0817	3	2.0	286.35	21.77	12.53	41.56	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	137.13	0.87	10.27	41.31	n/a	0.000
**	CALI B STANDHYD [I%=32.1: S%= 2.00]	0126	1	2.0	22.26	1.87	12.27	35.44	0.47	0.000
*	ADD [0126 + 0408]	0820	3	2.0	159.39	2.74	12.27	40.49	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	159.39	2.73	12.27	40.49	n/a	0.000
**	CALI B STANDHYD [I%=27.4: S%= 2.00]	0127	1	2.0	9.98	0.70	12.27	31.79	0.42	0.000
*	ADD [0127 + 0406]	0818	3	2.0	169.37	3.43	12.27	39.97	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	169.37	3.39	12.30	39.97	n/a	0.000
**	CALI B STANDHYD [I%=45.4: S%= 2.00]	0128	1	2.0	14.87	1.82	12.27	47.38	0.62	0.000
*	ADD [0128 + 0407]	0819	3	2.0	184.24	5.17	12.27	40.57	n/a	0.000

** SIMULATION NUMBER: 13 **

1:10 Year 6 Hour SCS Design Storm

W/E COMMAND HYD ID DT AREA Qpeak Tpeak R. V. R. C. Qbase
 mi n ha cms hrs mm cms

START @ 0.00 hrs

READ STORM

[Plot = 70.80 mm]

[Fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\18481e3d-6d75-48f9-814

remark: 10yr/6hr Barrie Wpcc +15% SCS

15.0

* ** CALI B STANDHYD 0100 1 2.0 31.13 3.06 3.33 35.26 0.50 0.000
[I%=28.2; S%= 2.00]
* CHANNEL [2 : 0100] 0302 1 2.0 31.13 3.03 3.37 35.26 n/a 0.000
* ** CALI B STANDHYD 0105 1 2.0 9.01 1.33 3.27 41.77 0.59 0.000
[I%=24.8; S%= 2.00]
* ** CALI B STANDHYD 0110 1 2.0 12.37 1.39 3.30 36.99 0.52 0.000
[I%=25.4; S%= 2.00]
* CHANNEL [2 : 0110] 0303 1 2.0 12.37 1.37 3.33 36.99 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 4.17 3.30 36.72 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 5.50 3.33 36.78 n/a 0.000
* PIPE [2 : 0802] 0400 1 2.0 52.51 5.50 3.33 36.78 n/a 0.000
* ** CALI B STANDHYD 0113 1 2.0 9.41 1.46 3.27 43.71 0.62 0.000
[I%=39.4; S%= 2.00]
* CHANNEL [2 : 0113] 0301 1 2.0 9.41 1.38 3.30 43.71 n/a 0.000
* ** CALI B STANDHYD 0118 1 2.0 4.11 0.49 3.27 35.23 0.50 0.000
[I%=27.5; S%= 2.00]
* RESRVR [2 : 0118] 0600 1 2.0 4.11 0.29 3.43 35.27 n/a 0.000
{ ST = 0.02 ha.m }
* CHANNEL [2 : 0600] 0300 1 2.0 4.11 0.28 3.57 35.24 n/a 0.000
* ** CALI B STANDHYD 0101 1 2.0 8.68 0.84 3.27 30.59 0.43 0.000
[I%=22.9; S%= 2.00]
* ADD [0101 + 0300] 0801 3 2.0 12.79 1.05 3.27 32.09 n/a 0.000
* CHANNEL [2 : 0801] 0304 1 2.0 12.79 0.97 3.30 32.08 n/a 0.000
* ** CALI B STANDHYD 0123 1 2.0 22.81 2.51 3.33 38.86 0.55 0.000
[I%=27.1; S%= 2.00]
* ADD [0123 + 0301] 0800 3 2.0 32.22 3.86 3.33 40.27 n/a 0.000
* ADD [0800 + 0304] 0800 1 2.0 45.01 4.81 3.33 37.95 n/a 0.000
* ADD [0800 + 0400] 0800 3 2.0 97.52 10.31 3.33 37.32 n/a 0.000
* RESRVR [2 : 0800] 0601 1 2.0 97.52 7.73 3.50 37.03 n/a 0.000
{ ST = 1.00 ha.m }
* PIPE [2 : 0601] 0403 1 2.0 97.52 7.73 3.50 37.03 n/a 0.000
* CHANNEL [2 : 0403] 0317 1 2.0 97.52 7.08 3.60 37.03 n/a 0.000
* ** CALI B STANDHYD 0102 1 2.0 19.41 2.47 3.33 41.71 0.59 0.000
[I%=22.0; S%= 2.00]
* ADD [0102 + 0317] 0803 3 2.0 116.93 8.45 3.57 37.80 n/a 0.000
* ** CALI B STANDHYD 0103 1 2.0 35.79 5.44 3.30 48.60 0.69 0.000
[I%=37.1; S%= 2.00]
* ** CALI B STANDHYD 0104 1 2.0 5.22 0.80 3.27 44.41 0.63 0.000
[I%=20.7; S%= 2.00]
* ** CALI B STANDHYD 0106 1 2.0 13.71 1.61 3.33 38.99 0.55 0.000
[I%=21.1; S%= 2.00]
* CALI B STANDHYD 0107 1 5.0 8.53 1.22 3.25 43.01 0.61 0.000
[I%=18.1; S%= 2.00]

* CALI B STANDHYD 0108 1 2.0 58.75 5.07 3.37 34.50 0.49 0.000
[I%=24.4; S%= 2.00]
* CHANNEL [2 : 0108] 0307 1 2.0 58.75 4.97 3.40 34.50 n/a 0.000
* ** CALI B STANDHYD 0109 1 2.0 13.70 1.90 3.33 39.26 0.55 0.000
[I%= 3.0; S%= 2.00]
* ADD [0109 + 0307] 0806 3 2.0 72.45 6.72 3.40 35.40 n/a 0.000
* CHANNEL [2 : 0806] 0308 1 2.0 72.45 6.71 3.40 35.40 n/a 0.000
* ADD [0107 + 0308] 0807 3 2.0 80.98 7.69 3.40 36.20 n/a 0.000
* CHANNEL [2 : 0807] 0306 1 2.0 80.98 7.65 3.40 36.20 n/a 0.000
* ADD [0106 + 0306] 0804 3 2.0 94.69 9.11 3.40 36.60 n/a 0.000
* CHANNEL [2 : 0804] 0305 1 2.0 94.69 8.71 3.43 36.60 n/a 0.000
* ADD [0104 + 0305] 0093 3 2.0 99.91 9.26 3.43 37.01 n/a 0.000
* ADD [0103 + 0093] 0805 3 2.0 135.70 13.88 3.37 40.07 n/a 0.000
* CHANNEL [2 : 0805] 0312 1 2.0 135.70 13.52 3.43 40.07 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 20.93 3.50 39.02 n/a 0.000
* CHANNEL [2 : 0094] 0309 1 2.0 252.63 20.87 3.50 39.02 n/a 0.000
* ** CALI B STANDHYD 0111 1 2.0 3.57 0.49 3.30 41.91 0.59 0.000
[I%=22.2; S%= 2.00]
* ADD [0111 + 0309] 0808 3 2.0 256.20 21.17 3.50 39.06 n/a 0.000
* CHANNEL [2 : 0808] 0310 1 2.0 256.20 21.10 3.53 39.06 n/a 0.000
* ** CALI B STANDHYD 0112 1 2.0 16.90 2.29 3.33 44.42 0.63 0.000
[I%=23.9; S%= 2.00]
* ADD [0112 + 0310] 0809 3 2.0 273.10 22.73 3.50 39.39 n/a 0.000
* CHANNEL [2 : 0809] 0311 1 2.0 273.10 22.19 3.57 39.39 n/a 0.000
* ** CALI B STANDHYD 0114 1 2.0 4.95 0.68 3.27 42.57 0.60 0.000
[I%=17.3; S%= 2.00]
* ADD [0114 + 0311] 0810 3 2.0 278.05 22.57 3.53 39.45 n/a 0.000
* CHANNEL [2 : 0810] 0313 1 2.0 278.05 22.57 3.57 39.45 n/a 0.000
* ** CALI B STANDHYD 0115 1 2.0 12.66 1.43 3.30 38.45 0.54 0.000
[I%=28.8; S%= 2.00]
* ADD [0115 + 0313] 0811 3 2.0 290.71 23.46 3.53 39.41 n/a 0.000
* CHANNEL [2 : 0811] 0314 1 2.0 290.71 23.43 3.57 39.41 n/a 0.000
* ** CALI B STANDHYD 0116 1 2.0 26.63 3.17 3.30 38.67 0.55 0.000
[I%=25.5; S%= 2.00]
* ADD [0116 + 0314] 0812 3 2.0 317.34 25.20 3.53 39.34 n/a 0.000
* PIPE [2 : 0812] 0401 1 2.0 317.34 25.19 3.53 39.34 n/a 0.000
* ** CALI B STANDHYD 0117 1 2.0 27.32 2.33 3.30 29.37 0.41 0.000
[I%=25.1; S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 26.59 3.53 38.55 n/a 0.000
* CHANNEL [2 : 0813] 0315 1 2.0 344.66 26.41 3.57 38.55 n/a 0.000
* ** CALI B STANDHYD 0119 1 2.0 16.91 1.56 3.30 32.55 0.46 0.000
[I%=26.9; S%= 2.00]
* ADD [0119 + 0315] 0814 3 2.0 361.57 27.34 3.57 38.27 n/a 0.000
* PIPE [2 : 0814] 0402 1 2.0 361.57 27.35 3.57 38.27 n/a 0.000
* ** CALI B STANDHYD 0120 1 2.0 17.04 1.37 3.27 27.67 0.39 0.000
[I%=20.9; S%= 2.00]
* CHANNEL [2 : 0120] 0316 1 2.0 17.04 1.37 3.30 27.67 n/a 0.000

*	CALIB STANDHYD	0121	1	2.0	1.39	0.09	3.23	21.08	0.30	0.000
	[I%=14.6; S%= 2.00]									
*	CALIB STANDHYD	0122	1	2.0	3.13	0.33	3.23	29.56	0.42	0.000
	[I%=26.5; S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.42	3.23	26.95	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.75	3.27	27.52	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	28.30	3.57	37.67	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	28.30	3.57	37.67	n/a	0.000
*	CALIB STANDHYD	0124	1	2.0	21.61	2.61	3.27	34.37	0.49	0.000
	[I%=33.4; S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	29.24	3.57	37.49	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	29.24	3.57	37.49	n/a	0.000
	MAJOR SYSTEM:	0500	2	2.0	347.99	28.37	3.57	37.49	n/a	0.000
	MINOR SYSTEM:	0500	3	2.0	56.74	0.87	1.90	37.49	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	347.99	28.36	3.57	37.49	n/a	0.000
**	CALIB STANDHYD	0125	1	2.0	18.74	2.57	3.30	41.47	0.59	0.000
	[I%=44.1; S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	366.73	29.51	3.53	37.69	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	56.74	0.87	2.33	37.49	n/a	0.000
*	CALIB STANDHYD	0126	1	2.0	22.26	2.49	3.23	32.31	0.46	0.000
	[I%=32.1; S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	79.00	3.35	3.23	36.03	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	79.00	3.35	3.27	36.03	n/a	0.000
**	CALIB STANDHYD	0127	1	2.0	9.98	0.93	3.27	28.91	0.41	0.000
	[I%=27.4; S%= 2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	88.98	4.28	3.27	35.23	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	88.98	4.21	3.27	35.23	n/a	0.000
**	CALIB STANDHYD	0128	1	2.0	14.87	2.45	3.27	43.43	0.61	0.000
	[I%=45.4; S%= 2.00]									
*	ADD [0128 + 0407]	0819	3	2.0	103.85	6.66	3.27	36.41	n/a	0.000

 ** SIMULATION NUMBER: 14 **

1:10 Year 12 Hour SCS Design Storm

W/E	COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms	
	START @ 0.00 hrs									
	READ STORM									
	[Ptot= 76.00 mm]			15.0						
	rname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\F140697a-c991-4115-bcc									
	remark: 10yr/12hr Barrie Wpcc +15% SCS									
**	CALIB STANDHYD	0100	1	2.0	31.13	2.83	6.33	38.83	0.51	0.000
	[I%=28.2; S%= 2.00]									
*	CHANNEL[2 : 0100]	0302	1	2.0	31.13	2.81	6.37	38.83	n/a	0.000
**	CALIB STANDHYD	0105	1	2.0	9.01	1.19	6.27	46.01	0.61	0.000
	[I%=24.8; S%= 2.00]									
**	CALIB STANDHYD	0110	1	2.0	12.37	1.25	6.30	40.81	0.54	0.000
	[I%=25.4; S%= 2.00]									
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.23	6.33	40.80	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	3.82	6.30	40.45	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	5.04	6.33	40.53	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	5.04	6.33	40.53	n/a	0.000

**	CALIB STANDHYD	0113	1	2.0	9.41	1.35	6.27	47.85	0.63	0.000
	[I%=39.4; S%= 2.00]									
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.26	6.30	47.84	n/a	0.000
**	CALIB STANDHYD	0118	1	2.0	4.11	0.45	6.27	38.83	0.51	0.000
	[I%=27.5; S%= 2.00]									
*	RESRVR [2 : 0118]	0600	1	2.0	4.11	0.28	6.43	38.95	n/a	0.000
	{ST= 0.02 ha.m }									
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.26	6.57	38.92	n/a	0.000
**	CALIB STANDHYD	0101	1	2.0	8.68	0.79	6.27	33.83	0.45	0.000
	[I%=22.9; S%= 2.00]									
*	ADD [0101 + 0300]	0801	3	2.0	12.79	0.99	6.27	35.47	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	0.91	6.30	35.46	n/a	0.000
**	CALIB STANDHYD	0123	1	2.0	22.81	2.26	6.33	42.84	0.56	0.000
	[I%=27.1; S%= 2.00]									
*	ADD [0123 + 0301]	0800	3	2.0	32.22	3.50	6.33	44.30	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	4.40	6.33	41.79	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	9.44	6.33	41.11	n/a	0.000
*	RESRVR [2 : 0800]	0601	1	2.0	97.52	6.95	6.53	40.82	n/a	0.000
	{ST= 0.98 ha.m }									
*	PIPE [2 : 0601]	0403	1	2.0	97.52	6.97	6.53	40.82	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	6.43	6.63	40.82	n/a	0.000
**	CALIB STANDHYD	0102	1	2.0	19.41	2.31	6.33	46.00	0.61	0.000
	[I%=22.0; S%= 2.00]									
*	ADD [0102 + 0317]	0803	3	2.0	116.93	7.67	6.60	41.68	n/a	0.000
**	CALIB STANDHYD	0103	1	2.0	35.79	4.84	6.30	53.15	0.70	0.000
	[I%=37.1; S%= 2.00]									
**	CALIB STANDHYD	0104	1	2.0	5.22	0.72	6.27	48.88	0.64	0.000
	[I%=20.7; S%= 2.00]									
**	CALIB STANDHYD	0106	1	2.0	13.71	1.50	6.33	43.05	0.57	0.000
	[I%=21.1; S%= 2.00]									
*	CALIB STANDHYD	0107	1	5.0	8.53	1.14	6.25	47.41	0.62	0.000
	[I%=18.1; S%= 2.00]									
*	CALIB STANDHYD	0108	1	2.0	58.75	4.71	6.37	38.09	0.50	0.000
	[I%=24.4; S%= 2.00]									
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	4.62	6.43	38.09	n/a	0.000
**	CALIB STANDHYD	0109	1	2.0	13.70	1.78	6.33	43.56	0.57	0.000
	[I%= 3.0; S%= 2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	6.24	6.40	39.13	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	6.23	6.40	39.13	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	7.15	6.40	40.00	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	7.11	6.40	40.00	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	8.48	6.40	40.44	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	8.11	6.43	40.44	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	8.65	6.43	40.88	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	12.78	6.37	44.12	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	12.51	6.43	44.12	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	19.12	6.50	42.99	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	19.08	6.53	42.99	n/a	0.000
*	CALIB STANDHYD	0111	1	2.0	3.57	0.45	6.30	46.19	0.61	0.000

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* [I%=22.2: S%= 2.00]
* ADD [0111 + 0309] 0808 3 2.0 256.20 19.33 6.53 43.03 n/a 0.000
* CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 19.33 6.53 43.03 n/a 0.000
* ** CALI B STANDHYD 0112 1 2.0 16.90 2.13 6.33 48.86 0.64 0.000
* [I%=23.9: S%= 2.00]
* ADD [0112 + 0310] 0809 3 2.0 273.10 20.74 6.50 43.39 n/a 0.000
* CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 20.35 6.57 43.39 n/a 0.000
* ** CALI B STANDHYD 0114 1 2.0 4.95 0.65 6.30 46.95 0.62 0.000
* [I%=17.3: S%= 2.00]
* ADD [0114 + 0311] 0810 3 2.0 278.05 20.69 6.57 43.46 n/a 0.000
* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 20.70 6.57 43.46 n/a 0.000
* ** CALI B STANDHYD 0115 1 2.0 12.66 1.33 6.30 42.32 0.56 0.000
* [I%=28.8: S%= 2.00]
* ADD [0115 + 0313] 0811 3 2.0 290.71 21.48 6.57 43.41 n/a 0.000
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 21.49 6.57 43.41 n/a 0.000
* ** CALI B STANDHYD 0116 1 2.0 26.63 2.96 6.30 42.63 0.56 0.000
* [I%=25.5: S%= 2.00]
* ADD [0116 + 0314] 0812 3 2.0 317.34 23.11 6.53 43.34 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 23.11 6.53 43.34 n/a 0.000
* ** CALI B STANDHYD 0117 1 2.0 27.32 2.16 6.30 32.38 0.43 0.000
* [I%=25.1: S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 24.42 6.53 42.47 n/a 0.000
* CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 24.28 6.57 42.47 n/a 0.000
* ** CALI B STANDHYD 0119 1 2.0 16.91 1.44 6.30 35.88 0.47 0.000
* [I%=26.9: S%= 2.00]
* ADD [0119 + 0315] 0814 3 2.0 361.57 25.16 6.57 42.16 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 25.17 6.57 42.16 n/a 0.000
* ** CALI B STANDHYD 0120 1 2.0 17.04 1.27 6.27 30.62 0.40 0.000
* [I%=20.9: S%= 2.00]
* CHANNEL[ 2 : 0120] 0316 1 2.0 17.04 1.28 6.30 30.62 n/a 0.000
* ** CALI B STANDHYD 0121 1 2.0 1.39 0.08 6.27 23.47 0.31 0.000
* [I%=14.6: S%= 2.00]
* ** CALI B STANDHYD 0122 1 2.0 3.13 0.30 6.23 32.55 0.43 0.000
* [I%=26.5: S%= 2.00]
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.39 6.23 29.75 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 1.62 6.27 30.44 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 26.08 6.53 41.50 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 26.08 6.57 41.50 n/a 0.000
* ** CALI B STANDHYD 0124 1 2.0 21.61 2.27 6.27 37.69 0.50 0.000
* [I%=33.4: S%= 2.00]
* ADD [0124 + 0404] 0816 3 2.0 404.74 27.02 6.53 41.30 n/a 0.000
* DUHYD MAJOR SYSTEM: 0500 1 2.0 404.74 27.02 6.53 41.30 n/a 0.000
* MINOR SYSTEM: 0500 2 2.0 323.55 26.15 6.53 41.30 n/a 0.000
* 0500 3 2.0 81.19 0.87 3.97 41.30 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 323.55 26.16 6.57 41.30 n/a 0.000
* ** CALI B STANDHYD 0125 1 2.0 18.74 2.34 6.30 45.25 0.60 0.000
* [I%=44.1: S%= 2.00]
* ADD [0125 + 0405] 0817 3 2.0 342.29 27.26 6.53 41.52 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 81.19 0.87 4.33 41.30 n/a 0.000

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* ** CALI B STANDHYD 0126 1 2.0 22.26 2.30 6.27 35.44 0.47 0.000
* [I%=32.1: S%= 2.00]
* ADD [0126 + 0408] 0820 3 2.0 103.45 3.17 6.27 40.04 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 103.45 3.16 6.27 40.04 n/a 0.000
* ** CALI B STANDHYD 0127 1 2.0 9.98 0.86 6.27 31.79 0.42 0.000
* [I%=27.4: S%= 2.00]
* ADD [0127 + 0406] 0818 3 2.0 113.43 4.01 6.27 39.31 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 113.43 3.97 6.30 39.31 n/a 0.000
* ** CALI B STANDHYD 0128 1 2.0 14.87 2.24 6.27 47.38 0.62 0.000
* [I%=45.4: S%= 2.00]
* ADD [0128 + 0407] 0819 3 2.0 128.30 6.16 6.27 40.25 n/a 0.000

```

** SIMULATION NUMBER: 15 ** **1:10 Year 24 Hour SCS Design Storm**

```

W/E COMMAND          HYD ID  DT  AREA  Opeak  Tpeak  R.V.  R.C.  Qbase
                   mi n   ha    cms   hrs   mm
START @ 0.00 hrs
-----
READ STORM          15.0
[ Ptot= 89.94 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\c664964b-176b-4f6c-80a
remark: 10yr/24hr Barrie Wpcc +15% SCS
* ** CALI B STANDHYD 0100 1 2.0 31.13 2.98 12.33 48.80 0.54 0.000
* [I%=28.2: S%= 2.00]
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 2.96 12.37 48.80 n/a 0.000
* ** CALI B STANDHYD 0105 1 2.0 9.01 1.31 12.27 57.71 0.64 0.000
* [I%=24.8: S%= 2.00]
* ** CALI B STANDHYD 0110 1 2.0 12.37 1.32 12.30 51.41 0.57 0.000
* [I%=25.4: S%= 2.00]
* CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 1.30 12.33 51.41 n/a 0.000
* ADD [0105 + 0302] 0802 3 2.0 40.14 4.06 12.30 50.80 n/a 0.000
* ADD [0802 + 0303] 0802 1 2.0 52.51 5.35 12.33 50.94 n/a 0.000
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 5.35 12.33 50.94 n/a 0.000
* ** CALI B STANDHYD 0113 1 2.0 9.41 1.39 12.27 59.23 0.66 0.000
* [I%=39.4: S%= 2.00]
* CHANNEL[ 2 : 0113] 0301 1 2.0 9.41 1.31 12.30 59.23 n/a 0.000
* ** CALI B STANDHYD 0118 1 2.0 4.11 0.48 12.27 48.86 0.54 0.000
* [I%=27.5: S%= 2.00]
* RESRVR [ 2 : 0118] 0600 1 2.0 4.11 0.29 12.43 48.98 n/a 0.000
* {ST= 0.02 ha.m }
* CHANNEL[ 2 : 0600] 0300 1 2.0 4.11 0.28 12.57 48.95 n/a 0.000
* ** CALI B STANDHYD 0101 1 2.0 8.68 0.83 12.27 42.93 0.48 0.000
* [I%=22.9: S%= 2.00]
* ADD [0101 + 0300] 0801 3 2.0 12.79 1.04 12.27 44.87 n/a 0.000
* CHANNEL[ 2 : 0801] 0304 1 2.0 12.79 0.96 12.30 44.86 n/a 0.000
* ** CALI B STANDHYD 0123 1 2.0 22.81 2.39 12.33 53.88 0.60 0.000
* [I%=27.1: S%= 2.00]
* ADD [0123 + 0301] 0800 3 2.0 32.22 3.68 12.33 55.44 n/a 0.000
* ADD [0800 + 0304] 0800 1 2.0 45.01 4.63 12.33 52.43 n/a 0.000
* ADD [0800 + 0400] 0800 3 2.0 97.52 9.98 12.33 51.63 n/a 0.000
* RESRVR [ 2 : 0800] 0601 1 2.0 97.52 7.66 12.50 51.34 n/a 0.000
* {ST= 1.00 ha.m }

```

*	PIPE [2 : 0601]	0403	1	2.0	97.52	7.66	12.50	51.34	n/a	0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	7.05	12.60	51.34	n/a	0.000
**	CALI B STANDHYD [I%=22.0: S%= 2.00]	0102	1	2.0	19.41	2.45	12.33	57.84	0.64	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	8.40	12.57	52.42	n/a	0.000
**	CALI B STANDHYD [I%=37.1: S%= 2.00]	0103	1	2.0	35.79	5.01	12.30	65.59	0.73	0.000
**	CALI B STANDHYD [I%=20.7: S%= 2.00]	0104	1	2.0	5.22	0.76	12.27	61.13	0.68	0.000
**	CALI B STANDHYD [I%=21.1: S%= 2.00]	0106	1	2.0	13.71	1.60	12.33	54.30	0.60	0.000
*	CALI B STANDHYD [I%=18.1: S%= 2.00]	0107	1	5.0	8.53	1.21	12.25	59.52	0.66	0.000
*	CALI B STANDHYD [I%=24.4: S%= 2.00]	0108	1	2.0	58.75	5.00	12.37	48.12	0.54	0.000
*	CHANNEL [2 : 0108]	0307	1	2.0	58.75	4.91	12.43	48.12	n/a	0.000
*	CALI B STANDHYD [I%= 3.0: S%= 2.00]	0109	1	2.0	13.70	1.90	12.30	55.43	0.62	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	6.62	12.40	49.50	n/a	0.000
*	CHANNEL [2 : 0806]	0308	1	2.0	72.45	6.62	12.40	49.50	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	7.59	12.40	50.55	n/a	0.000
*	CHANNEL [2 : 0807]	0306	1	2.0	80.98	7.55	12.40	50.55	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	9.01	12.40	51.10	n/a	0.000
*	CHANNEL [2 : 0804]	0305	1	2.0	94.69	8.64	12.43	51.09	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	9.21	12.43	51.62	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	13.52	12.37	55.30	n/a	0.000
*	CHANNEL [2 : 0805]	0312	1	2.0	135.70	13.23	12.43	55.30	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	20.71	12.50	53.97	n/a	0.000
*	CHANNEL [2 : 0094]	0309	1	2.0	252.63	20.64	12.50	53.97	n/a	0.000
*	CALI B STANDHYD [I%=22.2: S%= 2.00]	0111	1	2.0	3.57	0.48	12.30	57.99	0.64	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	20.94	12.50	54.02	n/a	0.000
*	CHANNEL [2 : 0808]	0310	1	2.0	256.20	20.89	12.53	54.02	n/a	0.000
**	CALI B STANDHYD [I%=23.9: S%= 2.00]	0112	1	2.0	16.90	2.25	12.33	61.04	0.68	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	22.45	12.50	54.46	n/a	0.000
*	CHANNEL [2 : 0809]	0311	1	2.0	273.10	21.94	12.57	54.46	n/a	0.000
*	CALI B STANDHYD [I%=17.3: S%= 2.00]	0114	1	2.0	4.95	0.69	12.30	59.01	0.66	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	22.29	12.53	54.54	n/a	0.000
*	CHANNEL [2 : 0810]	0313	1	2.0	278.05	22.31	12.57	54.54	n/a	0.000
*	CALI B STANDHYD [I%=28.8: S%= 2.00]	0115	1	2.0	12.66	1.39	12.30	53.04	0.59	0.000
*	ADD [0115 + 0313]	0811	3	2.0	290.71	23.17	12.53	54.47	n/a	0.000
*	CHANNEL [2 : 0811]	0314	1	2.0	290.71	23.15	12.57	54.47	n/a	0.000
*	CALI B STANDHYD [I%=25.5: S%= 2.00]	0116	1	2.0	26.63	3.13	12.30	53.63	0.60	0.000
*	ADD [0116 + 0314]	0812	3	2.0	317.34	24.89	12.53	54.40	n/a	0.000

*	PIPE [2 : 0812]	0401	1	2.0	317.34	24.88	12.53	54.40	n/a	0.000
*	CALI B STANDHYD [I%=25.1: S%= 2.00]	0117	1	2.0	27.32	2.26	12.30	40.83	0.45	0.000
*	ADD [0117 + 0401]	0813	3	2.0	344.66	26.29	12.53	53.33	n/a	0.000
*	CHANNEL [2 : 0813]	0315	1	2.0	344.66	26.12	12.57	53.33	n/a	0.000
*	CALI B STANDHYD [I%=26.9: S%= 2.00]	0119	1	2.0	16.91	1.52	12.30	45.21	0.50	0.000
*	ADD [0119 + 0315]	0814	3	2.0	361.57	27.05	12.57	52.95	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	27.07	12.57	52.95	n/a	0.000
*	CALI B STANDHYD [I%=20.9: S%= 2.00]	0120	1	2.0	17.04	1.37	12.30	38.93	0.43	0.000
*	CHANNEL [2 : 0120]	0316	1	2.0	17.04	1.37	12.33	38.93	n/a	0.000
*	CALI B STANDHYD [I%=14.6: S%= 2.00]	0121	1	2.0	1.39	0.09	12.27	30.27	0.34	0.000
*	CALI B STANDHYD [I%=26.5: S%= 2.00]	0122	1	2.0	3.13	0.32	12.23	40.92	0.45	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.41	12.23	37.64	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.71	12.30	38.66	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	28.06	12.53	52.14	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	28.06	12.57	52.14	n/a	0.000
*	CALI B STANDHYD [I%=33.4: S%= 2.00]	0124	1	2.0	21.61	2.39	12.27	46.92	0.52	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	29.00	12.53	51.86	n/a	0.000
*	DUHYD MAJOR SYSTEM: 0500	1	2.0	404.74	29.00	12.53	51.86	n/a	0.000	
*	MINOR SYSTEM: 0500	2	2.0	287.39	28.13	12.53	51.86	n/a	0.000	
*	0500	3	2.0	117.34	0.87	9.03	51.86	n/a	0.000	
*	PIPE [2 : 0500]	0405	1	2.0	287.39	28.15	12.57	51.86	n/a	0.000
**	CALI B STANDHYD [I%=44.1: S%= 2.00]	0125	1	2.0	18.74	2.40	12.30	55.68	0.62	0.000
*	ADD [0125 + 0405]	0817	3	2.0	306.13	29.27	12.53	52.10	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	117.34	0.87	9.47	51.86	n/a	0.000
**	CALI B STANDHYD [I%=32.1: S%= 2.00]	0126	1	2.0	22.26	2.38	12.27	44.17	0.49	0.000
*	ADD [0126 + 0408]	0820	3	2.0	139.60	3.25	12.27	50.64	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	139.60	3.23	12.27	50.64	n/a	0.000
**	CALI B STANDHYD [I%=27.4: S%= 2.00]	0127	1	2.0	9.98	0.89	12.27	39.87	0.44	0.000
*	ADD [0127 + 0406]	0818	3	2.0	149.58	4.12	12.27	49.92	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	149.58	4.07	12.30	49.92	n/a	0.000
**	CALI B STANDHYD [I%=45.4: S%= 2.00]	0128	1	2.0	14.87	2.29	12.27	58.24	0.65	0.000
*	ADD [0128 + 0407]	0819	3	2.0	164.45	6.31	12.27	50.67	n/a	0.000

 ** SIMULATION NUMBER: 16 **

1:25 Year 6 Hour SCS Design Storm

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								
READ STORM [Ptot= 85.20 mm]		15.0						

fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\6095f82d-cb6a-4938-a98
 remark: 25yr/6hr Barrie Wpcc +15% SCS

**	CALI B STANDHYD	0100	1	2.0	31.13	4.09	3.30	45.35	0.53	0.000
*	[I%=28.2; S%= 2.00]									
*	CHANNEL[2 : 0100]	0302	1	2.0	31.13	4.08	3.33	45.35	n/a	0.000
**	CALI B STANDHYD	0105	1	2.0	9.01	1.74	3.27	53.68	0.63	0.000
*	[I%=24.8; S%= 2.00]									
**	CALI B STANDHYD	0110	1	2.0	12.37	1.81	3.30	47.75	0.56	0.000
*	[I%=25.4; S%= 2.00]									
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.77	3.33	47.75	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	5.64	3.30	47.22	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	7.41	3.30	47.35	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	7.41	3.30	47.35	n/a	0.000
**	CALI B STANDHYD	0113	1	2.0	9.41	1.92	3.27	55.32	0.65	0.000
*	[I%=39.4; S%= 2.00]									
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.81	3.30	55.31	n/a	0.000
**	CALI B STANDHYD	0118	1	2.0	4.11	0.63	3.27	45.39	0.53	0.000
*	[I%=27.5; S%= 2.00]									
*	RESRVR [2 : 0118]	0600	1	2.0	4.11	0.36	3.47	45.41	n/a	0.000
*	{ST= 0.03 ha.m }									
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.34	3.57	45.39	n/a	0.000
**	CALI B STANDHYD	0101	1	2.0	8.68	1.14	3.27	39.77	0.47	0.000
*	[I%=22.9; S%= 2.00]									
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.38	3.27	41.58	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.28	3.30	41.57	n/a	0.000
**	CALI B STANDHYD	0123	1	2.0	22.81	3.27	3.33	50.07	0.59	0.000
*	[I%=27.4; S%= 2.00]									
*	ADD [0123 + 0301]	0800	3	2.0	32.22	5.07	3.30	51.60	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	6.36	3.30	48.75	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	13.76	3.30	47.99	n/a	0.000
*	RESRVR [2 : 0800]	0601	1	2.0	97.52	11.33	3.43	47.70	n/a	0.000
*	{ST= 1.12 ha.m }									
*	PIPE [2 : 0601]	0403	1	2.0	97.52	11.32	3.43	47.70	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	10.41	3.53	47.70	n/a	0.000
**	CALI B STANDHYD	0102	1	2.0	19.41	3.37	3.30	53.77	0.63	0.000
*	[I%=22.0; S%= 2.00]									
*	ADD [0102 + 0317]	0803	3	2.0	116.93	12.41	3.50	48.71	n/a	0.000
**	CALI B STANDHYD	0103	1	2.0	35.79	7.00	3.30	61.32	0.72	0.000
*	[I%=37.1; S%= 2.00]									
**	CALI B STANDHYD	0104	1	2.0	5.22	1.06	3.27	56.93	0.67	0.000
*	[I%=20.7; S%= 2.00]									
**	CALI B STANDHYD	0106	1	2.0	13.71	2.20	3.30	50.42	0.59	0.000
*	[I%=21.1; S%= 2.00]									
*	CALI B STANDHYD	0107	1	5.0	8.53	1.62	3.25	55.36	0.65	0.000
*	[I%=18.1; S%= 2.00]									
*	CALI B STANDHYD	0108	1	2.0	58.75	6.96	3.37	44.65	0.52	0.000
*	[I%=24.4; S%= 2.00]									
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	6.84	3.40	44.65	n/a	0.000
**	CALI B STANDHYD	0109	1	2.0	13.70	2.66	3.30	51.34	0.60	0.000
*	[I%= 3.0; S%= 2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	9.13	3.37	45.92	n/a	0.000

*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	9.07	3.40	45.92	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	10.44	3.37	46.91	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	10.39	3.40	46.91	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	12.34	3.37	47.41	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	11.82	3.43	47.41	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	12.53	3.43	47.91	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	18.69	3.37	51.45	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	18.16	3.40	51.45	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	29.91	3.47	50.18	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	29.91	3.47	50.18	n/a	0.000
**	CALI B STANDHYD	0111	1	2.0	3.57	0.64	3.30	53.93	0.63	0.000
*	[I%=22.2; S%= 2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	30.34	3.47	50.23	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	30.24	3.47	50.23	n/a	0.000
**	CALI B STANDHYD	0112	1	2.0	16.90	3.14	3.30	56.86	0.67	0.000
*	[I%=23.9; S%= 2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	32.52	3.47	50.64	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	31.76	3.50	50.64	n/a	0.000
*	CALI B STANDHYD	0114	1	2.0	4.95	0.95	3.27	54.87	0.64	0.000
*	[I%=17.3; S%= 2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	32.29	3.50	50.72	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	32.29	3.50	50.72	n/a	0.000
**	CALI B STANDHYD	0115	1	2.0	12.66	1.92	3.30	49.34	0.58	0.000
*	[I%=28.8; S%= 2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	33.55	3.50	50.66	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	33.41	3.50	50.66	n/a	0.000
*	CALI B STANDHYD	0116	1	2.0	26.63	4.34	3.30	49.83	0.58	0.000
*	[I%=25.5; S%= 2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	35.95	3.50	50.59	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	35.95	3.50	50.59	n/a	0.000
*	CALI B STANDHYD	0117	1	2.0	27.32	3.19	3.27	37.90	0.44	0.000
*	[I%=25.1; S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	37.83	3.50	49.58	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	37.47	3.53	49.58	n/a	0.000
*	CALI B STANDHYD	0119	1	2.0	16.91	2.10	3.30	41.98	0.49	0.000
*	[I%=26.9; S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	38.77	3.53	49.23	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	38.80	3.53	49.23	n/a	0.000
*	CALI B STANDHYD	0120	1	2.0	17.04	1.86	3.27	36.04	0.42	0.000
*	[I%=20.9; S%= 2.00]									
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.84	3.30	36.04	n/a	0.000
*	CALI B STANDHYD	0121	1	2.0	1.39	0.12	3.27	27.89	0.33	0.000
*	[I%=14.6; S%= 2.00]									
*	CALI B STANDHYD	0122	1	2.0	3.13	0.43	3.23	38.01	0.45	0.000
*	[I%=26.5; S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.56	3.23	34.89	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	2.32	3.27	35.80	n/a	0.000

*	ADD [0815 + 0402]	0815	3	2.0	383.13	40.12	3.53	48.47	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	40.12	3.53	48.47	n/a	0.000
*	CALI B STANDHYD [I%=33.4; S%= 2.00]	0124	1	2.0	21.61	3.33	3.27	43.72	0.51	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	41.44	3.53	48.22	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	41.44	3.53	48.22	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	358.45	40.57	3.53	48.22	n/a	0.000
*	MI NOR SYSTEM:	0500	3	2.0	46.29	0.87	1.67	48.22	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	358.45	40.54	3.53	48.22	n/a	0.000
**	CALI B STANDHYD [I%=44.1; S%= 2.00]	0125	1	2.0	18.74	3.32	3.30	52.09	0.61	0.000
*	ADD [0125 + 0405]	0817	3	2.0	377.19	42.07	3.53	48.41	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	46.29	0.87	2.10	48.22	n/a	0.000
**	CALI B STANDHYD [I%=32.1; S%= 2.00]	0126	1	2.0	22.26	3.27	3.23	41.15	0.48	0.000
*	ADD [0126 + 0408]	0820	3	2.0	68.55	4.14	3.23	45.92	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	68.55	4.14	3.27	45.92	n/a	0.000
**	CALI B STANDHYD [I%=27.4; S%= 2.00]	0127	1	2.0	9.98	1.22	3.27	37.07	0.44	0.000
*	ADD [0127 + 0406]	0818	3	2.0	78.53	5.36	3.27	44.80	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	78.53	5.27	3.27	44.80	n/a	0.000
**	CALI B STANDHYD [I%=45.4; S%= 2.00]	0128	1	2.0	14.87	3.09	3.27	54.51	0.64	0.000
*	ADD [0128 + 0407]	0819	3	2.0	93.40	8.36	3.27	46.34	n/a	0.000

 ** SIMULATION NUMBER: 17 ** **1:25 Year 12 Hour SCS Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								
--- READ STORM 15.0								
[Ptot= 90.69 mm]								
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\9b41bce2-1146-4441-aa5								
remark: 25yr/12hr Barrie Wpcc +15% SCS								
**	CALI B STANDHYD [I%=28.2; S%= 2.00]	0100	1	2.0	31.13	3.78	6.33	49.35 0.54 0.000
*	CHANNEL[2 : 0100]	0302	1	2.0	31.13	3.75	6.37	49.35 n/a 0.000
**	CALI B STANDHYD [I%=24.8; S%= 2.00]	0105	1	2.0	9.01	1.61	6.27	58.35 0.64 0.000
*	CHANNEL[2 : 0105]	0305	1	2.0	9.01	1.61	6.27	58.35 n/a 0.000
**	CALI B STANDHYD [I%=25.4; S%= 2.00]	0110	1	2.0	12.37	1.69	6.30	52.00 0.57 0.000
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.66	6.33	52.00 n/a 0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	5.12	6.30	51.37 n/a 0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	6.76	6.33	51.52 n/a 0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	6.77	6.33	51.52 n/a 0.000
**	CALI B STANDHYD [I%=39.4; S%= 2.00]	0113	1	2.0	9.41	1.70	6.27	59.86 0.66 0.000
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.61	6.30	59.85 n/a 0.000
**	CALI B STANDHYD [I%=27.5; S%= 2.00]	0118	1	2.0	4.11	0.58	6.27	49.42 0.54 0.000
*	RESRVR [2 : 0118]	0600	1	2.0	4.11	0.34	6.47	49.47 n/a 0.000

*	{ST= 0.03 ha.m }									
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.32	6.57	49.44	n/a	0.000
**	CALI B STANDHYD [I%=22.9; S%= 2.00]	0101	1	2.0	8.68	1.06	6.27	43.44	0.48	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.29	6.27	45.37	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.19	6.30	45.36	n/a	0.000
**	CALI B STANDHYD [I%=27.1; S%= 2.00]	0123	1	2.0	22.81	3.05	6.33	54.49	0.60	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	4.62	6.33	56.05	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	5.80	6.33	53.02	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	12.57	6.33	52.21	n/a	0.000
*	RESRVR [2 : 0800] {ST= 1.09 ha.m }	0601	1	2.0	97.52	10.38	6.47	51.92	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	10.40	6.47	51.92	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	9.50	6.57	51.92	n/a	0.000
**	CALI B STANDHYD [I%=22.0; S%= 2.00]	0102	1	2.0	19.41	3.10	6.30	58.49	0.64	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	11.25	6.53	53.01	n/a	0.000
**	CALI B STANDHYD [I%=37.1; S%= 2.00]	0103	1	2.0	35.79	6.35	6.30	66.27	0.73	0.000
**	CALI B STANDHYD [I%=20.7; S%= 2.00]	0104	1	2.0	5.22	0.97	6.27	61.81	0.68	0.000
**	CALI B STANDHYD [I%=21.1; S%= 2.00]	0106	1	2.0	13.71	1.98	6.33	54.92	0.61	0.000
*	CALI B STANDHYD [I%=18.1; S%= 2.00]	0107	1	5.0	8.53	1.49	6.25	60.18	0.66	0.000
*	CALI B STANDHYD [I%=24.4; S%= 2.00]	0108	1	2.0	58.75	6.38	6.37	48.68	0.54	0.000
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	6.27	6.40	48.68	n/a	0.000
*	CALI B STANDHYD [I%= 3.0; S%= 2.00]	0109	1	2.0	13.70	2.36	6.30	56.08	0.62	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	8.41	6.37	50.08	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	8.40	6.40	50.08	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	9.59	6.40	51.14	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	9.56	6.40	51.14	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	11.36	6.40	51.68	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	10.89	6.43	51.68	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	11.55	6.43	52.21	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	16.99	6.37	55.92	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	16.53	6.43	55.92	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	27.09	6.47	54.57	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	27.02	6.50	54.57	n/a	0.000
**	CALI B STANDHYD [I%=22.2; S%= 2.00]	0111	1	2.0	3.57	0.59	6.30	58.64	0.65	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	27.41	6.47	54.63	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	27.41	6.50	54.63	n/a	0.000
**	CALI B STANDHYD [I%=23.9; S%= 2.00]	0112	1	2.0	16.90	2.77	6.33	61.70	0.68	0.000

```

* ADD [0112 + 0310] 0809 3 2.0 273.10 29.39 6.47 55.07 n/a 0.000
* CHANNEL [ 2 : 0809] 0311 1 2.0 273.10 28.74 6.53 55.07 n/a 0.000
* * CALI B STANDHYD 0114 1 2.0 4.95 0.87 6.27 59.68 0.66 0.000
  [1%=17.3: S%= 2.00]
* ADD [0114 + 0311] 0810 3 2.0 278.05 29.17 6.53 55.15 n/a 0.000
* CHANNEL [ 2 : 0810] 0313 1 2.0 278.05 29.19 6.53 55.15 n/a 0.000
* * CALI B STANDHYD 0115 1 2.0 12.66 1.78 6.30 53.64 0.59 0.000
  [1%=28.8: S%= 2.00]
* ADD [0115 + 0313] 0811 3 2.0 290.71 30.26 6.53 55.08 n/a 0.000
* CHANNEL [ 2 : 0811] 0314 1 2.0 290.71 30.25 6.53 55.08 n/a 0.000
* * CALI B STANDHYD 0116 1 2.0 26.63 3.99 6.30 54.23 0.60 0.000
  [1%=25.5: S%= 2.00]
* ADD [0116 + 0314] 0812 3 2.0 317.34 32.37 6.53 55.01 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 32.39 6.53 55.01 n/a 0.000
* * CALI B STANDHYD 0117 1 2.0 27.32 2.86 6.30 41.30 0.46 0.000
  [1%=25.1: S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 34.13 6.50 53.92 n/a 0.000
* CHANNEL [ 2 : 0813] 0315 1 2.0 344.66 33.84 6.53 53.92 n/a 0.000
* * CALI B STANDHYD 0119 1 2.0 16.91 1.92 6.30 45.73 0.50 0.000
  [1%=26.9: S%= 2.00]
* ADD [0119 + 0315] 0814 3 2.0 361.57 35.05 6.53 53.54 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 35.04 6.53 53.54 n/a 0.000
* * CALI B STANDHYD 0120 1 2.0 17.04 1.72 6.27 39.39 0.43 0.000
  [1%=20.9: S%= 2.00]
* CHANNEL [ 2 : 0120] 0316 1 2.0 17.04 1.70 6.30 39.39 n/a 0.000
* * CALI B STANDHYD 0121 1 2.0 1.39 0.12 6.27 30.65 0.34 0.000
  [1%=14.6: S%= 2.00]
* * CALI B STANDHYD 0122 1 2.0 3.13 0.40 6.23 41.38 0.46 0.000
  [1%=26.5: S%= 2.00]
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.51 6.23 38.08 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 2.14 6.27 39.12 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 36.27 6.53 52.73 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 36.18 6.53 52.73 n/a 0.000
* * CALI B STANDHYD 0124 1 2.0 21.61 3.04 6.27 47.43 0.52 0.000
  [1%=33.4: S%= 2.00]
* ADD [0124 + 0404] 0816 3 2.0 404.74 37.39 6.53 52.45 n/a 0.000
* DUHYD 0500 1 2.0 404.74 37.39 6.53 52.45 n/a 0.000
  MAJOR SYSTEM: 0500 2 2.0 337.77 36.52 6.53 52.45 n/a 0.000
  MINOR SYSTEM: 0500 3 2.0 66.96 0.87 3.47 52.45 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 337.77 36.48 6.57 52.45 n/a 0.000
* * CALI B STANDHYD 0125 1 2.0 18.74 2.95 6.30 56.26 0.62 0.000
  [1%=44.1: S%= 2.00]
* ADD [0125 + 0405] 0817 3 2.0 356.51 37.88 6.53 52.65 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 66.96 0.87 3.83 52.45 n/a 0.000
* * CALI B STANDHYD 0126 1 2.0 22.26 2.98 6.23 44.65 0.49 0.000
  [1%=32.1: S%= 2.00]
* ADD [0126 + 0408] 0820 3 2.0 89.22 3.85 6.23 50.50 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 89.22 3.86 6.27 50.50 n/a 0.000
* * CALI B STANDHYD 0127 1 2.0 9.98 1.12 6.27 40.32 0.44 0.000

```

```

* [1%=27.4: S%= 2.00]
* ADD [0127 + 0406] 0818 3 2.0 99.20 4.97 6.27 49.48 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 99.20 4.88 6.27 49.48 n/a 0.000
* * CALI B STANDHYD 0128 1 2.0 14.87 2.81 6.27 58.84 0.65 0.000
  [1%=45.4: S%= 2.00]
* ADD [0128 + 0407] 0819 3 2.0 114.07 7.68 6.27 50.70 n/a 0.000

```

**** SIMULATION NUMBER: 18 ****

1:25 Year 24 Hour SCS Design Storm

W/E COMMAND	HYD ID	DT mi n	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								
READ STORM [Ptot=107.47 mm] 15.0								
fname : C:\Users\dwtw\g\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\92040bdd-132b-4ef4-89a								
remark: 25yr/24hr Barrie Wpcc +15% SCS								
** CALI B STANDHYD	0100	1	2.0	31.13	3.99	12.33	62.01	0.58 0.000
[1%=28.2: S%= 2.00]								
* CHANNEL [2 : 0100]	0302	1	2.0	31.13	3.96	12.37	62.01	n/a 0.000
** CALI B STANDHYD	0105	1	2.0	9.01	1.69	12.27	72.94	0.68 0.000
[1%=24.8: S%= 2.00]								
** CALI B STANDHYD	0110	1	2.0	12.37	1.79	12.30	65.39	0.61 0.000
[1%=25.4: S%= 2.00]								
* CHANNEL [2 : 0110]	0303	1	2.0	12.37	1.76	12.33	65.39	n/a 0.000
* ADD [0105 + 0302]	0802	3	2.0	40.14	5.40	12.30	64.46	n/a 0.000
* ADD [0802 + 0303]	0802	1	2.0	52.51	7.15	12.33	64.68	n/a 0.000
* PIPE [2 : 0802]	0400	1	2.0	52.51	7.15	12.33	64.68	n/a 0.000
** CALI B STANDHYD	0113	1	2.0	9.41	1.76	12.27	74.06	0.69 0.000
[1%=39.4: S%= 2.00]								
* CHANNEL [2 : 0113]	0301	1	2.0	9.41	1.66	12.30	74.06	n/a 0.000
** CALI B STANDHYD	0118	1	2.0	4.11	0.62	12.27	62.16	0.58 0.000
[1%=27.5: S%= 2.00]								
* RESRVR [2 : 0118]	0600	1	2.0	4.11	0.35	12.47	62.17	n/a 0.000
{ST= 0.03 ha.m }								
* CHANNEL [2 : 0600]	0300	1	2.0	4.11	0.34	12.57	62.14	n/a 0.000
** CALI B STANDHYD	0101	1	2.0	8.68	1.13	12.27	55.12	0.51 0.000
[1%=22.9: S%= 2.00]								
* ADD [0101 + 0300]	0801	3	2.0	12.79	1.37	12.27	57.38	n/a 0.000
* CHANNEL [2 : 0801]	0304	1	2.0	12.79	1.27	12.30	57.37	n/a 0.000
** CALI B STANDHYD	0123	1	2.0	22.81	3.23	12.33	68.37	0.64 0.000
[1%=27.1: S%= 2.00]								
* ADD [0123 + 0301]	0800	3	2.0	32.22	4.86	12.33	70.03	n/a 0.000
* ADD [0800 + 0304]	0800	1	2.0	45.01	6.12	12.33	66.43	n/a 0.000
* ADD [0800 + 0400]	0800	3	2.0	97.52	13.27	12.33	65.49	n/a 0.000
* RESRVR [2 : 0800]	0601	1	2.0	97.52	11.24	12.43	65.20	n/a 0.000
{ST= 1.12 ha.m }								
* PIPE [2 : 0601]	0403	1	2.0	97.52	11.22	12.47	65.20	n/a 0.000
* CHANNEL [2 : 0403]	0317	1	2.0	97.52	10.36	12.53	65.20	n/a 0.000
** CALI B STANDHYD	0102	1	2.0	19.41	3.28	12.30	73.25	0.68 0.000
[1%=22.0: S%= 2.00]								
* ADD [0102 + 0317]	0803	3	2.0	116.93	12.26	12.50	66.53	n/a 0.000

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* ** CALI B STANDHYD 0103 1 2.0 35.79 6.56 12.30 81.60 0.76 0.000
  [I%=37.1: S%= 2.00]
* ** CALI B STANDHYD 0104 1 2.0 5.22 1.02 12.27 76.99 0.72 0.000
  [I%=20.7: S%= 2.00]
* ** CALI B STANDHYD 0106 1 2.0 13.71 2.10 12.33 69.04 0.64 0.000
  [I%=21.1: S%= 2.00]
* ** CALI B STANDHYD 0107 1 5.0 8.53 1.58 12.25 75.21 0.70 0.000
  [I%=18.1: S%= 2.00]
* ** CALI B STANDHYD 0108 1 2.0 58.75 6.79 12.37 61.42 0.57 0.000
  [I%=24.4: S%= 2.00]
* CHANNEL[ 2 : 0108] 0307 1 2.0 58.75 6.68 12.40 61.42 n/a 0.000
* ** CALI B STANDHYD 0109 1 2.0 13.70 2.51 12.30 70.89 0.66 0.000
  [I%= 3.0: S%= 2.00]
* ADD [0109 + 0307] 0806 3 2.0 72.45 8.93 12.37 63.21 n/a 0.000
* CHANNEL[ 2 : 0806] 0308 1 2.0 72.45 8.92 12.40 63.21 n/a 0.000
* ADD [0107 + 0308] 0807 3 2.0 80.98 10.17 12.40 64.47 n/a 0.000
* CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 10.15 12.40 64.47 n/a 0.000
* ADD [0106 + 0306] 0804 3 2.0 94.69 12.06 12.40 65.13 n/a 0.000
* CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 11.58 12.43 65.13 n/a 0.000
* ADD [0104 + 0305] 0093 3 2.0 99.91 12.26 12.43 65.75 n/a 0.000
* ADD [0103 + 0093] 0805 3 2.0 135.70 17.93 12.37 69.93 n/a 0.000
* CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 17.45 12.40 69.93 n/a 0.000
* ADD [0312 + 0803] 0094 3 2.0 252.63 29.16 12.47 68.36 n/a 0.000
* CHANNEL[ 2 : 0094] 0309 1 2.0 252.63 29.12 12.47 68.36 n/a 0.000
* ** CALI B STANDHYD 0111 1 2.0 3.57 0.62 12.30 73.35 0.68 0.000
  [I%=22.2: S%= 2.00]
* ADD [0111 + 0309] 0808 3 2.0 256.20 29.54 12.47 68.43 n/a 0.000
* CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 29.42 12.50 68.43 n/a 0.000
* ** CALI B STANDHYD 0112 1 2.0 16.90 2.90 12.33 76.80 0.71 0.000
  [I%=23.9: S%= 2.00]
* ADD [0112 + 0310] 0809 3 2.0 273.10 31.69 12.47 68.94 n/a 0.000
* CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 30.90 12.50 68.94 n/a 0.000
* ** CALI B STANDHYD 0114 1 2.0 4.95 0.92 12.27 74.66 0.69 0.000
  [I%=17.3: S%= 2.00]
* ADD [0114 + 0311] 0810 3 2.0 278.05 31.41 12.50 69.05 n/a 0.000
* CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 31.38 12.50 69.05 n/a 0.000
* ** CALI B STANDHYD 0115 1 2.0 12.66 1.87 12.30 67.15 0.62 0.000
  [I%=28.8: S%= 2.00]
* ADD [0115 + 0313] 0811 3 2.0 290.71 32.63 12.50 68.96 n/a 0.000
* CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 32.54 12.53 68.96 n/a 0.000
* ** CALI B STANDHYD 0116 1 2.0 26.63 4.22 12.30 68.06 0.63 0.000
  [I%=25.5: S%= 2.00]
* ADD [0116 + 0314] 0812 3 2.0 317.34 34.91 12.50 68.89 n/a 0.000
* PIPE [ 2 : 0812] 0401 1 2.0 317.34 34.90 12.50 68.89 n/a 0.000
* ** CALI B STANDHYD 0117 1 2.0 27.32 3.02 12.30 52.16 0.49 0.000
  [I%=25.1: S%= 2.00]
* ADD [0117 + 0401] 0813 3 2.0 344.66 36.88 12.50 67.56 n/a 0.000
* CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 36.53 12.53 67.56 n/a 0.000

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```

* ** CALI B STANDHYD 0119 1 2.0 16.91 2.03 12.30 57.65 0.54 0.000
  [I%=26.9: S%= 2.00]
* ADD [0119 + 0315] 0814 3 2.0 361.57 37.82 12.53 67.10 n/a 0.000
* PIPE [ 2 : 0814] 0402 1 2.0 361.57 37.84 12.53 67.10 n/a 0.000
* ** CALI B STANDHYD 0120 1 2.0 17.04 1.83 12.30 50.13 0.47 0.000
  [I%=20.9: S%= 2.00]
* CHANNEL[ 2 : 0120] 0316 1 2.0 17.04 1.81 12.30 50.13 n/a 0.000
* ** CALI B STANDHYD 0121 1 2.0 1.39 0.13 12.27 39.59 0.37 0.000
  [I%=14.6: S%= 2.00]
* ** CALI B STANDHYD 0122 1 2.0 3.13 0.42 12.23 52.13 0.49 0.000
  [I%=26.5: S%= 2.00]
* ADD [0121 + 0122] 0815 3 2.0 4.52 0.54 12.23 48.27 n/a 0.000
* ADD [0815 + 0316] 0815 1 2.0 21.56 2.28 12.30 49.74 n/a 0.000
* ADD [0815 + 0402] 0815 3 2.0 383.13 39.16 12.53 66.12 n/a 0.000
* PIPE [ 2 : 0815] 0404 1 2.0 383.13 39.13 12.53 66.12 n/a 0.000
* ** CALI B STANDHYD 0124 1 2.0 21.61 3.15 12.27 59.15 0.55 0.000
  [I%=33.4: S%= 2.00]
* ADD [0124 + 0404] 0816 3 2.0 404.74 40.40 12.53 65.75 n/a 0.000
* DUHYD 0500 1 2.0 404.74 40.40 12.53 65.75 n/a 0.000
  MAJOR SYSTEM: 0500 2 2.0 307.23 39.53 12.53 65.75 n/a 0.000
  MNOR SYSTEM: 0500 3 2.0 97.51 0.87 8.33 65.75 n/a 0.000
* PIPE [ 2 : 0500] 0405 1 2.0 307.23 39.49 12.53 65.75 n/a 0.000
* ** CALI B STANDHYD 0125 1 2.0 18.74 3.03 12.30 69.33 0.65 0.000
  [I%=44.1: S%= 2.00]
* ADD [0125 + 0405] 0817 3 2.0 325.97 40.97 12.53 65.96 n/a 0.000
* PIPE [ 2 : 0500] 0408 1 2.0 97.51 0.87 8.40 65.75 n/a 0.000
* ** CALI B STANDHYD 0126 1 2.0 22.26 3.09 12.23 55.78 0.52 0.000
  [I%=32.1: S%= 2.00]
* ADD [0126 + 0408] 0820 3 2.0 119.77 3.96 12.23 63.90 n/a 0.000
* PIPE [ 2 : 0820] 0406 1 2.0 119.77 3.97 12.27 63.90 n/a 0.000
* ** CALI B STANDHYD 0127 1 2.0 9.98 1.17 12.27 50.70 0.47 0.000
  [I%=27.4: S%= 2.00]
* ADD [0127 + 0406] 0818 3 2.0 129.75 5.13 12.27 62.88 n/a 0.000
* PIPE [ 2 : 0818] 0407 1 2.0 129.75 5.03 12.27 62.88 n/a 0.000
* ** CALI B STANDHYD 0128 1 2.0 14.87 2.88 12.27 72.41 0.67 0.000
  [I%=45.4: S%= 2.00]
* ADD [0128 + 0407] 0819 3 2.0 144.62 7.91 12.27 63.86 n/a 0.000

```

** SIMULATION NUMBER: 19 ** **1:50 Year 6 Hour SCS Design Storm**

```

W/E COMMAND          HYD ID  DT   AREA  Qpeak  Tpeak  R. V.  R. C.  Obase
                   mi n    ha    cms   hrs   mm
START @ 0.00 hrs
-----
READ STORM                               15.0
[ Ptot= 95.90 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\40bdcde-ee7f-4ed4-9d8
remark: 50yr/6hr Barrie Wpcc +15% SCS
* ** CALI B STANDHYD 0100 1 2.0 31.13 4.83 3.30 53.22 0.55 0.000
  [I%=28.2: S%= 2.00]
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 4.81 3.33 53.22 n/a 0.000
* ** CALI B STANDHYD 0105 1 2.0 9.01 2.15 3.27 62.83 0.66 0.000

```


*	DUHYD	0500	1	2.0	404.74	51.33	3.50	56.52	n/a	0.000
	MAJOR SYSTEM:	0500	2	2.0	364.25	50.46	3.50	56.52	n/a	0.000
	MINOR SYSTEM:	0500	3	2.0	40.49	0.87	1.53	56.52	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	364.25	50.37	3.53	56.52	n/a	0.000
**	CALIB STANDHYD [I%=44.1; S%= 2.00]	0125	1	2.0	18.74	3.87	3.30	60.26	0.63	0.000
*	ADD [0125 + 0405]	0817	3	2.0	382.99	52.31	3.50	56.70	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	40.49	0.87	1.90	56.52	n/a	0.000
**	CALIB STANDHYD [I%=32.1; S%= 2.00]	0126	1	2.0	22.26	3.91	3.23	48.04	0.50	0.000
*	ADD [0126 + 0408]	0820	3	2.0	62.75	4.78	3.23	53.51	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	62.75	4.78	3.27	53.51	n/a	0.000
**	CALIB STANDHYD [I%=27.4; S%= 2.00]	0127	1	2.0	9.98	1.44	3.27	43.48	0.45	0.000
*	ADD [0127 + 0406]	0818	3	2.0	72.73	6.22	3.27	52.13	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	72.73	6.11	3.27	52.13	n/a	0.000
**	CALIB STANDHYD [I%=45.4; S%= 2.00]	0128	1	2.0	14.87	3.65	3.23	63.01	0.66	0.000
*	ADD [0128 + 0407]	0819	3	2.0	87.60	9.73	3.27	53.98	n/a	0.000

 ** SIMULATION NUMBER: 20 ** **1:50 Year 12 Hour SCS Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms		
START @ 0.00 hrs										
READ STORM -----										
			15.0							
			[Ptot=101.69 mm]							
			[fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\3783cd06-effb-4635-abd							
			remark: 50yr/12hr Barrie Wpc +15% SCS							
**	CALIB STANDHYD [I%=28.2; S%= 2.00]	0100	1	2.0	31.13	4.43	6.30	57.58	0.57	0.000
*	CHANNEL[2 : 0100]	0302	1	2.0	31.13	4.42	6.33	57.58	n/a	0.000
**	CALIB STANDHYD [I%=24.8; S%= 2.00]	0105	1	2.0	9.01	1.89	6.27	67.86	0.67	0.000
**	CALIB STANDHYD [I%=25.4; S%= 2.00]	0110	1	2.0	12.37	1.98	6.30	60.71	0.60	0.000
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.93	6.33	60.71	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	6.11	6.30	59.89	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	8.04	6.30	60.08	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	8.04	6.30	60.08	n/a	0.000
**	CALIB STANDHYD [I%=39.4; S%= 2.00]	0113	1	2.0	9.41	2.03	6.27	69.12	0.68	0.000
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.93	6.30	69.11	n/a	0.000
**	CALIB STANDHYD [I%=27.5; S%= 2.00]	0118	1	2.0	4.11	0.71	6.27	57.70	0.57	0.000
*	RESRVR [2 : 0118] {ST= 0.04 ha.m }	0600	1	2.0	4.11	0.39	6.43	57.71	n/a	0.000
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.37	6.57	57.68	n/a	0.000
**	CALIB STANDHYD [I%=22.9; S%= 2.00]	0101	1	2.0	8.68	1.26	6.27	51.02	0.50	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.51	6.27	53.16	n/a	0.000

*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.41	6.30	53.15	n/a	0.000
**	CALIB STANDHYD [I%=27.1; S%= 2.00]	0123	1	2.0	22.81	3.69	6.33	63.52	0.62	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	5.61	6.30	65.16	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	7.02	6.30	61.75	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	15.05	6.30	60.85	n/a	0.000
*	RESRVR [2 : 0800] {ST= 1.17 ha.m }	0601	1	2.0	97.52	12.82	6.43	60.56	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	12.85	6.43	60.56	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	11.84	6.53	60.56	n/a	0.000
**	CALIB STANDHYD [I%=22.0; S%= 2.00]	0102	1	2.0	19.41	3.67	6.30	68.11	0.67	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	14.14	6.50	61.81	n/a	0.000
**	CALIB STANDHYD [I%=37.1; S%= 2.00]	0103	1	2.0	35.79	7.40	6.30	76.28	0.75	0.000
**	CALIB STANDHYD [I%=20.7; S%= 2.00]	0104	1	2.0	5.22	1.15	6.27	71.72	0.71	0.000
**	CALIB STANDHYD [I%=21.1; S%= 2.00]	0106	1	2.0	13.71	2.41	6.30	64.12	0.63	0.000
*	CALIB STANDHYD [I%=18.1; S%= 2.00]	0107	1	5.0	8.53	1.76	6.25	69.99	0.69	0.000
*	CALIB STANDHYD [I%=24.4; S%= 2.00]	0108	1	2.0	58.75	7.61	6.37	56.96	0.56	0.000
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	7.50	6.40	56.96	n/a	0.000
**	CALIB STANDHYD [I%= 3.0; S%= 2.00]	0109	1	2.0	13.70	2.92	6.30	65.74	0.65	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	9.97	6.37	58.62	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	9.91	6.37	58.62	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	11.40	6.37	59.81	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	11.34	6.40	59.81	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	13.49	6.37	60.44	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	12.92	6.43	60.43	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	13.69	6.40	61.02	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	20.26	6.37	65.05	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	19.61	6.40	65.05	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	33.36	6.47	63.55	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	33.39	6.47	63.55	n/a	0.000
**	CALIB STANDHYD [I%=22.2; S%= 2.00]	0111	1	2.0	3.57	0.72	6.27	68.23	0.67	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	33.83	6.47	63.62	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	33.79	6.47	63.62	n/a	0.000
**	CALIB STANDHYD [I%=23.9; S%= 2.00]	0112	1	2.0	16.90	3.35	6.30	71.56	0.70	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	36.17	6.47	64.11	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	35.45	6.50	64.11	n/a	0.000
*	CALIB STANDHYD [I%=17.3; S%= 2.00]	0114	1	2.0	4.95	1.04	6.27	69.45	0.68	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	36.01	6.50	64.20	n/a	0.000

*	CHANNEL [2 : 0810]	0313	1	2.0	278.05	36.03	6.50	64.20	n/a	0.000
**	CALI B STANDHYD [I%=28.8; S%= 2.00]	0115	1	2.0	12.66	2.07	6.30	62.43	0.61	0.000
*	ADD [0115 + 0313]	0811	3	2.0	290.71	37.40	6.50	64.12	n/a	0.000
*	CHANNEL [2 : 0811]	0314	1	2.0	290.71	37.33	6.50	64.12	n/a	0.000
**	CALI B STANDHYD [I%=25.5; S%= 2.00]	0116	1	2.0	26.63	4.72	6.30	63.24	0.62	0.000
*	ADD [0116 + 0314]	0812	3	2.0	317.34	40.08	6.50	64.05	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	40.11	6.50	64.05	n/a	0.000
**	CALI B STANDHYD [I%=25.1; S%= 2.00]	0117	1	2.0	27.32	3.45	6.27	48.35	0.48	0.000
*	ADD [0117 + 0401]	0813	3	2.0	344.66	42.21	6.47	62.81	n/a	0.000
*	CHANNEL [2 : 0813]	0315	1	2.0	344.66	41.77	6.53	62.81	n/a	0.000
**	CALI B STANDHYD [I%=26.9; S%= 2.00]	0119	1	2.0	16.91	2.35	6.30	53.47	0.53	0.000
*	ADD [0119 + 0315]	0814	3	2.0	361.57	43.30	6.50	62.37	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	43.26	6.50	62.37	n/a	0.000
**	CALI B STANDHYD [I%=20.9; S%= 2.00]	0120	1	2.0	17.04	2.04	6.30	46.35	0.46	0.000
*	CHANNEL [2 : 0120]	0316	1	2.0	17.04	2.02	6.30	46.35	n/a	0.000
**	CALI B STANDHYD [I%=14.6; S%= 2.00]	0121	1	2.0	1.39	0.15	6.27	36.43	0.36	0.000
**	CALI B STANDHYD [I%=26.5; S%= 2.00]	0122	1	2.0	3.13	0.47	6.23	48.36	0.48	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.61	6.23	44.68	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	2.54	6.30	46.00	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	44.90	6.50	61.45	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	44.82	6.53	61.45	n/a	0.000
**	CALI B STANDHYD [I%=33.4; S%= 2.00]	0124	1	2.0	21.61	3.54	6.27	55.05	0.54	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	46.30	6.50	61.11	n/a	0.000
*	DUHYD MAJOR SYSTEM:	0500	1	2.0	404.74	46.30	6.50	61.11	n/a	0.000
*	MINOR SYSTEM:	0500	2	2.0	345.37	45.43	6.50	61.11	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	345.37	45.44	6.53	61.11	n/a	0.000
**	CALI B STANDHYD [I%=44.1; S%= 2.00]	0125	1	2.0	18.74	3.49	6.30	64.77	0.64	0.000
*	ADD [0125 + 0405]	0817	3	2.0	364.11	47.06	6.50	61.29	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	59.36	0.87	3.13	61.11	n/a	0.000
**	CALI B STANDHYD [I%=32.1; S%= 2.00]	0126	1	2.0	22.26	3.46	6.23	51.88	0.51	0.000
*	ADD [0126 + 0408]	0820	3	2.0	81.62	4.33	6.23	58.59	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	81.62	4.34	6.27	58.59	n/a	0.000
**	CALI B STANDHYD [I%=27.4; S%= 2.00]	0127	1	2.0	9.98	1.31	6.27	47.06	0.46	0.000
*	ADD [0127 + 0406]	0818	3	2.0	91.60	5.65	6.27	57.33	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	91.60	5.54	6.27	57.33	n/a	0.000
**	CALI B STANDHYD [I%=45.4; S%= 2.00]	0128	1	2.0	14.87	3.25	6.27	67.69	0.67	0.000

ADD [0128 + 0407] 0819 3 2.0 106.47 8.78 6.27 58.78 n/a 0.000

1:50 Year 24 Hour SCS Design Storm

 ** SIMULATION NUMBER: 21 **

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R. V. mm	R. C.	Qbase cms
START @ 0.00 hrs								

READ STORM 15.0								
[Ptot=120.63 mm]								
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\e46a97e2-08a7-4d5b-949								
remark: 50yr/24hr Barrie Wpcc +15% SCS								
**	CALI B STANDHYD [I%=28.2; S%= 2.00]	0100	1	2.0	31.13	4.83	12.30	72.31 0.60 0.000
*	CHANNEL [2 : 0100]	0302	1	2.0	31.13	4.81	12.33	72.31 n/a 0.000
**	CALI B STANDHYD [I%=24.8; S%= 2.00]	0105	1	2.0	9.01	1.99	12.27	84.65 0.70 0.000
**	CALI B STANDHYD [I%=25.4; S%= 2.00]	0110	1	2.0	12.37	2.17	12.30	76.26 0.63 0.000
*	CHANNEL [2 : 0110]	0303	1	2.0	12.37	2.13	12.30	76.26 n/a 0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	6.61	12.30	75.08 n/a 0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	8.74	12.30	75.36 n/a 0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	8.74	12.30	75.36 n/a 0.000
**	CALI B STANDHYD [I%=39.4; S%= 2.00]	0113	1	2.0	9.41	2.10	12.27	85.48 0.71 0.000
*	CHANNEL [2 : 0113]	0301	1	2.0	9.41	2.00	12.30	85.48 n/a 0.000
**	CALI B STANDHYD [I%=27.5; S%= 2.00]	0118	1	2.0	4.11	0.75	12.27	72.53 0.60 0.000
*	RESRVR [2 : 0118] {ST= 0.04 ha.m }	0600	1	2.0	4.11	0.41	12.43	72.60 n/a 0.000
*	CHANNEL [2 : 0600]	0300	1	2.0	4.11	0.39	12.57	72.57 n/a 0.000
*	CALI B STANDHYD [I%=22.9; S%= 2.00]	0101	1	2.0	8.68	1.39	12.27	64.71 0.54 0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.66	12.27	67.23 n/a 0.000
*	CHANNEL [2 : 0801]	0304	1	2.0	12.79	1.55	12.30	67.23 n/a 0.000
**	CALI B STANDHYD [I%=27.1; S%= 2.00]	0123	1	2.0	22.81	3.89	12.30	79.58 0.66 0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	5.89	12.30	81.30 n/a 0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	7.44	12.30	77.30 n/a 0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	16.18	12.30	76.26 n/a 0.000
*	RESRVR [2 : 0800] {ST= 1.21 ha.m }	0601	1	2.0	97.52	14.00	12.40	75.97 n/a 0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	13.96	12.40	75.96 n/a 0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	12.87	12.50	75.96 n/a 0.000
**	CALI B STANDHYD [I%=22.0; S%= 2.00]	0102	1	2.0	19.41	3.87	12.30	85.08 0.71 0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	15.37	12.47	77.48 n/a 0.000
**	CALI B STANDHYD [I%=37.1; S%= 2.00]	0103	1	2.0	35.79	7.63	12.30	93.82 0.78 0.000
**	CALI B STANDHYD [I%=20.7; S%= 2.00]	0104	1	2.0	5.22	1.20	12.27	89.11 0.74 0.000
**	CALI B STANDHYD [I%=21.1; S%= 2.00]	0106	1	2.0	13.71	2.55	12.30	80.43 0.67 0.000

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* * CALI B STANDHYD 0107 1 5.0 8.53 1.85 12.25 87.23 0.72 0.000
  [I%=18.1: S%= 2.00]
* * CALI B STANDHYD 0108 1 2.0 58.75 8.09 12.37 71.81 0.60 0.000
  [I%=24.4: S%= 2.00]
* * CHANNEL[ 2 : 0108] 0307 1 2.0 58.75 7.97 12.40 71.81 n/a 0.000
* * CALI B STANDHYD 0109 1 2.0 13.70 3.07 12.30 82.77 0.69 0.000
  [I%= 3.0: S%= 2.00]
* * ADD [0109 + 0307] 0806 3 2.0 72.45 10.56 12.37 73.88 n/a 0.000
* * CHANNEL[ 2 : 0806] 0308 1 2.0 72.45 10.50 12.37 73.88 n/a 0.000
* * ADD [0107 + 0308] 0807 3 2.0 80.98 12.06 12.37 75.28 n/a 0.000
* * CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 11.98 12.40 75.28 n/a 0.000
* * ADD [0106 + 0306] 0804 3 2.0 94.69 14.29 12.37 76.03 n/a 0.000
* * CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 13.68 12.43 76.03 n/a 0.000
* * ADD [0104 + 0305] 0093 3 2.0 99.91 14.51 12.40 76.71 n/a 0.000
* * ADD [0103 + 0093] 0805 3 2.0 135.70 21.30 12.37 81.22 n/a 0.000
* * CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 20.60 12.40 81.22 n/a 0.000
* * ADD [0312 + 0803] 0094 3 2.0 252.63 35.65 12.43 79.49 n/a 0.000
* * CHANNEL[ 2 : 0094] 0309 1 2.0 252.63 35.63 12.47 79.49 n/a 0.000
* ** CALI B STANDHYD 0111 1 2.0 3.57 0.76 12.27 85.15 0.71 0.000
  [I%=22.2: S%= 2.00]
* * ADD [0111 + 0309] 0808 3 2.0 256.20 36.08 12.47 79.57 n/a 0.000
* * CHANNEL[ 2 : 0808] 0310 1 2.0 256.20 36.05 12.47 79.57 n/a 0.000
* ** CALI B STANDHYD 0112 1 2.0 16.90 3.54 12.30 88.86 0.74 0.000
  [I%=23.9: S%= 2.00]
* * ADD [0112 + 0310] 0809 3 2.0 273.10 38.58 12.47 80.14 n/a 0.000
* * CHANNEL[ 2 : 0809] 0311 1 2.0 273.10 37.90 12.50 80.14 n/a 0.000
* * CALI B STANDHYD 0114 1 2.0 4.95 1.09 12.27 86.66 0.72 0.000
  [I%=17.3: S%= 2.00]
* * ADD [0114 + 0311] 0810 3 2.0 278.05 38.48 12.50 80.26 n/a 0.000
* * CHANNEL[ 2 : 0810] 0313 1 2.0 278.05 38.51 12.50 80.26 n/a 0.000
* * CALI B STANDHYD 0115 1 2.0 12.66 2.17 12.30 78.09 0.65 0.000
  [I%=28.8: S%= 2.00]
* * ADD [0115 + 0313] 0811 3 2.0 290.71 39.95 12.50 80.16 n/a 0.000
* * CHANNEL[ 2 : 0811] 0314 1 2.0 290.71 39.94 12.50 80.16 n/a 0.000
* * CALI B STANDHYD 0116 1 2.0 26.63 4.99 12.30 79.24 0.66 0.000
  [I%=25.5: S%= 2.00]
* * ADD [0116 + 0314] 0812 3 2.0 317.34 42.85 12.47 80.09 n/a 0.000
* * PIPE [ 2 : 0812] 0401 1 2.0 317.34 42.86 12.50 80.09 n/a 0.000
* * CALI B STANDHYD 0117 1 2.0 27.32 3.64 12.27 61.11 0.51 0.000
  [I%=25.1: S%= 2.00]
* * ADD [0117 + 0401] 0813 3 2.0 344.66 45.27 12.47 78.58 n/a 0.000
* * CHANNEL[ 2 : 0813] 0315 1 2.0 344.66 44.84 12.50 78.58 n/a 0.000
* * CALI B STANDHYD 0119 1 2.0 16.91 2.49 12.30 67.40 0.56 0.000
  [I%=26.9: S%= 2.00]
* * ADD [0119 + 0315] 0814 3 2.0 361.57 46.46 12.50 78.06 n/a 0.000
* * PIPE [ 2 : 0814] 0402 1 2.0 361.57 46.46 12.50 78.06 n/a 0.000
* * CALI B STANDHYD 0120 1 2.0 17.04 2.19 12.30 58.99 0.49 0.000

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[I%=20.9: S%= 2.00]
* * CHANNEL[ 2 : 0120] 0316 1 2.0 17.04 2.16 12.30 58.99 n/a 0.000
* * CALI B STANDHYD 0121 1 2.0 1.39 0.16 12.27 47.08 0.39 0.000
  [I%=14.6: S%= 2.00]
* * CALI B STANDHYD 0122 1 2.0 3.13 0.49 12.23 60.98 0.51 0.000
  [I%=26.5: S%= 2.00]
* * ADD [0121 + 0122] 0815 3 2.0 4.52 0.65 12.23 56.69 n/a 0.000
* * ADD [0815 + 0316] 0815 1 2.0 21.56 2.72 12.30 58.51 n/a 0.000
* * ADD [0815 + 0402] 0815 3 2.0 383.13 48.23 12.50 76.96 n/a 0.000
* * PIPE [ 2 : 0815] 0404 1 2.0 383.13 48.13 12.50 76.96 n/a 0.000
* * CALI B STANDHYD 0124 1 2.0 21.61 3.68 12.27 68.72 0.57 0.000
  [I%=33.4: S%= 2.00]
* * ADD [0124 + 0404] 0816 3 2.0 404.74 49.79 12.50 76.52 n/a 0.000
* * DUHYD 0500 1 2.0 404.74 49.79 12.50 76.52 n/a 0.000
  MAJOR SYSTEM: 0500 2 2.0 318.44 48.92 12.50 76.52 n/a 0.000
  MINOR SYSTEM: 0500 3 2.0 86.29 0.87 7.17 76.52 n/a 0.000
* * PIPE [ 2 : 0500] 0405 1 2.0 318.44 48.82 12.50 76.52 n/a 0.000
* ** CALI B STANDHYD 0125 1 2.0 18.74 3.59 12.30 79.88 0.66 0.000
  [I%=44.1: S%= 2.00]
* * ADD [0125 + 0405] 0817 3 2.0 337.18 50.69 12.50 76.71 n/a 0.000
* * PIPE [ 2 : 0500] 0408 1 2.0 86.29 0.87 7.50 76.52 n/a 0.000
* ** CALI B STANDHYD 0126 1 2.0 22.26 3.60 12.27 64.88 0.54 0.000
  [I%=32.1: S%= 2.00]
* * ADD [0126 + 0408] 0820 3 2.0 108.55 4.47 12.27 74.13 n/a 0.000
* * PIPE [ 2 : 0820] 0406 1 2.0 108.55 4.47 12.27 74.13 n/a 0.000
* ** CALI B STANDHYD 0127 1 2.0 9.98 1.37 12.27 59.25 0.49 0.000
  [I%=27.4: S%= 2.00]
* * ADD [0127 + 0406] 0818 3 2.0 118.53 5.85 12.27 72.88 n/a 0.000
* * PIPE [ 2 : 0818] 0407 1 2.0 118.53 5.73 12.27 72.88 n/a 0.000
* ** CALI B STANDHYD 0128 1 2.0 14.87 3.34 12.27 83.35 0.69 0.000
  [I%=45.4: S%= 2.00]
* * ADD [0128 + 0407] 0819 3 2.0 133.40 9.06 12.27 74.05 n/a 0.000

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I:100 Year 6 Hour SCS Design Storm

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*****
** SIMULATION NUMBER: 22 **
*****
W/E COMMAND          HYD ID  DT   AREA  Qpeak  Tpeak  R. V.  R. C.  Qbase
                    mi n    ha    cms   hrs   mm    cms
START @ 0.00 hrs
-----
READ STORM          15.0
[ Ptot=106.50 mm ]
fname : C:\Users\dtwi gger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\3d3b1b89-e8c4-4a46-b00
remark: 100yr/6hr Barrie Wpcc +15% SCS
* ** CALI B STANDHYD 0100 1 2.0 31.13 5.81 3.30 61.26 0.58 0.000
  [I%=28.2: S%= 2.00]
* * CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 5.78 3.33 61.26 n/a 0.000
* ** CALI B STANDHYD 0105 1 2.0 9.01 2.50 3.27 72.08 0.68 0.000
  [I%=24.8: S%= 2.00]
* ** CALI B STANDHYD 0110 1 2.0 12.37 2.62 3.30 64.60 0.61 0.000
  [I%=25.4: S%= 2.00]
* * CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 2.58 3.30 64.60 n/a 0.000
* * ADD [0105 + 0302] 0802 3 2.0 40.14 8.03 3.30 63.69 n/a 0.000

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*	ADD [0802 + 0303]	0802	1	2.0	52.51	10.61	3.30	63.90	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	10.61	3.30	63.90	n/a	0.000
**	CALIB STANDHYD [I%=39.4; S%= 2.00]	0113	1	2.0	9.41	2.55	3.27	73.23	0.69	0.000
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	2.41	3.27	73.22	n/a	0.000
**	CALIB STANDHYD [I%=27.5; S%= 2.00]	0118	1	2.0	4.11	0.89	3.27	61.40	0.58	0.000
*	RESRVR [2 : 0118] {ST= 0.05 ha.m }	0600	1	2.0	4.11	0.47	3.47	61.50	n/a	0.000
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.45	3.57	61.48	n/a	0.000
**	CALIB STANDHYD [I%=22.9; S%= 2.00]	0101	1	2.0	8.68	1.67	3.27	54.42	0.51	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.96	3.27	56.69	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.83	3.30	56.68	n/a	0.000
**	CALIB STANDHYD [I%=27.4; S%= 2.00]	0123	1	2.0	22.81	4.73	3.30	67.55	0.63	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	7.13	3.30	69.21	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	8.96	3.30	65.65	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	19.57	3.30	64.71	n/a	0.000
*	RESRVR [2 : 0800] {ST= 1.31 ha.m }	0601	1	2.0	97.52	16.99	3.40	64.42	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	16.99	3.40	64.42	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	15.55	3.50	64.42	n/a	0.000
**	CALIB STANDHYD [I%=22.0; S%= 2.00]	0102	1	2.0	19.41	4.70	3.30	72.38	0.68	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	18.68	3.47	65.74	n/a	0.000
**	CALIB STANDHYD [I%=37.1; S%= 2.00]	0103	1	2.0	35.79	9.73	3.30	80.70	0.76	0.000
**	CALIB STANDHYD [I%=20.7; S%= 2.00]	0104	1	2.0	5.22	1.52	3.27	76.10	0.71	0.000
**	CALIB STANDHYD [I%=21.1; S%= 2.00]	0106	1	2.0	13.71	3.09	3.30	68.21	0.64	0.000
*	CALIB STANDHYD [I%=18.1; S%= 2.00]	0107	1	5.0	8.53	2.53	3.25	74.33	0.70	0.000
*	CALIB STANDHYD [I%=24.4; S%= 2.00]	0108	1	2.0	58.75	9.97	3.37	60.67	0.57	0.000
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	9.83	3.37	60.67	n/a	0.000
**	CALIB STANDHYD [I%= 3.0; S%= 2.00]	0109	1	2.0	13.70	3.75	3.30	70.02	0.66	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	13.18	3.37	62.43	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	13.17	3.37	62.43	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	15.00	3.33	63.68	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	14.95	3.37	63.68	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	17.77	3.37	64.34	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	16.93	3.40	64.34	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	17.95	3.40	64.95	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	26.72	3.33	69.11	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	25.51	3.40	69.11	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	43.88	3.43	67.55	n/a	0.000

*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	43.77	3.43	67.55	n/a	0.000
**	CALIB STANDHYD [I%=22.2; S%= 2.00]	0111	1	2.0	3.57	0.92	3.27	72.49	0.68	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	44.39	3.43	67.62	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	44.28	3.47	67.62	n/a	0.000
**	CALIB STANDHYD [I%=23.9; S%= 2.00]	0112	1	2.0	16.90	4.29	3.30	75.92	0.71	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	47.43	3.43	68.13	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	46.57	3.47	68.13	n/a	0.000
**	CALIB STANDHYD [I%=17.3; S%= 2.00]	0114	1	2.0	4.95	1.38	3.27	73.78	0.69	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	47.30	3.47	68.23	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	47.26	3.47	68.23	n/a	0.000
**	CALIB STANDHYD [I%=28.8; S%= 2.00]	0115	1	2.0	12.66	2.60	3.30	66.35	0.62	0.000
*	ADD [0115 + 0313]	0811	3	2.0	290.71	49.11	3.47	68.15	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	48.94	3.50	68.15	n/a	0.000
*	CALIB STANDHYD [I%=25.5; S%= 2.00]	0116	1	2.0	26.63	6.27	3.27	67.25	0.63	0.000
*	ADD [0116 + 0314]	0812	3	2.0	317.34	52.44	3.47	68.07	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	52.42	3.47	68.07	n/a	0.000
**	CALIB STANDHYD [I%=25.1; S%= 2.00]	0117	1	2.0	27.32	4.40	3.27	51.52	0.48	0.000
*	ADD [0117 + 0401]	0813	3	2.0	344.66	55.33	3.47	66.76	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	54.85	3.50	66.76	n/a	0.000
**	CALIB STANDHYD [I%=26.9; S%= 2.00]	0119	1	2.0	16.91	2.98	3.30	56.94	0.53	0.000
*	ADD [0119 + 0315]	0814	3	2.0	361.57	56.77	3.50	66.30	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	56.81	3.50	66.30	n/a	0.000
*	CALIB STANDHYD [I%=20.9; S%= 2.00]	0120	1	2.0	17.04	2.71	3.27	49.49	0.46	0.000
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	2.70	3.30	49.49	n/a	0.000
**	CALIB STANDHYD [I%=14.6; S%= 2.00]	0121	1	2.0	1.39	0.19	3.27	39.05	0.37	0.000
**	CALIB STANDHYD [I%=26.5; S%= 2.00]	0122	1	2.0	3.13	0.59	3.23	51.49	0.48	0.000
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.77	3.23	47.66	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	3.37	3.27	49.10	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	58.84	3.50	65.33	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	58.84	3.50	65.33	n/a	0.000
*	CALIB STANDHYD [I%=33.4; S%= 2.00]	0124	1	2.0	21.61	4.56	3.27	58.46	0.55	0.000
*	ADD [0124 + 0404]	0816	3	2.0	404.74	60.68	3.50	64.97	n/a	0.000
*	DUHYD MAJOR SYSTEM: MINOR SYSTEM:	0500 0500 0500	1 2 3	2.0 2.0 2.0	404.74 368.81 35.93	60.68 59.81 0.87	3.50 3.50 1.40	64.97 64.97 64.97	n/a n/a n/a	0.000 0.000 0.000
*	PIPE [2 : 0500]	0405	1	2.0	368.81	59.77	3.50	64.97	n/a	0.000
**	CALIB STANDHYD [I%=44.1; S%= 2.00]	0125	1	2.0	18.74	4.44	3.30	68.56	0.64	0.000

*	ADD [0125 + 0405]	0817	3	2.0	387.55	62.00	3.50	65.14	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	35.93	0.87	1.80	64.97	n/a	0.000
**	CALI B STANDHYD [I%=32.1: S%= 2.00]	0126	1	2.0	22.26	4.50	3.23	55.12	0.52	0.000
*	ADD [0126 + 0408]	0820	3	2.0	58.19	5.36	3.23	61.20	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	58.19	5.36	3.27	61.20	n/a	0.000
**	CALI B STANDHYD [I%=27.4: S%= 2.00]	0127	1	2.0	9.98	1.69	3.27	50.09	0.47	0.000
*	ADD [0127 + 0406]	0818	3	2.0	68.17	7.05	3.27	59.57	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	68.17	6.95	3.27	59.57	n/a	0.000
**	CALI B STANDHYD [I%=45.4: S%= 2.00]	0128	1	2.0	14.87	4.17	3.23	71.62	0.67	0.000
*	ADD [0128 + 0407]	0819	3	2.0	83.04	11.08	3.27	61.73	n/a	0.000

**** SIMULATION NUMBER: 23 ** 1:100 Year 12 Hour SCS Design Storm**

W/E	COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R.V. mm	R.C.	Qbase cms	
START @ 0.00 hrs										
READ STORM [Ptot=112.51 mm] 15.0										
fname : C:\Users\dtwiger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\6db0f576-2e1e-44aa-b69										
remark: 100yr/12hr Barrie Wpcc +15% SCS										
**	CALI B STANDHYD [I%=28.2: S%= 2.00]	0100	1	2.0	31.13	5.07	6.30	65.91	0.59	0.000
*	CHANNEL [2 : 0100]	0302	1	2.0	31.13	5.06	6.33	65.91	n/a	0.000
**	CALI B STANDHYD [I%=24.8: S%= 2.00]	0105	1	2.0	9.01	2.26	6.27	77.40	0.69	0.000
**	CALI B STANDHYD [I%=25.4: S%= 2.00]	0110	1	2.0	12.37	2.38	6.30	69.52	0.62	0.000
*	CHANNEL [2 : 0110]	0303	1	2.0	12.37	2.34	6.30	69.52	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	7.07	6.30	68.49	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	9.41	6.30	68.73	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	9.41	6.30	68.73	n/a	0.000
**	CALI B STANDHYD [I%=39.4: S%= 2.00]	0113	1	2.0	9.41	2.30	6.27	78.41	0.70	0.000
*	CHANNEL [2 : 0113]	0301	1	2.0	9.41	2.17	6.30	78.40	n/a	0.000
**	CALI B STANDHYD [I%=27.5: S%= 2.00]	0118	1	2.0	4.11	0.78	6.27	66.09	0.59	0.000
*	RESRVR [2 : 0118] {ST= 0.04 ha.m }	0600	1	2.0	4.11	0.43	6.47	66.14	n/a	0.000
*	CHANNEL [2 : 0600]	0300	1	2.0	4.11	0.41	6.60	66.11	n/a	0.000
**	CALI B STANDHYD [I%=22.9: S%= 2.00]	0101	1	2.0	8.68	1.52	6.27	58.74	0.52	0.000
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.80	6.27	61.11	n/a	0.000
*	CHANNEL [2 : 0801]	0304	1	2.0	12.79	1.67	6.30	61.11	n/a	0.000
**	CALI B STANDHYD [I%=27.1: S%= 2.00]	0123	1	2.0	22.81	4.28	6.30	72.63	0.65	0.000
*	ADD [0123 + 0301]	0800	3	2.0	32.22	6.45	6.30	74.31	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	8.12	6.30	70.56	n/a	0.000

*	ADD [0800 + 0400]	0800	3	2.0	97.52	17.53	6.30	69.58	n/a	0.000
*	RESRVR [2 : 0800] {ST= 1.25 ha.m }	0601	1	2.0	97.52	15.24	6.40	69.28	n/a	0.000
*	PIPE [2 : 0601]	0403	1	2.0	97.52	15.23	6.40	69.28	n/a	0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	13.96	6.50	69.28	n/a	0.000
**	CALI B STANDHYD [I%=22.0: S%= 2.00]	0102	1	2.0	19.41	4.26	6.30	77.75	0.69	0.000
*	ADD [0102 + 0317]	0803	3	2.0	116.93	16.76	6.47	70.69	n/a	0.000
**	CALI B STANDHYD [I%=37.1: S%= 2.00]	0103	1	2.0	35.79	8.71	6.30	86.26	0.77	0.000
**	CALI B STANDHYD [I%=20.7: S%= 2.00]	0104	1	2.0	5.22	1.32	6.27	81.61	0.73	0.000
**	CALI B STANDHYD [I%=21.1: S%= 2.00]	0106	1	2.0	13.71	2.80	6.30	73.37	0.65	0.000
*	CALI B STANDHYD [I%=18.1: S%= 2.00]	0107	1	5.0	8.53	2.04	6.25	79.79	0.71	0.000
*	CALI B STANDHYD [I%=24.4: S%= 2.00]	0108	1	2.0	58.75	9.04	6.37	65.36	0.58	0.000
*	CHANNEL [2 : 0108]	0307	1	2.0	58.75	8.89	6.37	65.36	n/a	0.000
*	CALI B STANDHYD [I%= 3.0: S%= 2.00]	0109	1	2.0	13.70	3.39	6.30	75.41	0.67	0.000
*	ADD [0109 + 0307]	0806	3	2.0	72.45	11.92	6.37	67.26	n/a	0.000
*	CHANNEL [2 : 0806]	0308	1	2.0	72.45	11.92	6.37	67.26	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	13.63	6.37	68.57	n/a	0.000
*	CHANNEL [2 : 0807]	0306	1	2.0	80.98	13.58	6.37	68.57	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	16.14	6.37	69.27	n/a	0.000
*	CHANNEL [2 : 0804]	0305	1	2.0	94.69	15.34	6.40	69.27	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	16.34	6.40	69.91	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	24.02	6.37	74.22	n/a	0.000
*	CHANNEL [2 : 0805]	0312	1	2.0	135.70	23.10	6.40	74.22	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	39.47	6.43	72.59	n/a	0.000
*	CHANNEL [2 : 0094]	0309	1	2.0	252.63	39.39	6.43	72.59	n/a	0.000
**	CALI B STANDHYD [I%=22.2: S%= 2.00]	0111	1	2.0	3.57	0.83	6.27	77.84	0.69	0.000
*	ADD [0111 + 0309]	0808	3	2.0	256.20	39.95	6.43	72.66	n/a	0.000
*	CHANNEL [2 : 0808]	0310	1	2.0	256.20	39.82	6.47	72.66	n/a	0.000
**	CALI B STANDHYD [I%=23.9: S%= 2.00]	0112	1	2.0	16.90	3.87	6.30	81.40	0.72	0.000
*	ADD [0112 + 0310]	0809	3	2.0	273.10	42.61	6.43	73.20	n/a	0.000
*	CHANNEL [2 : 0809]	0311	1	2.0	273.10	41.78	6.50	73.20	n/a	0.000
*	CALI B STANDHYD [I%=17.3: S%= 2.00]	0114	1	2.0	4.95	1.20	6.27	79.23	0.70	0.000
*	ADD [0114 + 0311]	0810	3	2.0	278.05	42.48	6.47	73.31	n/a	0.000
*	CHANNEL [2 : 0810]	0313	1	2.0	278.05	42.47	6.50	73.31	n/a	0.000
**	CALI B STANDHYD [I%=28.8: S%= 2.00]	0115	1	2.0	12.66	2.39	6.30	71.30	0.63	0.000
*	ADD [0115 + 0313]	0811	3	2.0	290.71	44.19	6.47	73.22	n/a	0.000
*	CHANNEL [2 : 0811]	0314	1	2.0	290.71	44.10	6.50	73.22	n/a	0.000

*	CALIB STANDHYD	0116	1	2.0	26.63	5.48	6.30	72.31	0.64	0.000
*	[I%=25.5; S%= 2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	47.44	6.47	73.14	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	47.41	6.47	73.14	n/a	0.000
*	CALIB STANDHYD	0117	1	2.0	27.32	3.99	6.27	55.55	0.49	0.000
*	[I%=25.1; S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	50.08	6.47	71.75	n/a	0.000
*	CHANNEL [2 : 0813]	0315	1	2.0	344.66	49.63	6.50	71.75	n/a	0.000
*	CALIB STANDHYD	0119	1	2.0	16.91	2.73	6.30	61.34	0.55	0.000
*	[I%=26.9; S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	51.40	6.50	71.26	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	51.42	6.50	71.26	n/a	0.000
*	CALIB STANDHYD	0120	1	2.0	17.04	2.47	6.27	53.48	0.48	0.000
*	[I%=20.9; S%= 2.00]									
*	CHANNEL [2 : 0120]	0316	1	2.0	17.04	2.46	6.30	53.48	n/a	0.000
*	CALIB STANDHYD	0121	1	2.0	1.39	0.17	6.27	42.41	0.38	0.000
*	[I%=14.6; S%= 2.00]									
*	CALIB STANDHYD	0122	1	2.0	3.13	0.54	6.23	55.47	0.49	0.000
*	[I%=26.5; S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.71	6.23	51.45	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	3.07	6.30	53.05	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	53.29	6.50	70.24	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	53.27	6.50	70.24	n/a	0.000
*	CALIB STANDHYD	0124	1	2.0	21.61	4.05	6.27	62.77	0.56	0.000
*	[I%=33.4; S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	55.08	6.50	69.84	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	55.08	6.50	69.84	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	351.31	54.21	6.50	69.84	n/a	0.000
*	MINOR SYSTEM:	0500	3	2.0	53.43	0.87	2.73	69.84	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	351.31	54.18	6.50	69.84	n/a	0.000
**	CALIB STANDHYD	0125	1	2.0	18.74	3.98	6.30	73.34	0.65	0.000
*	[I%=44.1; S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	370.05	56.22	6.50	70.02	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	53.43	0.87	3.10	69.84	n/a	0.000
**	CALIB STANDHYD	0126	1	2.0	22.26	4.07	6.23	59.22	0.53	0.000
*	[I%=32.1; S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	75.69	4.94	6.23	66.72	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	75.69	4.94	6.27	66.72	n/a	0.000
**	CALIB STANDHYD	0127	1	2.0	9.98	1.55	6.27	53.94	0.48	0.000
*	[I%=27.4; S%= 2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	85.67	6.49	6.27	65.23	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	85.67	6.37	6.27	65.23	n/a	0.000
**	CALIB STANDHYD	0128	1	2.0	14.87	3.75	6.23	76.57	0.68	0.000
*	[I%=45.4; S%= 2.00]									
*	ADD [0128 + 0407]	0819	3	2.0	100.54	10.09	6.27	66.90	n/a	0.000

 ** SIMULATION NUMBER: 24 ** **1:100 Year 24 Hour SCS Design Storm**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R.V. mm	R.C.	Qbase cms
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	START @	0.00	hrs							

	READ STORM							15.0		
	[Ptot=133.60 mm]									
	fname : C:\Users\dtwigger\AppData\Local\Temp\0e0b4131-aec9-4f63-9ef0-93267f4318f1\97894565-b6f8-469d-831									
	remark: 100yr/24hr Barri e Wpcc +15% SCS									
*	CALIB STANDHYD	0100	1	2.0	31.13	5.34	12.30	82.75	0.62	0.000
*	[I%=28.2; S%= 2.00]									
*	CHANNEL [2 : 0100]	0302	1	2.0	31.13	5.33	12.33	82.75	n/a	0.000
**	CALIB STANDHYD	0105	1	2.0	9.01	2.37	12.27	96.39	0.72	0.000
*	[I%=24.8; S%= 2.00]									
**	CALIB STANDHYD	0110	1	2.0	12.37	2.52	12.30	87.22	0.65	0.000
*	[I%=25.4; S%= 2.00]									
*	CHANNEL [2 : 0110]	0303	1	2.0	12.37	2.48	12.30	87.22	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	7.43	12.30	85.81	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	9.91	12.30	86.15	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	9.91	12.30	86.15	n/a	0.000
**	CALIB STANDHYD	0113	1	2.0	9.41	2.37	12.27	96.94	0.73	0.000
*	[I%=39.4; S%= 2.00]									
*	CHANNEL [2 : 0113]	0301	1	2.0	9.41	2.24	12.30	96.93	n/a	0.000
**	CALIB STANDHYD	0118	1	2.0	4.11	0.87	12.27	83.03	0.62	0.000
*	[I%=27.5; S%= 2.00]									
*	RESRVR [2 : 0118]	0600	1	2.0	4.11	0.47	12.47	83.04	n/a	0.000
*	{ST= 0.05 ha.m }									
*	CHANNEL [2 : 0600]	0300	1	2.0	4.11	0.45	12.57	83.02	n/a	0.000
*	CALIB STANDHYD	0101	1	2.0	8.68	1.62	12.27	74.48	0.56	0.000
*	[I%=22.9; S%= 2.00]									
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.92	12.27	77.22	n/a	0.000
*	CHANNEL [2 : 0801]	0304	1	2.0	12.79	1.80	12.30	77.22	n/a	0.000
*	CALIB STANDHYD	0123	1	2.0	22.81	4.52	12.30	90.87	0.68	0.000
*	[I%=27.1; S%= 2.00]									
*	ADD [0123 + 0301]	0800	3	2.0	32.22	6.76	12.30	92.64	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	8.56	12.30	88.26	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	18.47	12.30	87.12	n/a	0.000
*	RESRVR [2 : 0800]	0601	1	2.0	97.52	16.26	12.40	86.83	n/a	0.000
*	{ST= 1.29 ha.m }									
*	PIPE [2 : 0601]	0403	1	2.0	97.52	16.26	12.40	86.83	n/a	0.000
*	CHANNEL [2 : 0403]	0317	1	2.0	97.52	15.07	12.50	86.83	n/a	0.000
**	CALIB STANDHYD	0102	1	2.0	19.41	4.47	12.30	96.93	0.73	0.000
*	[I%=22.0; S%= 2.00]									
*	ADD [0102 + 0317]	0803	3	2.0	116.93	18.09	12.47	88.50	n/a	0.000
**	CALIB STANDHYD	0103	1	2.0	35.79	8.97	12.30	105.99	0.79	0.000
*	[I%=37.1; S%= 2.00]									
**	CALIB STANDHYD	0104	1	2.0	5.22	1.43	12.27	101.21	0.76	0.000
*	[I%=20.7; S%= 2.00]									
**	CALIB STANDHYD	0106	1	2.0	13.71	2.96	12.30	91.88	0.69	0.000
*	[I%=21.1; S%= 2.00]									
*	CALIB STANDHYD	0107	1	5.0	8.53	2.14	12.25	99.25	0.74	0.000
*	[I%=18.1; S%= 2.00]									
*	CALIB STANDHYD	0108	1	2.0	58.75	9.60	12.33	82.33	0.62	0.000
*	[I%=24.4; S%= 2.00]									
*	CHANNEL [2 : 0108]	0307	1	2.0	58.75	9.47	12.37	82.33	n/a	0.000

*	CALI B STANDHYD	0109	1	2.0	13.70	3.55	12.30	94.67	0.71	0.000
	[I%=3.0;S%=2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	12.62	12.37	84.66	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	12.62	12.37	84.66	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	14.41	12.37	86.19	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	14.36	12.37	86.19	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	17.06	12.37	87.02	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	16.26	12.40	87.02	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	17.22	12.40	87.76	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	25.20	12.37	92.57	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	24.22	12.40	92.57	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	42.06	12.43	90.69	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	42.01	12.43	90.69	n/a	0.000
**	CALI B STANDHYD	0111	1	2.0	3.57	0.87	12.27	96.97	0.73	0.000
	[I%=22.2;S%=2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	42.60	12.43	90.77	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	42.44	12.47	90.77	n/a	0.000
**	CALI B STANDHYD	0112	1	2.0	16.90	4.03	12.30	100.91	0.76	0.000
	[I%=23.9;S%=2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	45.51	12.43	91.40	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	44.66	12.47	91.40	n/a	0.000
*	CALI B STANDHYD	0114	1	2.0	4.95	1.26	12.27	98.65	0.74	0.000
	[I%=17.3;S%=2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	45.41	12.47	91.53	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	45.39	12.47	91.53	n/a	0.000
*	CALI B STANDHYD	0115	1	2.0	12.66	2.50	12.30	89.12	0.67	0.000
	[I%=28.8;S%=2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	47.22	12.47	91.42	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	46.97	12.47	91.42	n/a	0.000
*	CALI B STANDHYD	0116	1	2.0	26.63	5.77	12.30	90.49	0.68	0.000
	[I%=25.5;S%=2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	50.71	12.47	91.35	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	50.71	12.47	91.35	n/a	0.000
*	CALI B STANDHYD	0117	1	2.0	27.32	4.23	12.27	70.25	0.53	0.000
	[I%=25.1;S%=2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	53.58	12.47	89.67	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	53.06	12.50	89.67	n/a	0.000
*	CALI B STANDHYD	0119	1	2.0	16.91	2.89	12.30	77.32	0.58	0.000
	[I%=26.9;S%=2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	54.94	12.50	89.10	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	55.00	12.50	89.10	n/a	0.000
*	CALI B STANDHYD	0120	1	2.0	17.04	2.65	12.30	68.08	0.51	0.000
	[I%=20.9;S%=2.00]									
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	2.64	12.30	68.08	n/a	0.000
*	CALI B STANDHYD	0121	1	2.0	1.39	0.19	12.27	54.83	0.41	0.000
	[I%=14.6;S%=2.00]									
*	CALI B STANDHYD	0122	1	2.0	3.13	0.57	12.23	70.01	0.52	0.000
	[I%=26.5;S%=2.00]									

*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.75	12.23	65.34	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	3.29	12.30	67.50	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	57.01	12.47	87.88	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	57.06	12.50	87.88	n/a	0.000
**	CALI B STANDHYD	0124	1	2.0	21.61	4.22	12.27	78.44	0.59	0.000
	[I%=33.4;S%=2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	58.96	12.50	87.38	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	58.96	12.50	87.38	n/a	0.000
	MAJOR SYSTEM:	0500	2	2.0	327.36	58.10	12.50	87.38	n/a	0.000
	MINOR SYSTEM:	0500	3	2.0	77.37	0.87	6.63	87.38	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	327.36	58.14	12.50	87.38	n/a	0.000
**	CALI B STANDHYD	0125	1	2.0	18.74	4.10	12.30	90.52	0.68	0.000
	[I%=44.1;S%=2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	346.10	60.24	12.50	87.55	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	77.37	0.87	6.70	87.38	n/a	0.000
**	CALI B STANDHYD	0126	1	2.0	22.26	4.24	12.23	74.16	0.56	0.000
	[I%=32.1;S%=2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	99.63	5.11	12.23	84.42	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	99.63	5.12	12.27	84.42	n/a	0.000
**	CALI B STANDHYD	0127	1	2.0	9.98	1.63	12.27	68.00	0.51	0.000
	[I%=27.4;S%=2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	109.61	6.75	12.27	82.93	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	109.61	6.62	12.27	82.93	n/a	0.000
**	CALI B STANDHYD	0128	1	2.0	14.87	3.86	12.23	94.33	0.71	0.000
	[I%=45.4;S%=2.00]									
*	ADD [0128 + 0407]	0819	3	2.0	124.48	10.45	12.27	84.29	n/a	0.000
*	FINISH									

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Sophia V03.txt

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```
V V I SSSSS U U A L
V V I SS U U A A L
V V I SS U U A A A L
V V I SS U U A A L
W I SSSSS UUUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y M M 0 0
0 0 T T H H Y Y M M 0 0
000 T T H H Y Y M M 000
```

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***** SUMMARY OUTPUT *****

Input filename: C:\Program Files (x86)\VH Suite 3.0\V02\voinput.dat

Output filename:
 C:\Users\dtwigger\AppData\Local\Temp\d846c32c-cd4c-4d16-a4af-12b9c07c7f74\Scenario.out

Summary filename:
 C:\Users\dtwigger\AppData\Local\Temp\d846c32c-cd4c-4d16-a4af-12b9c07c7f74\Scenario.summary

DATE: 10/08/2016

TIME: 09:49:01

USER:

COMMENTS: **EXISTING CONDITIONS HYDROLOGIC MODEL RESULTS**

 ** SIMULATION NUMBER: 25 ** **Hurricane Hazel Storm Event**

W/E COMMAND	HYD ID	DT min	AREA ha	Qpeak cms	Tpeak hrs	R.V. mm	R.C.	Qbase cms
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START @ 0.00 hrs

READ STORM [Ptot=212.00 mm] 12.0

fname :

C:\Users\dtwigger\AppData\Local\Temp\d846c32c-cd4c-4d16-a4af-12b9c07c7f74\162f41c1-4e62-4af4-8f92-fd

remark: * REGIONAL DESIGN STORM - HAZEL

** CALIB STANDHYD	0100	1	2.0	31.13	3.55	10.07	149.95	0.71	0.000
[I%=28.2; S%= 2.00]									
* CHANNEL[2 : 0100]	0302	1	2.0	31.13	3.55	10.10	149.95	n/a	0.000
** CALIB STANDHYD	0105	1	2.0	9.01	1.20	10.00	169.83	0.80	0.000

Sophia V03.txt

*	[I%=24.8; S%= 2.00]									
**	CALIB STANDHYD	0110	1	2.0	12.37	1.50	10.03	157.08	0.74	0.000
*	[I%=25.4; S%= 2.00]									
*	CHANNEL[2 : 0110]	0303	1	2.0	12.37	1.50	10.07	157.08	n/a	0.000
*	ADD [0105 + 0302]	0802	3	2.0	40.14	4.73	10.03	154.41	n/a	0.000
*	ADD [0802 + 0303]	0802	1	2.0	52.51	6.23	10.03	155.04	n/a	0.000
*	PIPE [2 : 0802]	0400	1	2.0	52.51	6.23	10.03	155.04	n/a	0.000
**	CALIB STANDHYD	0113	1	2.0	9.41	1.22	10.00	168.94	0.80	0.000
*	[I%=39.4; S%= 2.00]									
*	CHANNEL[2 : 0113]	0301	1	2.0	9.41	1.21	10.03	168.93	n/a	0.000
**	CALIB STANDHYD	0118	1	2.0	4.11	0.49	10.00	150.58	0.71	0.000
*	[I%=27.5; S%= 2.00]									
*	RESRVR [2 : 0118]	0600	1	2.0	4.11	0.42	10.30	150.66	n/a	0.000
*	{ST= 0.04 ha.m }									
*	CHANNEL[2 : 0600]	0300	1	2.0	4.11	0.42	10.43	150.64	n/a	0.000
*	CALIB STANDHYD	0101	1	2.0	8.68	0.97	10.00	138.40	0.65	0.000
*	[I%=22.9; S%= 2.00]									
*	ADD [0101 + 0300]	0801	3	2.0	12.79	1.35	10.03	142.34	n/a	0.000
*	CHANNEL[2 : 0801]	0304	1	2.0	12.79	1.34	10.07	142.33	n/a	0.000
*	CALIB STANDHYD	0123	1	2.0	22.81	2.79	10.07	162.24	0.77	0.000
*	[I%=27.1; S%= 2.00]									
*	ADD [0123 + 0301]	0800	3	2.0	32.22	4.00	10.07	164.19	n/a	0.000
*	ADD [0800 + 0304]	0800	1	2.0	45.01	5.34	10.07	157.98	n/a	0.000
*	ADD [0800 + 0400]	0800	3	2.0	97.52	11.57	10.07	156.40	n/a	0.000
*	RESRVR [2 : 0800]	0601	1	2.0	97.52	11.45	10.13	156.11	n/a	0.000
*	{ST= 1.13 ha.m }									
*	PIPE [2 : 0601]	0403	1	2.0	97.52	11.45	10.13	156.11	n/a	0.000
*	CHANNEL[2 : 0403]	0317	1	2.0	97.52	11.35	10.20	156.11	n/a	0.000
**	CALIB STANDHYD	0102	1	2.0	19.41	2.54	10.03	170.86	0.81	0.000
*	[I%=22.0; S%= 2.00]									
*	ADD [0102 + 0317]	0803	3	2.0	116.93	13.78	10.17	158.56	n/a	0.000
**	CALIB STANDHYD	0103	1	2.0	35.79	4.79	10.03	181.25	0.85	0.000
*	[I%=37.1; S%= 2.00]									
**	CALIB STANDHYD	0104	1	2.0	5.22	0.71	10.00	176.22	0.83	0.000
*	[I%=20.7; S%= 2.00]									
**	CALIB STANDHYD	0106	1	2.0	13.71	1.74	10.03	164.05	0.77	0.000
*	[I%=21.1; S%= 2.00]									

Sophia V03.txt

*	CALIB STANDHYD	0107	1	5.0	8.53	1.16	10.00	173.89	0.82	0.000
*	[I%=18.1: S%= 2.00]									
*	CALIB STANDHYD	0108	1	2.0	58.75	6.54	10.13	150.03	0.71	0.000
*	[I%=24.4: S%= 2.00]									
*	CHANNEL[2 : 0108]	0307	1	2.0	58.75	6.53	10.17	150.03	n/a	0.000
*	CALIB STANDHYD	0109	1	2.0	13.70	1.85	10.00	168.87	0.80	0.000
*	[I%= 3.0: S%= 2.00]									
*	ADD [0109 + 0307]	0806	3	2.0	72.45	8.31	10.10	153.59	n/a	0.000
*	CHANNEL[2 : 0806]	0308	1	2.0	72.45	8.31	10.13	153.59	n/a	0.000
*	ADD [0107 + 0308]	0807	3	2.0	80.98	9.40	10.10	155.73	n/a	0.000
*	CHANNEL[2 : 0807]	0306	1	2.0	80.98	9.40	10.13	155.73	n/a	0.000
*	ADD [0106 + 0306]	0804	3	2.0	94.69	11.12	10.10	156.93	n/a	0.000
*	CHANNEL[2 : 0804]	0305	1	2.0	94.69	11.06	10.17	156.93	n/a	0.000
*	ADD [0104 + 0305]	0093	3	2.0	99.91	11.72	10.13	157.94	n/a	0.000
*	ADD [0103 + 0093]	0805	3	2.0	135.70	16.46	10.10	164.09	n/a	0.000
*	CHANNEL[2 : 0805]	0312	1	2.0	135.70	16.41	10.13	164.09	n/a	0.000
*	ADD [0312 + 0803]	0094	3	2.0	252.63	30.16	10.17	161.53	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	30.17	10.17	161.53	n/a	0.000
**	CALIB STANDHYD	0111	1	2.0	3.57	0.47	10.00	170.75	0.81	0.000
*	[I%=22.2: S%= 2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	30.61	10.17	161.66	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	30.62	10.17	161.66	n/a	0.000
**	CALIB STANDHYD	0112	1	2.0	16.90	2.24	10.03	175.69	0.83	0.000
*	[I%=23.9: S%= 2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	32.79	10.17	162.52	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	32.70	10.20	162.52	n/a	0.000
*	CALIB STANDHYD	0114	1	2.0	4.95	0.67	10.00	173.20	0.82	0.000
*	[I%=17.3: S%= 2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	33.31	10.20	162.71	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	33.32	10.20	162.71	n/a	0.000
*	CALIB STANDHYD	0115	1	2.0	12.66	1.54	10.03	159.21	0.75	0.000
*	[I%=28.8: S%= 2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	34.80	10.20	162.56	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	34.80	10.20	162.56	n/a	0.000
*	CALIB STANDHYD	0116	1	2.0	26.63	3.35	10.03	161.71	0.76	0.000
*	[I%=25.5: S%= 2.00]									

Sophia V03.txt

*	ADD [0116 + 0314]	0812	3	2.0	317.34	37.94	10.20	162.49	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	37.94	10.20	162.49	n/a	0.000
*	CALIB STANDHYD	0117	1	2.0	27.32	2.79	10.03	130.61	0.62	0.000
*	[I%=25.1: S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	40.61	10.17	159.96	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	40.58	10.20	159.96	n/a	0.000
*	CALIB STANDHYD	0119	1	2.0	16.91	1.85	10.07	141.88	0.67	0.000
*	[I%=26.9: S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	42.37	10.20	159.12	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	42.37	10.20	159.12	n/a	0.000
*	CALIB STANDHYD	0120	1	2.0	17.04	1.74	10.03	128.29	0.61	0.000
*	[I%=20.9: S%= 2.00]									
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.74	10.07	128.29	n/a	0.000
*	CALIB STANDHYD	0121	1	2.0	1.39	0.13	10.00	107.80	0.51	0.000
*	[I%=14.6: S%= 2.00]									
*	CALIB STANDHYD	0122	1	2.0	3.13	0.33	10.00	129.72	0.61	0.000
*	[I%=26.5: S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.46	10.00	122.97	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	2.18	10.03	127.17	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	44.46	10.20	157.32	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	44.46	10.20	157.32	n/a	0.000
*	CALIB STANDHYD	0124	1	2.0	21.61	2.39	10.00	141.62	0.67	0.000
*	[I%=33.4: S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	46.65	10.20	156.48	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	46.65	10.20	156.48	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	376.09	45.78	10.20	156.48	n/a	0.000
*	MI NOR SYSTEM:	0500	3	2.0	28.65	0.87	1.17	156.48	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	376.09	45.78	10.20	156.48	n/a	0.000
**	CALIB STANDHYD	0125	1	2.0	18.74	2.22	10.03	158.29	0.75	0.000
*	[I%=44.1: S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	394.83	47.88	10.17	156.57	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	28.65	0.87	1.60	156.48	n/a	0.000
**	CALIB STANDHYD	0126	1	2.0	22.26	2.36	10.00	134.94	0.64	0.000
*	[I%=32.1: S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	50.91	3.23	10.00	147.06	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	50.91	3.23	10.03	147.06	n/a	0.000

Sophia V03.txt

```

** CALI B STANDHYD 0127 1 2.0 9.98 0.99 10.03 125.99 0.59 0.000
[1%=27.4: S%= 2.00]
*
* ADD [0127 + 0406] 0818 3 2.0 60.89 4.21 10.03 143.61 n/a 0.000
*
* PIPE [ 2 : 0818] 0407 1 2.0 60.89 4.21 10.03 143.61 n/a 0.000
*
** CALI B STANDHYD 0128 1 2.0 14.87 1.87 10.00 163.90 0.77 0.000
[1%=45.4: S%= 2.00]
*
* ADD [0128 + 0407] 0819 3 2.0 75.76 6.07 10.03 147.59 n/a 0.000

```

**** SIMULATION NUMBER: 26 ** Timmins Storm Event**

W/E COMMAND	HYD ID	DT	AREA	Qpeak	Tpeak	R. V.	R. C.	Qbase
		min	ha	cms	hrs	mm		cms

START @ 0.00 hrs

 READ STORM 15.0
 [Ptot=193.00 mm]
 fname :

C:\Users\dtwi\ggr\AppData\Local\Temp\d846c32c-cd4c-4d16-a4af-12b9c07c7f74\d4dcf4f1-41c6-4663-b2a3-e1

remark: * Timmins Storm

```

** CALI B STANDHYD 0100 1 2.0 31.13 2.61 7.03 133.17 0.69 0.000
[1%=28.2: S%= 2.00]
*
* CHANNEL[ 2 : 0100] 0302 1 2.0 31.13 2.61 7.07 133.17 n/a 0.000
*
** CALI B STANDHYD 0105 1 2.0 9.01 0.92 7.00 151.76 0.79 0.000
[1%=24.8: S%= 2.00]
*
** CALI B STANDHYD 0110 1 2.0 12.37 1.12 7.03 139.73 0.72 0.000
[1%=25.4: S%= 2.00]
*
* CHANNEL[ 2 : 0110] 0303 1 2.0 12.37 1.12 7.03 139.73 n/a 0.000
*
* ADD [0105 + 0302] 0802 3 2.0 40.14 3.52 7.03 137.34 n/a 0.000
*
* ADD [0802 + 0303] 0802 1 2.0 52.51 4.63 7.03 137.90 n/a 0.000
*
* PIPE [ 2 : 0802] 0400 1 2.0 52.51 4.63 7.03 137.90 n/a 0.000
*
** CALI B STANDHYD 0113 1 2.0 9.41 0.93 7.00 151.17 0.78 0.000
[1%=39.4: S%= 2.00]
*
* CHANNEL[ 2 : 0113] 0301 1 2.0 9.41 0.93 7.03 151.16 n/a 0.000
*
** CALI B STANDHYD 0118 1 2.0 4.11 0.36 7.00 133.72 0.69 0.000
[1%=27.5: S%= 2.00]
*
* RESRVR [ 2 : 0118] 0600 1 2.0 4.11 0.31 7.17 133.72 n/a 0.000
{ST= 0.02 ha.m }
*
* CHANNEL[ 2 : 0600] 0300 1 2.0 4.11 0.31 7.27 133.69 n/a 0.000
*
** CALI B STANDHYD 0101 1 2.0 8.68 0.70 7.00 122.31 0.63 0.000
[1%=22.9: S%= 2.00]

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Sophia V03.txt

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*
* ADD [0101 + 0300] 0801 3 2.0 12.79 0.99 7.00 125.97 n/a 0.000
*
* CHANNEL[ 2 : 0801] 0304 1 2.0 12.79 0.98 7.03 125.96 n/a 0.000
*
** CALI B STANDHYD 0123 1 2.0 22.81 2.10 7.03 144.58 0.75 0.000
[1%=27.1: S%= 2.00]
*
* ADD [0123 + 0301] 0800 3 2.0 32.22 3.02 7.03 146.50 n/a 0.000
*
* ADD [0800 + 0304] 0800 1 2.0 45.01 4.01 7.03 140.66 n/a 0.000
*
* ADD [0800 + 0400] 0800 3 2.0 97.52 8.64 7.03 139.18 n/a 0.000
*
* RESRVR [ 2 : 0800] 0601 1 2.0 97.52 8.52 7.10 138.89 n/a 0.000
{ST= 1.03 ha.m }
*
* PIPE [ 2 : 0601] 0403 1 2.0 97.52 8.52 7.10 138.89 n/a 0.000
*
* CHANNEL[ 2 : 0403] 0317 1 2.0 97.52 8.44 7.17 138.89 n/a 0.000
*
** CALI B STANDHYD 0102 1 2.0 19.41 1.94 7.03 152.68 0.79 0.000
[1%=22.0: S%= 2.00]
*
* ADD [0102 + 0317] 0803 3 2.0 116.93 10.28 7.13 141.18 n/a 0.000
*
** CALI B STANDHYD 0103 1 2.0 35.79 3.74 7.00 162.83 0.84 0.000
[1%=37.1: S%= 2.00]
*
** CALI B STANDHYD 0104 1 2.0 5.22 0.55 7.00 157.84 0.82 0.000
[1%=20.7: S%= 2.00]
*
** CALI B STANDHYD 0106 1 2.0 13.71 1.31 7.03 146.22 0.76 0.000
[1%=21.1: S%= 2.00]
*
* CALI B STANDHYD 0107 1 5.0 8.53 0.89 7.00 155.58 0.81 0.000
[1%=18.1: S%= 2.00]
*
* CALI B STANDHYD 0108 1 2.0 58.75 4.78 7.10 133.13 0.69 0.000
[1%=24.4: S%= 2.00]
*
* CHANNEL[ 2 : 0108] 0307 1 2.0 58.75 4.77 7.13 133.13 n/a 0.000
*
* CALI B STANDHYD 0109 1 2.0 13.70 1.42 7.00 150.63 0.78 0.000
[1%= 3.0: S%= 2.00]
*
* ADD [0109 + 0307] 0806 3 2.0 72.45 6.15 7.07 136.44 n/a 0.000
*
* CHANNEL[ 2 : 0806] 0308 1 2.0 72.45 6.15 7.10 136.44 n/a 0.000
*
* ADD [0107 + 0308] 0807 3 2.0 80.98 6.98 7.07 138.45 n/a 0.000
*
* CHANNEL[ 2 : 0807] 0306 1 2.0 80.98 6.97 7.07 138.45 n/a 0.000
*
* ADD [0106 + 0306] 0804 3 2.0 94.69 8.28 7.07 139.58 n/a 0.000
*
* CHANNEL[ 2 : 0804] 0305 1 2.0 94.69 8.22 7.13 139.58 n/a 0.000
*
* ADD [0104 + 0305] 0093 3 2.0 99.91 8.73 7.10 140.53 n/a 0.000
*
* ADD [0103 + 0093] 0805 3 2.0 135.70 12.44 7.07 146.41 n/a 0.000
*
* CHANNEL[ 2 : 0805] 0312 1 2.0 135.70 12.37 7.07 146.41 n/a 0.000

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Sophi a V03. txt

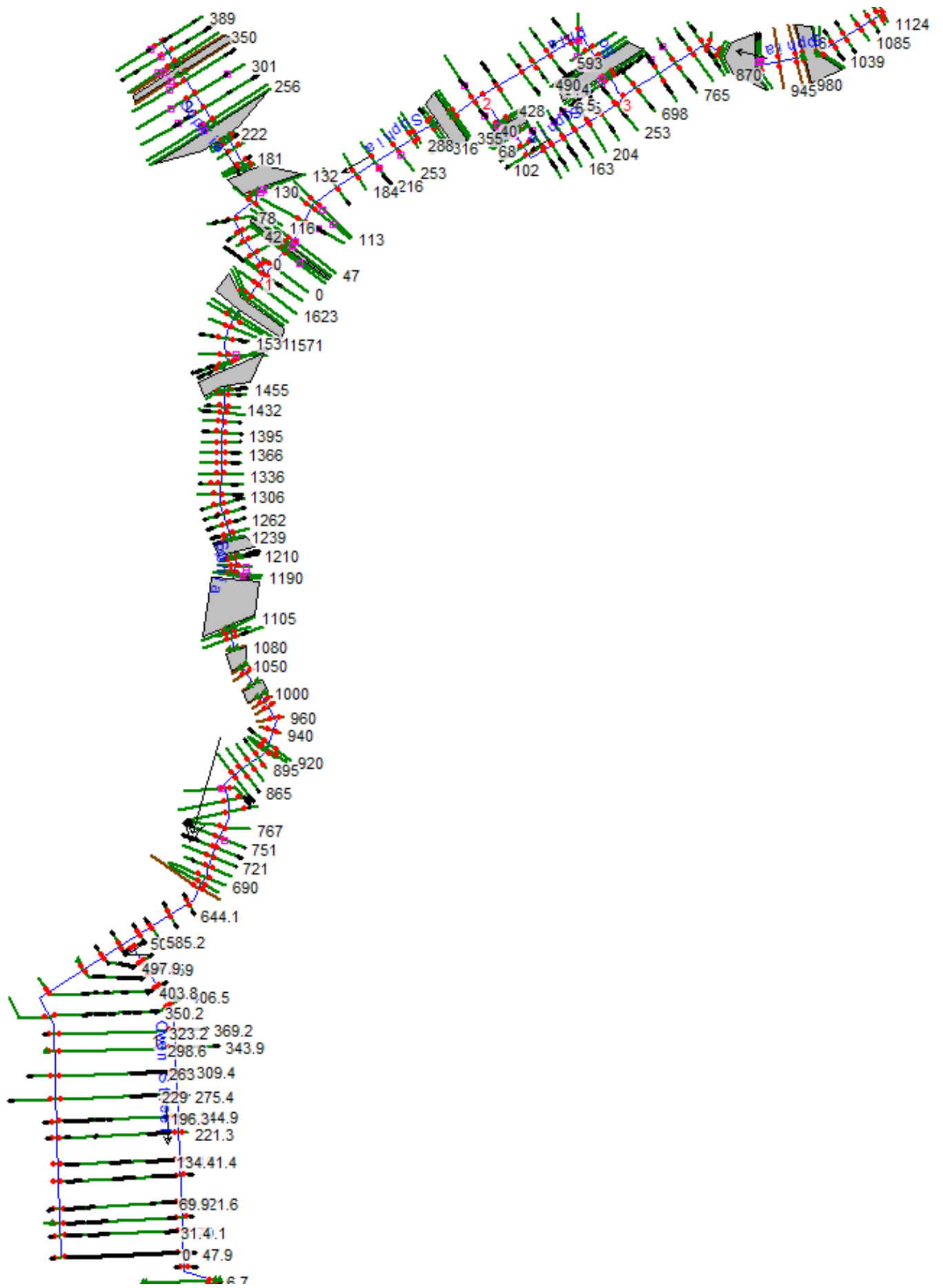
*	ADD [0312 + 0803]	0094	3	2.0	252.63	22.64	7.10	143.99	n/a	0.000
*	CHANNEL[2 : 0094]	0309	1	2.0	252.63	22.61	7.10	143.99	n/a	0.000
*	CALI B STANDHYD	0111	1	2.0	3.57	0.36	7.00	152.60	0.79	0.000
*	[I%=22.2: S%= 2.00]									
*	ADD [0111 + 0309]	0808	3	2.0	256.20	22.96	7.10	144.11	n/a	0.000
*	CHANNEL[2 : 0808]	0310	1	2.0	256.20	22.94	7.10	144.11	n/a	0.000
*	CALI B STANDHYD	0112	1	2.0	16.90	1.73	7.03	157.36	0.82	0.000
*	[I%=23.9: S%= 2.00]									
*	ADD [0112 + 0310]	0809	3	2.0	273.10	24.65	7.10	144.93	n/a	0.000
*	CHANNEL[2 : 0809]	0311	1	2.0	273.10	24.51	7.17	144.93	n/a	0.000
*	CALI B STANDHYD	0114	1	2.0	4.95	0.52	7.00	154.90	0.80	0.000
*	[I%=17.3: S%= 2.00]									
*	ADD [0114 + 0311]	0810	3	2.0	278.05	24.99	7.13	145.11	n/a	0.000
*	CHANNEL[2 : 0810]	0313	1	2.0	278.05	24.99	7.13	145.11	n/a	0.000
*	CALI B STANDHYD	0115	1	2.0	12.66	1.15	7.03	141.82	0.73	0.000
*	[I%=28.8: S%= 2.00]									
*	ADD [0115 + 0313]	0811	3	2.0	290.71	26.10	7.13	144.96	n/a	0.000
*	CHANNEL[2 : 0811]	0314	1	2.0	290.71	26.07	7.13	144.96	n/a	0.000
*	CALI B STANDHYD	0116	1	2.0	26.63	2.52	7.00	144.08	0.75	0.000
*	[I%=25.5: S%= 2.00]									
*	ADD [0116 + 0314]	0812	3	2.0	317.34	28.46	7.13	144.89	n/a	0.000
*	PIPE [2 : 0812]	0401	1	2.0	317.34	28.47	7.13	144.89	n/a	0.000
*	CALI B STANDHYD	0117	1	2.0	27.32	1.98	7.03	115.33	0.60	0.000
*	[I%=25.1: S%= 2.00]									
*	ADD [0117 + 0401]	0813	3	2.0	344.66	30.37	7.13	142.55	n/a	0.000
*	CHANNEL[2 : 0813]	0315	1	2.0	344.66	30.28	7.17	142.54	n/a	0.000
*	CALI B STANDHYD	0119	1	2.0	16.91	1.34	7.03	125.66	0.65	0.000
*	[I%=26.9: S%= 2.00]									
*	ADD [0119 + 0315]	0814	3	2.0	361.57	31.58	7.13	141.76	n/a	0.000
*	PIPE [2 : 0814]	0402	1	2.0	361.57	31.57	7.17	141.76	n/a	0.000
*	CALI B STANDHYD	0120	1	2.0	17.04	1.23	7.03	113.02	0.59	0.000
*	[I%=20.9: S%= 2.00]									
*	CHANNEL[2 : 0120]	0316	1	2.0	17.04	1.23	7.03	113.02	n/a	0.000
*	CALI B STANDHYD	0121	1	2.0	1.39	0.09	7.00	94.15	0.49	0.000
*	[I%=14.6: S%= 2.00]									
*	CALI B STANDHYD	0122	1	2.0	3.13	0.24	7.00	114.59	0.59	0.000

Sophi a V03. txt

*	[I%=26.5: S%= 2.00]									
*	ADD [0121 + 0122]	0815	3	2.0	4.52	0.32	7.00	108.30	n/a	0.000
*	ADD [0815 + 0316]	0815	1	2.0	21.56	1.55	7.00	112.03	n/a	0.000
*	ADD [0815 + 0402]	0815	3	2.0	383.13	33.03	7.13	140.08	n/a	0.000
*	PIPE [2 : 0815]	0404	1	2.0	383.13	33.01	7.17	140.08	n/a	0.000
*	CALI B STANDHYD	0124	1	2.0	21.61	1.75	7.00	125.74	0.65	0.000
*	[I%=33.4: S%= 2.00]									
*	ADD [0124 + 0404]	0816	3	2.0	404.74	34.56	7.13	139.32	n/a	0.000
*	DUHYD	0500	1	2.0	404.74	34.56	7.13	139.32	n/a	0.000
*	MAJOR SYSTEM:	0500	2	2.0	372.02	33.69	7.13	139.32	n/a	0.000
*	MI NOR SYSTEM:	0500	3	2.0	32.72	0.87	0.53	139.32	n/a	0.000
*	PIPE [2 : 0500]	0405	1	2.0	372.02	33.67	7.13	139.32	n/a	0.000
*	CALI B STANDHYD	0125	1	2.0	18.74	1.67	7.00	141.43	0.73	0.000
*	[I%=44.1: S%= 2.00]									
*	ADD [0125 + 0405]	0817	3	2.0	390.76	35.26	7.13	139.42	n/a	0.000
*	PIPE [2 : 0500]	0408	1	2.0	32.72	0.87	0.63	139.32	n/a	0.000
*	CALI B STANDHYD	0126	1	2.0	22.26	1.72	7.00	119.60	0.62	0.000
*	[I%=32.1: S%= 2.00]									
*	ADD [0126 + 0408]	0820	3	2.0	54.98	2.58	7.00	131.33	n/a	0.000
*	PIPE [2 : 0820]	0406	1	2.0	54.98	2.58	7.00	131.33	n/a	0.000
*	CALI B STANDHYD	0127	1	2.0	9.98	0.70	7.00	111.26	0.58	0.000
*	[I%=27.4: S%= 2.00]									
*	ADD [0127 + 0406]	0818	3	2.0	64.96	3.28	7.00	128.25	n/a	0.000
*	PIPE [2 : 0818]	0407	1	2.0	64.96	3.28	7.03	128.25	n/a	0.000
*	CALI B STANDHYD	0128	1	2.0	14.87	1.42	7.00	146.66	0.76	0.000
*	[I%=45.4: S%= 2.00]									
*	ADD [0128 + 0407]	0819	3	2.0	79.83	4.68	7.00	131.68	n/a	0.000

FINI SH

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Existing Conditions HEC RAS Results Summary

HEC-RAS Plan: MS

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	6	1124	10 YR	4.97	258.50	259.41	259.41	259.67	0.022814	2.26	2.20	4.27	1.01
Sophia	6	1124	25 YR	6.84	258.50	259.56	259.56	259.84	0.021800	2.36	2.89	5.12	1.00
Sophia	6	1124	50 YR	8.35	258.50	259.66	259.66	259.96	0.021475	2.43	3.43	5.86	1.01
Sophia	6	1124	100 YR	9.83	258.50	259.74	259.74	260.06	0.020326	2.52	3.94	6.91	1.00
Sophia	6	1118	10 YR	4.97	258.13	259.22		259.39	0.013835	1.79	2.77	5.05	0.77
Sophia	6	1118	25 YR	6.84	258.13	259.35		259.55	0.015446	1.98	3.46	6.02	0.83
Sophia	6	1118	50 YR	8.35	258.13	259.43	259.35	259.65	0.016448	2.11	3.96	6.58	0.87
Sophia	6	1118	100 YR	9.83	258.13	259.50	259.43	259.75	0.017137	2.21	4.45	7.19	0.90
Sophia	6	1104	10 YR	4.97	258.14	259.07	258.95	259.20	0.012024	1.59	3.13	6.66	0.74
Sophia	6	1104	25 YR	6.84	258.14	259.20	259.07	259.34	0.011404	1.66	4.12	7.94	0.74
Sophia	6	1104	50 YR	8.35	258.14	259.29	259.16	259.44	0.010896	1.71	4.88	8.73	0.73
Sophia	6	1104	100 YR	9.83	258.14	259.38	259.22	259.53	0.010515	1.74	5.64	9.59	0.73
Sophia	6	1085	10 YR	4.97	257.86	258.64	258.64	258.88	0.023331	2.17	2.29	4.85	1.01
Sophia	6	1085	25 YR	6.84	257.86	258.77	258.77	259.04	0.022315	2.31	2.97	5.58	1.01
Sophia	6	1085	50 YR	8.35	257.86	258.86	258.86	259.15	0.021705	2.38	3.50	6.16	1.01
Sophia	6	1085	100 YR	9.83	257.86	258.94	258.94	259.24	0.021206	2.45	4.02	6.70	1.01
Sophia	6	1060	10 YR	4.97	257.20	258.35		258.42	0.005696	1.18	4.20	7.89	0.52
Sophia	6	1060	25 YR	6.84	257.20	258.47		258.56	0.006209	1.32	5.20	8.91	0.55
Sophia	6	1060	50 YR	8.35	257.20	258.54		258.65	0.006701	1.41	5.90	9.65	0.58
Sophia	6	1060	100 YR	9.83	257.20	258.60		258.72	0.007385	1.52	6.48	12.48	0.61
Sophia	6	1039	10 YR	4.97	257.05	258.17		258.27	0.008841	1.40	3.58	9.37	0.63
Sophia	6	1039	25 YR	6.84	257.05	258.23	258.11	258.37	0.011900	1.70	4.25	12.09	0.75
Sophia	6	1039	50 YR	8.35	257.05	258.30	258.22	258.46	0.011506	1.77	5.21	13.78	0.74
Sophia	6	1039	100 YR	9.83	257.05	258.41		258.54	0.009010	1.68	6.86	16.63	0.67
Sophia	6	1017	10 YR	4.97	256.64	258.14		258.17	0.001777	0.80	6.91	14.86	0.30
Sophia	6	1017	25 YR	6.84	256.64	258.18		258.23	0.002815	1.04	7.51	15.62	0.38
Sophia	6	1017	50 YR	8.35	256.64	258.25		258.31	0.003105	1.13	8.68	17.88	0.41
Sophia	6	1017	100 YR	9.83	256.64	258.36		258.42	0.002797	1.12	10.89	22.59	0.39
Sophia	6	1013	10 YR	4.97	256.54	258.11	257.67	258.15	0.003527	0.99	5.63	16.05	0.40
Sophia	6	1013	25 YR	6.84	256.54	258.09	257.79	258.19	0.007324	1.41	5.35	15.23	0.57
Sophia	6	1013	50 YR	8.35	256.54	258.06	257.93	258.22	0.012917	1.83	4.87	14.13	0.75
Sophia	6	1013	100 YR	9.83	256.54	258.05	258.05	258.29	0.018226	2.17	4.82	14.02	0.89
Sophia	6	1007		Culvert									
Sophia	6	981	10 YR	4.97	256.41	257.45	257.45	257.90	0.019665	2.96	1.68	8.36	1.00
Sophia	6	981	25 YR	6.84	256.41	257.52	257.52	257.70	0.013123	1.89	3.90	11.63	0.80
Sophia	6	981	50 YR	8.35	256.41	257.55	257.55	257.78	0.015289	2.14	4.38	12.99	0.87
Sophia	6	981	100 YR	9.83	256.41	257.62	257.62	257.86	0.014188	2.20	5.29	14.25	0.85
Sophia	6	975	10 YR	4.97	256.22	257.28	256.87	257.34	0.005276	1.17	4.27	7.48	0.49
Sophia	6	975	25 YR	6.84	256.22	257.43	257.03	257.51	0.005515	1.21	5.66	10.84	0.51
Sophia	6	975	50 YR	8.35	256.22	257.54	257.13	257.59	0.003582	1.09	10.45	37.49	0.42
Sophia	6	975	100 YR	9.83	256.22	257.40	257.25	257.57	0.013335	1.83	5.36	9.82	0.79
Sophia	6	960	10 YR	4.97	256.13	257.21	256.79	257.27	0.004428	1.06	4.69	8.47	0.46
Sophia	6	960	25 YR	6.84	256.13	257.43	256.95	257.45	0.001550	0.73	13.68	37.82	0.28
Sophia	6	960	50 YR	8.35	256.13	257.54	257.05	257.56	0.001175	0.70	17.90	40.60	0.25
Sophia	6	960	100 YR	9.83	256.13	257.37	257.14	257.43	0.005069	1.23	11.32	33.35	0.50
Sophia	6	944	10 YR	4.97	255.92	257.18	256.73	257.21	0.002660	0.78	8.58	29.43	0.35
Sophia	6	944	25 YR	6.84	255.92	257.42	256.91	257.43	0.001069	0.60	16.03	37.90	0.23
Sophia	6	944	50 YR	8.35	255.92	257.53	257.03	257.54	0.000839	0.59	20.80	44.86	0.21
Sophia	6	944	100 YR	9.83	255.92	257.30	257.15	257.35	0.004292	1.11	12.21	31.46	0.46
Sophia	6	920	10 YR	4.97	255.74	257.15	256.48	257.17	0.001291	0.64	11.53	34.66	0.25
Sophia	6	920	25 YR	6.84	255.74	257.40	256.66	257.41	0.000549	0.48	21.53	47.63	0.17
Sophia	6	920	50 YR	8.35	255.74	257.52	256.78	257.52	0.000468	0.48	27.44	53.94	0.16
Sophia	6	920	100 YR	9.83	255.74	257.23	256.88	257.27	0.003061	1.01	14.45	36.55	0.39
Sophia	6	914	10 YR	4.97	255.58	256.92	256.65	257.07	0.010933	1.71	2.91	4.03	0.64
Sophia	6	914	25 YR	6.84	255.58	256.84	256.84	257.19	0.027609	2.64	2.59	3.69	1.01
Sophia	6	914	50 YR	8.35	255.58	257.02	257.02	257.33	0.025476	2.47	3.39	5.86	1.00
Sophia	6	914	100 YR	9.83	255.58	257.07	257.07	257.19	0.012760	1.80	8.76	31.76	0.72
Sophia	6	911		Culvert									
Sophia	6	822	10 YR	4.97	254.20	255.22	255.22	255.59	0.030356	2.72	1.83	3.16	1.00
Sophia	6	822	25 YR	6.84	254.20	255.41	255.41	255.85	0.028120	2.91	2.35	3.86	1.01
Sophia	6	822	50 YR	8.35	254.20	255.54	255.54	256.03	0.026751	3.11	2.68	4.36	1.00
Sophia	6	822	100 YR	9.83	254.20	255.65	255.65	256.20	0.026009	3.29	2.99	5.05	1.01
Sophia	6	815	10 YR	4.97	254.10	255.00		255.19	0.014119	1.95	2.54	4.05	0.79
Sophia	6	815	25 YR	6.84	254.10	255.16		255.38	0.015038	2.10	3.25	4.95	0.83
Sophia	6	815	50 YR	8.35	254.10	255.28		255.51	0.014855	2.15	3.89	5.76	0.83

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	6	815	100 YR	9.83	254.10	255.35	255.26	255.61	0.016070	2.27	4.33	6.31	0.87
Sophia	6	794	10 YR	4.97	253.89	254.85		254.96	0.007561	1.46	3.41	5.52	0.59
Sophia	6	794	25 YR	6.84	253.89	255.00		255.13	0.008057	1.58	4.32	6.57	0.62
Sophia	6	794	50 YR	8.35	253.89	255.11		255.25	0.008786	1.63	5.11	8.05	0.65
Sophia	6	794	100 YR	9.83	253.89	255.17		255.33	0.009463	1.75	5.66	10.52	0.68
Sophia	6	765	10 YR	4.97	253.95	254.61	254.49	254.72	0.009284	1.47	3.38	6.66	0.66
Sophia	6	765	25 YR	6.84	253.95	254.76	254.58	254.87	0.009714	1.48	4.61	9.43	0.68
Sophia	6	765	50 YR	8.35	253.95	254.88	254.68	254.98	0.009578	1.41	5.92	13.10	0.67
Sophia	6	765	100 YR	9.83	253.95	254.96	254.75	255.06	0.008439	1.39	7.06	14.52	0.64
Sophia	6	737	10 YR	4.97	253.59	254.46	254.15	254.53	0.004793	1.12	4.44	8.02	0.48
Sophia	6	737	25 YR	6.84	253.59	254.59	254.25	254.67	0.005457	1.24	5.54	9.59	0.52
Sophia	6	737	50 YR	8.35	253.59	254.69	254.35	254.77	0.005807	1.27	6.56	11.46	0.54
Sophia	6	737	100 YR	9.83	253.59	254.76	254.44	254.85	0.006556	1.31	7.51	13.90	0.57
Sophia	6	698	10 YR	9.11	252.92	254.16		254.26	0.008113	1.40	6.67	16.08	0.62
Sophia	6	698	25 YR	12.34	252.92	254.28		254.39	0.007833	1.50	8.73	18.93	0.63
Sophia	6	698	50 YR	15.21	252.92	254.36		254.49	0.007839	1.59	10.41	22.10	0.64
Sophia	6	698	100 YR	17.77	252.92	254.43		254.56	0.007500	1.66	12.02	29.67	0.63
Sophia	4	645	10 YR	4.79	252.48	254.03	253.20	254.05	0.001266	0.66	7.22	10.32	0.25
Sophia	4	645	25 YR	7.44	252.48	254.06	253.38	254.11	0.002875	0.99	7.50	10.88	0.38
Sophia	4	645	50 YR	9.34	252.48	254.07	253.51	254.15	0.004415	1.23	7.62	11.13	0.47
Sophia	4	645	100 YR	10.34	252.48	254.14	253.57	254.22	0.004541	1.22	8.51	12.97	0.48
Sophia	4	639	10 YR	4.79	252.37	254.01	253.26	254.04	0.002013	0.75	6.37	10.21	0.30
Sophia	4	639	25 YR	7.44	252.37	254.00	253.51	254.07	0.004874	1.19	6.26	9.75	0.47
Sophia	4	639	50 YR	9.34	252.37	253.93	253.64	254.07	0.008822	1.65	5.66	8.23	0.63
Sophia	4	639	100 YR	10.34	252.37	253.82	253.69	254.07	0.013131	2.21	4.67	7.06	0.77
Sophia	4	625		Culvert									
Sophia	4	614	10 YR	4.79	252.27	253.29	253.18	253.48	0.015658	1.94	2.46	4.86	0.78
Sophia	4	614	25 YR	7.44	252.27	253.54	253.38	253.78	0.012372	2.16	3.44	7.01	0.73
Sophia	4	614	50 YR	9.34	252.27	253.69	253.48	253.85	0.013292	1.78	5.25	9.57	0.77
Sophia	4	614	100 YR	10.34	252.27	253.77	253.55	253.92	0.011391	1.72	6.09	12.72	0.72
Sophia	4	608	10 YR	4.79	252.19	253.24	252.92	253.35	0.008796	1.51	3.18	5.12	0.61
Sophia	4	608	25 YR	7.44	252.19	253.51	253.20	253.62	0.008409	1.49	5.07	10.64	0.62
Sophia	4	608	50 YR	9.34	252.19	253.65	253.35	253.76	0.006927	1.45	6.80	13.33	0.57
Sophia	4	608	100 YR	10.34	252.19	253.73	253.44	253.83	0.006600	1.40	7.94	16.05	0.56
Sophia	4	593	10 YR	4.79	252.19	253.12	252.83	253.23	0.007399	1.51	3.18	4.36	0.56
Sophia	4	593	25 YR	7.44	252.19	253.33	253.02	253.48	0.009556	1.75	4.25	5.88	0.66
Sophia	4	593	50 YR	9.34	252.19	253.46	253.19	253.63	0.009997	1.84	5.07	6.86	0.68
Sophia	4	593	100 YR	10.34	252.19	253.52	253.27	253.70	0.009859	1.86	5.57	7.42	0.68
Sophia	4	567	10 YR	4.79	251.95	253.05	252.54	253.10	0.003002	1.00	4.78	6.58	0.37
Sophia	4	567	25 YR	7.44	251.95	253.23	252.71	253.30	0.004009	1.22	6.11	7.96	0.44
Sophia	4	567	50 YR	9.34	251.95	253.35	252.82	253.44	0.004291	1.30	7.16	8.91	0.46
Sophia	4	567	100 YR	10.34	251.95	253.43	252.90	253.51	0.004197	1.32	7.84	9.49	0.46
Sophia	4	550	10 YR	4.79	252.04	252.95		253.03	0.004895	1.26	3.82	5.30	0.47
Sophia	4	550	25 YR	7.44	252.04	253.06		253.20	0.008898	1.67	4.45	6.44	0.64
Sophia	4	550	50 YR	9.34	252.04	253.15		253.32	0.010485	1.83	5.09	7.38	0.70
Sophia	4	550	100 YR	10.34	252.04	253.24		253.40	0.009432	1.77	5.83	8.31	0.68
Sophia	4	515	10 YR	4.79	251.71	252.95		252.96	0.000585	0.55	9.28	17.32	0.18
Sophia	4	515	25 YR	7.44	251.71	253.06		253.09	0.000976	0.74	11.45	21.13	0.24
Sophia	4	515	50 YR	9.34	251.71	253.16		253.19	0.001159	0.81	13.56	22.81	0.26
Sophia	4	515	100 YR	10.34	251.71	253.25		253.28	0.001079	0.80	15.93	30.62	0.25
Sophia	4	490	10 YR	4.79	251.68	252.93		252.95	0.000878	0.56	9.13	20.38	0.21
Sophia	4	490	25 YR	7.44	251.68	253.03		253.06	0.001257	0.73	11.70	27.04	0.26
Sophia	4	490	50 YR	9.34	251.68	253.13		253.16	0.001268	0.79	14.54	32.38	0.27
Sophia	4	490	100 YR	10.34	251.68	253.23		253.25	0.000991	0.75	18.10	37.65	0.24
Sophia	4	469	10 YR	4.79	251.62	252.91		252.93	0.001002	0.60	10.10	24.40	0.23
Sophia	4	469	25 YR	7.44	251.62	253.00		253.03	0.001438	0.78	12.96	35.07	0.28
Sophia	4	469	50 YR	9.34	251.62	253.10		253.13	0.001347	0.82	16.58	38.85	0.28
Sophia	4	469	100 YR	10.34	251.62	253.21		253.23	0.000986	0.75	21.03	43.65	0.24
Sophia	4	428	10 YR	4.79	251.38	252.90		252.90	0.000225	0.37	16.77	37.76	0.12
Sophia	4	428	25 YR	7.44	251.38	252.99		253.00	0.000380	0.50	20.27	41.76	0.15
Sophia	4	428	50 YR	9.34	251.38	253.08		253.09	0.000413	0.55	24.53	46.22	0.16
Sophia	4	428	100 YR	10.34	251.38	253.19		253.21	0.000338	0.53	30.23	55.62	0.15
Sophia	2	389	10 YR	7.73	254.25	254.53		254.54	0.003531	0.52	16.39	80.35	0.33
Sophia	2	389	25 YR	11.33	254.25	254.59		254.61	0.003306	0.58	21.32	82.25	0.34
Sophia	2	389	50 YR	14.12	254.25	254.63		254.65	0.003293	0.63	24.55	83.52	0.34

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	2	389	100 YR	16.99	254.25	254.67		254.69	0.003279	0.67	27.65	84.62	0.35
Sophia	2	372	10 YR	7.73	253.95	254.47		254.49	0.003004	0.71	15.37	73.10	0.34
Sophia	2	372	25 YR	11.33	253.95	254.53		254.55	0.003460	0.82	19.86	84.76	0.37
Sophia	2	372	50 YR	14.12	253.95	254.57		254.59	0.003490	0.87	23.20	85.31	0.38
Sophia	2	372	100 YR	16.99	253.95	254.61		254.63	0.003462	0.90	26.42	85.73	0.38
Sophia	2	356	10 YR	7.73	253.95	254.42		254.43	0.003822	0.72	15.79	77.69	0.37
Sophia	2	356	25 YR	11.33	253.95	254.47		254.49	0.003970	0.80	19.81	78.35	0.39
Sophia	2	356	50 YR	14.12	253.95	254.51		254.53	0.003873	0.83	22.91	79.00	0.39
Sophia	2	356	100 YR	16.99	253.95	254.55		254.57	0.003763	0.87	25.96	79.92	0.39
Sophia	2	325	10 YR	7.73	254.13	254.10	254.03	254.19	0.022034		5.98	29.99	0.00
Sophia	2	325	25 YR	11.33	254.13	254.18	254.18	254.26	0.018539	0.36	9.41	59.54	0.57
Sophia	2	325	50 YR	14.12	254.13	254.21	254.21	254.29	0.021135	0.52	10.91	61.95	0.65
Sophia	2	325	100 YR	16.99	254.13	254.23	254.23	254.33	0.023094	0.67	12.47	64.75	0.72
Sophia	2	301	10 YR	7.73	253.23	253.49	253.49	253.55	0.030354	1.43	7.35	58.85	0.96
Sophia	2	301	25 YR	11.33	253.23	253.53	253.53	253.61	0.029820	1.57	9.69	63.04	0.98
Sophia	2	301	50 YR	14.12	253.23	253.56	253.56	253.64	0.026061	1.59	11.88	65.41	0.93
Sophia	2	301	100 YR	16.99	253.23	253.61	253.58	253.68	0.017215	1.44	15.32	67.72	0.78
Sophia	2	277	10 YR	7.73	252.78	253.22		253.24	0.004727	0.83	11.35	38.70	0.42
Sophia	2	277	25 YR	11.33	252.78	253.30		253.33	0.004915	0.95	14.55	41.92	0.44
Sophia	2	277	50 YR	14.12	252.78	253.35		253.39	0.005164	1.04	16.69	44.02	0.46
Sophia	2	277	100 YR	16.99	252.78	253.41		253.45	0.006210	1.22	19.93	60.11	0.51
Sophia	2	256	10 YR	7.73	252.69	252.93	252.93	253.05	0.028281	1.19	5.26	23.53	0.90
Sophia	2	256	25 YR	11.33	252.69	253.02	253.02	253.13	0.023619	1.42	7.74	34.92	0.87
Sophia	2	256	50 YR	14.12	252.69	253.07	253.07	253.18	0.022137	1.55	10.18	51.99	0.87
Sophia	2	256	100 YR	16.99	252.69	253.11	253.11	253.22	0.020390	1.61	12.41	57.16	0.85
Sophia	2	241	10 YR	7.73	252.18	252.35	252.35	252.39	0.029741	1.03	8.96	91.08	0.88
Sophia	2	241	25 YR	11.33	252.18	252.43		252.45	0.010497	0.82	17.94	131.28	0.56
Sophia	2	241	50 YR	14.12	252.18	252.52		252.53	0.003098	0.57	32.30	161.92	0.33
Sophia	2	241	100 YR	16.99	252.18	252.59		252.60	0.001919	0.51	43.57	178.59	0.26
Sophia	2	222	10 YR	7.73	250.77	252.12		252.15	0.001133	0.75	12.32	27.77	0.26
Sophia	2	222	25 YR	11.33	250.77	252.38		252.41	0.000811	0.73	20.63	32.43	0.22
Sophia	2	222	50 YR	14.12	250.77	252.47		252.50	0.000917	0.81	23.50	33.08	0.24
Sophia	2	222	100 YR	16.99	250.77	252.53		252.56	0.001086	0.90	25.48	33.53	0.26
Sophia	2	217	10 YR	7.73	250.65	252.12		252.14	0.000824	0.66	13.74	27.72	0.22
Sophia	2	217	25 YR	11.33	250.65	252.38		252.40	0.000636	0.67	22.18	33.13	0.20
Sophia	2	217	50 YR	14.12	250.65	252.47		252.49	0.000732	0.75	25.10	33.77	0.22
Sophia	2	217	100 YR	16.99	250.65	252.53		252.56	0.000876	0.84	27.10	34.27	0.24
Sophia	2	203	10 YR	7.73	250.68	252.11		252.13	0.000827	0.65	14.35	27.16	0.22
Sophia	2	203	25 YR	11.33	250.68	252.38		252.39	0.000625	0.65	23.06	33.61	0.20
Sophia	2	203	50 YR	14.12	250.68	252.46		252.48	0.000716	0.72	25.97	33.84	0.21
Sophia	2	203	100 YR	16.99	250.68	252.52		252.55	0.000857	0.81	27.91	34.01	0.23
Sophia	2	181	10 YR	7.73	250.50	252.09		252.11	0.000585	0.57	14.62	25.07	0.19
Sophia	2	181	25 YR	11.33	250.50	252.36		252.38	0.000530	0.59	23.63	38.83	0.18
Sophia	2	181	50 YR	14.12	250.50	252.45		252.47	0.000604	0.67	27.11	42.78	0.20
Sophia	2	181	100 YR	16.99	250.50	252.50		252.53	0.000718	0.75	29.45	42.78	0.22
Sophia	2	174	10 YR	7.73	250.20	252.09		252.11	0.000419	0.52	15.98	24.81	0.16
Sophia	2	174	25 YR	11.33	250.20	252.36		252.38	0.000394	0.56	24.72	40.09	0.16
Sophia	2	174	50 YR	14.12	250.20	252.45		252.46	0.000468	0.64	28.22	43.30	0.18
Sophia	2	174	100 YR	16.99	250.20	252.50		252.52	0.000570	0.73	30.59	44.26	0.20
Sophia	2	170	10 YR	8.45	249.76	252.06	250.71	252.09	0.000554	0.77	11.04	21.42	0.18
Sophia	2	170	25 YR	12.41	249.76	252.35	250.95	252.37	0.000628	0.66	22.89	40.32	0.19
Sophia	2	170	50 YR	15.43	249.76	252.43	251.09	252.46	0.000734	0.75	26.27	42.26	0.21
Sophia	2	170	100 YR	18.68	249.76	252.48	251.22	252.51	0.000917	0.86	28.38	46.24	0.23
Sophia	2	142		Culvert									
Sophia	2	132	10 YR	8.45	250.08	251.77	251.14	251.83	0.002294	1.07	7.90	8.64	0.36
Sophia	2	132	25 YR	12.41	250.08	251.90	251.33	252.00	0.003528	1.37	9.09	9.53	0.45
Sophia	2	132	50 YR	15.43	250.08	252.11	251.46	252.12	0.000790	0.70	40.35	80.03	0.22
Sophia	2	132	100 YR	18.68	250.08	252.21	251.60	252.23	0.000692	0.68	49.13	83.38	0.20
Sophia	2	130	10 YR	8.45	250.02	251.77	250.95	251.81	0.001191	0.87	9.73	8.88	0.26
Sophia	2	130	25 YR	12.41	250.02	251.90	251.13	251.97	0.001820	1.14	11.02	11.62	0.33
Sophia	2	130	50 YR	15.43	250.02	252.00	251.26	252.08	0.002138	1.28	13.59	21.97	0.36
Sophia	2	130	100 YR	18.68	250.02	252.07	251.37	252.17	0.002524	1.43	15.26	22.11	0.40
Sophia	2	116	10 YR	8.45	250.05	251.78		251.79	0.000435	0.49	29.14	57.83	0.16
Sophia	2	116	25 YR	12.41	250.05	251.93		251.94	0.000461	0.55	37.65	58.14	0.17
Sophia	2	116	50 YR	15.43	250.05	252.03		252.04	0.000465	0.57	43.64	58.36	0.17

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	2	116	100 YR	18.68	250.05	252.12		252.13	0.000492	0.61	48.70	58.55	0.18
Sophia	2	78	10 YR	8.45	250.29	251.72		251.76	0.001824	0.92	12.61	30.71	0.32
Sophia	2	78	25 YR	12.41	250.29	251.86		251.90	0.002013	1.04	16.93	31.22	0.34
Sophia	2	78	50 YR	15.43	250.29	251.96		252.01	0.002021	1.09	20.08	31.56	0.35
Sophia	2	78	100 YR	18.68	250.29	252.04		252.09	0.002164	1.17	22.63	31.86	0.36
Sophia	2	57	10 YR	8.45	250.26	251.65		251.71	0.002877	1.16	9.44	20.16	0.40
Sophia	2	57	25 YR	12.41	250.26	251.76		251.85	0.003779	1.41	11.70	20.44	0.46
Sophia	2	57	50 YR	15.43	250.26	251.85		251.95	0.004103	1.52	13.57	20.81	0.49
Sophia	2	57	100 YR	18.68	250.26	251.91		252.02	0.004885	1.68	14.78	21.09	0.53
Sophia	2	42	10 YR	8.45	250.56	251.46	251.46	251.62	0.012235	1.82	5.68	23.57	0.78
Sophia	2	42	25 YR	12.41	250.56	251.62		251.76	0.009275	1.81	9.29	23.98	0.70
Sophia	2	42	50 YR	15.43	250.56	251.77		251.87	0.006370	1.62	12.94	24.76	0.59
Sophia	2	42	100 YR	18.68	250.56	251.79		251.93	0.008331	1.87	13.53	24.91	0.68
Sophia	2	20	10 YR	8.45	249.84	251.14		251.30	0.009329	1.77	4.78	7.11	0.69
Sophia	2	20	25 YR	12.41	249.84	251.26	251.14	251.50	0.013690	2.20	5.64	8.13	0.84
Sophia	2	20	50 YR	15.43	249.84	251.32	251.32	251.64	0.016896	2.51	6.27	16.49	0.94
Sophia	2	20	100 YR	18.68	249.84	251.52	251.52	251.72	0.010007	2.12	11.47	29.59	0.74
Sophia	2	0	10 YR	8.45	250.11	250.95	250.90	251.08	0.012197	1.81	6.65	19.91	0.78
Sophia	2	0	25 YR	12.41	250.11	251.05		251.20	0.012969	2.01	8.81	21.52	0.82
Sophia	2	0	50 YR	15.43	250.11	251.22		251.32	0.007558	1.75	12.92	28.14	0.65
Sophia	2	0	100 YR	18.68	250.11	251.17	251.14	251.36	0.014797	2.34	11.56	27.84	0.90
Sophia	5	253	10 YR	4.32	253.44	254.04		254.06	0.003425	0.97	7.90	26.76	0.42
Sophia	5	253	25 YR	4.88	253.44	254.07		254.10	0.003316	0.99	8.74	27.73	0.42
Sophia	5	253	50 YR	5.88	253.44	254.11		254.14	0.003347	1.04	9.95	28.53	0.42
Sophia	5	253	100 YR	7.43	253.44	254.18		254.21	0.003292	1.10	11.82	29.63	0.43
Sophia	5	227	10 YR	4.32	253.32	254.00		254.01	0.001198	0.62	11.48	30.28	0.25
Sophia	5	227	25 YR	4.88	253.32	254.03		254.04	0.001214	0.65	12.42	30.48	0.26
Sophia	5	227	50 YR	5.88	253.32	254.07		254.08	0.001339	0.71	13.64	30.77	0.27
Sophia	5	227	100 YR	7.43	253.32	254.13		254.15	0.001453	0.78	15.56	31.26	0.29
Sophia	5	204	10 YR	4.32	253.17	253.98		253.99	0.000497	0.46	14.51	29.74	0.17
Sophia	5	204	25 YR	4.88	253.17	254.01		254.02	0.000537	0.50	15.41	30.26	0.18
Sophia	5	204	50 YR	5.88	253.17	254.05		254.06	0.000635	0.56	16.55	30.56	0.19
Sophia	5	204	100 YR	7.43	253.17	254.11		254.12	0.000748	0.63	18.37	30.79	0.21
Sophia	5	182	10 YR	4.32	253.11	253.97	253.60	253.98	0.000676	0.54	13.92	30.07	0.20
Sophia	5	182	25 YR	4.88	253.11	254.00	253.61	254.01	0.000668	0.55	15.73	32.81	0.20
Sophia	5	182	50 YR	5.88	253.11	254.04	253.64	254.05	0.000787	0.62	16.88	32.95	0.22
Sophia	5	182	100 YR	7.43	253.11	254.09	253.70	254.11	0.000920	0.70	18.75	33.16	0.24
Sophia	5	163	10 YR	4.32	252.93	253.95	253.53	253.96	0.000795	0.66	12.16	32.23	0.22
Sophia	5	163	25 YR	4.88	252.93	253.98	253.56	253.99	0.000844	0.69	13.10	32.34	0.23
Sophia	5	163	50 YR	5.88	252.93	254.02	253.59	254.03	0.000756	0.67	17.85	44.43	0.22
Sophia	5	163	100 YR	7.43	252.93	254.07	253.71	254.09	0.000861	0.74	20.29	44.61	0.23
Sophia	5	143	10 YR	4.32	253.02	253.81	253.81	253.92	0.008034	1.73	4.73	22.11	0.66
Sophia	5	143	25 YR	4.88	253.02	253.82	253.82	253.94	0.008755	1.83	5.11	22.75	0.69
Sophia	5	143	50 YR	5.88	253.02	253.87	253.87	253.98	0.008748	1.90	6.35	32.43	0.70
Sophia	5	143	100 YR	7.43	253.02	253.91	253.91	254.04	0.009237	2.03	8.06	39.89	0.72
Sophia	5	130	10 YR	4.32	252.78	253.71	253.47	253.75	0.002839	1.11	7.16	25.98	0.40
Sophia	5	130	25 YR	4.88	252.78	253.75	253.59	253.79	0.002662	1.11	8.23	27.21	0.39
Sophia	5	130	50 YR	5.88	252.78	253.83	253.66	253.86	0.002256	1.09	10.47	30.56	0.37
Sophia	5	130	100 YR	7.43	252.78	253.86	253.71	253.91	0.003167	1.32	11.57	35.05	0.44
Sophia	5	102	10 YR	4.32	252.63	253.64		253.68	0.002728	1.12	7.98	41.41	0.39
Sophia	5	102	25 YR	4.88	252.63	253.70		253.73	0.002025	1.01	10.55	43.77	0.34
Sophia	5	102	50 YR	5.88	252.63	253.79	253.59	253.82	0.001378	0.89	15.00	50.25	0.29
Sophia	5	102	100 YR	7.43	252.63	253.82	253.66	253.85	0.001866	1.06	16.14	51.67	0.33
Sophia	5	87	10 YR	4.32	252.60	253.53	253.32	253.63	0.004871	1.46	4.50	18.20	0.52
Sophia	5	87	25 YR	4.88	252.60	253.60	253.36	253.69	0.004061	1.41	6.16	29.91	0.48
Sophia	5	87	50 YR	5.88	252.60	253.39	253.39	253.73	0.021206	2.66	2.55	6.30	1.05
Sophia	5	87	100 YR	7.43	252.60	253.64	253.64	253.79	0.007228	1.93	7.38	35.02	0.65
Sophia	5	68	10 YR	4.32	252.30	253.26	253.20	253.48	0.011620	2.16	2.51	5.23	0.78
Sophia	5	68	25 YR	4.88	252.30	253.28	253.24	253.54	0.013811	2.38	2.59	5.40	0.86
Sophia	5	68	50 YR	5.88	252.30	253.47	253.37	253.50	0.002359	1.14	13.47	54.38	0.37
Sophia	5	68	100 YR	7.43	252.30	253.65	253.42	253.66	0.000876	0.77	23.95	63.47	0.23
Sophia	5	64	10 YR	4.32	252.39	253.24	253.30	253.39	0.007494	1.79	3.02	5.85	0.65
Sophia	5	64	25 YR	4.88	252.39	253.25	253.15	253.43	0.009070	1.98	3.08	5.92	0.71
Sophia	5	64	50 YR	5.88	252.39	253.47	253.30	253.48	0.001145	0.83	18.23	65.23	0.26
Sophia	5	64	100 YR	7.43	252.39	253.64	253.33	253.65	0.000476	0.59	29.81	65.23	0.18

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	5	57		Culvert									
Sophia	5	40	10 YR	4.32	252.36	253.30	253.05	253.39	0.004020	1.41	4.32	9.01	0.49
Sophia	5	40	25 YR	4.88	252.36	253.33	253.08	253.43	0.004680	1.55	4.61	13.49	0.53
Sophia	5	40	50 YR	5.88	252.36	253.34	253.16	253.48	0.006733	1.86	4.66	14.19	0.63
Sophia	5	40	100 YR	7.43	252.36	253.63	253.25	253.65	0.001124	0.92	19.26	50.62	0.27
Sophia	5	37	10 YR	4.32	252.33	253.03	253.03	253.27	0.016421	2.36	2.39	5.82	0.94
Sophia	5	37	25 YR	4.88	252.33	253.10	253.10	253.33	0.014203	2.34	2.86	8.68	0.89
Sophia	5	37	50 YR	5.88	252.33	253.19	253.19	253.41	0.011710	2.32	3.86	11.28	0.82
Sophia	5	37	100 YR	7.43	252.33	253.28	253.28	253.51	0.011807	2.49	4.87	12.98	0.84
Sophia	3	389	10 YR	9.27	251.35	252.86	252.05	252.88	0.001531	0.64	14.40	27.40	0.28
Sophia	3	389	25 YR	12.53	251.35	252.93	252.18	252.96	0.001856	0.77	16.68	34.04	0.31
Sophia	3	389	50 YR	15.39	251.35	253.03	252.27	253.06	0.001712	0.81	20.02	36.39	0.30
Sophia	3	389	100 YR	17.95	251.35	253.14	252.39	253.18	0.001346	0.79	24.43	37.69	0.28
Sophia	3	355	10 YR	9.27	251.20	252.77		252.81	0.002221	0.95	10.75	20.87	0.34
Sophia	3	355	25 YR	12.53	251.20	252.80		252.87	0.003656	1.23	11.35	21.60	0.44
Sophia	3	355	50 YR	15.39	251.20	252.88		252.97	0.004238	1.36	13.26	34.72	0.48
Sophia	3	355	100 YR	17.95	251.20	253.05		253.11	0.002725	1.13	22.25	60.02	0.39
Sophia	3	350	10 YR	9.27	251.12	252.74	252.29	252.79	0.003831	1.03	9.70	48.93	0.43
Sophia	3	350	25 YR	12.53	251.12	252.72	252.48	252.83	0.008098	1.47	8.65	23.24	0.62
Sophia	3	350	50 YR	15.39	251.12	252.67	252.63	252.86	0.013869	1.97	7.81	13.17	0.82
Sophia	3	350	100 YR	17.95	251.12	252.63	252.63	252.93	0.020167	2.43	7.39	11.97	0.99
Sophia	3	340		Culvert									
Sophia	3	321	10 YR	9.27	250.78	251.77	251.62	252.05	0.010185	2.35	3.95	10.43	0.78
Sophia	3	321	25 YR	12.53	250.78	251.90	251.80	252.29	0.011936	2.78	4.51	10.97	0.87
Sophia	3	321	50 YR	15.39	250.78	251.99	251.94	252.49	0.013621	3.14	4.91	11.33	0.94
Sophia	3	321	100 YR	17.95	250.78	252.06	252.06	252.66	0.014921	3.43	5.24	11.72	0.99
Sophia	3	316	10 YR	9.27	250.77	251.76		251.86	0.005655	1.41	6.59	9.87	0.55
Sophia	3	316	25 YR	12.53	250.77	251.91		252.03	0.005920	1.55	8.09	10.85	0.57
Sophia	3	316	50 YR	15.39	250.77	252.01		252.15	0.006200	1.66	9.28	11.60	0.59
Sophia	3	316	100 YR	17.95	250.77	252.09		252.25	0.006455	1.75	10.25	12.18	0.61
Sophia	3	288	10 YR	9.27	250.53	251.65		251.72	0.004037	1.23	7.52	10.68	0.47
Sophia	3	288	25 YR	12.53	250.53	251.78		251.88	0.004326	1.39	9.03	11.23	0.49
Sophia	3	288	50 YR	15.39	250.53	251.88		252.00	0.004614	1.52	10.34	16.96	0.52
Sophia	3	288	100 YR	17.95	250.53	251.96		252.09	0.004839	1.61	11.75	21.19	0.54
Sophia	3	281	10 YR	9.27	250.62	251.61		251.69	0.004470	1.27	7.29	10.73	0.49
Sophia	3	281	25 YR	12.53	250.62	251.75		251.85	0.004955	1.42	8.84	11.93	0.53
Sophia	3	281	50 YR	15.39	250.62	251.84		251.96	0.005257	1.54	10.01	12.47	0.55
Sophia	3	281	100 YR	17.95	250.62	251.92		252.05	0.005613	1.64	10.93	12.95	0.57
Sophia	3	253	10 YR	9.27	250.23	251.54	251.01	251.59	0.002698	1.02	9.08	12.67	0.38
Sophia	3	253	25 YR	12.53	250.23	251.66	251.16	251.73	0.003172	1.17	10.73	13.76	0.42
Sophia	3	253	50 YR	15.39	250.23	251.75	251.26	251.84	0.003409	1.28	11.99	14.05	0.44
Sophia	3	253	100 YR	17.95	250.23	251.82	251.35	251.92	0.003669	1.39	12.94	15.14	0.46
Sophia	3	216	10 YR	9.27	250.17	251.47	250.90	251.51	0.001758	0.79	11.78	17.85	0.31
Sophia	3	216	25 YR	12.53	250.17	251.59	251.02	251.63	0.001945	0.90	13.97	18.73	0.33
Sophia	3	216	50 YR	15.39	250.17	251.68	251.11	251.73	0.002061	0.98	15.67	19.38	0.35
Sophia	3	216	100 YR	17.95	250.17	251.75	251.19	251.80	0.002152	1.05	17.95	31.97	0.36
Sophia	3	184	10 YR	9.27	250.02	251.43		251.46	0.001185	0.79	11.86	17.46	0.26
Sophia	3	184	25 YR	12.53	250.02	251.54		251.58	0.001469	0.94	14.16	24.82	0.30
Sophia	3	184	50 YR	15.39	250.02	251.62		251.67	0.001659	1.05	16.33	28.10	0.32
Sophia	3	184	100 YR	17.95	250.02	251.67		251.74	0.001854	1.15	18.03	31.10	0.34
Sophia	3	151	10 YR	9.27	250.08	251.37		251.41	0.002083	0.89	10.44	14.87	0.34
Sophia	3	151	25 YR	12.53	250.08	251.45		251.51	0.002902	1.06	11.83	16.55	0.40
Sophia	3	151	50 YR	15.39	250.08	251.52		251.60	0.003252	1.19	13.10	20.78	0.43
Sophia	3	151	100 YR	17.95	250.08	251.57		251.65	0.003726	1.31	14.00	22.85	0.46
Sophia	3	113	10 YR	9.27	250.02	251.34	250.60	251.36	0.000663	0.61	16.27	26.70	0.20
Sophia	3	113	25 YR	12.53	250.02	251.42	250.70	251.45	0.000927	0.75	18.58	37.58	0.24
Sophia	3	113	50 YR	15.39	250.02	251.48	250.79	251.52	0.001101	0.86	21.57	50.98	0.26
Sophia	3	113	100 YR	17.95	250.02	251.52	250.85	251.56	0.001312	0.95	23.54	58.04	0.29
Sophia	3	102	10 YR	9.27	250.02	251.33	250.71	251.35	0.000951	0.70	14.72	37.44	0.24
Sophia	3	102	25 YR	12.53	250.02	251.40	250.83	251.43	0.001278	0.85	17.64	44.94	0.28
Sophia	3	102	50 YR	15.39	250.02	251.46	250.91	251.50	0.001481	0.95	21.13	66.10	0.30
Sophia	3	102	100 YR	17.95	250.02	251.50	250.96	251.54	0.001476	0.98	29.80	108.53	0.31
Sophia	3	79	10 YR	9.27	250.23	251.27	250.96	251.32	0.002515	0.93	12.65	45.65	0.37
Sophia	3	79	25 YR	12.53	250.23	251.33	251.05	251.39	0.003238	1.12	15.44	54.71	0.43
Sophia	3	79	50 YR	15.39	250.23	251.39	251.14	251.45	0.003311	1.20	19.23	65.15	0.44

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	3	79	100 YR	17.95	250.23	251.42	251.22	251.49	0.003774	1.31	21.03	66.83	0.47
Sophia	3	47	10 YR	9.27	250.23	251.14	251.11	251.18	0.007651	1.22	14.40	81.87	0.60
Sophia	3	47	25 YR	12.53	250.23	251.19	251.14	251.24	0.007044	1.27	18.82	85.23	0.58
Sophia	3	47	50 YR	15.39	250.23	251.32	251.17	251.34	0.003132	0.98	29.84	100.94	0.40
Sophia	3	47	100 YR	17.95	250.23	251.33	251.19	251.36	0.003850	1.10	30.96	101.28	0.45
Sophia	3	40	10 YR	9.27	249.95	251.02	251.02	251.09	0.011672	1.49	10.98	56.55	0.71
Sophia	3	40	25 YR	12.53	249.95	251.15	251.06	251.19	0.005159	1.13	19.13	74.32	0.49
Sophia	3	40	50 YR	15.39	249.95	251.30	251.09	251.32	0.002218	0.87	31.82	97.35	0.34
Sophia	3	40	100 YR	17.95	249.95	251.30	251.10	251.33	0.002884	1.00	32.39	97.74	0.38
Sophia	3	35		Culvert									
Sophia	3	30	10 YR	9.27	249.82	251.06	250.90	251.08	0.002253	0.77	20.36	62.28	0.32
Sophia	3	30	25 YR	12.53	249.82	251.18	250.93	251.19	0.001694	0.75	27.89	68.87	0.29
Sophia	3	30	50 YR	15.39	249.82	251.30	250.95	251.31	0.001156	0.69	37.28	81.48	0.24
Sophia	3	30	100 YR	17.95	249.82	251.31	250.99	251.33	0.001484	0.79	38.14	83.99	0.28
Sophia	3	27	10 YR	9.27	249.88	251.06	250.82	251.07	0.001101	0.73	24.13	64.24	0.25
Sophia	3	27	25 YR	12.53	249.88	251.17	250.88	251.19	0.000975	0.75	31.74	68.16	0.24
Sophia	3	27	50 YR	15.39	249.88	251.30	250.92	251.31	0.000752	0.71	40.89	78.07	0.22
Sophia	3	27	100 YR	17.95	249.88	251.31	250.95	251.32	0.000976	0.82	41.63	78.83	0.25
Sophia	3	0	10 YR	9.27	249.73	251.01		251.03	0.001768	0.88	19.28	63.90	0.31
Sophia	3	0	25 YR	12.53	249.73	251.13		251.15	0.001375	0.83	27.75	71.64	0.28
Sophia	3	0	50 YR	15.39	249.73	251.27		251.29	0.000916	0.74	38.19	82.74	0.23
Sophia	3	0	100 YR	17.95	249.73	251.27		251.29	0.001242	0.86	38.24	82.75	0.27
Sophia	1	1640	10 YR	21.17	249.38	250.92		250.99	0.002683	1.38	28.39	70.78	0.41
Sophia	1	1640	25 YR	30.35	249.38	251.00		251.10	0.003733	1.71	34.67	81.07	0.49
Sophia	1	1640	50 YR	37.33	249.38	251.19		251.25	0.002282	1.47	50.38	85.14	0.39
Sophia	1	1640	100 YR	44.39	249.38	251.11		251.23	0.004739	2.03	43.25	83.43	0.56
Sophia	1	1623	10 YR	21.17	249.19	250.91		250.94	0.001663	1.09	37.98	83.19	0.32
Sophia	1	1623	25 YR	30.35	249.19	250.98		251.04	0.002389	1.36	44.67	91.36	0.39
Sophia	1	1623	50 YR	37.33	249.19	251.18		251.21	0.001437	1.16	64.49	104.29	0.31
Sophia	1	1623	100 YR	44.39	249.19	251.07		251.15	0.003396	1.69	53.13	102.70	0.47
Sophia	1	1604	10 YR	21.17	249.07	250.89		250.91	0.001280	0.95	40.90	72.40	0.28
Sophia	1	1604	25 YR	30.35	249.07	250.95		250.99	0.001960	1.21	45.63	74.75	0.35
Sophia	1	1604	50 YR	37.33	249.07	251.16		251.19	0.001249	1.07	63.20	95.22	0.29
Sophia	1	1604	100 YR	44.39	249.07	251.02		251.08	0.003157	1.59	50.57	78.20	0.45
Sophia	1	1597	10 YR	21.17	249.13	250.88	250.59	250.90	0.001718	0.92	37.81	70.54	0.31
Sophia	1	1597	25 YR	30.35	249.13	250.94	250.86	250.97	0.002693	1.15	42.02	72.00	0.39
Sophia	1	1597	50 YR	37.33	249.13	251.15	250.86	251.18	0.001561	0.96	60.27	97.56	0.31
Sophia	1	1597	100 YR	44.39	249.13	250.99	250.86	251.05	0.004580	1.49	46.04	74.87	0.51
Sophia	1	1584		Culvert									
Sophia	1	1571	10 YR	21.17	248.73	250.00	249.98	250.48	0.015543	3.07	6.88	12.44	0.97
Sophia	1	1571	25 YR	30.35	248.73	250.26	250.26	250.89	0.015597	3.50	8.67	27.48	1.00
Sophia	1	1571	50 YR	37.33	248.73	250.44	250.44	251.17	0.015161	3.77	9.90	33.23	1.01
Sophia	1	1571	100 YR	44.39	248.73	250.55	250.55	250.86	0.010131	2.70	23.36	44.37	0.79
Sophia	1	1563	10 YR	21.17	248.55	249.97		250.18	0.008494	2.06	10.80	16.30	0.70
Sophia	1	1563	25 YR	30.35	248.55	250.07	250.00	250.41	0.011870	2.60	12.61	17.43	0.84
Sophia	1	1563	50 YR	37.33	248.55	250.20	250.20	250.57	0.012723	2.77	15.10	24.78	0.88
Sophia	1	1563	100 YR	44.39	248.55	250.37	250.37	250.69	0.011190	2.61	21.03	40.35	0.83
Sophia	1	1549	10 YR	21.17	248.37	249.94		250.07	0.004342	1.73	15.77	19.12	0.52
Sophia	1	1549	25 YR	30.35	248.37	250.04		250.24	0.006735	2.22	17.65	19.96	0.65
Sophia	1	1549	50 YR	37.33	248.37	250.10	249.93	250.37	0.008603	2.55	18.91	20.54	0.73
Sophia	1	1549	100 YR	44.39	248.37	250.17	250.04	250.49	0.010202	2.84	20.51	33.14	0.80
Sophia	1	1531	10 YR	21.17	248.10	249.92		249.99	0.002501	1.20	17.74	21.93	0.39
Sophia	1	1531	25 YR	30.35	248.10	250.00		250.13	0.004003	1.58	19.50	23.32	0.50
Sophia	1	1531	50 YR	37.33	248.10	250.05		250.22	0.005238	1.86	20.61	23.86	0.57
Sophia	1	1531	100 YR	44.39	248.10	250.08		250.31	0.006615	2.13	21.51	24.28	0.65
Sophia	1	1508	10 YR	21.17	248.20	249.92	249.23	249.95	0.000902	0.98	34.50	35.70	0.25
Sophia	1	1508	25 YR	30.35	248.20	250.00	249.39	250.05	0.001494	1.30	37.41	36.94	0.33
Sophia	1	1508	50 YR	37.33	248.20	250.05	249.47	250.12	0.002025	1.54	46.16	84.01	0.38
Sophia	1	1508	100 YR	44.39	248.20	250.10	249.55	250.18	0.002366	1.70	50.55	84.32	0.42
Sophia	1	1496	10 YR	21.17	248.00	249.91		249.94	0.000777	0.73	33.36	68.70	0.22
Sophia	1	1496	25 YR	30.35	248.00	249.99		250.03	0.001206	0.95	38.89	73.62	0.28
Sophia	1	1496	50 YR	37.33	248.00	250.04		250.09	0.001546	1.10	42.52	78.73	0.32
Sophia	1	1496	100 YR	44.39	248.00	250.08		250.15	0.001844	1.24	46.28	78.95	0.35
Sophia	1	1490	10 YR	22.73	247.73	249.89	248.79	249.93	0.000908	0.82	30.91	66.10	0.24

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	1	1490	25 YR	32.52	247.73	249.96	249.01	250.01	0.001542	1.09	35.17	70.74	0.32
Sophia	1	1490	50 YR	39.92	247.73	249.99	249.16	250.07	0.002116	1.29	37.36	72.66	0.37
Sophia	1	1490	100 YR	47.43	247.73	250.01	249.30	250.12	0.002789	1.49	39.11	77.72	0.43
Sophia	1	1473		Culvert									
Sophia	1	1455	10 YR	22.73	247.64	249.08	248.77	249.33	0.008545	2.21	10.27	9.62	0.68
Sophia	1	1455	25 YR	32.52	247.64	249.28	249.06	249.64	0.010994	2.65	12.26	10.63	0.79
Sophia	1	1455	50 YR	39.92	247.64	249.40	249.26	249.84	0.012822	2.95	13.54	11.27	0.86
Sophia	1	1455	100 YR	47.43	247.64	249.50	249.42	250.03	0.014515	3.22	14.75	11.87	0.92
Sophia	1	1449	10 YR	22.73	247.22	249.09		249.18	0.002140	1.35	21.28	26.11	0.37
Sophia	1	1449	25 YR	32.52	247.22	249.30		249.41	0.002445	1.56	26.89	27.53	0.41
Sophia	1	1449	50 YR	39.92	247.22	249.43		249.55	0.002687	1.71	30.42	28.41	0.43
Sophia	1	1449	100 YR	47.43	247.22	249.54		249.68	0.002895	1.85	33.72	29.85	0.45
Sophia	1	1432	10 YR	22.73	247.52	248.91		249.11	0.005874	2.11	15.04	27.55	0.61
Sophia	1	1432	25 YR	32.52	247.52	249.12		249.33	0.005810	2.33	21.01	31.26	0.62
Sophia	1	1432	50 YR	39.92	247.52	249.25		249.48	0.005642	2.43	25.28	32.53	0.62
Sophia	1	1432	100 YR	47.43	247.52	249.37		249.61	0.005523	2.53	29.30	33.59	0.63
Sophia	1	1423	10 YR	22.73	247.12	248.93		249.04	0.003231	1.51	17.63	25.26	0.45
Sophia	1	1423	25 YR	32.52	247.12	249.13		249.27	0.003515	1.76	22.98	28.54	0.49
Sophia	1	1423	50 YR	39.92	247.12	249.25		249.42	0.003694	1.91	26.59	29.60	0.51
Sophia	1	1423	100 YR	47.43	247.12	249.37		249.55	0.003848	2.05	29.99	30.58	0.52
Sophia	1	1410	10 YR	22.73	247.32	248.92		248.99	0.002153	1.31	21.46	28.20	0.38
Sophia	1	1410	25 YR	32.52	247.32	249.12		249.22	0.002405	1.53	27.31	30.25	0.41
Sophia	1	1410	50 YR	39.92	247.32	249.24		249.36	0.002592	1.68	31.13	31.49	0.43
Sophia	1	1410	100 YR	47.43	247.32	249.35		249.49	0.002729	1.81	34.83	32.43	0.45
Sophia	1	1395	10 YR	22.73	247.02	248.85		248.96	0.002407	1.61	20.32	24.79	0.41
Sophia	1	1395	25 YR	32.52	247.02	249.02		249.17	0.003115	1.96	24.83	27.47	0.47
Sophia	1	1395	50 YR	39.92	247.02	249.13		249.31	0.003570	2.18	27.78	28.09	0.51
Sophia	1	1395	100 YR	47.43	247.02	249.23		249.44	0.003934	2.37	30.61	28.32	0.54
Sophia	1	1381	10 YR	22.73	246.81	248.87		248.91	0.001285	1.01	25.53	27.57	0.29
Sophia	1	1381	25 YR	32.52	246.81	249.05		249.12	0.001606	1.24	30.65	29.61	0.33
Sophia	1	1381	50 YR	39.92	246.81	249.16		249.24	0.001845	1.39	33.97	31.09	0.36
Sophia	1	1381	100 YR	47.43	246.81	249.26		249.37	0.002051	1.53	37.25	32.74	0.38
Sophia	1	1366	10 YR	22.73	247.30	248.85		248.89	0.001873	1.07	28.93	39.17	0.34
Sophia	1	1366	25 YR	32.52	247.30	249.03		249.09	0.002006	1.24	36.22	40.42	0.36
Sophia	1	1366	50 YR	39.92	247.30	249.14		249.21	0.002134	1.36	40.77	40.84	0.38
Sophia	1	1366	100 YR	47.43	247.30	249.25		249.32	0.002225	1.47	45.15	41.27	0.40
Sophia	1	1351	10 YR	22.73	246.61	248.84		248.87	0.000732	0.84	39.11	41.04	0.22
Sophia	1	1351	25 YR	32.52	246.61	249.02		249.06	0.000921	1.02	46.62	41.81	0.25
Sophia	1	1351	50 YR	39.92	246.61	249.13		249.18	0.001058	1.14	51.28	42.22	0.27
Sophia	1	1351	100 YR	47.43	246.61	249.24		249.29	0.001173	1.25	55.77	42.62	0.29
Sophia	1	1336	10 YR	22.73	246.41	248.84		248.86	0.000447	0.72	44.04	40.45	0.18
Sophia	1	1336	25 YR	32.52	246.41	249.02		249.05	0.000601	0.89	51.39	41.57	0.21
Sophia	1	1336	50 YR	39.92	246.41	249.13		249.16	0.000715	1.01	55.97	42.21	0.23
Sophia	1	1336	100 YR	47.43	246.41	249.23		249.28	0.000815	1.12	60.42	42.82	0.25
Sophia	1	1321	10 YR	22.73	246.92	248.84		248.85	0.000149	0.42	56.27	40.42	0.10
Sophia	1	1321	25 YR	32.52	246.92	249.02		249.04	0.000213	0.53	63.67	41.55	0.13
Sophia	1	1321	50 YR	39.92	246.92	249.13		249.15	0.000263	0.61	68.29	41.83	0.14
Sophia	1	1321	100 YR	47.43	246.92	249.24		249.26	0.000309	0.69	72.71	41.96	0.15
Sophia	1	1306	10 YR	22.73	246.41	248.81		248.84	0.000618	0.98	37.62	32.93	0.22
Sophia	1	1306	25 YR	32.52	246.41	248.97		249.03	0.000951	1.28	43.35	38.38	0.27
Sophia	1	1306	50 YR	39.92	246.41	249.07		249.14	0.001197	1.48	47.20	41.25	0.31
Sophia	1	1306	100 YR	47.43	246.41	249.16		249.25	0.001416	1.65	51.13	43.58	0.33
Sophia	1	1292	10 YR	22.73	246.41	248.81		248.83	0.000374	0.77	48.61	39.22	0.17
Sophia	1	1292	25 YR	32.52	246.41	248.98		249.01	0.000561	1.00	55.33	42.81	0.21
Sophia	1	1292	50 YR	39.92	246.41	249.08		249.12	0.000702	1.14	59.65	44.74	0.24
Sophia	1	1292	100 YR	47.43	246.41	249.17		249.22	0.000816	1.27	63.95	45.19	0.26
Sophia	1	1277	10 YR	22.73	246.32	248.80		248.83	0.000568	0.97	40.13	35.51	0.21
Sophia	1	1277	25 YR	32.52	246.32	248.95		249.00	0.000901	1.27	46.05	41.14	0.26
Sophia	1	1277	50 YR	39.92	246.32	249.04		249.10	0.001117	1.45	49.86	42.32	0.30
Sophia	1	1277	100 YR	47.43	246.32	249.13		249.20	0.001311	1.61	53.63	43.27	0.32
Sophia	1	1262	10 YR	22.73	246.32	248.77		248.81	0.000789	1.16	33.54	30.59	0.24
Sophia	1	1262	25 YR	32.52	246.32	248.92		248.98	0.001194	1.48	38.05	32.77	0.30
Sophia	1	1262	50 YR	39.92	246.32	249.00		249.08	0.001530	1.71	40.72	33.89	0.34
Sophia	1	1262	100 YR	47.43	246.32	249.07		249.18	0.001867	1.93	43.27	35.02	0.38
Sophia	1	1247	10 YR	22.73	246.22	248.78		248.80	0.000439	0.78	37.45	30.78	0.18

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	1	1247	25 YR	32.52	246.22	248.92		248.96	0.000671	1.01	42.02	33.44	0.22
Sophia	1	1247	50 YR	39.92	246.22	249.00		249.06	0.000867	1.18	44.79	35.87	0.26
Sophia	1	1247	100 YR	47.43	246.22	249.07		249.15	0.001063	1.33	47.50	37.01	0.29
Sophia	1	1239	10 YR	22.73	246.04	248.74	247.38	248.78	0.000930	0.97	24.92	22.58	0.25
Sophia	1	1239	25 YR	32.52	246.04	248.85	247.69	248.93	0.001552	1.29	27.77	29.20	0.32
Sophia	1	1239	50 YR	39.92	246.04	248.90	247.90	249.01	0.002090	1.52	29.31	32.74	0.38
Sophia	1	1239	100 YR	47.43	246.04	248.93	248.11	249.08	0.002774	1.78	30.43	36.75	0.43
Sophia	1	1234		Culvert									
Sophia	1	1213	10 YR	22.73	245.64	247.55	246.94	247.65	0.002897	1.51	17.26	14.91	0.43
Sophia	1	1213	25 YR	32.52	245.64	247.68	247.20	247.84	0.004604	1.93	19.24	16.01	0.54
Sophia	1	1213	50 YR	39.92	245.64	247.75	247.37	247.97	0.006066	2.23	20.41	16.69	0.63
Sophia	1	1213	100 YR	47.43	245.64	247.82	247.52	248.09	0.007575	2.50	21.56	17.40	0.70
Sophia	1	1210	10 YR	22.73	245.50	247.55		247.62	0.001765	1.25	21.52	16.76	0.34
Sophia	1	1210	25 YR	32.52	245.50	247.68		247.79	0.002803	1.62	23.72	17.61	0.44
Sophia	1	1210	50 YR	39.92	245.50	247.75		247.90	0.003715	1.88	24.99	18.18	0.50
Sophia	1	1210	100 YR	47.43	245.50	247.82		248.01	0.004627	2.13	26.23	18.79	0.56
Sophia	1	1199	10 YR	22.73	245.25	247.56	246.42	247.59	0.000548	0.90	33.65	25.23	0.21
Sophia	1	1199	25 YR	32.52	245.25	247.70	246.61	247.75	0.000888	1.20	37.21	28.55	0.26
Sophia	1	1199	50 YR	39.92	245.25	247.77	246.73	247.85	0.001172	1.41	39.51	30.81	0.31
Sophia	1	1199	100 YR	47.43	245.25	247.83	246.84	247.95	0.001640	1.70	42.02	41.01	0.36
Sophia	1	1190	10 YR	22.73	245.10	247.56	246.44	247.59	0.000452	0.82	45.94	50.21	0.19
Sophia	1	1190	25 YR	32.52	245.10	247.70	246.71	247.74	0.000662	1.04	53.24	55.93	0.23
Sophia	1	1190	50 YR	39.92	245.10	247.79	246.84	247.83	0.000819	1.19	58.00	58.30	0.26
Sophia	1	1190	100 YR	47.43	245.10	247.87	246.97	247.92	0.000968	1.32	62.81	61.69	0.28
Sophia	1	1186	10 YR	23.47	244.97	247.53	246.53	247.57	0.001011	1.01	33.29	53.17	0.26
Sophia	1	1186	25 YR	33.55	244.97	247.66	246.81	247.72	0.001396	1.25	40.24	56.58	0.31
Sophia	1	1186	50 YR	41.32	244.97	247.72	247.02	247.81	0.001755	1.44	44.24	62.22	0.35
Sophia	1	1186	100 YR	49.11	244.97	247.79	247.27	247.89	0.002018	1.59	48.64	63.64	0.38
Sophia	1	1179		Culvert									
Sophia	1	1105	10 YR	23.47	244.28	246.53	246.04	246.62	0.002581	1.42	22.63	40.45	0.40
Sophia	1	1105	25 YR	33.55	244.28	246.87	246.32	246.95	0.001732	1.36	37.34	46.45	0.34
Sophia	1	1105	50 YR	41.32	244.28	247.04	246.32	247.12	0.001656	1.42	45.61	51.86	0.34
Sophia	1	1105	100 YR	49.11	244.28	247.19	246.59	247.27	0.001610	1.47	53.59	57.27	0.34
Sophia	1	1099	10 YR	23.47	244.28	246.53		246.58	0.000727	0.99	31.87	34.02	0.22
Sophia	1	1099	25 YR	33.55	244.28	246.87		246.92	0.000728	1.10	44.48	41.13	0.23
Sophia	1	1099	50 YR	41.32	244.28	247.04		247.09	0.000800	1.21	51.65	45.00	0.24
Sophia	1	1099	100 YR	49.11	244.28	247.18		247.25	0.000853	1.29	58.42	46.34	0.25
Sophia	1	1091	10 YR	25.20	244.09	246.51		246.57	0.000936	1.16	29.59	26.36	0.26
Sophia	1	1091	25 YR	35.95	244.09	246.84		246.91	0.001006	1.32	40.25	37.95	0.27
Sophia	1	1091	50 YR	44.31	244.09	247.00		247.08	0.001132	1.46	46.94	45.22	0.29
Sophia	1	1091	100 YR	52.44	244.09	247.14		247.24	0.001214	1.57	54.03	52.11	0.30
Sophia	1	1074	10 YR	25.20	243.79	246.50		246.55	0.000797	1.07	31.83	34.25	0.23
Sophia	1	1074	25 YR	35.95	243.79	246.83		246.89	0.000840	1.21	44.45	44.40	0.24
Sophia	1	1074	50 YR	44.31	243.79	246.99		247.06	0.000926	1.32	51.80	46.54	0.26
Sophia	1	1074	100 YR	52.44	243.79	247.14		247.21	0.000992	1.42	58.61	48.30	0.27
Sophia	1	1067	10 YR	25.20	243.99	246.50		246.54	0.000582	0.93	35.12	35.79	0.20
Sophia	1	1067	25 YR	35.95	243.99	246.83		246.88	0.000631	1.07	48.47	46.30	0.22
Sophia	1	1067	50 YR	44.31	243.99	247.00		247.05	0.000701	1.17	56.16	48.33	0.23
Sophia	1	1067	100 YR	52.44	243.99	247.14		247.20	0.000753	1.26	63.17	49.45	0.24
Sophia	1	1062	10 YR	25.20	243.99	246.17	245.98	246.41	0.007185	2.33	16.87	28.66	0.62
Sophia	1	1062	25 YR	35.95	243.99	246.25	246.25	246.66	0.011618	3.07	19.17	30.81	0.79
Sophia	1	1062	50 YR	44.31	243.99	246.42	246.42	246.83	0.010750	3.17	24.82	34.71	0.78
Sophia	1	1062	100 YR	52.44	243.99	246.54	246.54	246.97	0.010742	3.32	29.26	37.62	0.79
Sophia	1	1058		Culvert									
Sophia	1	920	10 YR	25.20	240.90	242.23	242.07	242.54	0.010629	2.44	10.31	10.62	0.79
Sophia	1	920	25 YR	35.95	240.90	242.39	242.32	242.85	0.013451	3.00	11.99	11.26	0.91
Sophia	1	920	50 YR	44.31	240.90	242.52	242.48	243.08	0.014674	3.32	13.36	11.87	0.96
Sophia	1	920	100 YR	52.44	240.90	242.64	242.64	243.28	0.015300	3.56	14.73	13.64	0.99
Sophia	1	913	10 YR	25.20	240.80	242.16	242.01	242.44	0.011057	2.31	10.91	12.82	0.80
Sophia	1	913	25 YR	35.95	240.80	242.30	242.26	242.71	0.015206	2.82	12.77	14.20	0.95
Sophia	1	913	50 YR	44.31	240.80	242.43	242.42	242.90	0.015188	3.03	14.97	23.47	0.96
Sophia	1	913	100 YR	52.44	240.80	242.57	242.57	243.06	0.013981	3.11	18.41	25.63	0.94
Sophia	1	909	10 YR	25.20	240.80	241.99	241.99	242.37	0.018248	2.72	9.26	12.39	1.01
Sophia	1	909	25 YR	35.95	240.80	242.24	242.24	242.65	0.015775	2.84	13.28	22.50	0.96

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	1	909	50 YR	44.31	240.80	242.38	242.38	242.82	0.014421	2.97	16.69	24.82	0.94
Sophia	1	909	100 YR	52.44	240.80	242.50	242.50	242.97	0.013770	3.10	19.77	26.31	0.93
Sophia	1	895	10 YR	25.20	240.40	241.82		242.09	0.010612	2.31	11.03	14.50	0.79
Sophia	1	895	25 YR	35.95	240.40	242.02	241.89	242.37	0.011048	2.64	14.72	21.98	0.82
Sophia	1	895	50 YR	44.31	240.40	242.10	242.08	242.55	0.012960	2.98	16.66	23.60	0.90
Sophia	1	895	100 YR	52.44	240.40	242.21	242.21	242.71	0.013264	3.17	19.37	25.89	0.92
Sophia	1	880	10 YR	25.20	240.30	241.52	241.48	241.88	0.016147	2.68	9.41	11.82	0.96
Sophia	1	880	25 YR	35.95	240.30	241.76	241.76	242.17	0.015315	2.83	13.32	24.92	0.95
Sophia	1	880	50 YR	44.31	240.30	241.91	241.91	242.34	0.013940	2.95	17.10	27.14	0.93
Sophia	1	880	100 YR	52.44	240.30	242.03	242.03	242.49	0.013257	3.07	20.49	28.89	0.92
Sophia	1	865	10 YR	25.20	240.00	241.30	241.24	241.65	0.014439	2.63	9.63	12.71	0.91
Sophia	1	865	25 YR	35.95	240.00	241.53	241.53	241.94	0.013102	2.87	14.81	26.30	0.90
Sophia	1	865	50 YR	44.31	240.00	241.68	241.68	242.11	0.012242	3.00	18.98	28.42	0.88
Sophia	1	865	100 YR	52.44	240.00	241.83	241.79	242.26	0.011023	3.04	23.32	29.28	0.85
Sophia	1	850	10 YR	25.20	239.60	241.24		241.47	0.007111	2.14	13.02	19.62	0.66
Sophia	1	850	25 YR	35.95	239.60	241.37	241.24	241.72	0.010050	2.68	15.67	22.33	0.80
Sophia	1	850	50 YR	44.31	239.60	241.45	241.43	241.90	0.012146	3.04	17.61	23.60	0.88
Sophia	1	850	100 YR	52.44	239.60	241.55	241.55	242.07	0.012755	3.26	20.18	27.19	0.91
Sophia	1	826	10 YR	25.20	239.40	241.27	240.90	241.31	0.001939	1.12	44.61	54.77	0.34
Sophia	1	826	25 YR	35.95	239.40	241.45	240.94	241.50	0.002300	1.25	54.74	57.13	0.38
Sophia	1	826	50 YR	44.31	239.40	241.59	241.02	241.64	0.002356	1.33	62.67	62.06	0.39
Sophia	1	826	100 YR	52.44	239.40	241.70	241.09	241.76	0.002398	1.43	69.98	66.31	0.40
Sophia	1	808	10 YR	25.20	238.95	241.23		241.28	0.001543	1.14	44.29	65.52	0.32
Sophia	1	808	25 YR	35.95	238.95	241.39		241.46	0.001921	1.34	55.93	72.44	0.36
Sophia	1	808	50 YR	44.31	238.95	241.53		241.60	0.001971	1.41	65.92	74.10	0.36
Sophia	1	808	100 YR	52.44	238.95	241.65		241.71	0.002026	1.47	74.62	75.42	0.37
Sophia	1	791	10 YR	25.20	238.80	241.17		241.24	0.001936	1.36	36.00	54.55	0.36
Sophia	1	791	25 YR	35.95	238.80	241.31		241.41	0.002672	1.66	44.02	59.52	0.42
Sophia	1	791	50 YR	44.31	238.80	241.44		241.55	0.002884	1.78	51.80	62.39	0.44
Sophia	1	791	100 YR	52.44	238.80	241.55		241.67	0.003042	1.88	58.76	64.10	0.46
Sophia	1	767	10 YR	25.20	238.50	241.16		241.21	0.000819	1.08	43.45	52.09	0.25
Sophia	1	767	25 YR	35.95	238.50	241.29		241.37	0.001266	1.40	50.89	61.36	0.31
Sophia	1	767	50 YR	44.31	238.50	241.41		241.50	0.001482	1.58	58.29	64.52	0.34
Sophia	1	767	100 YR	52.44	238.50	241.51		241.62	0.001673	1.72	64.91	66.77	0.36
Sophia	1	751	10 YR	25.20	238.30	241.17	239.80	241.19	0.000350	0.77	60.98	47.00	0.17
Sophia	1	751	25 YR	35.95	238.30	241.30	240.04	241.34	0.000593	1.04	68.06	61.68	0.22
Sophia	1	751	50 YR	44.31	238.30	241.42	240.23	241.47	0.000724	1.19	75.68	66.55	0.24
Sophia	1	751	100 YR	52.44	238.30	241.52	240.34	241.58	0.000841	1.31	82.56	68.83	0.26
Sophia	1	736	10 YR	25.20	238.05	241.17		241.19	0.000323	0.82	67.12	41.02	0.16
Sophia	1	736	25 YR	35.95	238.05	241.30		241.33	0.000556	1.11	72.69	46.16	0.21
Sophia	1	736	50 YR	44.31	238.05	241.41		241.46	0.000715	1.29	78.28	49.40	0.24
Sophia	1	736	100 YR	52.44	238.05	241.51		241.57	0.000855	1.44	83.19	49.54	0.27
Sophia	1	721	10 YR	25.20	237.90	241.17		241.18	0.000181	0.59	78.26	51.76	0.12
Sophia	1	721	25 YR	35.95	237.90	241.30		241.32	0.000299	0.78	85.20	53.94	0.16
Sophia	1	721	50 YR	44.31	237.90	241.42		241.45	0.000386	0.92	91.79	61.25	0.18
Sophia	1	721	100 YR	52.44	237.90	241.52		241.55	0.000474	1.04	98.38	71.18	0.20
Sophia	1	706	10 YR	25.20	237.75	241.17		241.18	0.000136	0.60	83.04	60.58	0.11
Sophia	1	706	25 YR	35.95	237.75	241.29		241.32	0.000230	0.81	91.02	62.19	0.14
Sophia	1	706	50 YR	44.31	237.75	241.41		241.44	0.000297	0.94	98.25	62.51	0.16
Sophia	1	706	100 YR	52.44	237.75	241.51		241.55	0.000363	1.06	104.44	62.70	0.18
Sophia	1	690	10 YR	25.20	237.45	241.16		241.18	0.000140	0.53	65.42	66.66	0.11
Sophia	1	690	25 YR	35.95	237.45	241.29		241.31	0.000234	0.71	74.22	71.02	0.14
Sophia	1	690	50 YR	44.31	237.45	241.41		241.44	0.000297	0.82	82.56	74.16	0.16
Sophia	1	690	100 YR	52.44	237.45	241.50		241.54	0.000359	0.93	89.95	76.56	0.17
Sophia	1	680	10 YR	15.20	237.30	241.17		241.17	0.000104	0.43	51.43	65.10	0.08
Sophia	1	680	25 YR	22.95	237.30	241.29		241.31	0.000191	0.60	60.14	68.91	0.11
Sophia	1	680	50 YR	31.31	237.30	241.41		241.43	0.000293	0.76	67.92	69.19	0.14
Sophia	1	680	100 YR	39.44	237.30	241.50		241.54	0.000397	0.91	74.54	69.38	0.17
Sophia	1	671.2	10 YR	15.20	240.60	241.01	241.01	241.16	0.002139	1.92	14.66	57.75	0.97
Sophia	1	671.2	25 YR	22.95	240.60	241.11	241.11	241.29	0.001994	2.16	20.94	63.56	0.98
Sophia	1	671.2	50 YR	31.31	240.60	241.20	241.20	241.41	0.002024	2.41	26.35	66.06	1.01
Sophia	1	671.2	100 YR	39.44	240.60	241.27	241.27	241.51	0.002002	2.60	31.41	68.15	1.02
Sophia	1	644.1	10 YR	15.20	239.61	240.26	240.26	240.55	0.002609	2.61	8.43	15.81	1.12
Sophia	1	644.1	25 YR	22.95	239.61	240.44	240.44	240.81	0.002390	3.00	11.23	16.36	1.13
Sophia	1	644.1	50 YR	31.31	239.61	240.61	240.61	241.07	0.002148	3.29	14.19	16.99	1.11
Sophia	1	644.1	100 YR	39.44	239.61	240.76	240.76	241.29	0.002038	3.55	16.77	17.39	1.11

HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	1	612.2	10 YR	15.20	238.57	239.12	239.12	239.38	0.002715	2.55	9.54	19.62	1.13
Sophia	1	612.2	25 YR	22.95	238.57	239.28	239.28	239.61	0.002503	2.93	12.70	20.10	1.14
Sophia	1	612.2	50 YR	31.31	238.57	239.43	239.43	239.84	0.002352	3.25	15.79	20.56	1.14
Sophia	1	612.2	100 YR	39.44	238.57	239.57	239.57	240.04	0.002219	3.50	18.65	20.97	1.14
Sophia	1	585.2	10 YR	15.20	238.04	238.69	238.69	238.96	0.002501	2.56	8.73	17.00	1.10
Sophia	1	585.2	25 YR	22.95	238.04	238.86	238.86	239.22	0.002295	2.94	11.70	17.50	1.10
Sophia	1	585.2	50 YR	31.31	238.04	238.99	238.99	239.47	0.002471	3.40	13.97	17.87	1.17
Sophia	1	585.2	100 YR	39.44	238.04	239.20	239.20	239.70	0.001927	3.47	18.28	23.23	1.07
Sophia	1	559.7	10 YR	15.20	237.69	238.36	238.36	238.63	0.002187	2.48	9.09	18.53	1.04
Sophia	1	559.7	25 YR	22.95	237.69	238.50	238.50	238.88	0.002407	2.99	11.66	19.28	1.13
Sophia	1	559.7	50 YR	31.31	237.69	238.71	238.71	239.11	0.001794	3.08	16.38	22.46	1.02
Sophia	1	559.7	100 YR	39.44	237.69	238.84	238.84	239.30	0.001791	3.35	19.28	22.46	1.04
Sophia	1	545		Lat Struct									
Sophia	1	527.4	10 YR	15.20	237.10	237.67	237.67	237.88	0.002405	2.38	11.82	28.80	1.07
Sophia	1	527.4	25 YR	22.95	237.10	237.80	237.80	238.08	0.002405	2.77	15.54	28.80	1.11
Sophia	1	527.4	50 YR	31.31	237.10	237.93	237.93	238.26	0.002377	3.10	19.10	28.80	1.13
Sophia	1	527.4	100 YR	39.44	237.10	238.04	238.04	238.43	0.002337	3.36	22.28	28.80	1.15
Sophia	1	497.9	10 YR	15.20	236.32	236.53	236.53	236.70	0.015928	2.15	8.33	28.96	2.11
Sophia	1	497.9	25 YR	22.95	236.32	236.61	236.61	236.88	0.015946	3.16	10.85	31.12	2.32
Sophia	1	497.9	50 YR	31.31	236.32	236.73	236.73	237.06	0.010771	3.63	14.88	35.28	2.08
Sophia	1	497.9	100 YR	39.44	236.32	236.87	236.87	237.22	0.006849	3.70	20.16	39.18	1.76
Sophia	1	464.6	10 YR	15.20	236.05	236.09	235.96	236.20	0.009017	0.46	10.27	21.13	1.16
Sophia	1	464.6	25 YR	22.95	236.05	236.18	236.09	236.35	0.011142	1.12	12.71	32.57	1.57
Sophia	1	464.6	50 YR	31.31	236.05	236.27	236.27	236.46	0.011720	2.13	16.09	44.77	1.88
Sophia	1	464.6	100 YR	39.44	236.05	236.32	236.32	236.56	0.013282	2.80	18.29	45.61	2.11
Sophia	1	403.8	10 YR	15.20	235.78	235.35	235.35	235.44	0.018014		11.77	62.61	0.00
Sophia	1	403.8	25 YR	22.95	235.78	235.43	235.41	235.52	0.016221		17.15	79.01	0.00
Sophia	1	403.8	50 YR	31.31	235.78	235.52		235.60	0.011172		25.11	86.87	0.00
Sophia	1	403.8	100 YR	39.44	235.78	235.60		235.68	0.008942		32.06	92.70	0.00
Sophia	1	350.2	10 YR	15.20	234.42	235.05	235.05	235.17	0.001843	1.83	17.73	88.89	0.90
Sophia	1	350.2	25 YR	22.95	234.42	235.13	235.13	235.28	0.001909	2.10	25.33	94.49	0.95
Sophia	1	350.2	50 YR	31.31	234.42	235.21	235.21	235.38	0.001963	2.33	32.47	99.05	0.98
Sophia	1	350.2	100 YR	39.44	234.42	235.27	235.27	235.47	0.002005	2.53	38.76	102.90	1.01
Sophia	1	323.2	10 YR	15.20	234.04	234.48	234.48	234.62	0.003027	2.04	16.16	69.84	1.12
Sophia	1	323.2	25 YR	22.95	234.04	234.60	234.60	234.76	0.002408	2.22	26.52	107.64	1.05
Sophia	1	323.2	50 YR	31.31	234.04	234.71	234.71	234.85	0.001816	2.21	39.31	126.30	0.94
Sophia	1	323.2	100 YR	39.44	234.04	234.75	234.75	234.91	0.002099	2.48	44.16	126.34	1.02
Sophia	1	298.6	10 YR	15.20	233.66	234.13	234.13	234.24	0.001915	1.82	19.83	100.52	0.92
Sophia	1	298.6	25 YR	22.95	233.66	234.22	234.22	234.35	0.001813	2.02	29.27	119.27	0.92
Sophia	1	298.6	50 YR	31.31	233.66	234.28	234.28	234.43	0.001995	2.29	36.22	123.95	0.99
Sophia	1	298.6	100 YR	39.44	233.66	234.34	234.34	234.50	0.001996	2.45	43.13	124.34	1.00
Sophia	1	263	10 YR	15.20	233.18	233.54	233.54	233.64	0.003179	1.88	20.03	112.53	1.12
Sophia	1	263	25 YR	22.95	233.18	233.77		233.81	0.000704	1.31	47.14	122.52	0.58
Sophia	1	263	50 YR	31.31	233.18	233.89		233.93	0.000567	1.35	62.17	124.92	0.54
Sophia	1	263	100 YR	39.44	233.18	233.99		234.03	0.000530	1.43	73.96	126.76	0.53
Sophia	1	229	10 YR	15.20	232.72	233.57		233.58	0.000113	0.67	56.55	125.05	0.25
Sophia	1	229	25 YR	22.95	232.72	233.78		233.79	0.000093	0.72	84.88	141.54	0.23
Sophia	1	229	50 YR	31.31	232.72	233.90		233.92	0.000107	0.83	102.72	157.00	0.26
Sophia	1	229	100 YR	39.44	232.72	234.00		234.02	0.000119	0.93	117.61	160.40	0.27
Sophia	1	196.3	10 YR	15.20	232.67	233.32	233.32	233.55	0.001780	2.25	9.85	27.77	0.94
Sophia	1	196.3	25 YR	22.95	232.67	233.49	233.49	233.76	0.001601	2.51	14.95	34.24	0.93
Sophia	1	196.3	50 YR	31.31	232.67	233.69	233.69	233.89	0.001002	2.33	33.36	111.08	0.76
Sophia	1	196.3	100 YR	39.44	232.67	233.77	233.77	233.99	0.001047	2.51	42.07	111.08	0.79
Sophia	1	173	10 YR	15.20	231.82	232.49	232.49	232.77	0.002168	2.46	8.35	17.57	1.04
Sophia	1	173	25 YR	22.95	231.82	232.67	232.67	233.02	0.001902	2.77	11.75	19.75	1.02
Sophia	1	173	50 YR	31.31	231.82	232.84	232.84	233.25	0.001750	3.04	15.30	22.20	1.01
Sophia	1	173	100 YR	39.44	231.82	233.01	233.01	233.45	0.001541	3.19	19.22	24.61	0.97
Sophia	1	134.4	10 YR	15.20	230.30	230.92	230.92	231.17	0.001888	2.32	8.81	20.27	0.97
Sophia	1	134.4	25 YR	22.95	230.30	231.08	231.08	231.40	0.001807	2.67	12.07	20.27	0.98
Sophia	1	134.4	50 YR	31.31	230.30	231.23	231.23	231.62	0.001777	2.98	15.06	20.27	1.01
Sophia	1	134.4	100 YR	39.44	230.30	231.35	231.35	231.82	0.001758	3.24	17.67	20.27	1.02
Sophia	1	109.4	10 YR	15.20	229.32	229.95	229.95	230.18	0.001987	2.31	9.74	21.64	0.99
Sophia	1	109.4	25 YR	22.95	229.32	230.10	230.10	230.41	0.001924	2.67	13.13	26.47	1.01
Sophia	1	109.4	50 YR	31.31	229.32	230.26	230.26	230.61	0.001754	2.90	17.79	32.50	1.00
Sophia	1	109.4	100 YR	39.44	229.32	230.39	230.39	230.78	0.001672	3.11	22.18	36.33	0.99

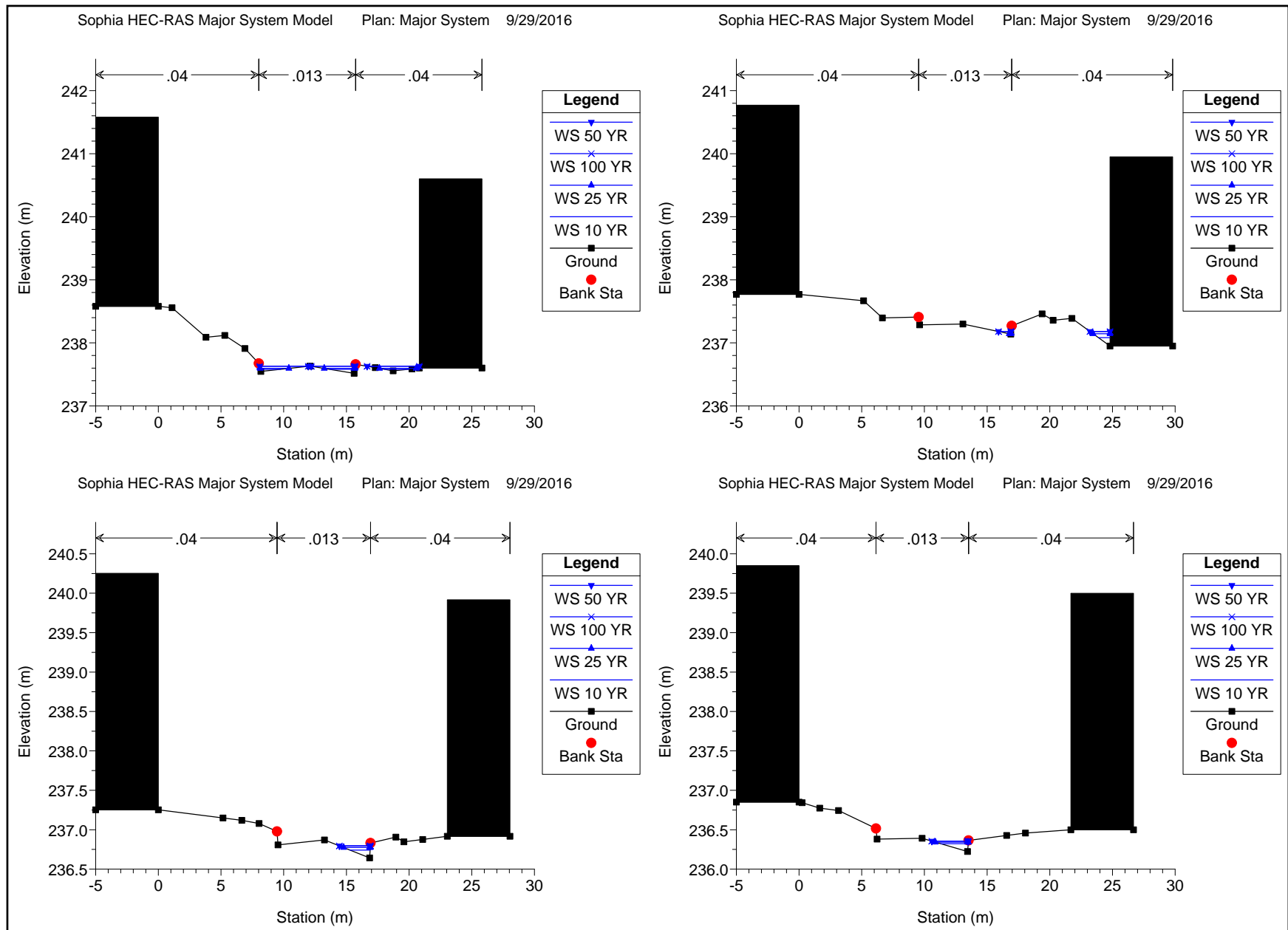
HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Sophia	1	69.9	10 YR	15.20	227.68	227.71	227.70	227.80	0.024303	0.74	11.20	55.76	1.90
Sophia	1	69.9	25 YR	22.95	227.68	227.77	227.77	227.89	0.021585	1.32	15.02	63.15	2.10
Sophia	1	69.9	50 YR	31.31	227.68	227.83	227.83	227.97	0.019820	1.87	18.72	69.87	2.22
Sophia	1	69.9	100 YR	39.44	227.68	227.87	227.87	228.04	0.019809	2.49	21.58	74.62	2.38
Sophia	1	49.2	10 YR	15.20	227.16	227.15	227.15	227.27	0.028056		10.11	54.18	0.00
Sophia	1	49.2	25 YR	22.95	227.16	227.25	227.25	227.36	0.019837	1.30	15.24	76.74	2.03
Sophia	1	49.2	50 YR	31.31	227.16	227.31	227.31	227.44	0.018514	1.83	19.54	87.00	2.16
Sophia	1	49.2	100 YR	39.44	227.16	227.34	227.34	227.51	0.021424	2.45	21.67	88.37	2.45
Sophia	1	31.4	10 YR	15.20	226.53	226.86	226.86	226.98	0.004573	2.09	16.10	72.60	1.32
Sophia	1	31.4	25 YR	22.95	226.53	226.94	226.94	227.09	0.004147	2.38	22.12	79.85	1.32
Sophia	1	31.4	50 YR	31.31	226.53	227.02	227.02	227.20	0.003617	2.57	28.85	86.66	1.27
Sophia	1	31.4	100 YR	39.44	226.53	227.16	227.08	227.30	0.001943	2.30	42.12	95.52	0.98
Sophia	1	0	10 YR	15.20	225.95	226.48	226.45	226.66	0.002048	2.04	10.44	24.79	0.97
Sophia	1	0	25 YR	22.95	225.95	226.60	226.58	226.85	0.002048	2.40	13.55	24.79	1.01
Sophia	1	0	50 YR	31.31	225.95	226.72	226.70	227.04	0.002048	2.72	16.47	24.79	1.04
Sophia	1	0	100 YR	39.44	225.95	226.82	226.81	227.21	0.002047	2.99	19.11	26.42	1.07
Owen Street	1	504.1	10 YR	0.05	237.52	237.58	237.58	237.59	0.006356	0.52	0.12	5.58	1.05
Owen Street	1	504.1	25 YR	0.12	237.52	237.60	237.60	237.62	0.009172	0.73	0.21	7.66	1.31
Owen Street	1	504.1	50 YR	0.17	237.52	237.63	237.63	237.64	0.001603	0.40	0.54	11.55	0.59
Owen Street	1	504.1	100 YR	0.17	237.52	237.63	237.63	237.64	0.001603	0.40	0.54	11.55	0.59
Owen Street	1	480.5	10 YR	0.05	237.14	237.08	237.08	237.12	0.047605		0.06	0.92	0.00
Owen Street	1	480.5	25 YR	0.12	237.14	237.14	237.14	237.19	0.036755	0.28	0.13	1.47	1.73
Owen Street	1	480.5	50 YR	0.17	237.14	237.18	237.18	237.21	0.022495	0.85	0.20	2.60	1.90
Owen Street	1	480.5	100 YR	0.17	237.14	237.18	237.18	237.21	0.022495	0.85	0.20	2.60	1.90
Owen Street	1	459	10 YR	0.05	236.64	236.74	236.74	236.76	0.003816	0.63	0.08	1.61	0.89
Owen Street	1	459	25 YR	0.12	236.64	236.77	236.77	236.81	0.004966	0.86	0.14	2.12	1.07
Owen Street	1	459	50 YR	0.17	236.64	236.80	236.80	236.83	0.004171	0.87	0.19	2.47	1.00
Owen Street	1	459	100 YR	0.17	236.64	236.80	236.80	236.83	0.004171	0.87	0.19	2.47	1.00
Owen Street	1	438.1	10 YR	0.05	236.22	236.32	236.32	236.33	0.002017	0.46	0.11	2.20	0.66
Owen Street	1	438.1	25 YR	0.12	236.22	236.34	236.34	236.37	0.004384	0.76	0.16	2.64	1.00
Owen Street	1	438.1	50 YR	0.17	236.22	236.36	236.36	236.39	0.004800	0.86	0.19	2.92	1.06
Owen Street	1	438.1	100 YR	0.17	236.22	236.36	236.36	236.39	0.004800	0.86	0.19	2.92	1.06
Owen Street	1	406.5	10 YR	0.05	235.51	235.60	235.60	235.62	0.004537	0.65	0.08	2.50	0.97
Owen Street	1	406.5	25 YR	0.12	235.51	235.64	235.64	235.66	0.003908	0.74	0.25	7.31	0.95
Owen Street	1	406.5	50 YR	0.17	235.51	235.65	235.65	235.68	0.003151	0.73	0.40	9.76	0.87
Owen Street	1	406.5	100 YR	0.17	235.51	235.65	235.65	235.68	0.003151	0.73	0.40	9.76	0.87
Owen Street	1	369.2	10 YR	0.05	234.84	234.90	234.90	234.91	0.004356	0.44	0.11	4.38	0.87
Owen Street	1	369.2	25 YR	0.12	234.84	234.91	234.91	234.93	0.006440	0.63	0.19	5.82	1.11
Owen Street	1	369.2	50 YR	0.17	234.84	234.95	234.95	234.96	0.001170	0.35	0.46	9.26	0.51
Owen Street	1	369.2	100 YR	0.17	234.84	234.95	234.95	234.96	0.001170	0.35	0.46	9.26	0.51
Owen Street	1	343.9	10 YR	0.05	234.34	234.38	234.38	234.39	0.008720	0.55	0.10	5.10	1.20
Owen Street	1	343.9	25 YR	0.12	234.34	234.40	234.40	234.42	0.006599	0.61	0.22	7.82	1.12
Owen Street	1	343.9	50 YR	0.17	234.34	234.41	234.41	234.43	0.005026	0.60	0.32	9.41	1.00
Owen Street	1	343.9	100 YR	0.17	234.34	234.41	234.41	234.43	0.005026	0.60	0.32	9.41	1.00
Owen Street	1	309.4	10 YR	0.05	233.81	233.86	233.86	233.87	0.003649	0.38	0.13	6.10	0.79
Owen Street	1	309.4	25 YR	0.12	233.81	233.87	233.87	233.89	0.005383	0.55	0.23	8.37	1.01
Owen Street	1	309.4	50 YR	0.17	233.81	233.88	233.88	233.90	0.007329	0.67	0.26	9.01	1.19
Owen Street	1	309.4	100 YR	0.17	233.81	233.88	233.88	233.90	0.007329	0.67	0.26	9.01	1.19
Owen Street	1	275.4	10 YR	0.05	233.55	233.61	233.61	233.62	0.006571	0.56	0.09	4.00	1.09
Owen Street	1	275.4	25 YR	0.12	233.55	233.65	233.65	233.66	0.001439	0.39	0.36	8.39	0.56
Owen Street	1	275.4	50 YR	0.17	233.55	233.65	233.65	233.66	0.002721	0.54	0.36	8.39	0.77
Owen Street	1	275.4	100 YR	0.17	233.55	233.65	233.65	233.66	0.002721	0.54	0.36	8.39	0.77
Owen Street	1	244.9	10 YR	0.05	233.24	233.31	233.31	233.34	0.006325	0.69	0.07	1.87	1.11
Owen Street	1	244.9	25 YR	0.12	233.24	233.36	233.36	233.38	0.003350	0.68	0.18	2.92	0.87
Owen Street	1	244.9	50 YR	0.17	233.24	233.37	233.37	233.40	0.004429	0.81	0.20	3.12	1.02
Owen Street	1	244.9	100 YR	0.17	233.24	233.37	233.37	233.40	0.004429	0.81	0.20	3.12	1.02
Owen Street	1	221.3	10 YR	0.05	233.03	233.12	233.12	233.13	0.002390	0.47	0.11	2.32	0.71
Owen Street	1	221.3	25 YR	0.12	233.03	233.14	233.14	233.17	0.004391	0.74	0.16	2.88	0.99
Owen Street	1	221.3	50 YR	0.17	233.03	233.15	233.15	233.19	0.005260	0.86	0.19	3.14	1.10
Owen Street	1	221.3	100 YR	0.17	233.03	233.15	233.15	233.19	0.005260	0.86	0.19	3.14	1.10
Owen Street	1	181.4	10 YR	0.05	232.32	232.39	232.39	232.42	0.008302	0.75	0.07	1.88	1.26
Owen Street	1	181.4	25 YR	0.12	232.32	232.43	232.43	232.46	0.005345	0.79	0.15	2.84	1.09
Owen Street	1	181.4	50 YR	0.17	232.32	232.45	232.45	232.48	0.004310	0.79	0.21	3.33	1.00
Owen Street	1	181.4	100 YR	0.17	232.32	232.45	232.45	232.48	0.004310	0.79	0.21	3.33	1.00
Owen Street	1	159.8	10 YR	0.05	231.84	231.94	231.94	231.95	0.002603	0.50	0.10	2.11	0.74

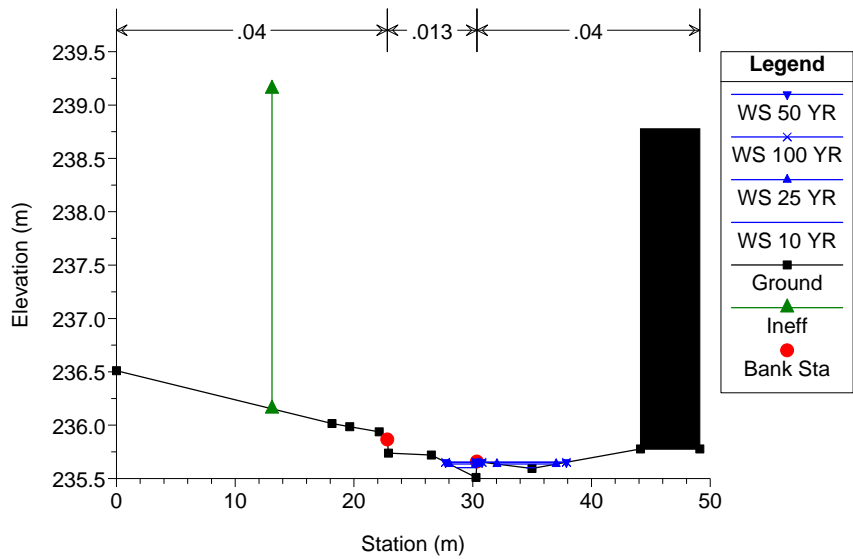
HEC-RAS Plan: MS (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Owen Street	1	159.8	25 YR	0.12	231.84	231.96	231.96	231.99	0.004384	0.76	0.16	2.66	1.00
Owen Street	1	159.8	50 YR	0.17	231.84	231.97	231.97	232.01	0.005477	0.90	0.18	3.01	1.13
Owen Street	1	159.8	100 YR	0.17	231.84	231.97	231.97	232.01	0.005477	0.90	0.18	3.01	1.13
Owen Street	1	121.6	10 YR	0.05	230.54	230.60	230.60	230.61	0.005721	0.48	0.10	4.31	0.99
Owen Street	1	121.6	25 YR	0.12	230.54	230.64	230.64	230.64	0.001895	0.39	0.31	7.67	0.62
Owen Street	1	121.6	50 YR	0.17	230.54	230.64	230.64	230.65	0.003583	0.54	0.31	7.67	0.86
Owen Street	1	121.6	100 YR	0.17	230.54	230.64	230.64	230.65	0.003583	0.54	0.31	7.67	0.86
Owen Street	1	98.9	10 YR	0.05	228.55	228.61	228.61	228.63	0.007190	0.61	0.08	2.83	1.13
Owen Street	1	98.9	25 YR	0.12	228.55	228.64	228.64	228.66	0.005106	0.66	0.18	4.19	1.02
Owen Street	1	98.9	50 YR	0.17	228.55	228.66	228.66	228.68	0.004057	0.66	0.28	9.71	0.93
Owen Street	1	98.9	100 YR	0.17	228.55	228.66	228.66	228.68	0.004057	0.66	0.28	9.71	0.93
Owen Street	1	79.1	10 YR	0.05	227.22	227.28	227.28	227.29	0.005648	0.52	0.10	3.54	1.00
Owen Street	1	79.1	25 YR	0.12	227.22	227.31	227.31	227.32	0.002818	0.50	0.24	5.60	0.76
Owen Street	1	79.1	50 YR	0.17	227.22	227.31	227.31	227.33	0.003725	0.60	0.28	6.18	0.88
Owen Street	1	79.1	100 YR	0.17	227.22	227.31	227.31	227.33	0.003725	0.60	0.28	6.18	0.88
Owen Street	1	47.9	10 YR	0.05	225.60	225.66	225.66	225.67	0.006145	0.52	0.10	3.73	1.03
Owen Street	1	47.9	25 YR	0.12	225.60	225.70	225.70	225.71	0.001700	0.40	0.31	7.99	0.60
Owen Street	1	47.9	50 YR	0.17	225.60	225.70	225.70	225.71	0.003215	0.55	0.31	7.99	0.82
Owen Street	1	47.9	100 YR	0.17	225.60	225.70	225.70	225.71	0.003215	0.55	0.31	7.99	0.82
Owen Street	1	26.8	10 YR	0.05	224.59	224.66	224.66	224.68	0.006905	0.65	0.08	2.31	1.15
Owen Street	1	26.8	25 YR	0.12	224.59	224.69	224.69	224.71	0.003513	0.63	0.19	3.64	0.88
Owen Street	1	26.8	50 YR	0.17	224.59	224.70	224.70	224.73	0.004389	0.74	0.22	3.94	1.00
Owen Street	1	26.8	100 YR	0.17	224.59	224.70	224.70	224.73	0.004389	0.74	0.22	3.94	1.00
Owen Street	1	6.7	10 YR	0.05	224.06	224.10	224.10	224.12	0.009266	0.53	0.09	4.84	1.22
Owen Street	1	6.7	25 YR	0.12	224.06	224.12	224.12	224.14	0.007063	0.60	0.20	7.07	1.14
Owen Street	1	6.7	50 YR	0.17	224.06	224.13	224.13	224.15	0.006113	0.61	0.27	8.19	1.08
Owen Street	1	6.7	100 YR	0.17	224.06	224.13	224.13	224.15	0.006113	0.61	0.27	8.19	1.08
Owen Street	1	0	10 YR	0.05	223.75	223.83	223.81	223.84	0.001362	0.32	0.15	3.96	0.52
Owen Street	1	0	25 YR	0.12	223.75	223.86	223.86	223.87	0.001362	0.40	0.30	5.50	0.55
Owen Street	1	0	50 YR	0.17	223.75	223.88	223.86	223.89	0.001360	0.44	0.38	6.20	0.56
Owen Street	1	0	100 YR	0.17	223.75	223.88	223.86	223.89	0.001360	0.44	0.38	6.20	0.56

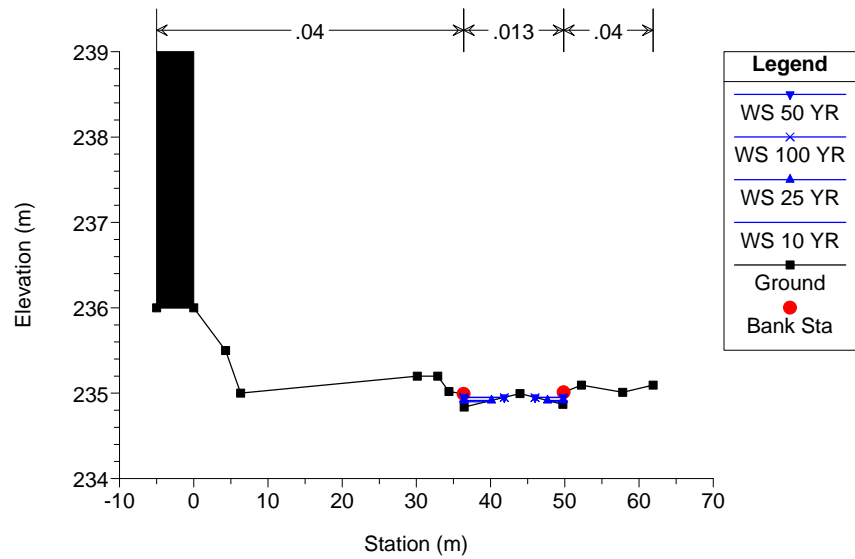
Existing Conditions HEC RAS Results Summary



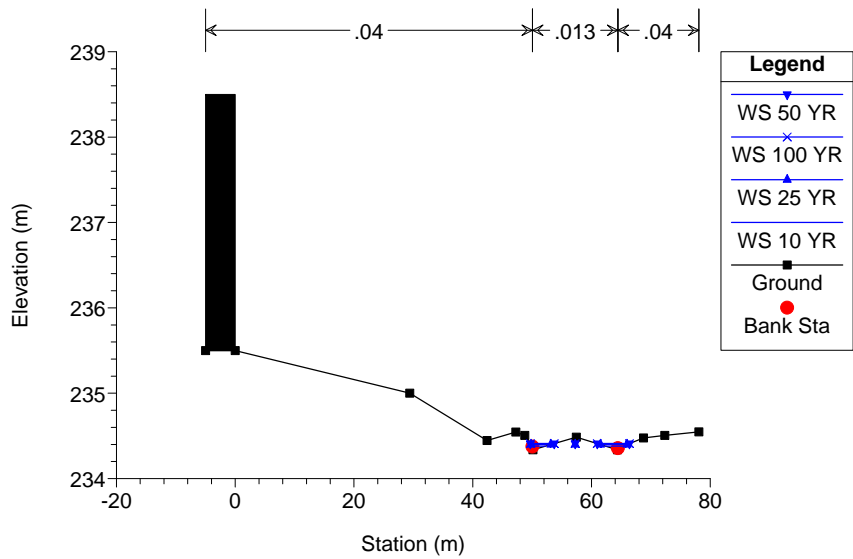
Sophia HEC-RAS Major System Model Plan: Major System 9/29/2016



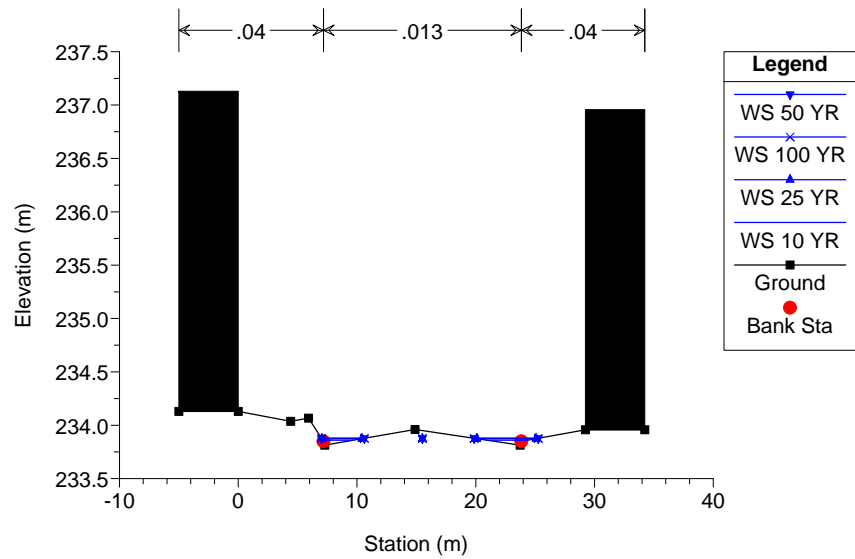
Sophia HEC-RAS Major System Model Plan: Major System 9/29/2016



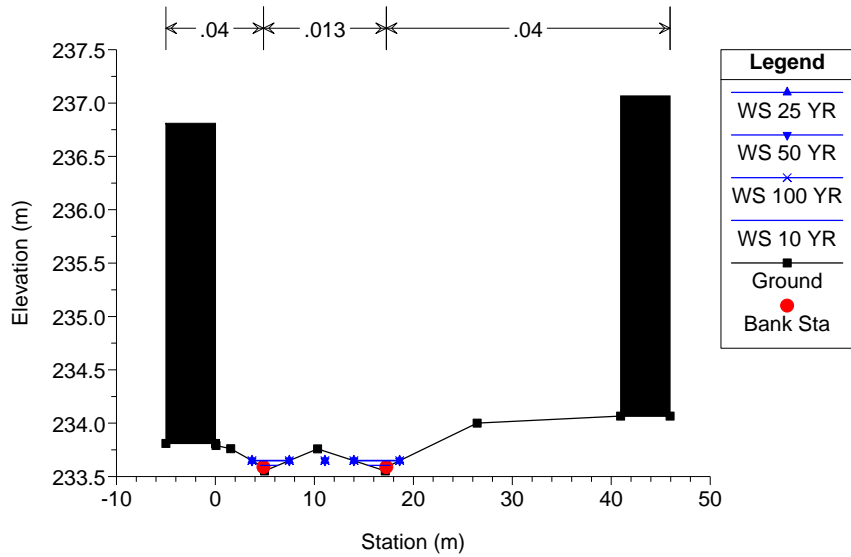
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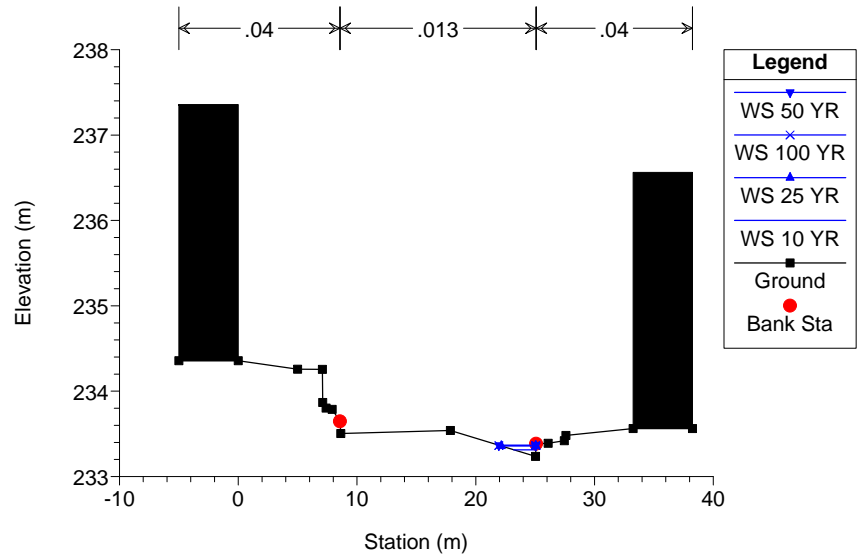
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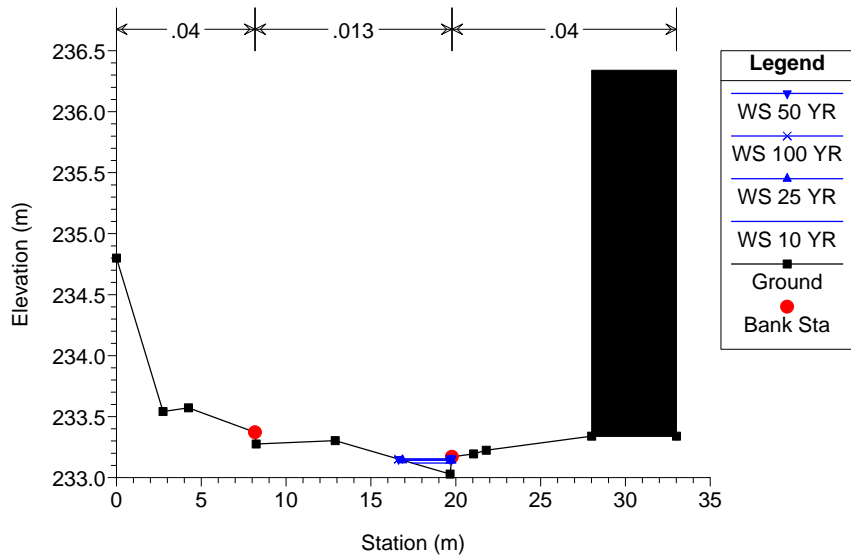
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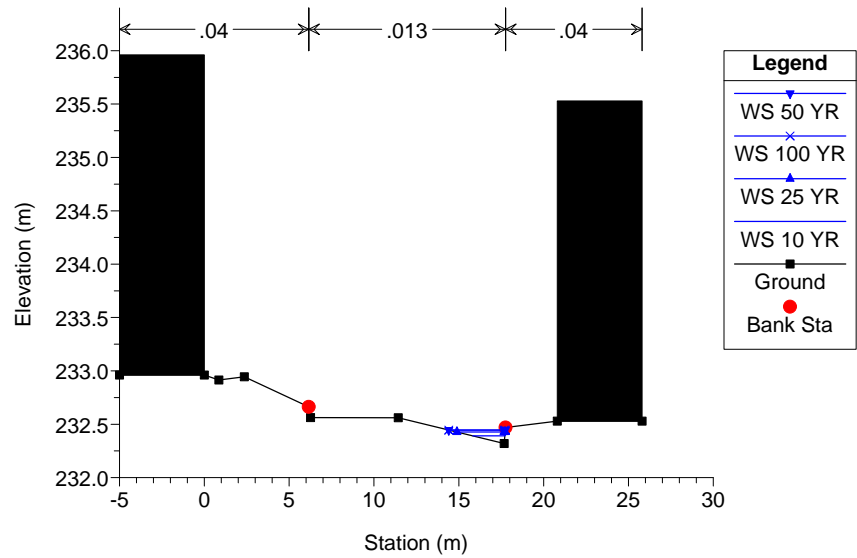
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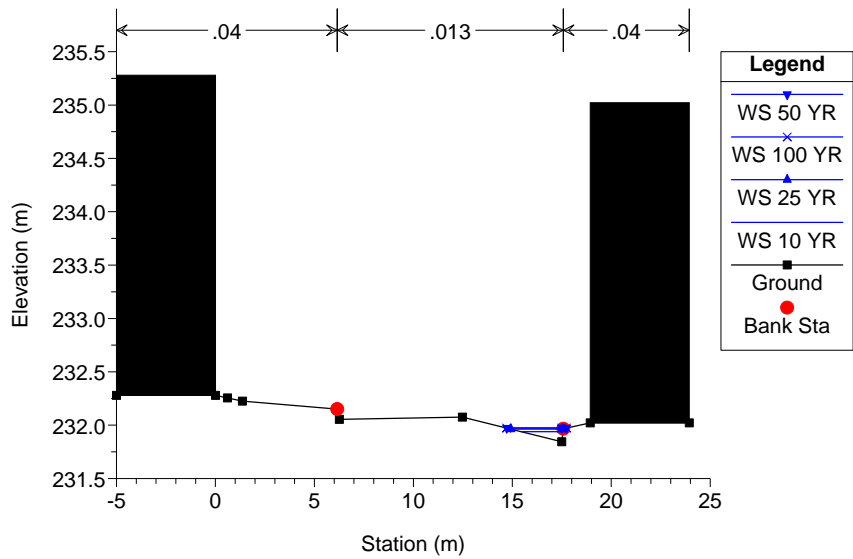
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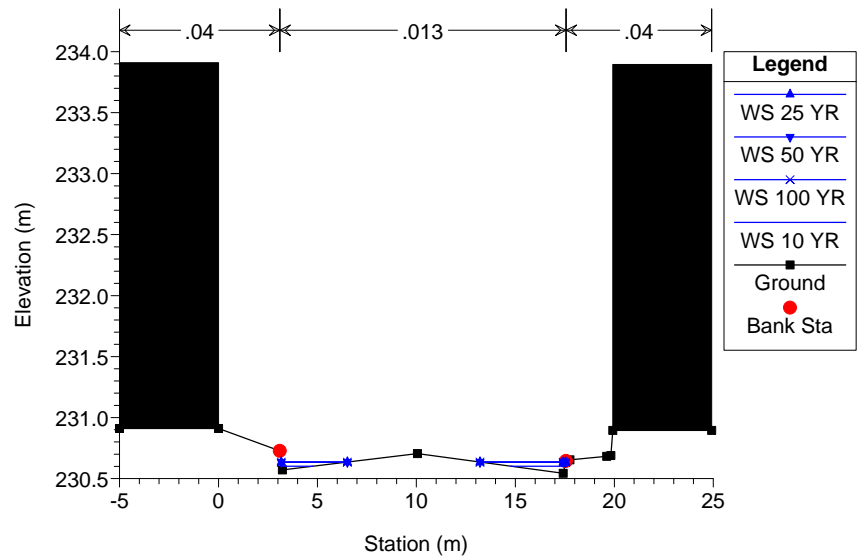
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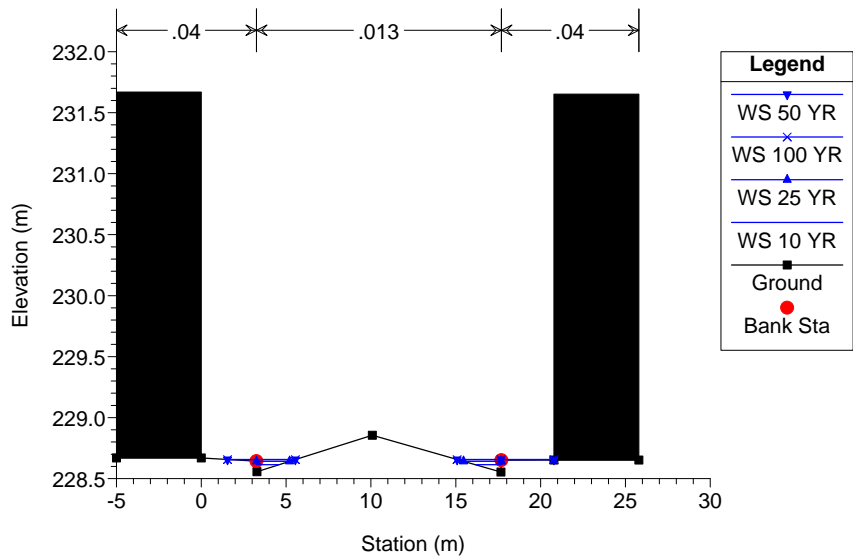
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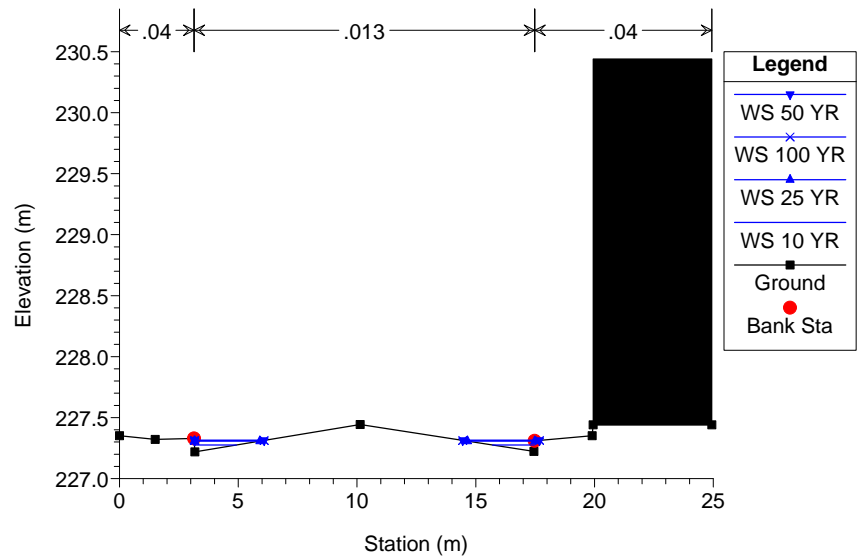
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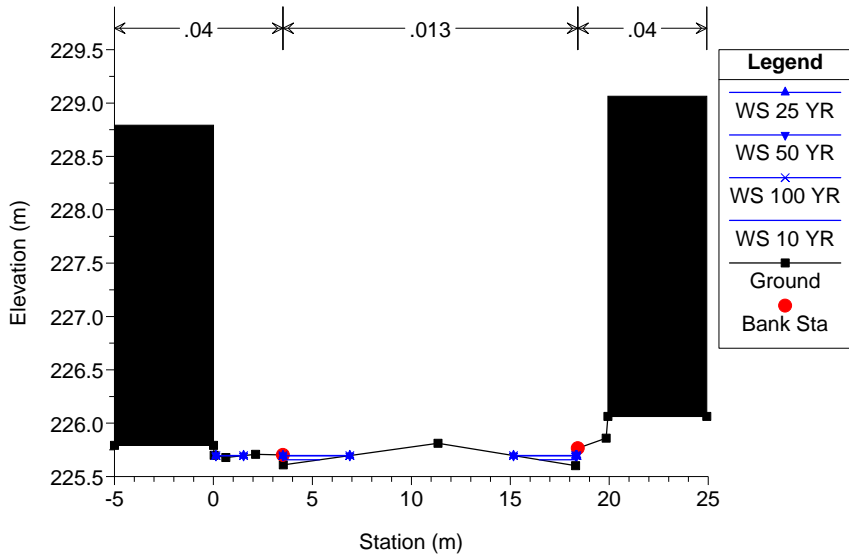
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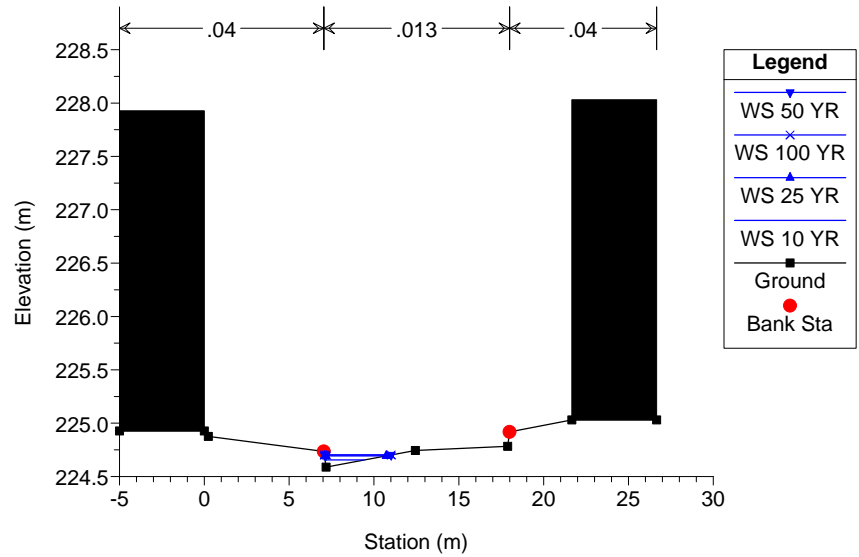
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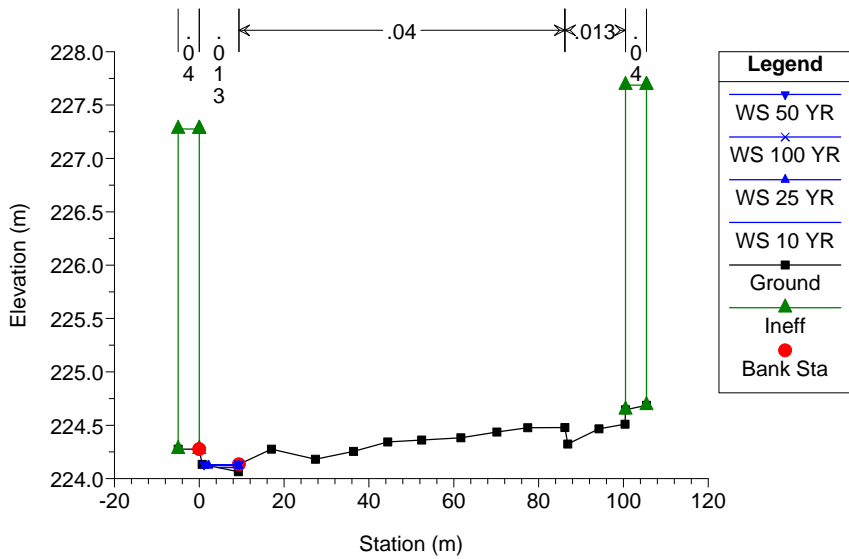
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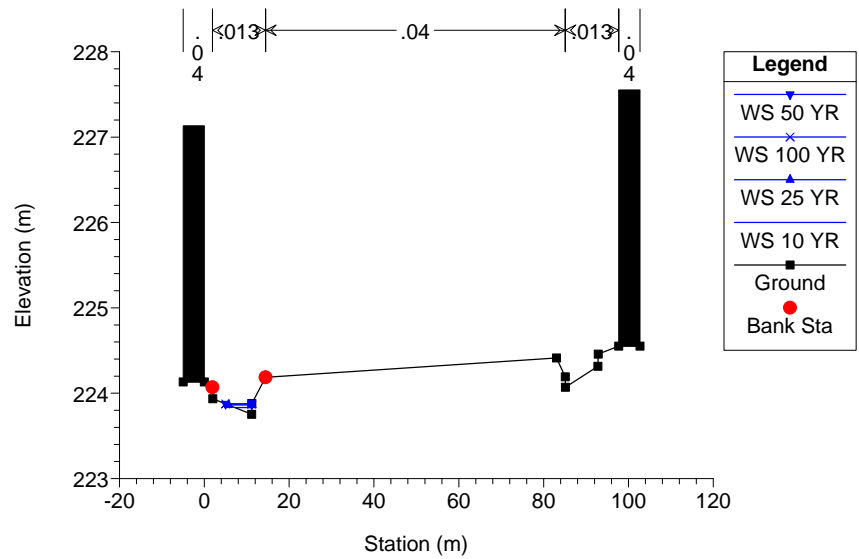
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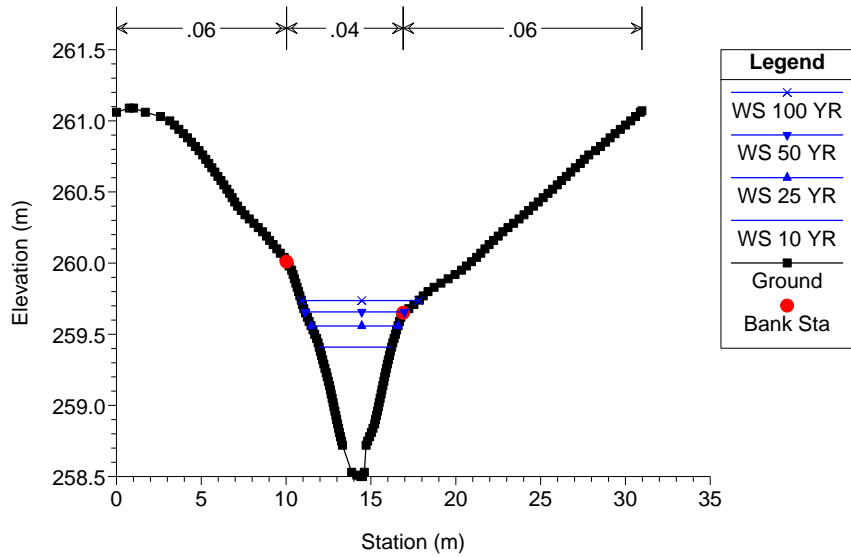
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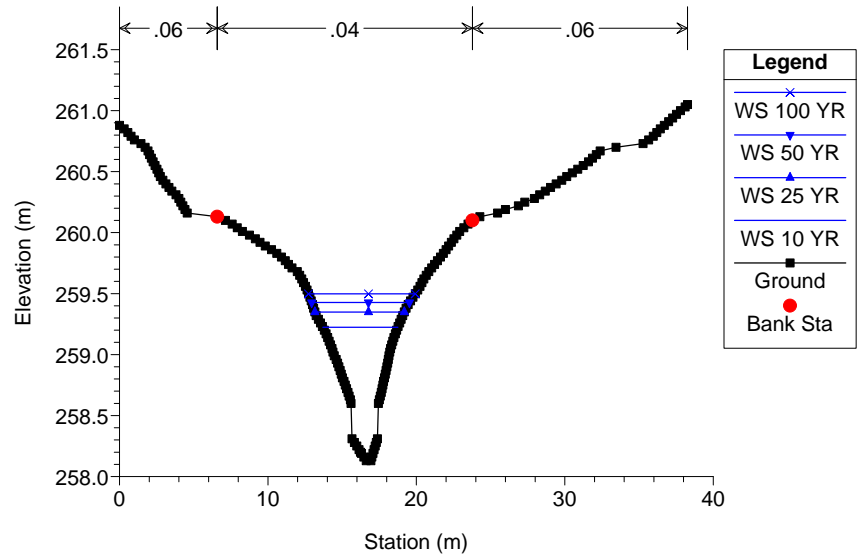
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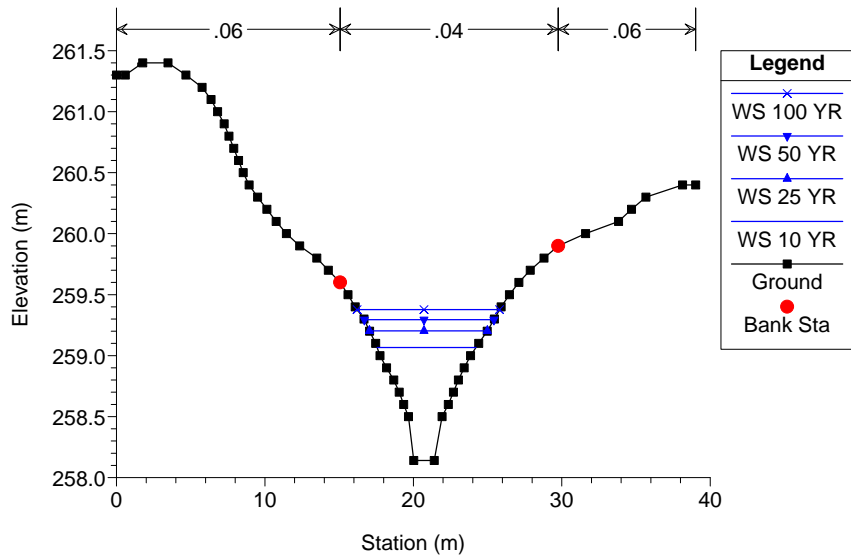
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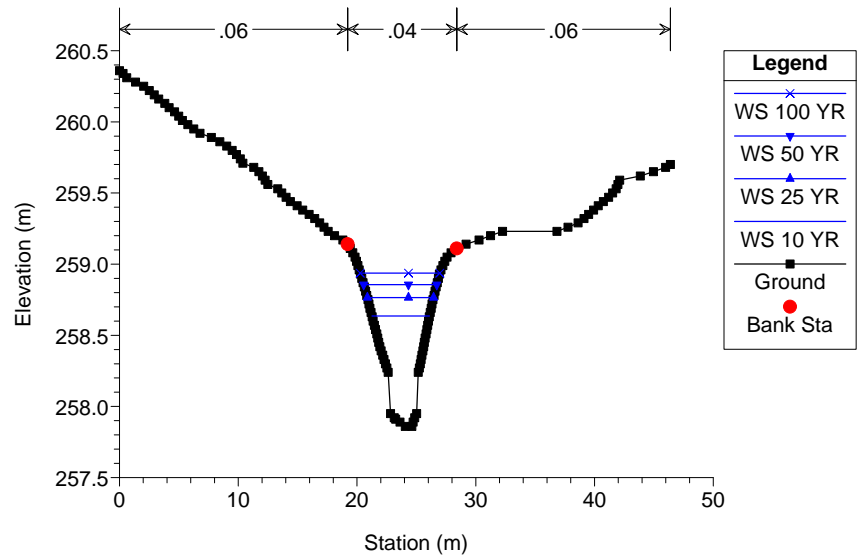
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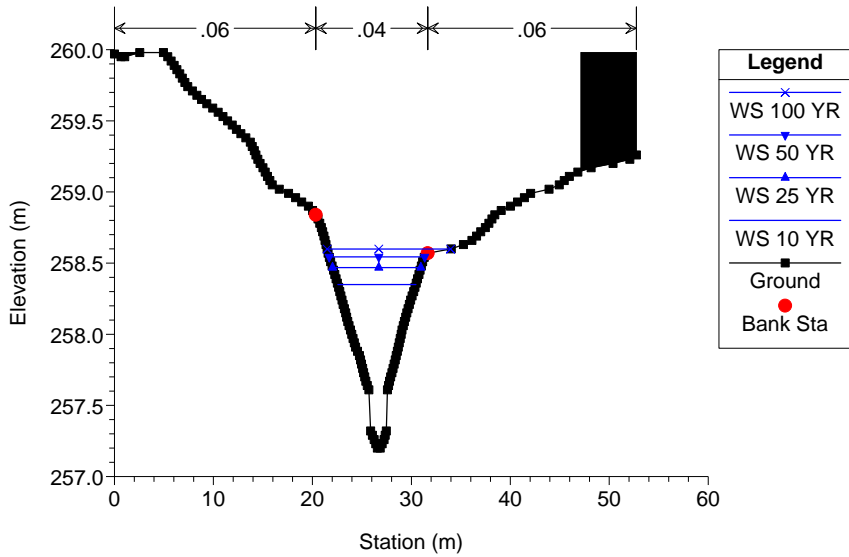
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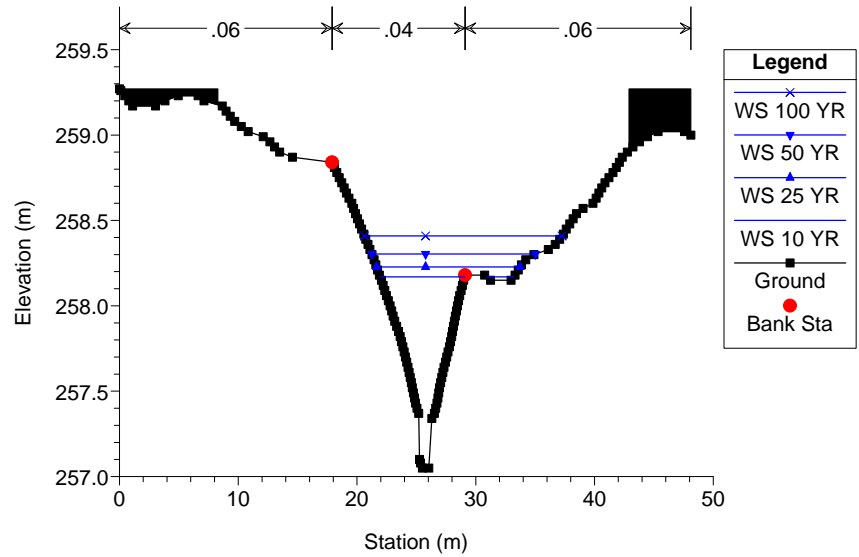
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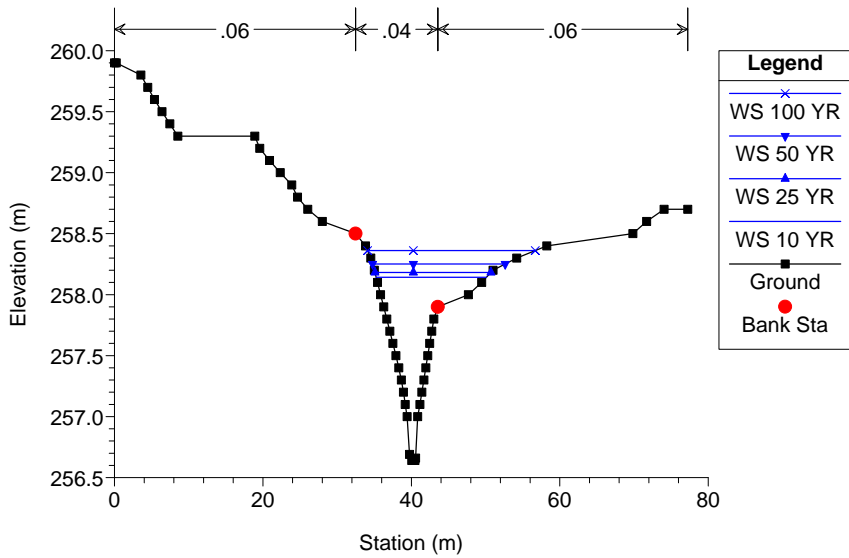
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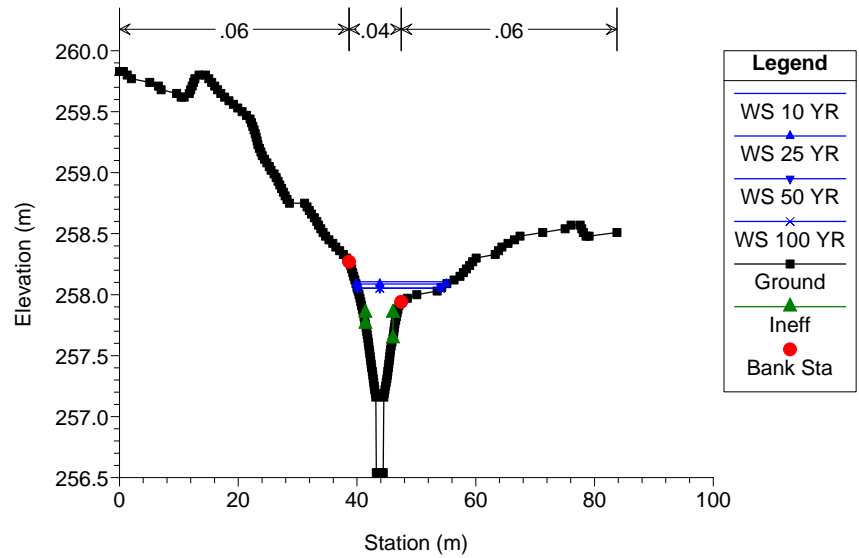
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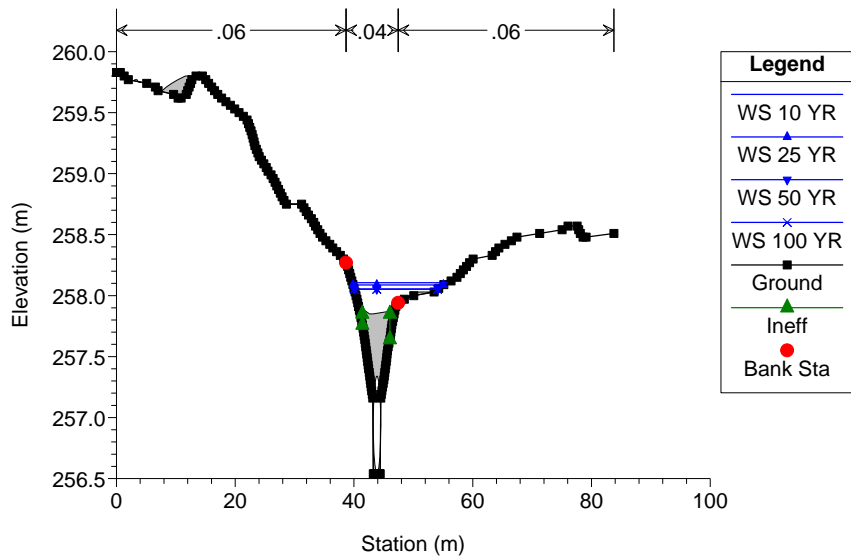
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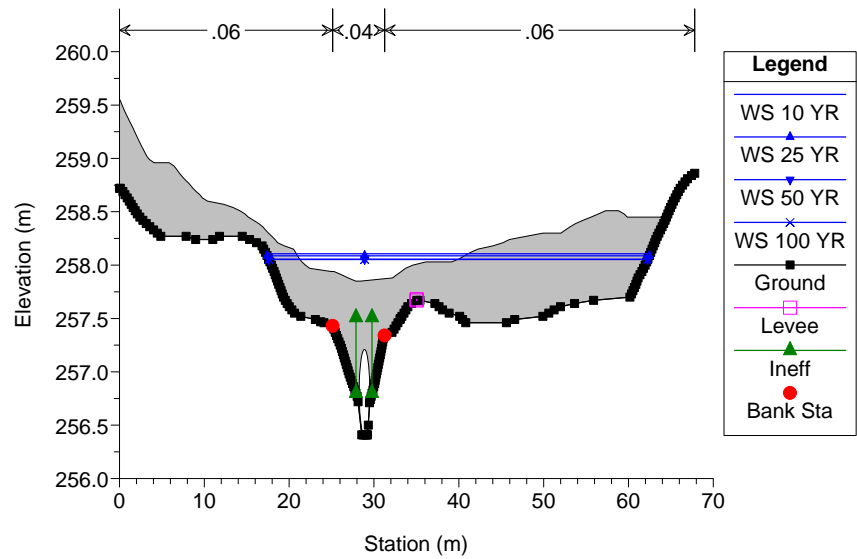
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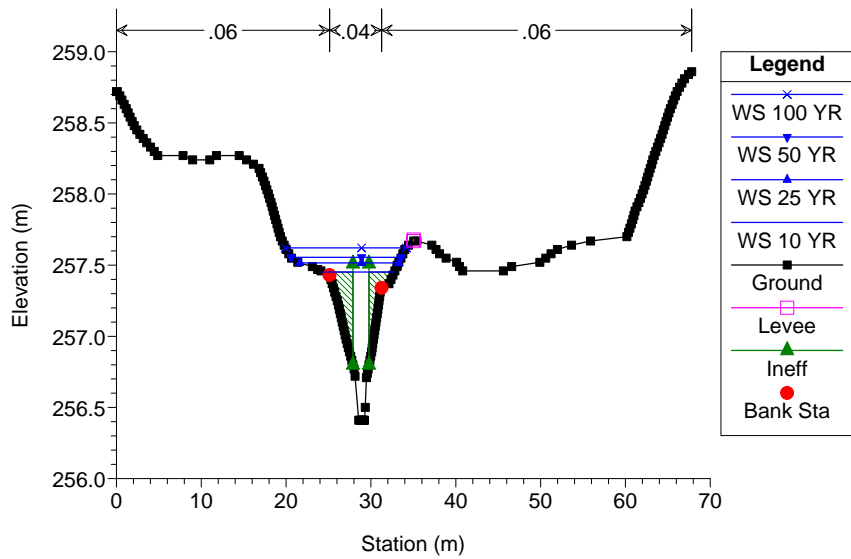
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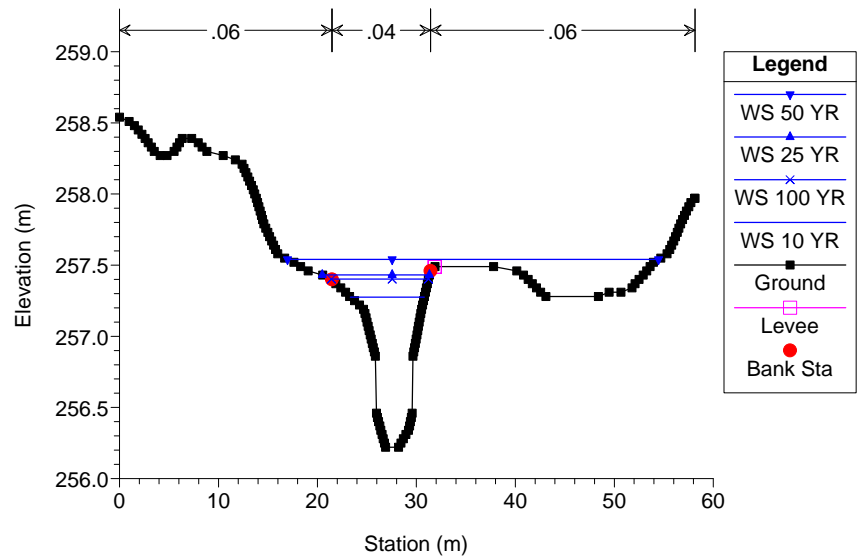
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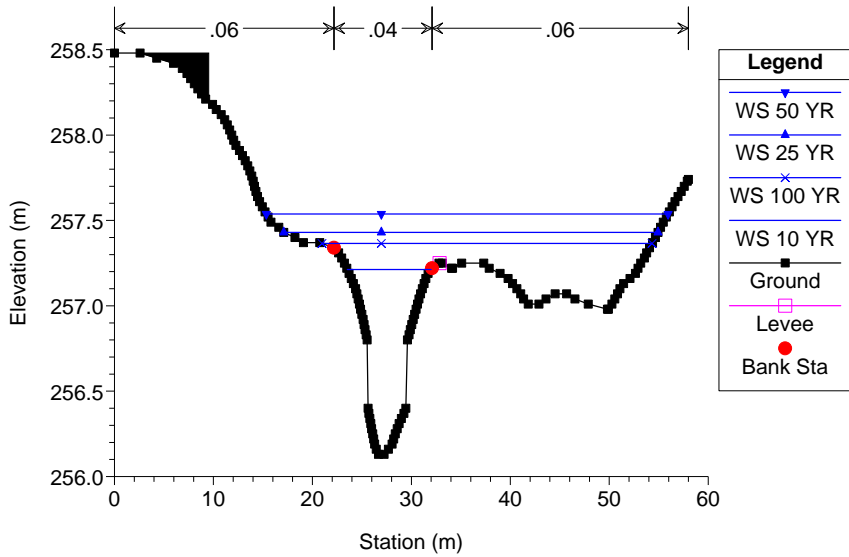
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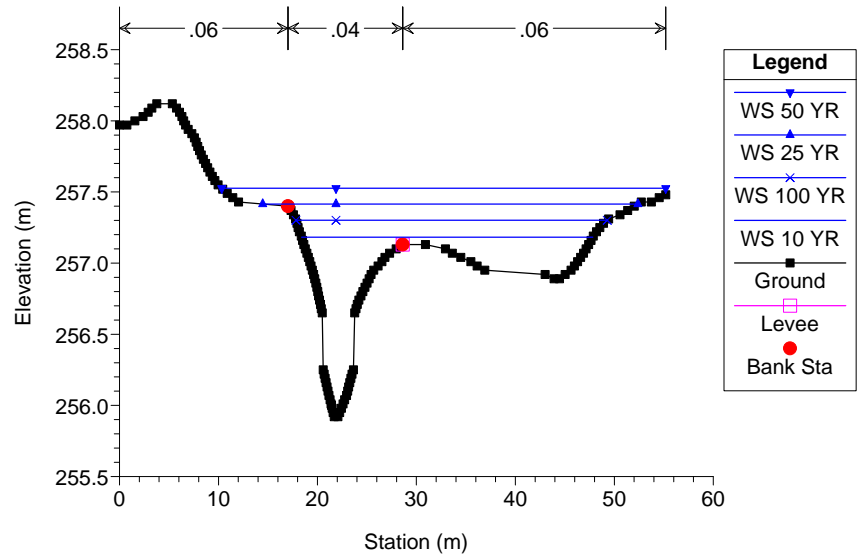
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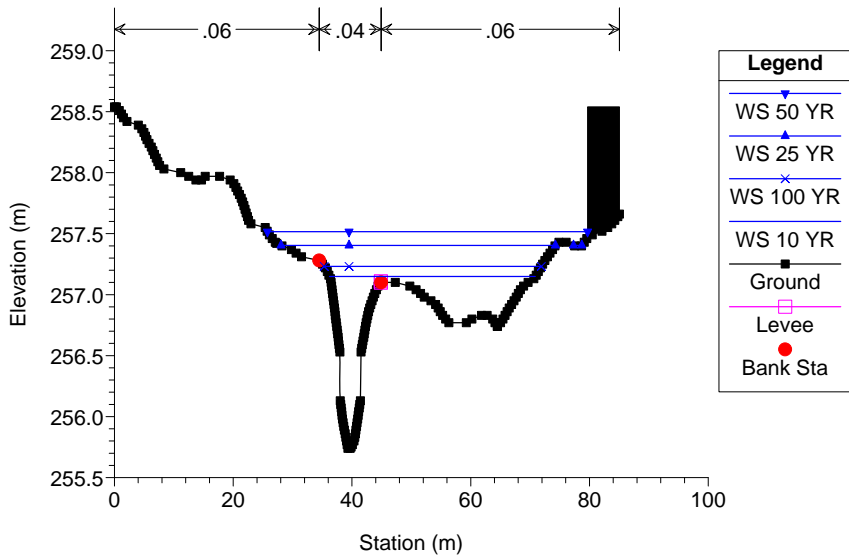
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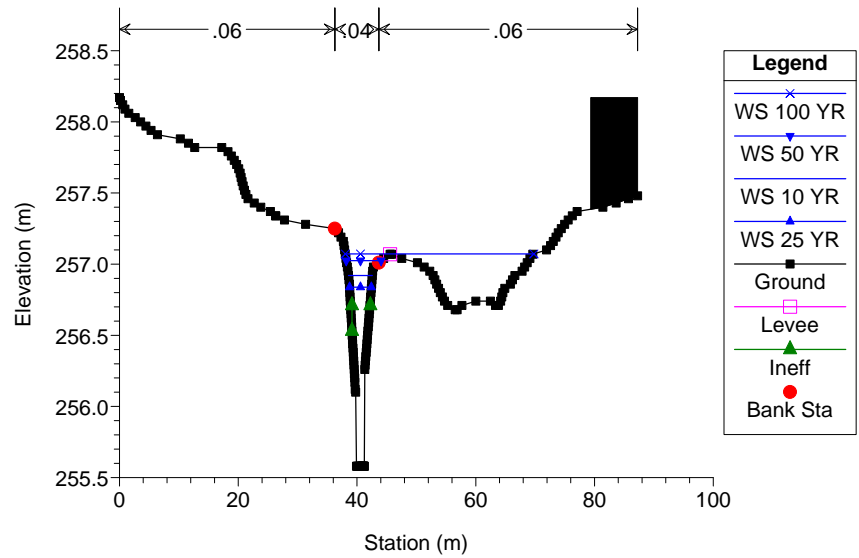
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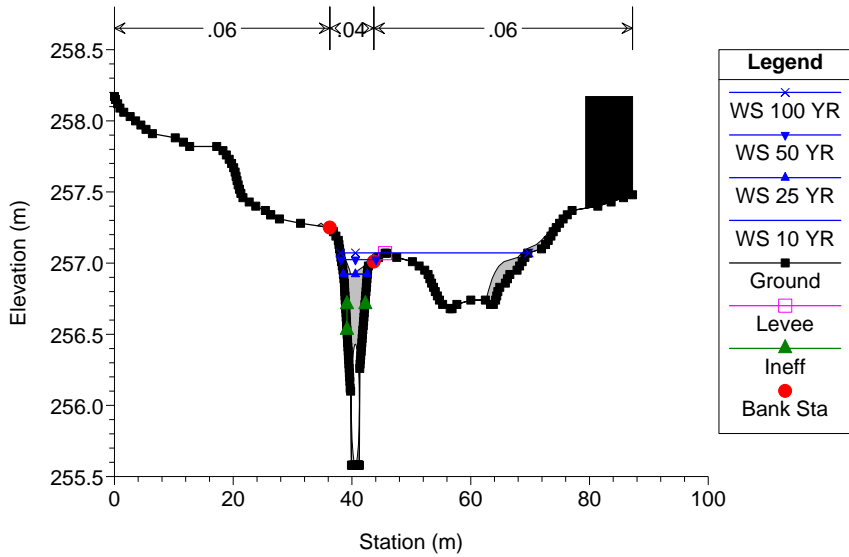
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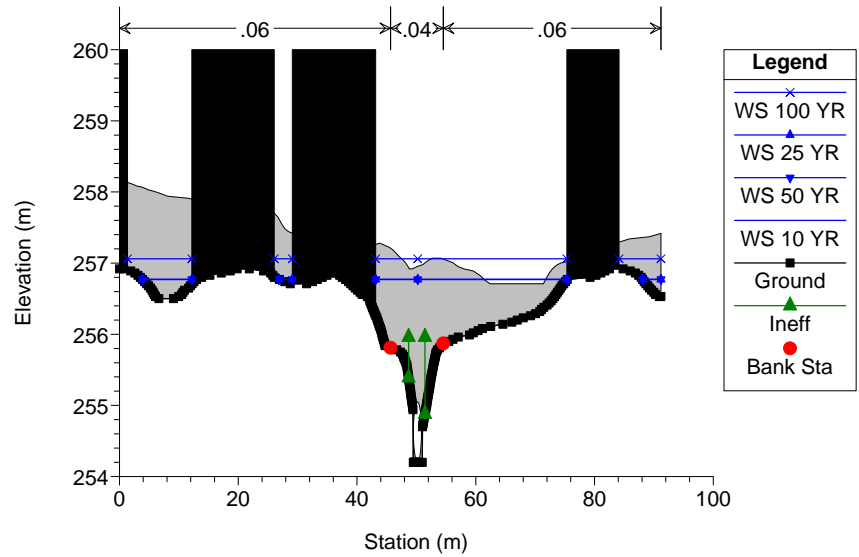
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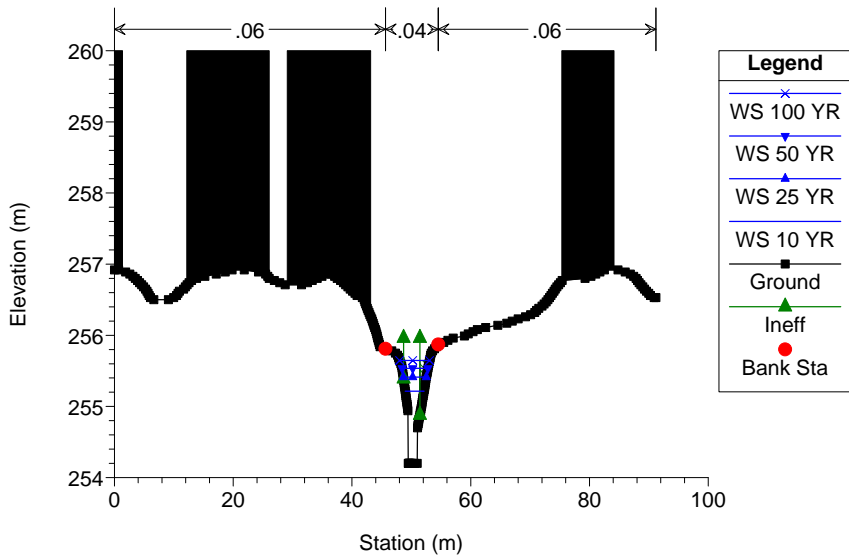
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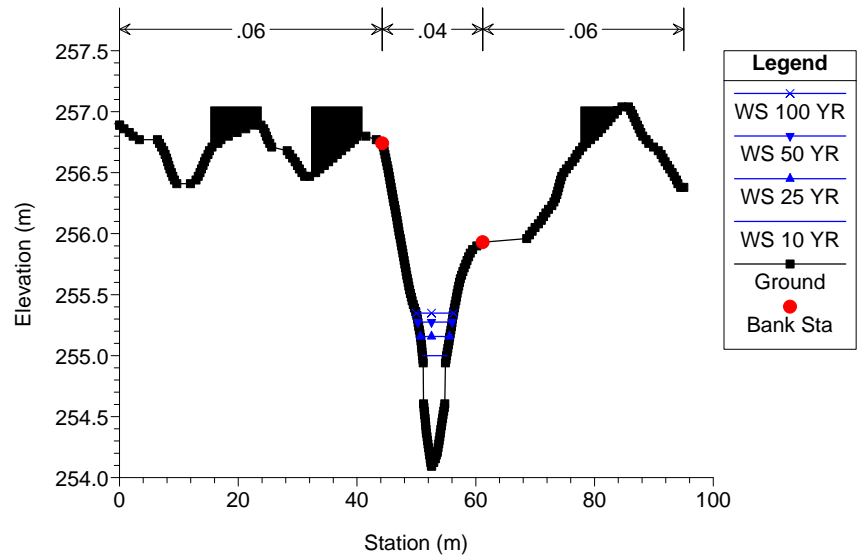
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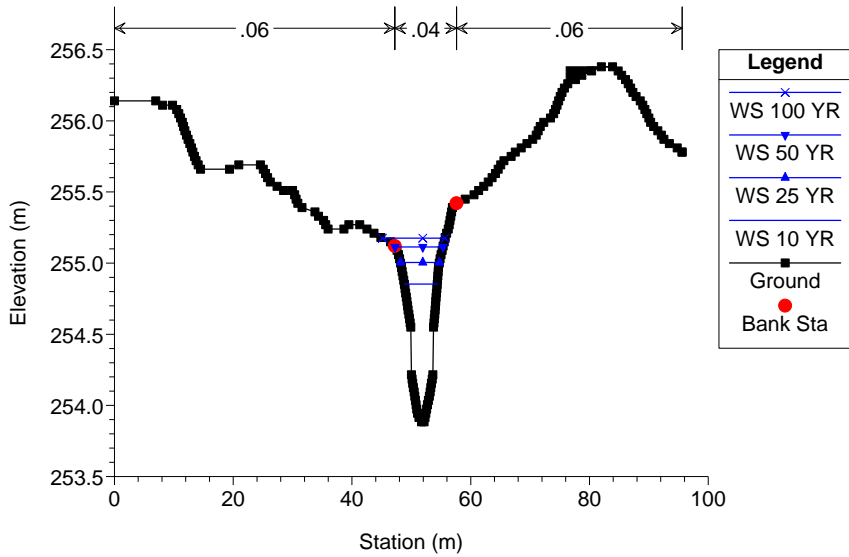
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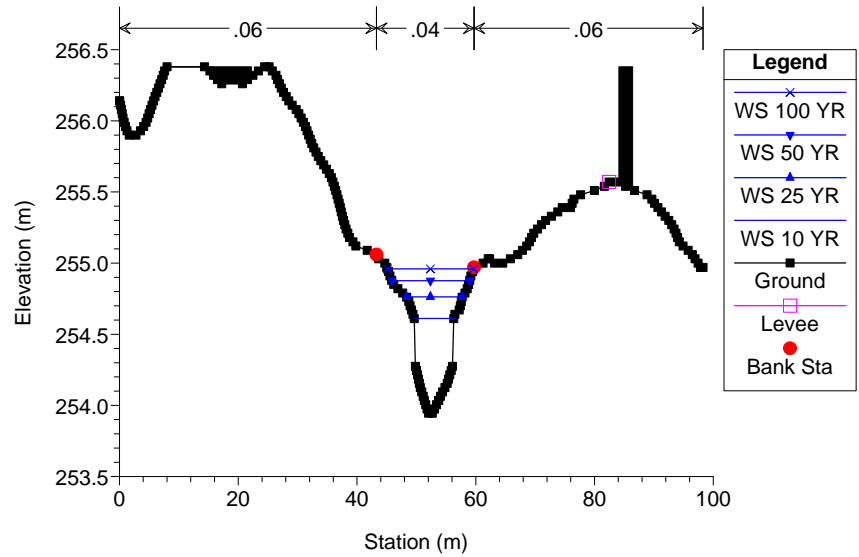
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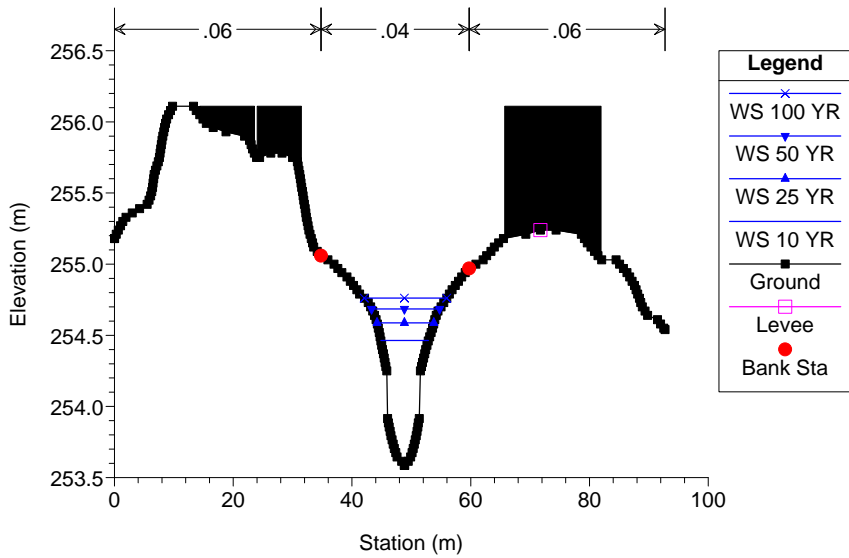
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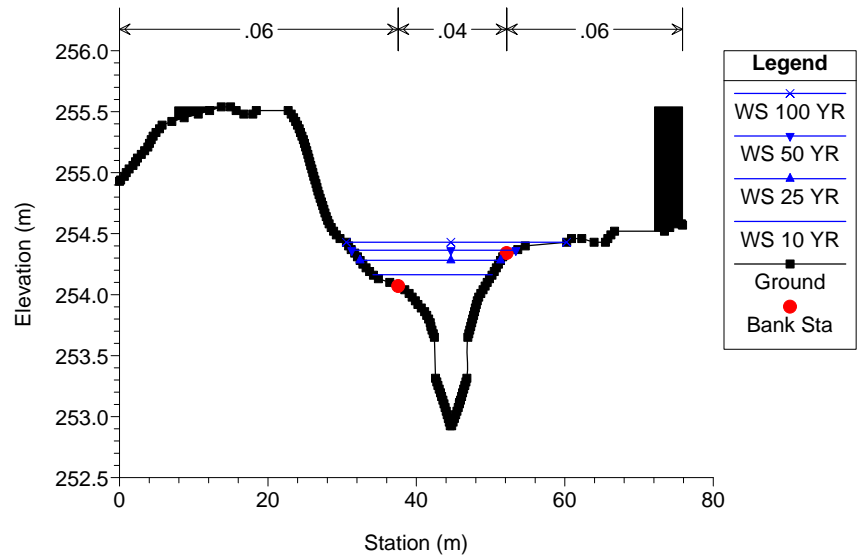
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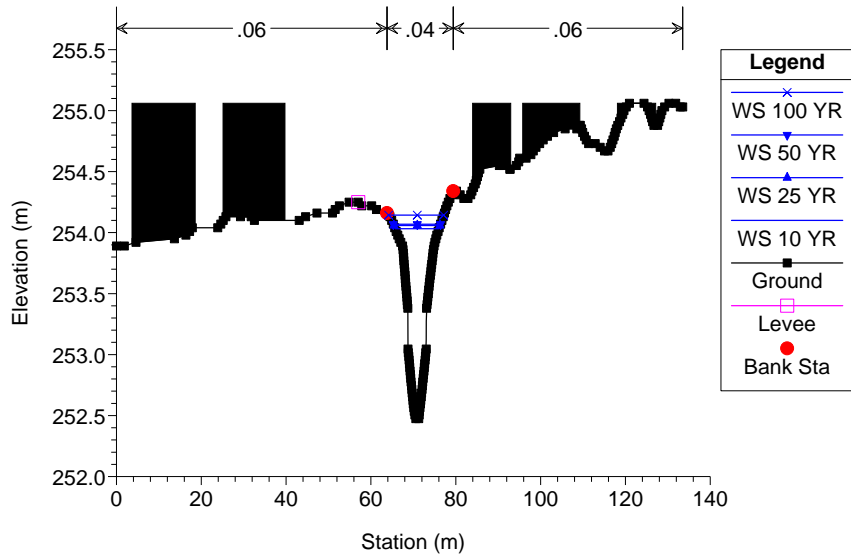
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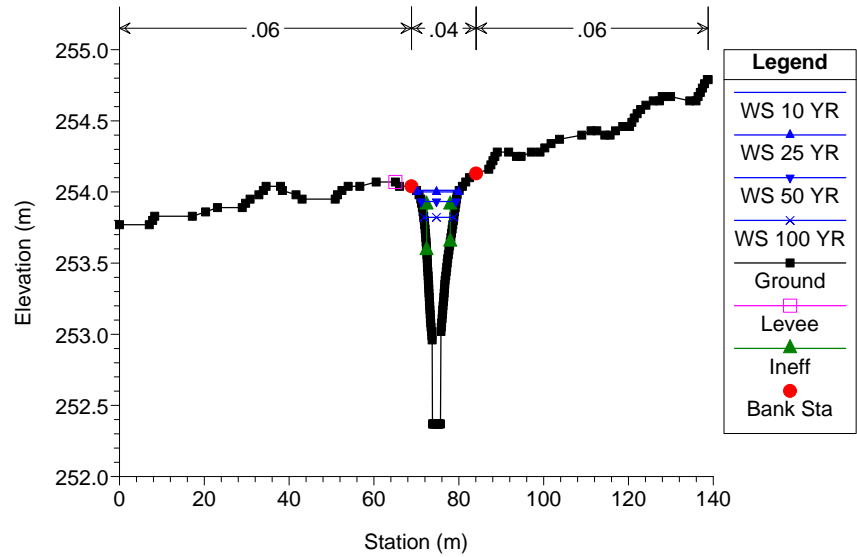
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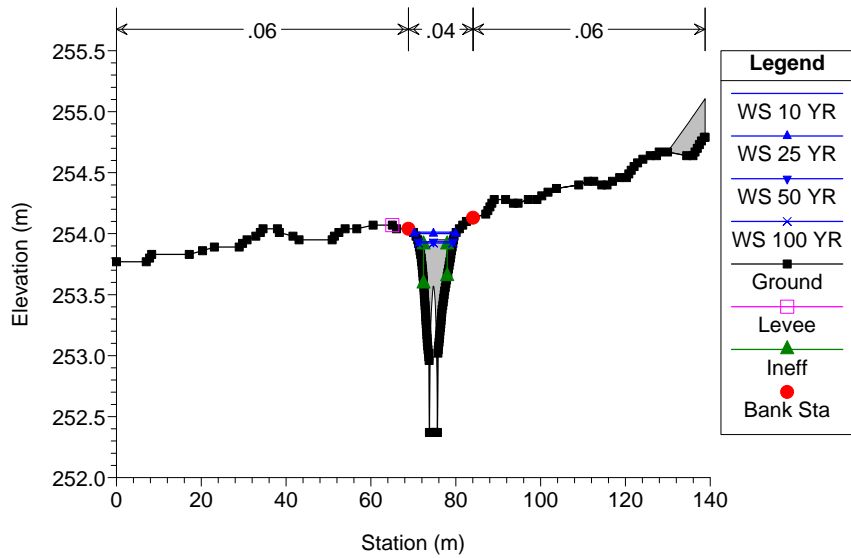
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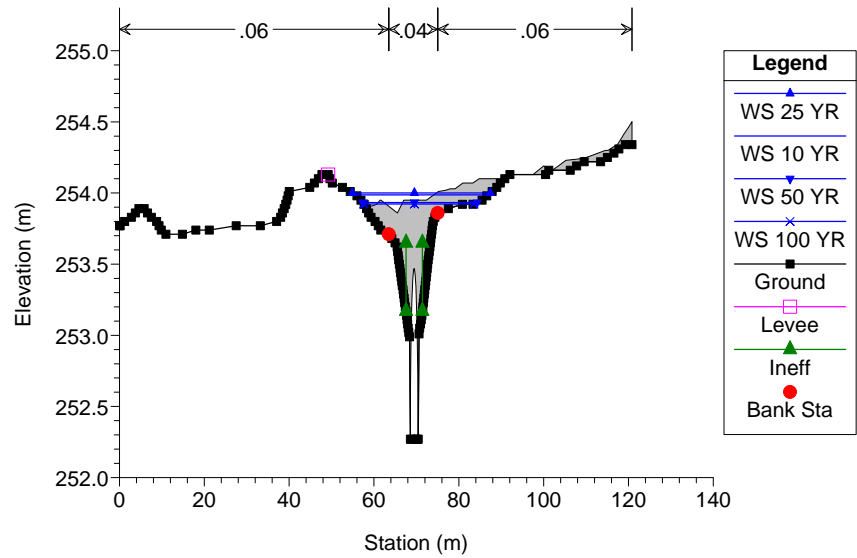
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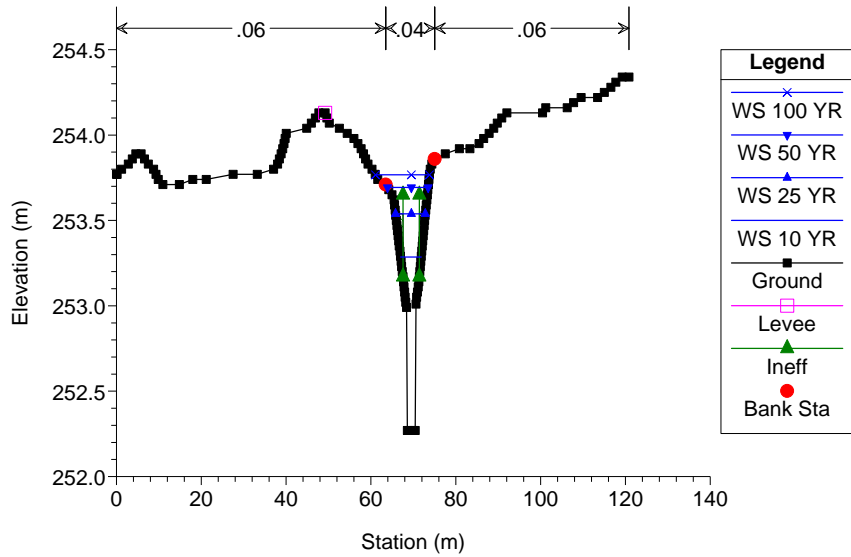
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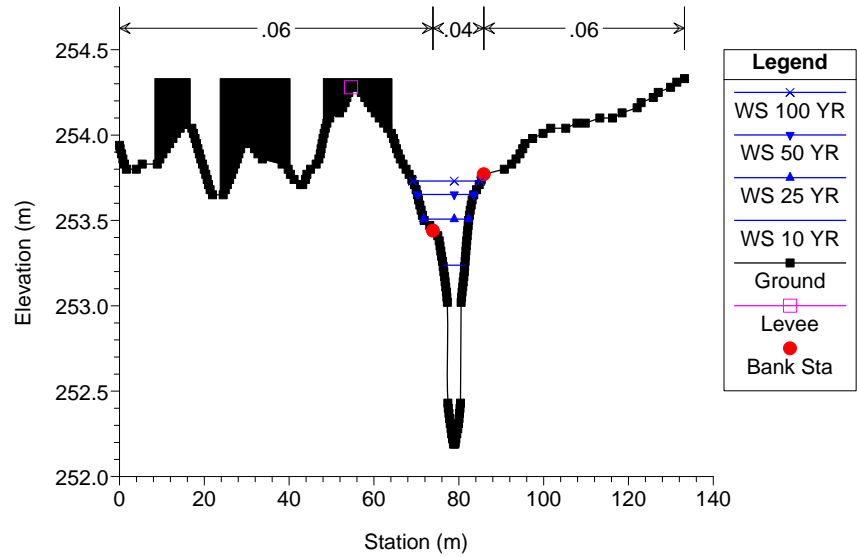
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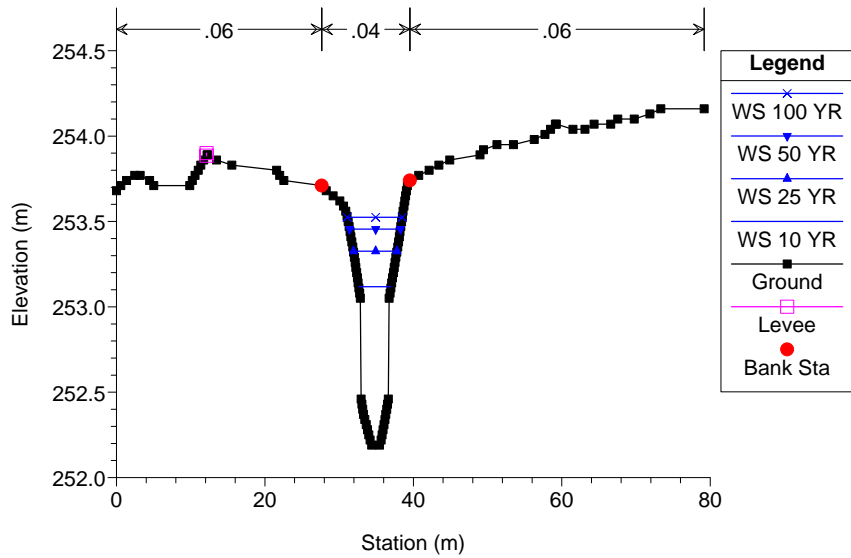
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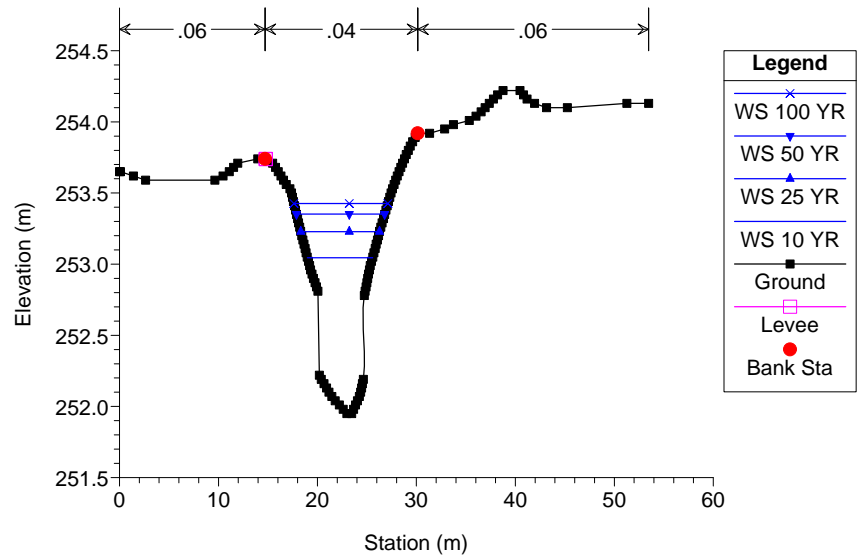
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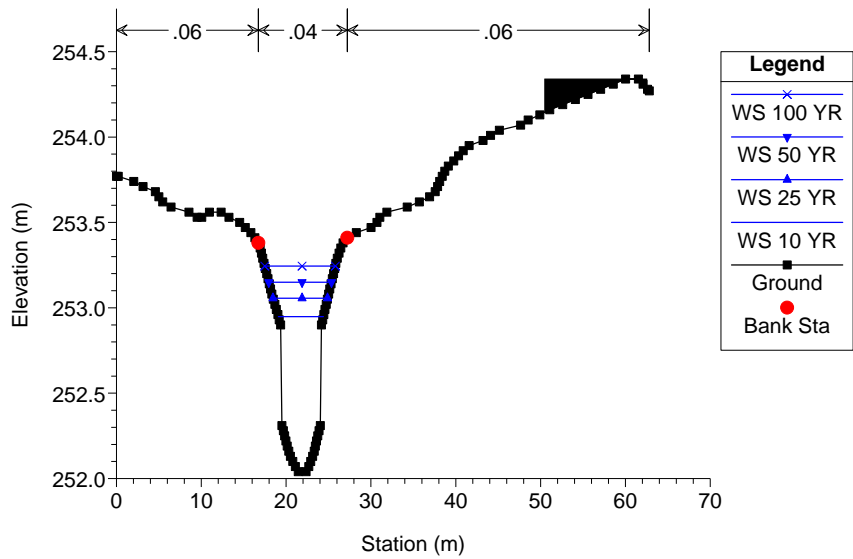
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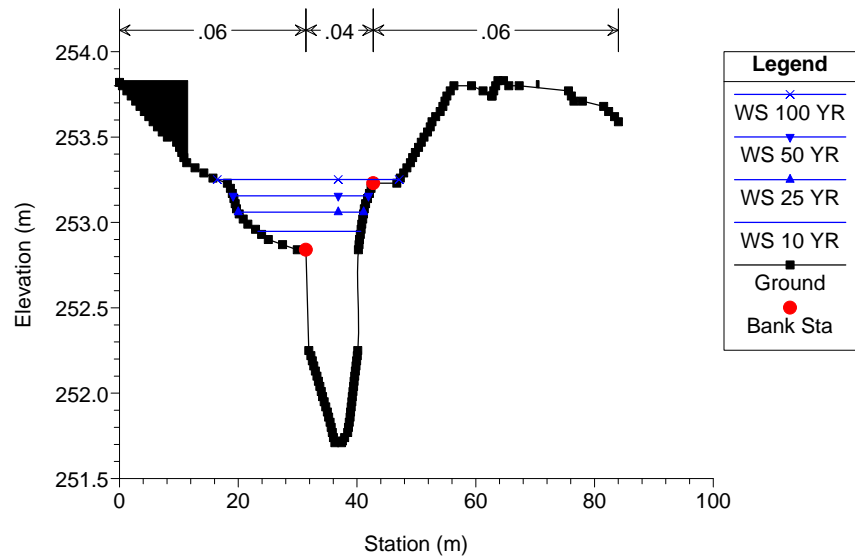
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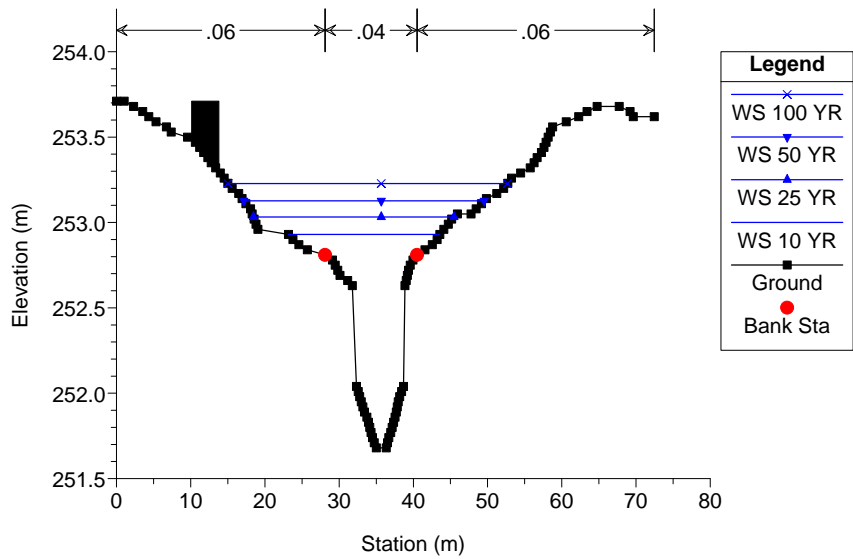
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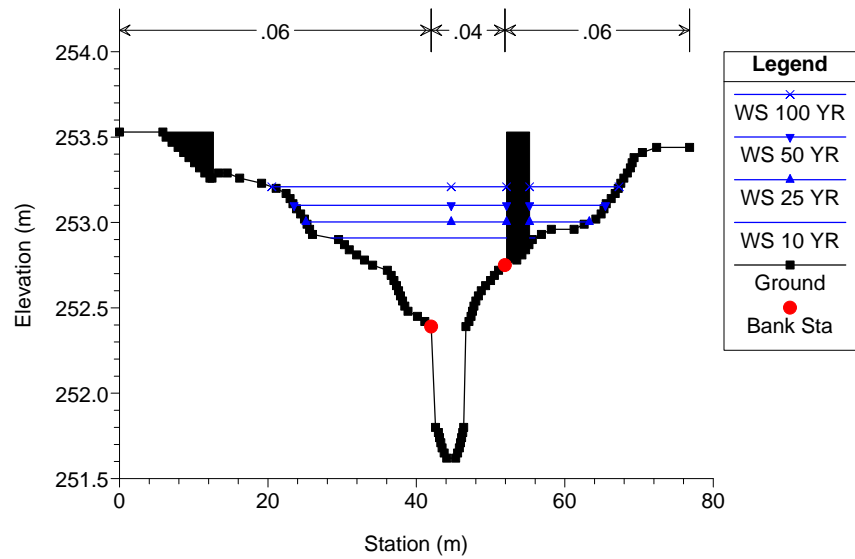
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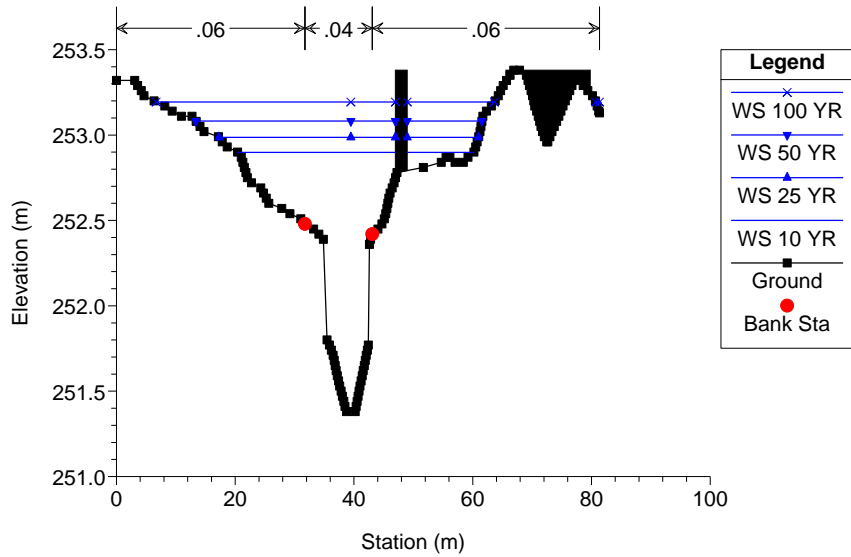
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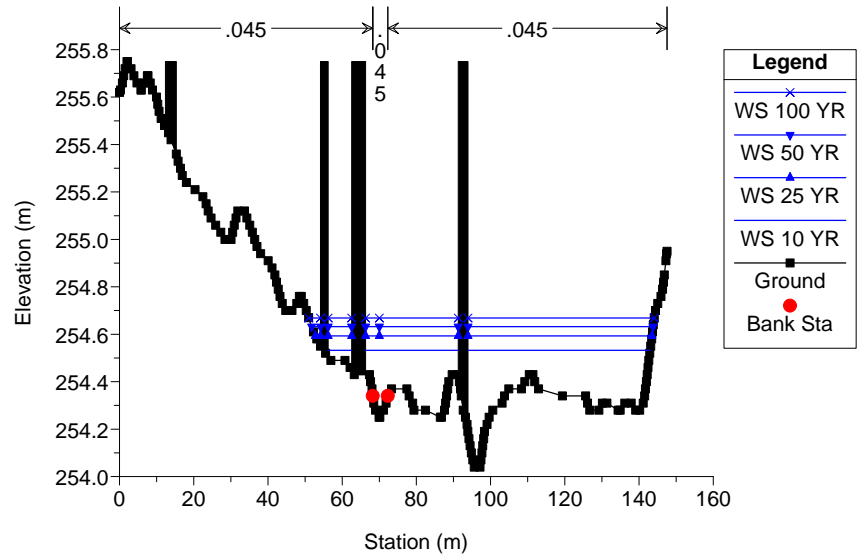
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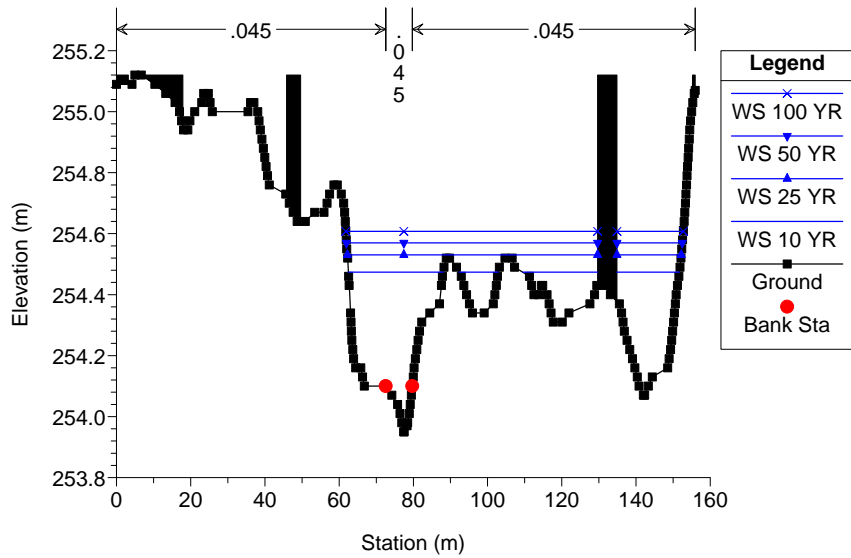
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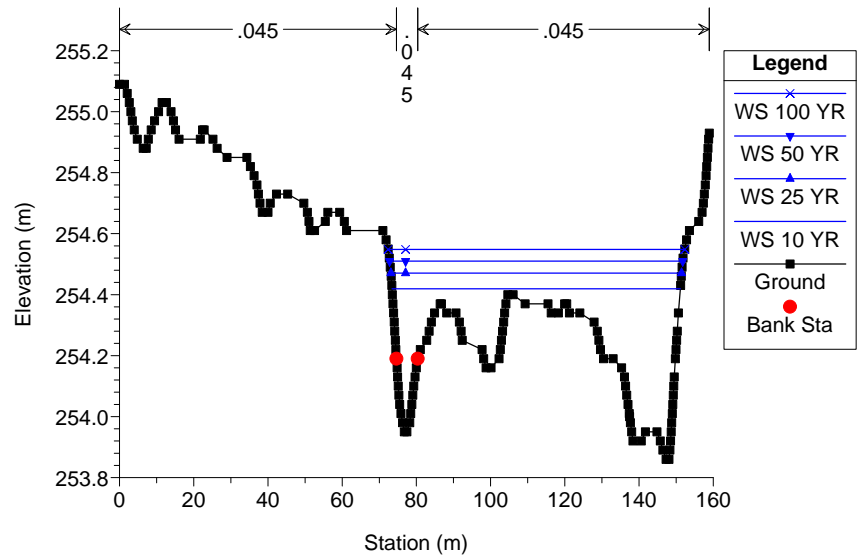
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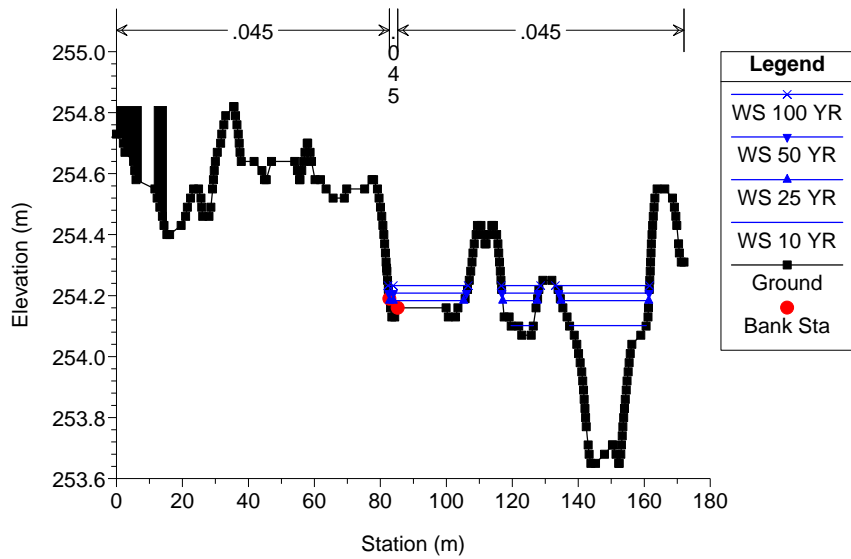
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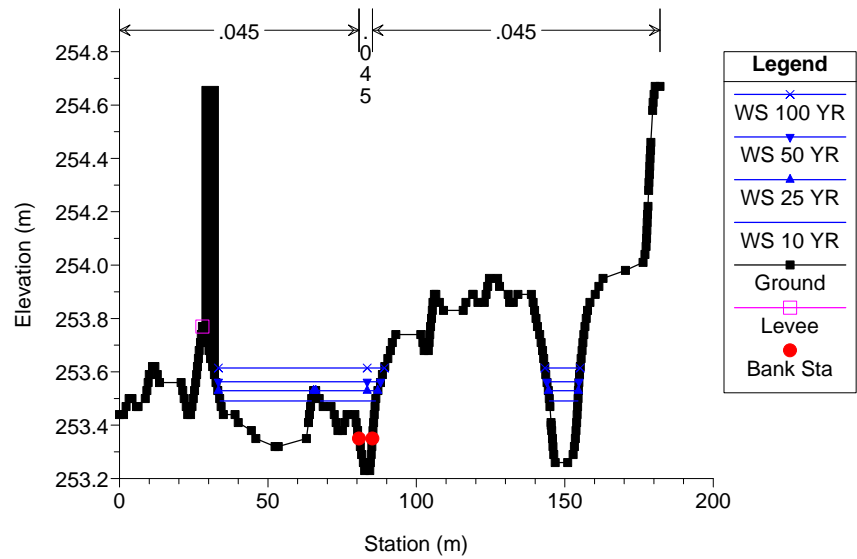
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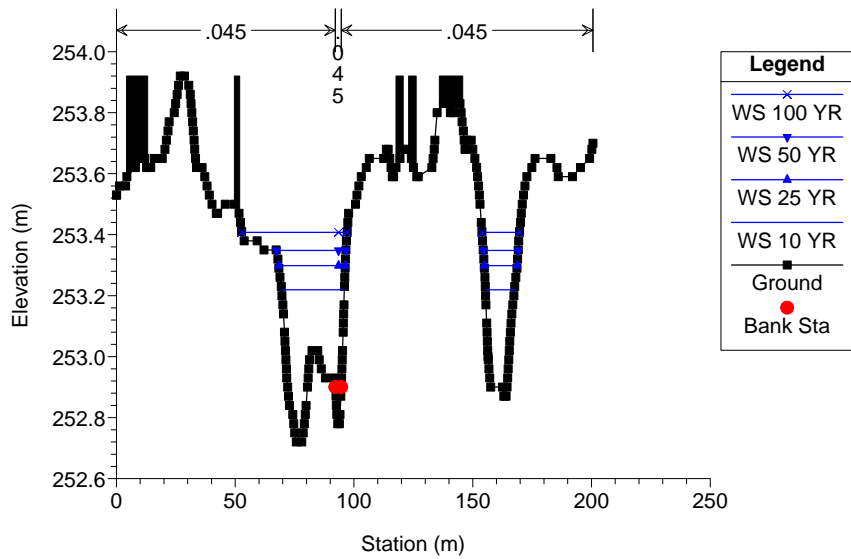
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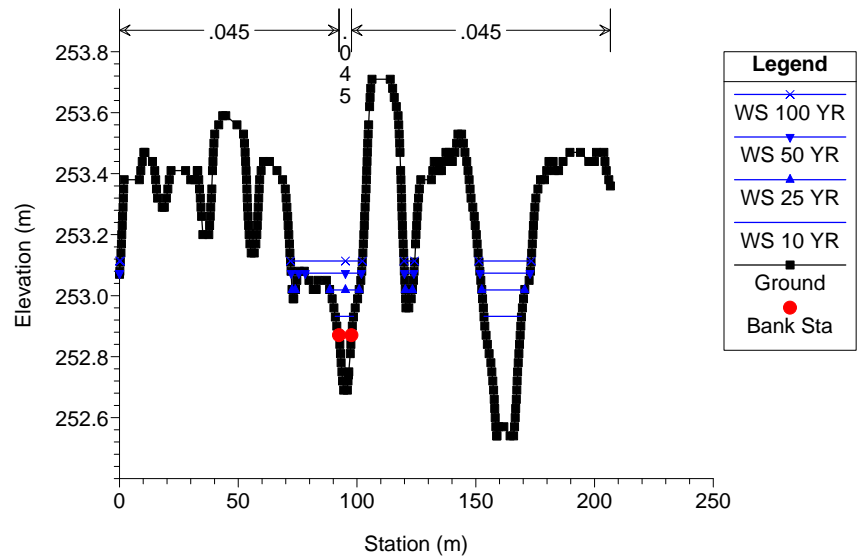
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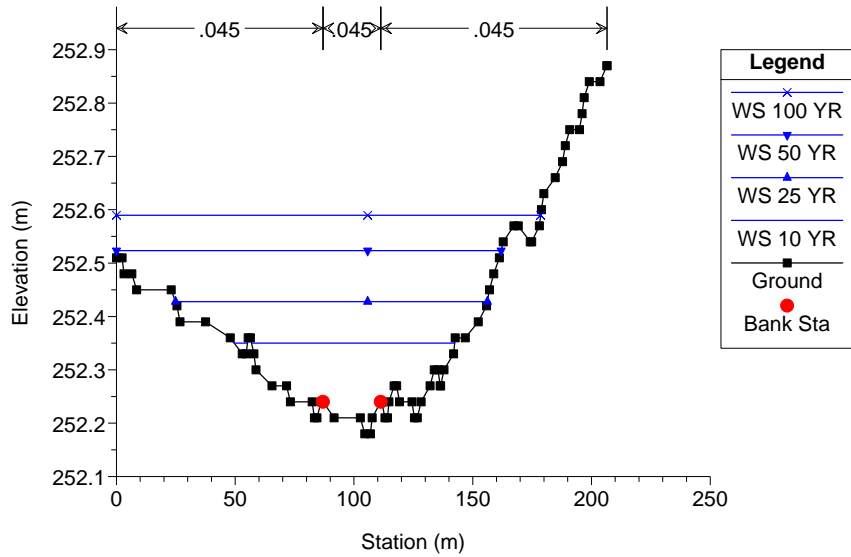
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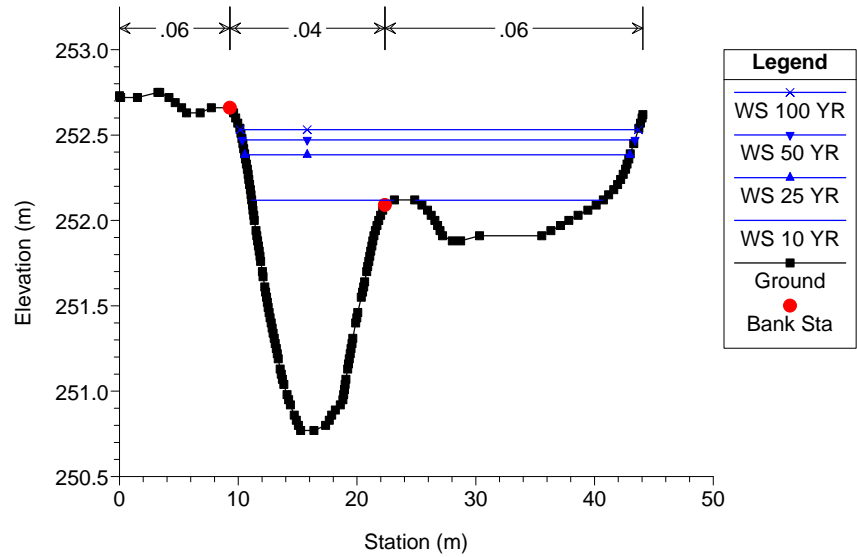
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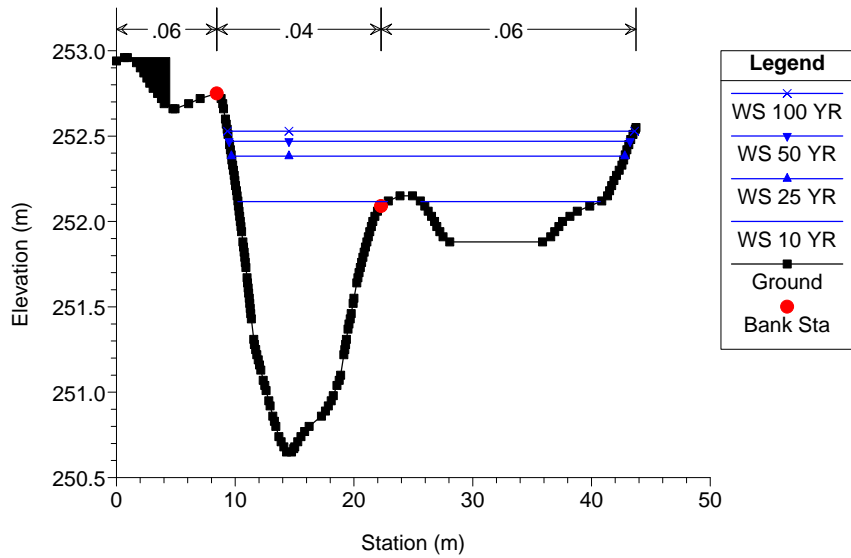
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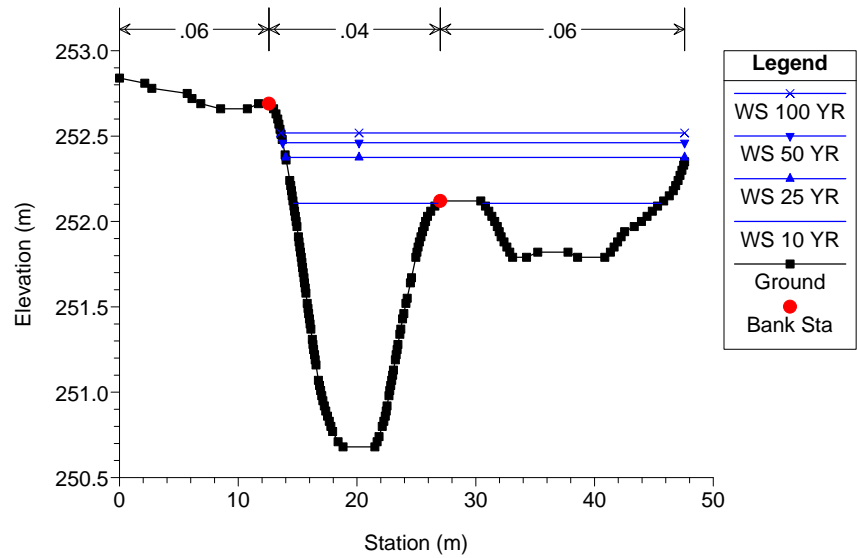
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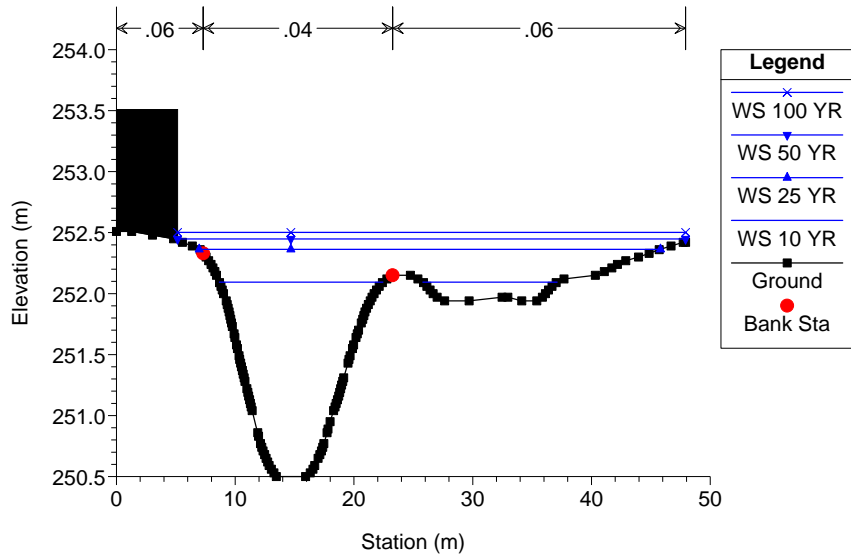
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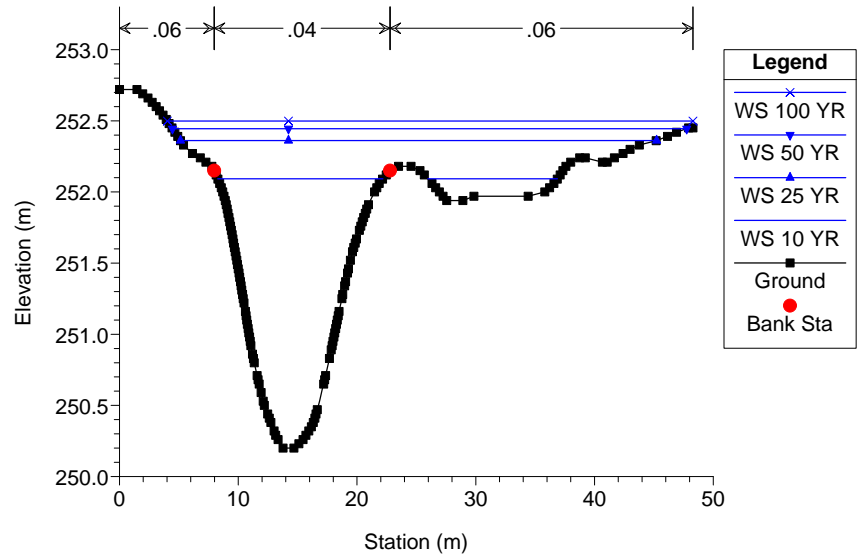
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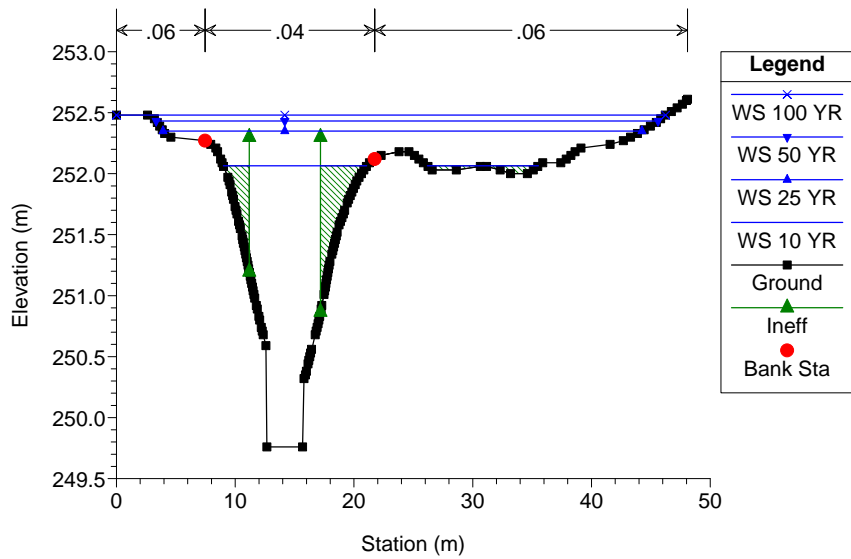
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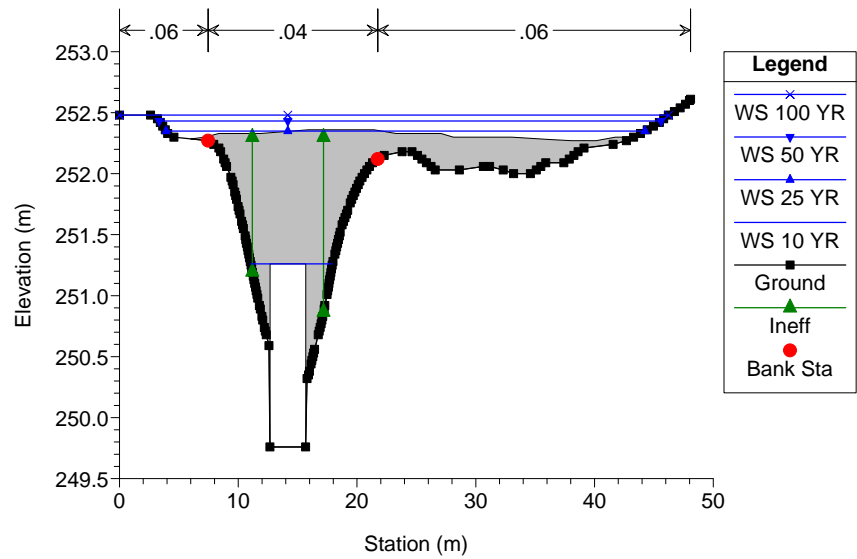
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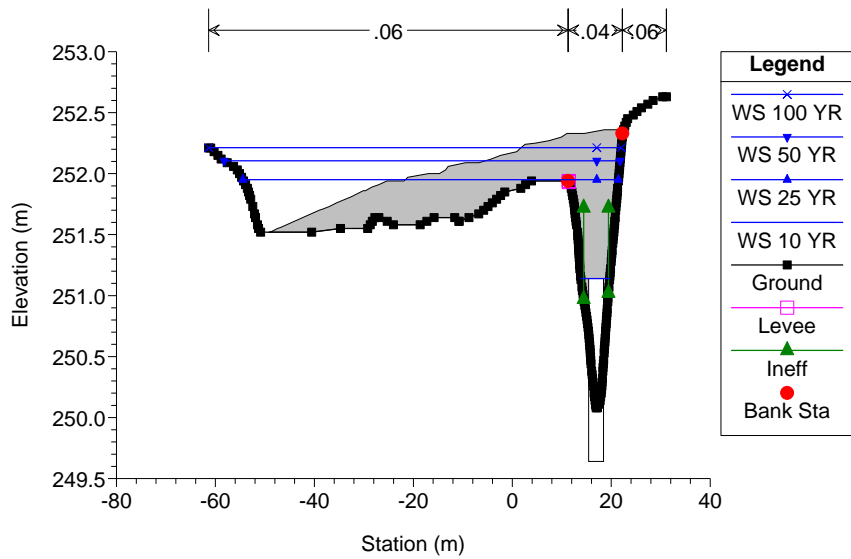
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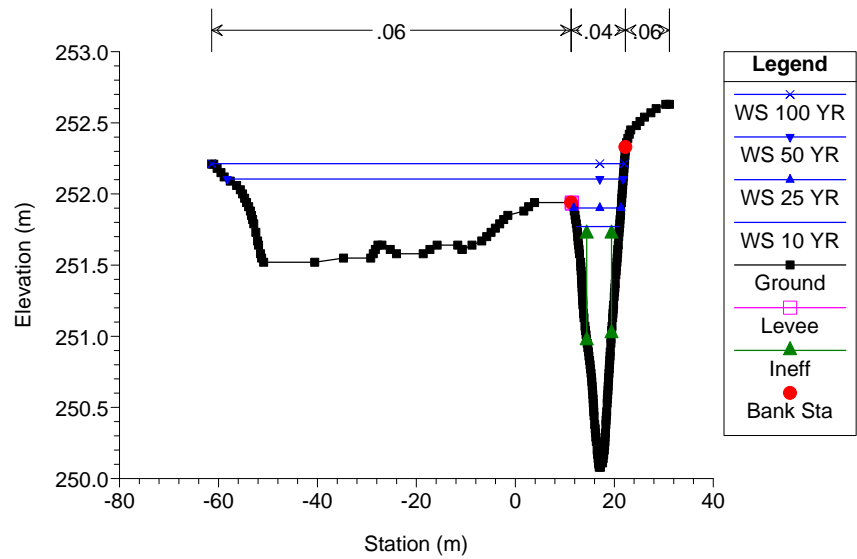
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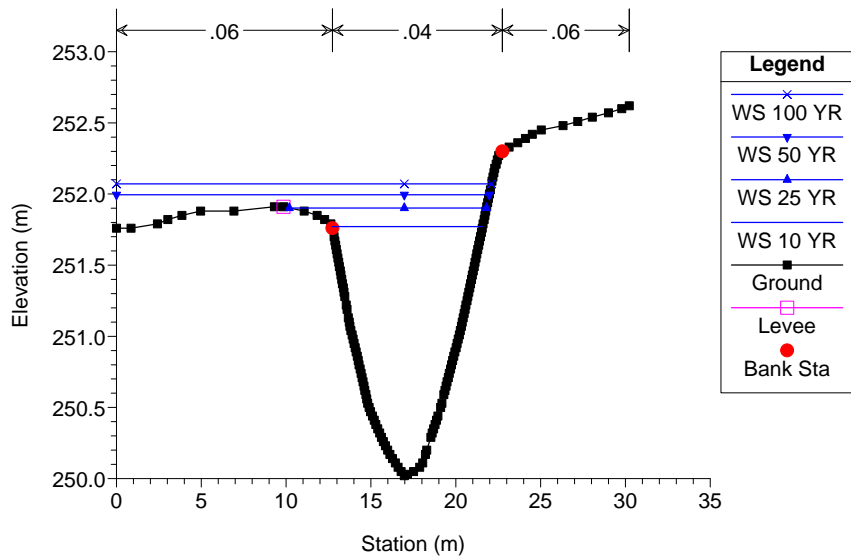
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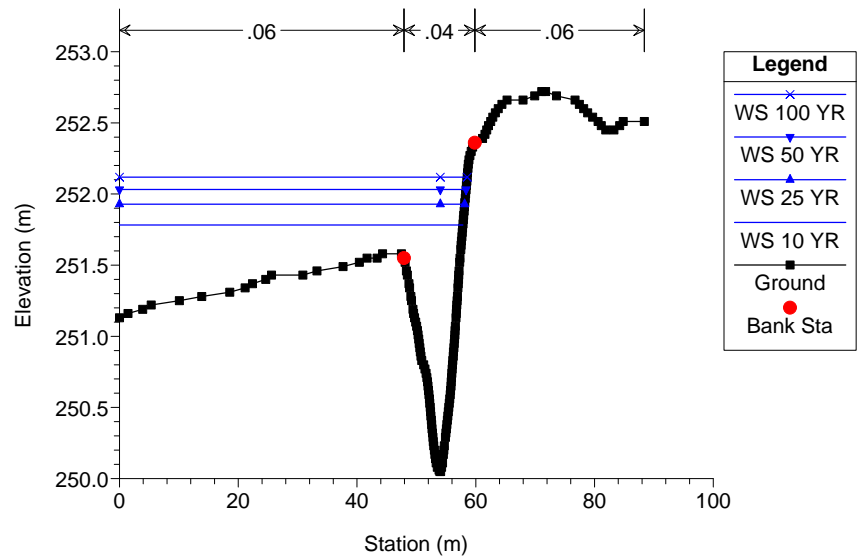
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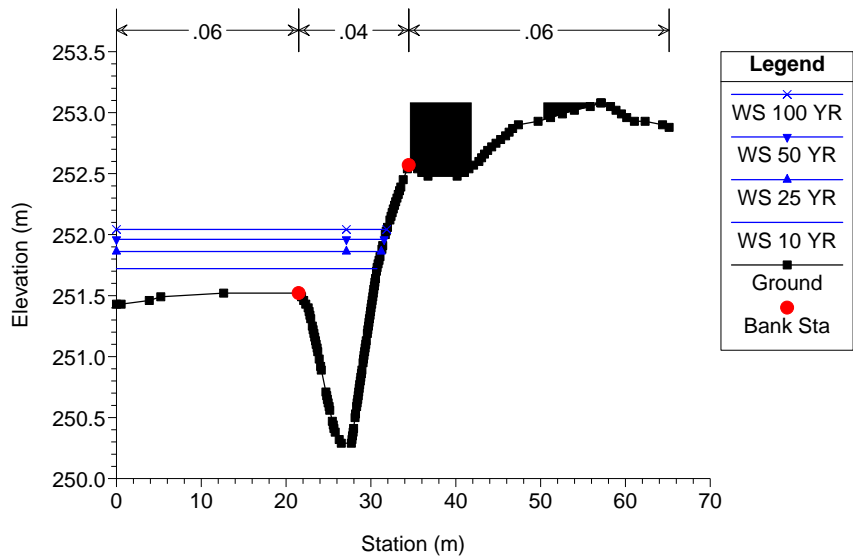
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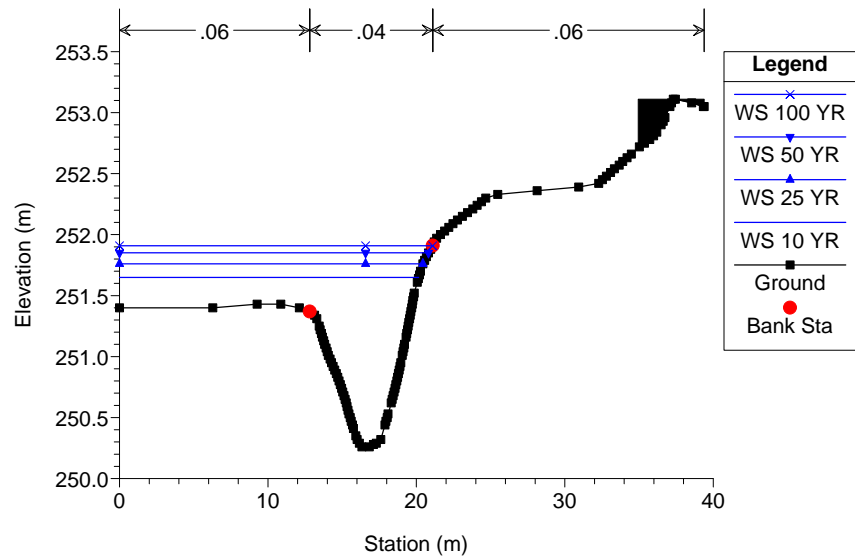
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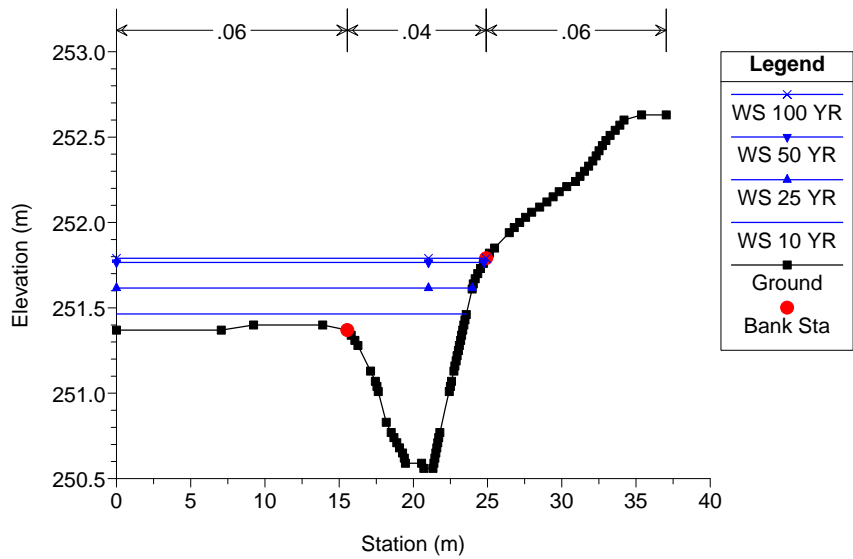
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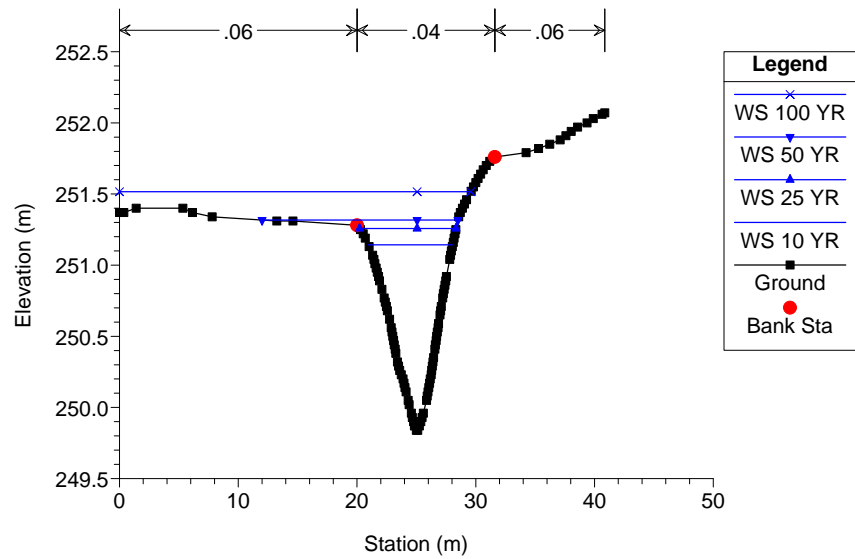
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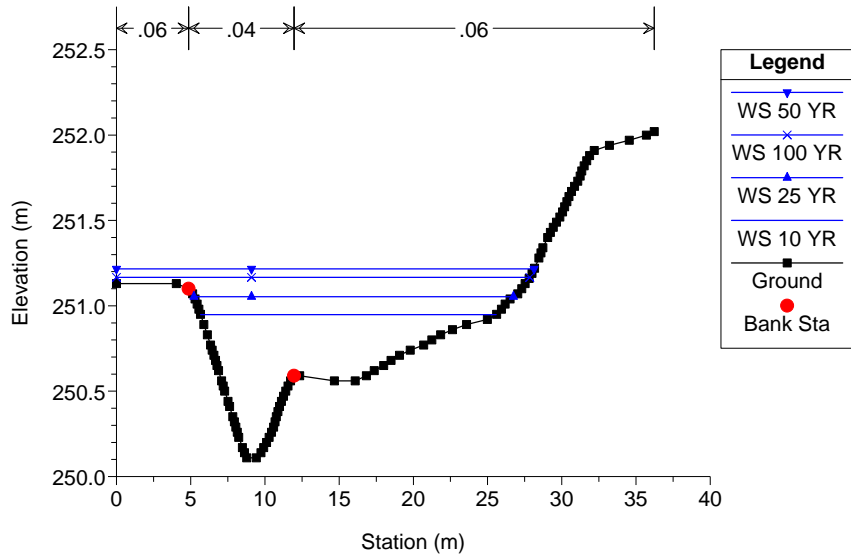
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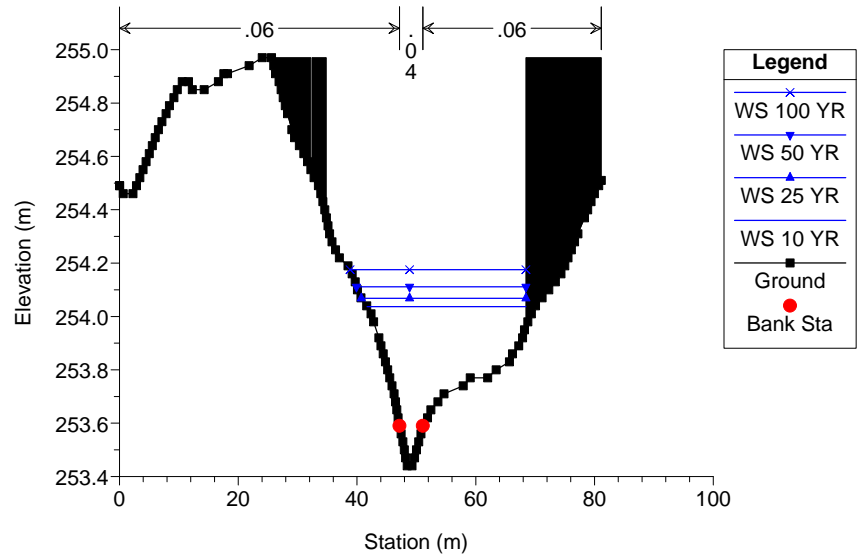
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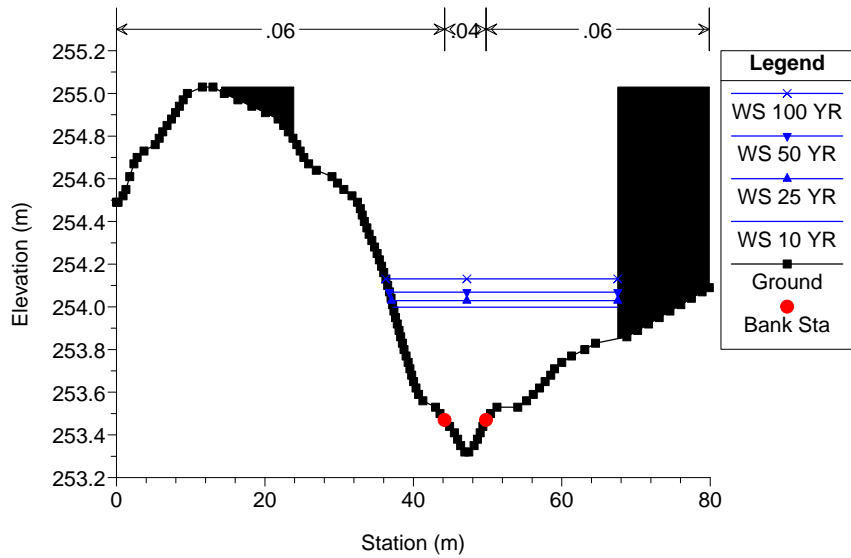
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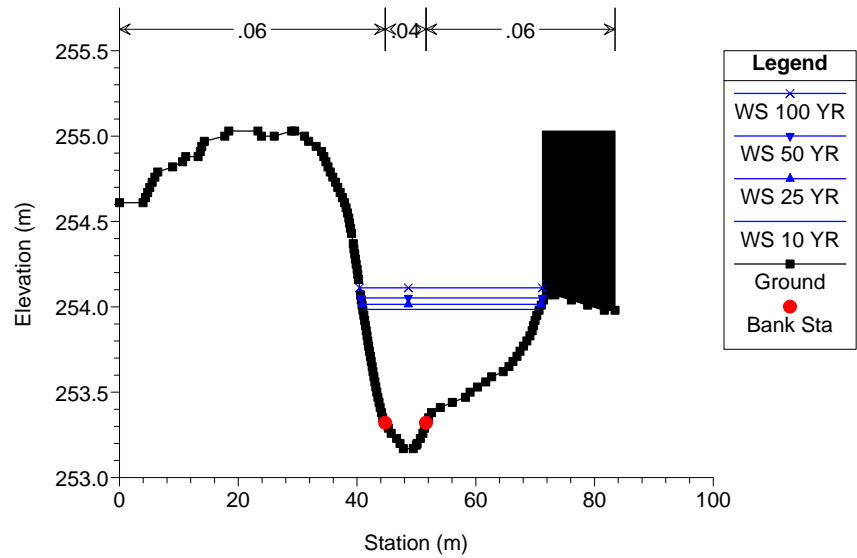
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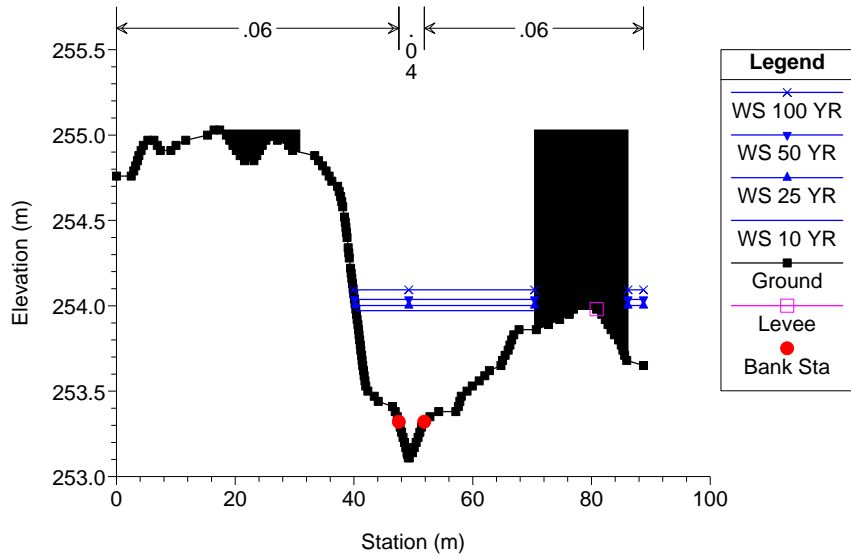
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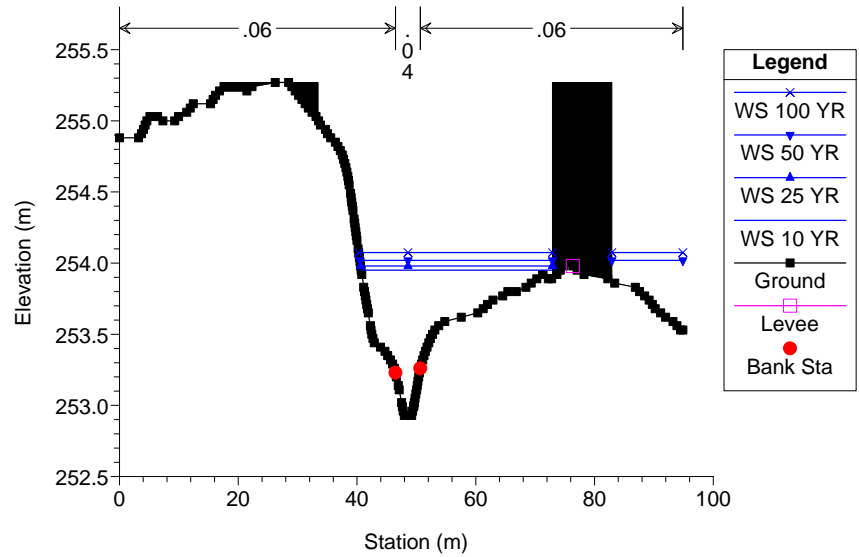
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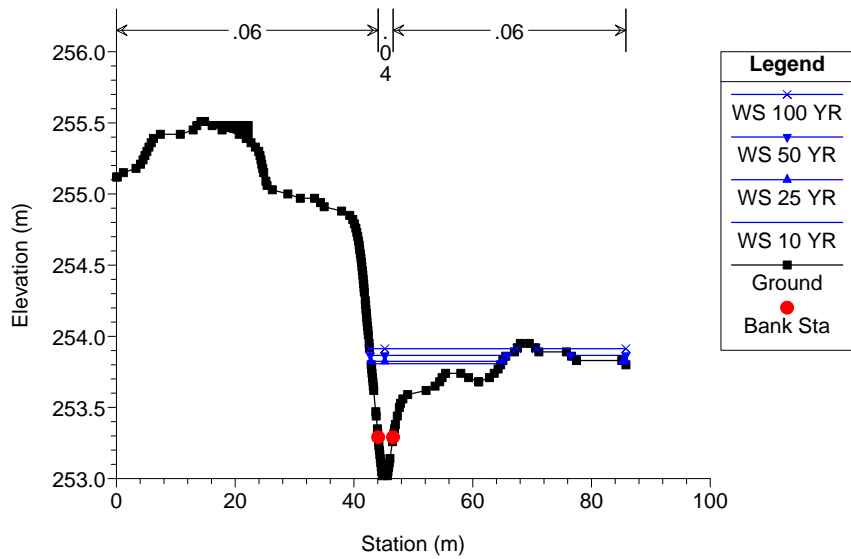
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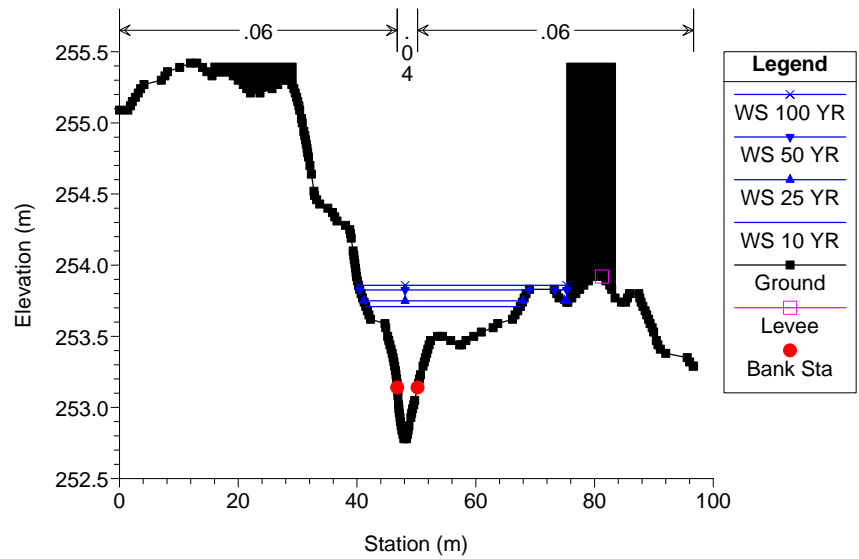
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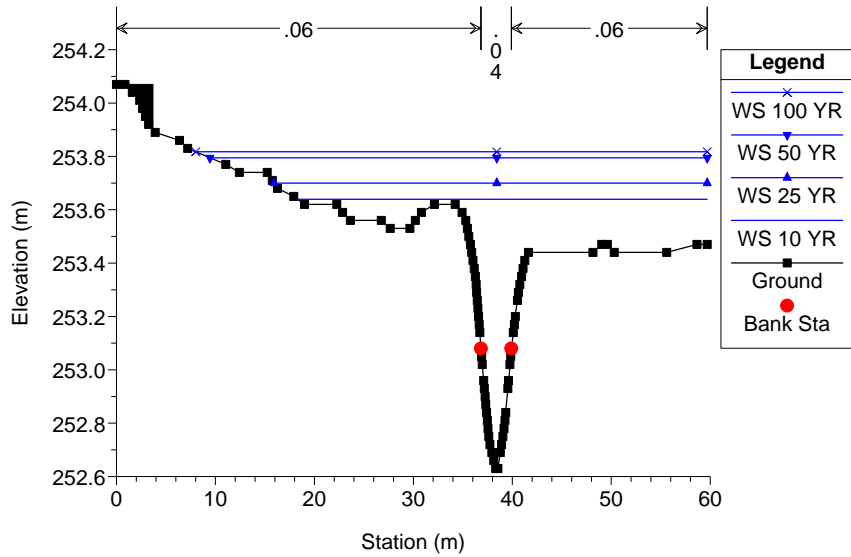
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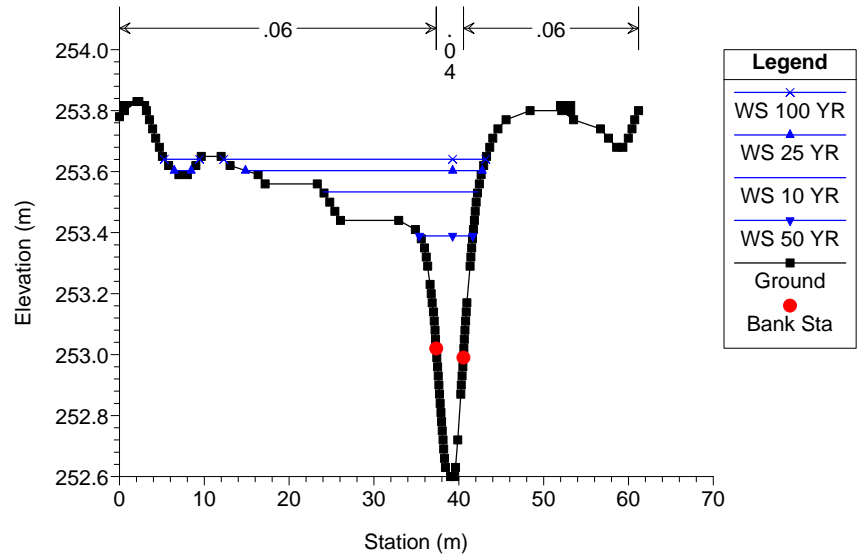
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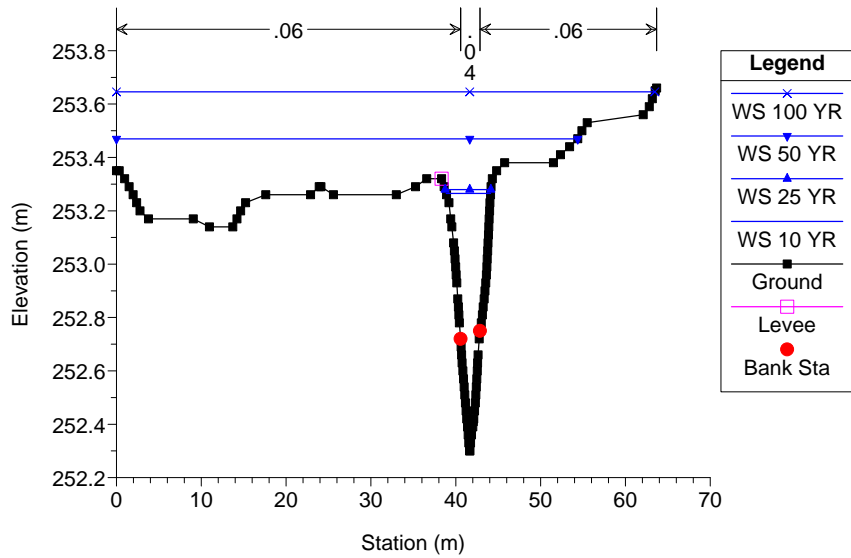
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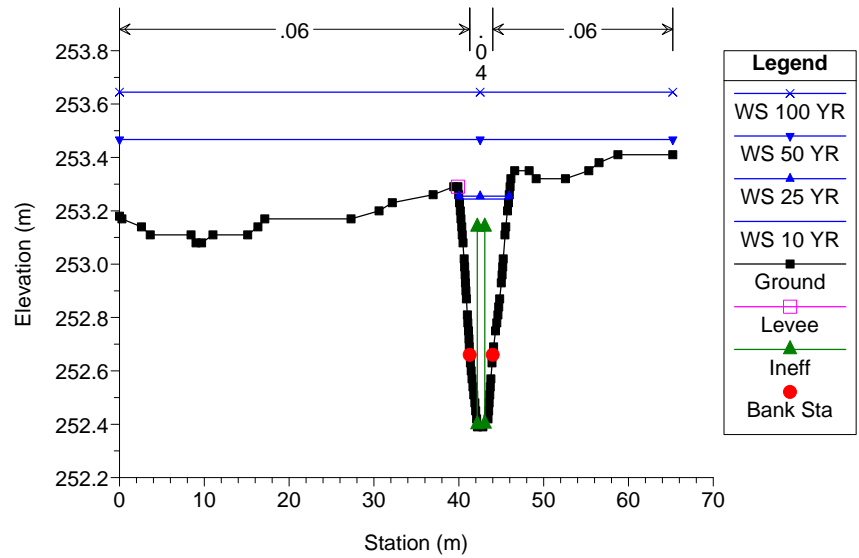
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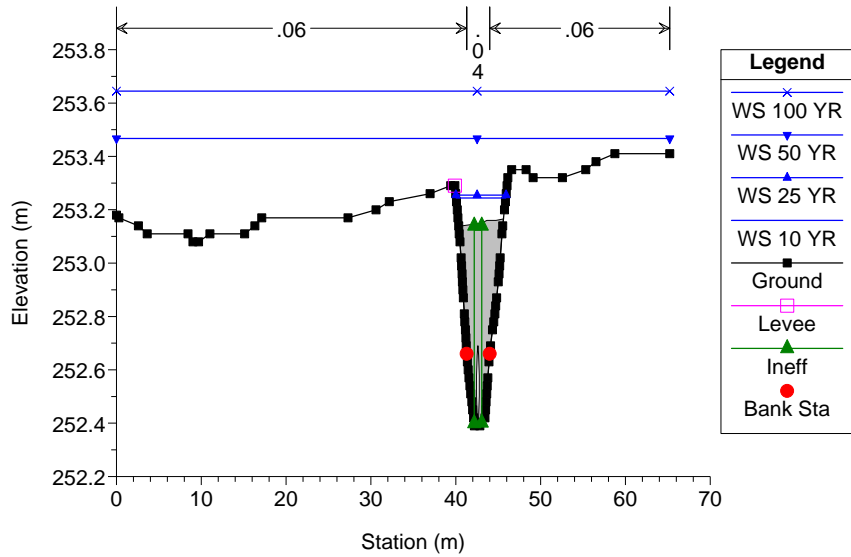
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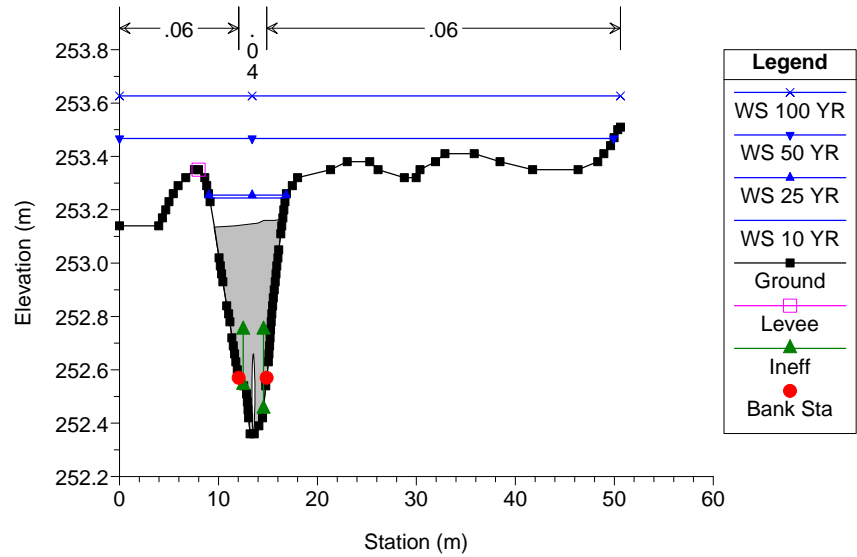
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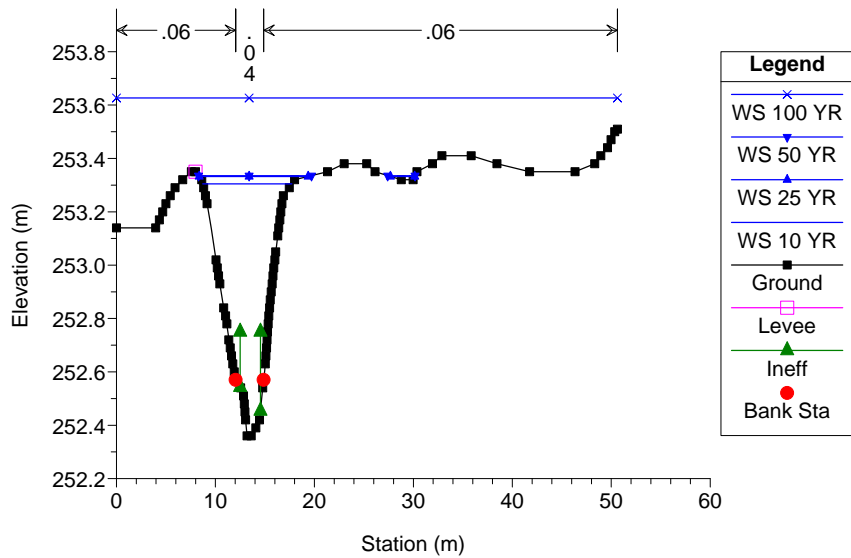
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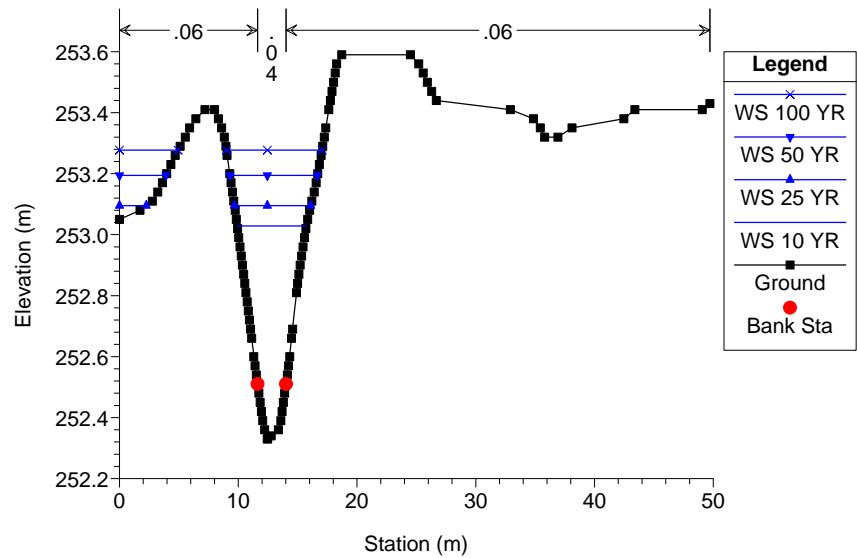
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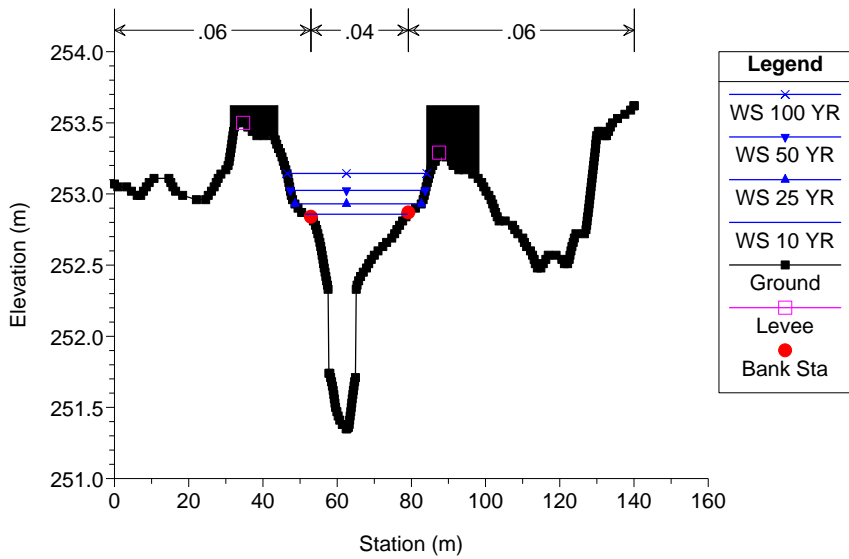
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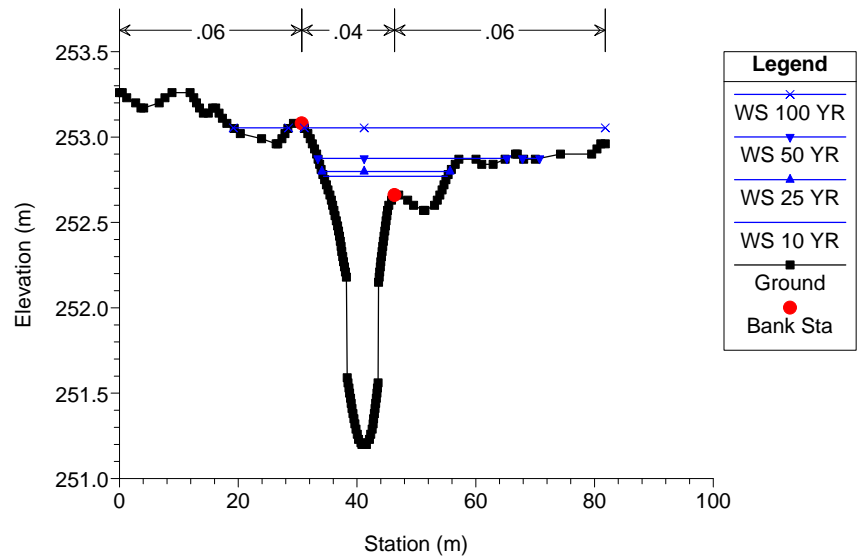
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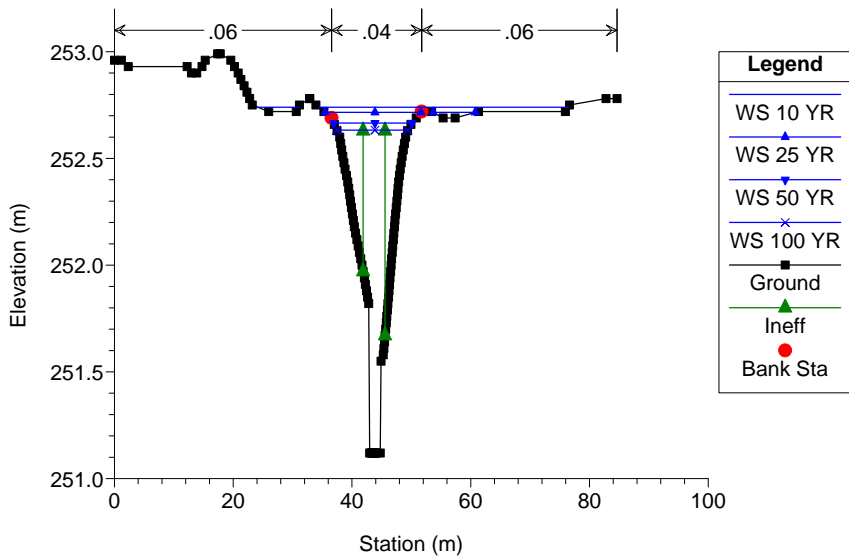
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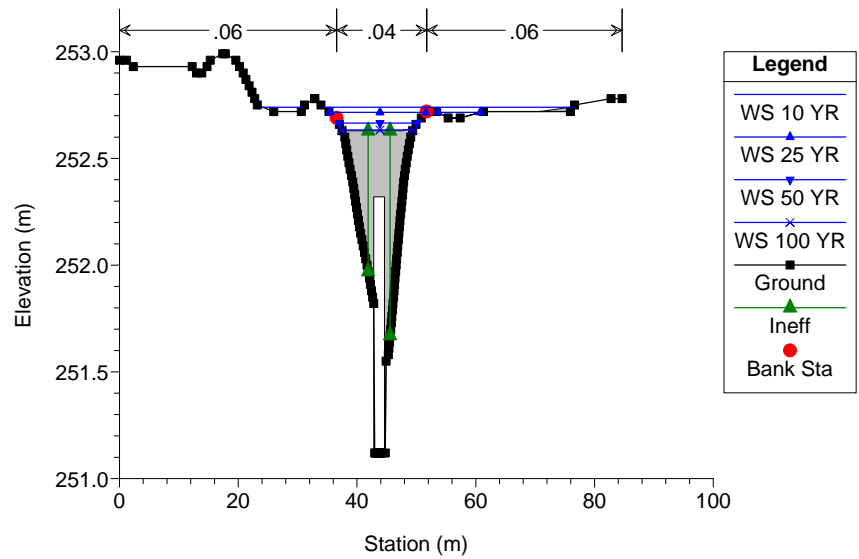
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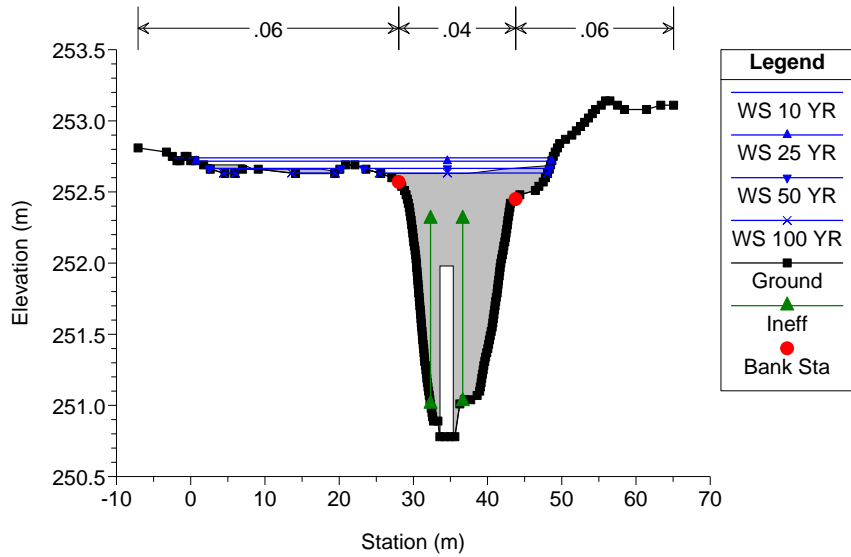
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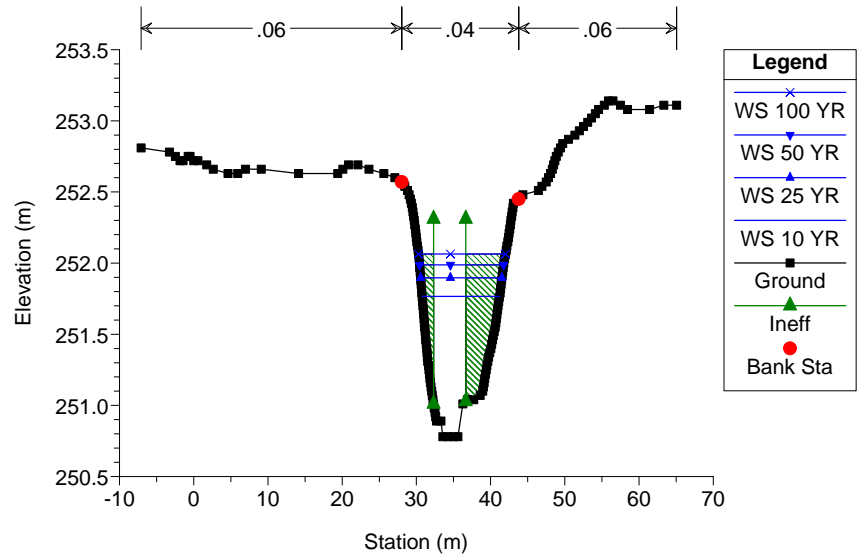
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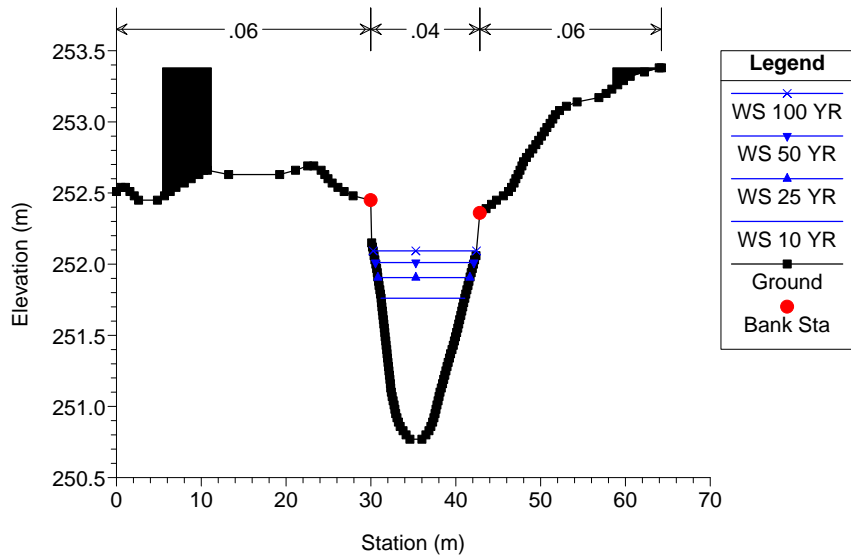
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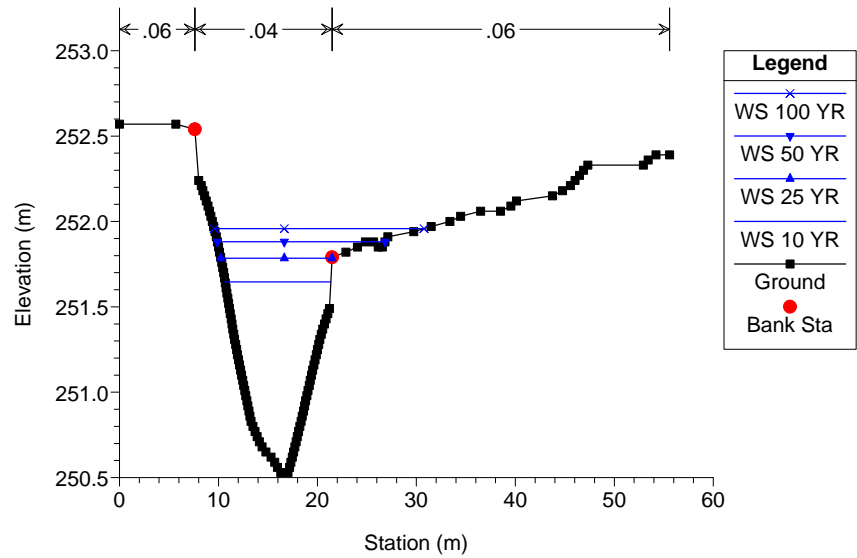
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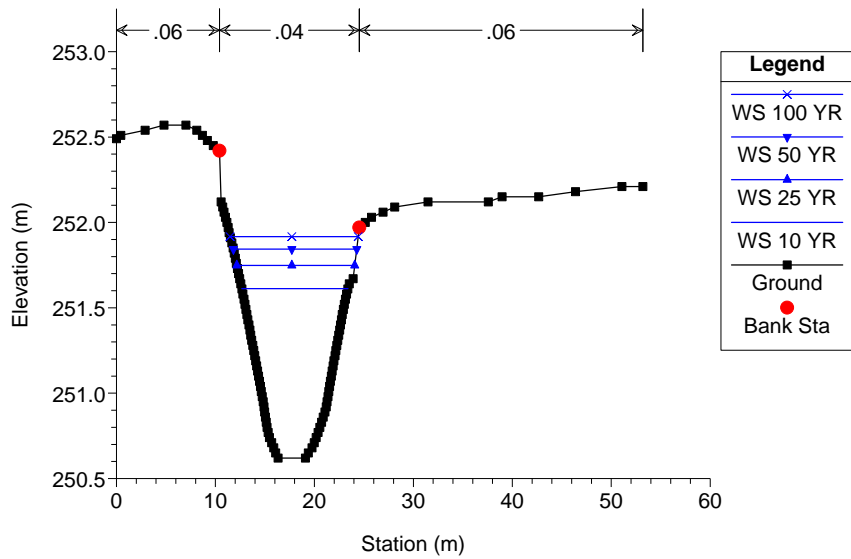
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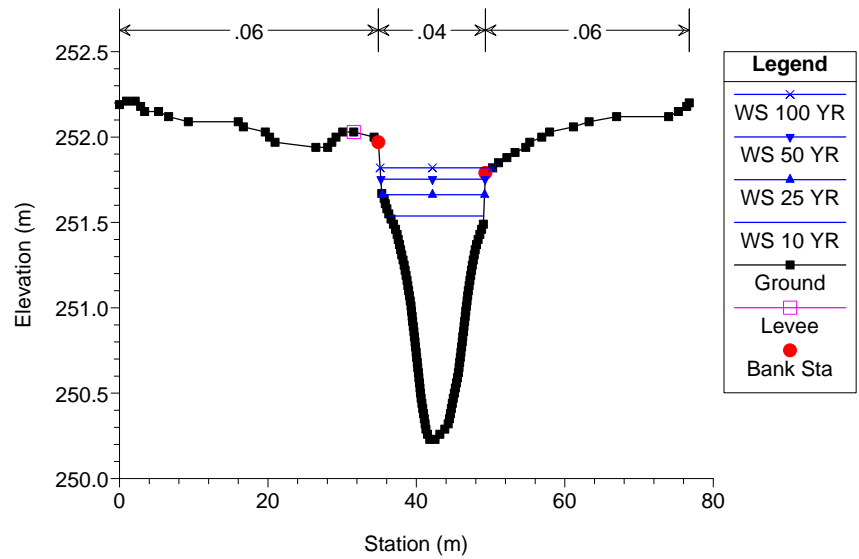
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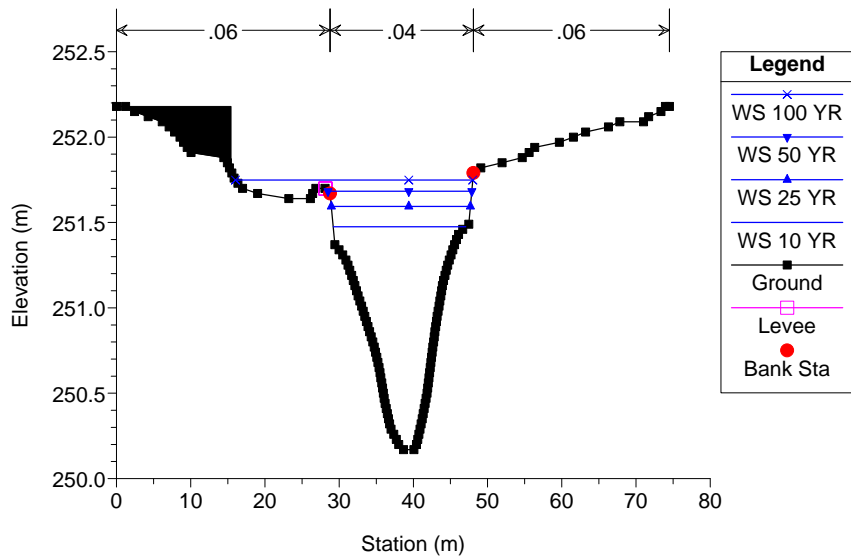
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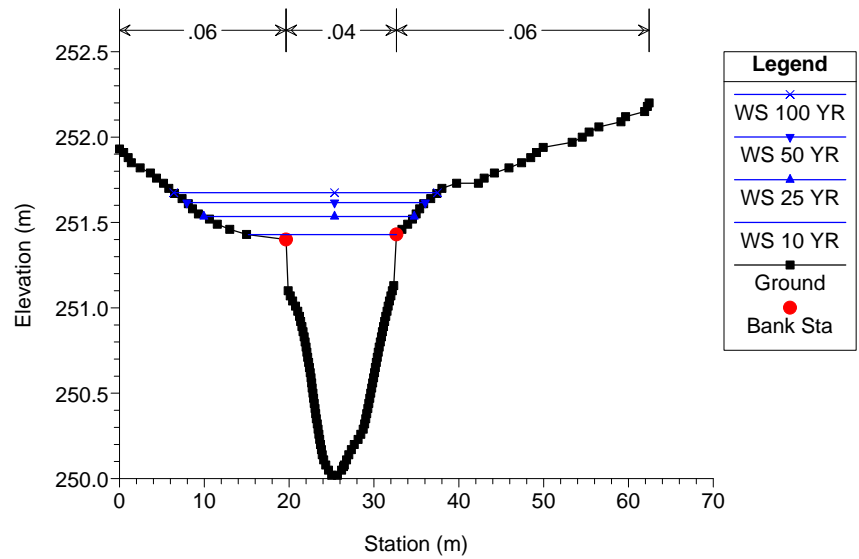
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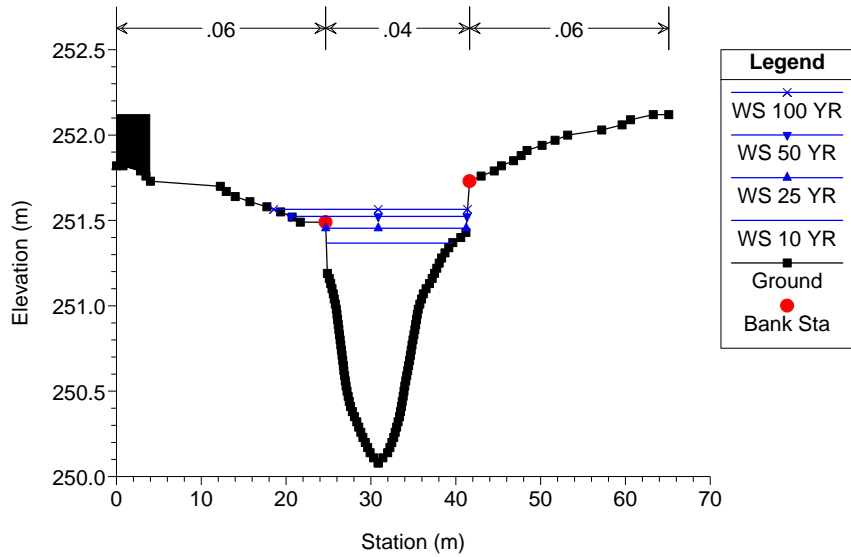
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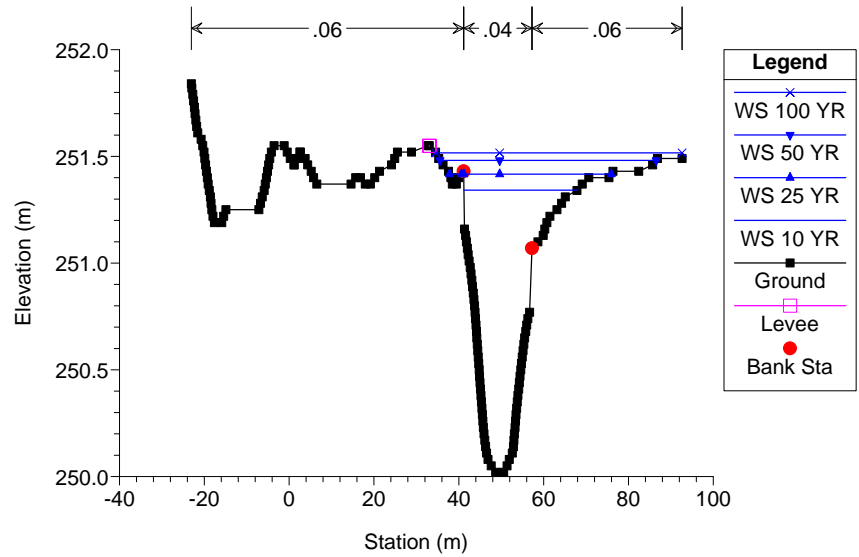
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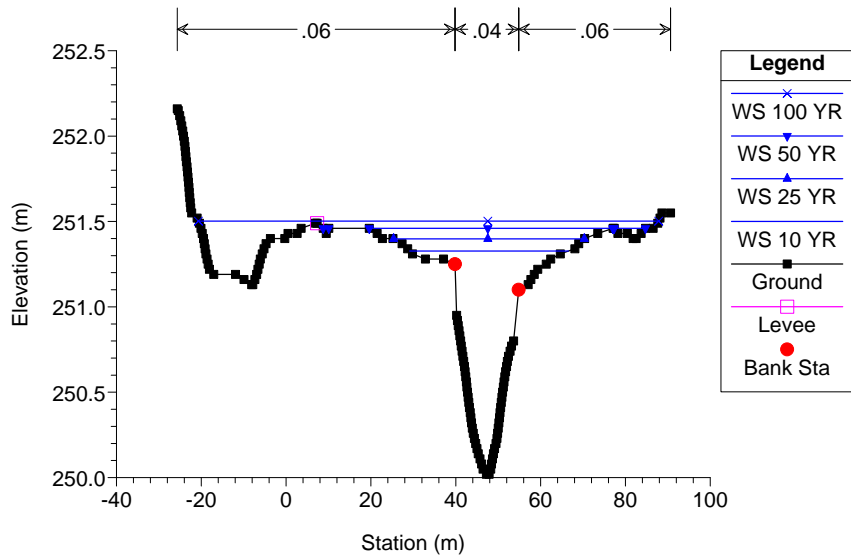
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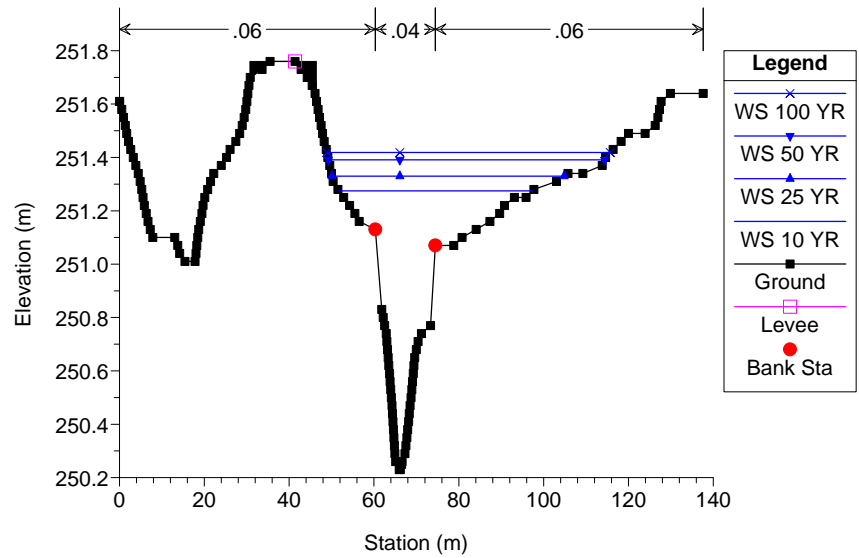
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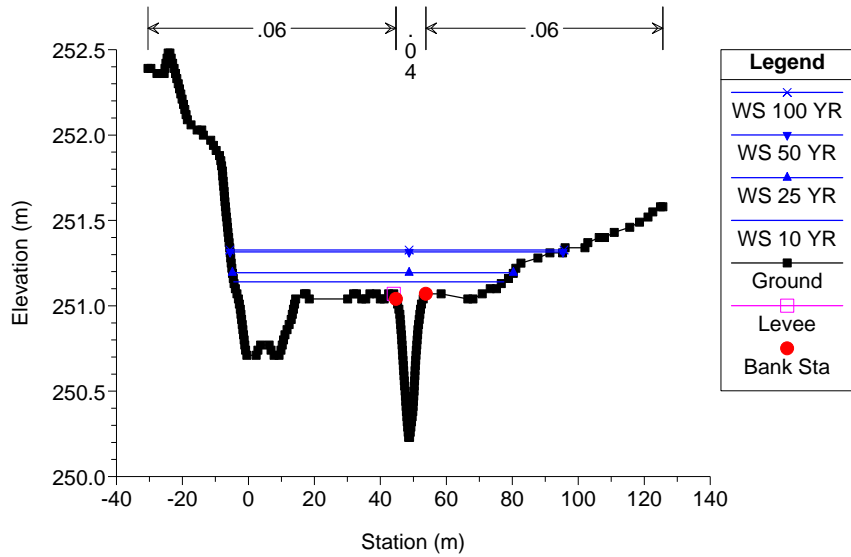
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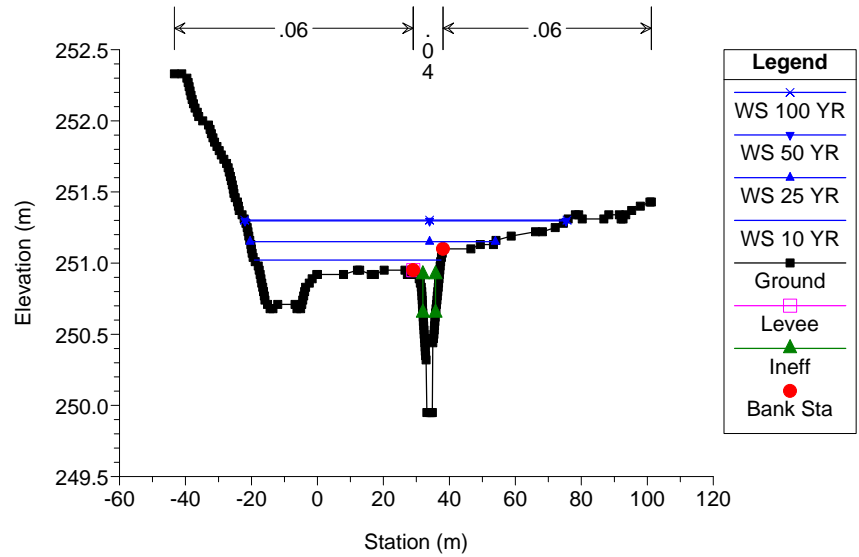
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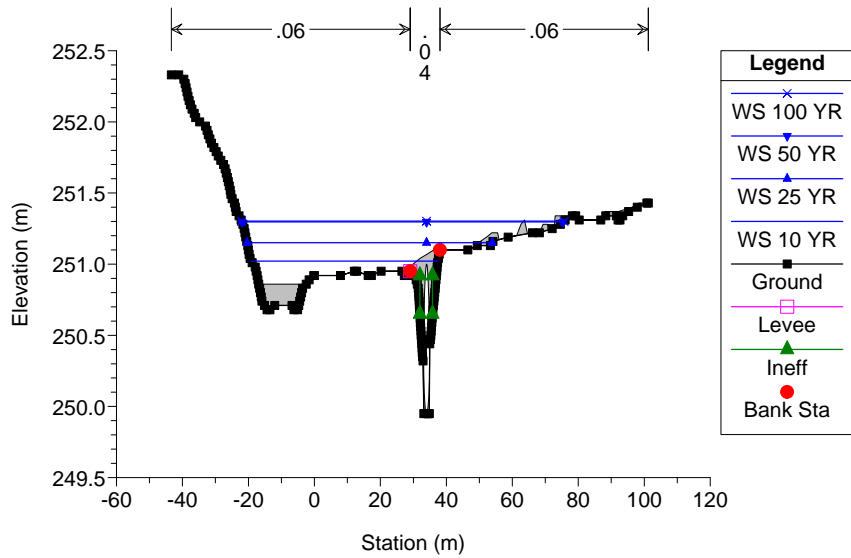
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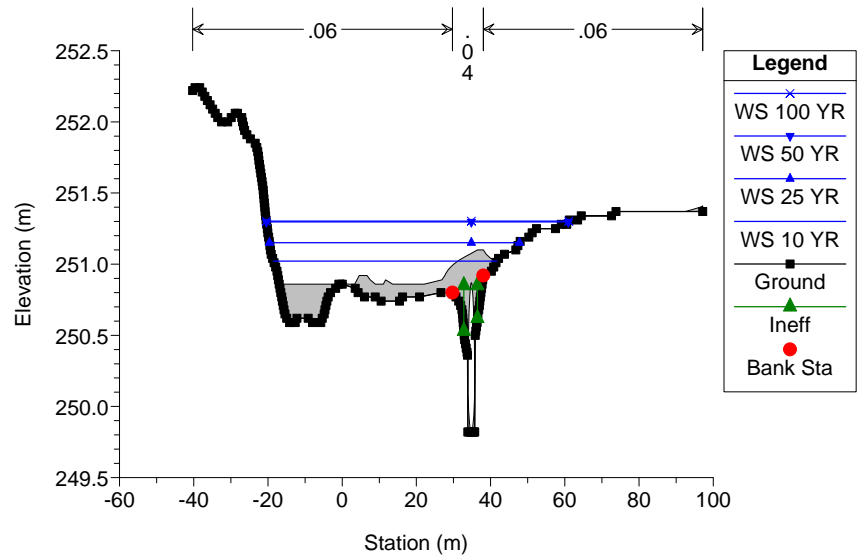
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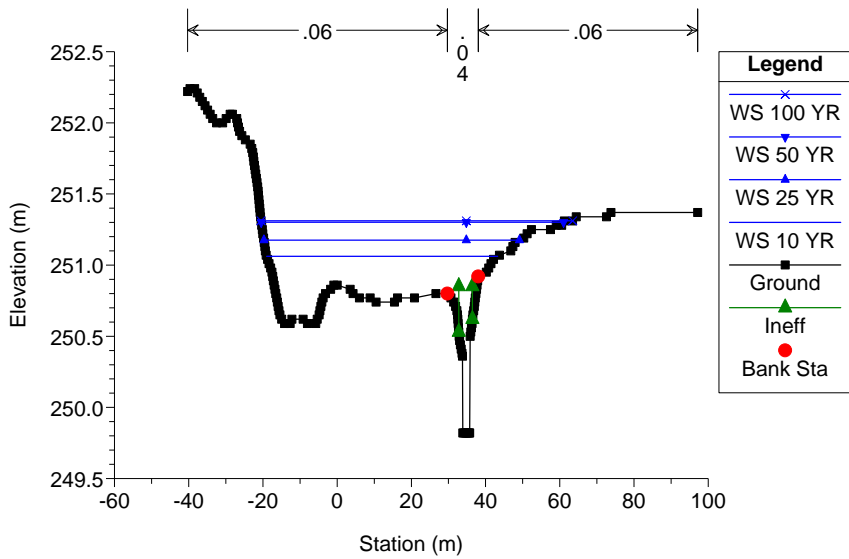
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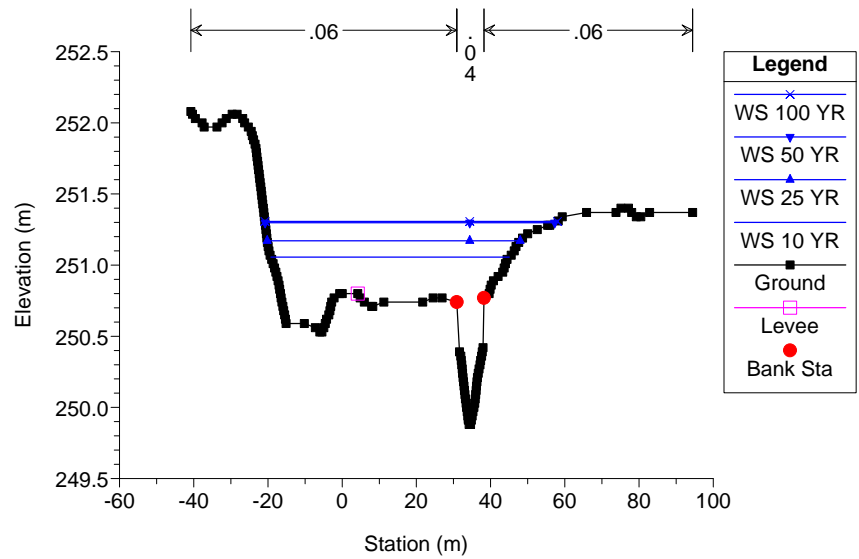
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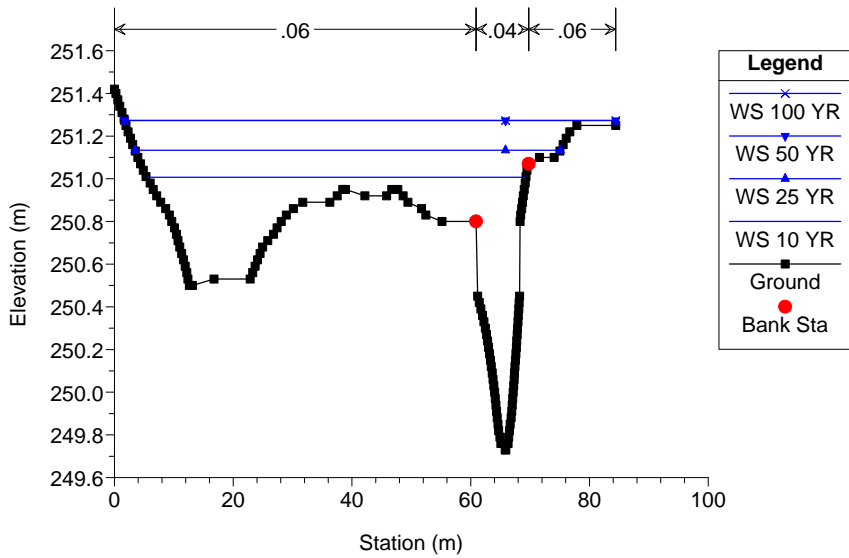
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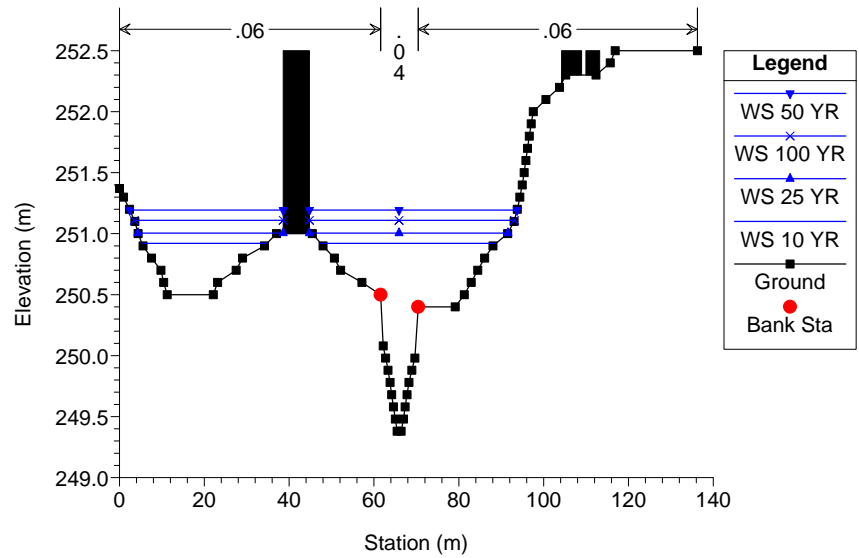
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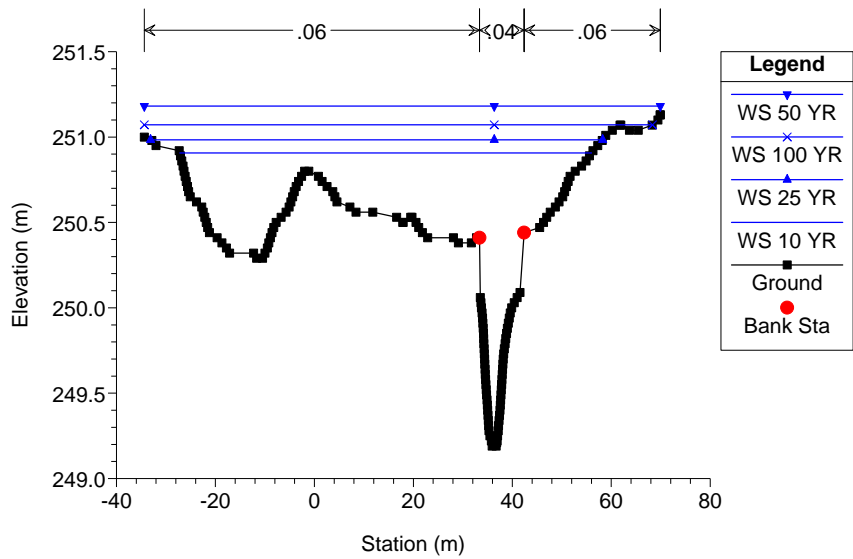
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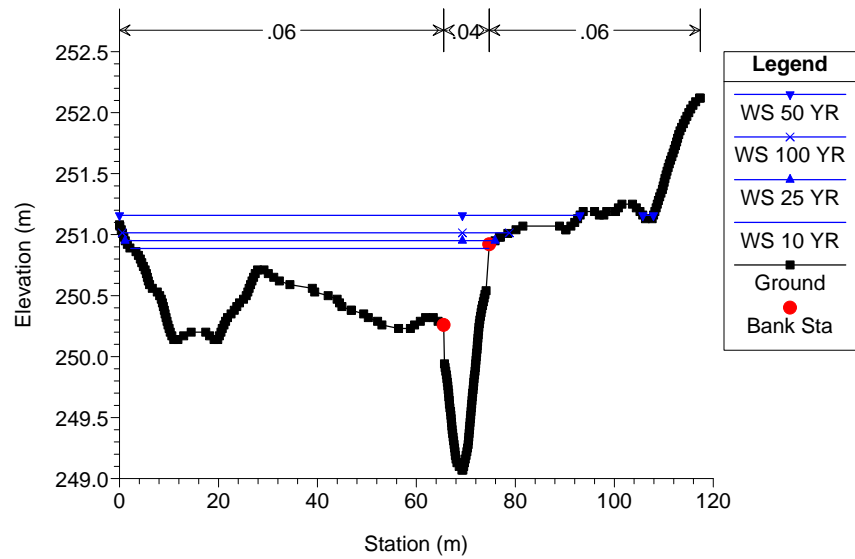
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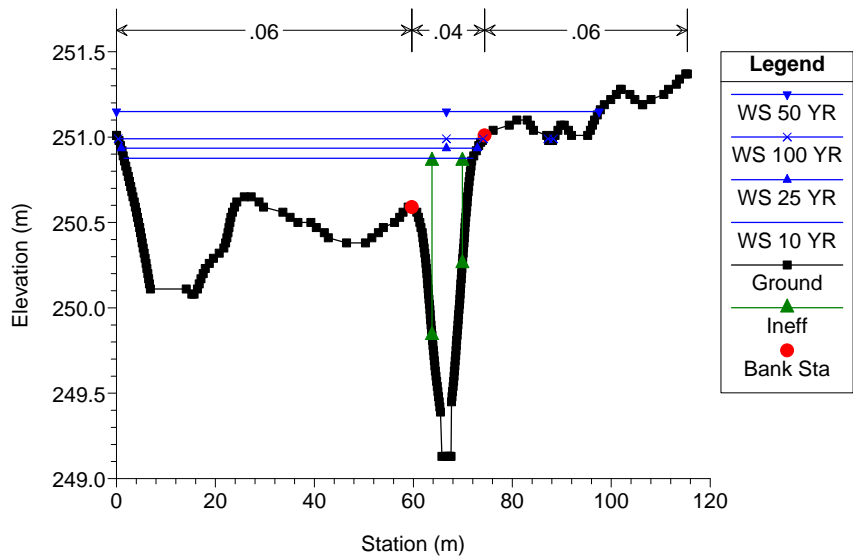
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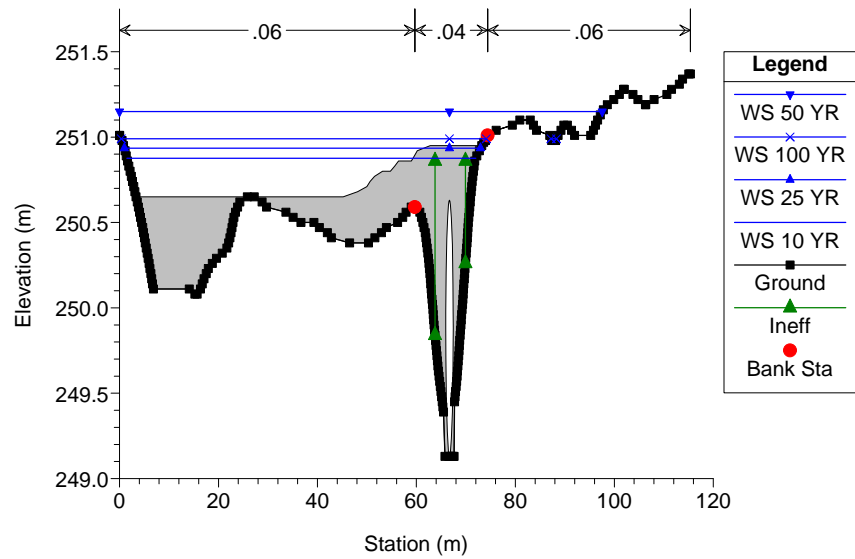
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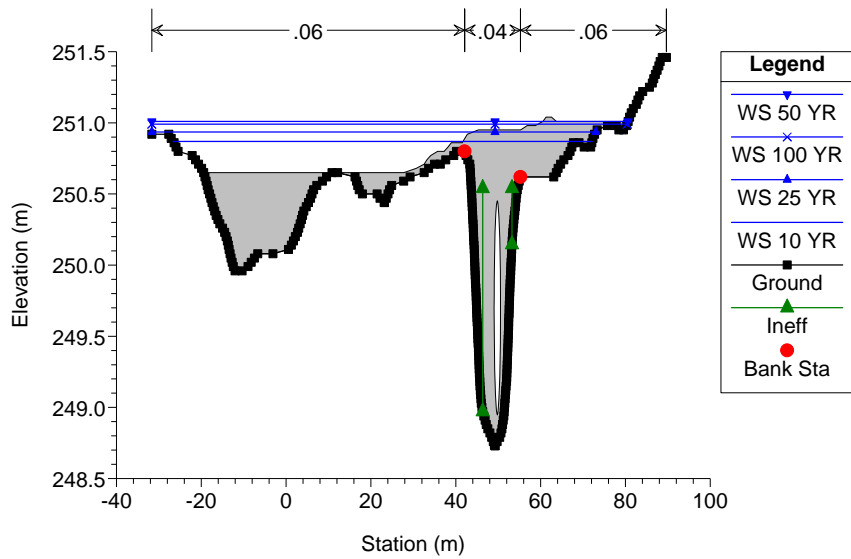
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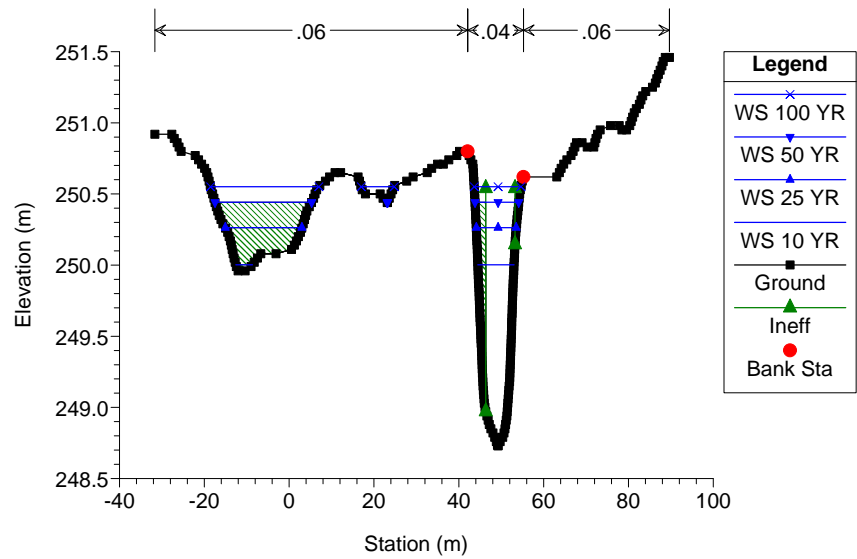
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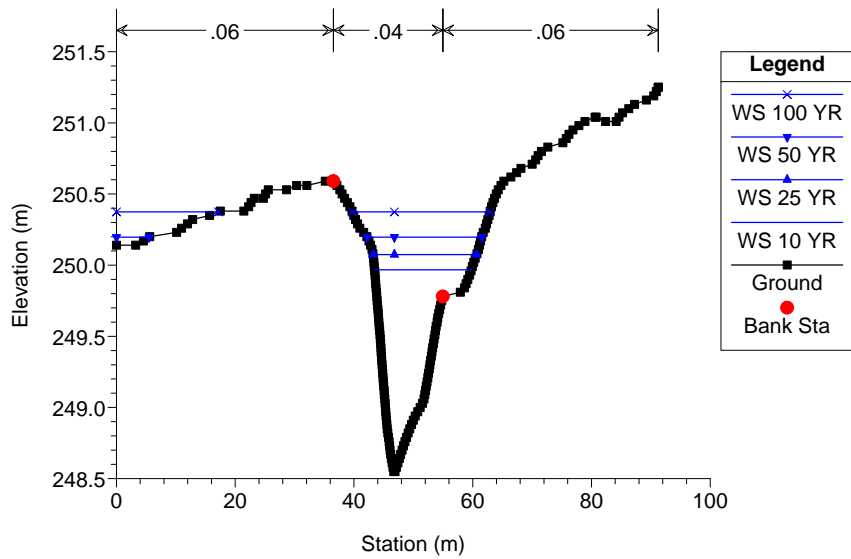
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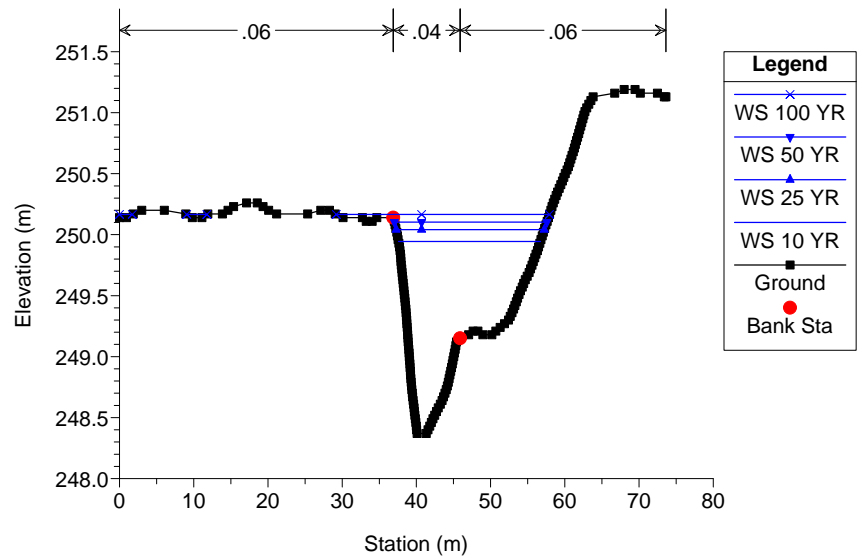
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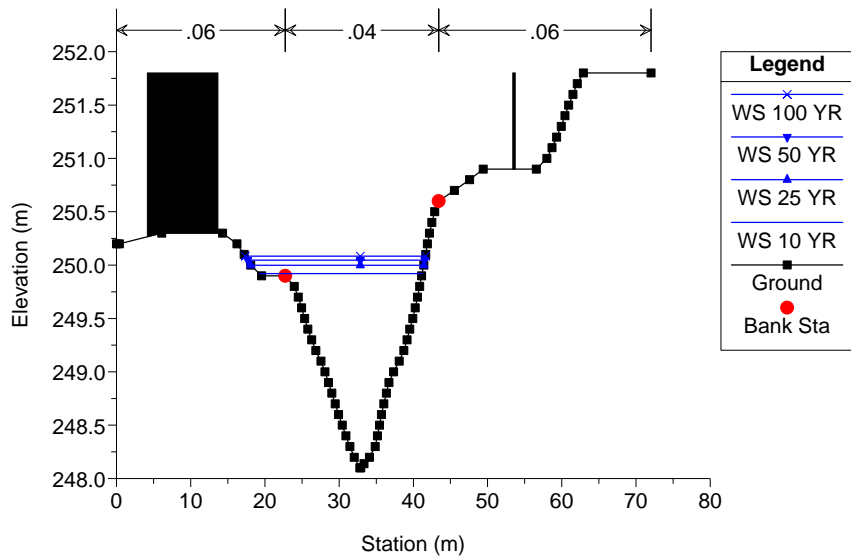
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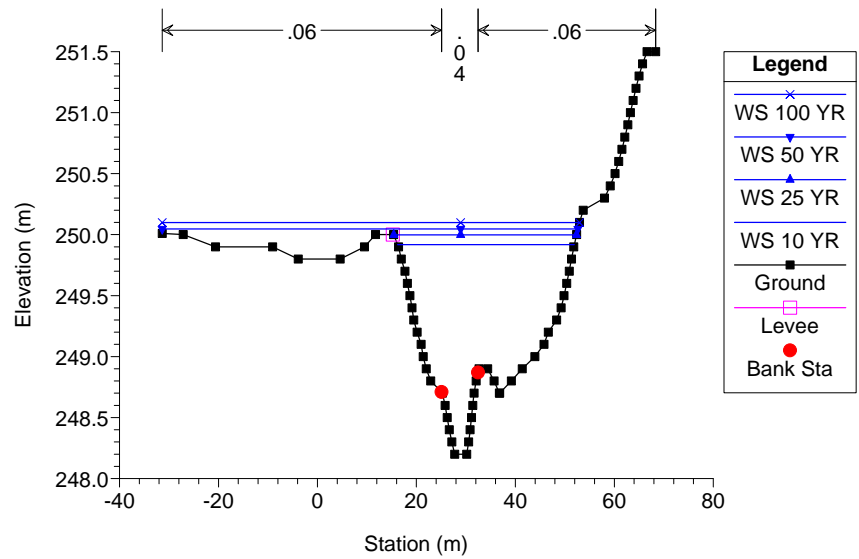
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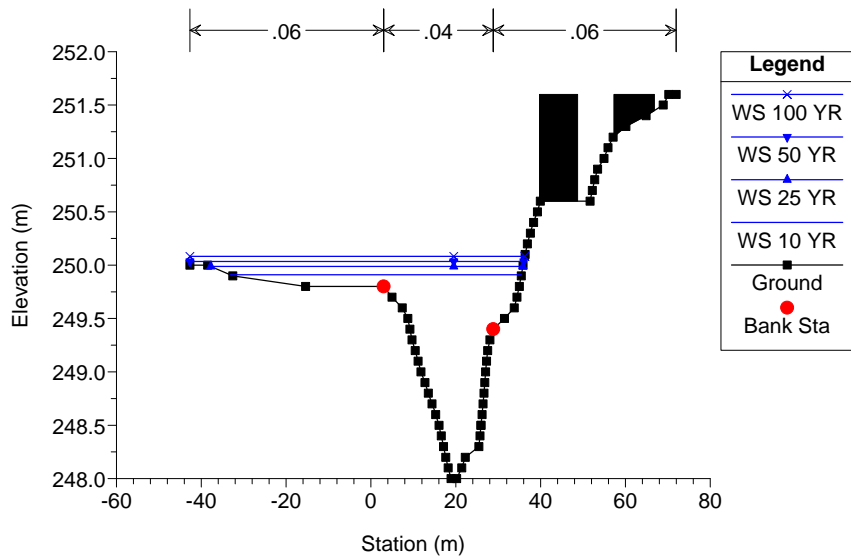
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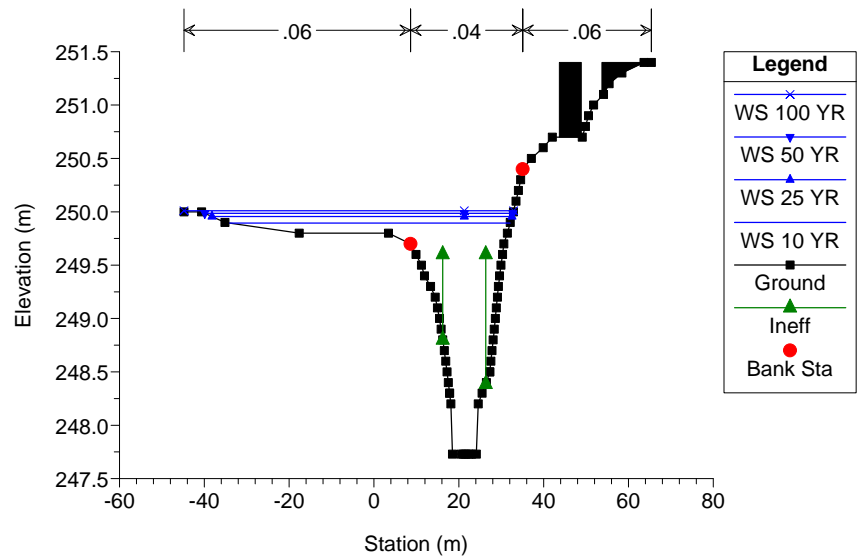
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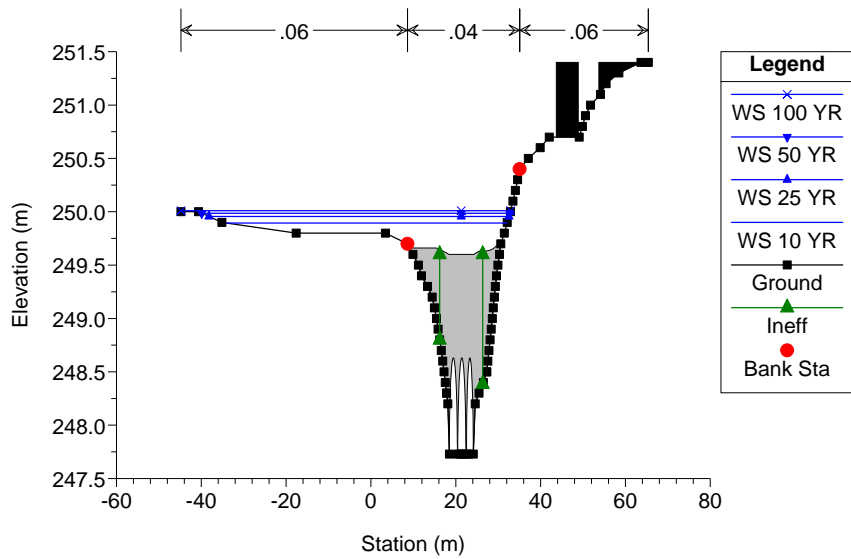
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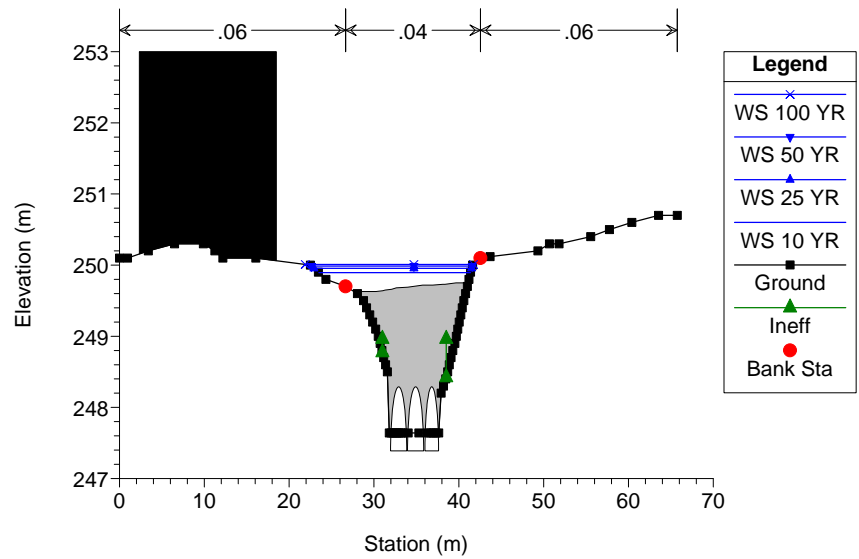
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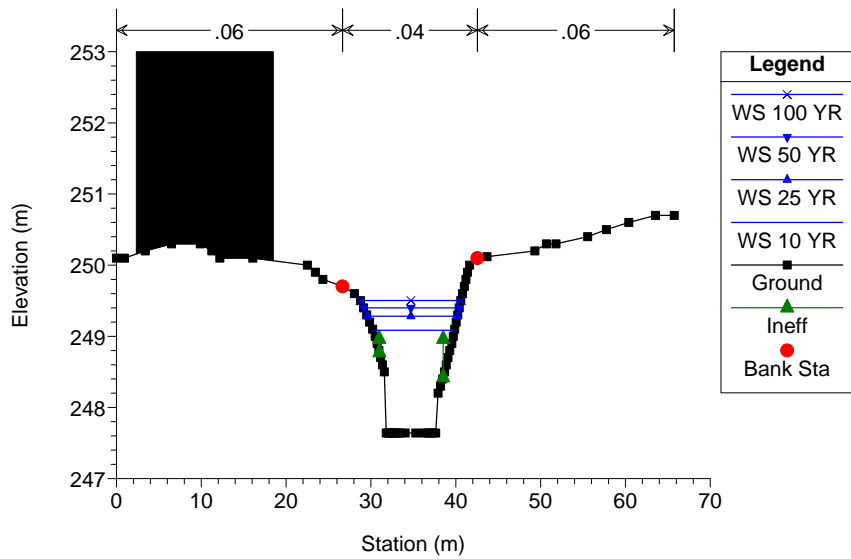
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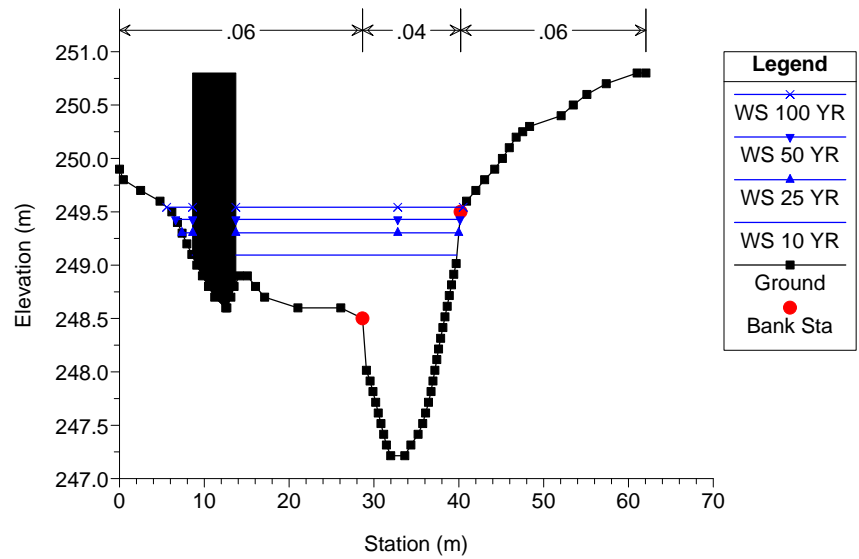
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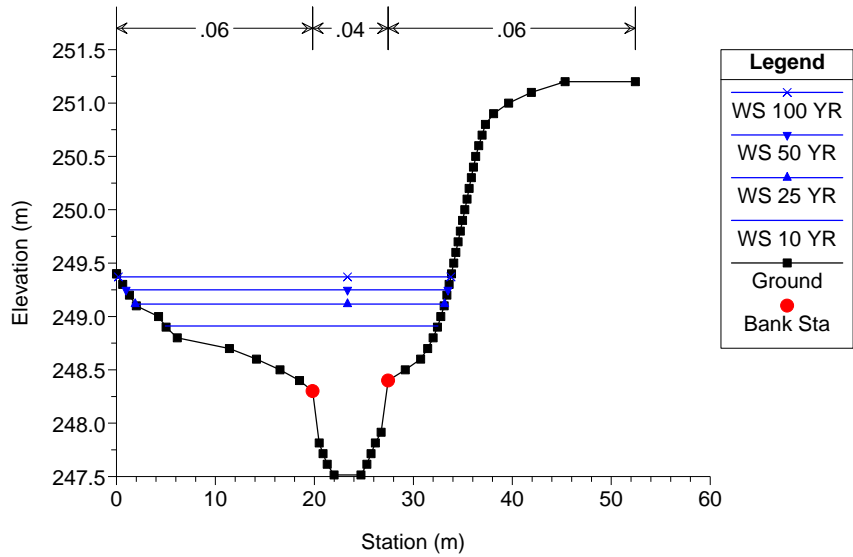
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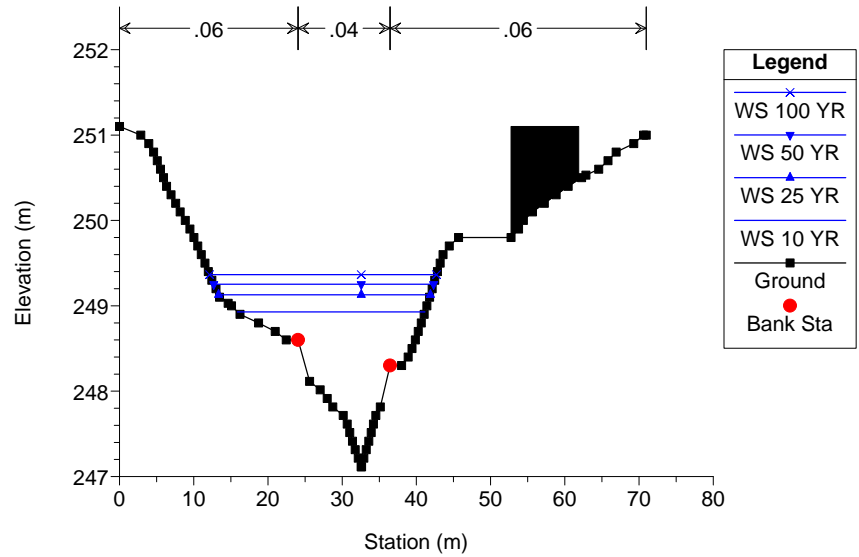
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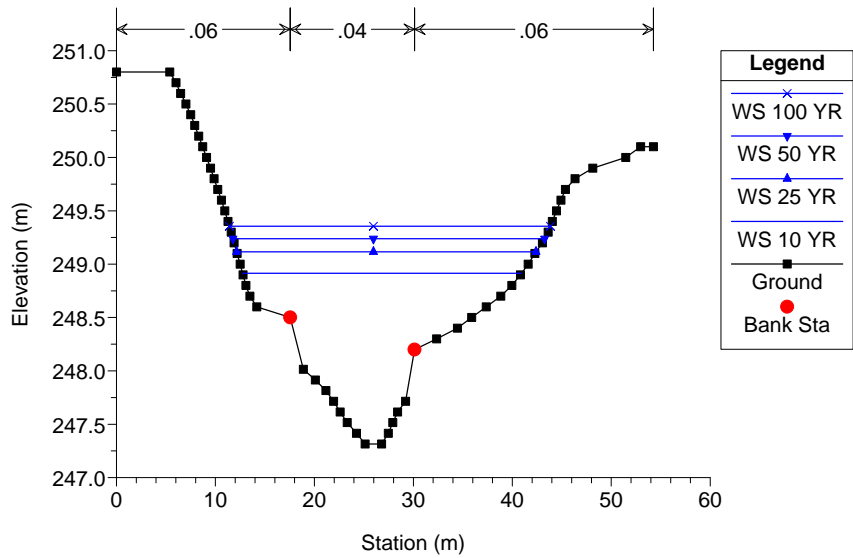
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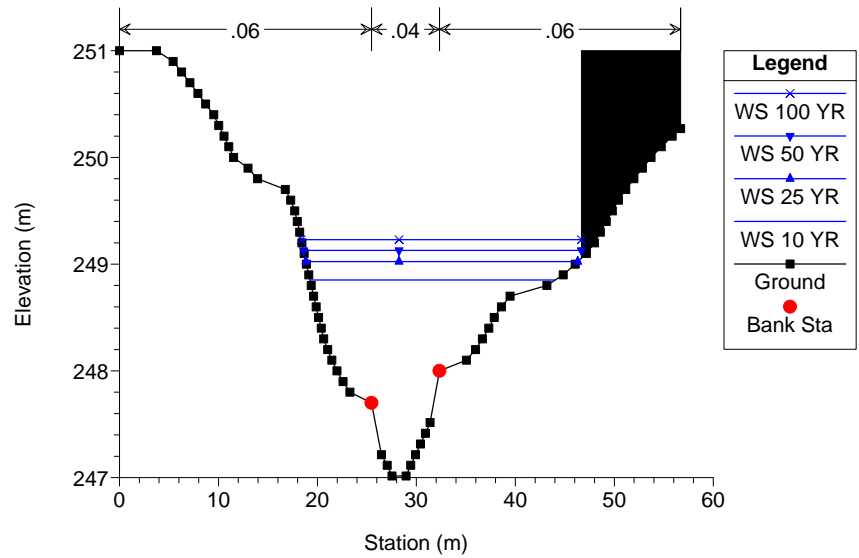
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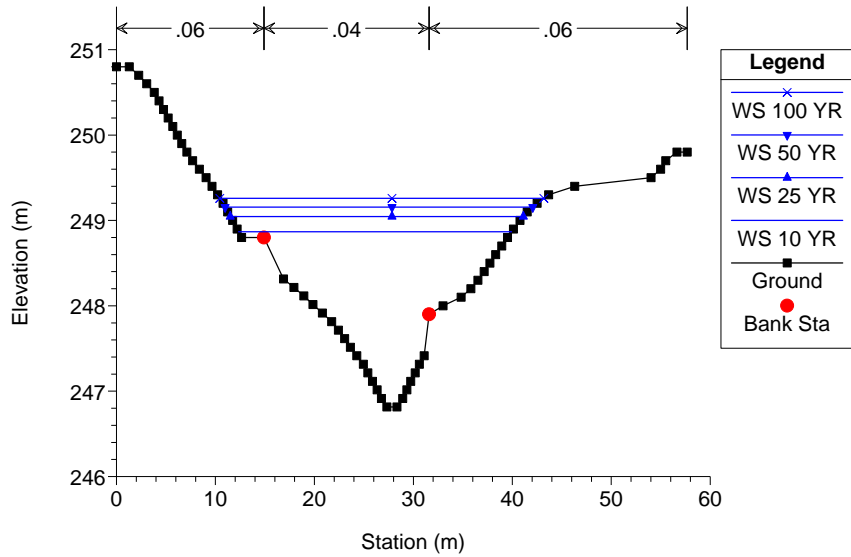
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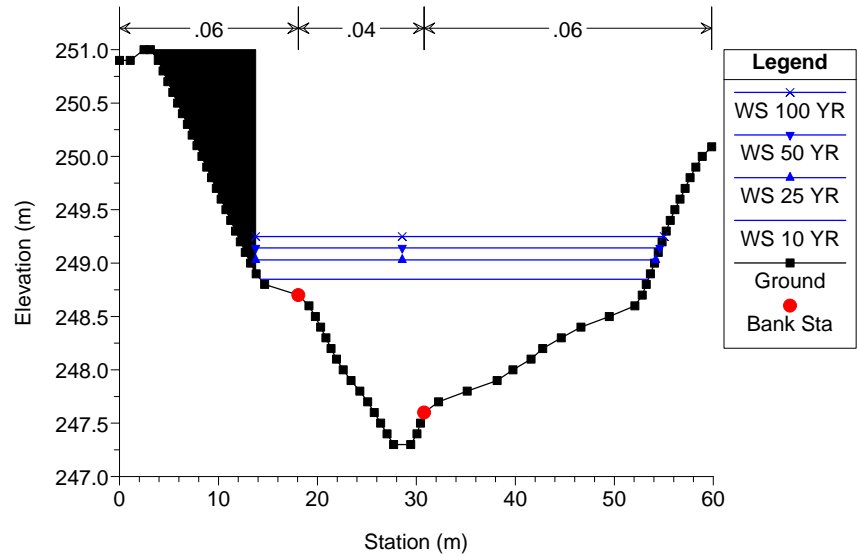
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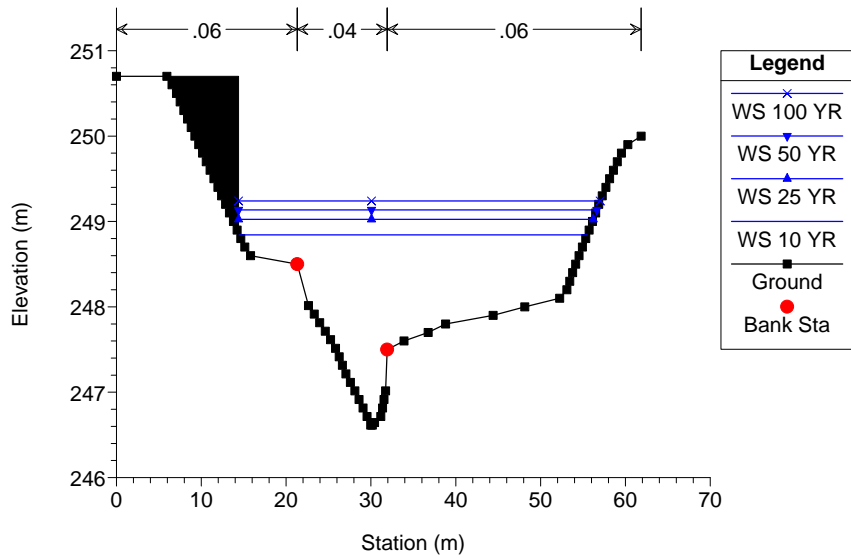
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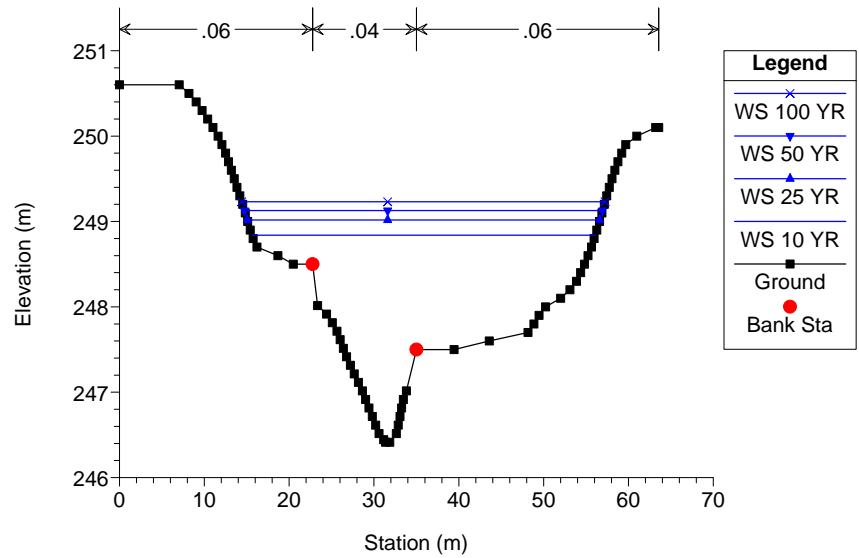
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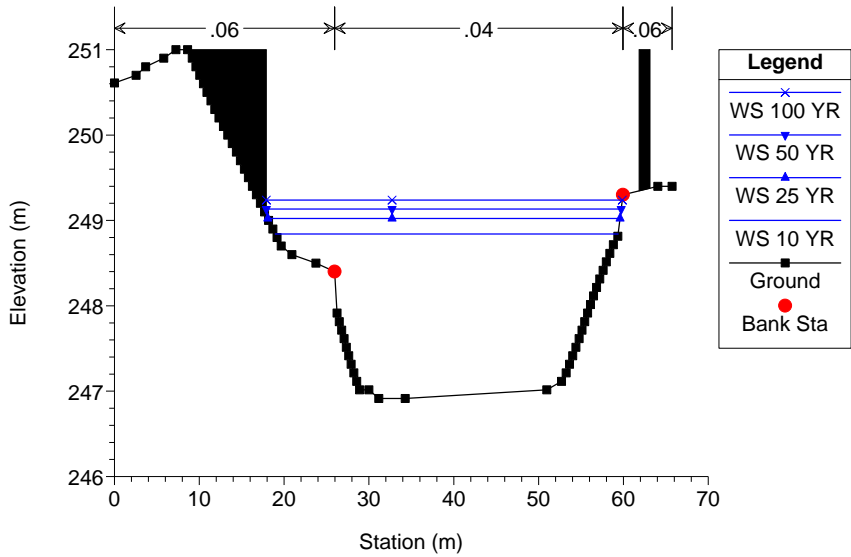
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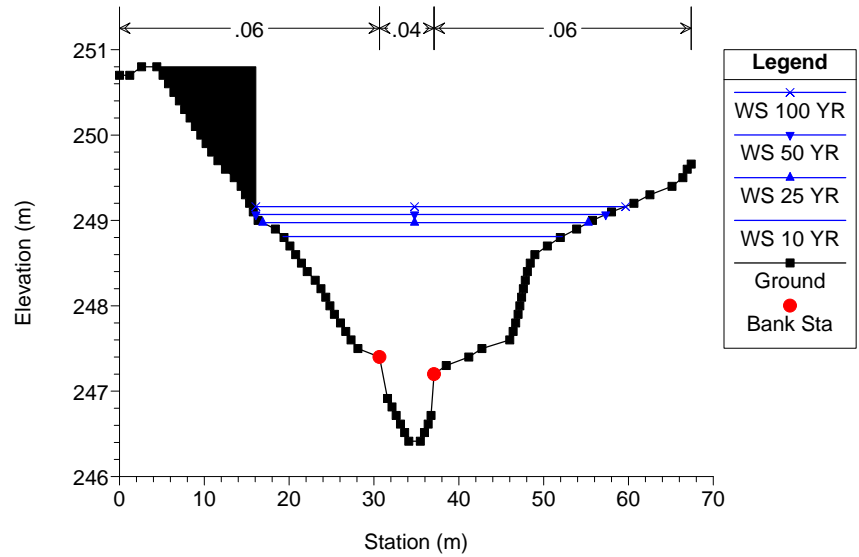
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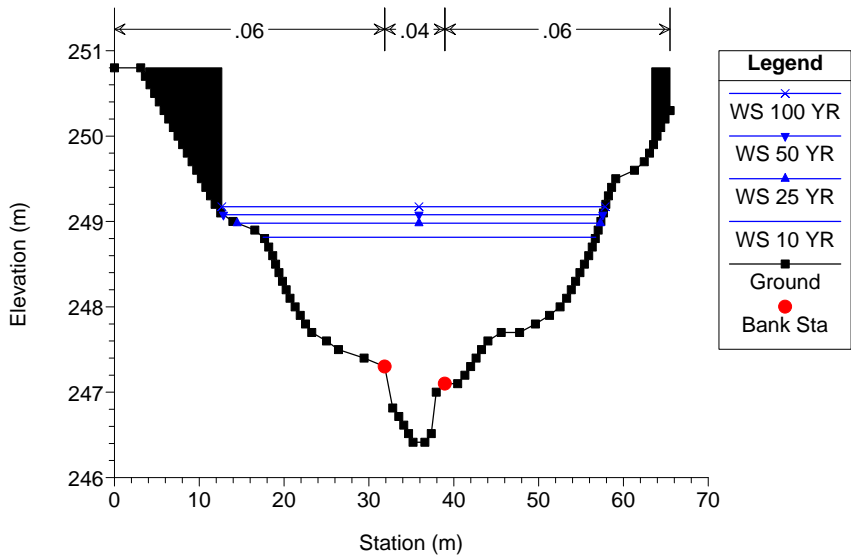
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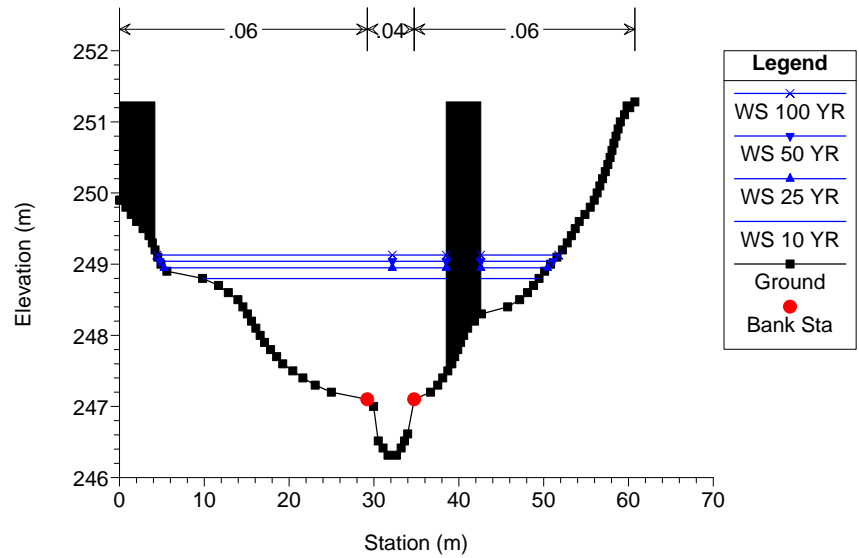
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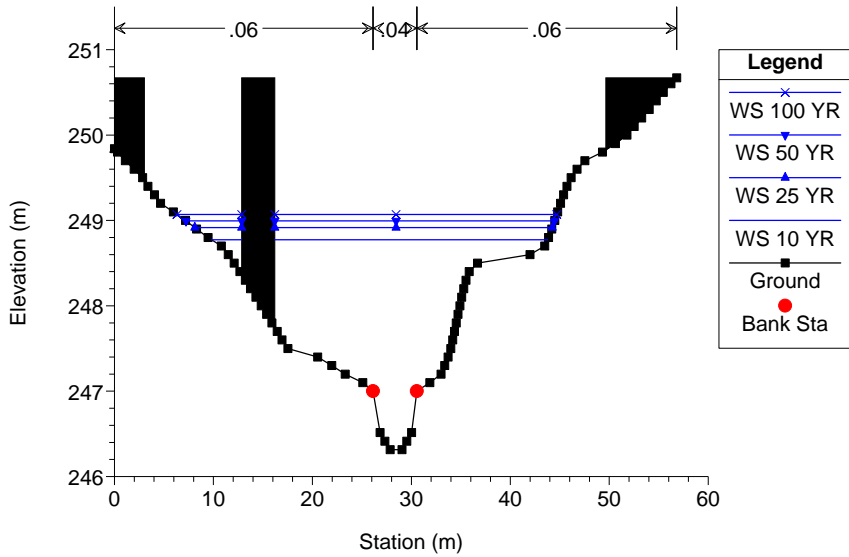
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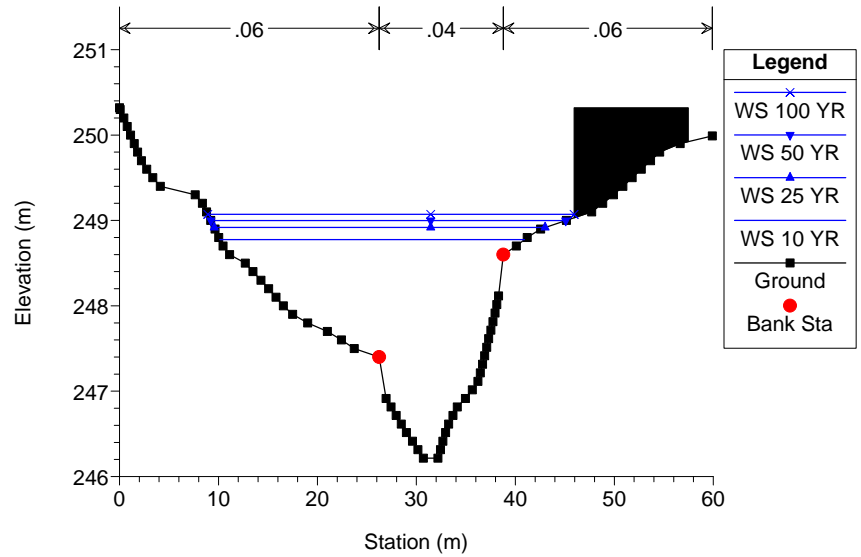
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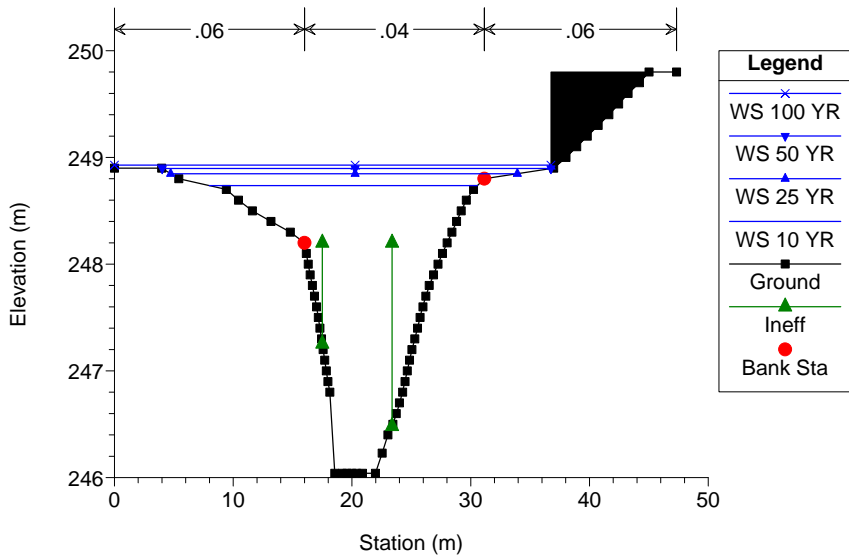
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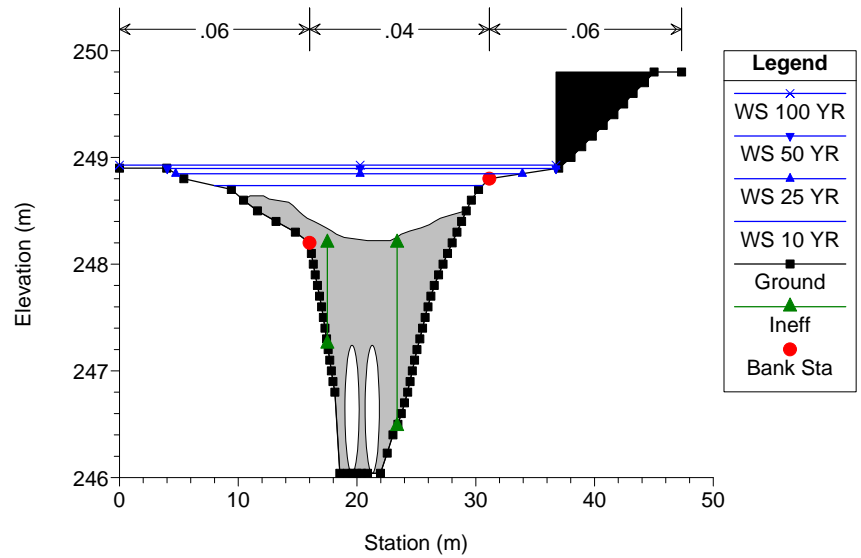
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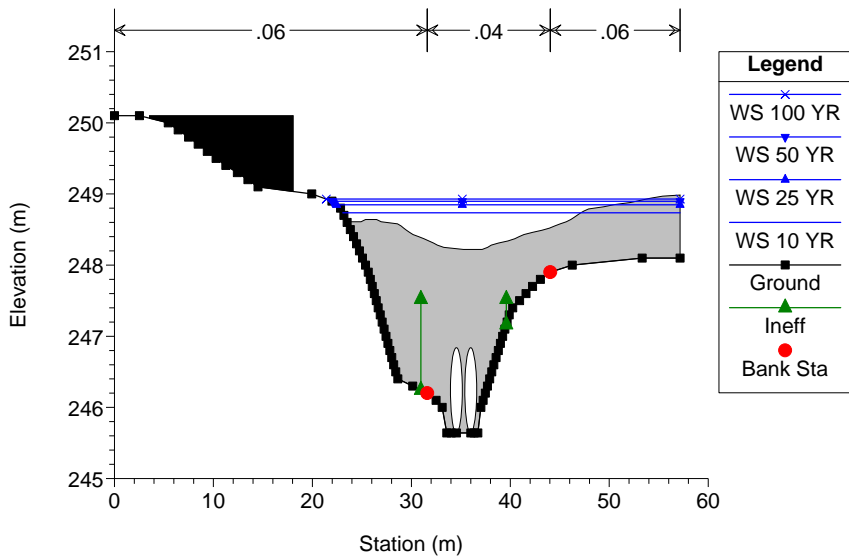
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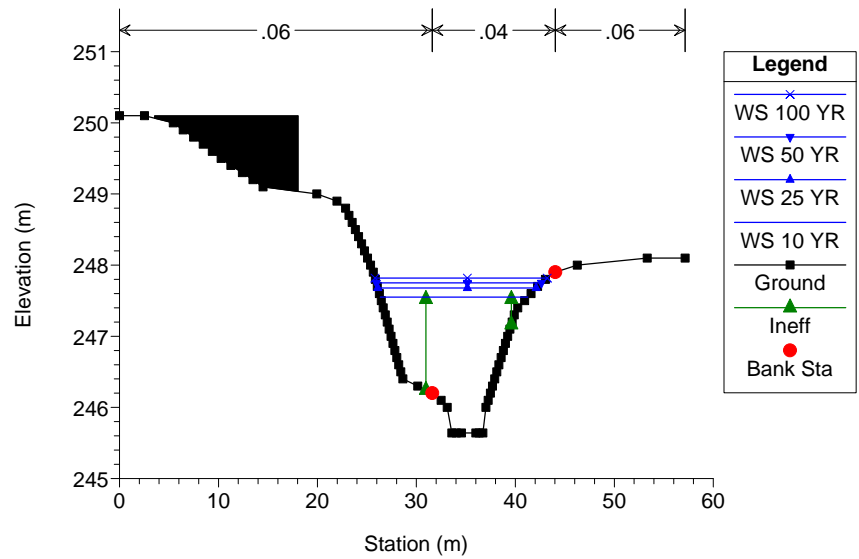
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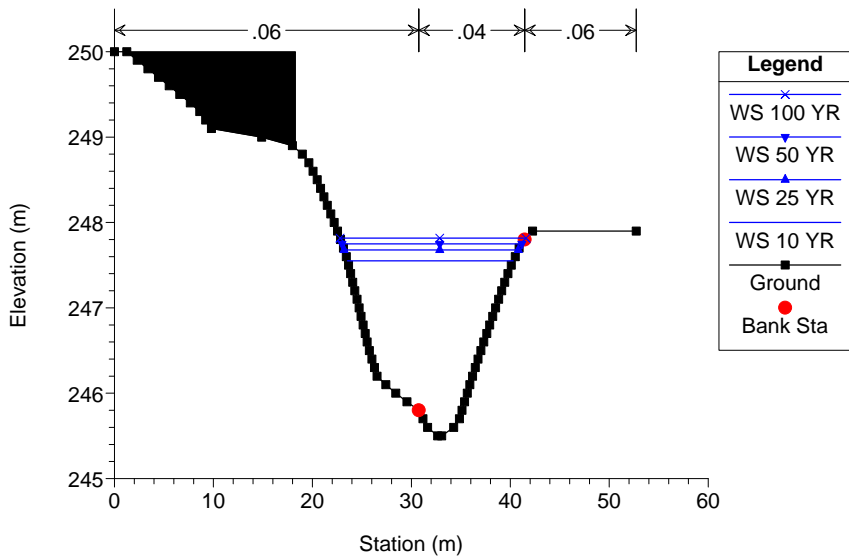
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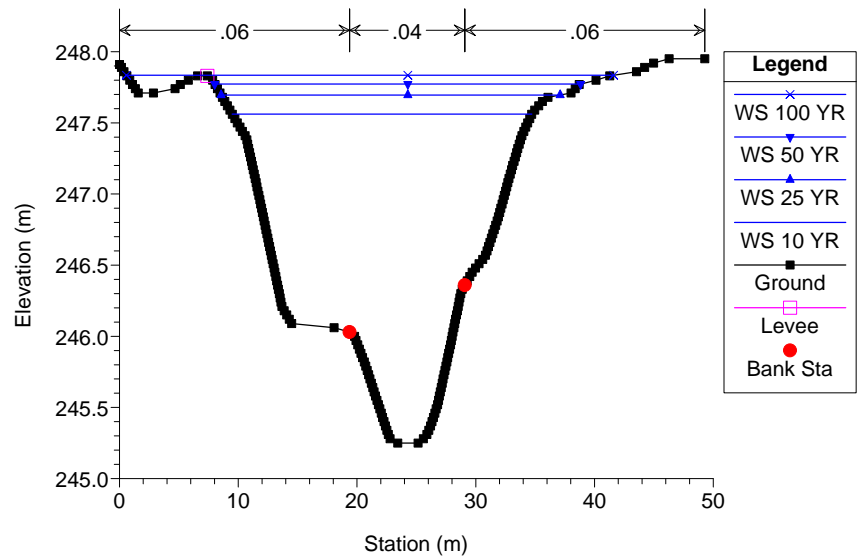
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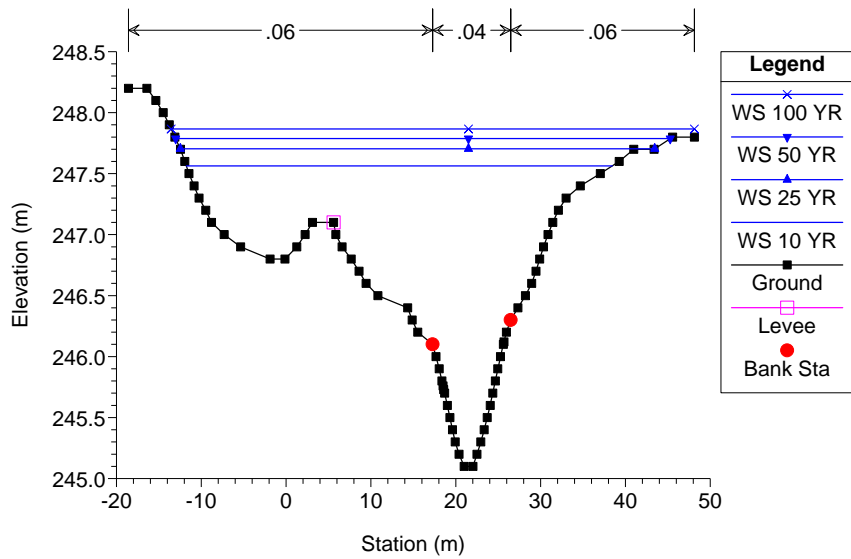
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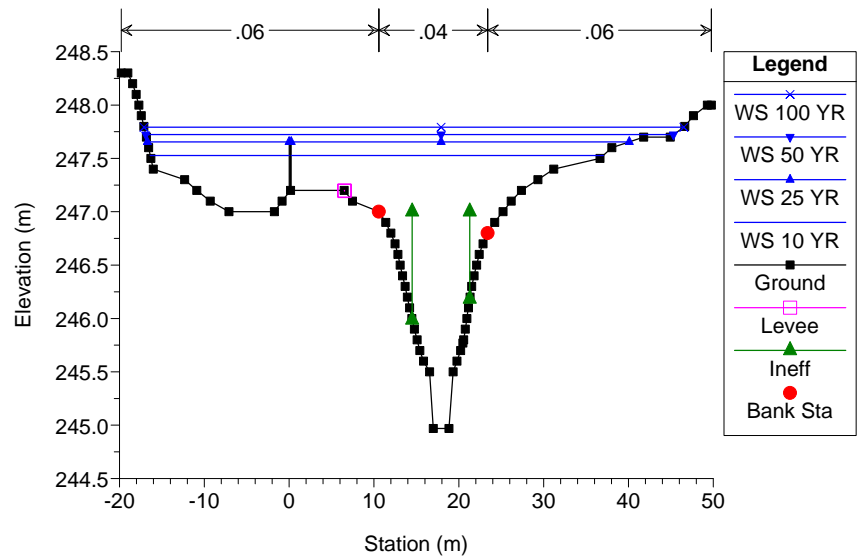
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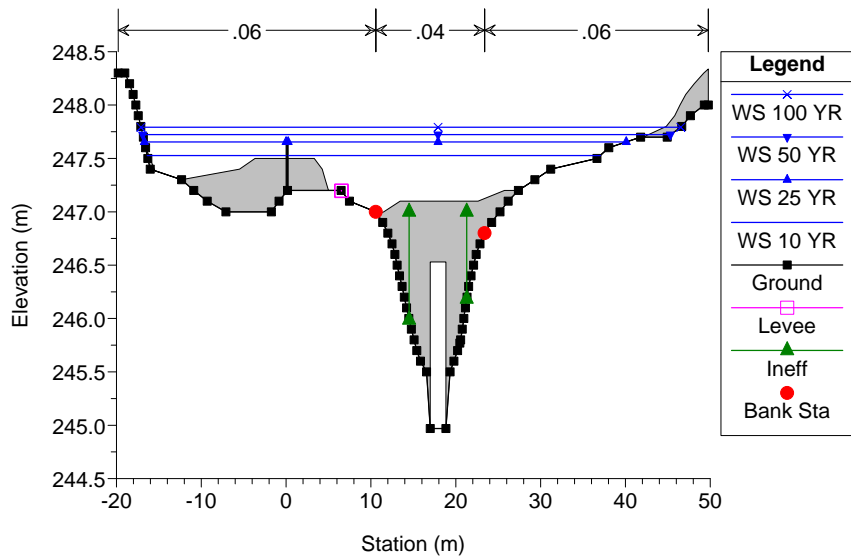
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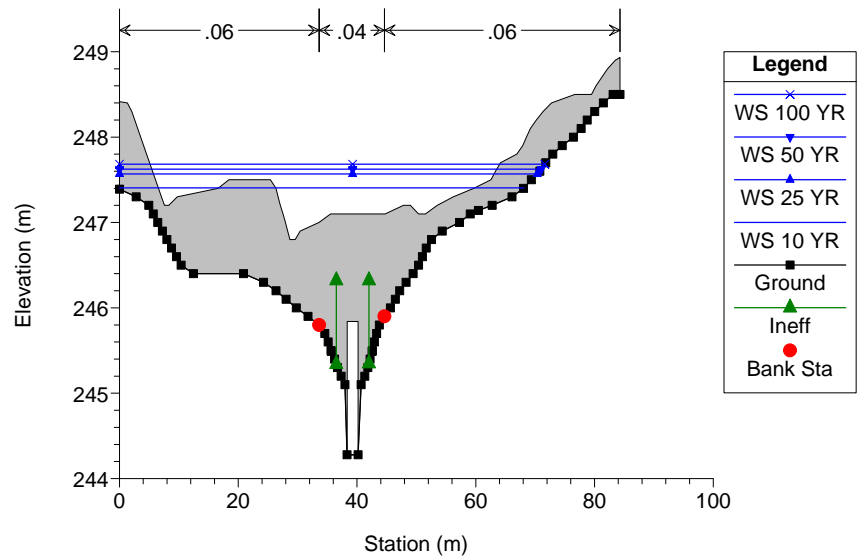
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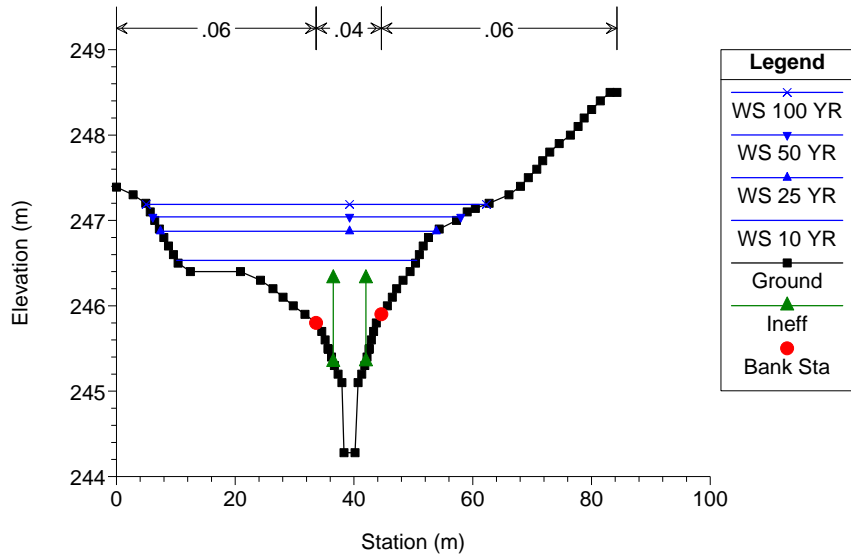
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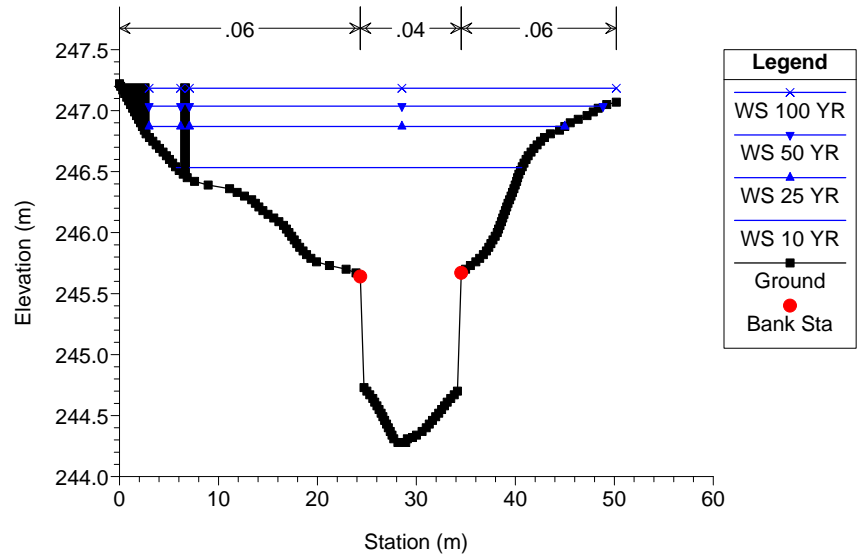
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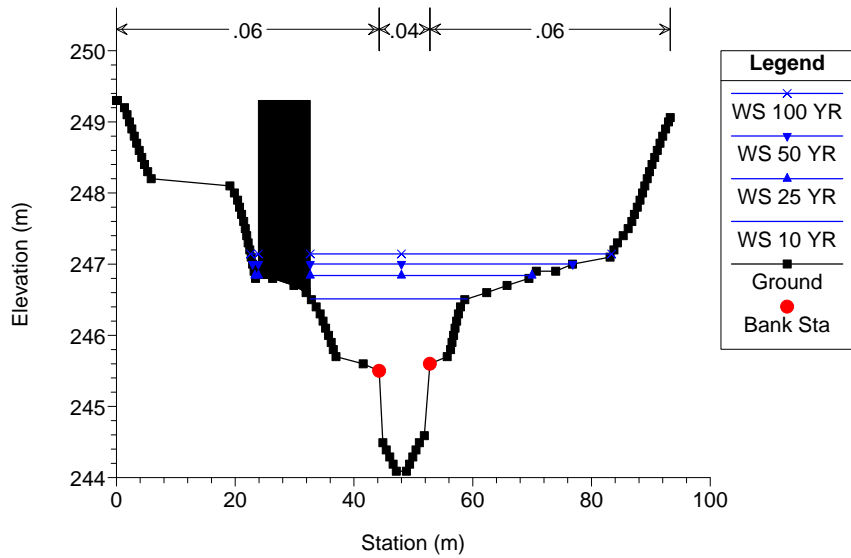
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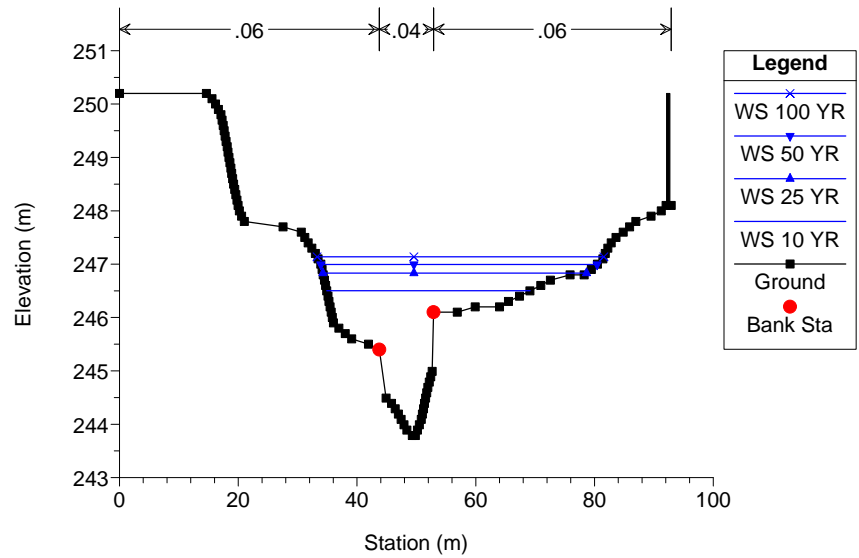
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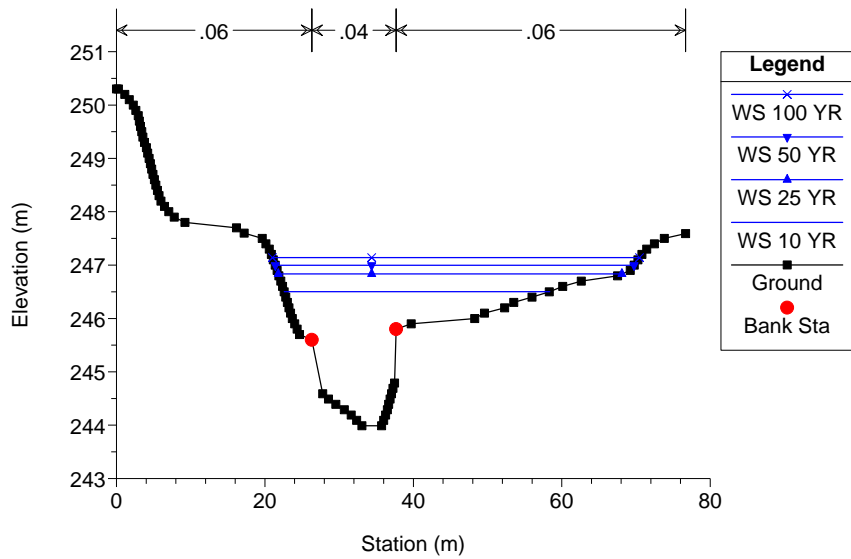
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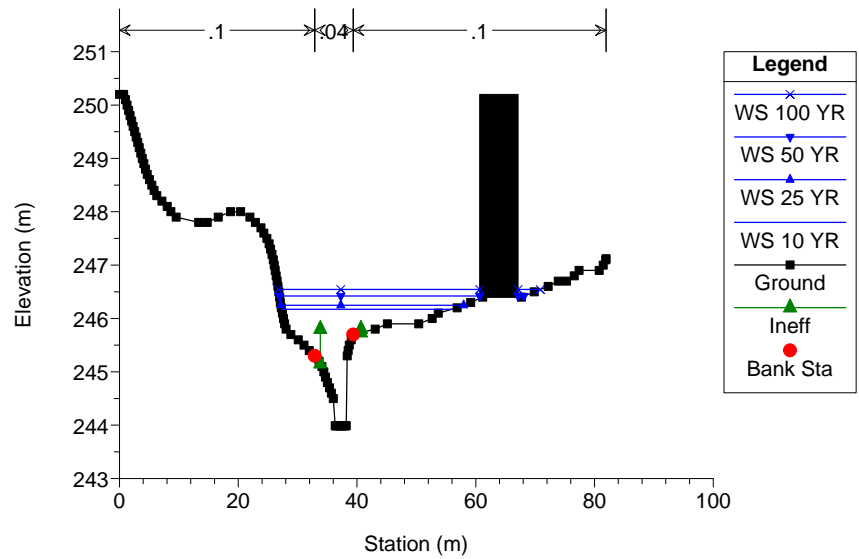
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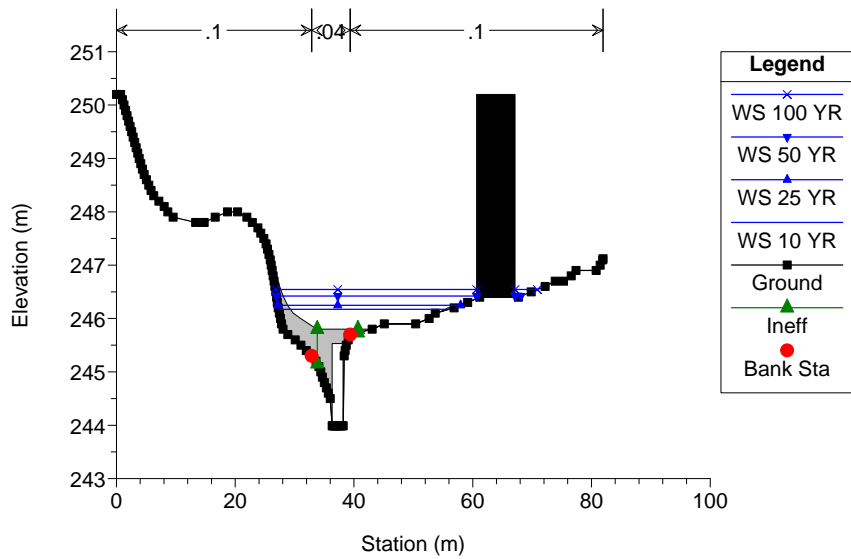
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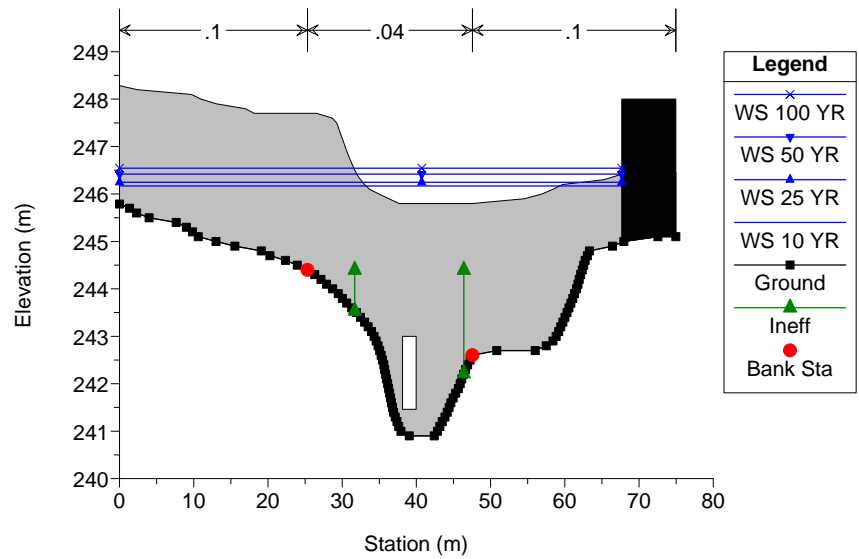
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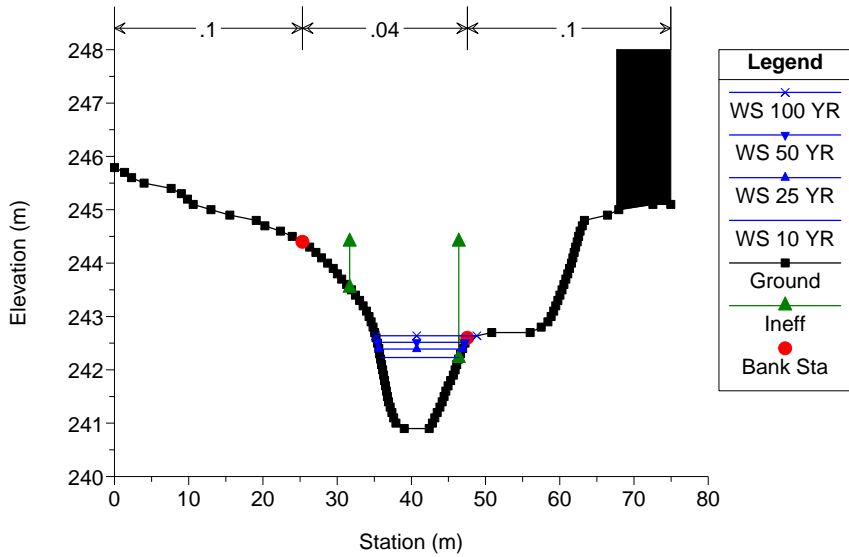
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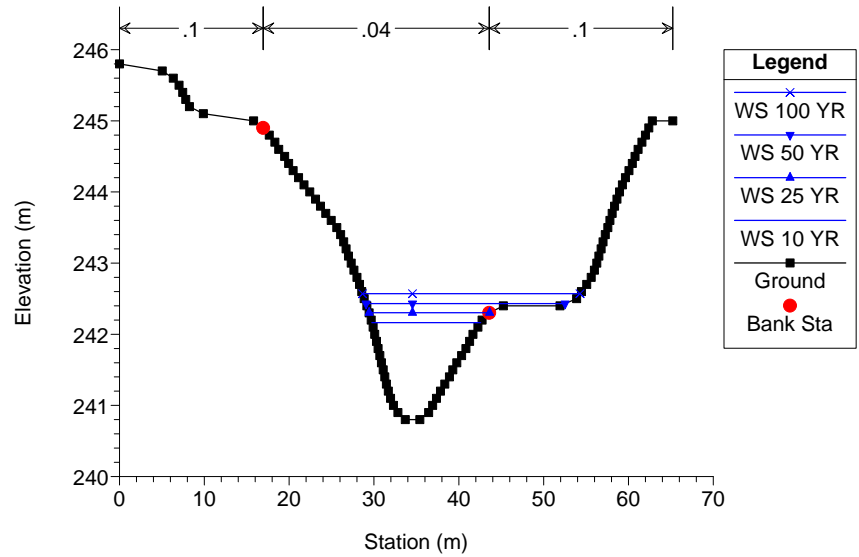
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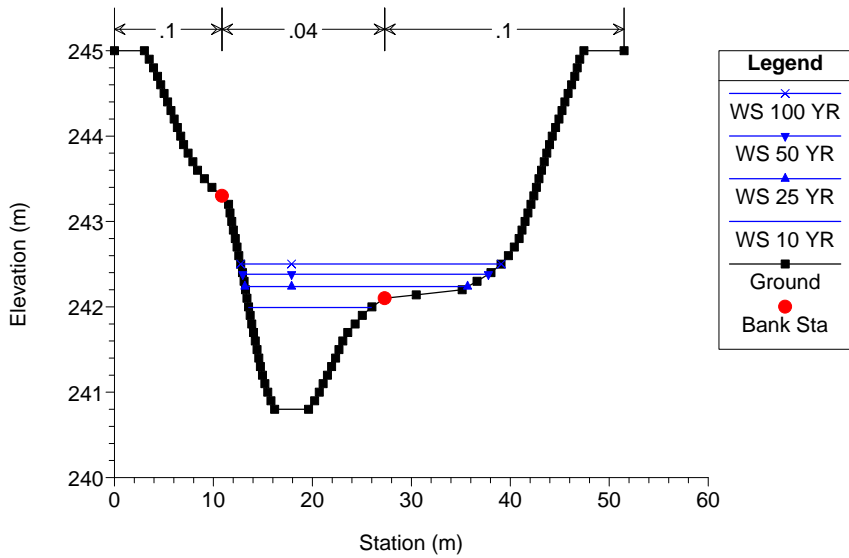
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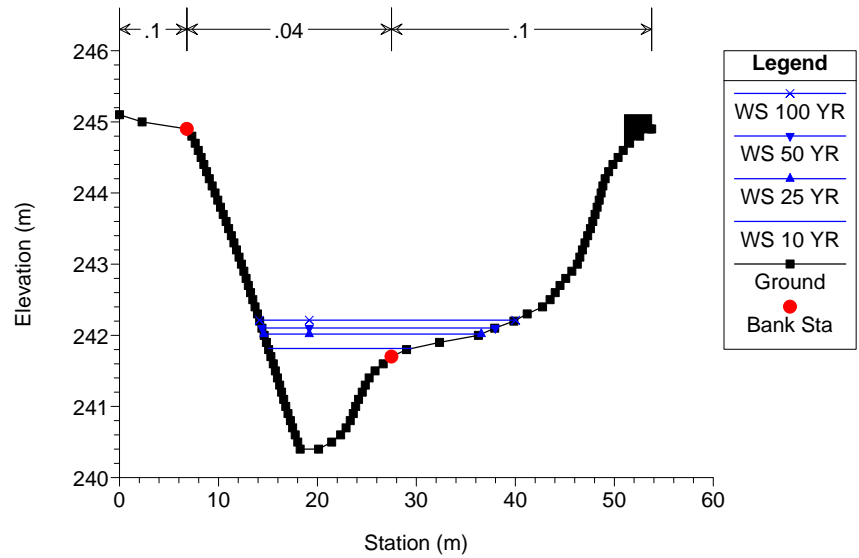
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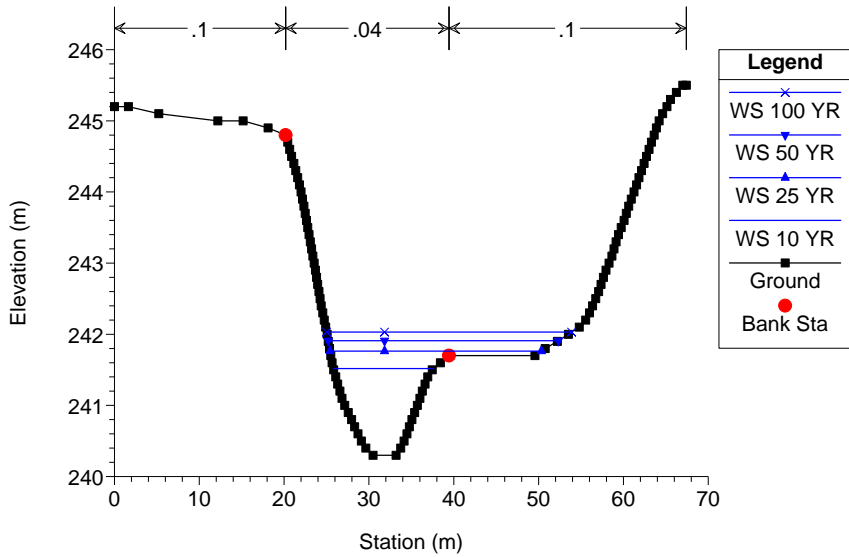
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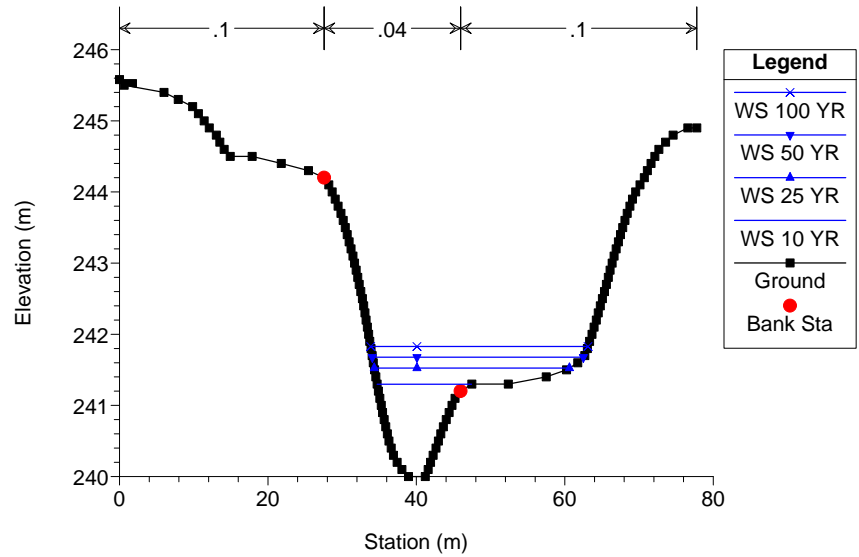
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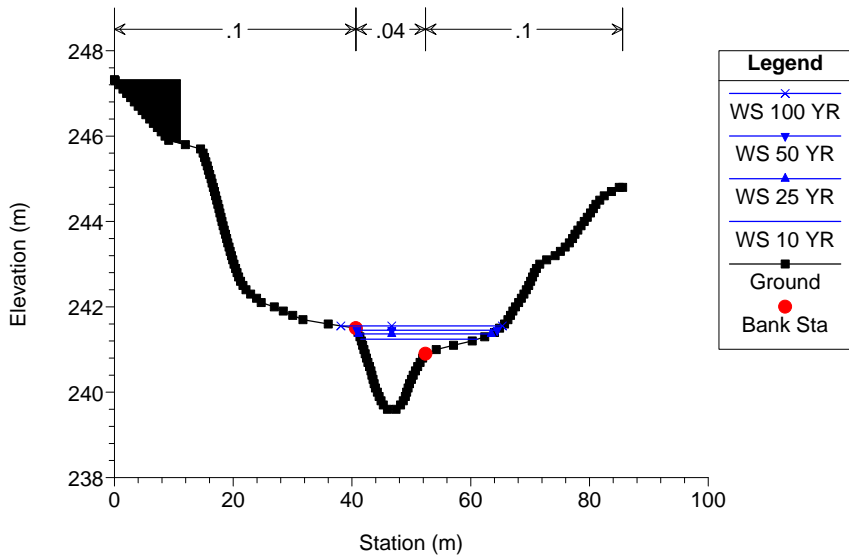
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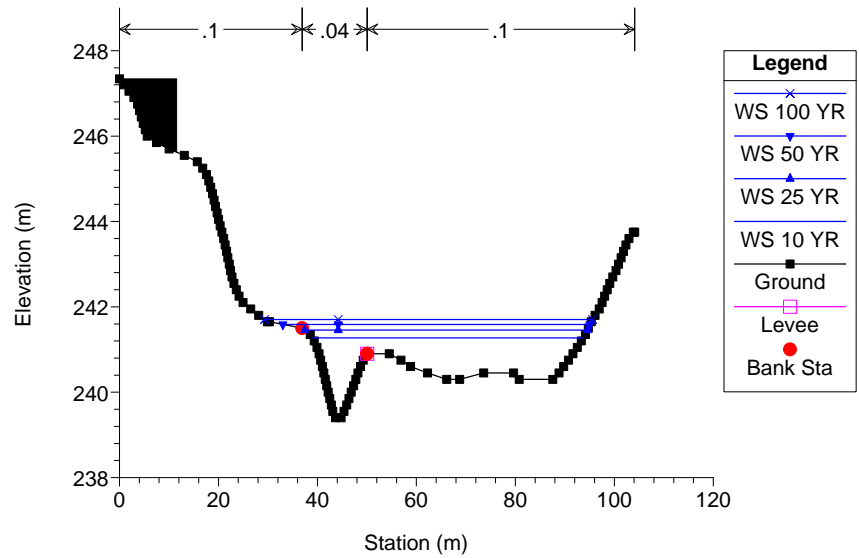
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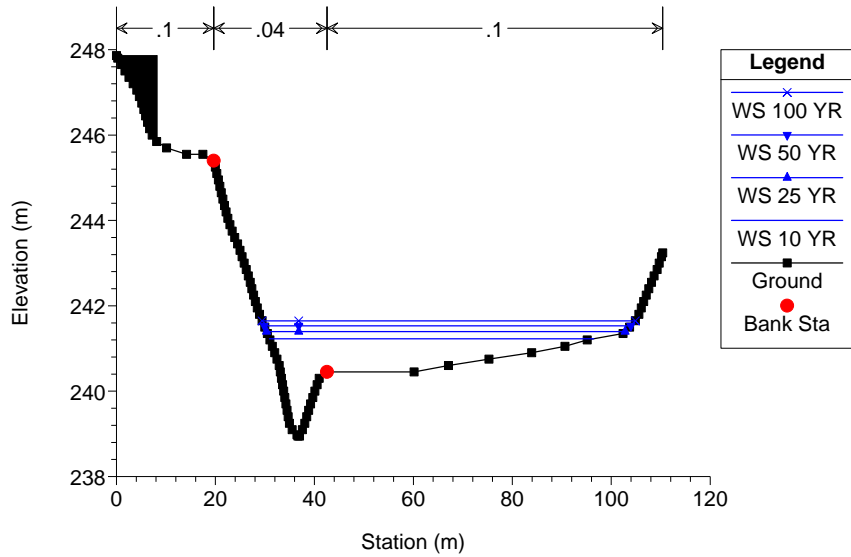
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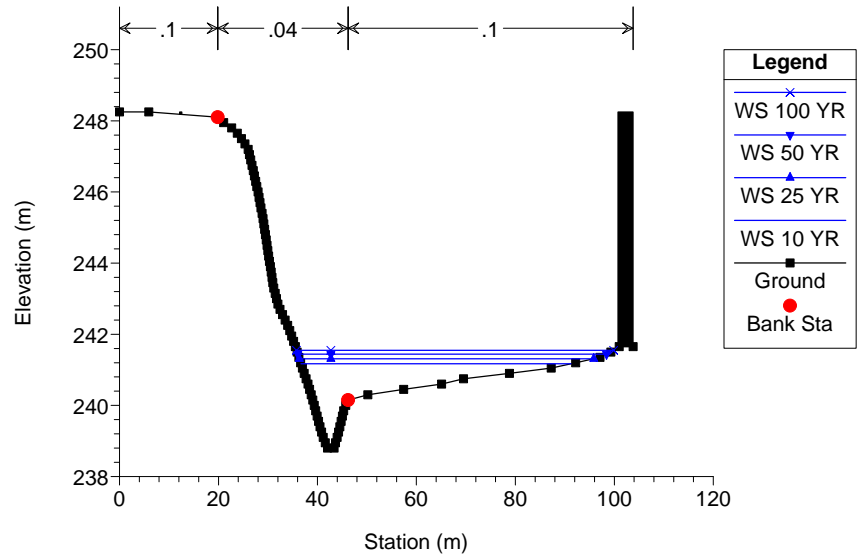
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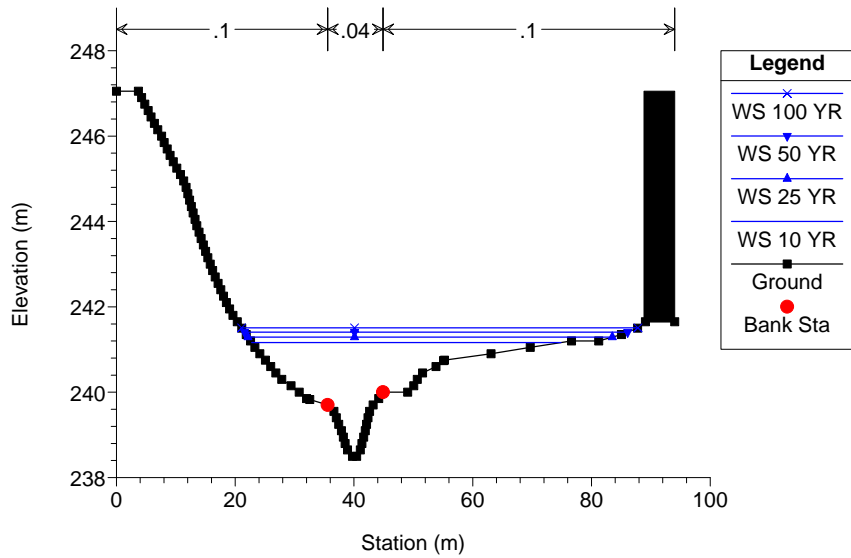
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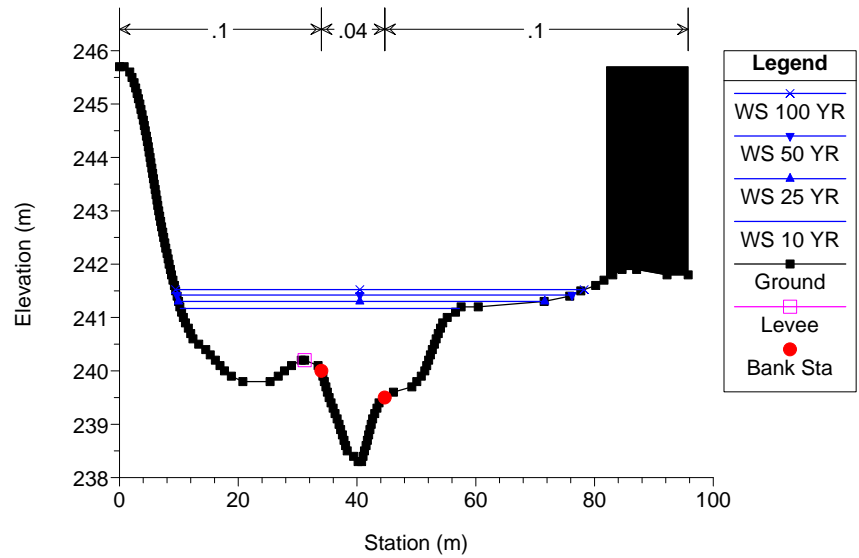
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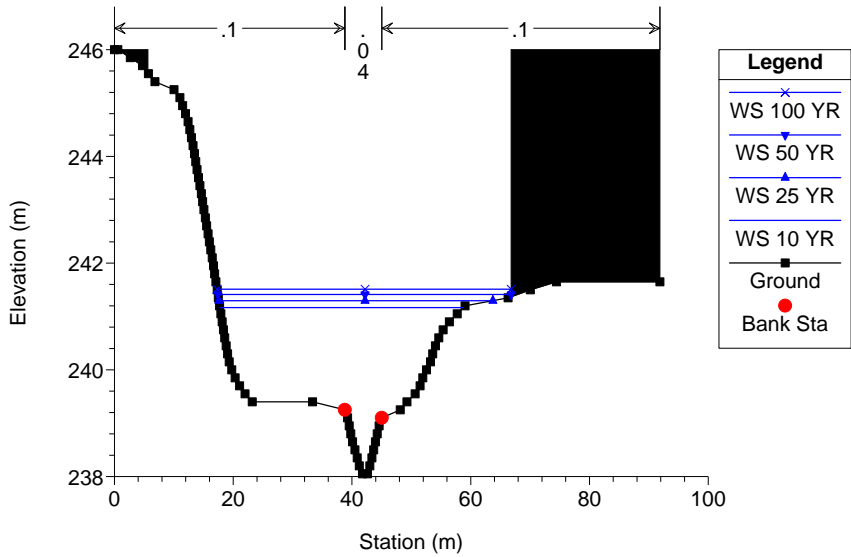
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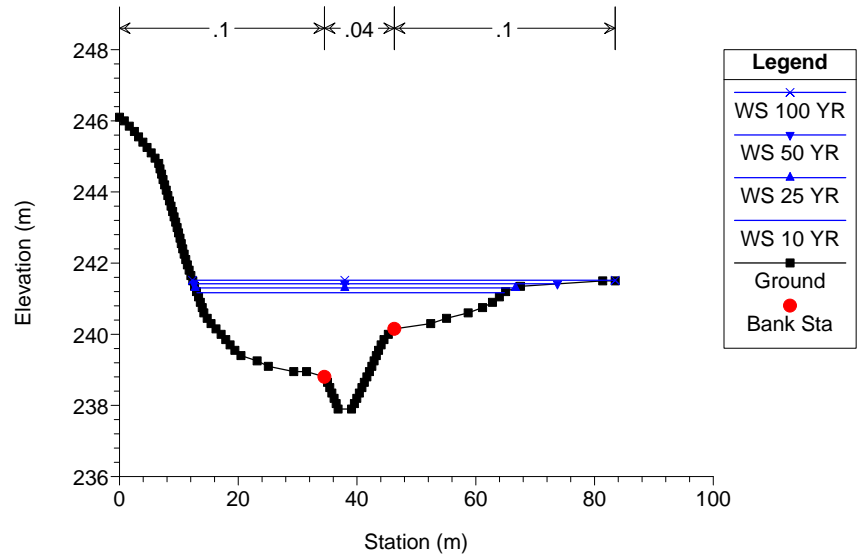
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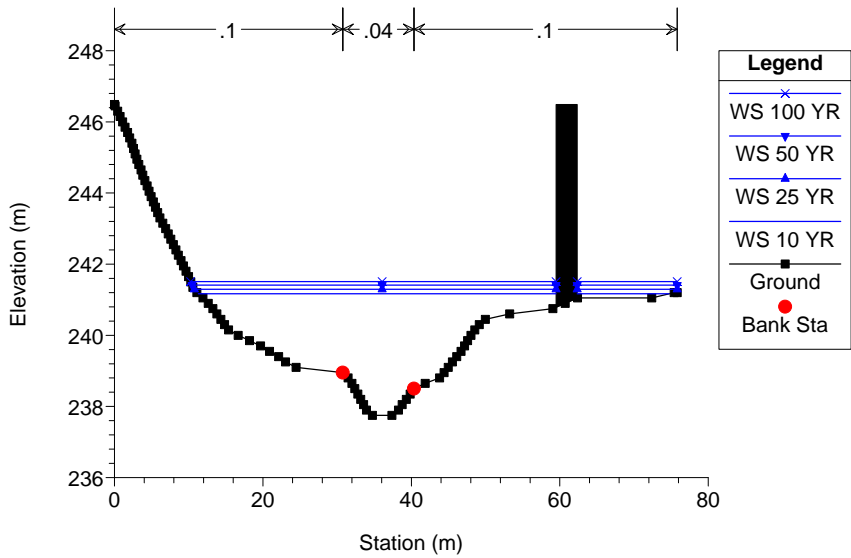
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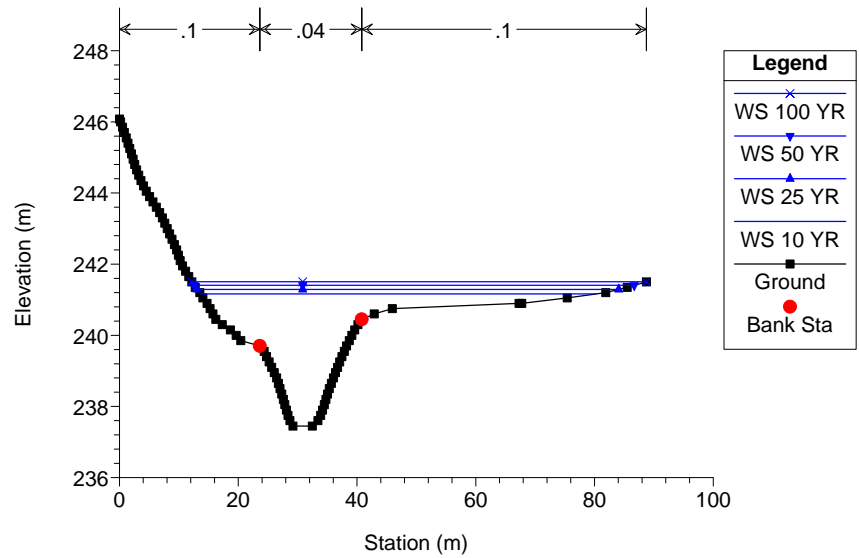
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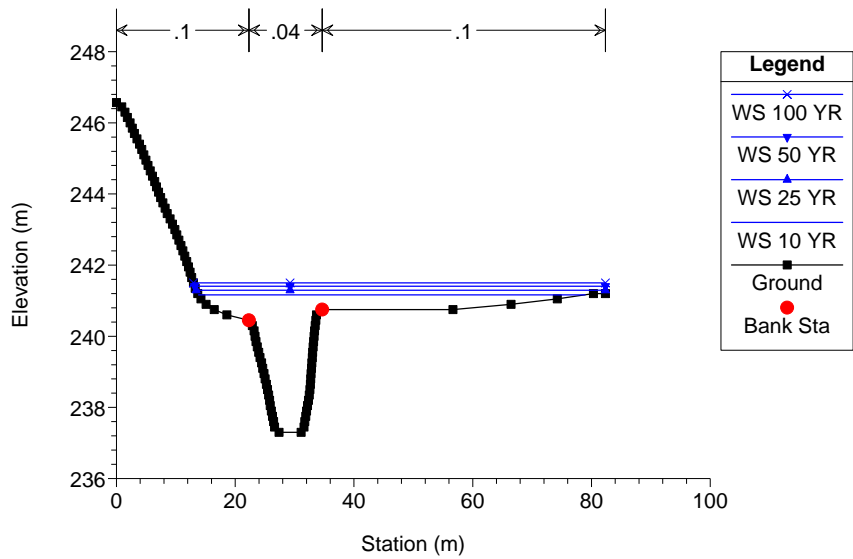
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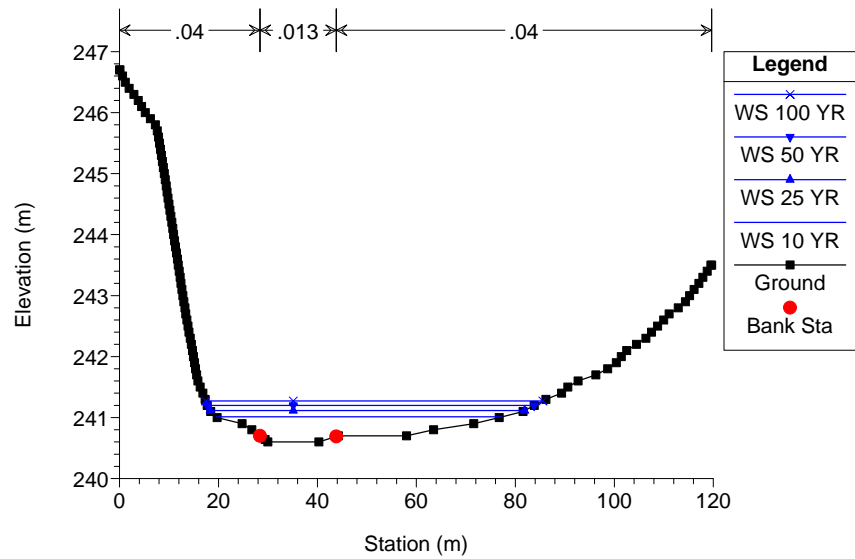
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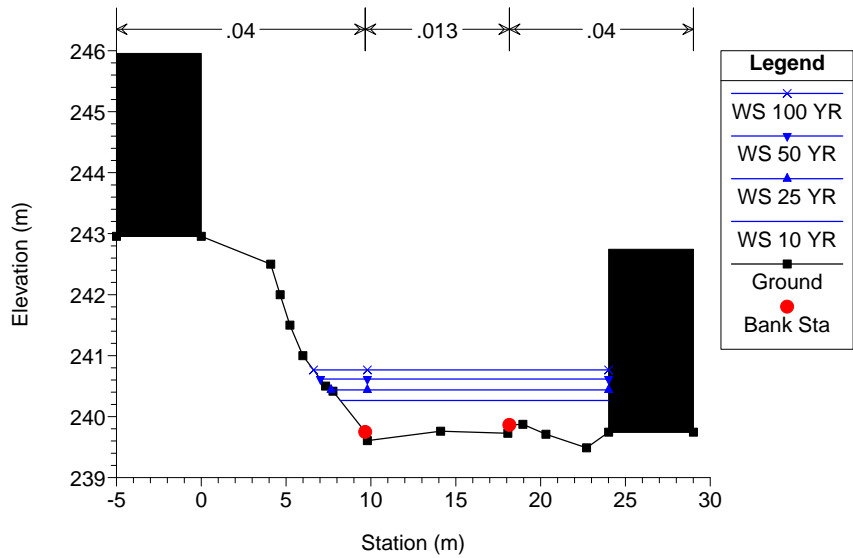
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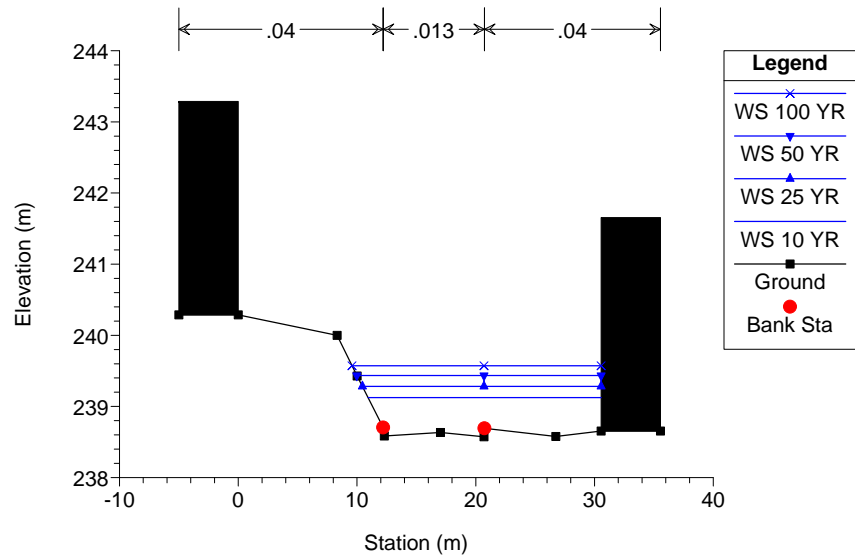
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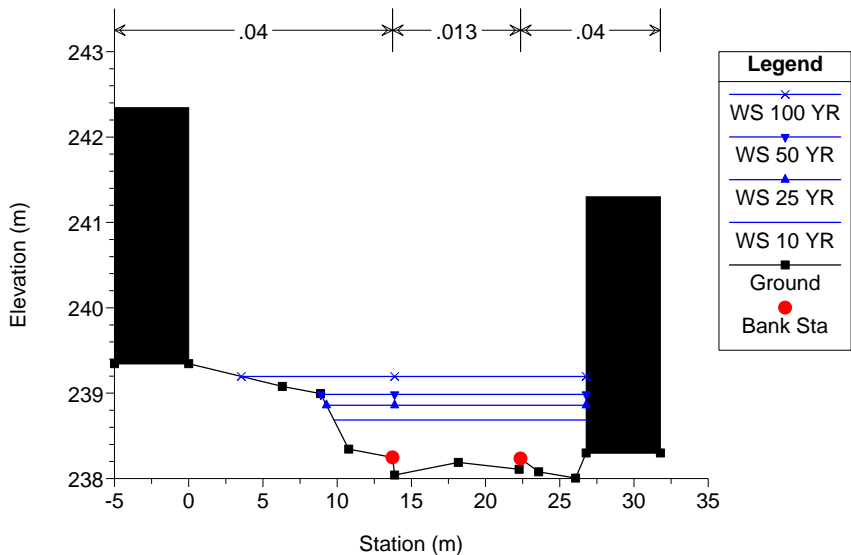
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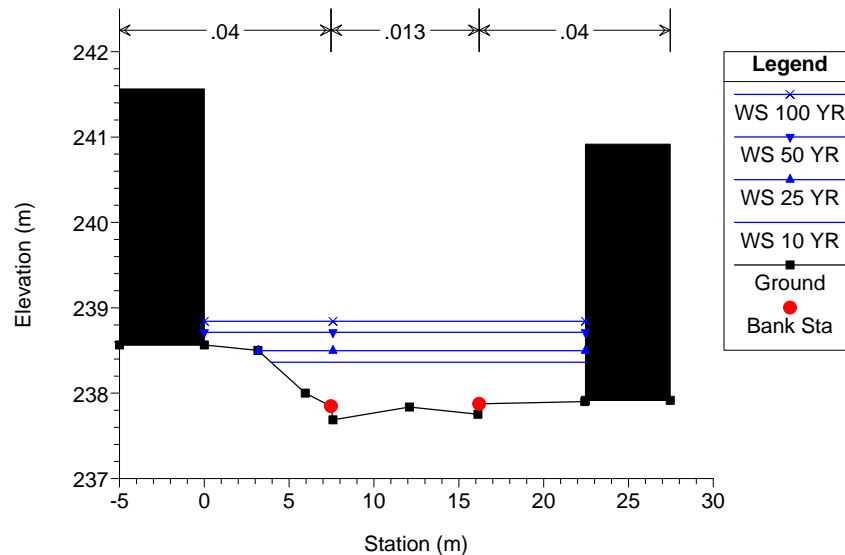
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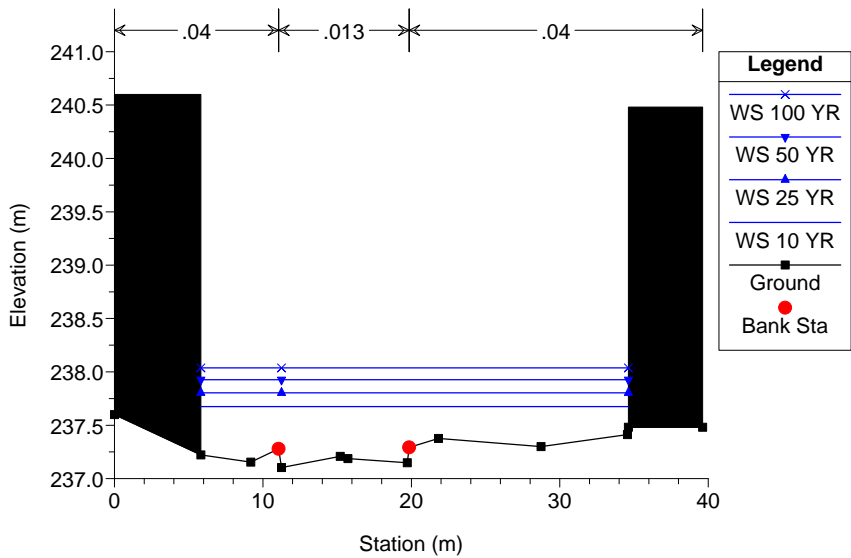
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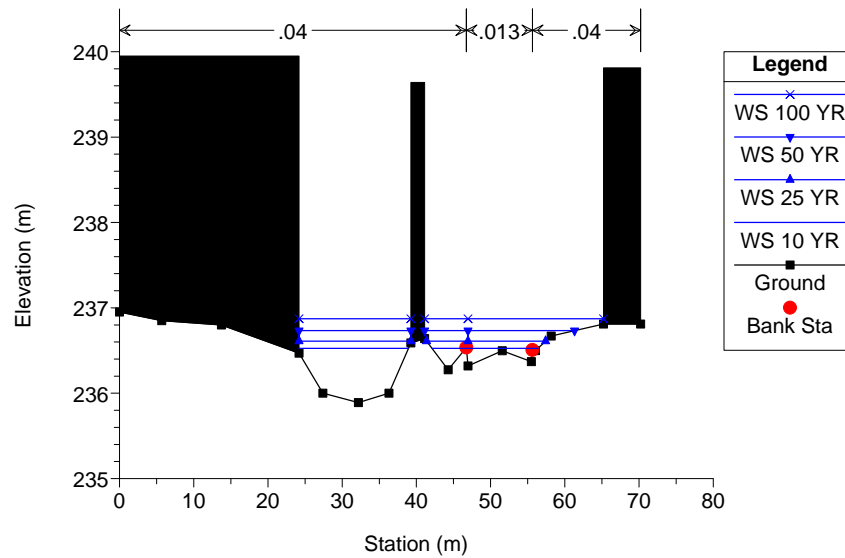
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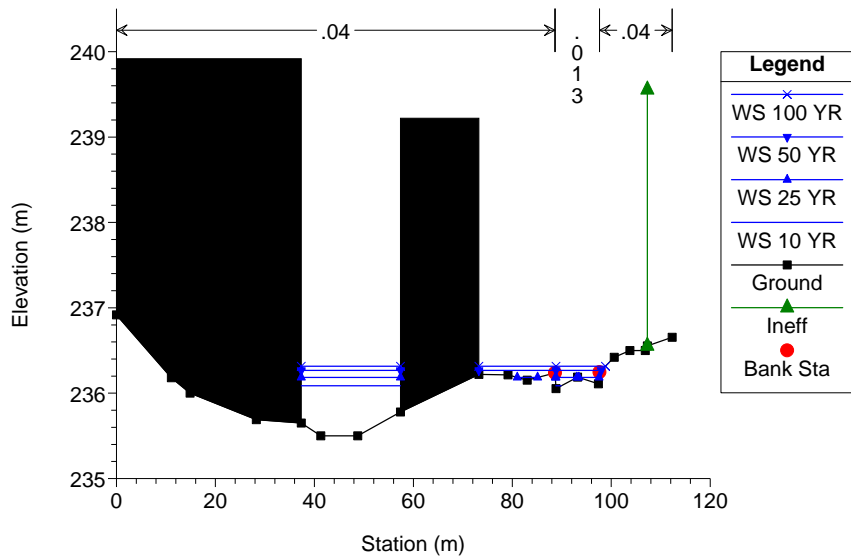
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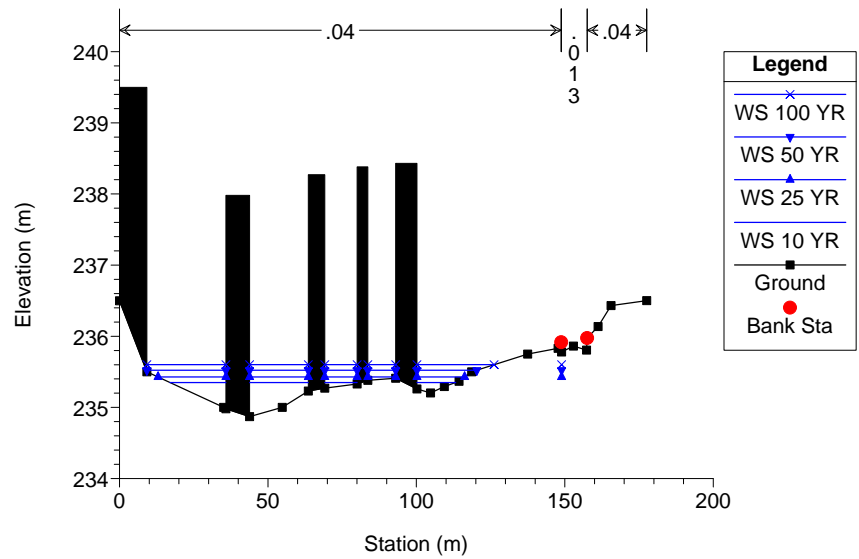
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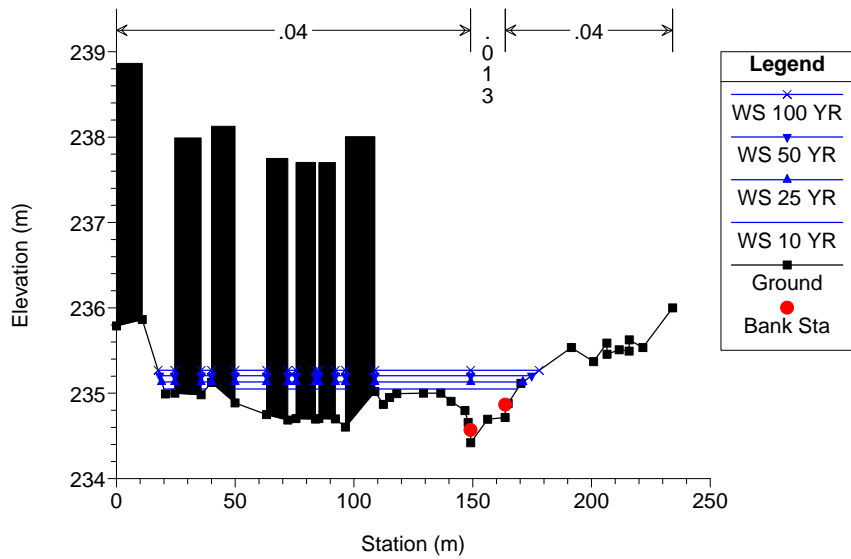
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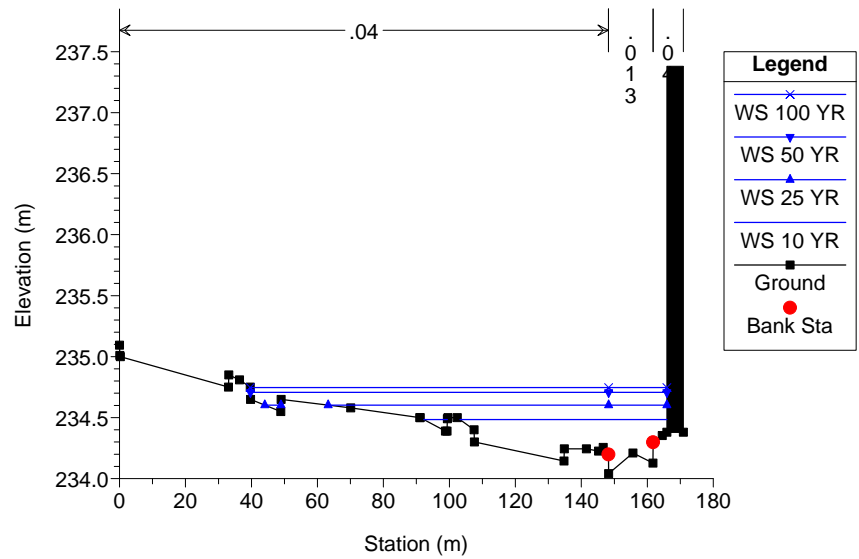
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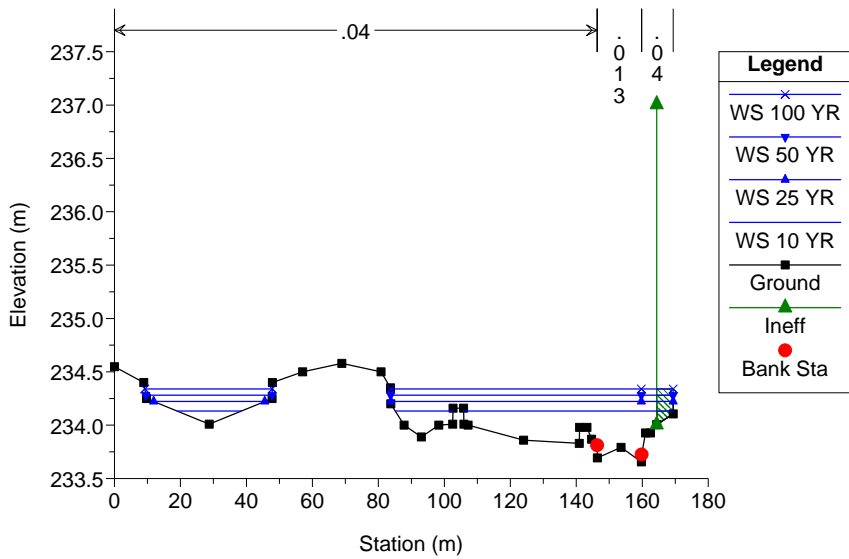
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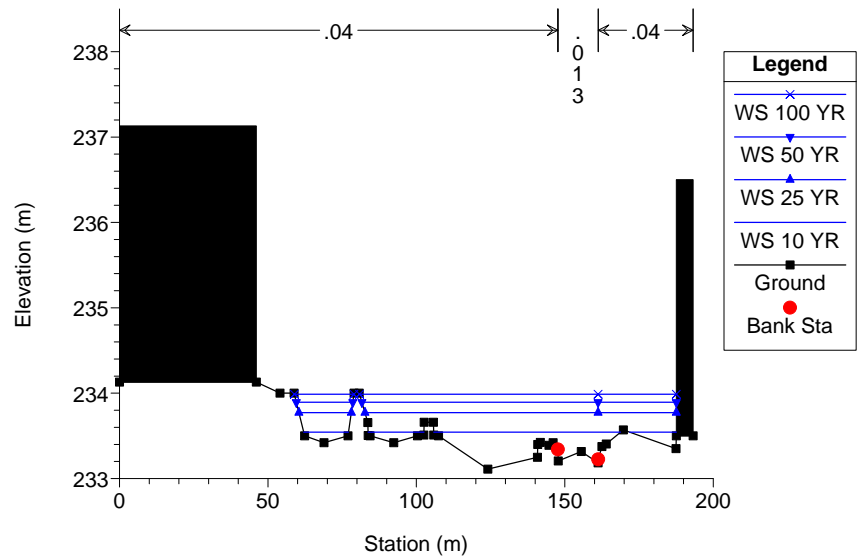
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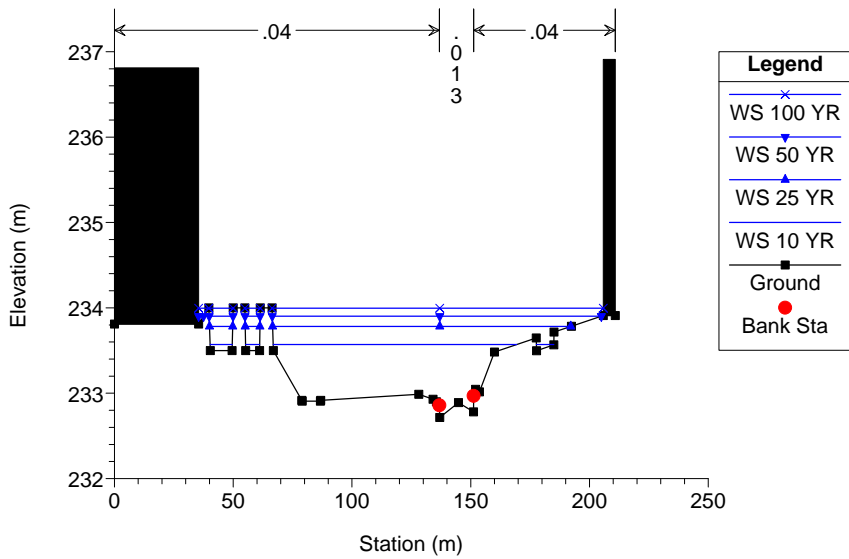
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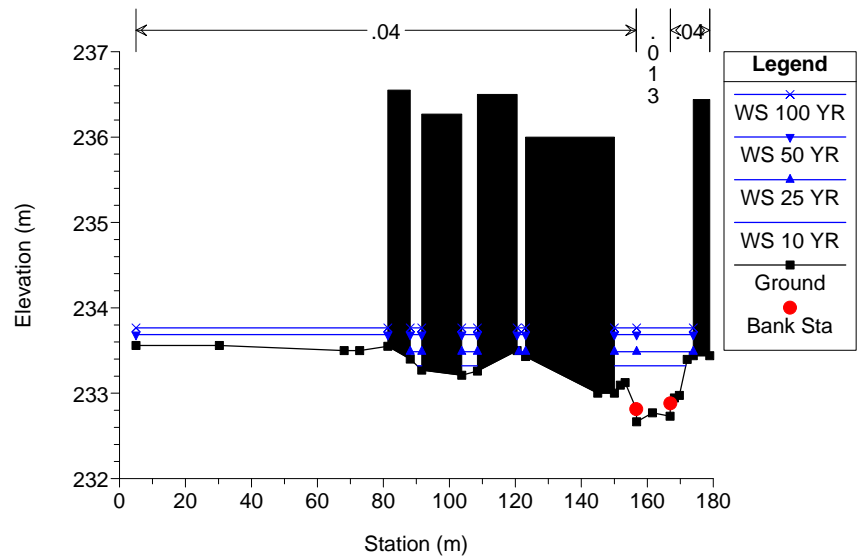
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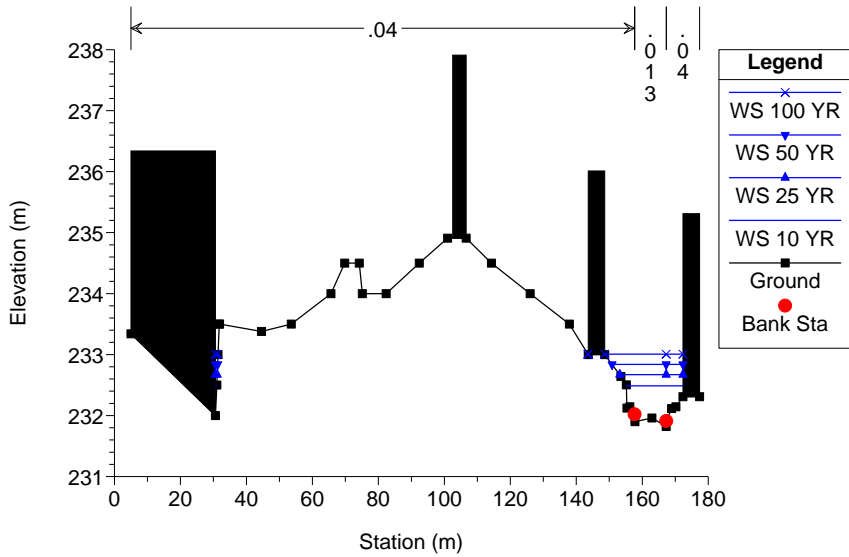
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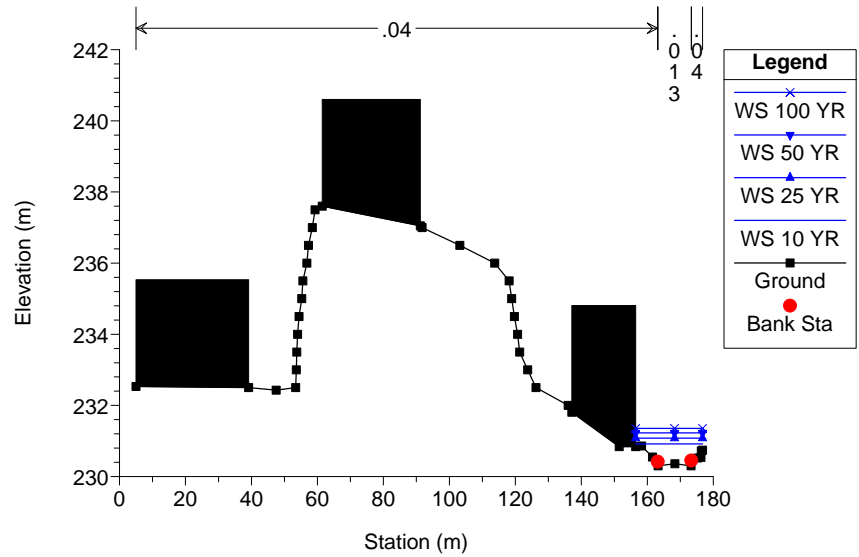
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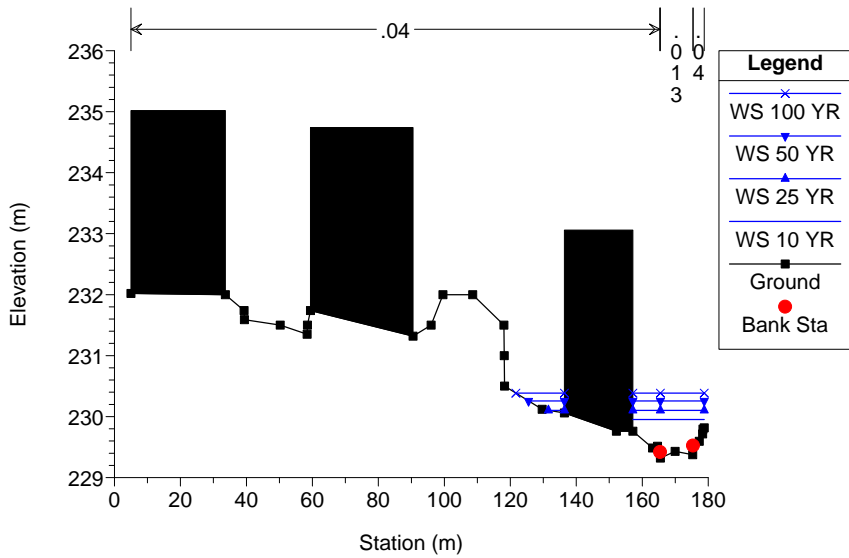
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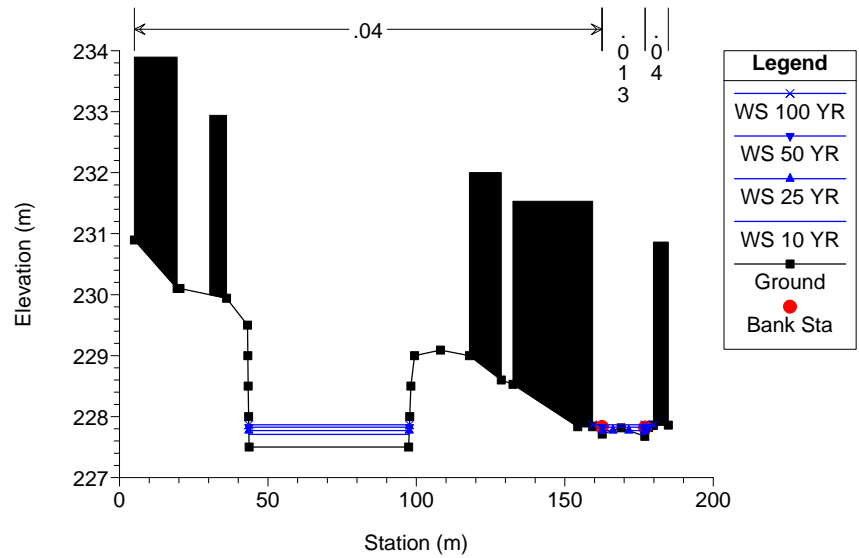
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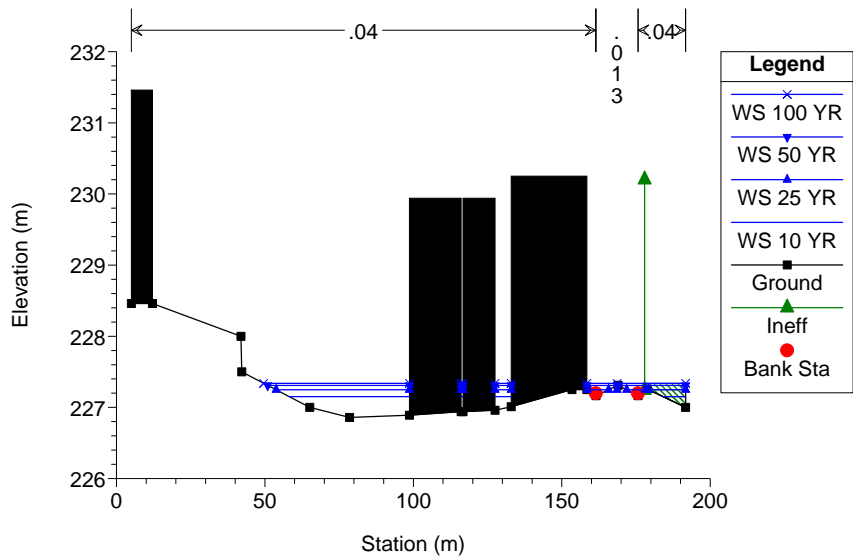
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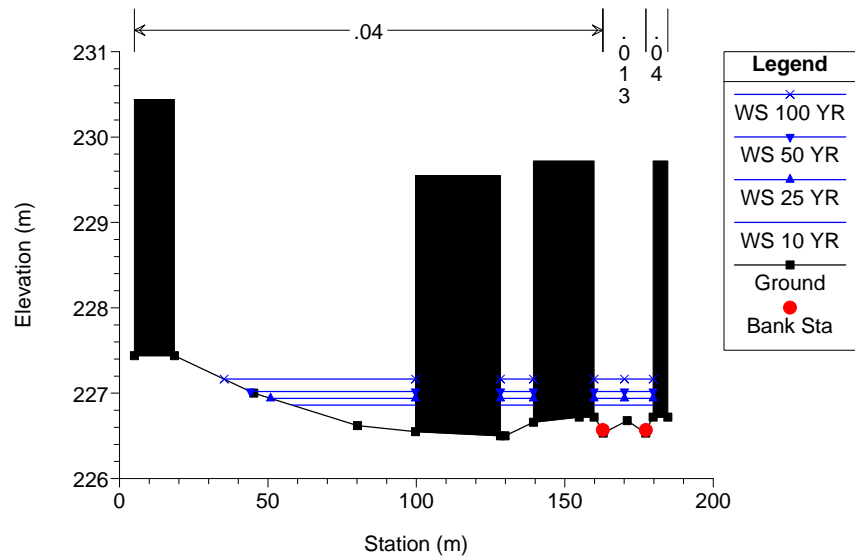
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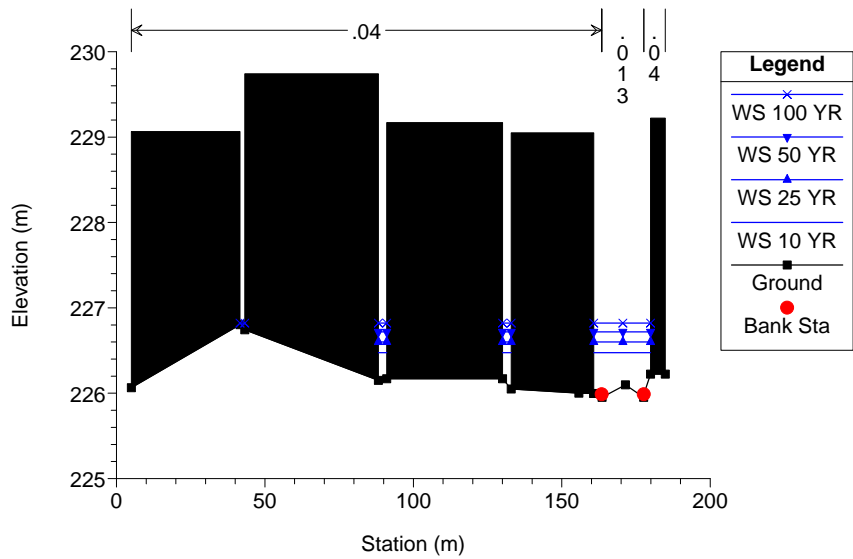
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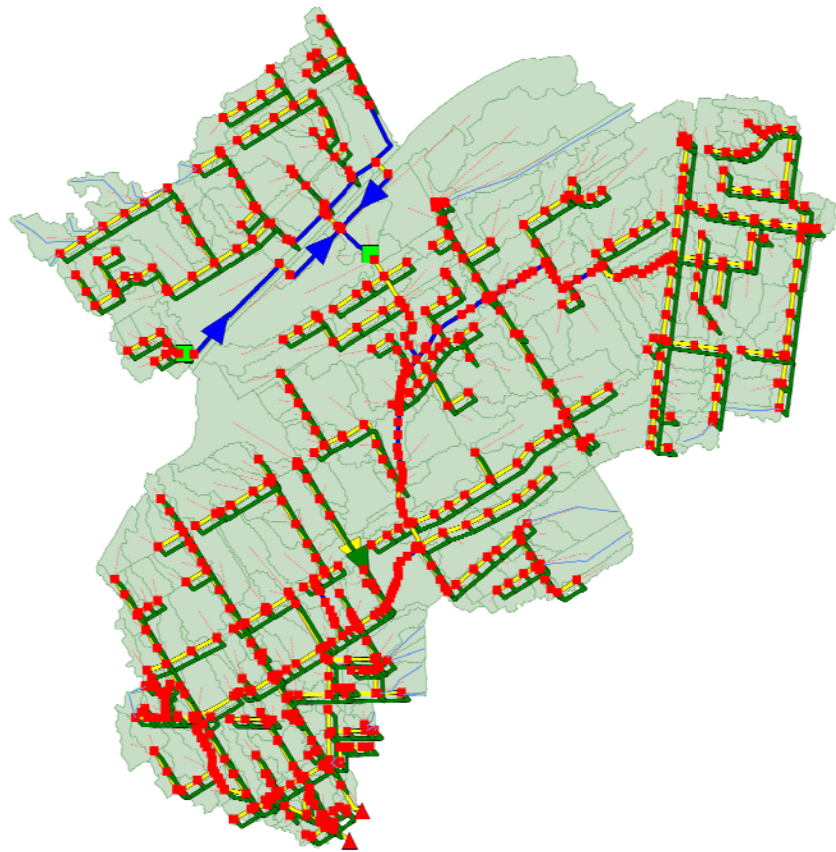


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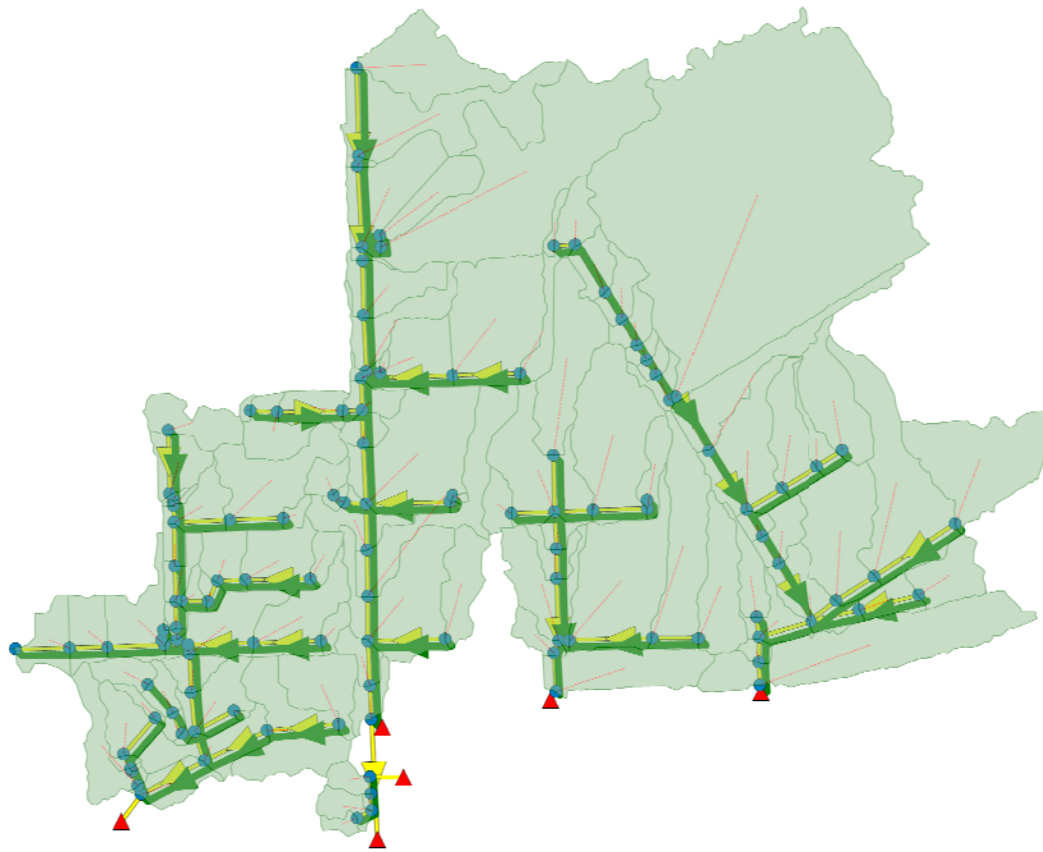


Legend

- ▲ Outfalls
- Storages
- Outlets
- Subcatchments



1 km



Legend

Subcatchments

Junctions

Outfalls

Conduits

Major System



250 m

