SASELAMANI PROPOSED TOWNSHIP

1:100 RETURN FLOODLINE REPORT

April 2020, Rev 0

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1. Introduction

The Saselamani township establishment entails the proposed formalisation and proclamation of the Saselamani CBD on the remainder of Tshikundu's location Farm 262 MT and the remainder of Portion 1 of Tshikundu's location farm 262 MT.

The proposed township will have 1833 stands.

This report will entail the delineation of a 1:100 return period flood line for the site of the proposed development.

2. Locality

Saselamani is situated 50km north of Thohoyandou along the road R524. The area is administered by Collins Chabane Local Municipality, under the Vhembe District Municipality, Limpopo Province, South Africa. GPS coordinates of site are 22°49'56.78"S 30°51'20.83"E.
The locality map is presented on the figures below.

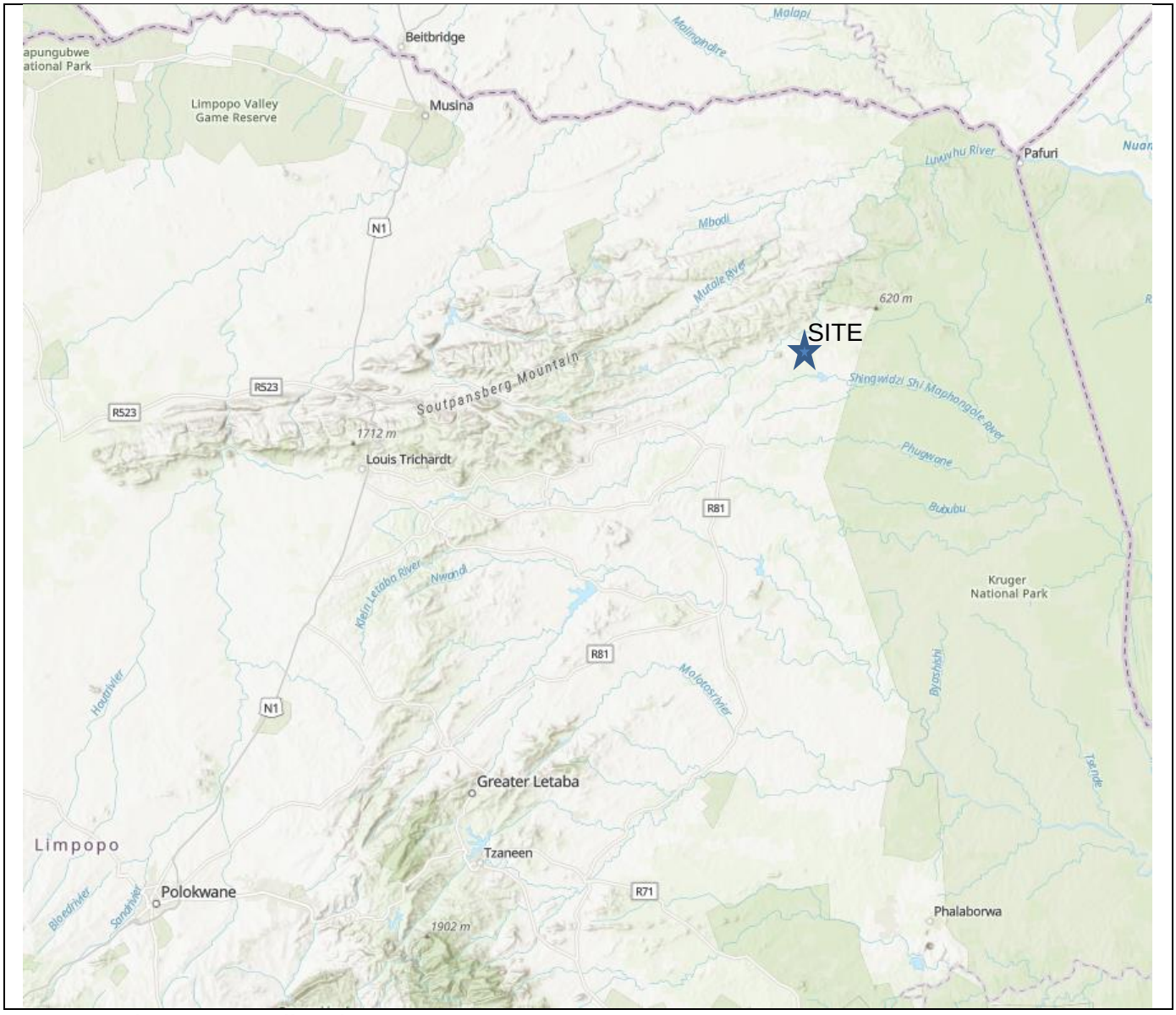


Figure 1 Locality plan

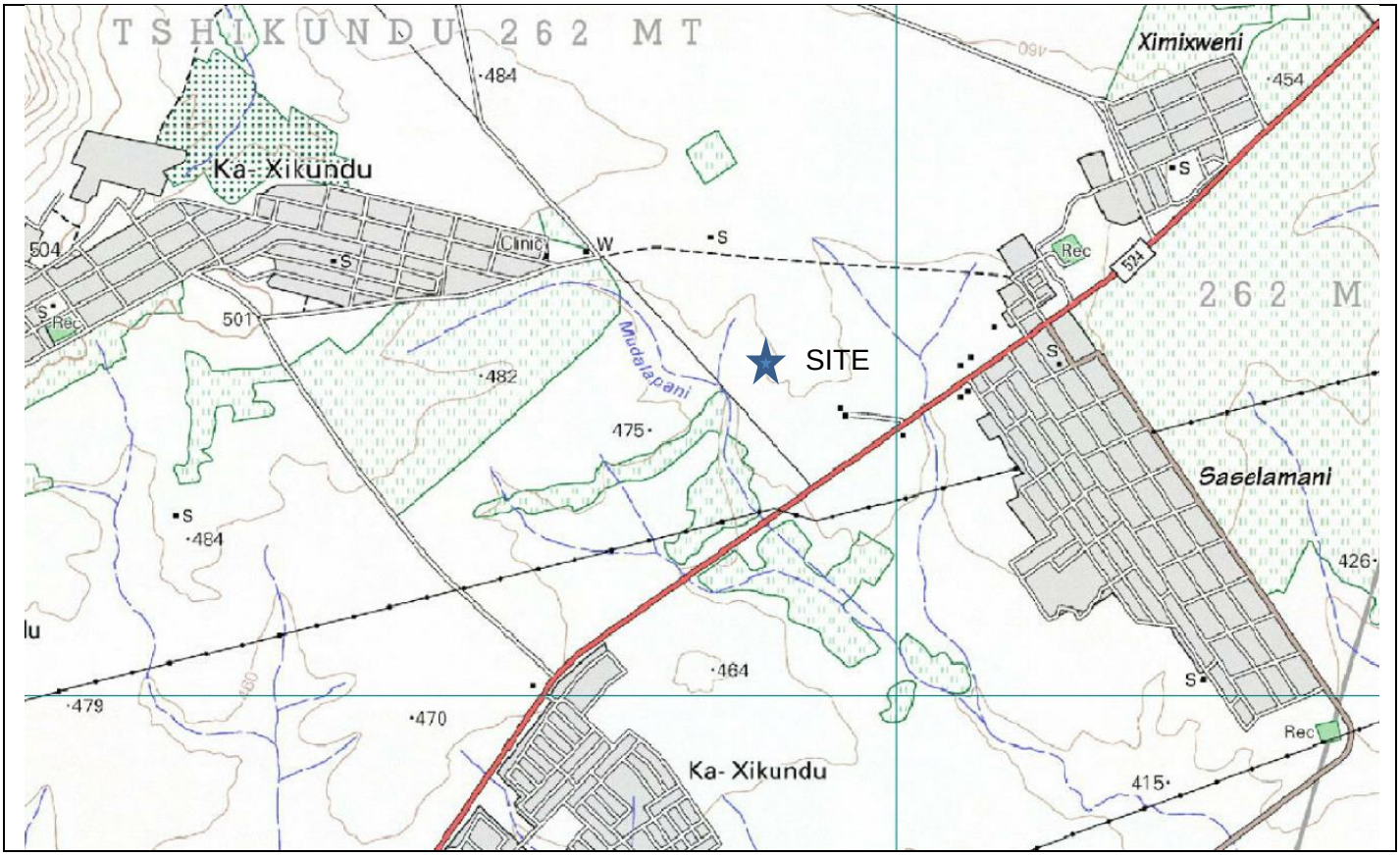


Figure 2 Site for development

3. Catchment area

There are nine sub-catchments that were delineated, viz;

- C1.1 sub-catchment
- C1.2 sub-catchment
- C1.3 sub-catchment
- C2.1 sub-catchment
- C2.2 sub-catchment
- C2.3 sub-catchment
- C3.1 sub-catchment
- C3.2 sub-catchment
- C3.3 sub-catchment

The catchment areas are within the Luvuvhu and Letaba Water Management Area.
The drainage sub-catchments were delineated for the site.

The sub-catchments information is listed in the table below.

Catchment Site	Catchment area (km^2)	Remark	Quaternary catchment
C1.1	1.370	Sub-catchment	B90B
C1.2	0.203	Sub-catchment	B90B
C1.3	0.308	Sub-catchment	B90B
C2.1	2.440	Sub-catchment	B90B
C2.2	0.326	Sub-catchment	B90B
C2.3	0.629	Sub-catchment	B90B
C3.1	0.942	Sub-catchment	B90B
C3.2	0.449	Sub-catchment	B90B
C3.3	0.340	Sub-catchment	B90B

Table 1: Catchment area

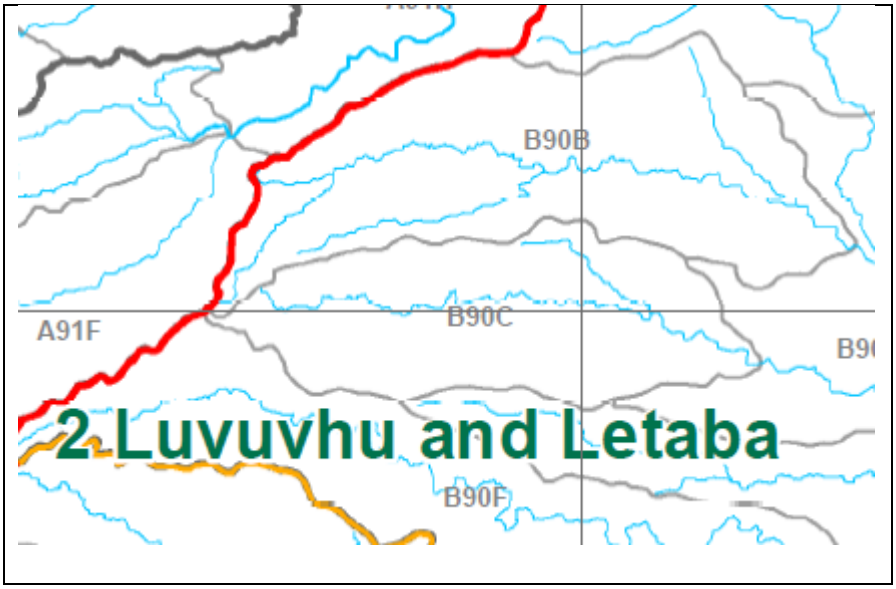


Figure 3 Quaternary catchments

The catchment areas were determined from the surveyor general 1:50,000 map contours, ortho photos and topographical survey. See figure below.

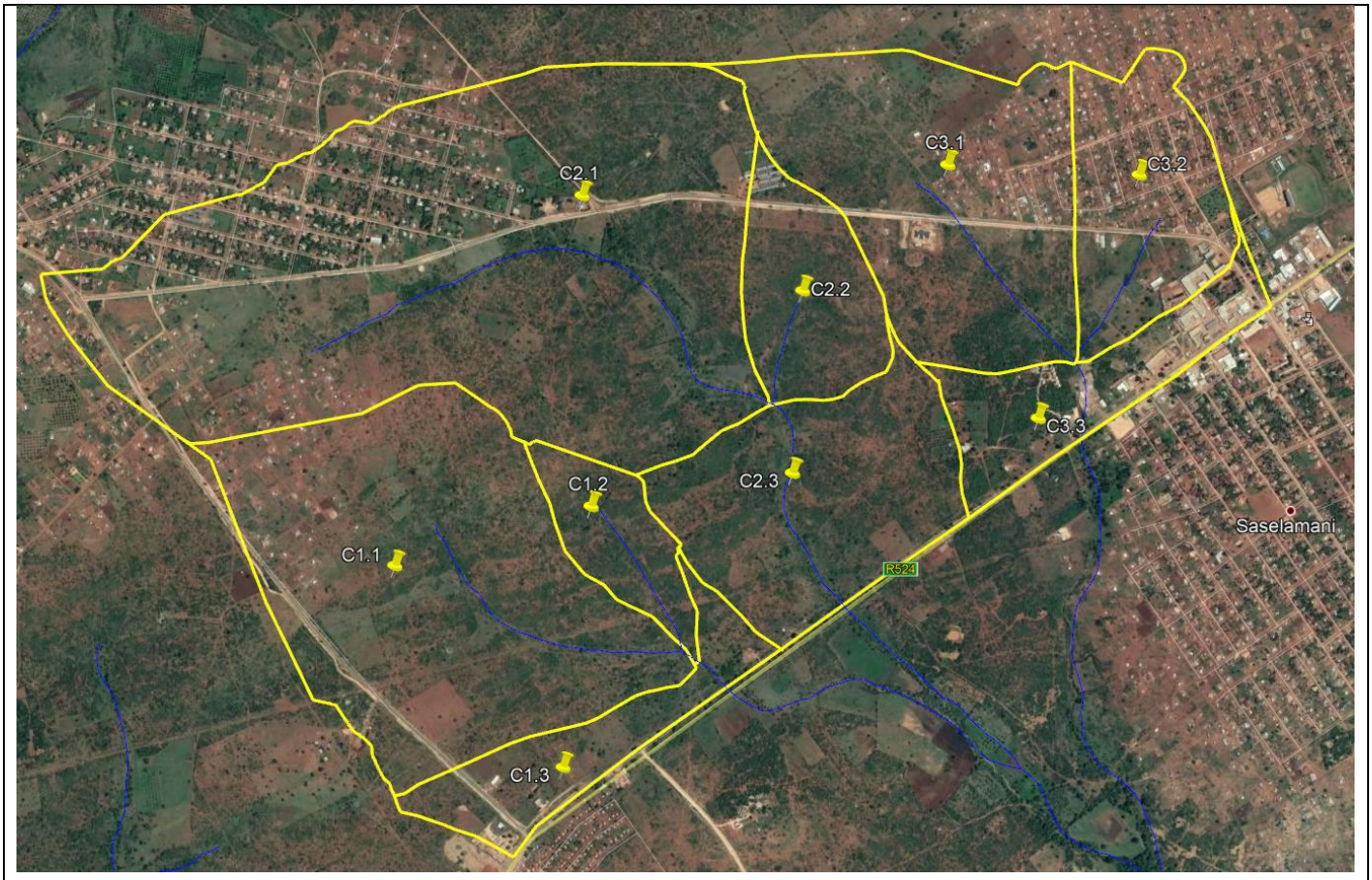


Figure 4 Sub-catchments (yellow line boundaries)

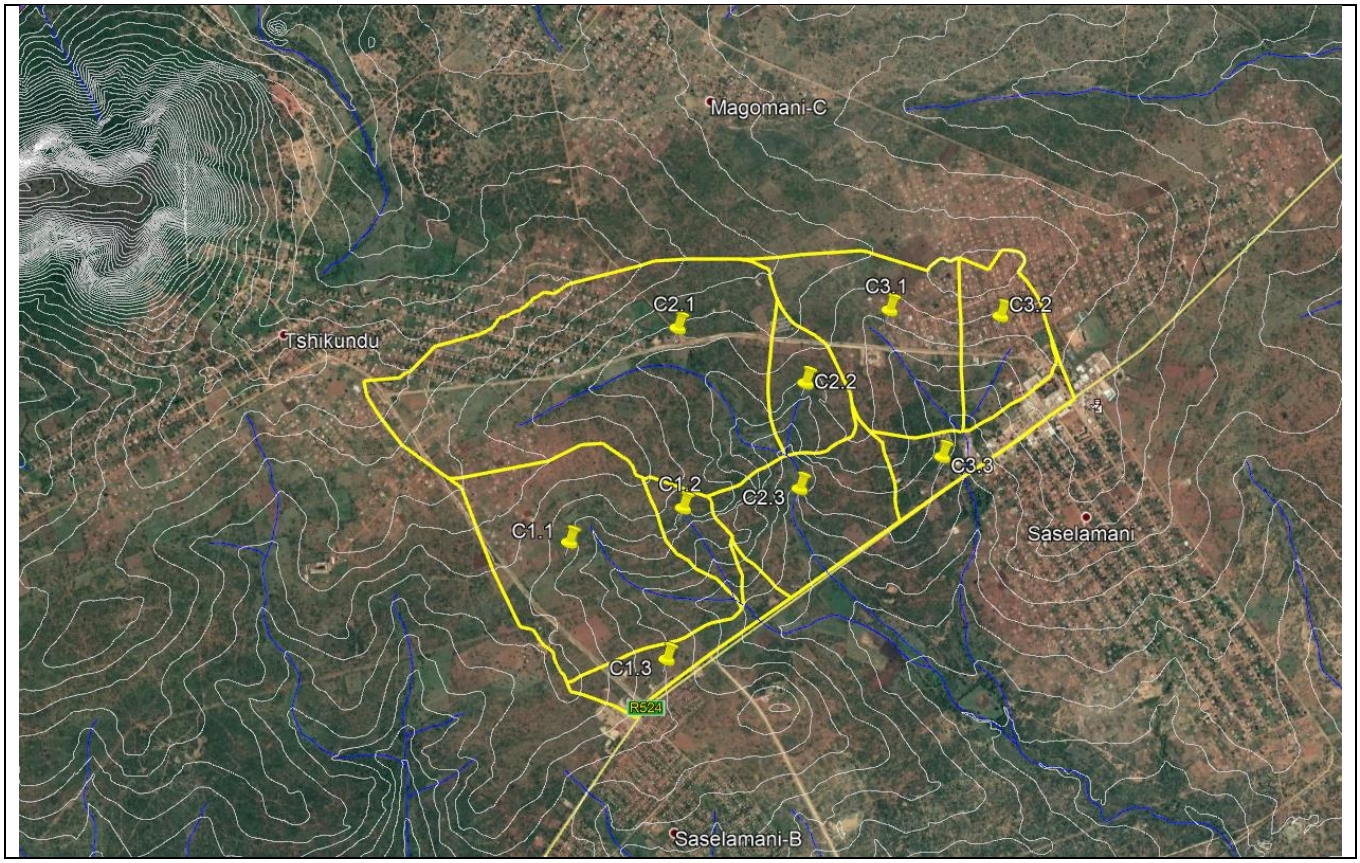


Figure 5 Sub-catchments delineation (yellow line boundaries)

4. Methodology

The first part of modelling was done for a series of storms with a return period of 1:100 and different durations falling over the catchment.
Storms with durations of 1, 1.5, 2, 4, 6, 8, 10, 12, 16, 20 and 24hour were synthesised using procedures to estimate design rainfall in South Africa developed by J.C. Smithers and R.E. Schulze, working under the Water Research Commission through a project entitled “Rainfall Statistics for Design Flood Estimation in South Africa” (WRC Project KS/1060).

The synthesis was done for the 1:100 return period.

The Rational, Alternative Rational, Standard Design Flood (SDF), Unit Hydrograph, Empirical method and Statistical methods, were used to calculate the 1:100 return period storm event flow.

Secondly, the flood line was determined through utilising the river analysis program HEC-RAS. The methods described in the 6th edition of the SANRAL Drainage Manual (2013) were used to determine the flood peaks.

5. Catchment characteristics

The overall catchment topography ranges from flat light bush and cultivated land to a very small hilly terrain. The topographic elevation ranges from 438m to 503m above sea level.

The Mean Annual Precipitation (MAP) of the catchment was determined from weather stations gridded from in the vicinity of the site.

The MAP for the catchment is estimated to be 501mm.

Station Name	Station Number	Distance from site (km)	Mean Annual Rainfall (mm)	Years of record
Boltman	0724361_W	16.1	595	49
Gooldville Hospitaal	0766863_A	32.4	1077	37
Punda Milia	0768011_W	33.2	589	70
Shangoni	0724790_W	34.6	539	41
Sibasa	0766837_W	34.6	928	87
Palmaryville	0766779_W	41.0	811	92

Table 2 Rainfall data

The soil structure in the area is mainly sandy grey soil. The land use of the area includes residential, and subsistence agriculture mainly.
The area has a very dry subtropical climate, specifically a humid subtropical climate, with long hot and rainy summers and short cool and dry winters.

The area has about 40 days where thunder is heard, thus showing a large amount of convective rainfall activity.

Figure 6 Stream / River onsite

There is no river gauging station on the catchment.
The catchment characteristics are listed in the tables below.

Characteristic Catchment	Rural Distribution %	Urban Distribution %	Lakes Distribution %	Total (%)
C1.1	100%	0%	0%	100.0%
C1.2	100%	0%	0%	100.0%
C1.3	100%	0%	0%	100.0%
C2.1	100%	0%	0%	100.0%
C2.2	100%	0%	0%	100.0%
C2.3	100%	0%	0%	100.0%
C3.1	100%	0%	0%	100.0%
C3.2	90%	10%	0%	100.0%
C3.3	62%	38%	0%	100.0%

Table 3 Characteristic

	Lakes and pans (<3%)	Flat area (3 to 10%)	Hilly (10 to 30%)	Steep areas (>30%)	
Rural area - Surface slope	**Distribution**	**Distribution**	**Distribution**	**Distribution**	**Total**
Catchment	**(%)**	**(%)**	**(%)**	**(%)**	**(%)**
C1.1	39%	60%	1%	0%	100.0%
C1.2	15%	81%	4%	0%	100.0%
C1.3	53%	47%	0%	0%	100.0%
C2.1	49%	51%	0%	0%	100.0%
C2.2	27%	71%	2%	0%	100.0%
C2.3	30%	64%	6%	0%	100.0%
C3.1	53%	47%	0%	0%	100.0%
C3.2	44%	56%	0%	0%	100.0%
C3.3	56%	44%	0%	0%	100.0%

Table 4 Rural area - Surface slope

	Very permeable	Permeable	Semi-permeable	Impermeable	
Rural area - Permeability	**Distribution**	**Distribution**	**Distribution**	**Distribution**	**Total**
Catchment	**(%)**	**(%)**	**(%)**	**(%)**	**(%)**
C1.1	11%	70%	17%	2%	100.0%
C1.2	11%	70%	17%	2%	100.0%
C1.3	11%	70%	17%	2%	100.0%
C2.1	11%	70%	17%	2%	100.0%
C2.2	11%	70%	17%	2%	100.0%
C2.3	11%	70%	17%	2%	100.0%
C3.1	11%	70%	17%	2%	100.0%
C3.2	11%	70%	17%	2%	100.0%
C3.3	11%	70%	17%	2%	100.0%

Table 5 Rural area - Permeability

	Thick bush & forests	Light bush & cultivated land	Grasslands	Bare	
Rural area - Vegetation	**Distribution**	**Distribution**	**Distribution**	**Distribution**	**Total**
Catchment					**(%)**
C1.1	48%	40%	8%	4%	100.0%
C1.2	72%	22%	4%	2%	100.0%
C1.3	22%	68%	1%	9%	100.0%
C2.1	41%	32%	16%	11%	100.0%
C2.2	68%	12%	8%	12%	100.0%
C2.3	70%	24%	4%	2%	100.0%
C3.1	41%	26%	24%	9%	100.0%
C3.2	7%	21%	56%	16%	100.0%
C3.3	53%	34%	10%	3%	100.0%

Table 6 Rural area - Vegetation

	Catchments Distribution (%)	
Urban	**C3.2**	**C3.3**
Lawns		
Sandy, flat	0	0
Sandy, steep	0	0
Heavy soil, flat	0	0
Heavy soil, steep	0	0
Residential areas		
Houses	0	0
Flats	0	0
Industry		
Light industry	0	0
Heavy industry	0	0
Business		
City centre	0	0
Suburban	75%	75%
Streets	75%	75%
Maximum flood	0	
Total	**100%**	**100%**

Table 7 Urban

	Run-off factor			
	Rural (C_R)	**Urban (C_U)**	**Lakes (C_L)**	**Combined (C)**
Catchment				
C1.1	0.177	0	0	**0.177**
C1.2	0.174	0	0	**0.174**
C1.3	0.183	0	0	**0.183**
C2.1	0.196	0	0	**0.196**
C2.2	0.191	0	0	**0.191**
C2.3	0.168	0	0	**0.168**
C3.1	0.198	0	0	**0.198**
C3.2	0.262	0.763	0	**0.312**
C3.3	0.166	0.763	0	**0.393**

Table 8 Run-off factor

Catchment	Catchment Area (km^2)	Longest water course (km)	Distance to centroid of catchment area (km)	Height difference 1085 method (m)	Height difference equal area method (m)	Veld type region	Days thunder was heard (No.)	Area Dolomite (%)	Mean Annual Precipitation (mm)	SDF Basin no. (No.)	Kovács region
C1.1	1.370	2.03	0.95	38.2	43.34	8	40	0	501	3	K6
C1.2	0.203	1.00	0.524	28.5	33.49	8	40	0	501	3	K6
C1.3	0.308	1.25	0.5	25.7	31.59	8	40	0	501	3	K6
C2.1	2.440	2.95	1.333	36.4	51.47	8	40	0	501	3	K6
C2.2	0.326	0.98	0.41	24.3	30.91	8	40	0	501	3	K6
C2.3	0.629	1.08	0.273	24.0	30.72	8	40	0	501	3	K6
C3.1	0.942	1.72	0.78	27.4	31.88	8	40	0	501	3	K6
C3.2	0.449	1.09	0.553	19.8	25.08	8	40	0	501	3	K6
C3.3	0.340	1.04	0.12	17.3	24.85	8	40	0	501	3	K6

Table 9 Hydrological input

Catchment Site	Catchment area (km^2)	Longest water course, L (km)	Height difference along 10-85 slope (m)	Average slope S_{av} (m/m)	Time of concentration, Tc (hours)	% Slope	MAP (mm)	Run-off factor C	Distance to centroid (km)	Height difference on equal area slope (m)
C1.1	1.370	2.032	38.2	0.02509083	0.47323618	2.51%	501	0.177	0.95	43.34
C1.2	0.203	1.003	28.5	0.03790481	0.234386358	3.79%	501	0.174	0.524	33.49
C1.3	0.308	1.251	25.7	0.02738279	0.314949112	2.74%	501	0.183	0.5	31.59
C2.1	2.440	2.948	36.4	0.01646270	0.741182834	1.65%	501	0.196	1.333	51.47
C2.2	0.326	0.982	24.3	0.03301244	0.243241146	3.30%	501	0.191	0.41	30.91
C2.3	0.629	1.079	24.0	0.02970798	0.27239182	2.97%	501	0.168	0.273	30.72
C3.1	0.942	1.721	27.4	0.02124894	0.443804615	2.12%	501	0.198	0.78	31.88
C3.2	0.449	1.093	19.8	0.02420387	0.297684301	2.42%	501	0.312	0.553	25.08
C3.3	0.340	1.039	17.3	0.02217648	0.296059185	2.22%	501	0.393	0.12	24.85

Table 10 Catchment characteristics

	Rational method						Alternative rational method					
Return	1:2	1:5	1:10	1:20	1:50	1:100	1:2	1:5	1:10	1:20	1:50	1:100
Catchment												
C1.1	2.057	2.985	4.012	5.242	7.186	9.301	2.661	4.788	6.654	8.705	11.5	**13.95**
C1.2	0.428	0.622	0.837	1.094	1.5	1.943	0.593	1.068	1.484	1.941	2.566	**3.112**
C1.3	0.595	0.864	1.162	1.519	2.083	2.698	0.798	1.435	1.995	2.61	3.449	**4.183**
C2.1	3.051	4.428	5.95	7.771	10.65	13.78	3.852	6.931	9.633	12.6	16.65	**20.2**
C2.2	0.745	1.081	1.454	1.9	2.606	3.376	1.027	1.848	2.569	3.36	4.441	**5.386**
C2.3	1.2	1.743	2.343	3.061	4.198	5.435	1.635	2.942	4.089	5.349	7.068	**8.573**
C3.1	1.639	2.38	3.199	4.181	5.733	7.422	2.13	3.834	5.328	6.97	9.211	**11.17**
C3.2	1.644	2.343	3.096	3.985	5.389	6.891	2.218	3.915	5.349	6.891	8.979	**10.75**
C3.3	1.815	2.505	3.214	4.022	5.297	6.604	2.218	3.915	5.349	6.891	8.979	**10.75**

Table 11 Estimated stormwater flow (m^3/s)

	Unit Hydrograph method						Standard design flood method					
Return	1:2	1:5	1:10	1:20	1:50	1:100	1:2	1:5	1:10	1:20	1:50	1:100
Catchment												
C1.1	3.776	6.39	9.439	13.3	20.26	28.2	0.835	4.965	8.93	13.5	20.41	26.28
C1.2	0.998	1.692	2.543	3.664	5.696	8.019	0.19	1.13	2.033	3.072	4.646	5.983
C1.3	1.188	2.014	3.044	4.384	6.815	9.594	0.243	1.445	2.6	3.929	5.941	7.65
C2.1	4.902	8.253	12.18	17.14	26.08	36.23	1.095	6.509	11.71	17.69	26.76	34.45
C2.2	4.902	8.253	12.18	17.14	26.08	36.23	0.299	1.778	3.198	4.834	7.309	9.412
C2.3	3.684	6.245	9.274	13.16	20.18	28.18	0.541	3.215	5.784	8.741	13.22	17.02
C3.1	2.862	4.851	7.168	10.1	15.4	21.45	0.599	3.56	6.403	9.677	14.63	18.84
C3.2	1.695	2.875	4.34	6.249	9.713	13.67	0.366	2.178	3.918	5.921	8.954	11.53
C3.3	1.695	2.875	4.34	6.249	9.713	13.67	0.366	2.178	3.918	5.921	8.954	11.53

Table 12 Estimated stormwater flow (m^3/s)

	Empirical method					
Return	1:2	1:5	1:10	1:20	1:50	1:100
Catchment						
C1.1			6.089	8.264	11.45	14.5
C1.2			1.793	2.434	3.373	4.27
C1.3			2.351	3.191	4.422	5.598
C2.1			8.216	11.15	15.45	19.56
C2.2			2.747	3.728	5.167	6.54
C2.3			4.897	6.646	9.211	11.66
C3.1			4.785	6.494	9	11.39
C3.2			3.17	4.302	5.962	7.547
C3.3			3.17	4.302	5.962	7.547

Table 13 Estimated stormwater flow (m^3/s)

The applications and limitation of flood calculation methods are shown in the table below.

Method	**Recommended maximum area (km^2)**	**Return period of floods that could be determined**
Statistical method	No limitation (larger areas)	1:2 to 1:200
Rational method	Usually less than $15km^2$	1:2 to 1:200
Unit Hydrograph method	$15km^2$ to $5,000km^2$	1:2 to 1:100
Standard Design Flood method	No limitation	1:2 to 1:200
SCS-SA method	Less than $30km^2$	1:2 to 1:100
Empirical methods	No limitation (larger areas)	1:10 to 1:100

Table 14 Applications and limitation of flood calculation methods

The selected peak flows are shown below.

C1.1, estimated 1:100 peak flow = $13.95m^3/s$
C1.2, estimated 1:100 peak flow = $3.112m^3/s$
C1.3, estimated 1:100 peak flow = $4.183m^3/s$
C2.1, estimated 1:100 peak flow = $20.20m^3/s$
C2.2, estimated 1:100 peak flow = $5.386m^3/s$
C2.3, estimated 1:100 peak flow = $8.573m^3/s$
C3.1, estimated 1:100 peak flow = $11.17m^3/s$
C3.2, estimated 1:100 peak flow = $10.75m^3/s$
C3.3, estimated 1:100 peak flow = $10.75m^3/s$

The estimated 1:100 stream flows are listed in the table below.

Stream - Reach	**Flow (m^3/s)**
Stream 1-1	13.95
Stream 1-2	3.112
Stream 1-3	**21.245**
Stream 2-1	20.2
Stream 2-2	5.386
Stream 2-3	**34.159**
Stream 3-1	11.17
Stream 3-2	10.75
Stream 3-3	**32.67**

Table 15 Stream flows

6. River Hydraulics

The river cross-sections for the stream were extracted from the topographic survey done by Theo, a surveyor appointed by the Client, utilising a drone for the output of 1m contours. The coordinate system on the survey was UTM 36S and projected to Hartebeesthoek94 / Lo31.

Modelling the design flood within the river channel utilises detailed hydraulic calculations between marked river sections so as to calculate the flow conditions of the entire stream reach by back-calculating the flow from the reach end point upstream to the reach start point.

The HEC-RAS program was utilised to model the river reaches in question by describing the reach as a segmented geometrical line with cross-sectional information at specified points.

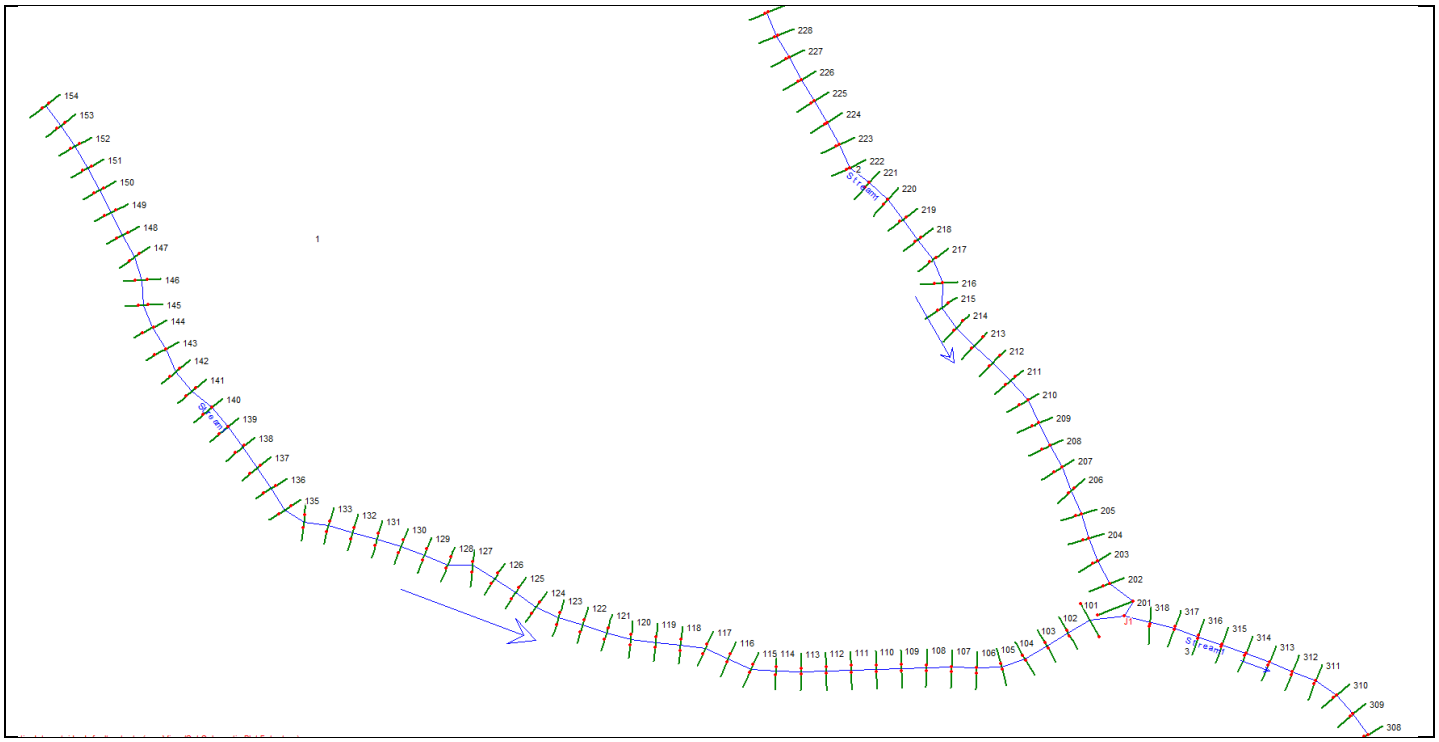


Figure 7 Stream1 reaches

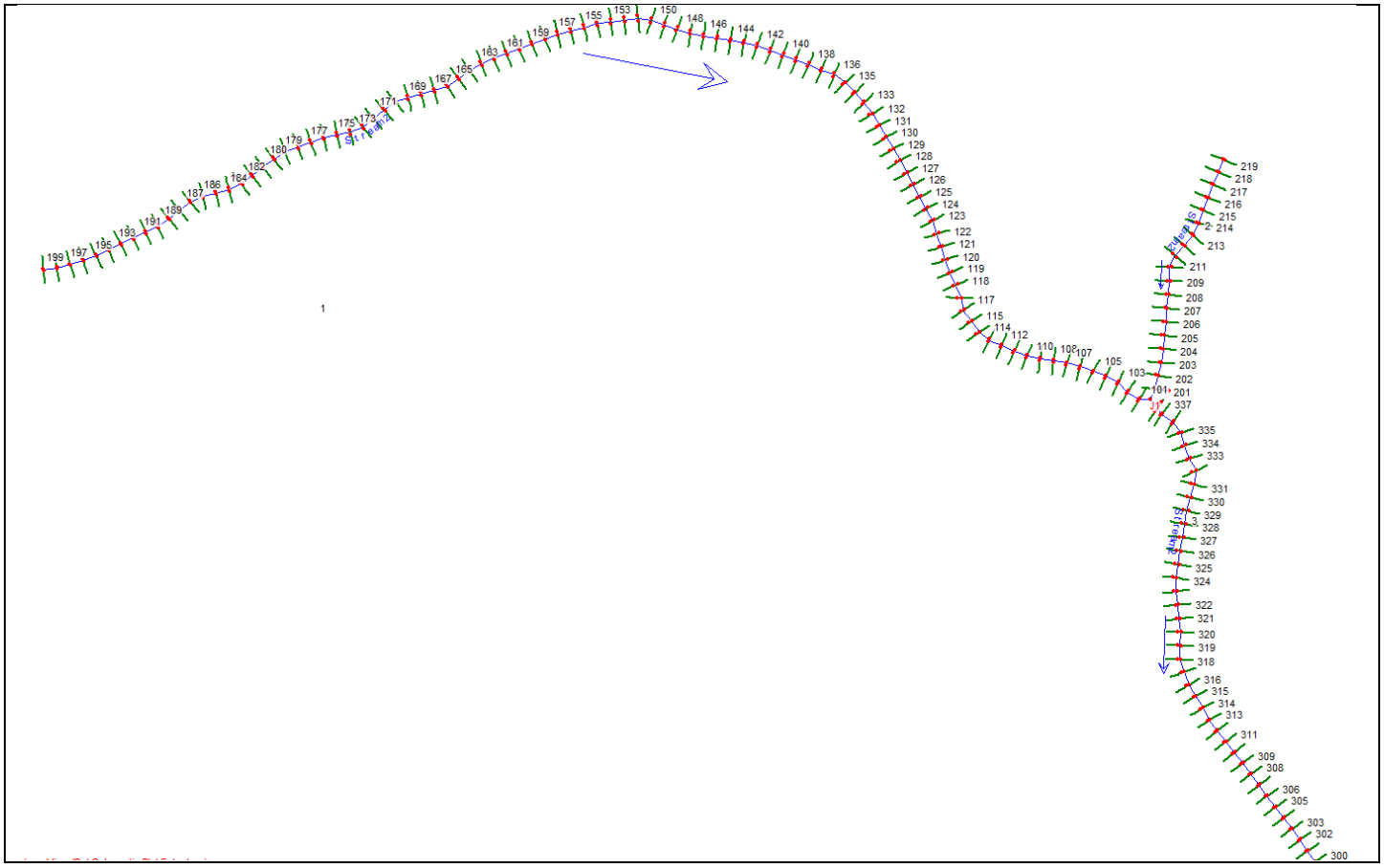


Figure 8 Stream2 reaches

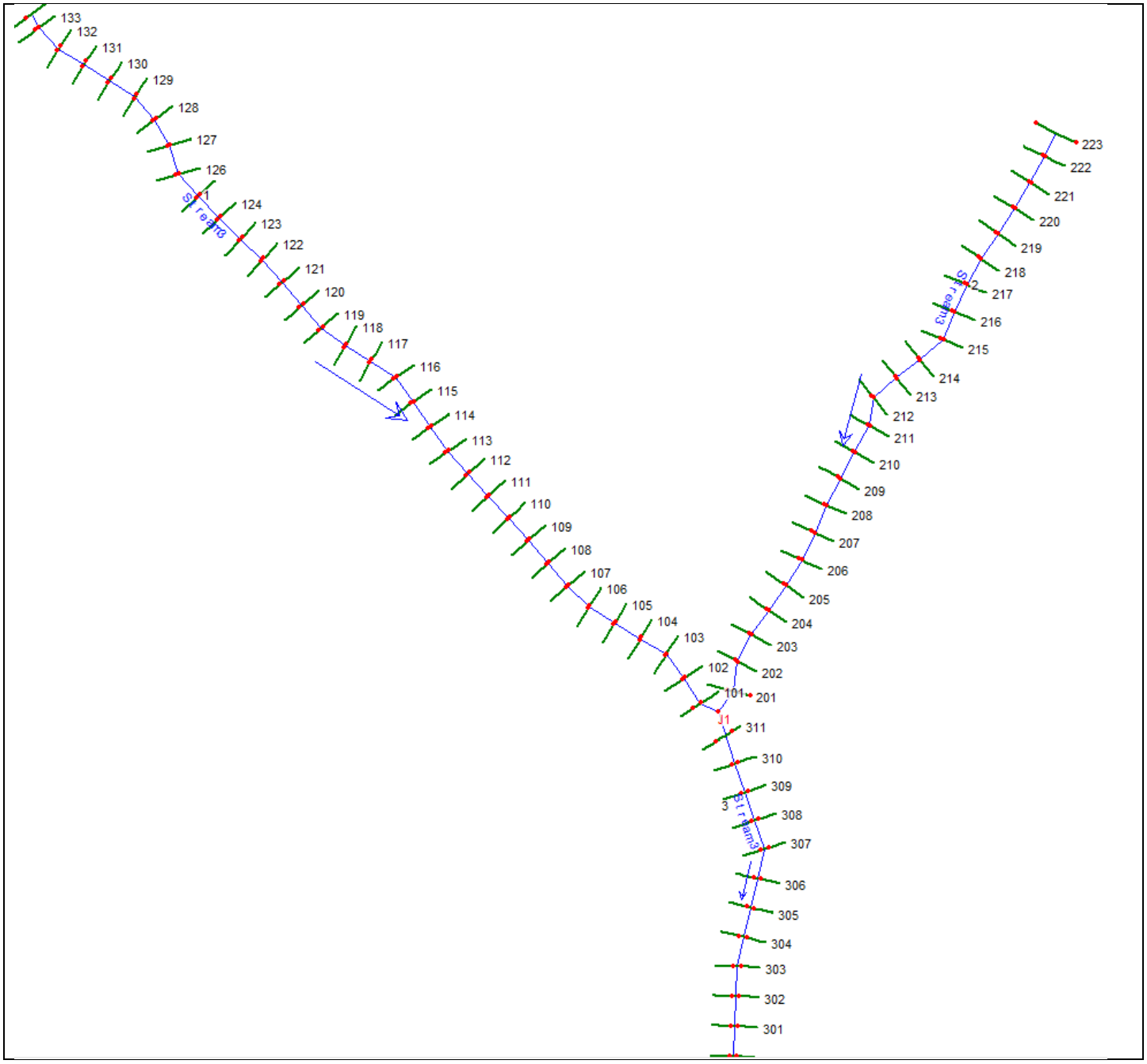


Figure 9 Stream3 reaches

The cross-sectional data can be seen in ANNEXURE 5 STREAM CROSS-SECTIONS with the resultant flood levels included.

After running the model, the resulting flood levels, flow velocities, etc are retrieved and this information is plotted to show the 1:100year flood line.

7. Conclusion

The floodlines are indicated on the ANNEXURE 2 FLOODLINE DELINEATION represent the estimated maximum 1:100year flood waters.
It is recommended that a buffer zone of 20m should be provided between the 1:100 flood line area and any proposed development.

8. References

- Smithers J.C. and Schulze R.E. (2002): Drainage rainfall and flood estimation in South Africa, WRC project KS/1060.

- The South African National Roads Agency Limited (2013): Drainage manual, 6th Edition.

.

ANNEXURES

ANNEXURE 1 FLOODLINE CERTIFICATE

DALIMEDE PROJECTS (PTY) LTD
34 Jorrisen street,
Polokwane,
South Africa, 0700

Email : admin@dalimede.com
Tel / Cell : 079 368 8414
Fax : 086 518 0234

FLOOD LINE CERTIFICATE

The Saselamani township establishment entails the proposed formalisation and proclamation of the Saselamani CBD on the remainder of Tshikundu's location Farm 262 MT and the remainder of Portion 1 of Tshikundu's location farm 262 MT, Limpopo Province, South Africa.

Site:	*Saselamani village*
Township Name:	*Saselamani township*
Co-ordinates:	*22°49'56.78"S 30°51'20.83"E*
Municipality:	Collins Chabane *Municipality*

In terms of section 114 of the National Water Act, Act 36 of 1998 the above-mentioned property is affected by flood water within the 1:100 period from the nearest river / stream as indicated in the floodline report. Development must be done outside of the floodline.

It is recommended that a buffer zone of 20m should be provided between the 1:100 flood line area and any proposed development.

Thus, done and signed in Polokwane on this ……..

Signature: …….....

Engineer name: Litmos Mthunzi
Pr Tech Eng

Pr no.: ……

ANNEXURE 2 FLOODLINE DELINEATION

KEY

FLOODLINE

100 CROSS SECTION

STREAM / RIVER

REVISIONS

REV	DATE	SIGN	DESCRIPTION
0	.../.../...	....	.....

CLIENT

KV DEVELOPMENT GROUP

KV Development Group
Suite 2b, Ground Floor, Structura
Building, Hazeldean Office Park,
Silverlakes Road, Tyger Valley, 0081
P.O Box 11948, Silver Lakes, 0054
Cell: 083 277 7347
Email: info@kvdgroup.co.za

CONSULTANT

DALIMEDE PROJECTS (PTY) LTD

Dalimede Projects (PTY) LTD
34 Jorrisen street
Polokwane
0699

Tel: 079 368 8414
Fax: 086 518 0234
Email: admin@dalimede.com

DRAWING STATUS

FOR INFORMATION

PROJECT TITLE

SASELAMANI PROPOSED TOWNSHIP

PROJECT LOCATION

Saselamani is situated 50km north of Thohoyandou along the road R524

DRAWING DESCRIPTION

FLOODLINE DELINEATION 1:100 RETURN PERIOD

SCALE	DATE	DESIGNED	DRAWN	CHECKED
As Shown	April 2020	LM	HM	BM

SCALE 1:5_XREF

A1

DRAWING No.

SASELAMANI/FL/01

REVISION A

ANNEXURE 3 RESULTS

HEC-RAS Plan: Current mode Profile: 1:100

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
1	154	1:100	13.95	478.64	479.08		479.18	0.014798	1.14	10.17	30.19	0.56
1	153	1:100	13.95	478.25	478.71	478.67	478.84	0.020091	1.37	9.16	27.21	0.66
1	152	1:100	13.95	477.86	478.35		478.46	0.018127	1.32	9.68	28.30	0.63
1	151	1:100	13.95	477.47	478.06		478.15	0.012567	1.26	10.52	26.52	0.54
1	150	1:100	13.95	477.09	477.60	477.60	477.77	0.031456	1.71	7.86	24.74	0.82
1	149	1:100	13.95	476.72	477.21		477.30	0.015240	1.23	10.58	30.17	0.58
1	148	1:100	13.95	476.36	476.83	476.79	476.94	0.020914	1.40	9.65	30.20	0.67
1	147	1:100	13.95	475.96	476.37	476.37	476.51	0.021799	1.25	9.12	30.20	0.66
1	146	1:100	13.95	474.74	475.19		475.29	0.018226	1.25	10.05	30.20	0.62
1	145	1:100	13.95	474.26	474.67	474.67	474.82	0.031203	1.55	8.45	30.20	0.80
1	144	1:100	13.95	473.50	473.87	473.87	474.02	0.026730	1.40	8.66	29.19	0.74
1	143	1:100	13.95	472.51	472.85	472.85	473.00	0.033099	1.46	8.43	30.20	0.81
1	142	1:100	13.95	471.93	472.41		472.49	0.009068	0.95	12.19	30.20	0.45
1	141	1:100	13.95	471.76	472.25		472.32	0.007955	0.89	12.77	30.20	0.42
1	140	1:100	13.95	471.60	472.10		472.16	0.007547	0.89	12.97	30.20	0.41
1	139	1:100	13.95	471.43	471.96		472.02	0.006848	0.88	13.37	30.20	0.39
1	138	1:100	13.95	471.26	471.83		471.88	0.006119	0.87	13.85	30.20	0.38
1	137	1:100	13.95	471.10	471.61		471.70	0.014823	1.23	10.81	30.20	0.57
1	136	1:100	13.95	470.78	471.20	471.18	471.32	0.023662	1.31	9.27	30.20	0.69
1	135	1:100	13.95	470.27	470.67	470.67	470.82	0.026088	1.36	8.64	27.48	0.72
1	134	1:100	13.95	469.62	470.07	470.07	470.23	0.027457	1.44	8.44	28.61	0.75
1	133	1:100	13.95	468.92	469.35		469.46	0.019021	1.27	9.70	29.05	0.63
1	132	1:100	13.95	468.59	469.06		469.14	0.013100	1.11	11.05	30.20	0.53
1	131	1:100	13.95	468.26	468.82		468.89	0.011481	1.17	11.63	30.20	0.51
1	130	1:100	13.95	467.91	468.48		468.59	0.020299	1.50	9.48	27.80	0.68
1	129	1:100	13.95	467.49	468.02	468.00	468.15	0.024364	1.56	9.10	29.79	0.73
1	128	1:100	13.95	467.07	467.50	467.50	467.66	0.024117	1.36	8.71	28.50	0.70
1	127	1:100	13.95	466.71	467.14		467.23	0.013910	1.10	10.68	30.20	0.54
1	126	1:100	13.95	466.38	466.91		466.98	0.011102	1.09	11.61	30.20	0.50
1	125	1:100	13.95	466.07	466.52	466.50	466.65	0.027372	1.50	8.93	30.20	0.76
1	124	1:100	13.95	465.35	465.87	465.87	466.03	0.034294	1.69	7.94	25.71	0.85
1	123	1:100	13.95	464.83	465.30		465.39	0.013837	1.14	10.94	30.20	0.55
1	122	1:100	13.95	464.54	465.04		465.12	0.013068	1.15	11.13	30.20	0.54
1	121	1:100	13.95	464.25	464.82		464.89	0.010047	1.10	12.03	30.20	0.48
1	120	1:100	13.95	463.96	464.48	464.44	464.60	0.020851	1.44	9.32	29.11	0.68
1	119	1:100	13.95	463.63	464.14		464.24	0.015294	1.24	10.42	30.08	0.58
1	118	1:100	13.95	463.29	463.84		463.93	0.015036	1.29	10.39	29.53	0.58
1	117	1:100	13.95	462.95	463.38	463.38	463.52	0.030212	1.58	8.52	30.20	0.79
1	116	1:100	13.95	462.49	462.97		463.07	0.016954	1.27	10.06	30.20	0.61
1	115	1:100	13.95	462.03	462.49	462.49	462.64	0.027201	1.54	8.31	27.72	0.76
1	114	1:100	13.95	461.55	461.99	461.97	462.12	0.023471	1.41	8.99	30.20	0.70
1	113	1:100	13.95	461.06	461.58		461.69	0.018916	1.43	9.52	30.20	0.65
1	112	1:100	13.95	460.82	461.33		461.41	0.010302	1.05	11.45	30.20	0.48
1	111	1:100	13.95	460.61	461.13		461.20	0.010013	1.04	11.64	30.20	0.47
1	110	1:100	13.95	460.41	460.94		461.01	0.009325	1.02	11.86	30.20	0.46
1	109	1:100	13.95	460.20	460.71		460.79	0.012647	1.15	10.80	30.20	0.53
1	108	1:100	13.95	460.00	460.39		460.50	0.016400	1.12	9.72	30.20	0.58
1	107	1:100	13.95	459.72	460.10		460.20	0.013886	1.03	10.32	30.20	0.53
1	106	1:100	13.95	459.44	459.89		459.97	0.009011	0.94	11.82	30.20	0.44
1	105	1:100	13.95	459.17	459.59	459.56	459.71	0.020159	1.30	9.31	30.20	0.65
1	104	1:100	13.95	458.89	459.29		459.38	0.012972	1.02	10.65	30.20	0.52
1	103	1:100	13.95	458.60	458.99		459.09	0.016292	1.11	9.94	30.20	0.58
1	102	1:100	13.95	458.30	458.76		458.84	0.009371	0.95	11.69	30.20	0.45
1	101	1:100	13.95	458.00	458.59		458.64	0.010311	1.01	13.87	30.20	0.47
2	229	1:100	3.11	478.83	479.01	479.01	479.07	0.031085	0.90	2.90	23.21	0.70
2	228	1:100	3.11	478.11	478.33	478.33	478.39	0.037147	1.14	2.89	24.84	0.79
2	227	1:100	3.11	476.87	476.99		477.03	0.022440	0.62	3.57	30.20	0.56
2	226	1:100	3.11	476.32	476.42	476.42	476.48	0.035192	0.69	3.13	30.20	0.68
2	225	1:100	3.11	474.90	475.03	475.02	475.07	0.024890	0.66	3.46	30.20	0.59
2	224	1:100	3.11	474.31	474.43	474.43	474.48	0.035098	0.75	3.12	30.20	0.70
2	223	1:100	3.11	473.46	473.57	473.57	473.62	0.034143	0.72	3.14	30.20	0.68
2	222	1:100	3.11	472.58	472.73		472.78	0.020458	0.68	3.57	29.57	0.56
2	221	1:100	3.11	472.07	472.19	472.19	472.24	0.036483	0.76	3.14	30.20	0.71
2	220	1:100	3.11	471.19	471.32	471.32	471.38	0.036070	0.81	3.05	27.45	0.72
2	219	1:100	3.11	469.95	470.14	470.14	470.21	0.033240	0.93	2.75	19.40	0.72
2	218	1:100	3.11	469.54	469.78		469.81	0.012595	0.69	4.26	27.88	0.47
2	217	1:100	3.11	469.12	469.33	469.33	469.39	0.041277	1.10	2.85	23.91	0.82
2	216	1:100	3.11	468.50	468.66	468.65	468.72	0.026390	0.79	3.17	23.79	0.63
2	215	1:100	3.11	467.74	467.99	467.99	468.06	0.045985	1.18	2.79	21.93	0.86
2	214	1:100	3.11	466.97	467.24	467.22	467.29	0.030134	1.01	3.17	21.87	0.71
2	213	1:100	3.11	466.51	466.76	466.72	466.79	0.020987	0.77	3.87	27.14	0.58
2	212	1:100	3.11	466.06	466.22	466.22	466.29	0.030465	0.63	2.93	21.80	0.63
2	211	1:100	3.11	465.26	465.41	465.41	465.47	0.032681	0.74	3.00	23.20	0.68
2	210	1:100	3.11	463.97	464.10	464.09	464.15	0.034045	0.78	3.18	26.98	0.70
2	209	1:100	3.11	463.49	463.63		463.66	0.018144	0.57	3.89	30.20	0.51
2	208	1:100	3.11	463.00	463.10	463.10	463.16	0.037023	0.71	3.17	30.20	0.70
2	207	1:100	3.11	461.83	461.95	461.95	462.00	0.037466	0.78	3.12	28.86	0.72
2	206	1:100	3.11	461.01	461.16	461.16	461.22	0.029250	0.77	3.04	24.82	0.66
2	205	1:100	3.11	460.56	460.71		460.74	0.016279	0.60	3.99	30.20	0.50
2	204	1:100	3.11	460.12	460.23	460.23	460.28	0.036031	0.71	3.15	30.20	0.70
2	203	1:100	3.11	459.26	459.40	459.40	459.45	0.030609	0.77	3.16	28.16	0.67
2	202	1:100	3.11	458.44	458.56	458.56	458.62	0.033659	0.76	3.22	30.20	0.69
2	201	1:100	3.11	457.78	458.21		458.21	0.000902	0.26	11.77	30.20	0.14

HEC-RAS Plan: Current mode Profile: 1:100 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
3	318	1:100	21.25	457.26	457.75	457.73	457.92	0.020092	1.47	11.75	30.20	0.67
3	317	1:100	21.25	456.94	457.41	457.36	457.56	0.016204	1.27	12.55	30.20	0.60
3	316	1:100	21.25	456.62	457.10		457.24	0.015074	1.25	12.83	30.20	0.58
3	315	1:100	21.25	456.30	456.80	456.74	456.94	0.014957	1.28	12.86	30.20	0.58
3	314	1:100	21.25	455.98	456.39	456.38	456.57	0.023072	1.38	11.25	30.20	0.70
3	313	1:100	21.25	455.61	456.04	455.99	456.18	0.015529	1.18	12.72	30.20	0.58
3	312	1:100	21.25	455.24	455.61	455.61	455.80	0.023742	1.33	11.21	30.20	0.70
3	311	1:100	21.25	454.85	455.29		455.43	0.013942	1.14	13.17	30.20	0.55
3	310	1:100	21.25	454.48	454.88	454.88	455.07	0.023520	1.38	11.24	30.20	0.70
3	309	1:100	21.25	454.16	454.70		454.79	0.007533	0.95	15.90	30.20	0.42
3	308	1:100	21.25	454.00	454.41	454.37	454.56	0.017507	1.21	12.31	30.20	0.61

HEC-RAS Plan: Current mode Profile: 1:100

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
1	199	1:100	20.20	492.49	492.99	492.91	493.08	0.018779	2.15	15.91	40.20	0.97
1	198	1:100	20.20	492.08	492.56	492.51	492.67	0.022930	2.30	14.80	40.20	1.07
1	197	1:100	20.20	491.69	492.16	492.07	492.25	0.018502	2.04	16.00	40.20	0.96
1	196	1:100	20.20	491.30	491.78	491.70	491.88	0.018859	2.09	15.80	40.20	0.97
1	195	1:100	20.20	490.93	491.43		491.52	0.016912	2.02	16.24	40.20	0.92
1	194	1:100	20.20	490.60	491.12		491.20	0.014378	1.93	17.03	40.20	0.86
1	193	1:100	20.20	490.26	490.79		490.89	0.016935	2.11	15.99	40.20	0.93
1	192	1:100	20.20	489.92	490.41	490.36	490.52	0.020245	2.16	15.16	40.20	1.00
1	191	1:100	20.20	489.52	490.02	489.96	490.13	0.018864	2.12	15.44	40.20	0.97
1	190	1:100	20.20	489.13	489.62	489.58	489.74	0.020195	2.17	14.96	40.20	1.00
1	189	1:100	20.20	488.78	489.28		489.37	0.016280	1.98	16.36	40.20	0.90
1	188	1:100	20.20	488.45	488.97		489.05	0.015113	1.96	16.72	40.20	0.88
1	187	1:100	20.20	488.12	488.62	488.55	488.72	0.018350	2.11	15.61	40.20	0.96
1	186	1:100	20.20	487.80	488.30		488.38	0.014847	1.91	16.91	40.20	0.87
1	185	1:100	20.20	487.49	488.04		488.12	0.011797	1.81	17.96	40.20	0.78
1	184	1:100	20.20	487.19	487.72	487.67	487.83	0.017778	2.16	15.52	40.20	0.95
1	183	1:100	20.20	486.91	487.45		487.53	0.012070	1.80	17.72	40.20	0.79
1	182	1:100	20.20	486.67	487.22		487.30	0.010827	1.73	18.34	40.20	0.75
1	181	1:100	20.20	486.43	487.02		487.09	0.009448	1.70	19.03	40.20	0.71
1	180	1:100	20.20	486.20	486.72	486.67	486.83	0.018260	2.17	15.43	40.20	0.97
1	179	1:100	20.20	485.94	486.40		486.48	0.016103	1.86	16.38	40.20	0.89
1	178	1:100	20.20	485.62	486.10		486.18	0.014027	1.80	17.04	40.20	0.83
1	177	1:100	20.20	485.30	485.78		485.88	0.016402	1.96	16.16	40.20	0.90
1	176	1:100	20.20	484.97	485.44		485.54	0.017600	1.98	15.75	40.20	0.93
1	175	1:100	20.20	484.61	485.12		485.21	0.014963	1.93	16.39	40.20	0.87
1	174	1:100	20.20	484.26	484.79		484.91	0.015593	2.04	15.77	40.20	0.90
1	173	1:100	20.20	483.92	484.46	484.42	484.58	0.017740	2.16	15.28	40.20	0.95
1	172	1:100	20.20	483.62	484.15		484.25	0.014368	1.93	16.54	40.20	0.86
1	171	1:100	20.20	483.31	483.84		483.95	0.015771	2.01	15.90	40.20	0.90
1	170	1:100	20.20	483.01	483.53		483.64	0.015178	1.94	15.76	39.95	0.88
1	169	1:100	20.20	482.75	483.29		483.37	0.011782	1.78	17.79	40.20	0.78
1	168	1:100	20.20	482.50	483.06		483.14	0.011212	1.78	18.00	40.20	0.77
1	167	1:100	20.20	482.24	482.85		482.93	0.009891	1.77	18.53	40.20	0.73
1	166	1:100	20.20	481.97	482.53	482.50	482.65	0.018954	2.26	14.99	40.20	0.99
1	165	1:100	20.20	481.63	482.18		482.30	0.016632	2.11	15.60	40.20	0.93
1	164	1:100	20.20	481.28	481.85		481.97	0.015894	2.10	15.58	40.20	0.91
1	163	1:100	20.20	480.97	481.62		481.71	0.010449	1.88	17.82	40.20	0.76
1	162	1:100	20.20	480.80	481.45		481.52	0.008066	1.66	19.47	40.20	0.66
1	161	1:100	20.20	480.64	481.29		481.36	0.007996	1.65	19.57	40.20	0.66
1	160	1:100	20.20	480.47	481.13		481.20	0.007746	1.65	19.77	40.20	0.65
1	159	1:100	20.20	480.31	480.97		481.04	0.008062	1.68	19.56	40.20	0.67
1	158	1:100	20.20	480.14	480.74		480.84	0.013139	2.00	16.81	40.20	0.84
1	157	1:100	20.20	479.96	480.46		480.56	0.014877	1.90	16.38	40.20	0.87
1	156	1:100	20.20	479.66	480.18		480.27	0.013898	1.88	16.74	40.20	0.84
1	155	1:100	20.20	479.36	479.91		480.00	0.012634	1.87	17.18	40.20	0.81
1	154	1:100	20.20	479.06	479.57	479.53	479.69	0.019225	2.17	15.02	40.20	0.98
1	153	1:100	20.20	478.75	479.25		479.35	0.015136	1.91	16.33	40.20	0.87
1	152	1:100	20.20	478.44	479.00		479.08	0.011076	1.76	17.79	40.20	0.76
1	151	1:100	20.20	478.13	478.64	478.63	478.78	0.020618	2.25	14.40	40.20	1.02
1	150	1:100	20.20	477.83	478.33		478.43	0.014328	1.86	16.53	40.20	0.85
1	149	1:100	20.20	477.54	478.10		478.18	0.010696	1.72	18.05	40.20	0.75
1	148	1:100	20.20	477.25	477.72	477.71	477.86	0.023726	2.30	13.99	40.20	1.08
1	147	1:100	20.20	476.97	477.48		477.54	0.010131	1.59	18.75	40.20	0.72
1	146	1:100	20.20	476.76	477.28		477.35	0.009462	1.57	19.36	40.20	0.70
1	145	1:100	20.20	476.56	477.11		477.17	0.008678	1.55	19.85	40.20	0.67
1	144	1:100	20.20	476.36	476.94		477.00	0.007862	1.54	20.38	40.20	0.65
1	143	1:100	20.20	476.16	476.72		476.80	0.012775	1.90	17.42	40.20	0.82
1	142	1:100	20.20	475.95	476.47		476.55	0.012222	1.77	17.72	40.20	0.79
1	141	1:100	20.20	475.71	476.24		476.31	0.011419	1.73	18.05	40.20	0.76
1	140	1:100	20.20	475.47	476.02		476.10	0.010100	1.68	18.63	40.20	0.73
1	139	1:100	20.20	475.23	475.77		475.86	0.013640	1.92	16.84	40.20	0.84
1	138	1:100	20.20	474.97	475.42	475.37	475.53	0.019849	2.05	15.10	40.20	0.98
1	137	1:100	20.20	474.55	475.01	474.96	475.12	0.021230	2.13	14.83	40.20	1.02
1	136	1:100	20.20	474.14	474.61	474.55	474.72	0.018917	2.06	15.37	40.20	0.97
1	135	1:100	20.20	473.81	474.31		474.39	0.013505	1.82	17.05	40.20	0.83
1	134	1:100	20.20	473.52	474.08		474.15	0.010633	1.74	18.32	40.20	0.75
1	133	1:100	20.20	473.24	473.76	473.71	473.87	0.018676	2.19	15.33	40.20	0.98
1	132	1:100	20.20	472.98	473.53		473.60	0.009551	1.63	18.90	40.20	0.70
1	131	1:100	20.20	472.80	473.36		473.42	0.007976	1.51	20.07	40.20	0.65
1	130	1:100	20.20	472.63	473.20		473.26	0.007873	1.52	20.08	40.20	0.64
1	129	1:100	20.20	472.46	473.05		473.11	0.007542	1.52	20.24	40.20	0.63
1	128	1:100	20.20	472.28	472.90		472.96	0.007392	1.55	20.23	40.20	0.63
1	127	1:100	20.20	472.11	472.64		472.75	0.015174	2.01	16.09	40.20	0.88
1	126	1:100	20.20	471.89	472.37		472.46	0.013560	1.77	17.05	40.20	0.82
1	125	1:100	20.20	471.61	472.11		472.19	0.012464	1.75	17.44	40.20	0.79
1	124	1:100	20.20	471.33	471.85		471.93	0.013426	1.84	16.94	40.20	0.83
1	123	1:100	20.20	471.05	471.58		471.67	0.012861	1.82	17.03	40.20	0.81
1	122	1:100	20.20	470.75	471.35		471.43	0.010761	1.81	17.84	40.20	0.76
1	121	1:100	20.20	470.45	471.10		471.21	0.011735	2.00	16.82	40.20	0.80
1	120	1:100	20.20	470.14	470.71	470.71	470.89	0.021983	2.47	13.43	38.92	1.07
1	119	1:100	20.20	469.77	470.26		470.37	0.016250	1.96	15.85	40.20	0.90
1	118	1:100	20.20	469.35	469.79	469.79	469.95	0.027637	2.38	13.36	40.20	1.15
1	117	1:100	20.20	468.76	469.15	469.15	469.31	0.030443	2.31	12.88	40.20	1.19

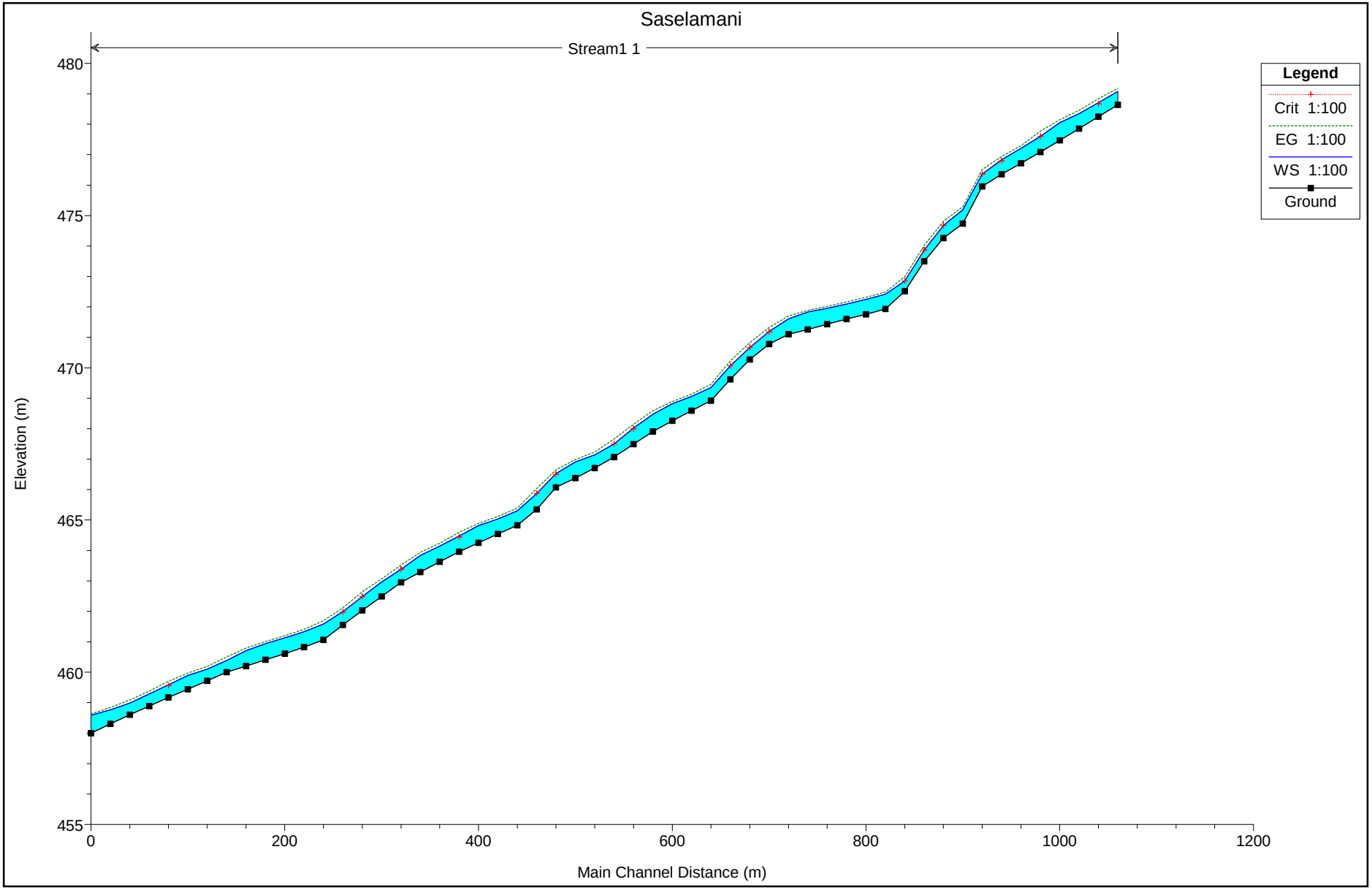
HEC-RAS Plan: Current mode Profile: 1:100 (Continued)

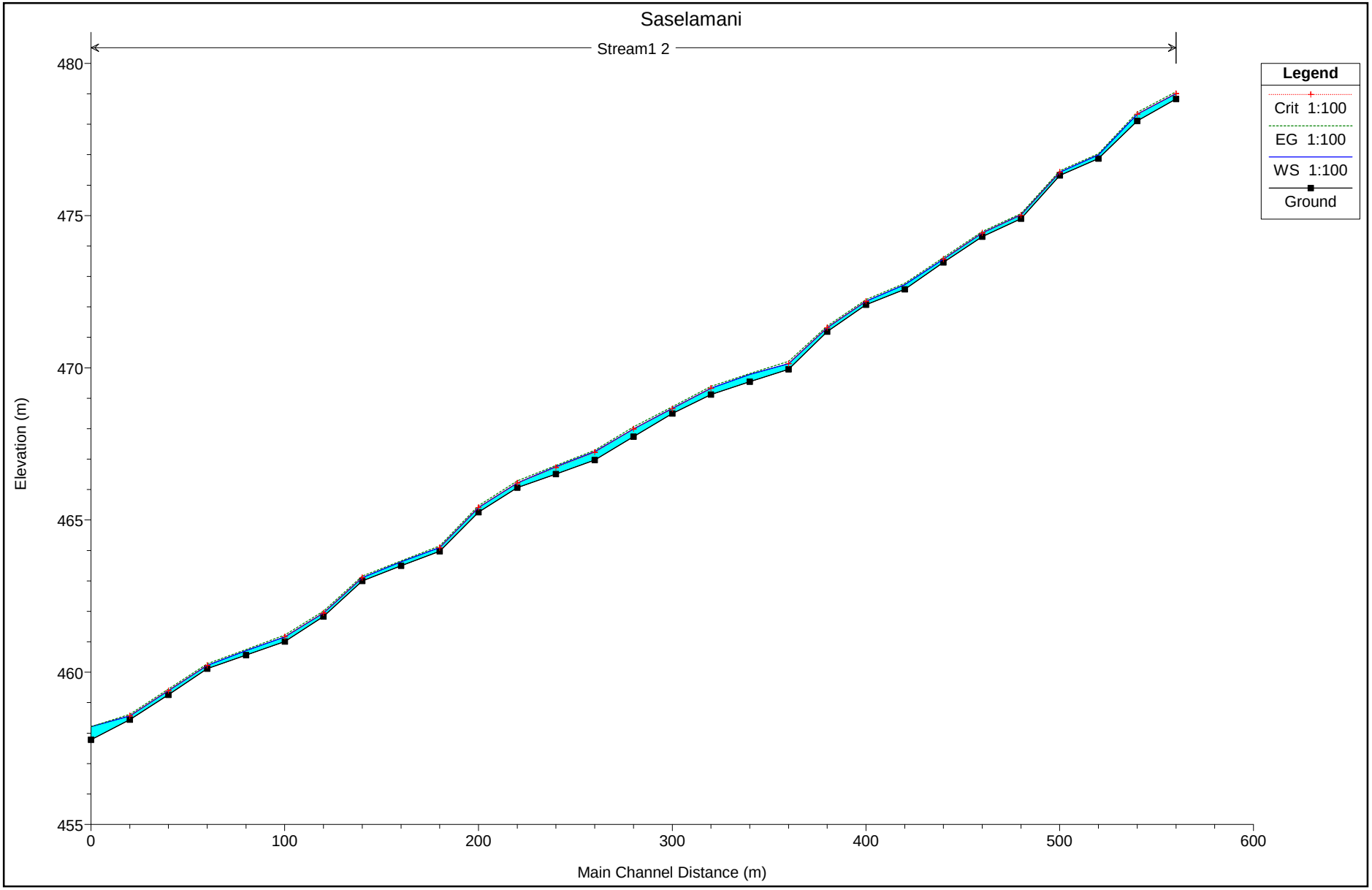
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
1	116	1:100	20.20	467.75	468.16	468.13	468.31	0.026285	2.19	12.97	36.10	1.11
1	115	1:100	20.20	467.17	467.58	467.58	467.73	0.031536	2.41	12.95	40.20	1.22
1	114	1:100	20.20	466.61	467.07	467.01	467.18	0.019869	2.08	15.15	40.20	0.99
1	113	1:100	20.20	466.12	466.60	466.58	466.73	0.024330	2.37	14.10	40.20	1.10
1	112	1:100	20.20	465.75	466.24		466.33	0.016044	1.95	16.28	40.20	0.90
1	111	1:100	20.20	465.42	465.99		466.07	0.010633	1.77	18.40	40.20	0.75
1	110	1:100	20.20	465.09	465.55	465.55	465.72	0.030364	2.57	12.75	39.02	1.22
1	109	1:100	20.20	464.67	465.12	465.05	465.22	0.019227	2.03	15.55	40.20	0.97
1	108	1:100	20.20	464.21	464.64	464.62	464.77	0.026700	2.29	13.81	40.20	1.13
1	107	1:100	20.20	463.67	464.09	464.07	464.23	0.027221	2.30	13.49	40.20	1.14
1	106	1:100	20.20	463.07	463.46	463.46	463.61	0.035527	2.49	12.75	40.20	1.28
1	105	1:100	20.20	462.24	462.66	462.66	462.83	0.036118	2.64	12.08	36.18	1.31
1	104	1:100	20.20	461.24	461.76	461.76	461.93	0.026392	2.61	12.99	36.97	1.16
1	103	1:100	20.20	460.52	461.13	461.13	461.32	0.021820	2.64	13.39	36.95	1.08
1	102	1:100	20.20	459.97	460.58	460.58	460.77	0.019855	2.50	13.30	34.24	1.03
1	101	1:100	20.20	459.57	460.21		460.32	0.013545	2.13	16.36	38.75	0.86
2	219	1:100	5.39	469.93	470.21	470.19	470.28	0.025693	1.70	5.48	28.76	1.03
2	218	1:100	5.39	469.48	469.79		469.84	0.018405	1.53	6.44	34.55	0.89
2	217	1:100	5.39	469.03	469.28	469.28	469.36	0.032495	1.74	5.03	28.79	1.13
2	216	1:100	5.39	468.55	468.82		468.86	0.019202	1.38	6.10	31.21	0.88
2	215	1:100	5.39	468.07	468.31	468.30	468.38	0.031910	1.66	5.25	31.85	1.11
2	214	1:100	5.39	467.46	467.75	467.75	467.82	0.024873	1.67	5.96	38.41	1.02
2	213	1:100	5.39	466.91	467.20		467.24	0.014889	1.30	7.02	35.61	0.79
2	212	1:100	5.39	466.56	466.84	466.82	466.89	0.019919	1.46	6.19	35.23	0.90
2	211	1:100	5.39	466.21	466.47		466.52	0.017085	1.28	6.08	31.05	0.83
2	210	1:100	5.39	465.80	466.09	466.08	466.16	0.021537	1.51	6.03	38.60	0.94
2	209	1:100	5.39	465.32	465.58	465.58	465.66	0.029184	1.67	5.37	32.96	1.08
2	208	1:100	5.39	464.81	465.08	465.05	465.13	0.022681	1.50	5.97	33.78	0.96
2	207	1:100	5.39	464.27	464.52	464.52	464.59	0.033133	1.73	5.42	35.44	1.14
2	206	1:100	5.39	463.67	463.91	463.90	463.97	0.027466	1.61	5.71	34.01	1.04
2	205	1:100	5.39	463.01	463.18	463.18	463.25	0.049397	1.69	4.75	31.58	1.32
2	204	1:100	5.39	462.08	462.29	462.28	462.36	0.038894	1.75	5.05	31.40	1.21
2	203	1:100	5.39	461.32	461.61	461.61	461.69	0.029642	1.89	5.42	32.20	1.12
2	202	1:100	5.39	460.66	460.94	460.94	461.01	0.026722	1.68	5.90	38.69	1.05
2	201	1:100	5.39	460.03	460.33		460.35	0.006073	0.69	9.08	40.20	0.48
3	338	1:100	34.16	459.00	459.57	459.57	459.79	0.021594	2.41	18.32	40.20	1.06
3	337	1:100	34.16	458.74	459.36	459.27	459.51	0.019159	2.50	21.38	40.20	1.02
3	336	1:100	34.16	458.24	458.83	458.83	459.05	0.027684	2.89	18.51	40.20	1.21
3	335	1:100	34.16	457.81	458.44	458.36	458.59	0.017853	2.41	21.42	40.20	0.98
3	334	1:100	34.16	457.45	458.05	457.98	458.22	0.019673	2.47	20.82	40.20	1.03
3	333	1:100	34.16	457.08	457.68	457.60	457.83	0.018588	2.38	21.14	40.20	0.99
3	332	1:100	34.16	456.75	457.49		457.58	0.007785	1.81	27.42	40.20	0.67
3	331	1:100	34.16	456.50	457.31		457.42	0.008841	2.01	26.13	40.20	0.72
3	330	1:100	34.16	456.26	457.15		457.26	0.007602	1.98	27.02	40.20	0.68
3	329	1:100	34.16	456.03	456.86		457.05	0.014120	2.53	21.78	40.20	0.91
3	328	1:100	34.16	455.83	456.69		456.81	0.008694	2.06	25.54	40.20	0.72
3	327	1:100	34.16	455.64	456.51		456.63	0.008803	2.10	25.18	38.89	0.73
3	326	1:100	34.16	455.46	456.34		456.46	0.008661	2.10	25.71	40.07	0.72
3	325	1:100	34.16	455.27	456.17		456.29	0.008504	2.12	26.11	40.20	0.72
3	324	1:100	34.16	455.08	455.94		456.09	0.011426	2.38	23.95	40.20	0.83
3	323	1:100	34.16	454.83	455.64	455.57	455.82	0.015646	2.65	21.56	39.81	0.96
3	322	1:100	34.16	454.54	455.35		455.51	0.014404	2.55	22.17	39.11	0.92
3	321	1:100	34.16	454.26	455.04	454.98	455.21	0.016194	2.62	21.75	40.20	0.97
3	320	1:100	34.16	453.95	454.69	454.65	454.87	0.017767	2.69	21.15	40.20	1.01
3	319	1:100	34.16	453.51	454.27	454.24	454.49	0.020407	2.94	19.59	37.61	1.09
3	318	1:100	34.16	453.07	453.89	453.83	454.10	0.018213	2.88	19.53	33.34	1.04
3	317	1:100	34.16	452.84	453.72		453.83	0.008679	2.14	26.41	39.76	0.73
3	316	1:100	34.16	452.65	453.51		453.63	0.010499	2.29	24.74	40.20	0.79
3	315	1:100	34.16	452.46	453.32		453.43	0.009780	2.19	25.77	40.20	0.77
3	314	1:100	34.16	452.27	453.08		453.20	0.012506	2.37	24.08	40.20	0.86
3	313	1:100	34.16	452.08	452.75	452.66	452.90	0.018900	2.56	21.55	40.20	1.02
3	312	1:100	34.16	451.82	452.44		452.56	0.014781	2.20	23.43	40.20	0.89
3	311	1:100	34.16	451.51	452.17		452.28	0.012685	2.13	24.43	40.20	0.84
3	310	1:100	34.16	451.20	451.90		452.02	0.013046	2.25	23.97	40.20	0.86
3	309	1:100	34.16	450.95	451.72		451.81	0.008270	1.90	27.65	40.20	0.69
3	308	1:100	34.16	450.79	451.57		451.65	0.007377	1.81	28.84	40.20	0.66
3	307	1:100	34.16	450.64	451.42		451.50	0.007286	1.81	28.98	40.20	0.65
3	306	1:100	34.16	450.48	451.28		451.36	0.007428	1.84	28.81	40.20	0.66
3	305	1:100	34.16	450.33	451.12		451.20	0.007988	1.90	28.15	40.20	0.69
3	304	1:100	34.16	450.18	450.93		451.02	0.009709	2.03	26.50	40.20	0.75
3	303	1:100	34.16	450.02	450.72		450.82	0.010863	2.04	25.68	40.20	0.78
3	302	1:100	34.16	449.83	450.52		450.61	0.009863	1.93	26.65	40.20	0.74
3	301	1:100	34.16	449.63	450.32		450.41	0.009777	1.93	26.77	40.20	0.74
3	300	1:100	34.16	449.43	450.10	449.90	450.20	0.011503	2.05	25.51	40.20	0.80

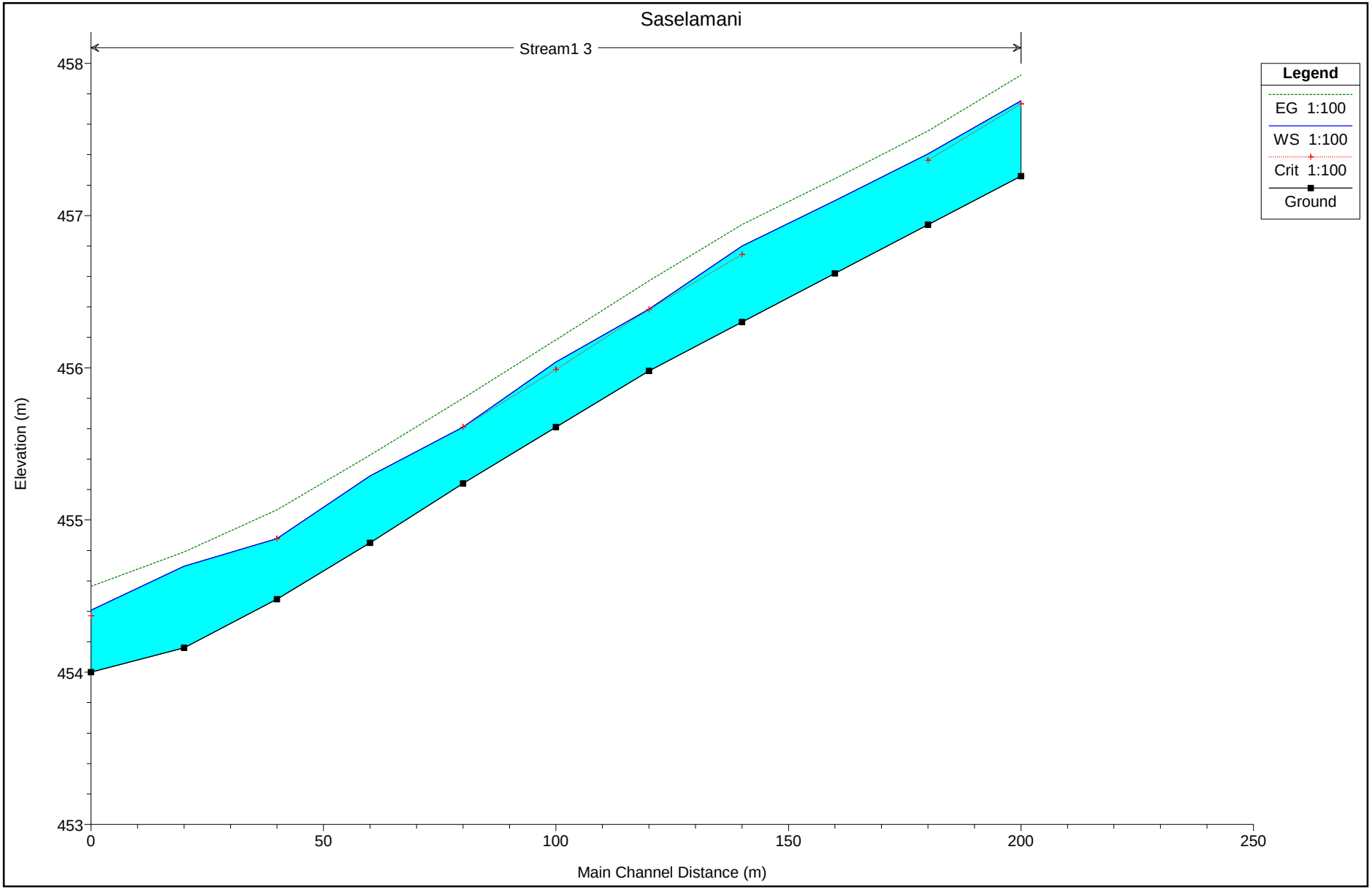
HEC-RAS Plan: Current mode Profile: 1:100

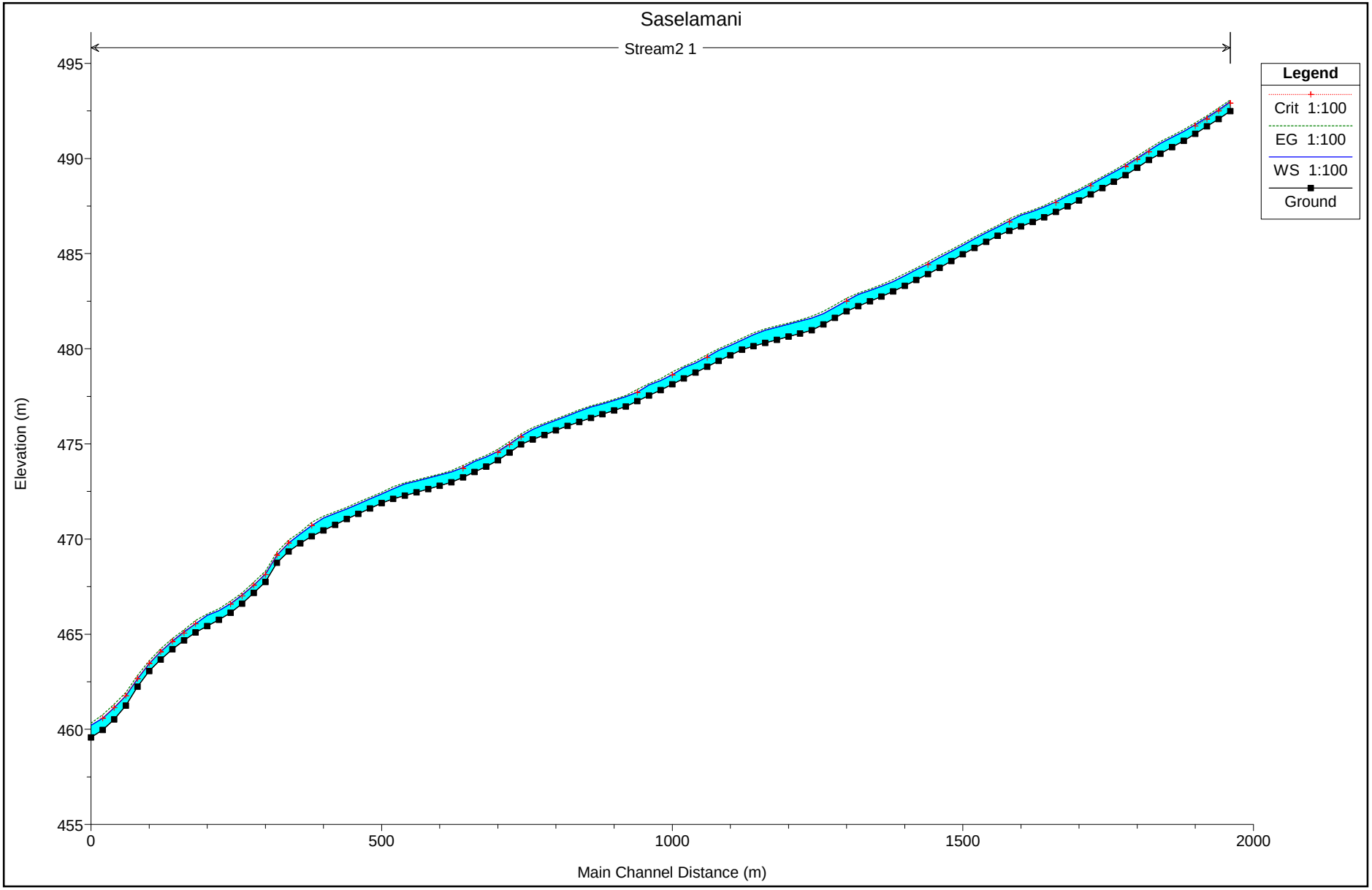
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
1	134	1:100	11.17	471.62	471.96	471.96	472.08	0.026600	1.75	7.75	30.20	1.05
1	133	1:100	11.17	471.17	471.54	471.51	471.65	0.027184	2.11	8.45	29.44	1.11
1	132	1:100	11.17	470.80	471.22		471.28	0.012131	1.54	11.11	30.20	0.76
1	131	1:100	11.17	470.55	470.99		471.05	0.011094	1.51	11.29	30.20	0.73
1	130	1:100	11.17	470.30	470.79		470.85	0.009600	1.51	11.82	30.20	0.69
1	129	1:100	11.17	470.05	470.43	470.40	470.54	0.026649	2.10	8.37	29.29	1.10
1	128	1:100	11.17	469.45	469.83	469.82	469.96	0.032616	2.34	7.97	29.41	1.22
1	127	1:100	11.17	468.75	469.13	469.13	469.25	0.037844	2.52	7.94	30.20	1.32
1	126	1:100	11.17	468.02	468.42	468.40	468.55	0.029916	2.28	7.71	25.36	1.18
1	125	1:100	11.17	467.61	468.05		468.12	0.015338	1.76	10.37	30.20	0.86
1	124	1:100	11.17	467.21	467.66	467.63	467.76	0.021097	2.08	9.20	30.20	1.01
1	123	1:100	11.17	466.70	467.17	467.17	467.29	0.025383	2.33	8.59	30.20	1.11
1	122	1:100	11.17	466.05	466.52	466.50	466.63	0.022941	2.20	8.85	30.20	1.06
1	121	1:100	11.17	465.72	466.17		466.25	0.015423	1.78	10.10	30.20	0.86
1	120	1:100	11.17	465.42	465.94		466.00	0.009498	1.55	11.77	30.20	0.69
1	119	1:100	11.17	465.11	465.58	465.58	465.71	0.024198	2.28	8.64	30.20	1.09
1	118	1:100	11.17	464.75	465.17	465.12	465.25	0.020248	1.96	9.50	30.20	0.98
1	117	1:100	11.17	464.35	464.79		464.88	0.017467	1.90	9.86	30.20	0.92
1	116	1:100	11.17	463.96	464.42	464.36	464.51	0.019189	2.03	9.21	28.40	0.97
1	115	1:100	11.17	463.65	464.12		464.18	0.013625	1.74	10.74	30.20	0.82
1	114	1:100	11.17	463.34	463.81		463.88	0.016374	1.91	10.13	30.20	0.90
1	113	1:100	11.17	463.03	463.45	463.40	463.53	0.018736	1.90	9.70	30.20	0.94
1	112	1:100	11.17	462.73	463.14		463.21	0.014007	1.63	10.77	30.20	0.81
1	111	1:100	11.17	462.44	462.88		462.94	0.012551	1.61	11.14	30.20	0.78
1	110	1:100	11.17	462.14	462.58		462.65	0.017199	1.87	10.13	30.20	0.91
1	109	1:100	11.17	461.85	462.26		462.32	0.015307	1.69	10.60	30.20	0.85
1	108	1:100	11.17	461.54	461.97		462.03	0.014275	1.68	10.80	30.20	0.83
1	107	1:100	11.17	461.24	461.66		461.73	0.015599	1.74	10.46	30.20	0.86
1	106	1:100	11.17	460.93	461.35		461.42	0.015180	1.73	10.56	30.20	0.85
1	105	1:100	11.17	460.64	461.05		461.12	0.015118	1.70	10.61	30.20	0.85
1	104	1:100	11.17	460.34	460.76		460.82	0.014540	1.68	10.75	30.20	0.83
1	103	1:100	11.17	460.05	460.45		460.52	0.015618	1.70	10.46	30.20	0.86
1	102	1:100	11.17	459.78	460.25		460.29	0.007943	1.35	12.93	30.20	0.63
1	101	1:100	11.17	459.51	460.20		460.22	0.001974	0.86	18.79	30.20	0.33
2	223	1:100	10.75	469.79	470.12	470.12	470.24	0.025872	1.54	7.05	30.20	1.01
2	222	1:100	10.75	469.24	469.61	469.59	469.71	0.030689	2.24	8.32	30.20	1.18
2	221	1:100	10.75	468.68	469.04	469.00	469.13	0.027261	2.06	8.64	30.20	1.11
2	220	1:100	10.75	468.17	468.55	468.50	468.63	0.022763	1.96	9.14	30.20	1.02
2	219	1:100	10.75	467.61	467.92	467.92	468.04	0.039468	2.30	7.72	30.20	1.31
2	218	1:100	10.75	467.02	467.35	467.30	467.43	0.023457	1.84	9.07	30.20	1.02
2	217	1:100	10.75	466.55	466.88	466.82	466.95	0.024451	1.85	9.02	30.20	1.04
2	216	1:100	10.75	466.12	466.46		466.53	0.018436	1.67	9.82	30.20	0.91
2	215	1:100	10.75	465.78	466.18		466.23	0.012108	1.49	11.07	30.20	0.75
2	214	1:100	10.75	465.53	465.92		465.98	0.013244	1.54	10.82	30.20	0.79
2	213	1:100	10.75	465.27	465.70		465.74	0.010478	1.44	11.62	30.20	0.71
2	212	1:100	10.75	465.01	465.22	465.22	465.36	0.041395	1.79	6.88	27.33	1.25
2	211	1:100	10.75	463.91	464.30	464.22	464.37	0.019319	1.84	9.49	30.03	0.95
2	210	1:100	10.75	463.56	463.94		464.00	0.017474	1.71	9.90	30.20	0.90
2	209	1:100	10.75	463.21	463.59		463.65	0.017672	1.72	9.89	30.20	0.90
2	208	1:100	10.75	462.82	463.14	463.09	463.22	0.026154	1.90	8.84	30.20	1.07
2	207	1:100	10.75	462.37	462.70		462.77	0.019263	1.67	9.69	30.20	0.92
2	206	1:100	10.75	461.91	462.22	462.18	462.31	0.028356	1.93	8.56	30.20	1.11
2	205	1:100	10.75	461.43	461.76	461.69	461.83	0.020081	1.70	9.58	30.20	0.94
2	204	1:100	10.75	460.96	461.26	461.22	461.35	0.029367	1.92	8.55	30.20	1.12
2	203	1:100	10.75	460.51	460.89	460.77	460.94	0.014355	1.56	10.62	30.20	0.81
2	202	1:100	10.75	460.06	460.33	460.33	460.45	0.049840	2.30	7.27	30.20	1.43
2	201	1:100	10.75	459.70	460.25		460.28	0.002406	0.78	16.22	30.20	0.34
3	311	1:100	32.67	459.15	459.86		460.04	0.012537	2.17	19.45	30.20	0.84
3	310	1:100	32.67	458.88	459.62		459.77	0.014789	2.46	20.08	30.20	0.92
3	309	1:100	32.67	458.59	459.34		459.49	0.013512	2.37	20.55	30.20	0.88
3	308	1:100	32.67	458.30	459.09		459.23	0.011846	2.30	21.21	30.20	0.83
3	307	1:100	32.67	458.01	458.80		458.97	0.014101	2.47	19.76	30.20	0.91
3	306	1:100	32.67	457.75	458.55		458.70	0.012579	2.37	20.74	30.20	0.86
3	305	1:100	32.67	457.49	458.30		458.45	0.012020	2.35	20.96	30.20	0.84
3	304	1:100	32.67	457.22	457.99	457.89	458.17	0.015872	2.59	19.14	30.20	0.96
3	303	1:100	32.67	456.98	457.80		457.92	0.008913	2.07	23.25	30.20	0.73
3	302	1:100	32.67	456.81	457.64		457.75	0.008299	2.00	23.86	30.20	0.70
3	301	1:100	32.67	456.65	457.46		457.57	0.009005	2.05	23.29	30.20	0.73
3	300	1:100	32.67	456.48	457.17	457.04	457.33	0.016003	2.46	19.54	30.20	0.95

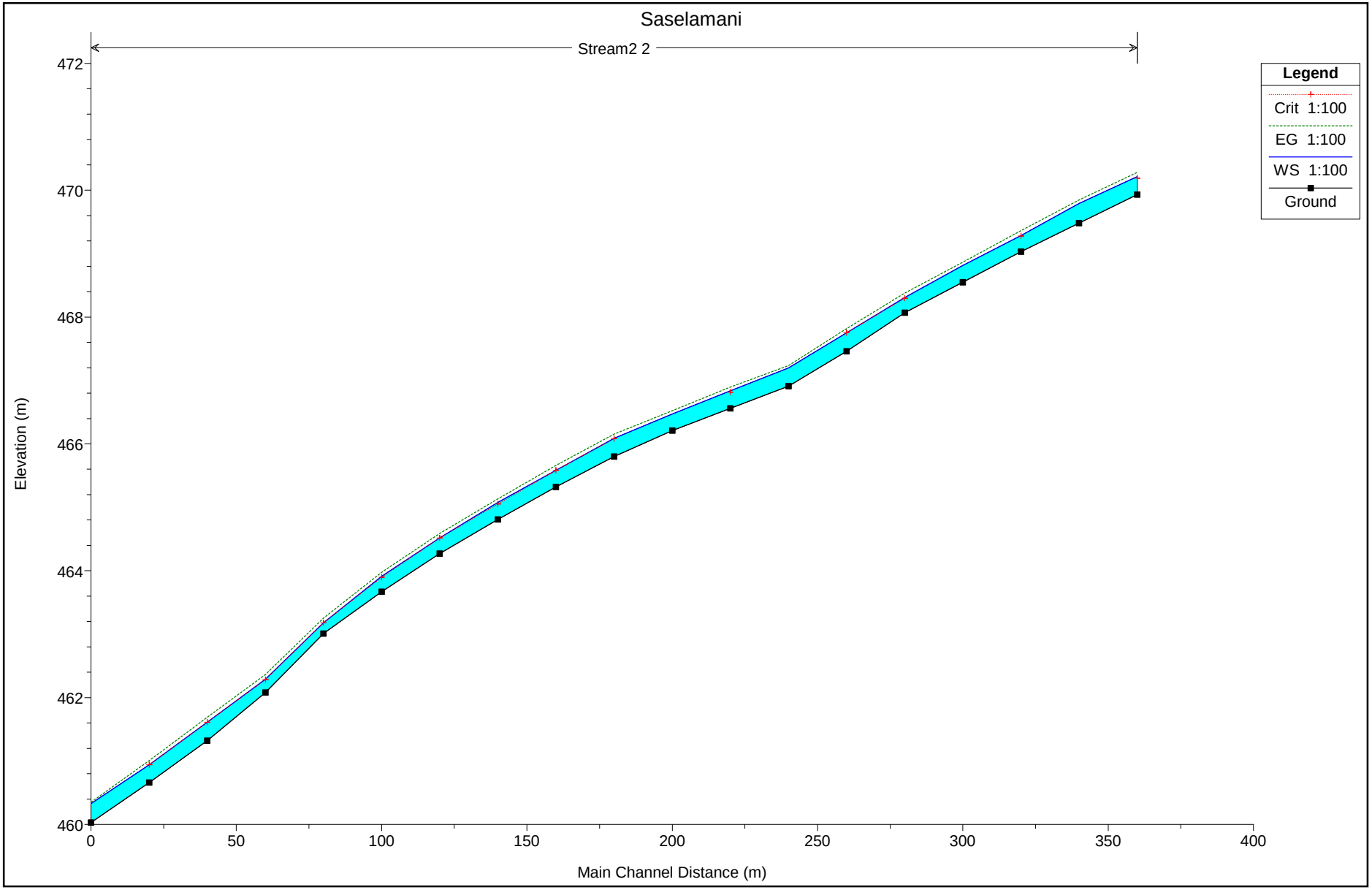
ANNEXURE 4 PROFILE PLOT

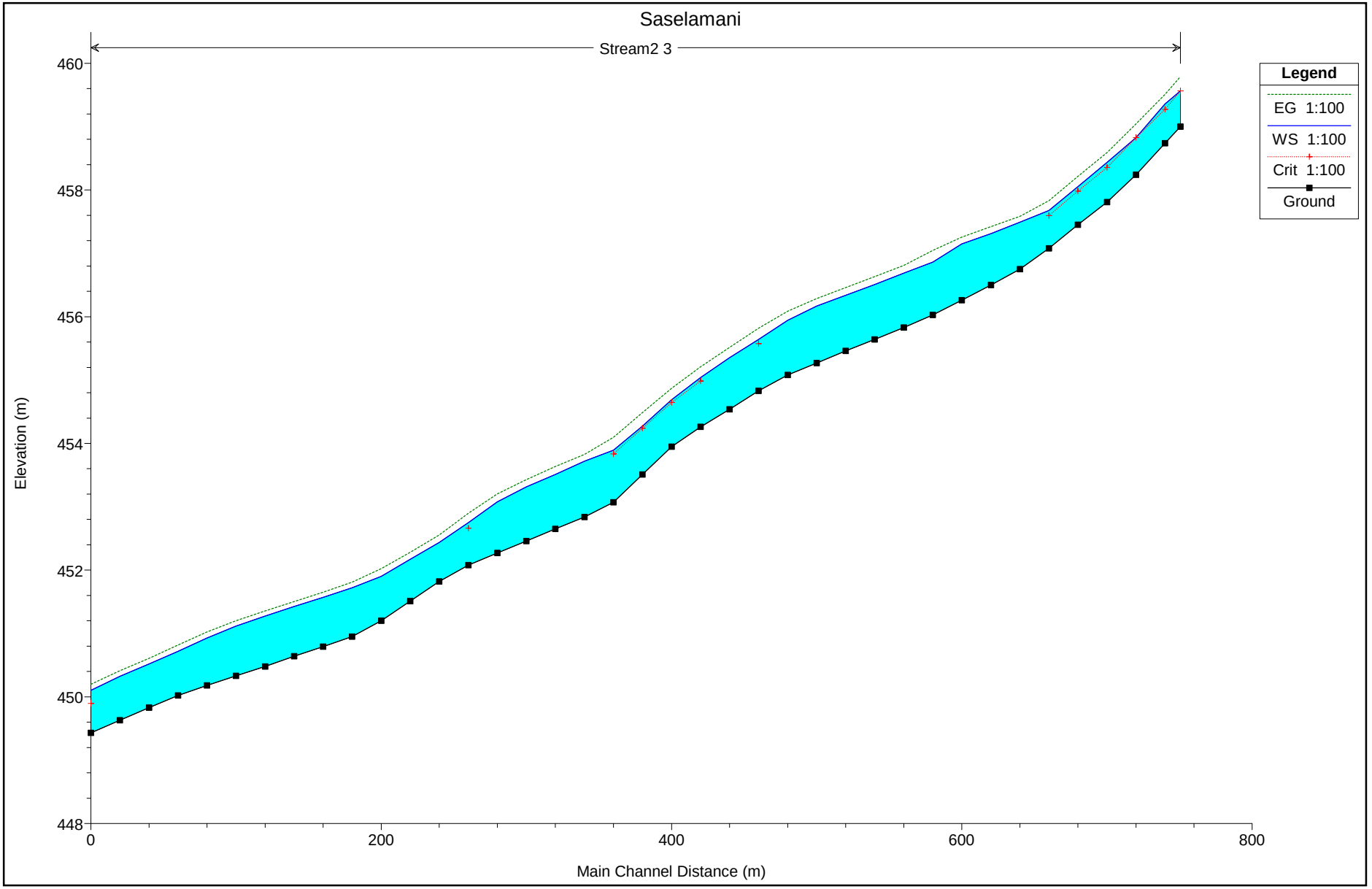

Saselamani
Stream1 1
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
480
475
470
465
460
455
0
200
400
600
800
1000
1200
Main Channel Distance (m)

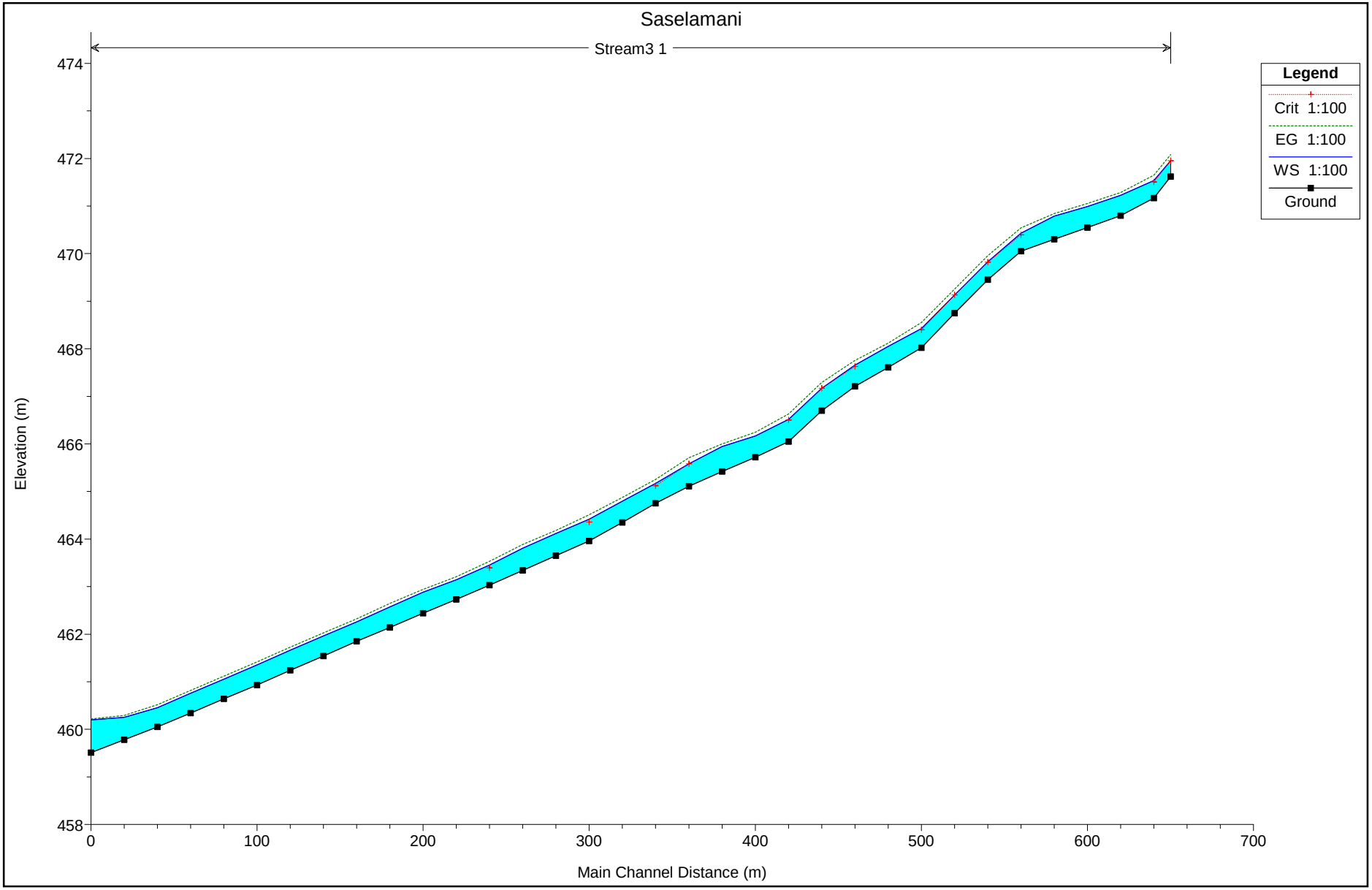

Saselamani
Stream1 2
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
480
475
470
465
460
455
0
100
200
300
400
500
600
Main Channel Distance (m)

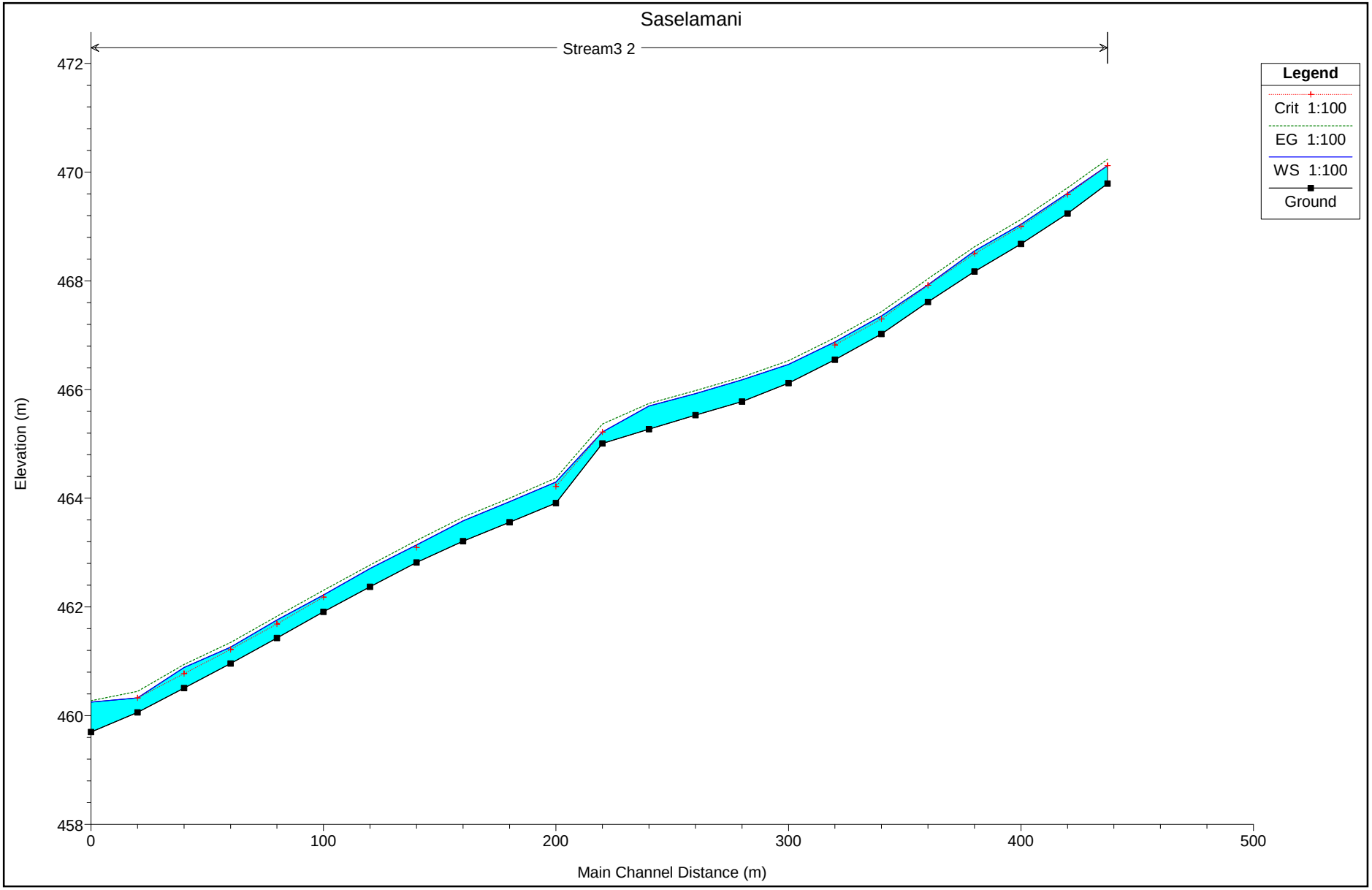

Saselamani
Stream1 3
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Elevation (m)
458
457
456
455
454
453
0
50
100
150
200
250
Main Channel Distance (m)

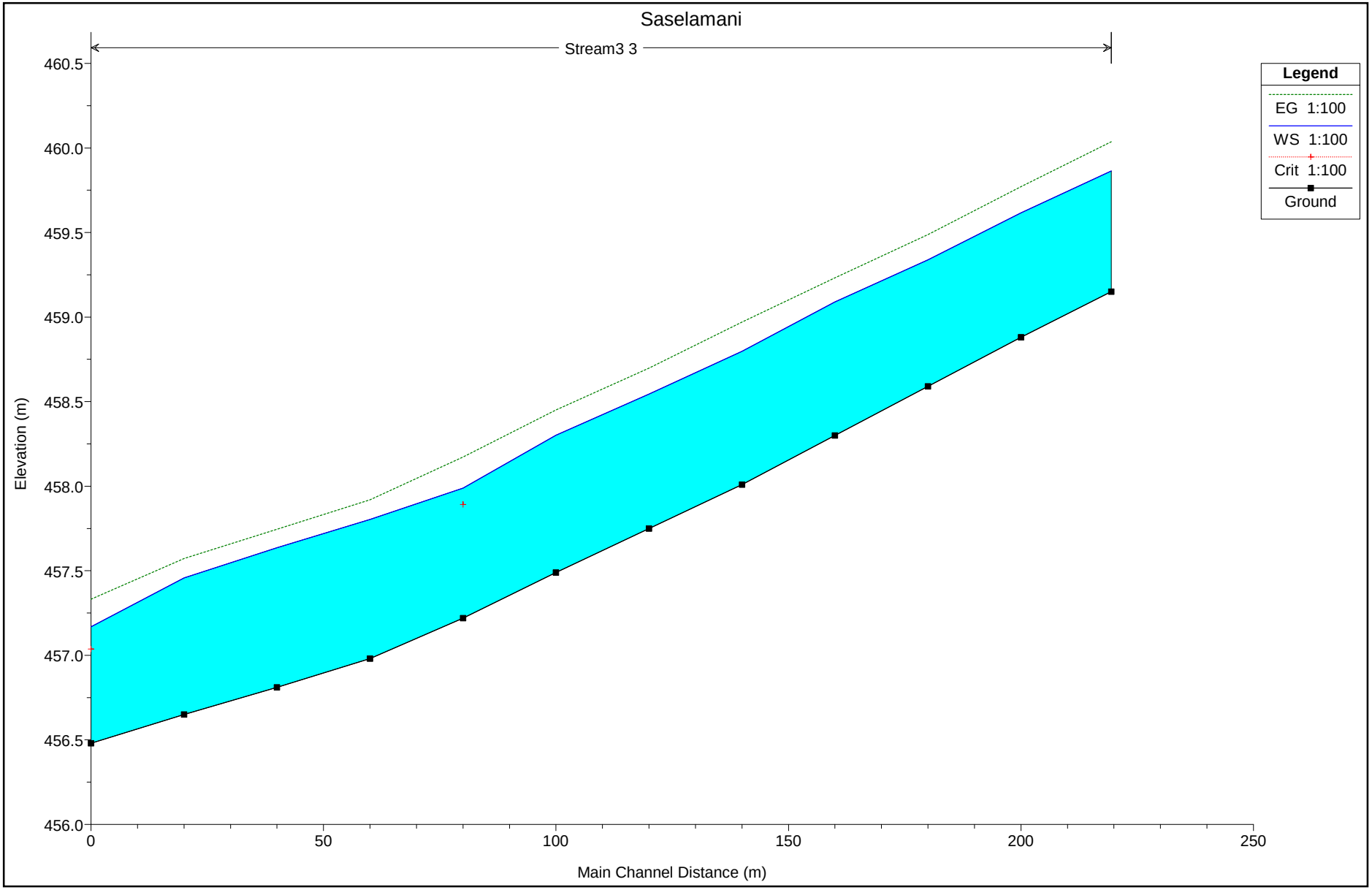

Saselamani
Stream2 1
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
Main Channel Distance (m)
495
490
485
480
475
470
465
460
455
0
500
1000
1500
2000


Saselamani
Stream2 2
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
472
470
468
466
464
462
460
0
50
100
150
200
250
300
350
400
Main Channel Distance (m)

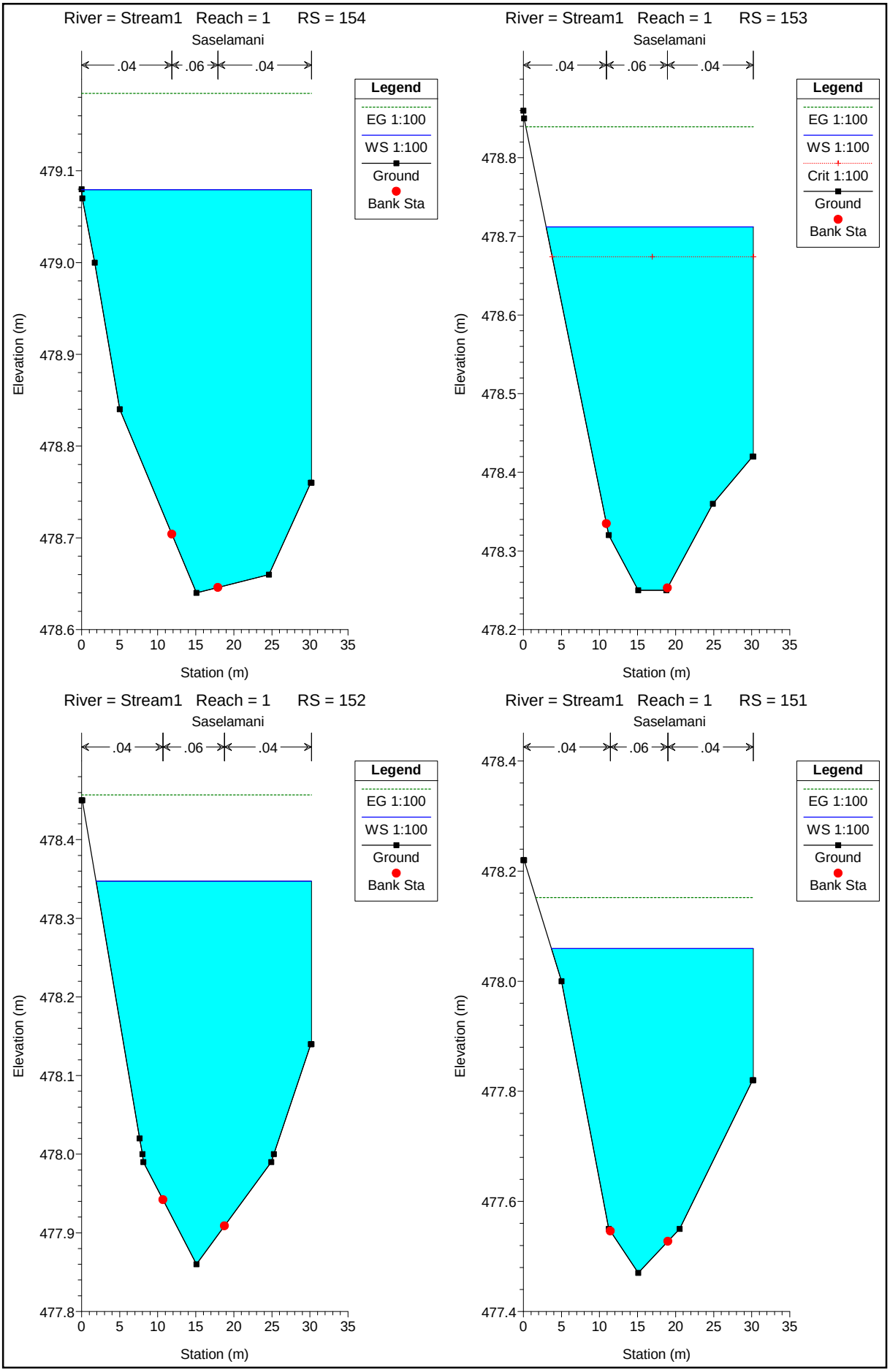

Saselamani
Stream2 3
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Elevation (m)
460
458
456
454
452
450
448
0
200
400
600
800
Main Channel Distance (m)

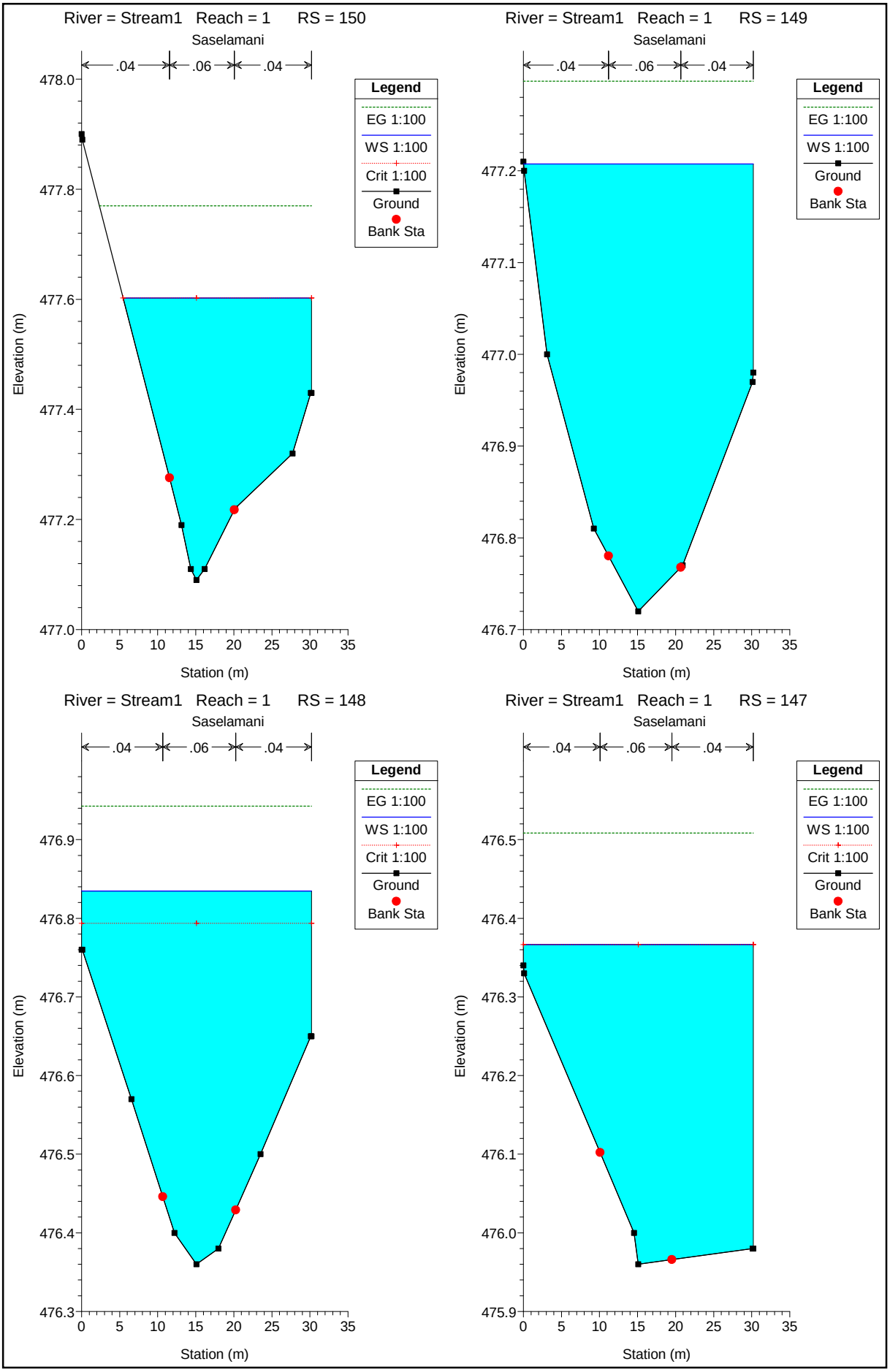

Saselamani
Stream3 1
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
474
472
470
468
466
464
462
460
458
0
100
200
300
400
500
600
700
Main Channel Distance (m)

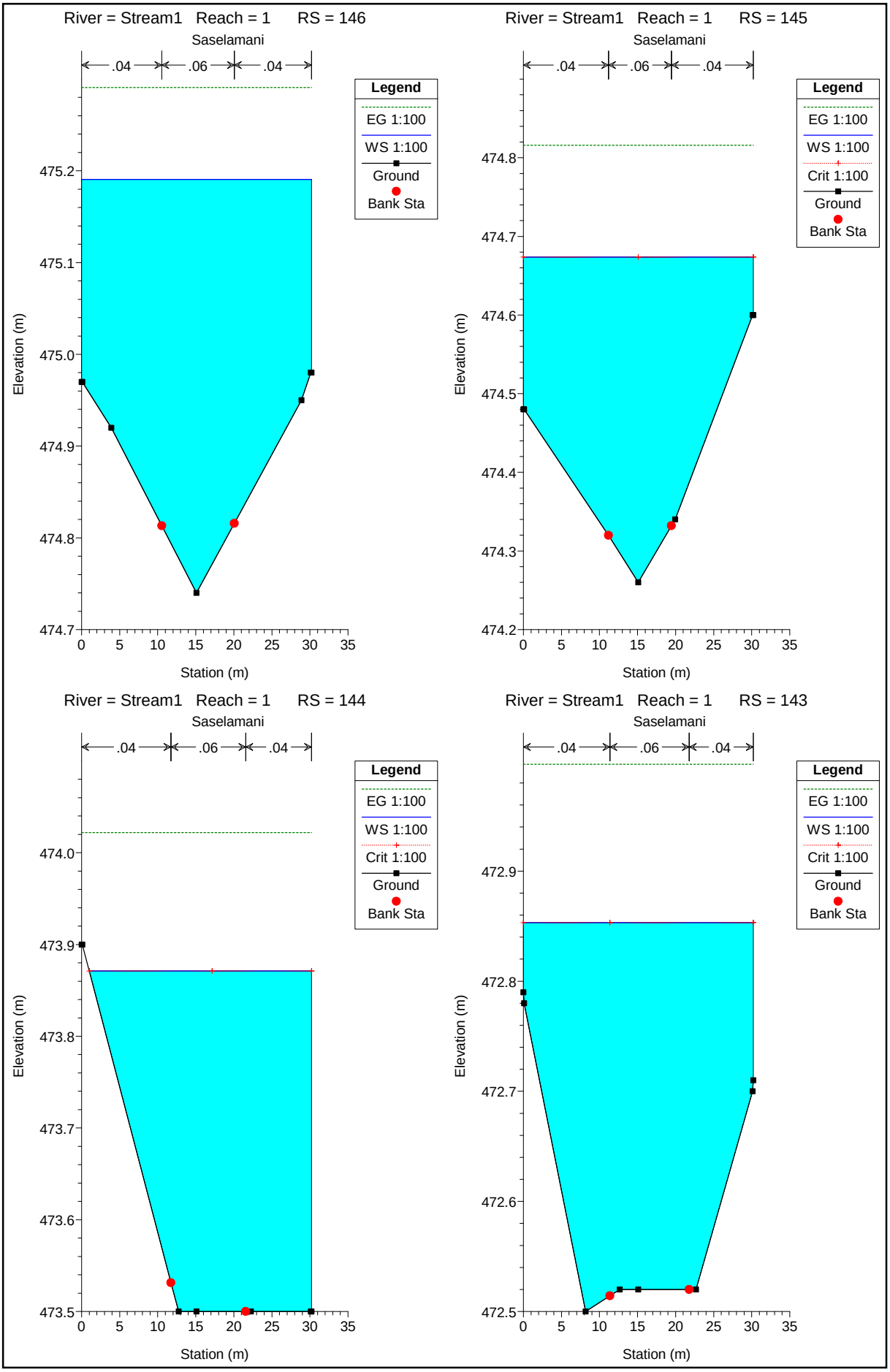

Saselamani
Stream3 2
Legend
Crit 1:100
EG 1:100
WS 1:100
Ground
Elevation (m)
472
470
468
466
464
462
460
458
0
100
200
300
400
500
Main Channel Distance (m)

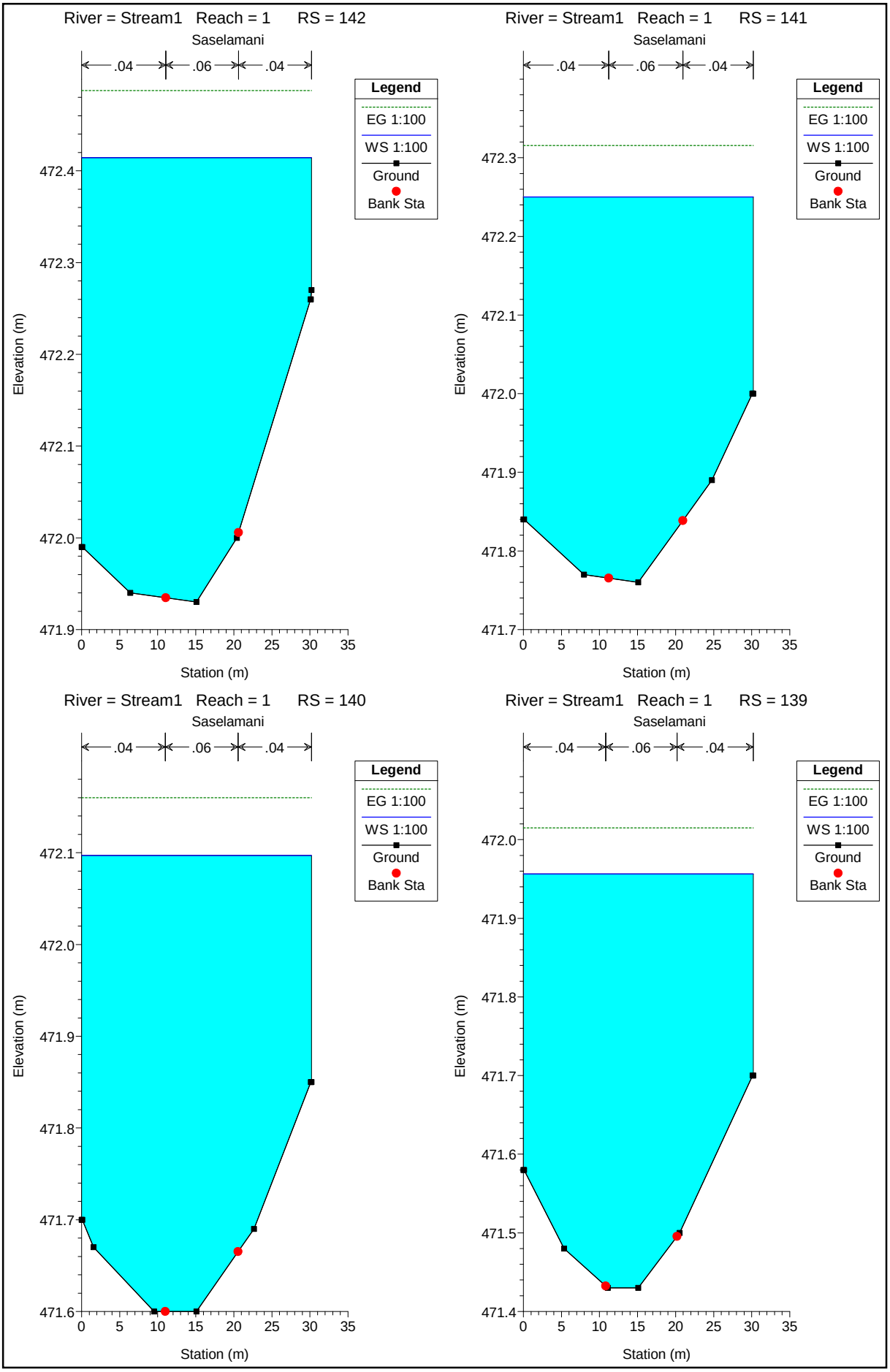

Saselamani
Stream3 3
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Elevation (m)
460.5
460.0
459.5
459.0
458.5
458.0
457.5
457.0
456.5
456.0
0
50
100
150
200
250
Main Channel Distance (m)

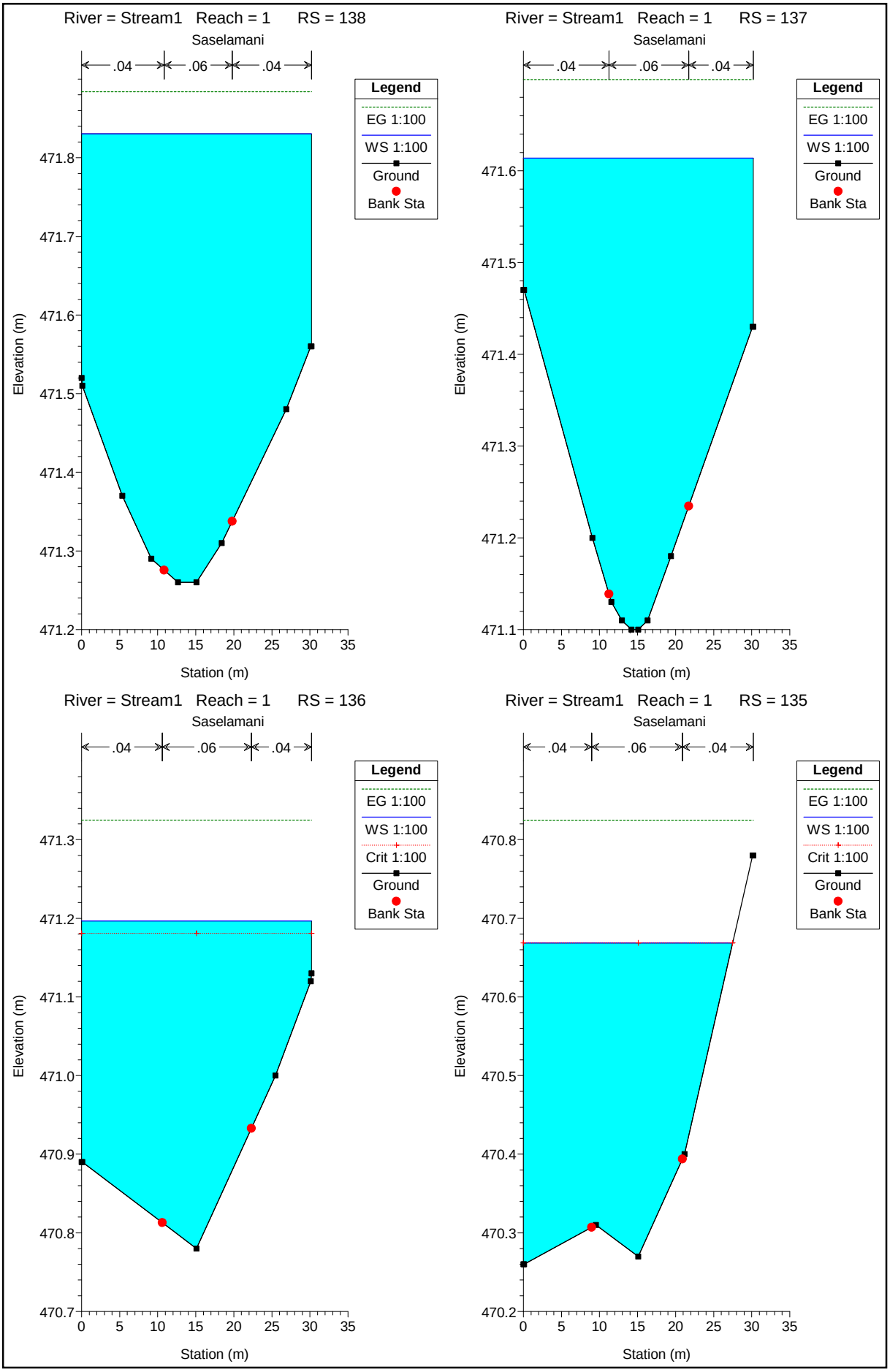
ANNEXURE 5 STREAM CROSS-SECTIONS

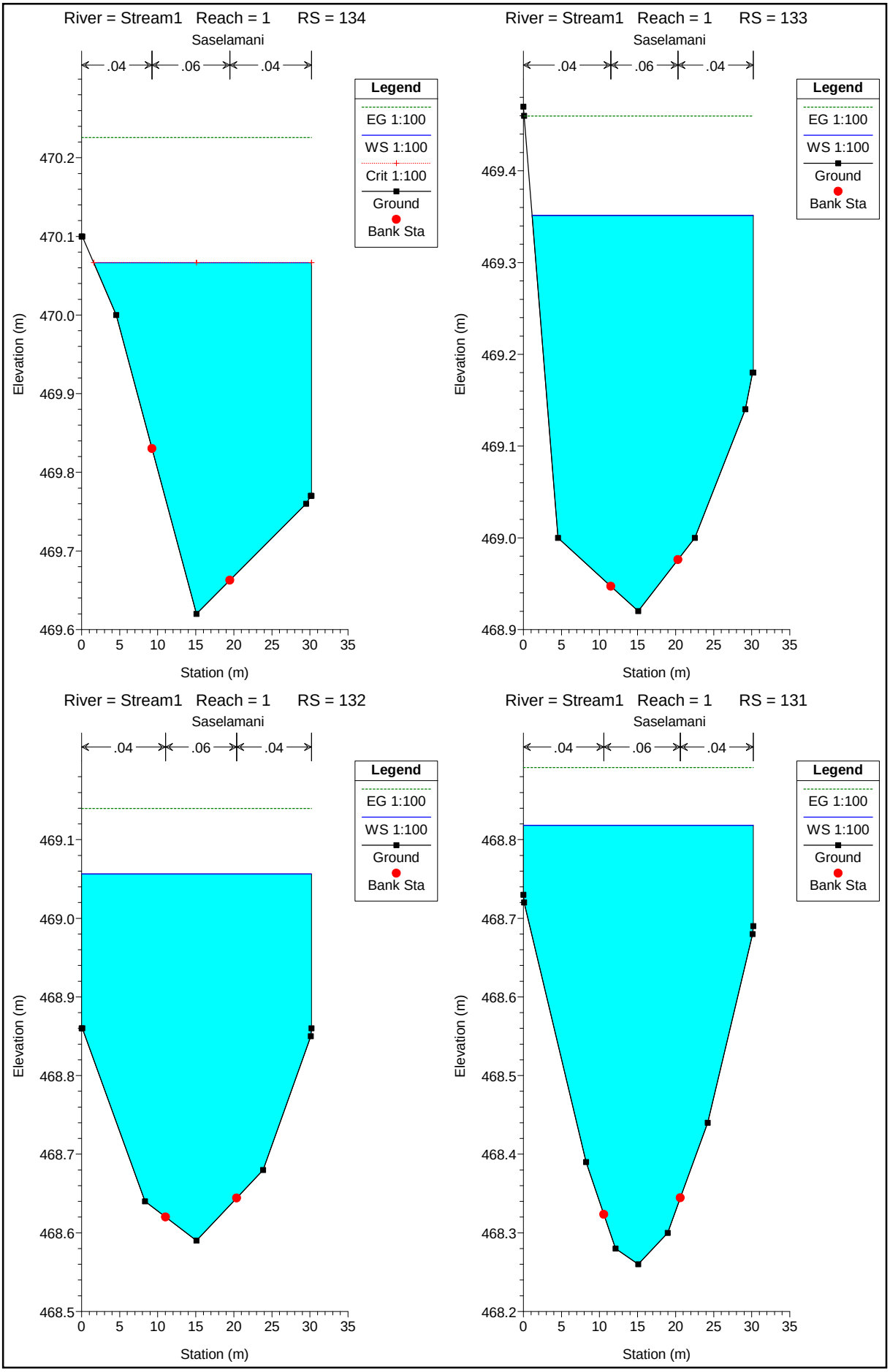

River = Stream1 Reach = 1 RS = 154
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 153
Saselamani
Crit 1:100
River = Stream1 Reach = 1 RS = 152
Saselamani
River = Stream1 Reach = 1 RS = 151
Saselamani

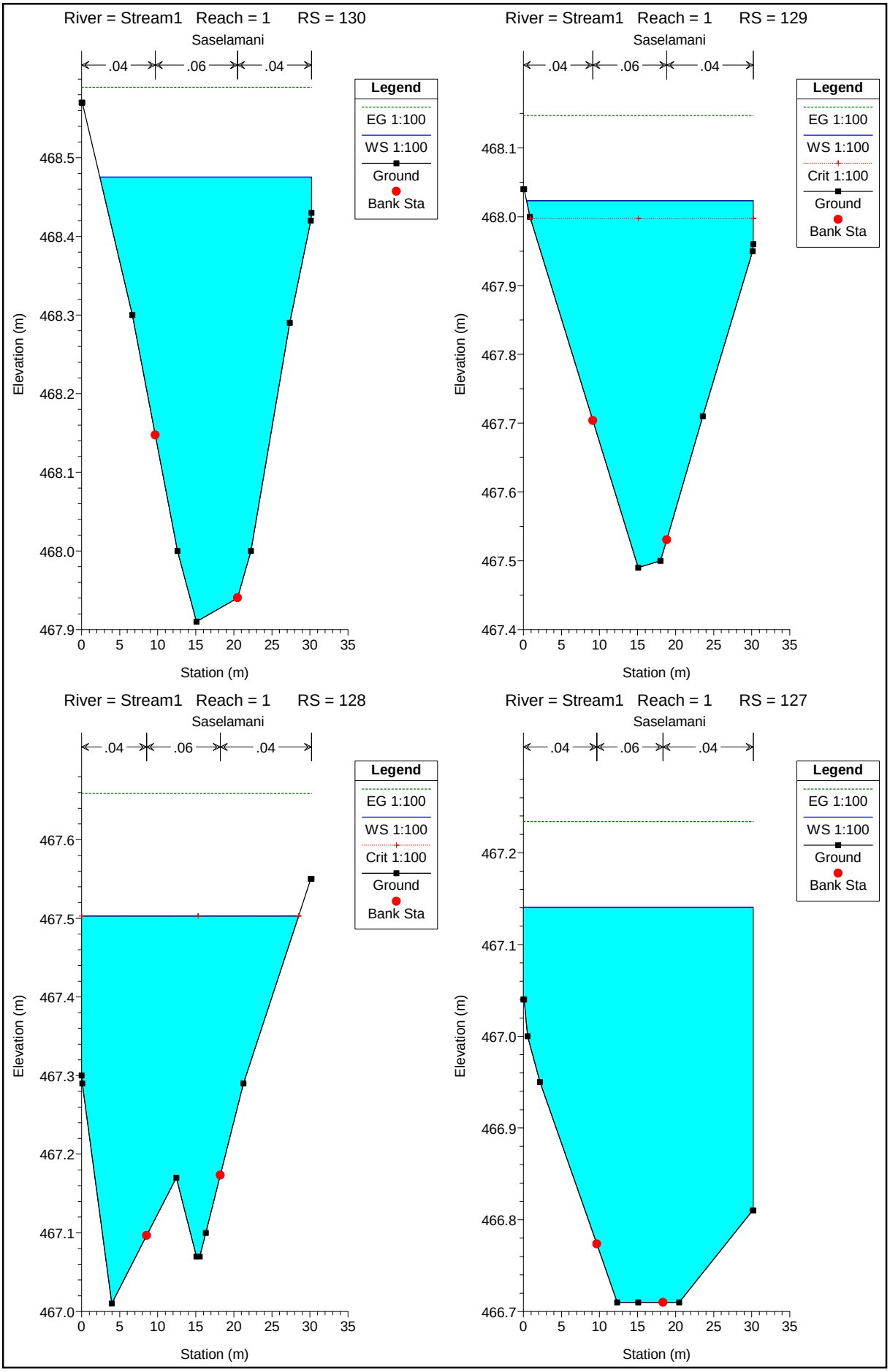

River = Stream1 Reach = 1 RS = 150
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 149
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 148
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 147
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

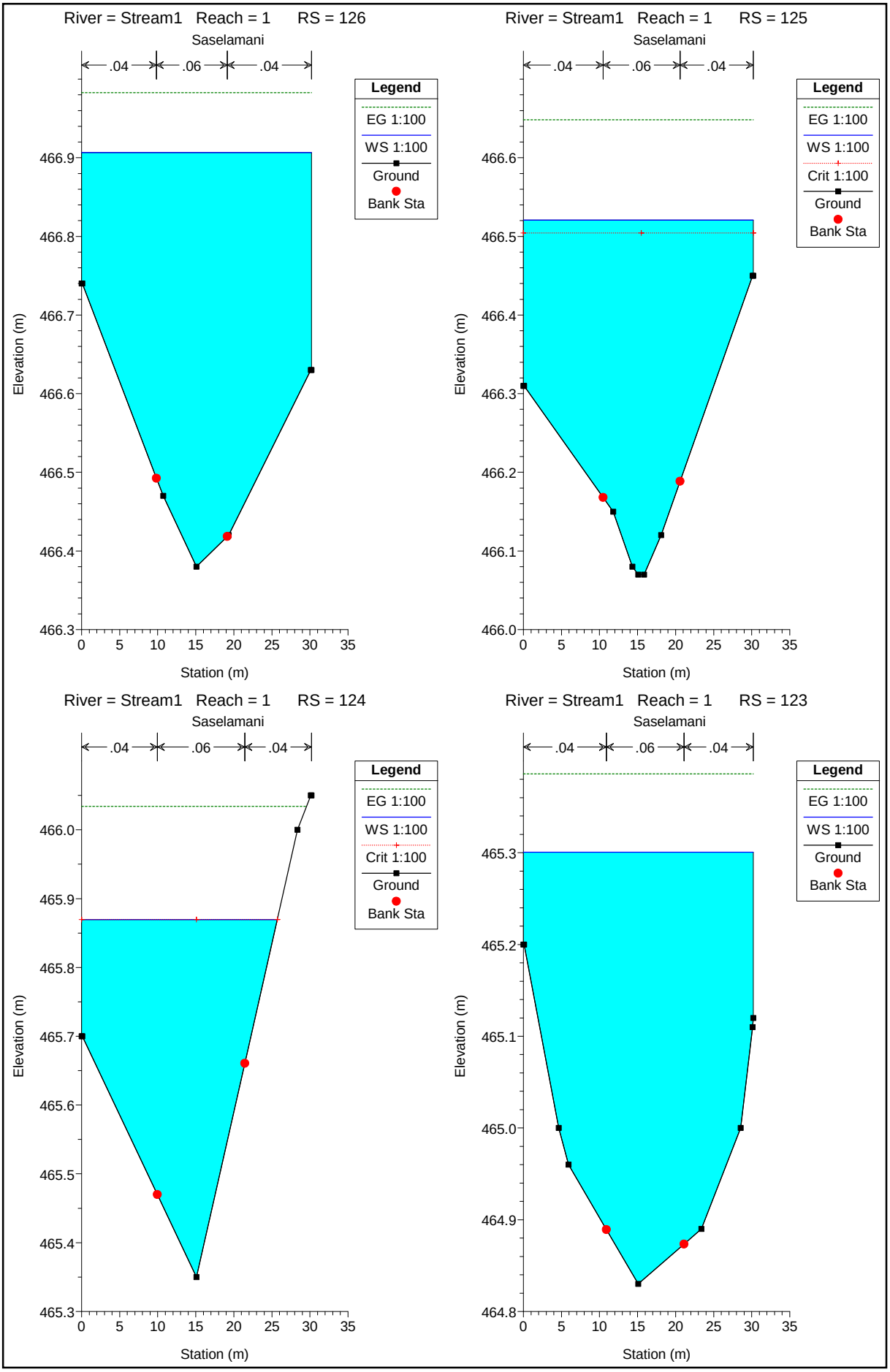

River = Stream1 Reach = 1 RS = 146
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
475.2
475.1
475.0
474.9
474.8
474.7
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 145
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
474.8
474.7
474.6
474.5
474.4
474.3
474.2
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 144
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
474.0
473.9
473.8
473.7
473.6
473.5
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 143
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
472.9
472.8
472.7
472.6
472.5
0
5
10
15
20
25
30
35
Station (m)

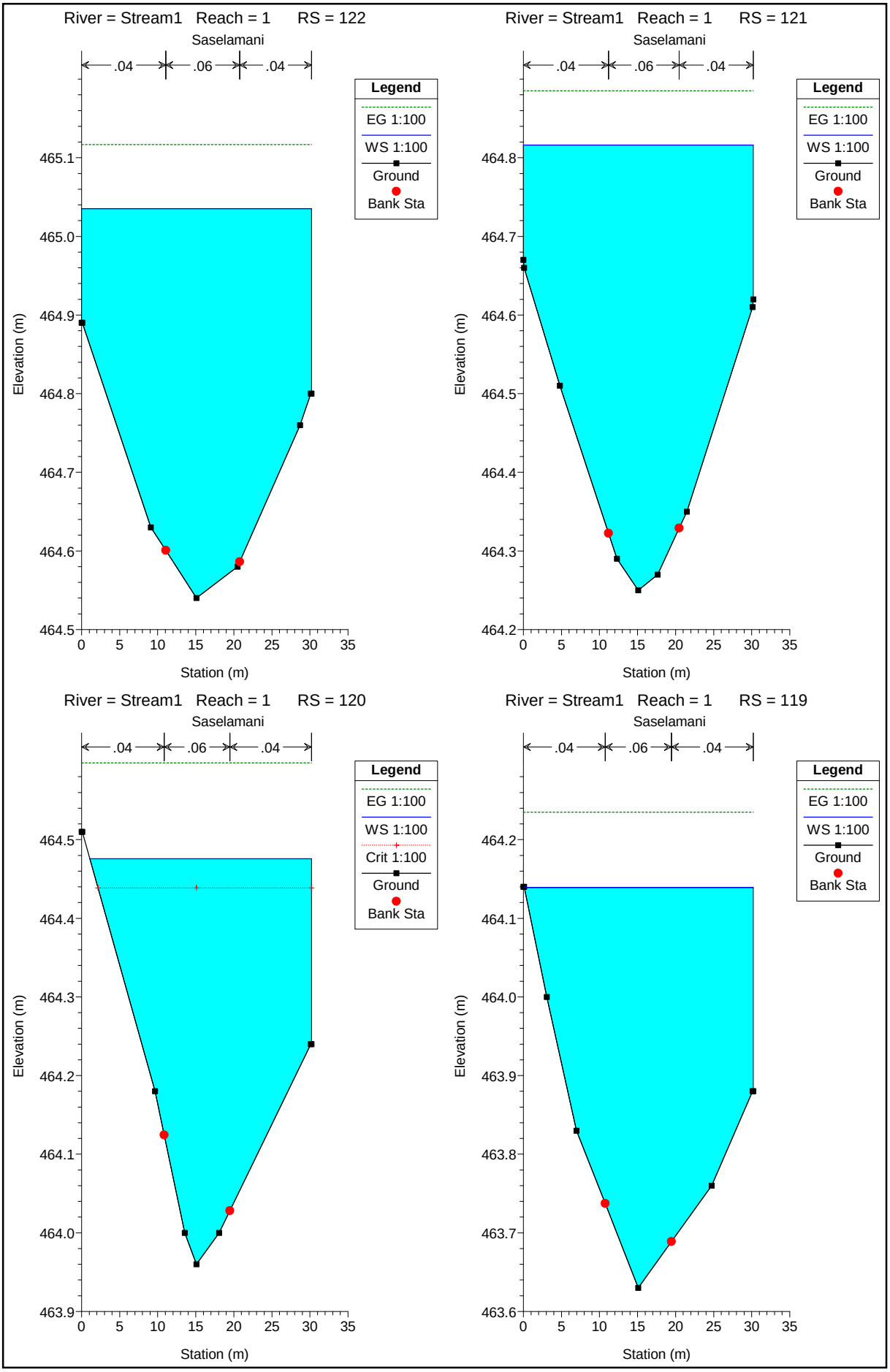

River = Stream1 Reach = 1 RS = 142
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 141
Saselamani
River = Stream1 Reach = 1 RS = 140
Saselamani
River = Stream1 Reach = 1 RS = 139
Saselamani

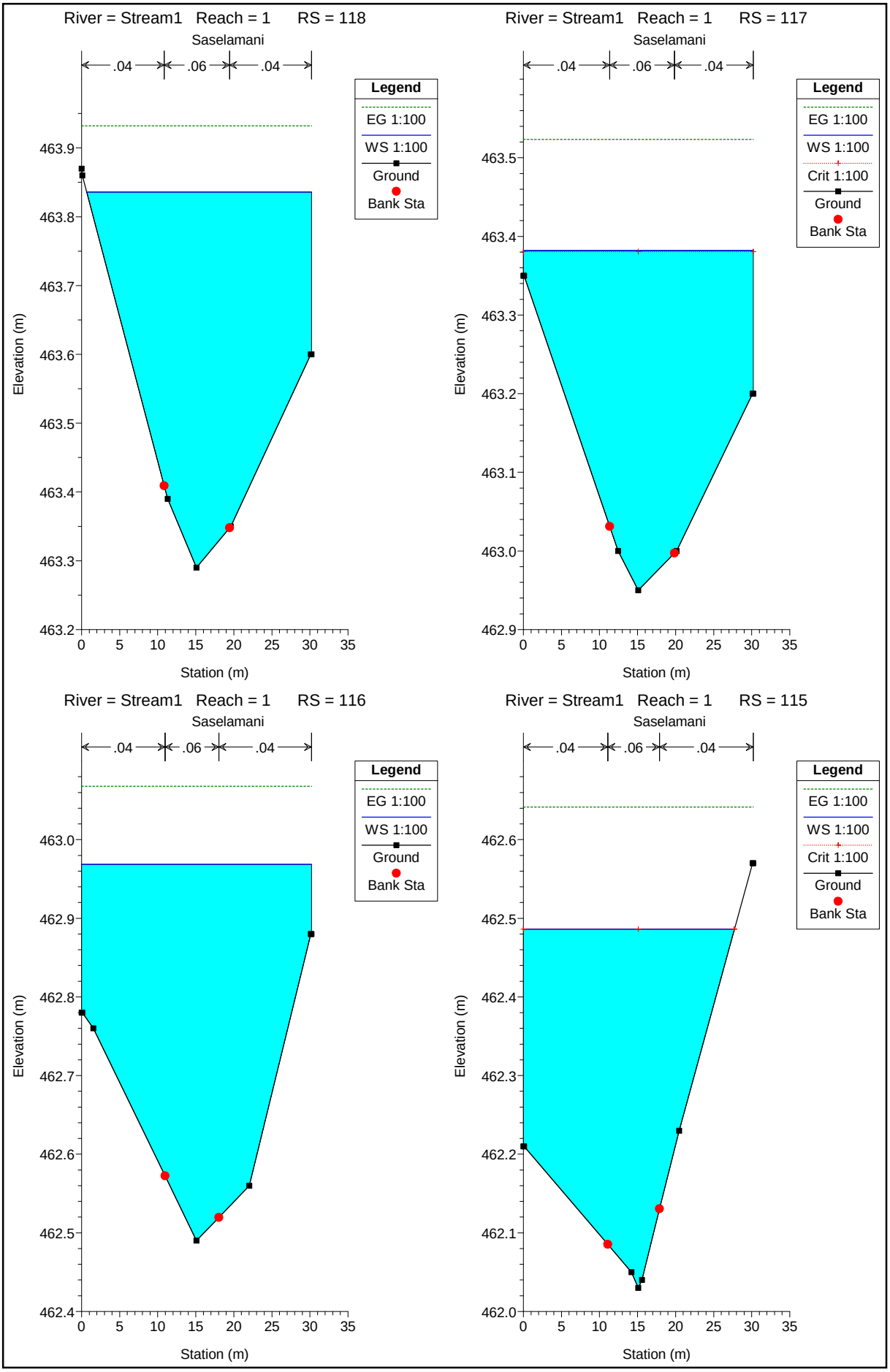

River = Stream1 Reach = 1 RS = 138
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 137
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 136
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 135
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

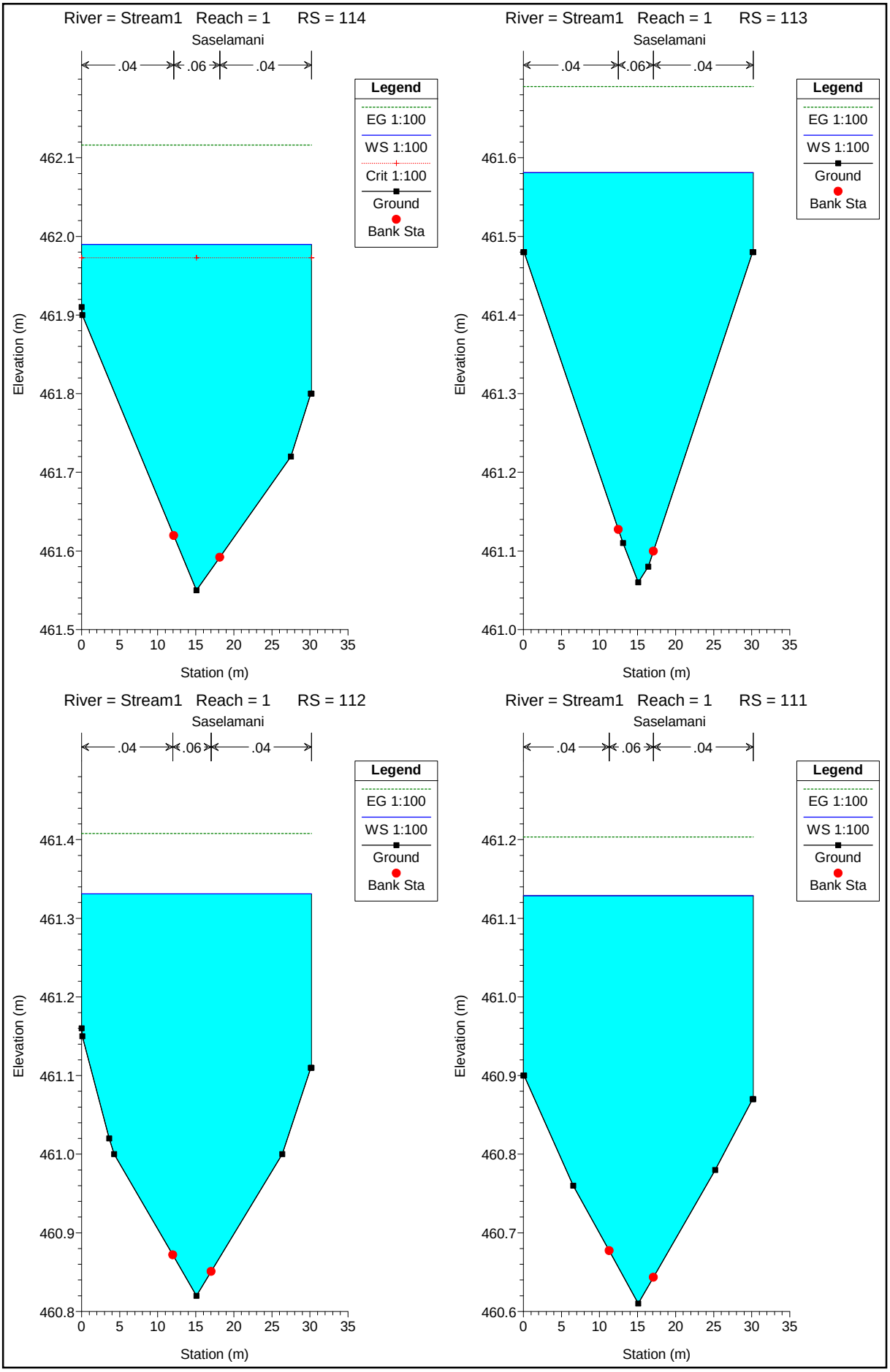

River = Stream1 Reach = 1 RS = 134
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 133
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 132
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 131
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

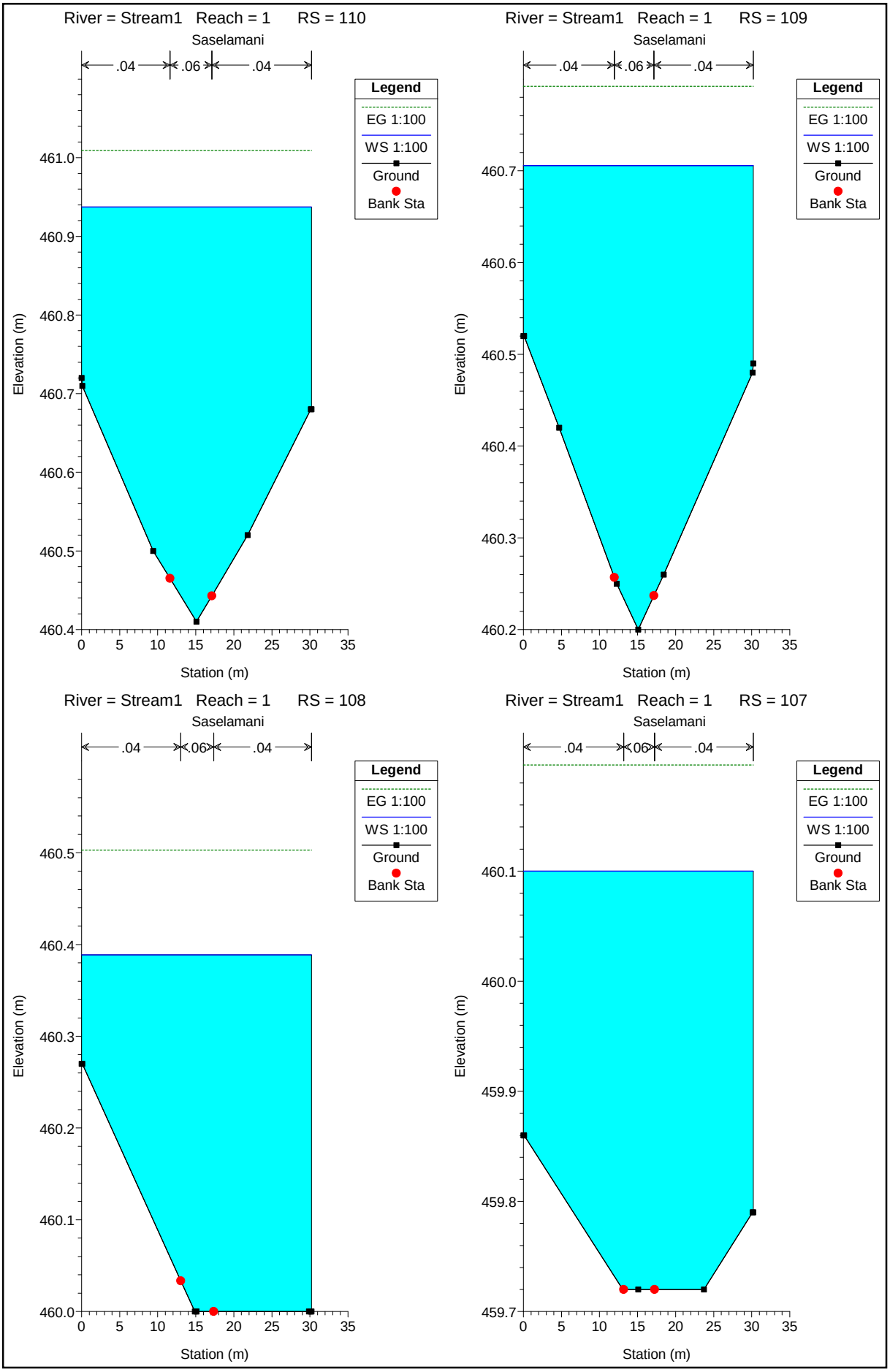

River = Stream1 Reach = 1 RS = 130
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 129
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 128
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 127
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

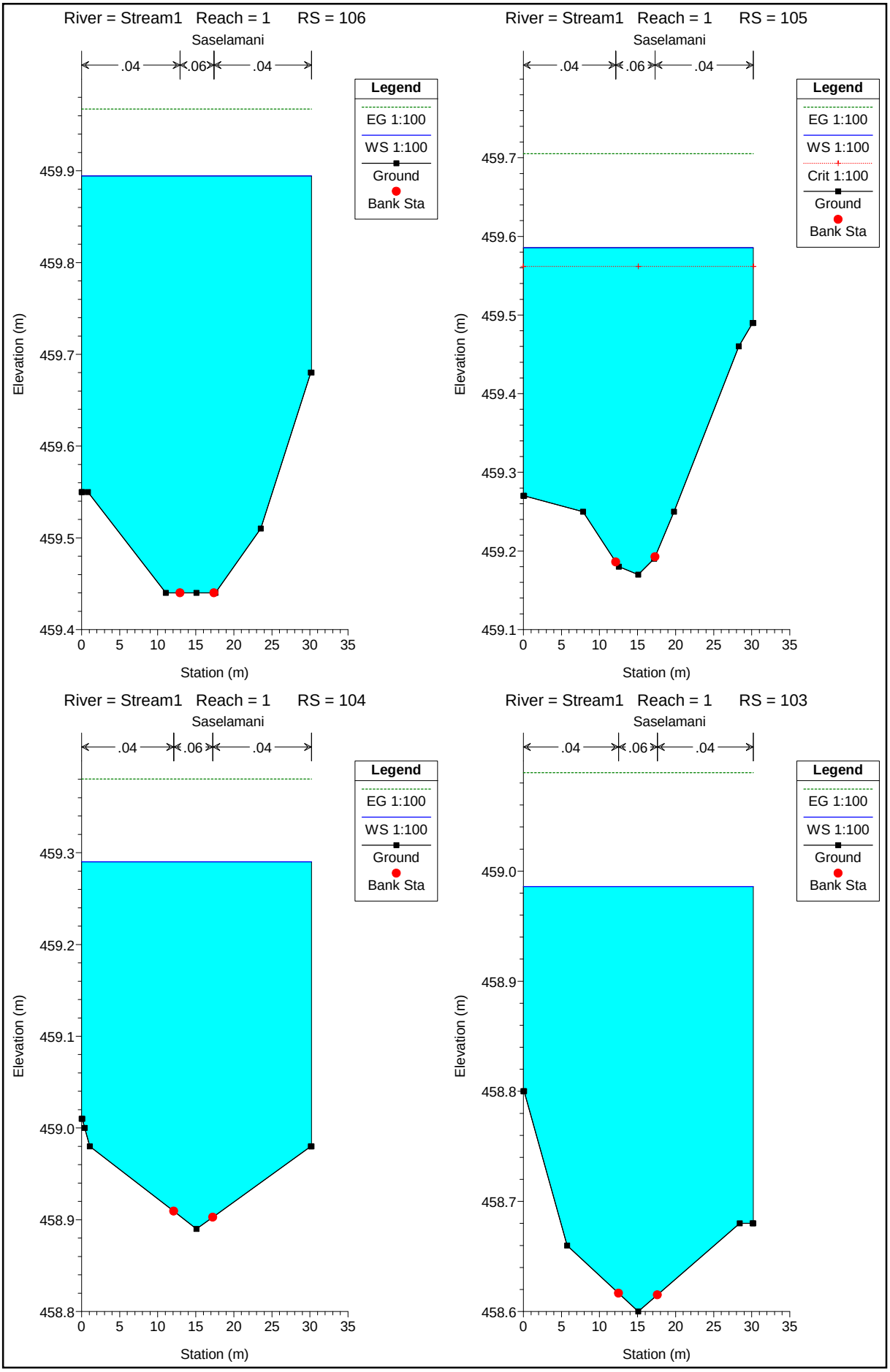

River = Stream1 Reach = 1 RS = 126
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 125
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 124
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 123
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

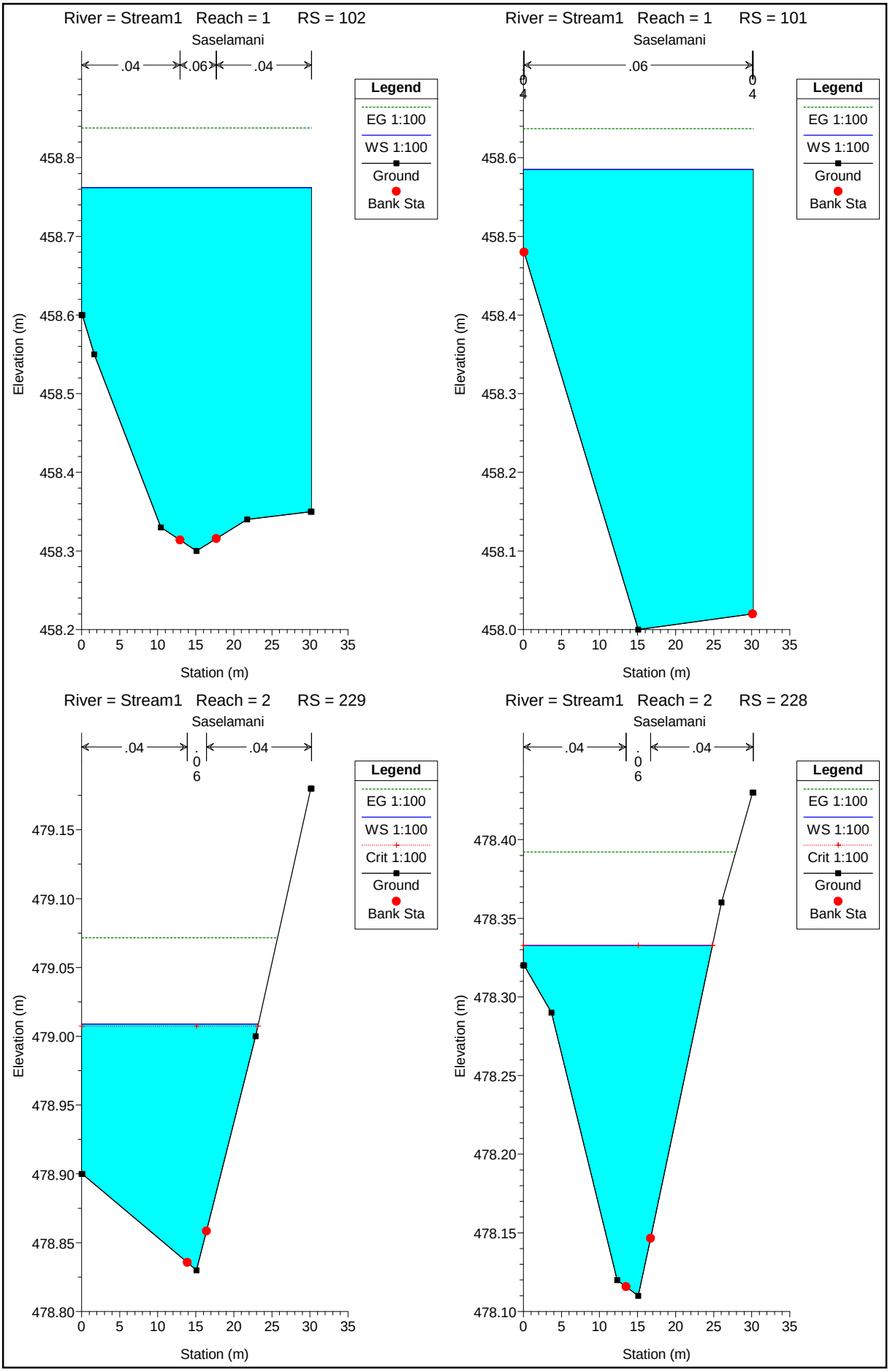

River = Stream1 Reach = 1 RS = 122
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 121
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 120
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 119
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

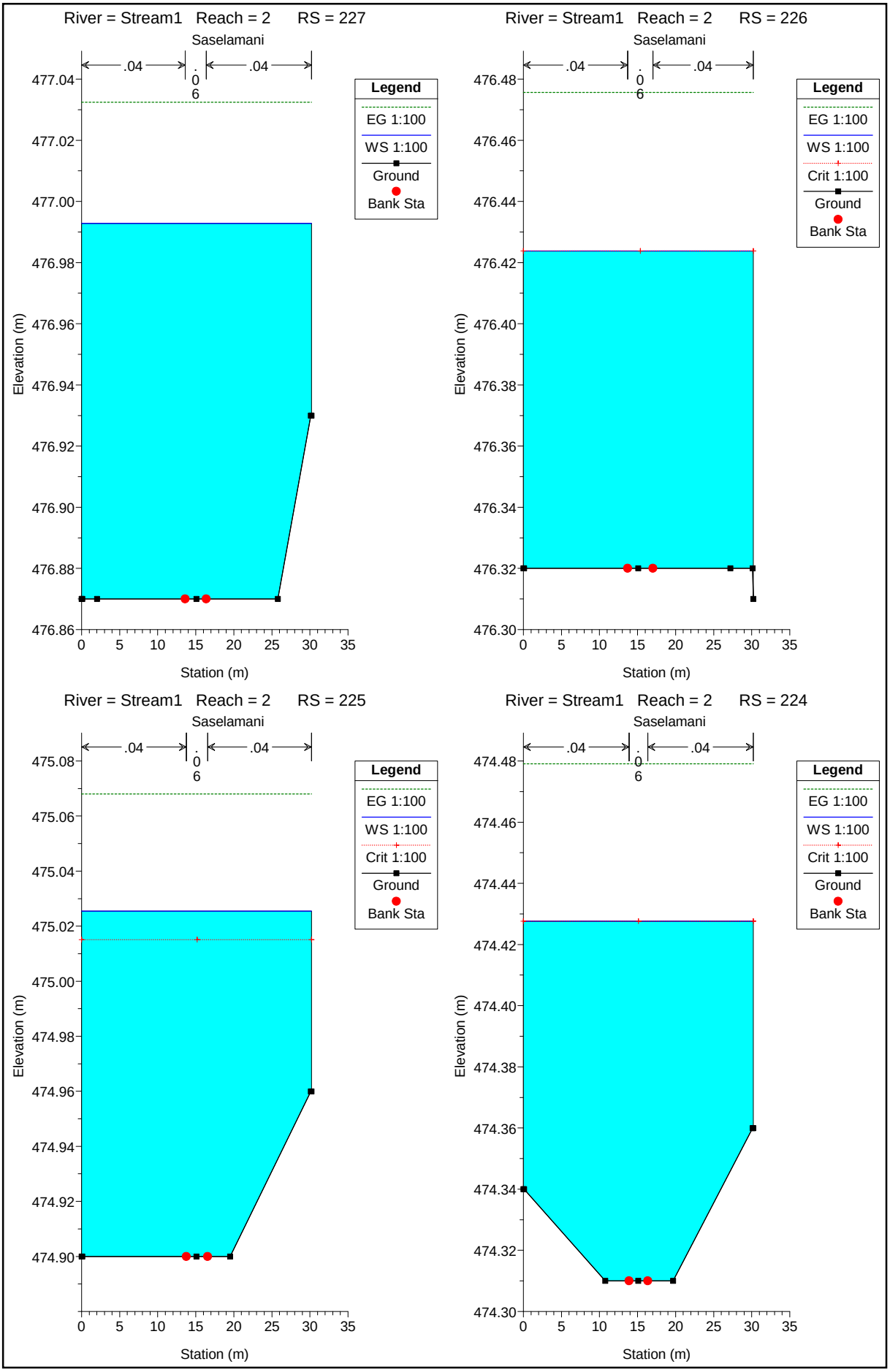

River = Stream1 Reach = 1 RS = 118
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
463.9
463.8
463.7
463.6
463.5
463.4
463.3
463.2
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 117
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
463.5
463.4
463.3
463.2
463.1
463.0
462.9
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 116
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
463.0
462.9
462.8
462.7
462.6
462.5
462.4
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 1 RS = 115
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
462.6
462.5
462.4
462.3
462.2
462.1
462.0
0
5
10
15
20
25
30
35
Station (m)

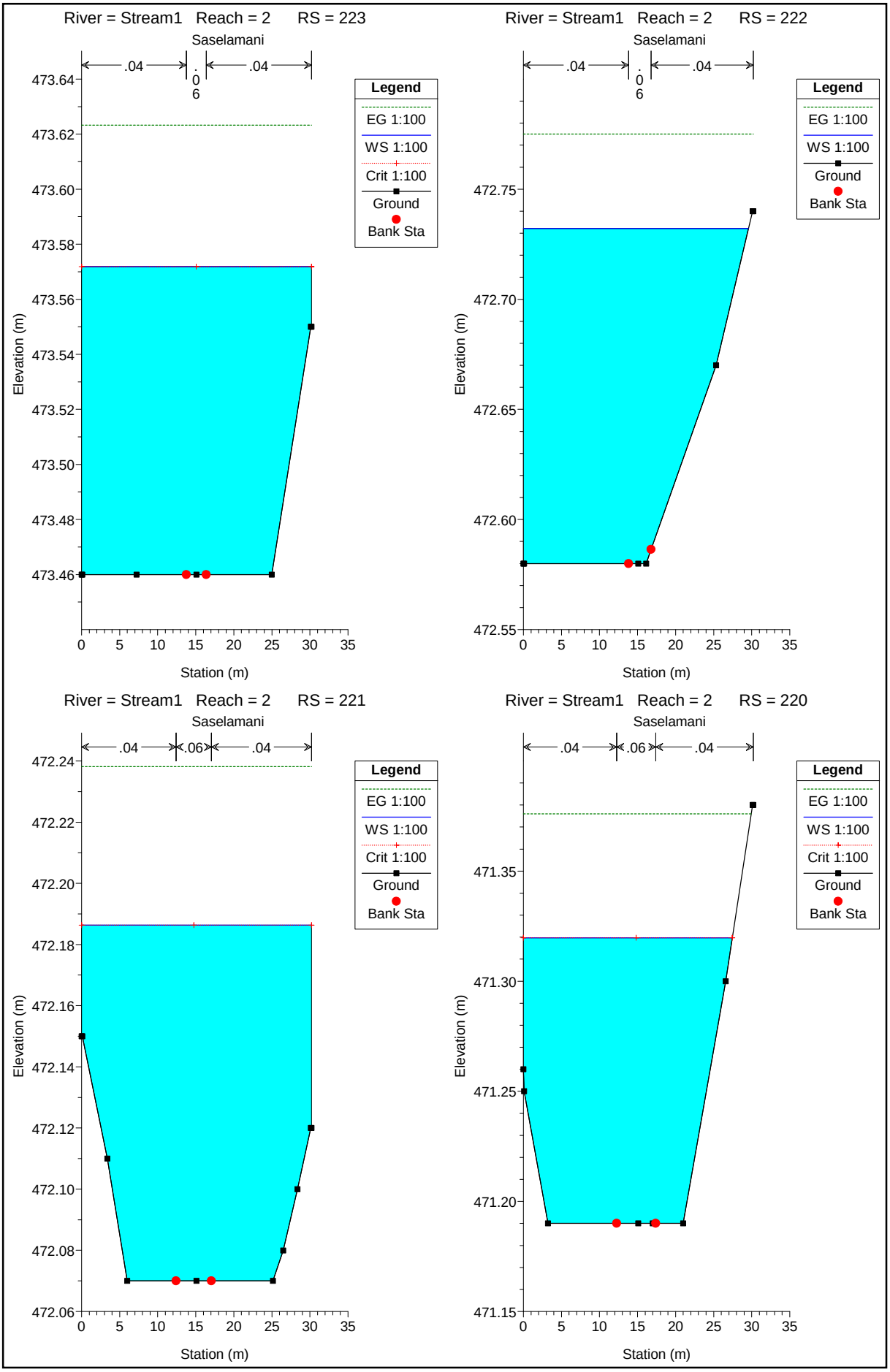

River = Stream1 Reach = 1 RS = 114
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 113
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 112
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 111
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

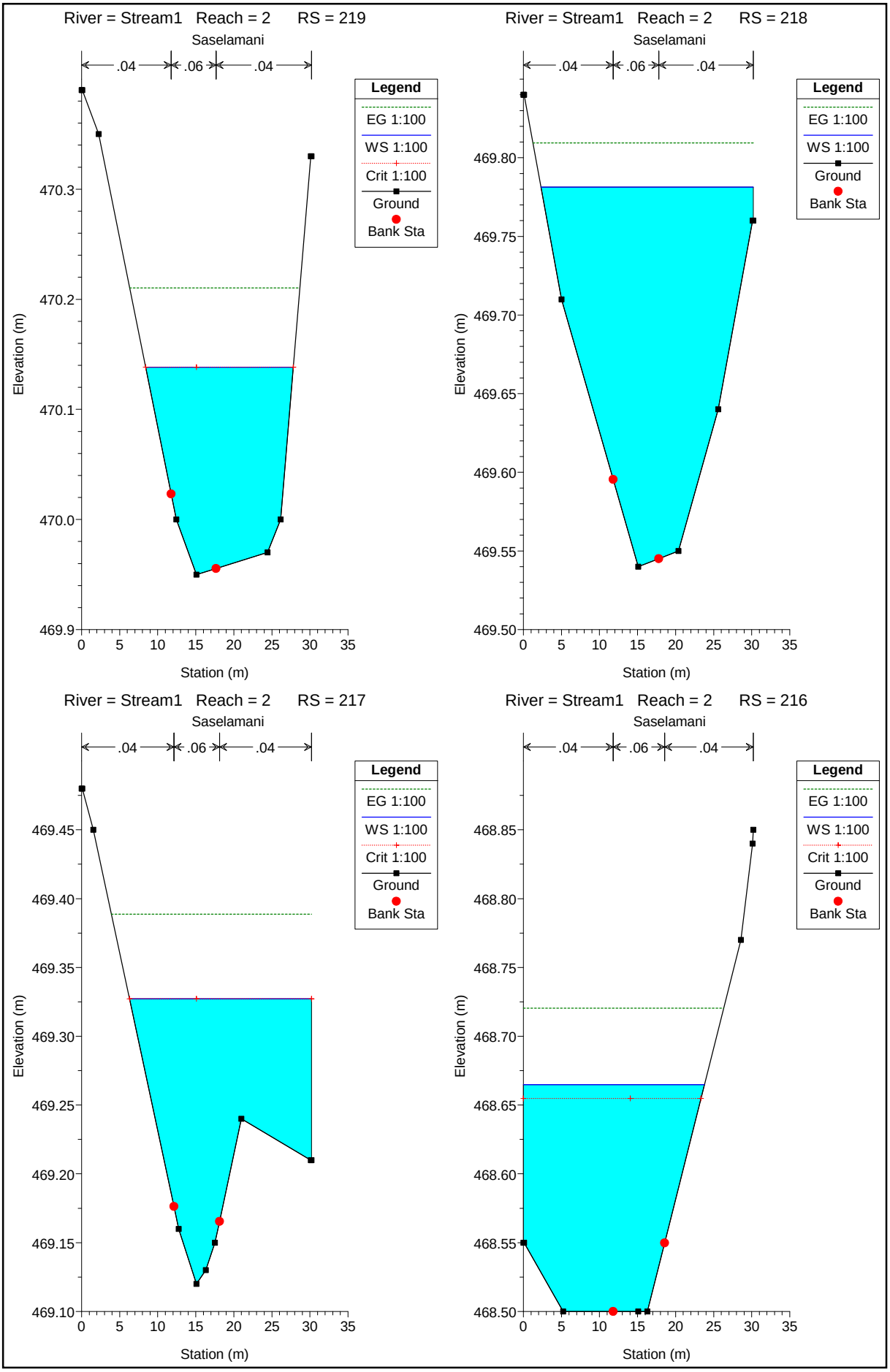

River = Stream1 Reach = 1 RS = 110
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 109
Saselamani
River = Stream1 Reach = 1 RS = 108
Saselamani
River = Stream1 Reach = 1 RS = 107
Saselamani

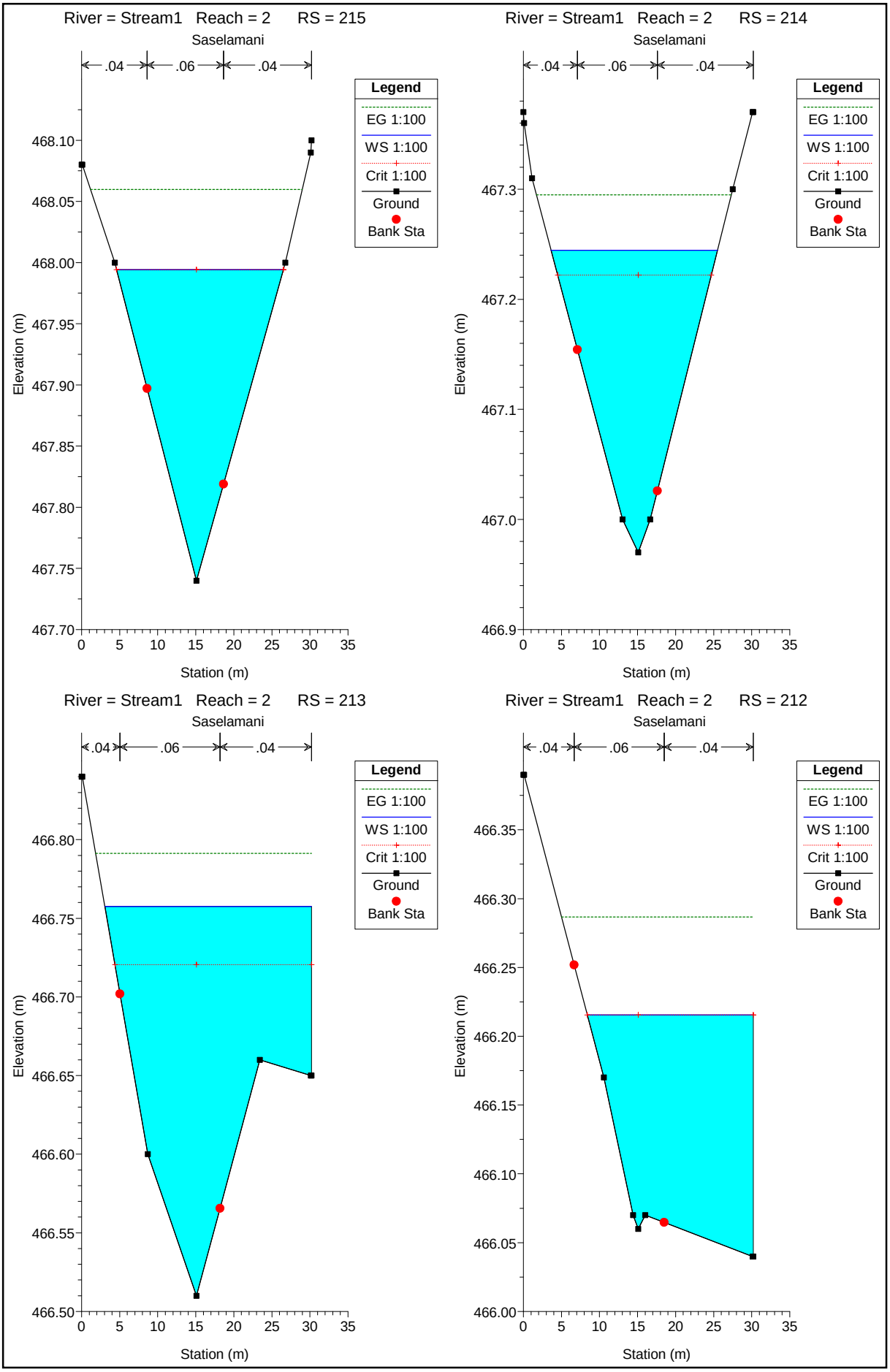

River = Stream1 Reach = 1 RS = 106
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
459.9
459.8
459.7
459.6
459.5
459.4
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 1 RS = 105
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
459.7
459.6
459.5
459.4
459.3
459.2
459.1
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 1 RS = 104
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
459.3
459.2
459.1
459.0
458.9
458.8
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 1 RS = 103
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
459.0
458.9
458.8
458.7
458.6
0 5 10 15 20 25 30 35
Station (m)

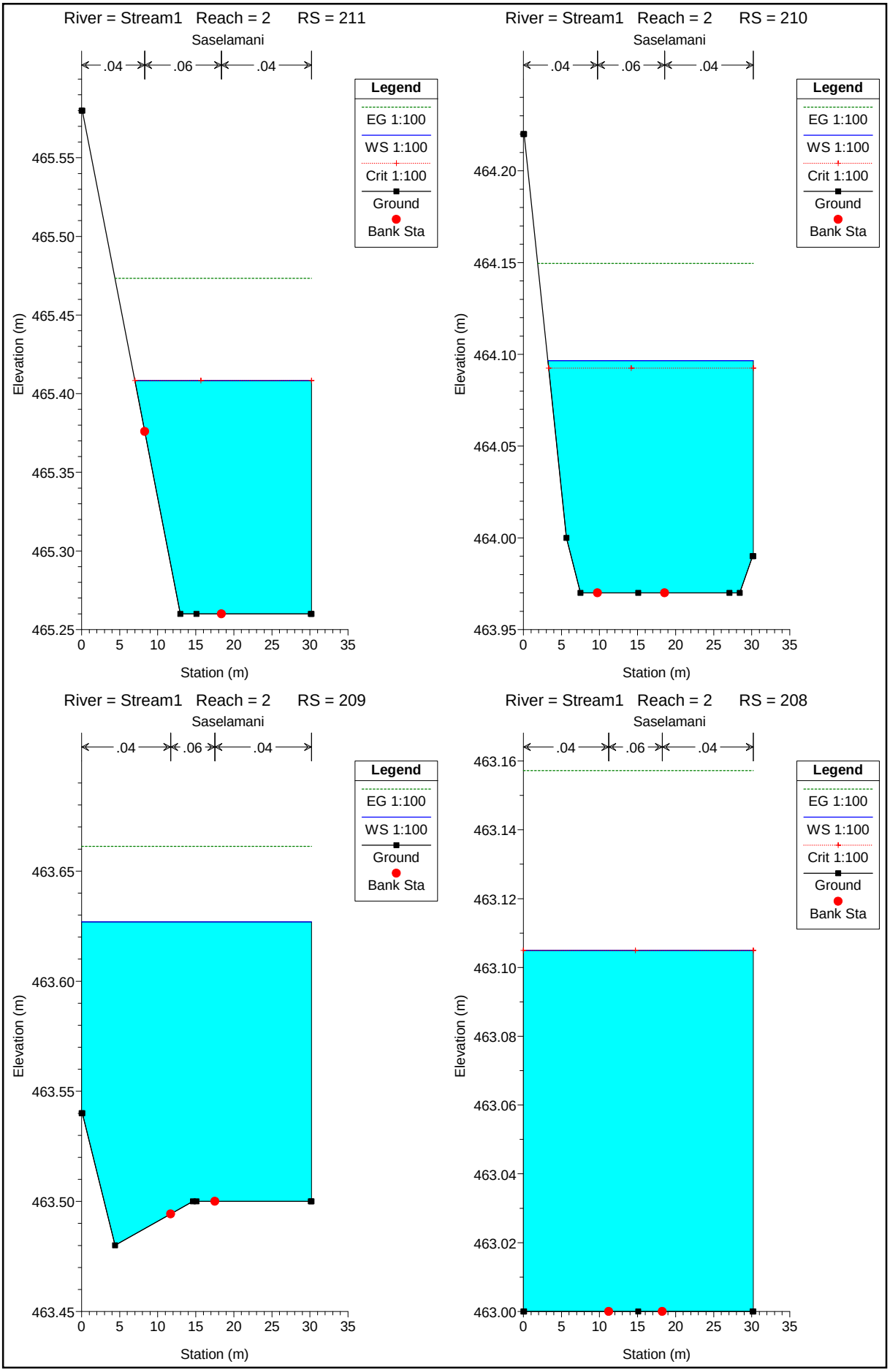

River = Stream1 Reach = 1 RS = 102
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 1 RS = 101
Saselamani
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 229
Saselamani
.04
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 228
Saselamani
.04
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

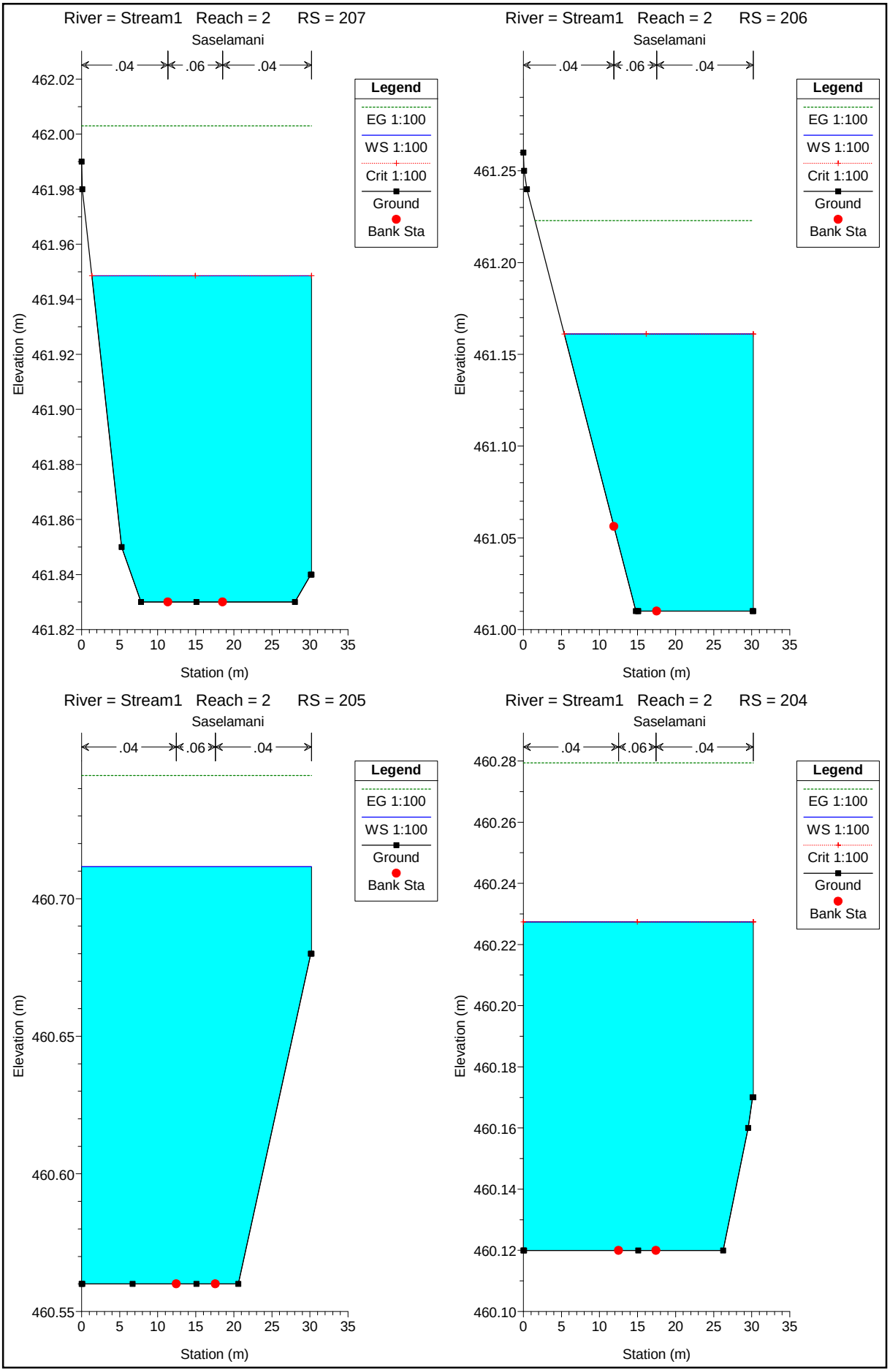

River = Stream1 Reach = 2 RS = 227
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 226
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 225
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 224
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

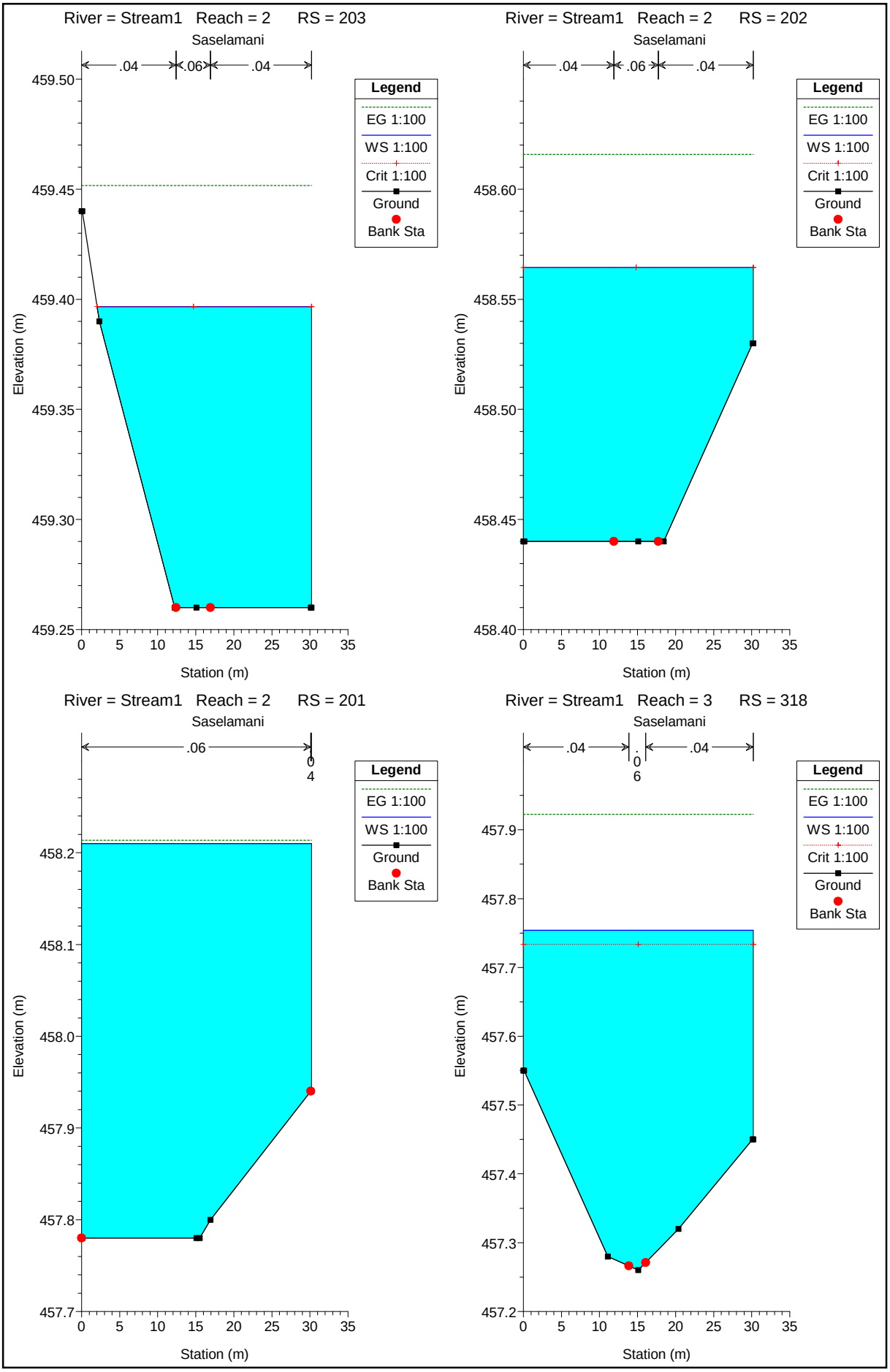

River = Stream1 Reach = 2 RS = 223
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 222
Saselamani
River = Stream1 Reach = 2 RS = 221
Saselamani
River = Stream1 Reach = 2 RS = 220
Saselamani

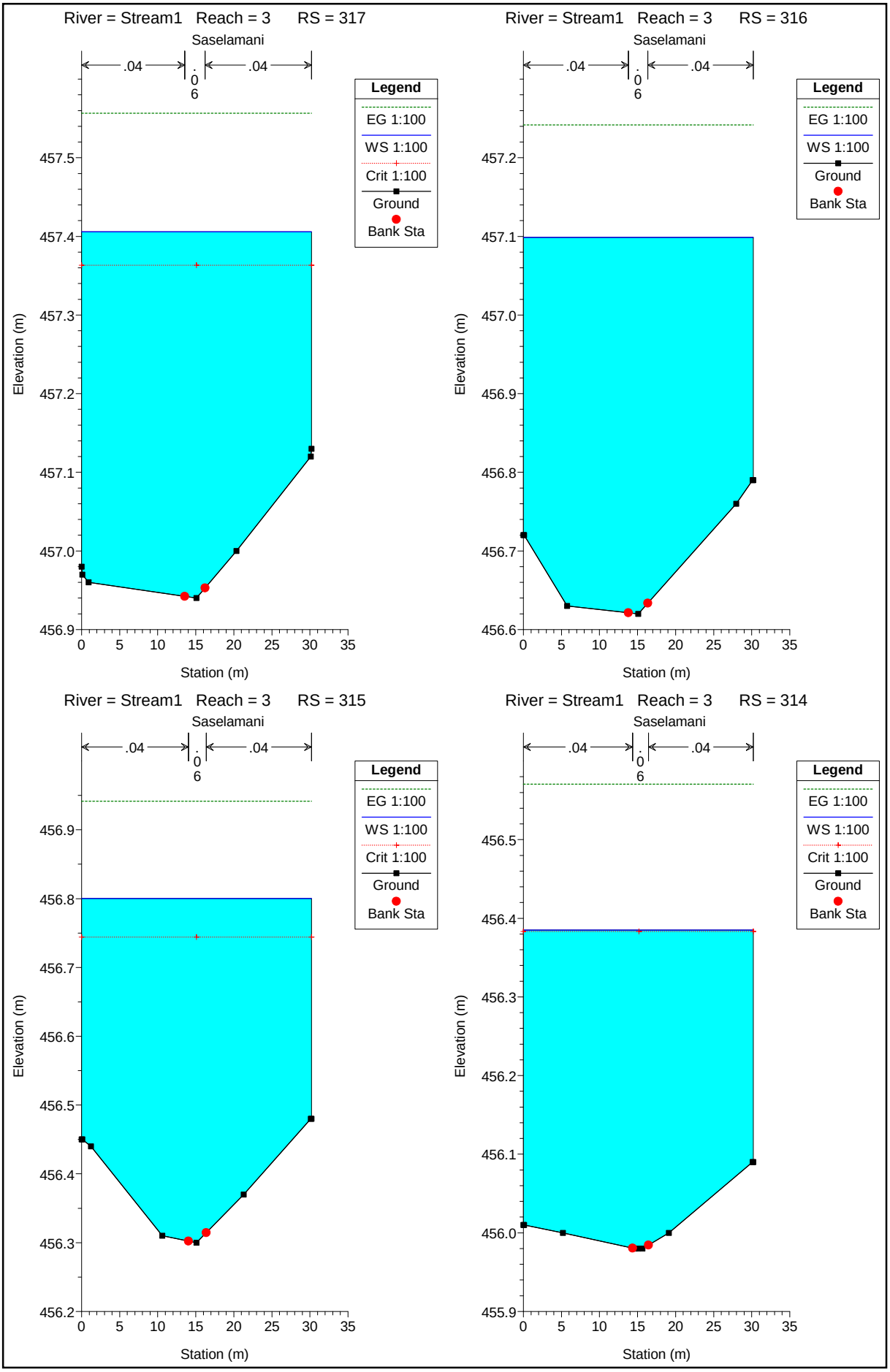

River = Stream1 Reach = 2 RS = 219
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
470.3
470.2
470.1
470.0
469.9
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 2 RS = 218
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
469.80
469.75
469.70
469.65
469.60
469.55
469.50
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 2 RS = 217
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
469.45
469.40
469.35
469.30
469.25
469.20
469.15
469.10
0
5
10
15
20
25
30
35
Station (m)
River = Stream1 Reach = 2 RS = 216
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
468.85
468.80
468.75
468.70
468.65
468.60
468.55
468.50
0
5
10
15
20
25
30
35
Station (m)

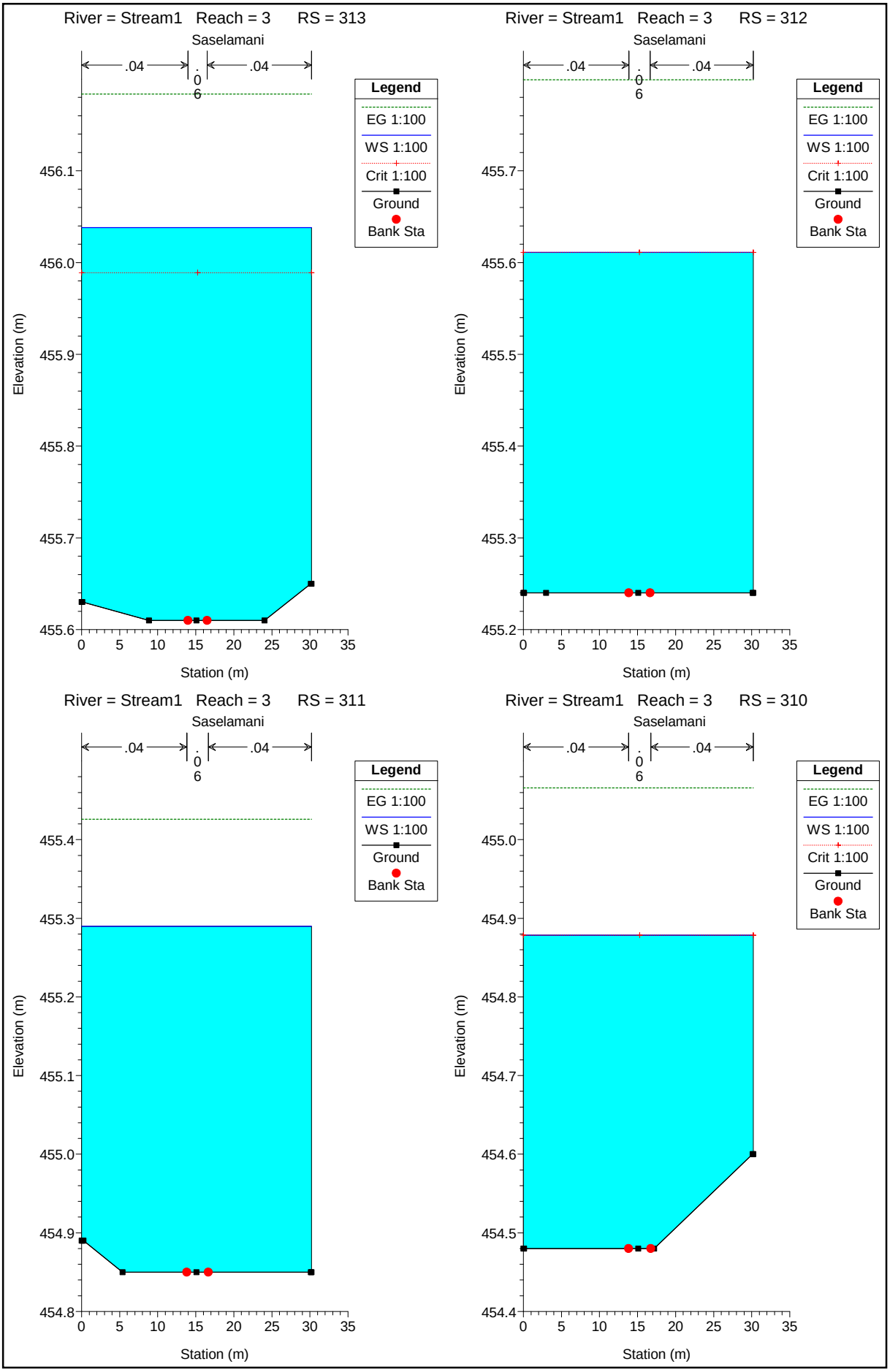

River = Stream1 Reach = 2 RS = 215
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 214
Saselamani
River = Stream1 Reach = 2 RS = 213
Saselamani
River = Stream1 Reach = 2 RS = 212
Saselamani

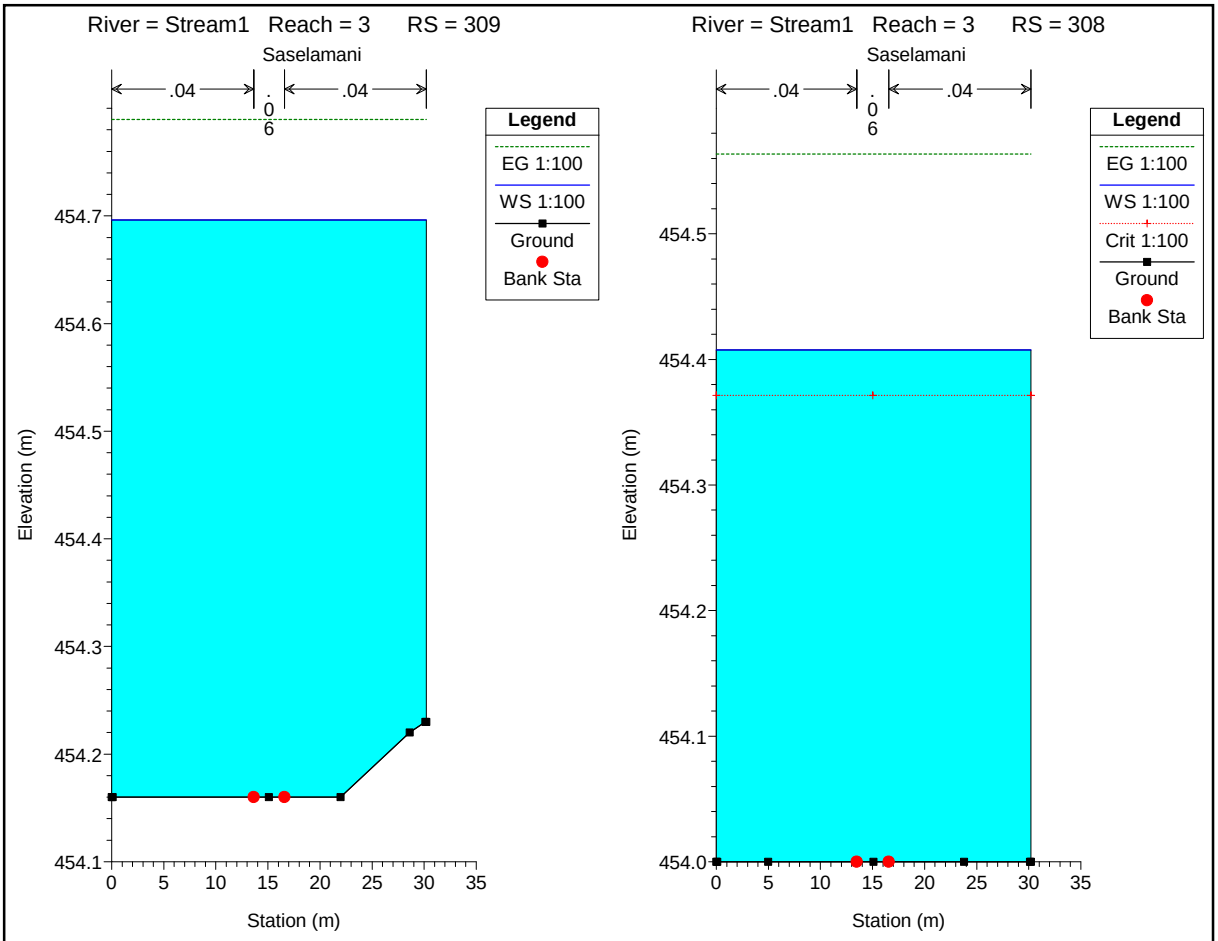

River = Stream1 Reach = 2 RS = 211
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 2 RS = 210
Saselamani
River = Stream1 Reach = 2 RS = 209
Saselamani
River = Stream1 Reach = 2 RS = 208
Saselamani

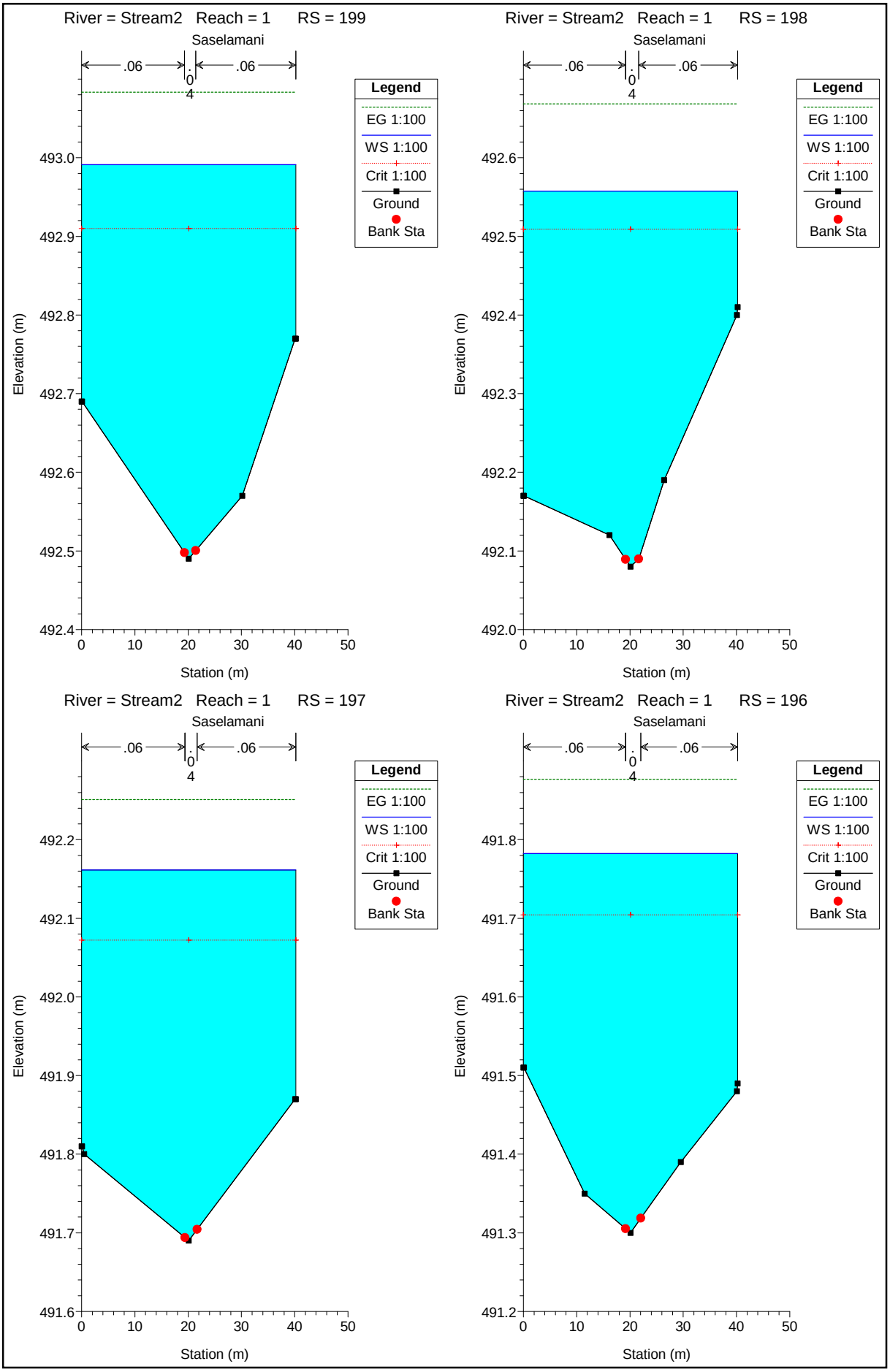

River = Stream1 Reach = 2 RS = 207
Saselamani
.04
.06
.04
462.02
462.00
461.98
461.96
461.94
461.92
461.90
461.88
461.86
461.84
461.82
Elevation (m)
0
5
10
15
20
25
30
35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream1 Reach = 2 RS = 206
Saselamani
.04
.06
.04
461.25
461.20
461.15
461.10
461.05
461.00
Elevation (m)
0
5
10
15
20
25
30
35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream1 Reach = 2 RS = 205
Saselamani
.04
.06
.04
460.70
460.65
460.60
460.55
Elevation (m)
0
5
10
15
20
25
30
35
Station (m)
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
River = Stream1 Reach = 2 RS = 204
Saselamani
.04
.06
.04
460.28
460.26
460.24
460.22
460.20
460.18
460.16
460.14
460.12
460.10
Elevation (m)
0
5
10
15
20
25
30
35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta

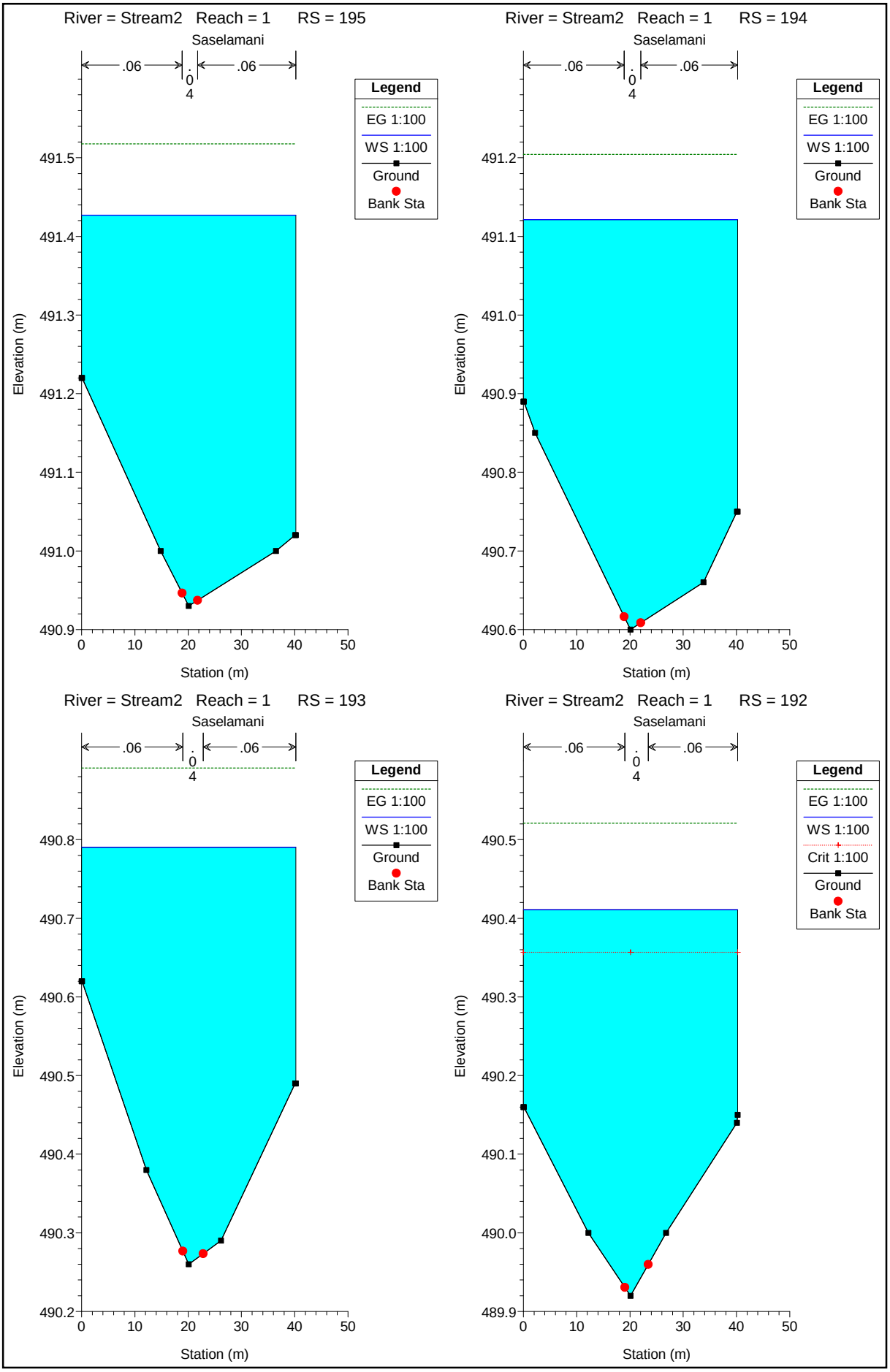

River = Stream1 Reach = 2 RS = 203
Saselamani
.04
.06
.04
459.50
459.45
459.40
459.35
459.30
459.25
Elevation (m)
0 5 10 15 20 25 30 35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream1 Reach = 2 RS = 202
Saselamani
.04
.06
.04
458.60
458.55
458.50
458.45
458.40
Elevation (m)
0 5 10 15 20 25 30 35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream1 Reach = 2 RS = 201
Saselamani
.06
.04
458.2
458.1
458.0
457.9
457.8
457.7
Elevation (m)
0 5 10 15 20 25 30 35
Station (m)
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
River = Stream1 Reach = 3 RS = 318
Saselamani
.04
.06
.04
457.9
457.8
457.7
457.6
457.5
457.4
457.3
457.2
Elevation (m)
0 5 10 15 20 25 30 35
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta

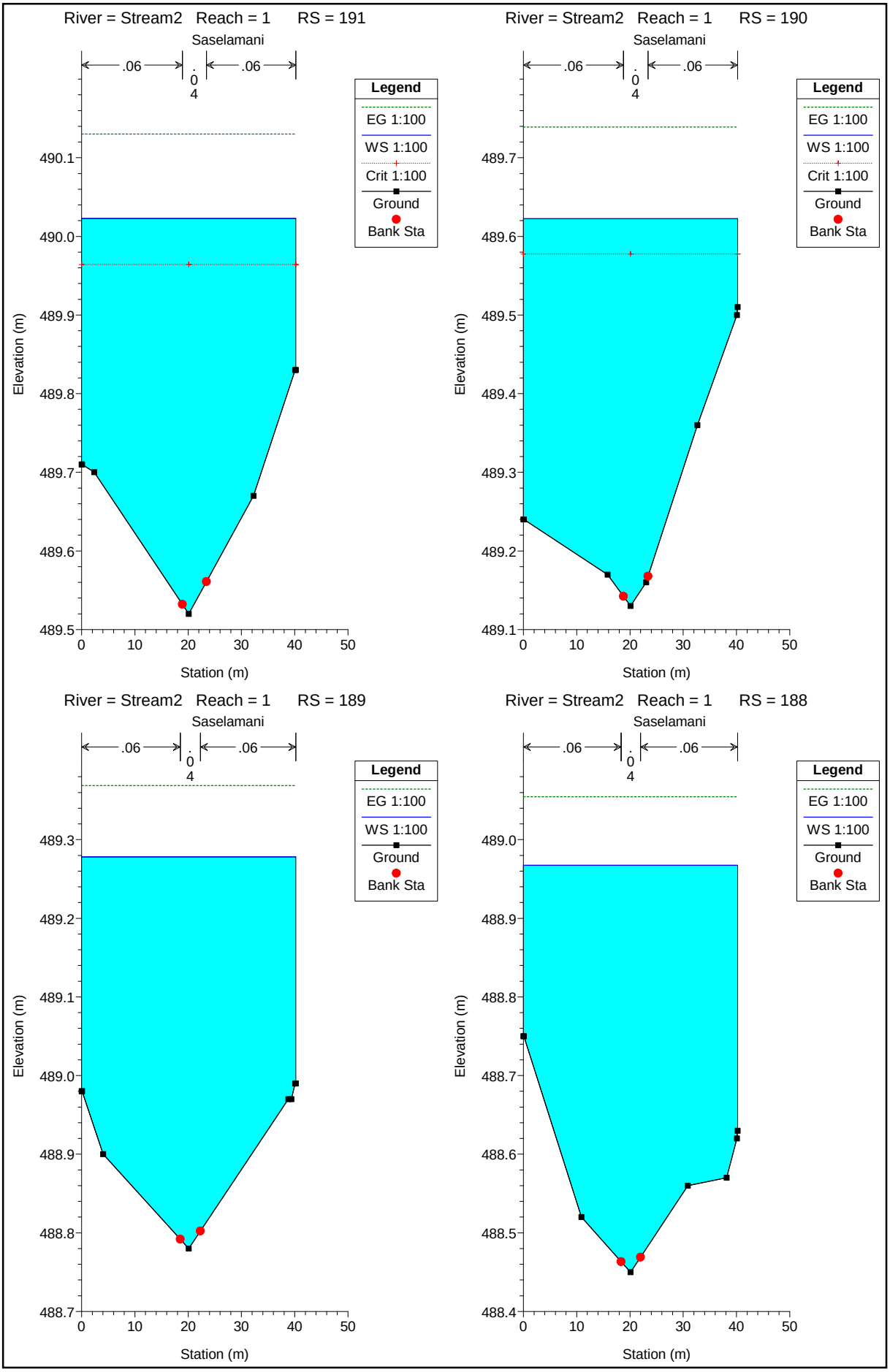

River = Stream1 Reach = 3 RS = 317
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 3 RS = 316
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 3 RS = 315
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream1 Reach = 3 RS = 314
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

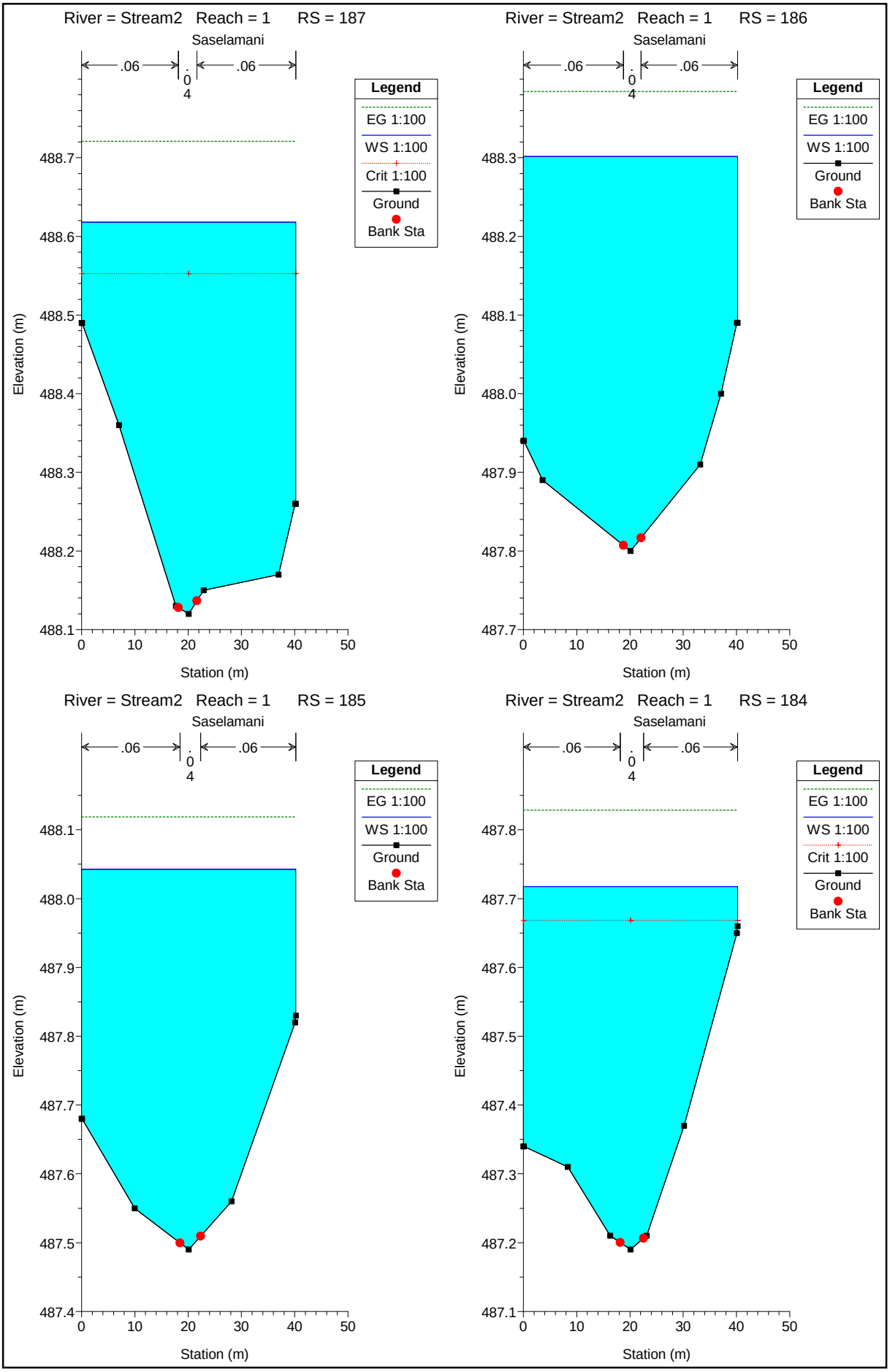

River = Stream1 Reach = 3 RS = 313
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
456.1
456.0
455.9
455.8
455.7
455.6
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 3 RS = 312
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
455.7
455.6
455.5
455.4
455.3
455.2
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 3 RS = 311
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
455.4
455.3
455.2
455.1
455.0
454.9
454.8
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 3 RS = 310
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
455.0
454.9
454.8
454.7
454.6
454.5
454.4
0 5 10 15 20 25 30 35
Station (m)

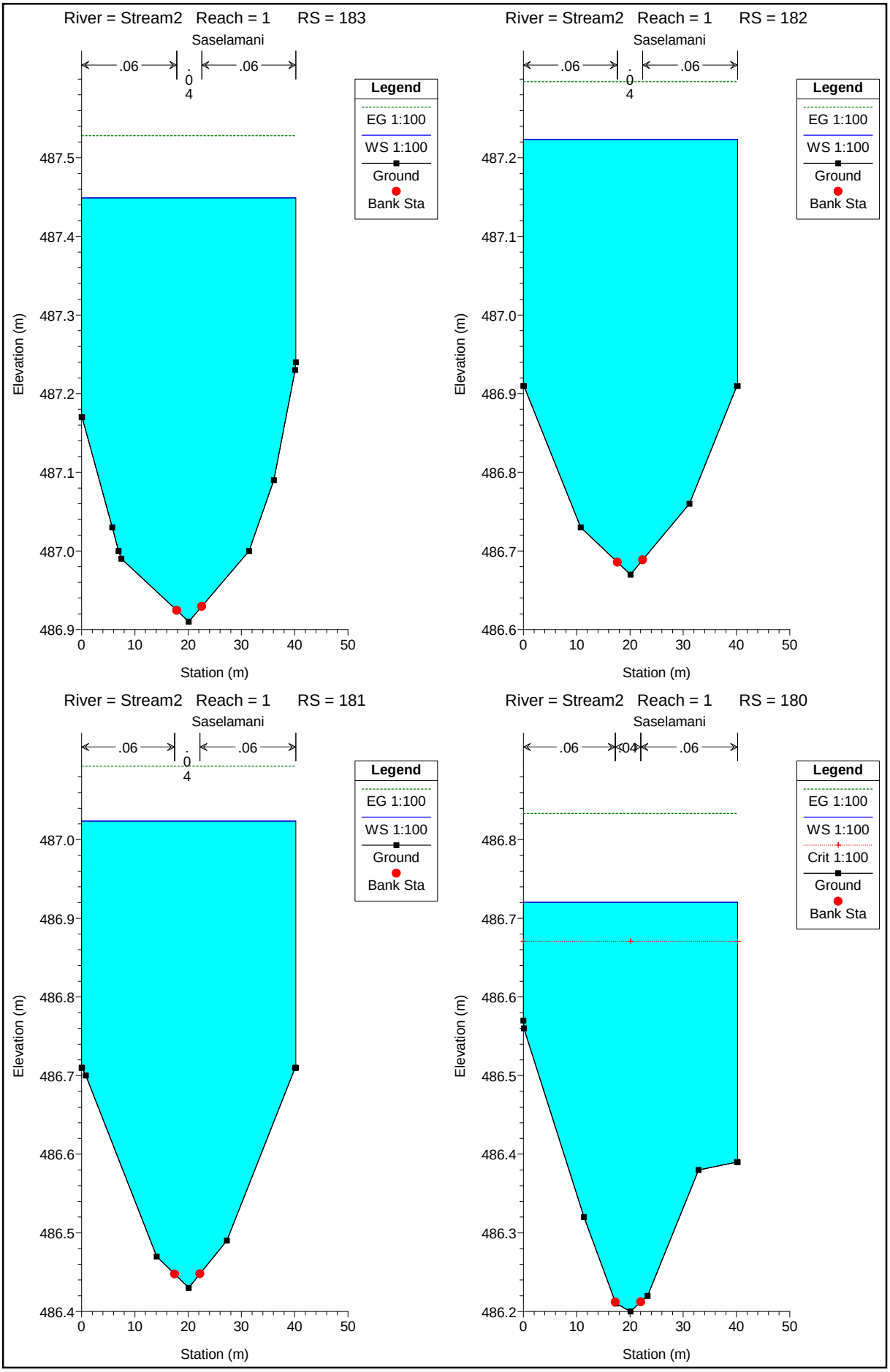

River = Stream1 Reach = 3 RS = 309
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
454.7
454.6
454.5
454.4
454.3
454.2
454.1
0 5 10 15 20 25 30 35
Station (m)
River = Stream1 Reach = 3 RS = 308
Saselamani
.04
.06
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
454.5
454.4
454.3
454.2
454.1
454.0
0 5 10 15 20 25 30 35
Station (m)

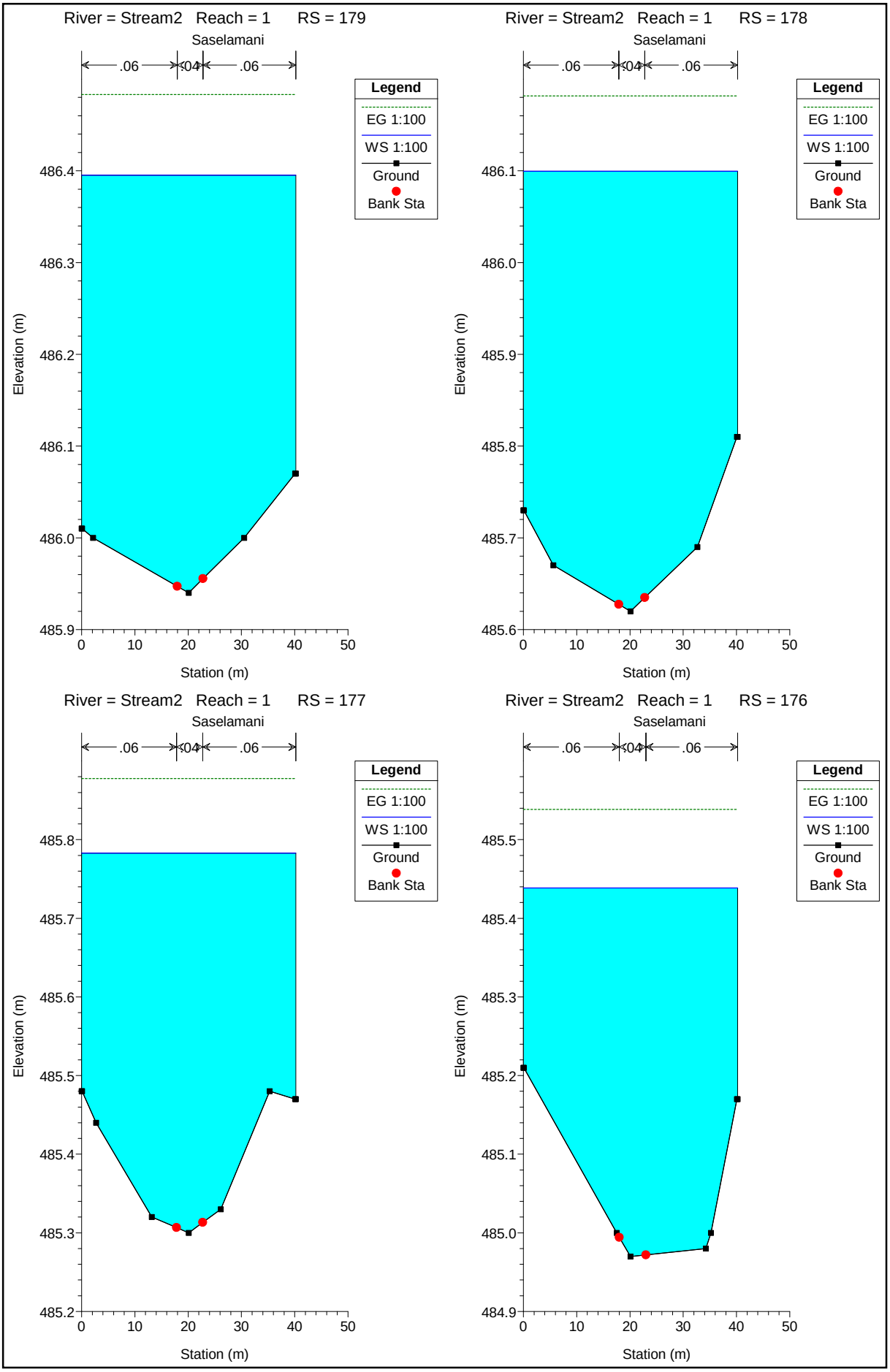

River = Stream2 Reach = 1 RS = 199
Saselamani
.06
.06
0.4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 198
Saselamani
.06
.06
0.4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 197
Saselamani
.06
.06
0.4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 196
Saselamani
.06
.06
0.4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

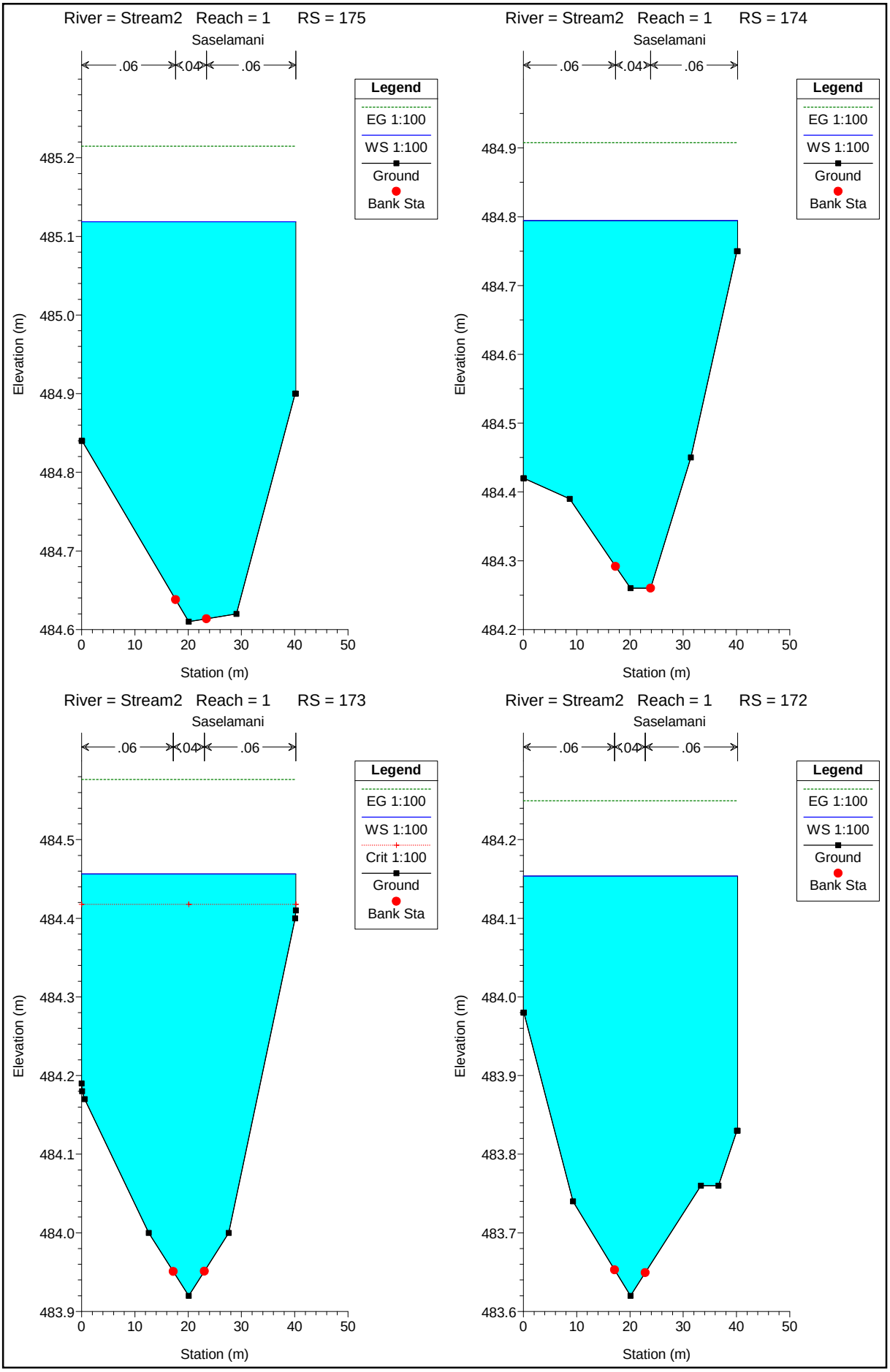

River = Stream2 Reach = 1 RS = 195
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 194
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 193
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 192
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

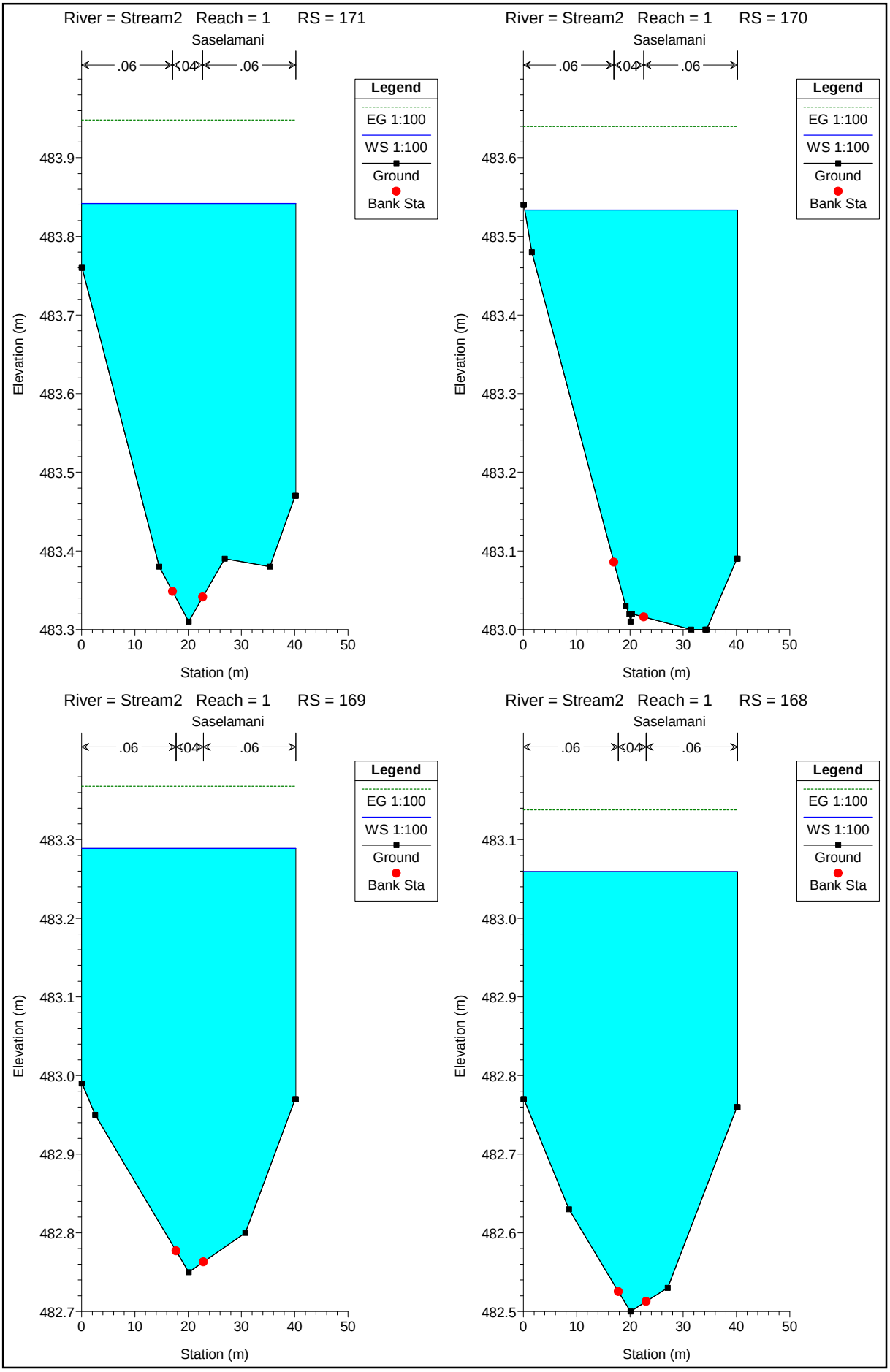

River = Stream2 Reach = 1 RS = 191
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 190
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 189
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 188
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

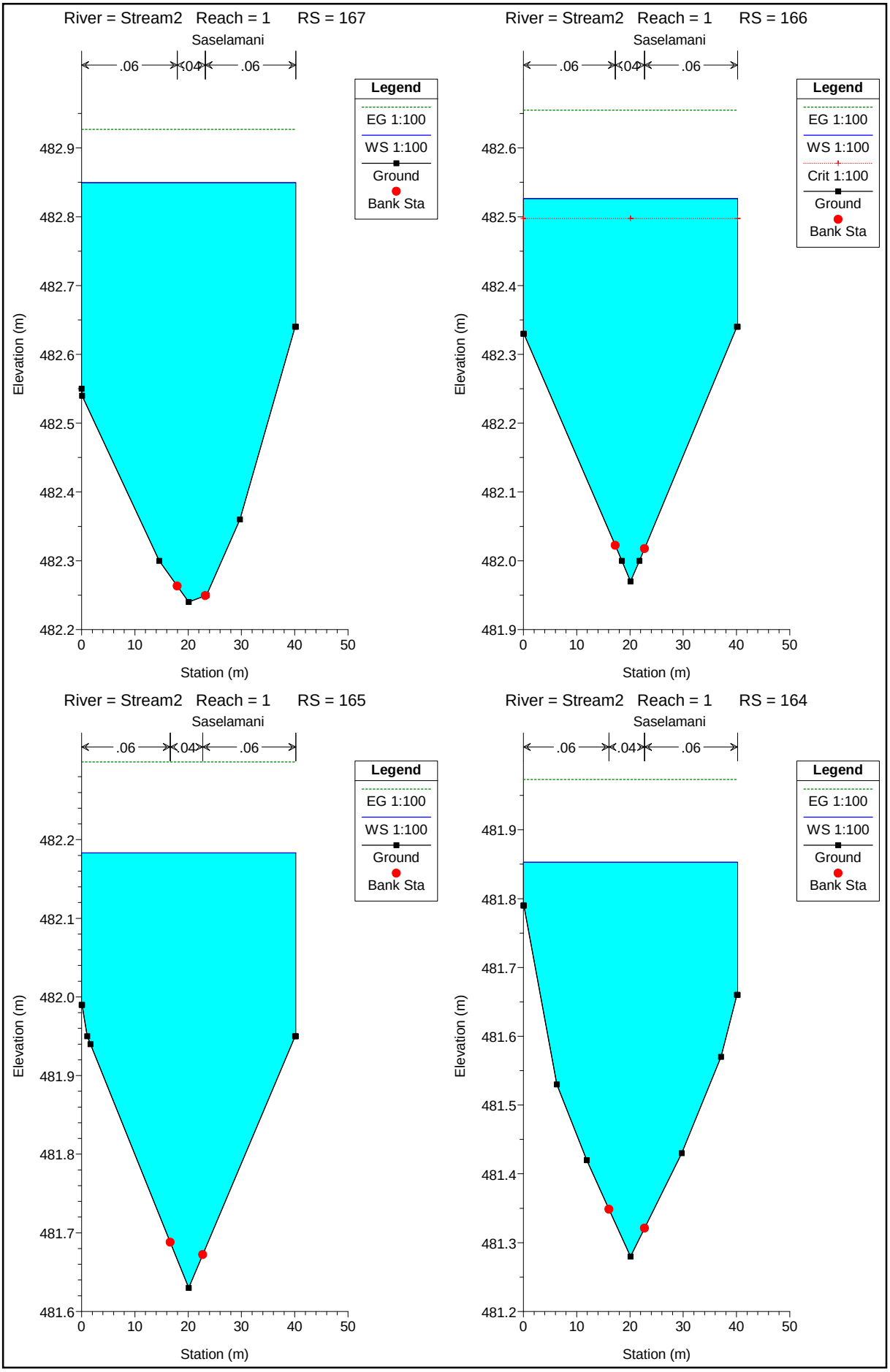

River = Stream2 Reach = 1 RS = 187
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 186
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 185
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 184
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

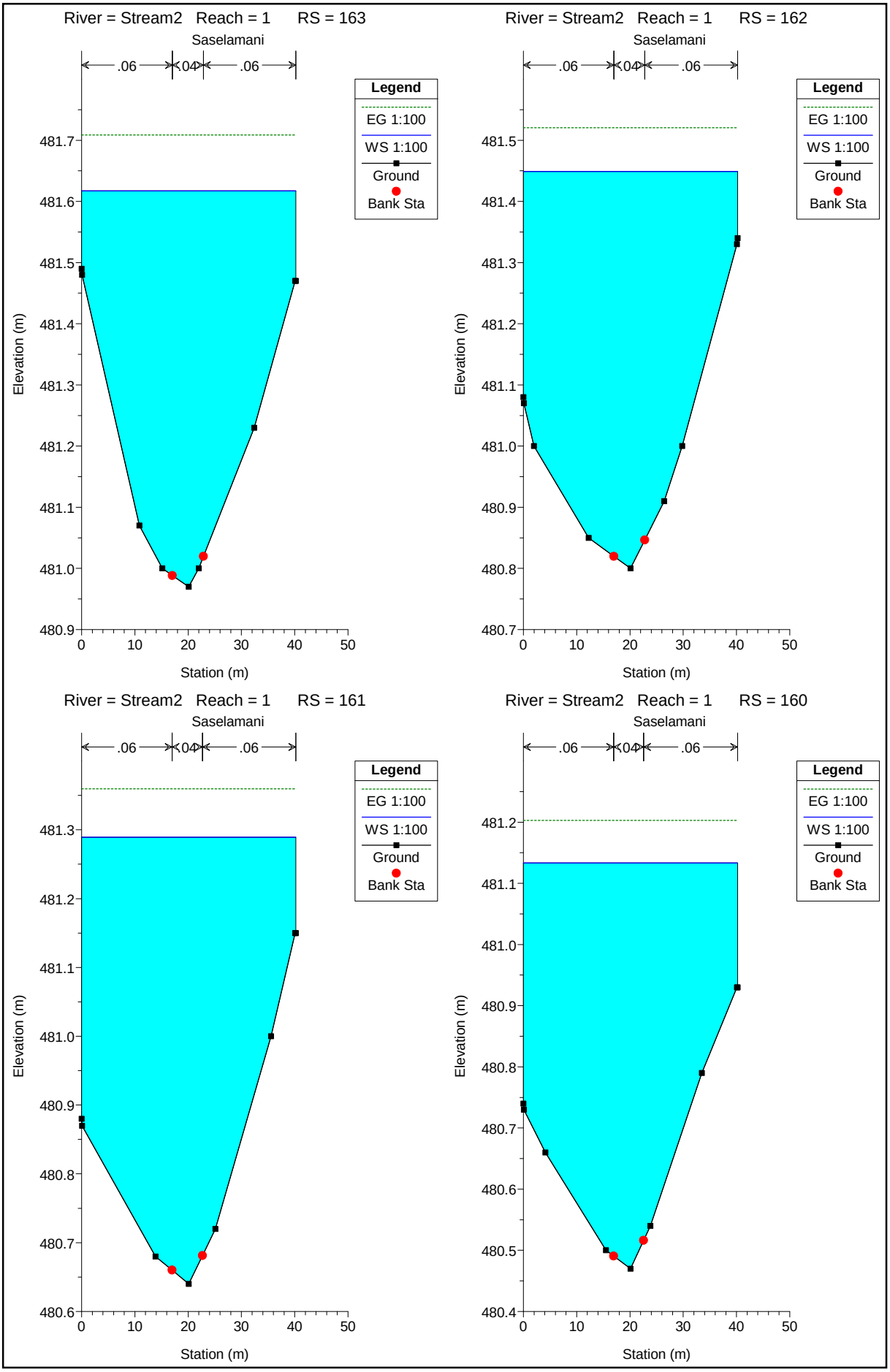

River = Stream2 Reach = 1 RS = 183
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 182
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 181
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 180
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

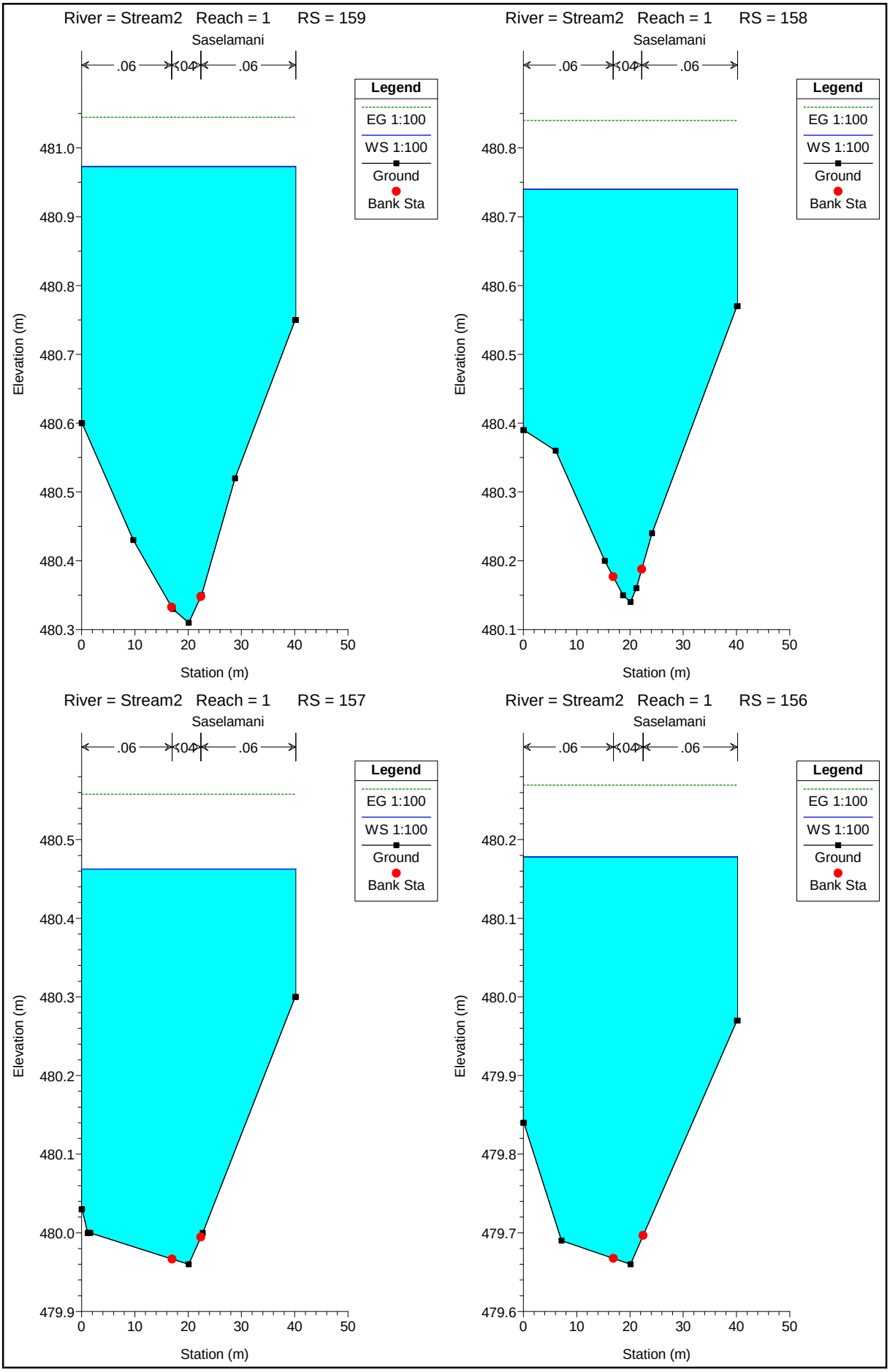

River = Stream2 Reach = 1 RS = 179
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 178
Saselamani
River = Stream2 Reach = 1 RS = 177
Saselamani
River = Stream2 Reach = 1 RS = 176
Saselamani

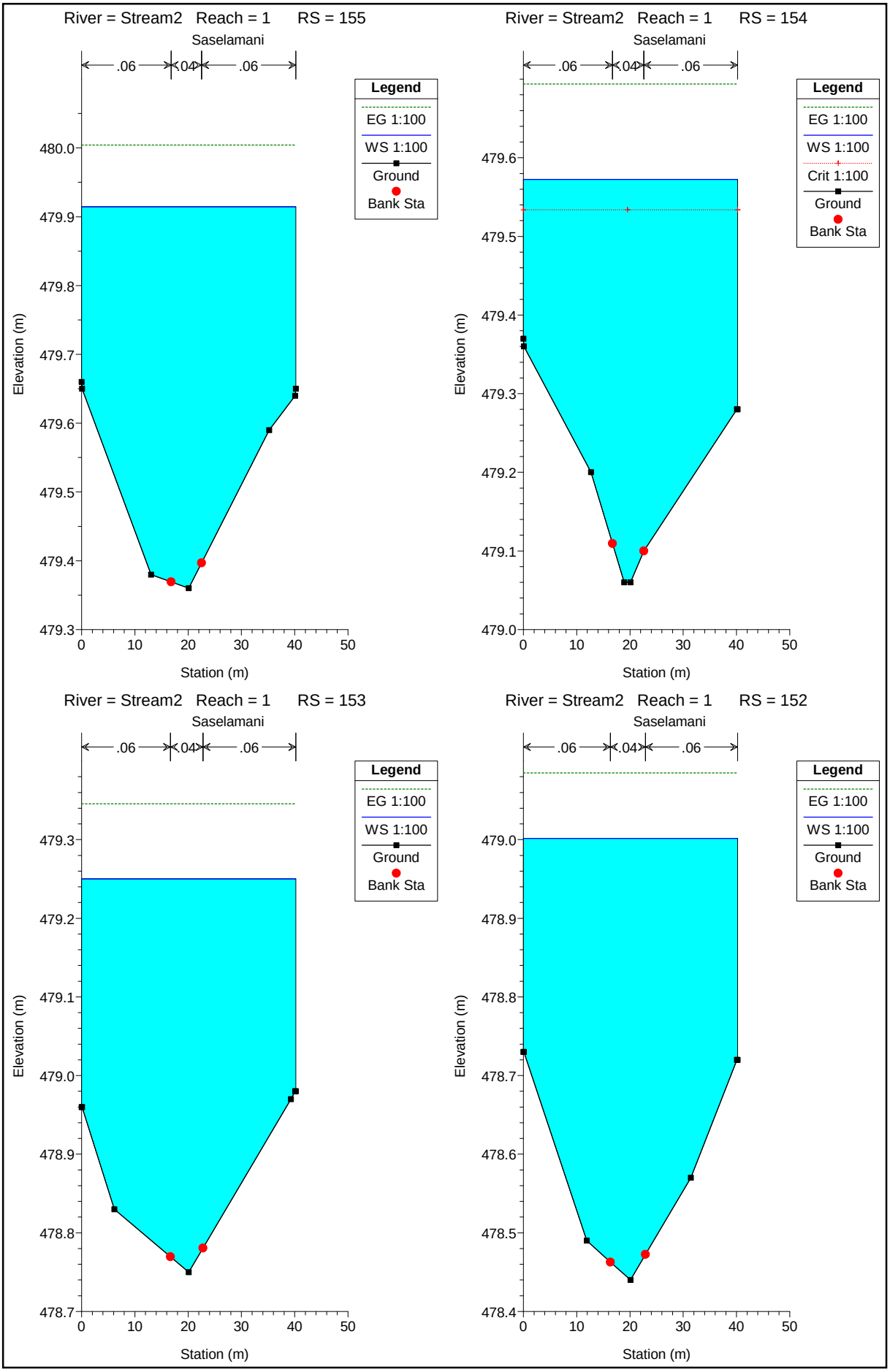

River = Stream2 Reach = 1 RS = 175
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
485.2
485.1
485.0
484.9
484.8
484.7
484.6
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 174
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
484.9
484.8
484.7
484.6
484.5
484.4
484.3
484.2
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 173
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
484.5
484.4
484.3
484.2
484.1
484.0
483.9
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 172
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
484.2
484.1
484.0
483.9
483.8
483.7
483.6
0
10
20
30
40
50
Station (m)

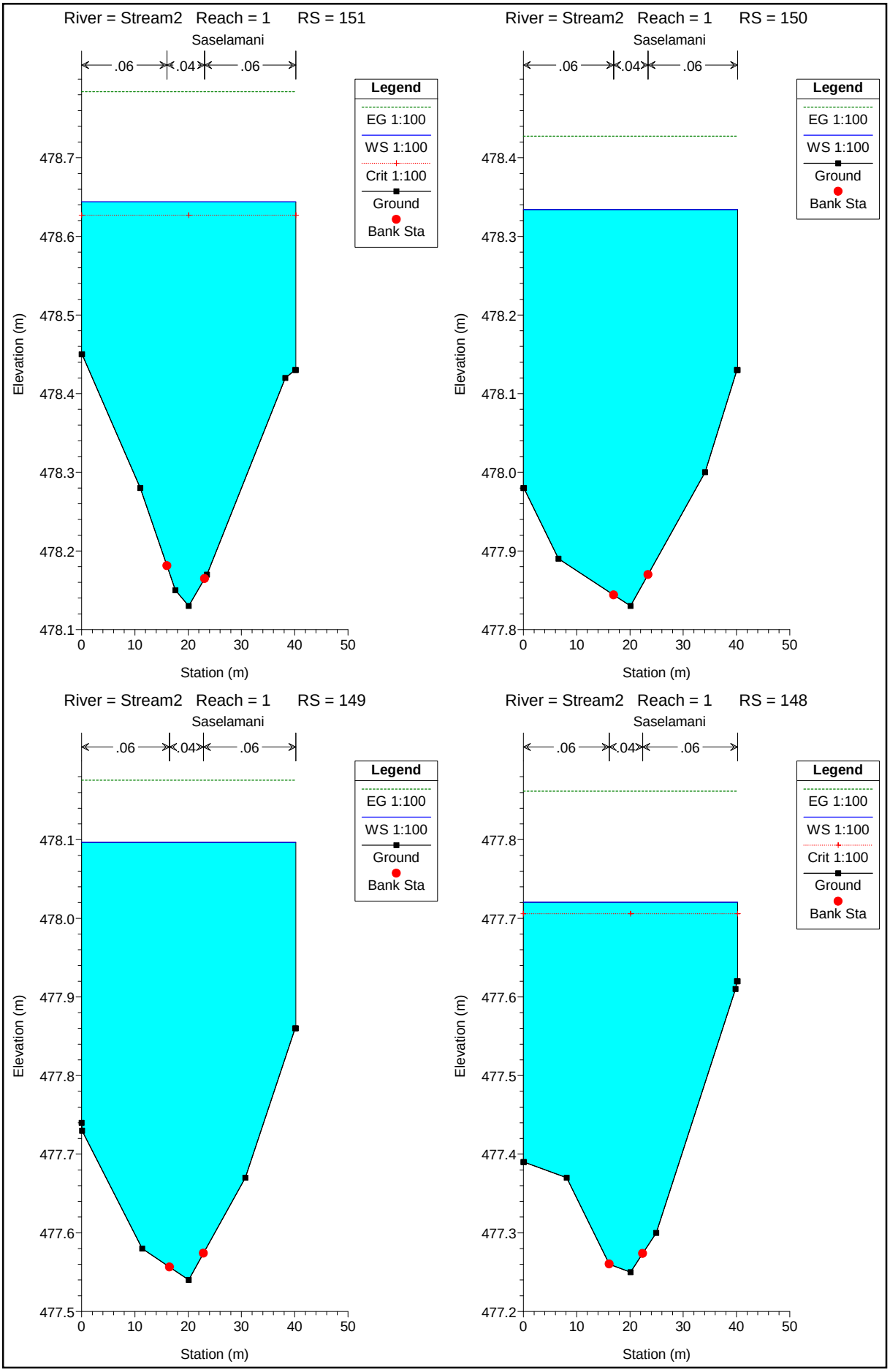

River = Stream2 Reach = 1 RS = 171
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 170
Saselamani
River = Stream2 Reach = 1 RS = 169
Saselamani
River = Stream2 Reach = 1 RS = 168
Saselamani

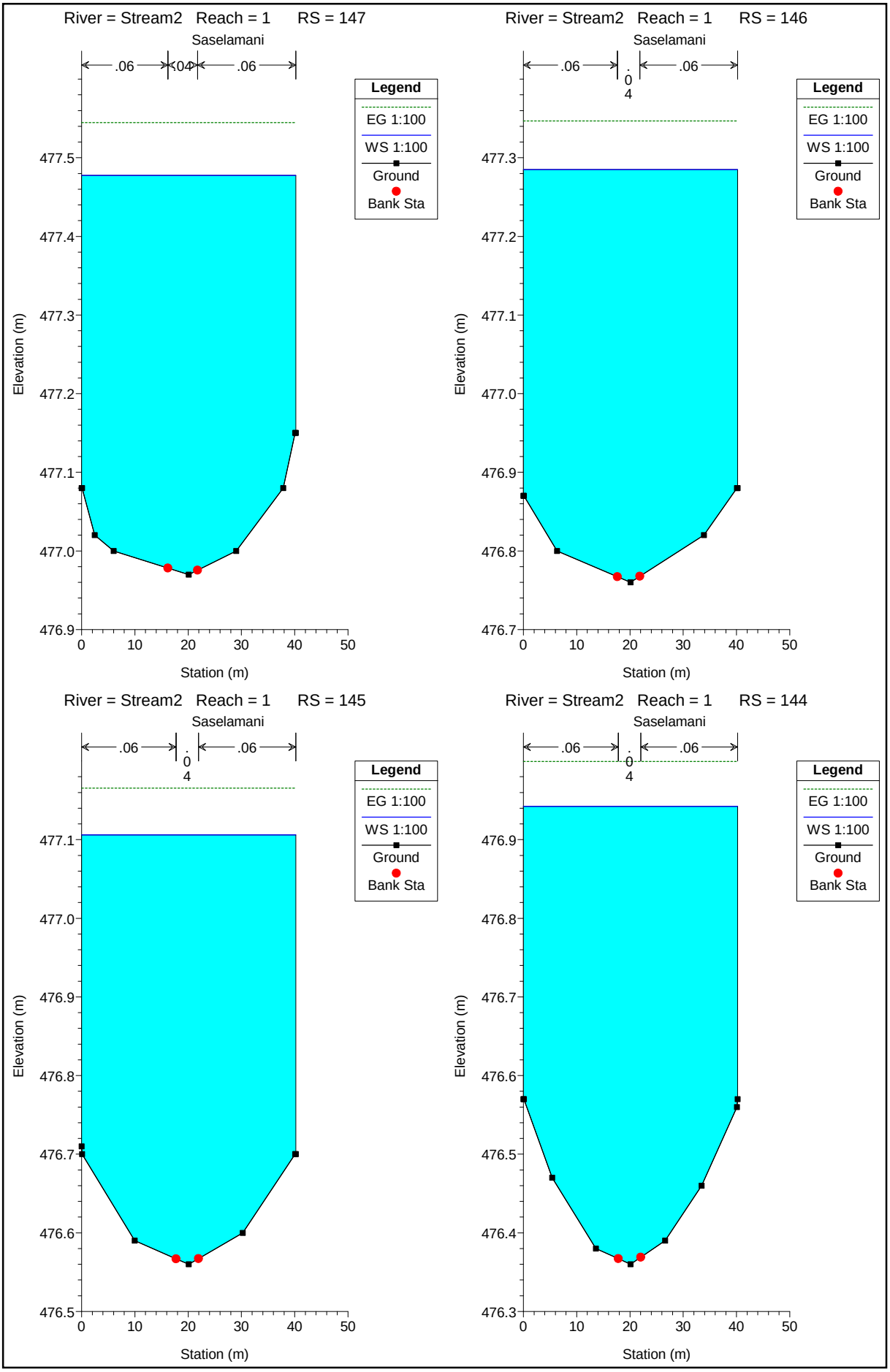

River = Stream2 Reach = 1 RS = 167
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 166
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 165
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 164
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

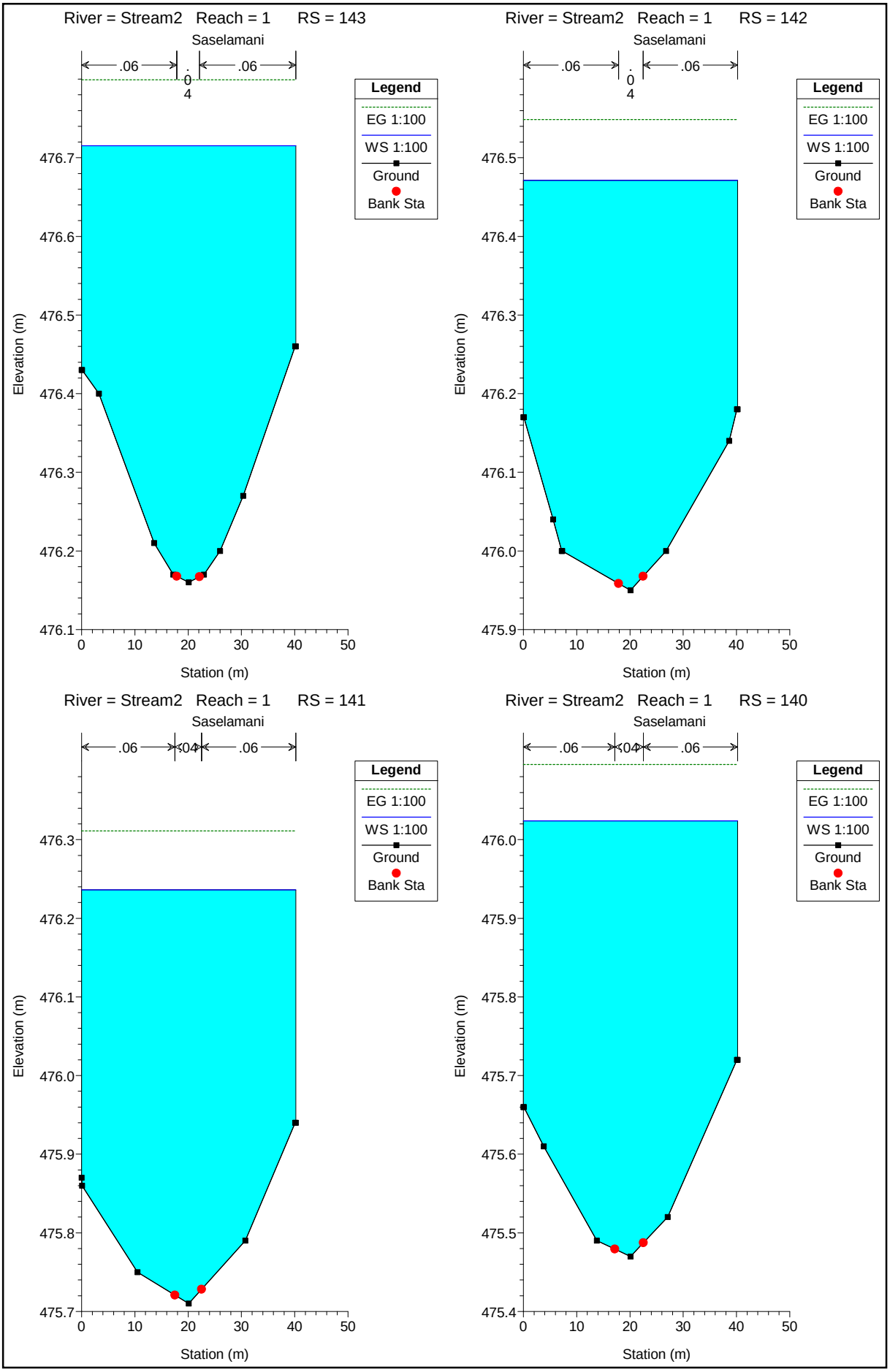

River = Stream2 Reach = 1 RS = 163
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 162
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 161
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 160
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

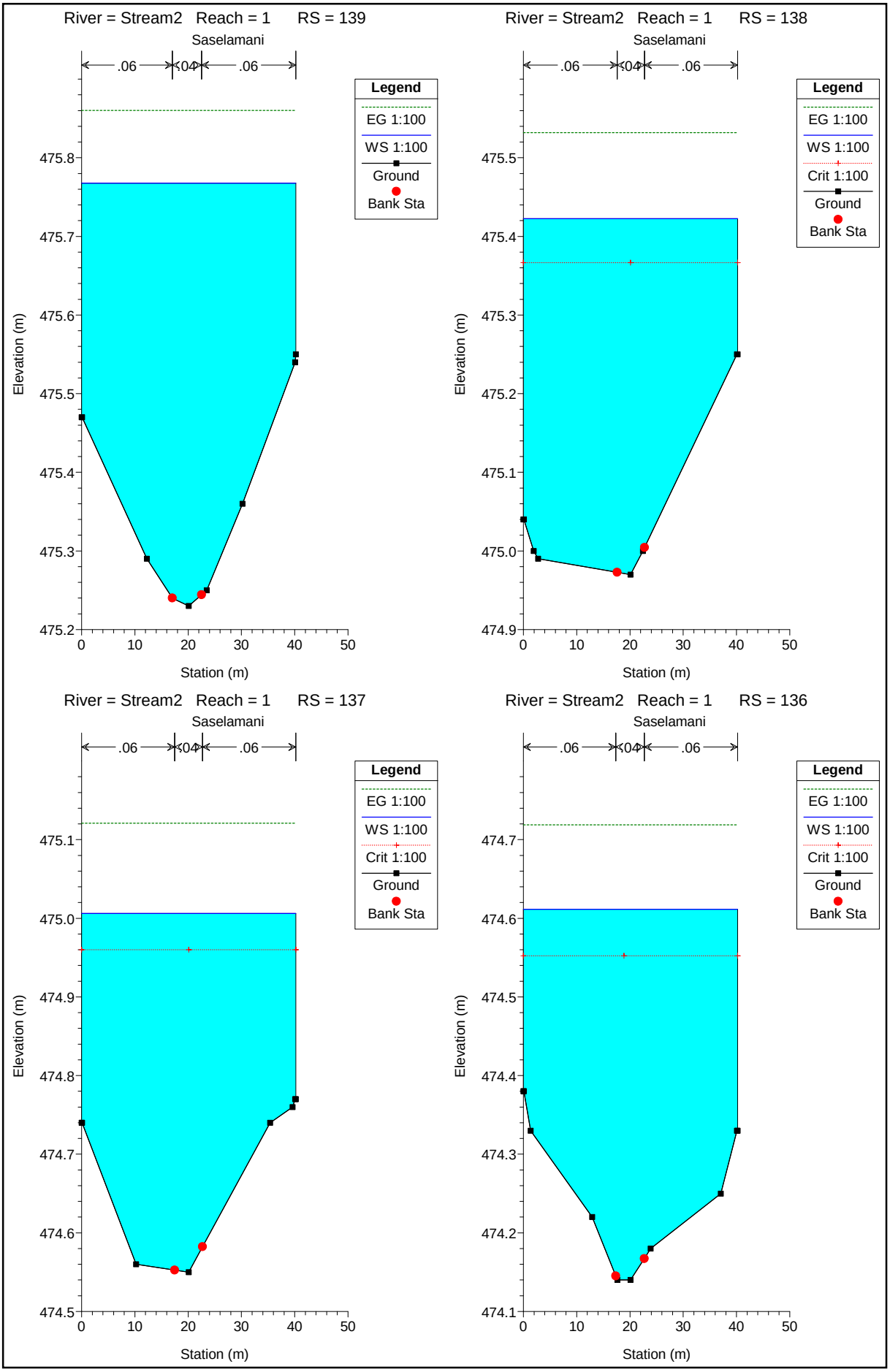

River = Stream2 Reach = 1 RS = 159
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 158
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 157
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 156
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

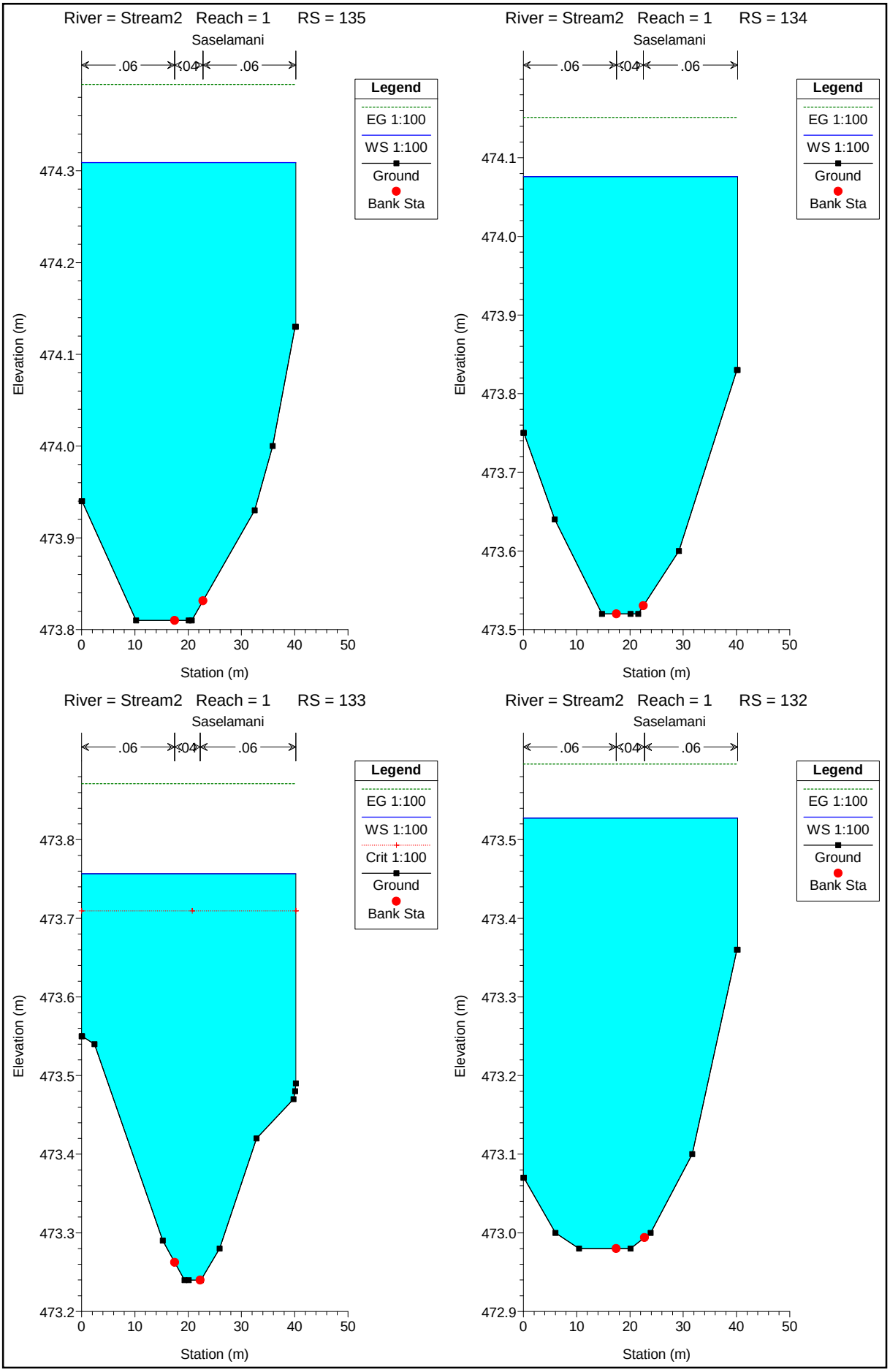

River = Stream2 Reach = 1 RS = 155
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 154
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 153
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 152
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

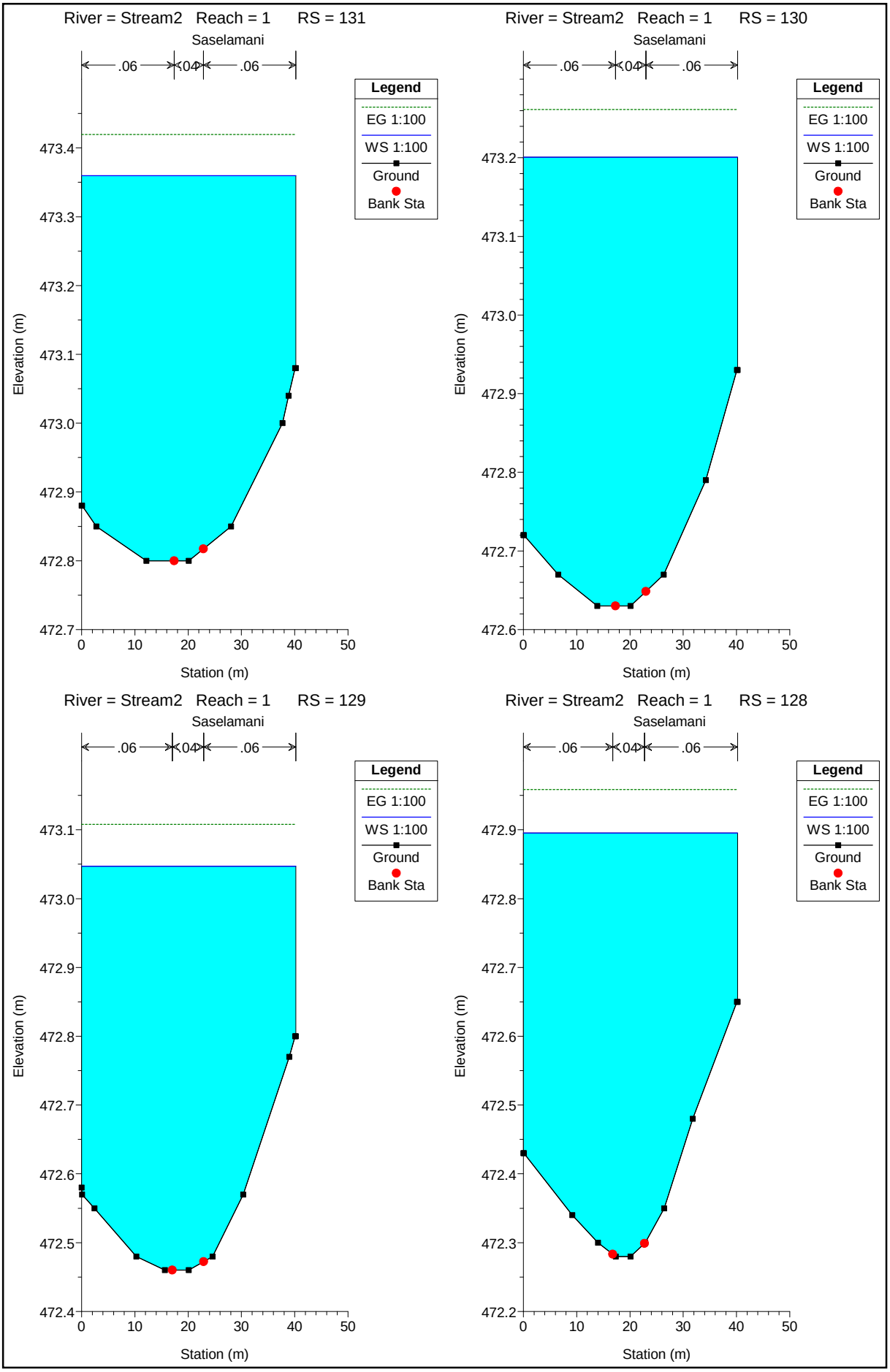

River = Stream2 Reach = 1 RS = 151
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 150
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 149
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 148
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

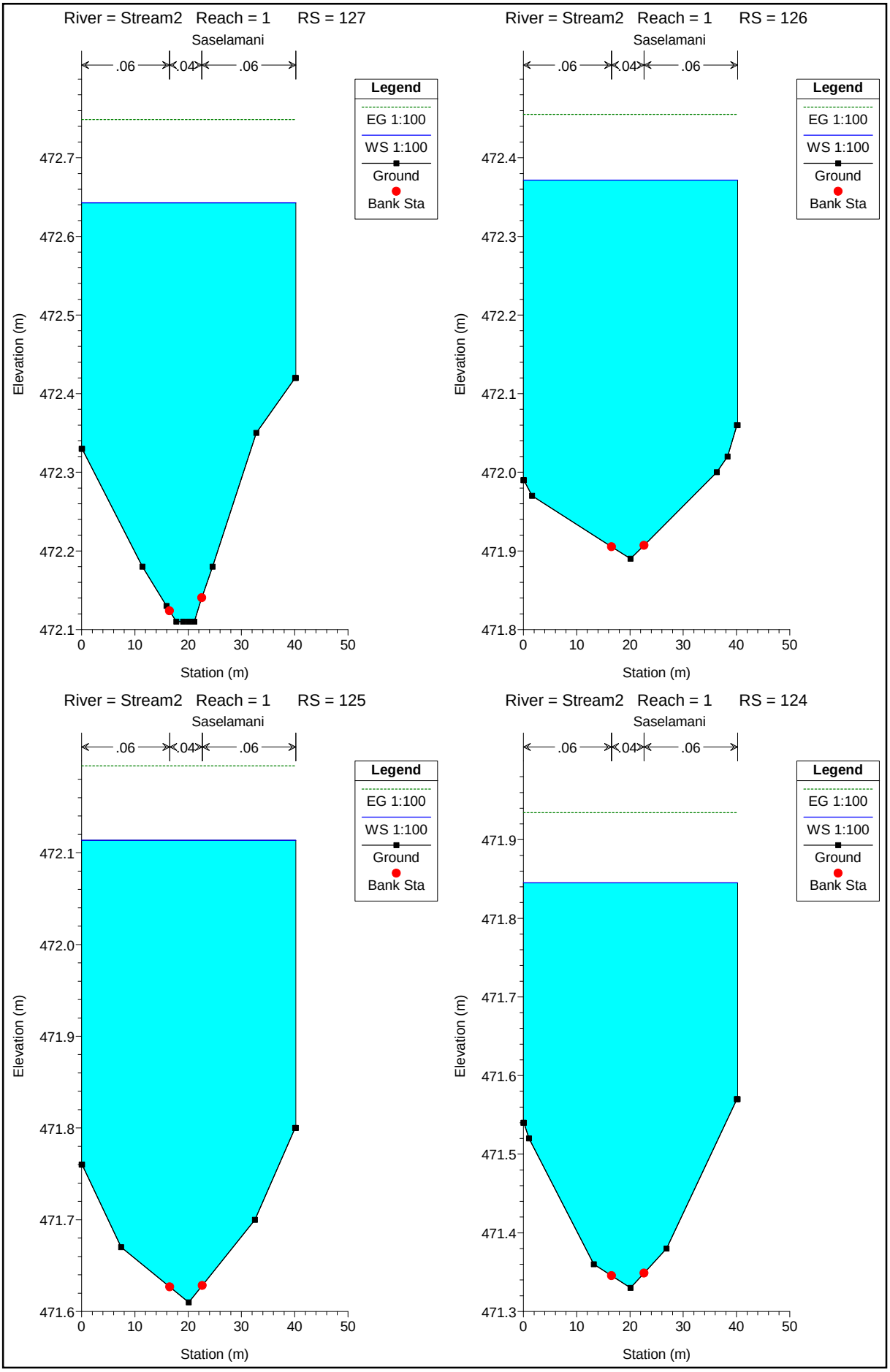

River = Stream2 Reach = 1 RS = 147
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 146
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 145
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 144
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

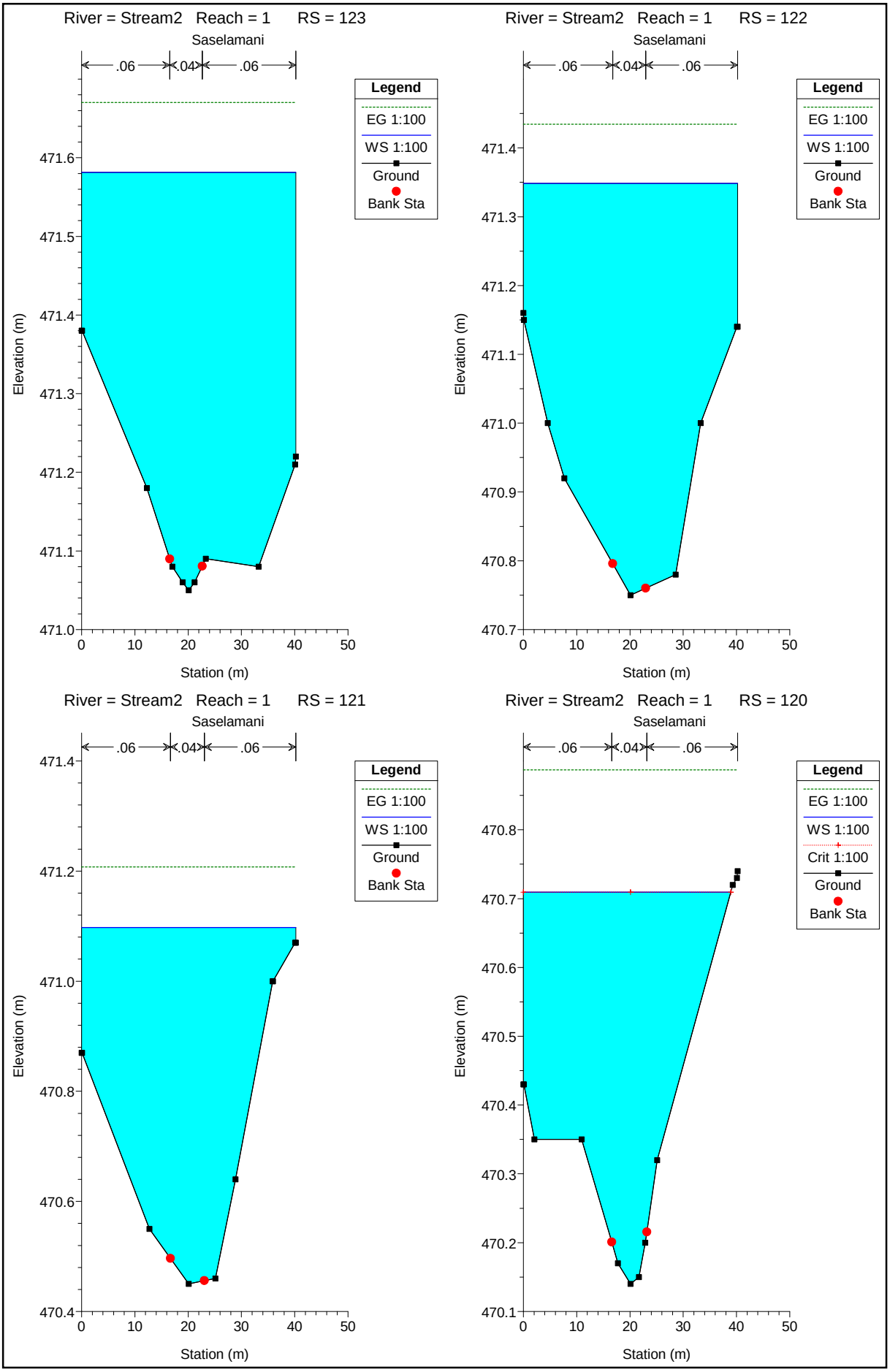

River = Stream2 Reach = 1 RS = 143
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
476.7
476.6
476.5
476.4
476.3
476.2
476.1
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 142
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
476.5
476.4
476.3
476.2
476.1
476.0
475.9
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 141
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
476.3
476.2
476.1
476.0
475.9
475.8
475.7
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 140
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
476.0
475.9
475.8
475.7
475.6
475.5
475.4
0
10
20
30
40
50
Station (m)

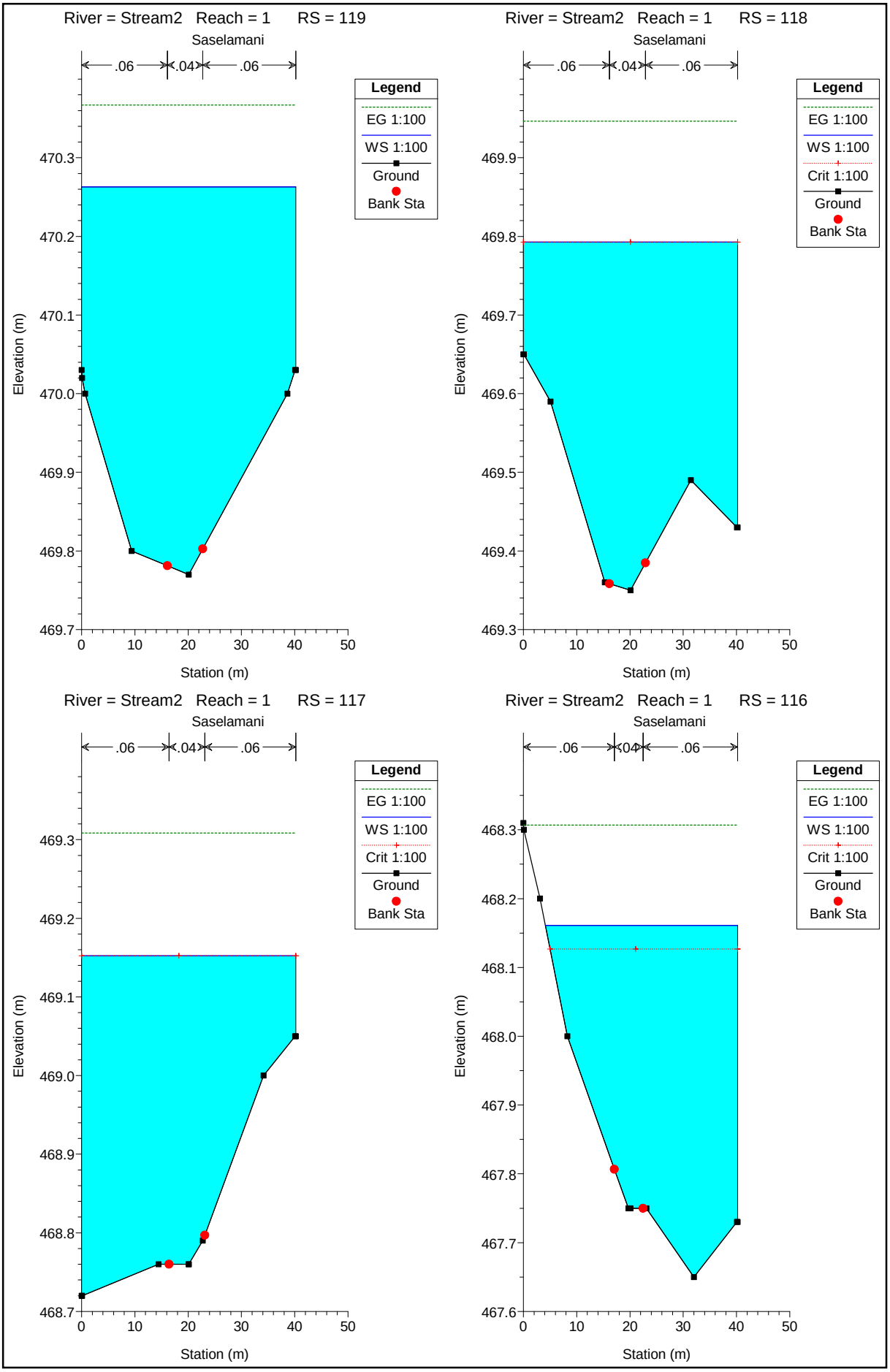

River = Stream2 Reach = 1 RS = 139
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 138
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 137
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 136
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

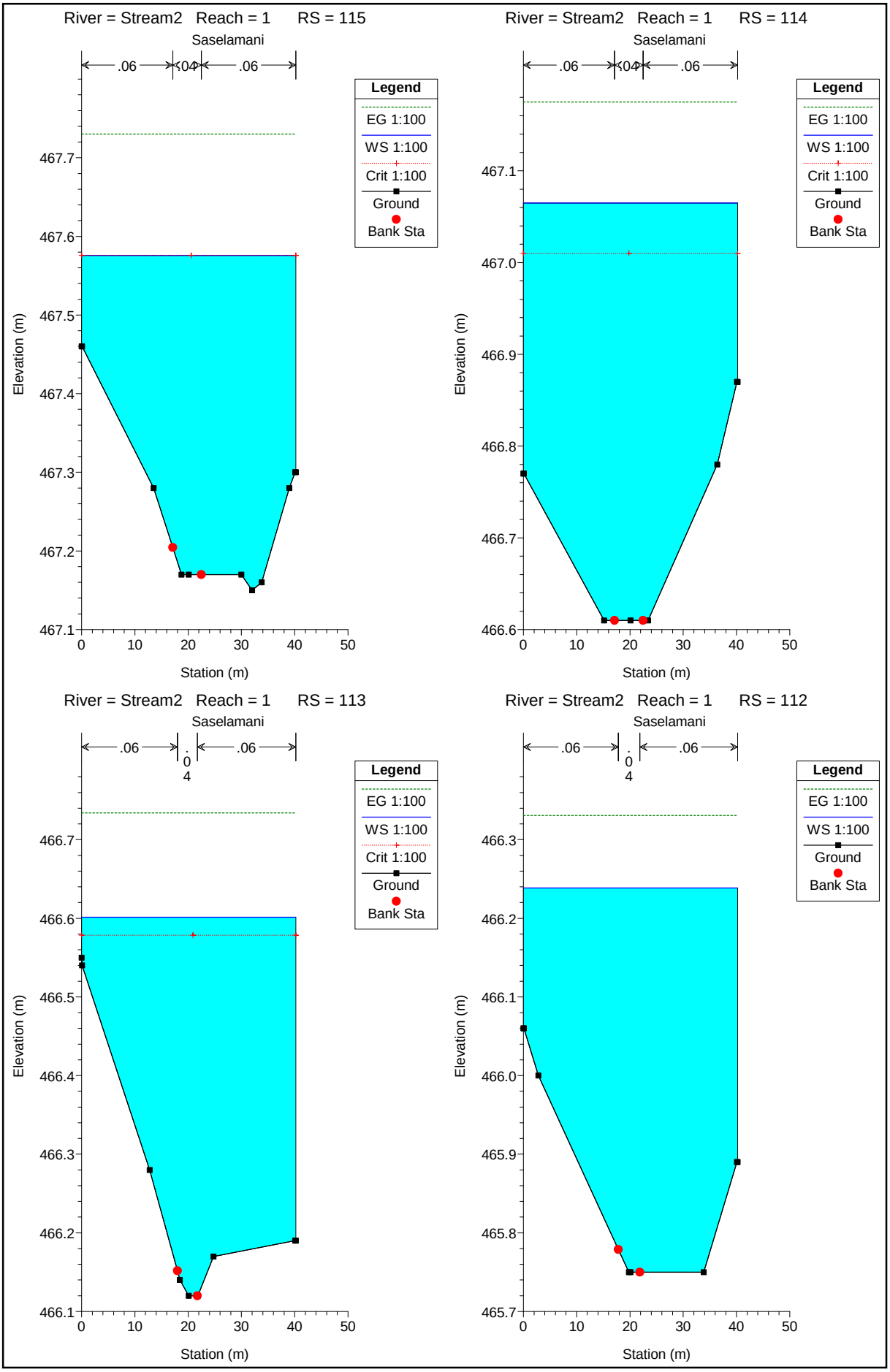

River = Stream2 Reach = 1 RS = 135
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 134
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 133
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 132
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

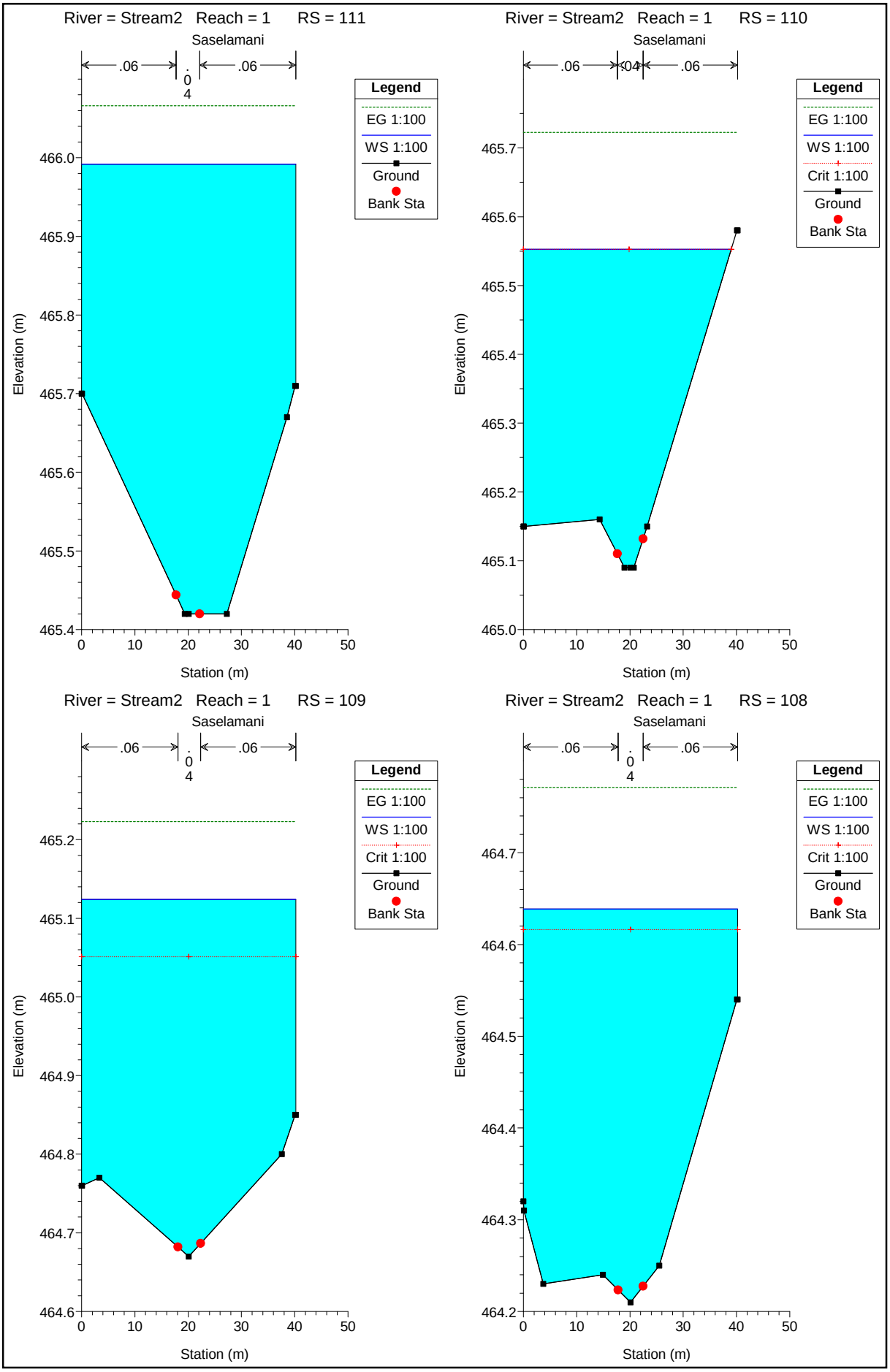

River = Stream2 Reach = 1 RS = 131
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 130
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 129
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 128
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

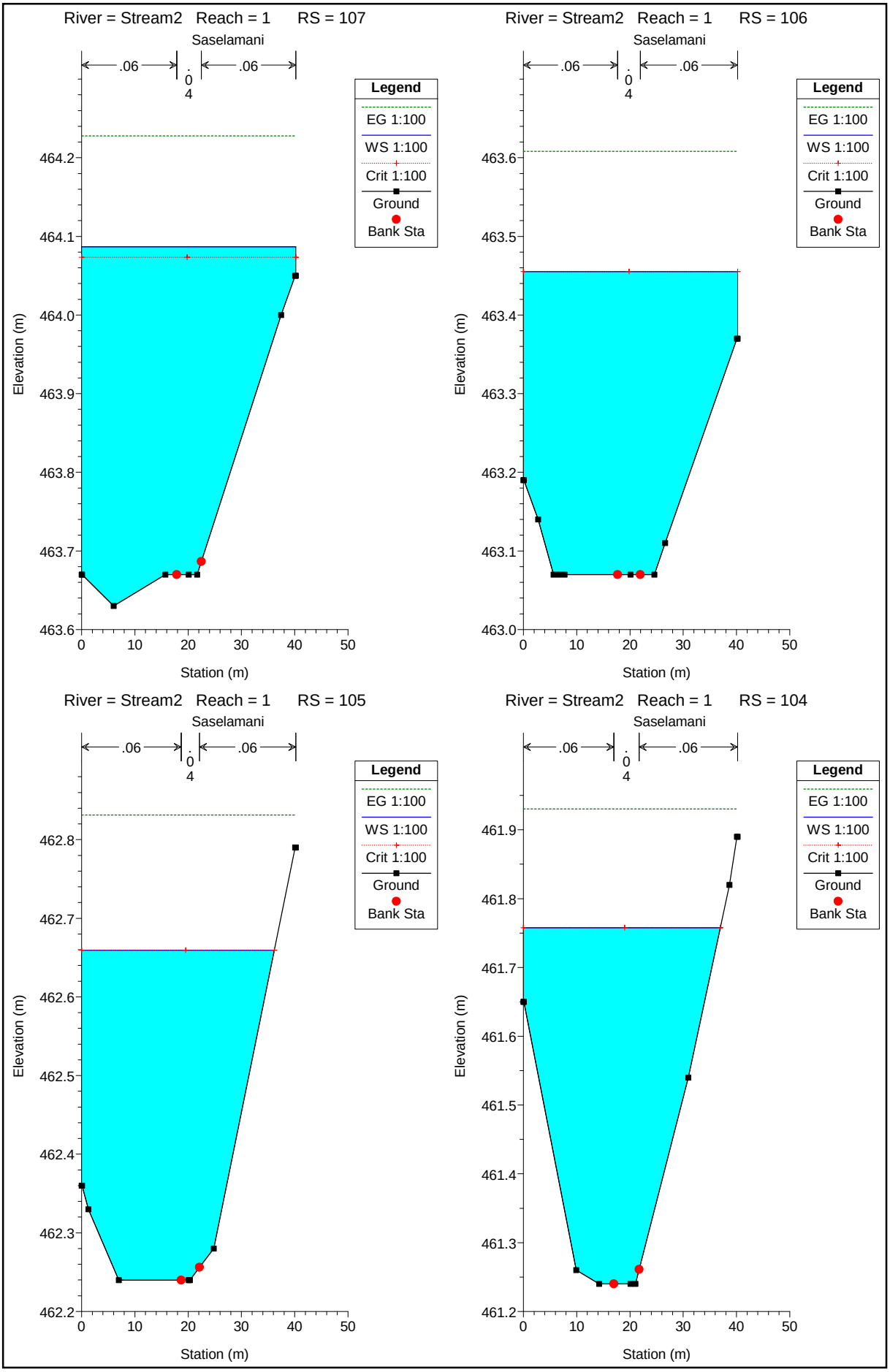

River = Stream2 Reach = 1 RS = 127
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 126
Saselamani
River = Stream2 Reach = 1 RS = 125
Saselamani
River = Stream2 Reach = 1 RS = 124
Saselamani

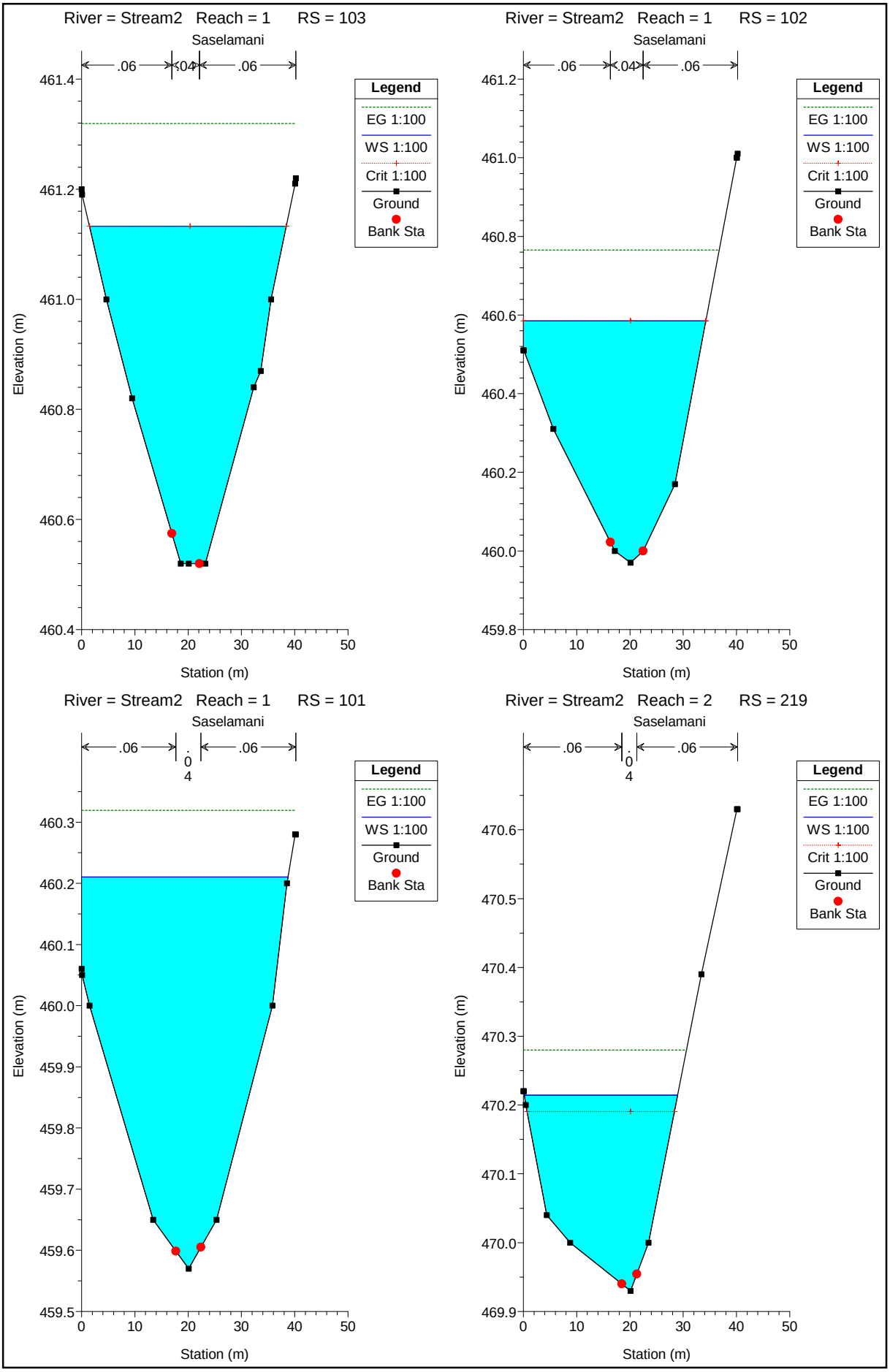

River = Stream2 Reach = 1 RS = 123
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 122
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 121
Saselamani
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 120
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

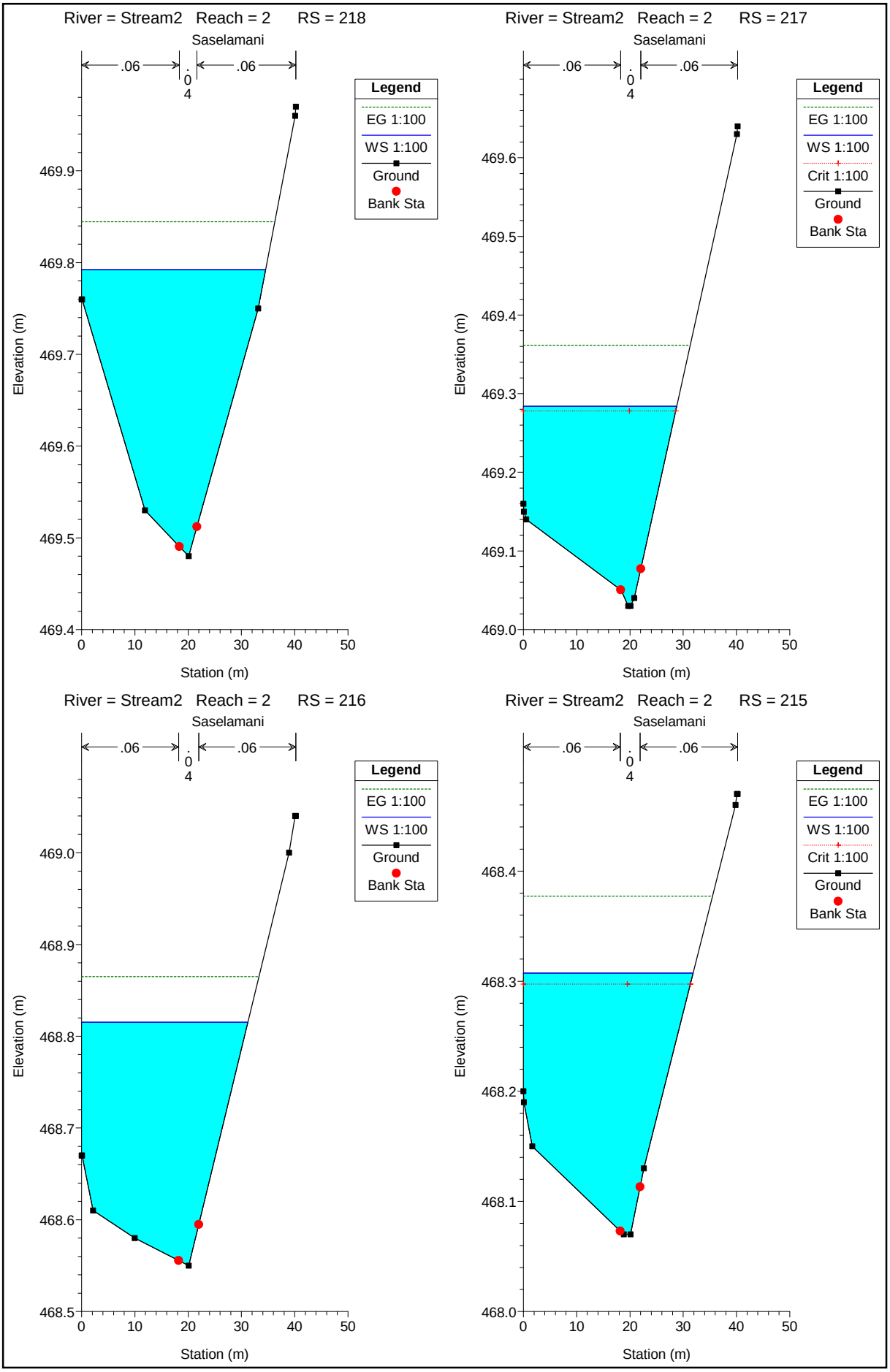

River = Stream2 Reach = 1 RS = 119
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 118
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 117
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 116
Saselamani
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

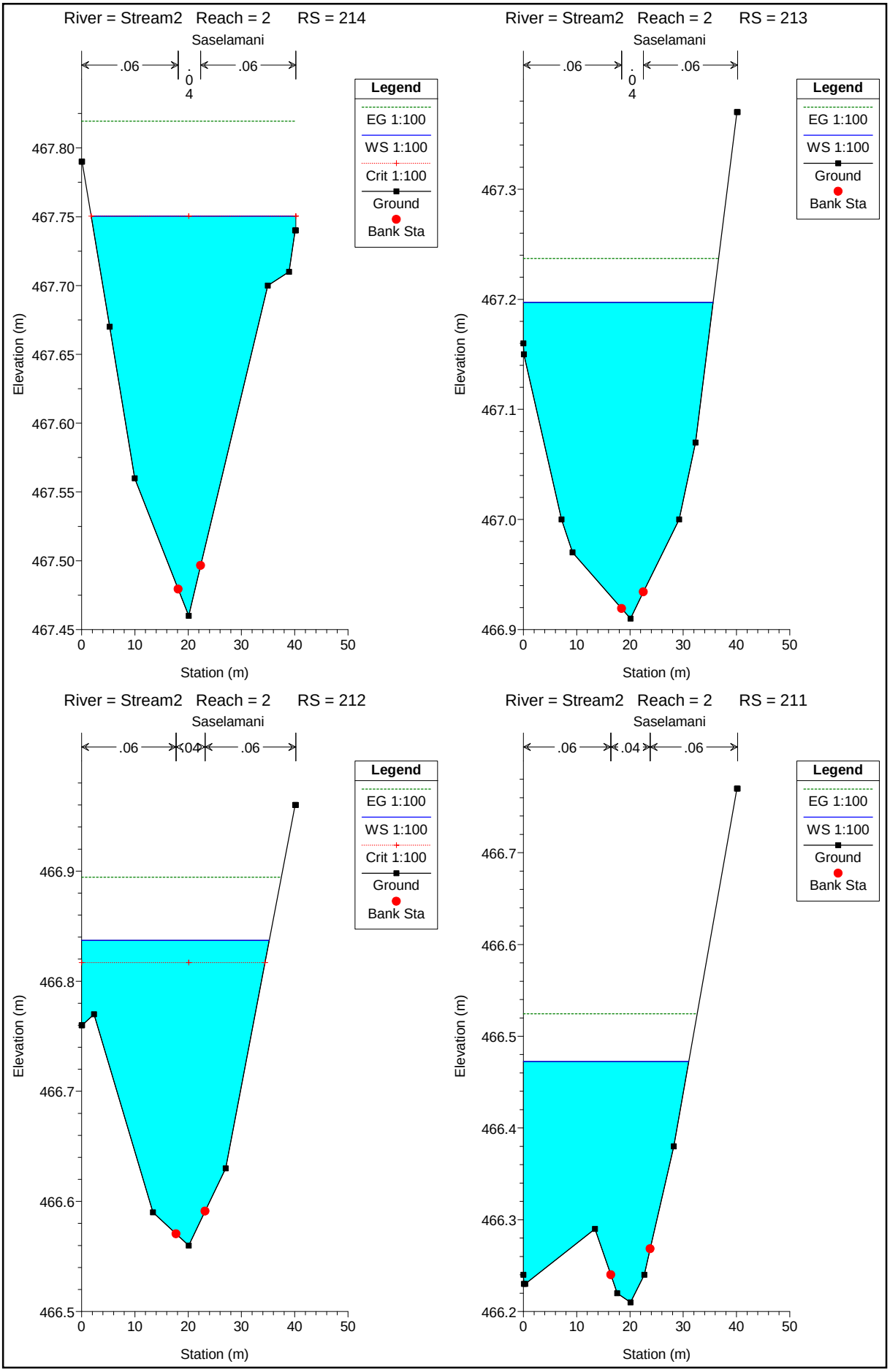

River = Stream2 Reach = 1 RS = 115
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
467.7
467.6
467.5
467.4
467.3
467.2
467.1
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 114
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
467.1
467.0
466.9
466.8
466.7
466.6
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 113
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
466.7
466.6
466.5
466.4
466.3
466.2
466.1
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 112
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
466.3
466.2
466.1
466.0
465.9
465.8
465.7
0
10
20
30
40
50
Station (m)

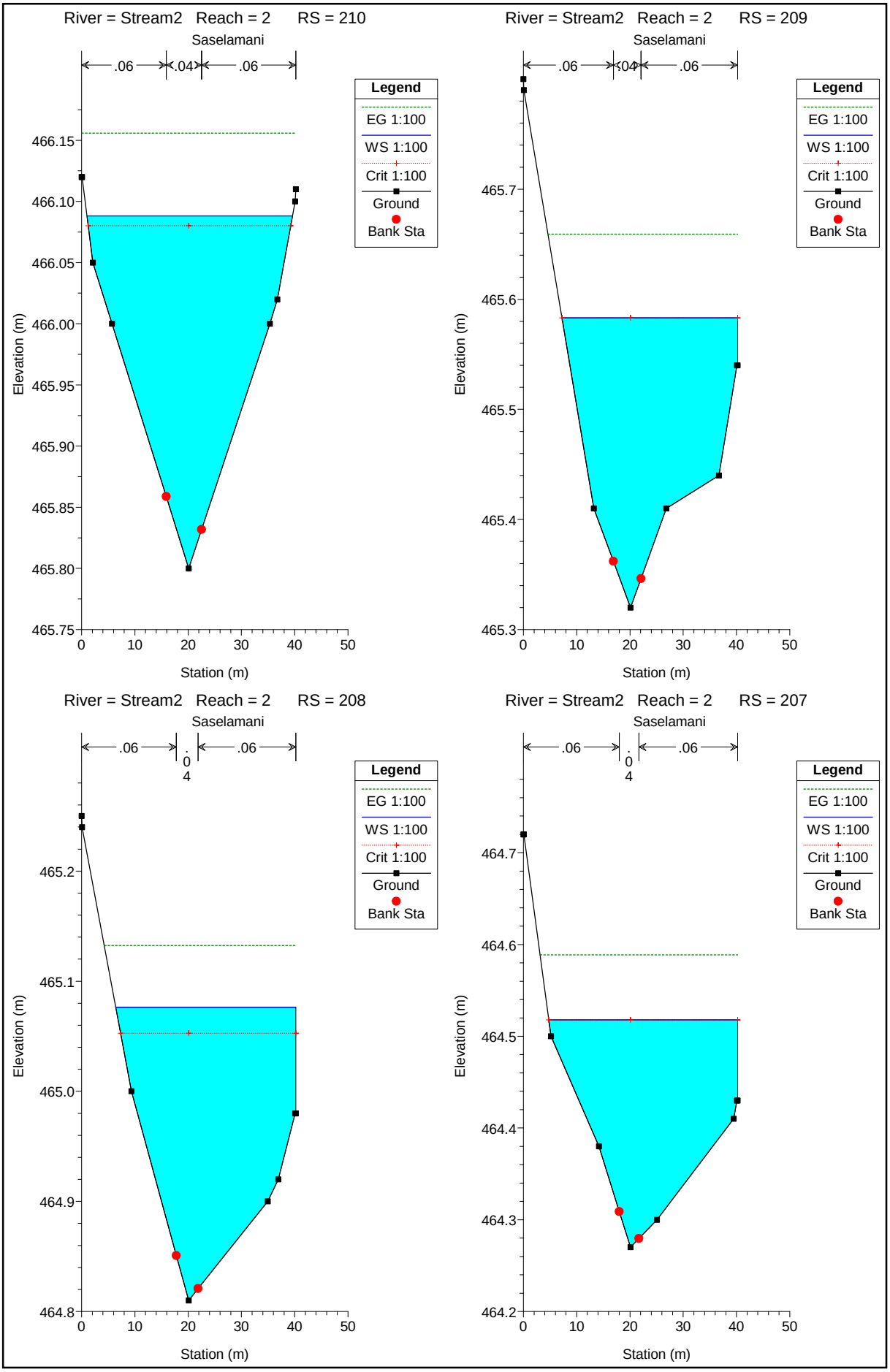

River = Stream2 Reach = 1 RS = 111
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 110
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 109
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 1 RS = 108
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

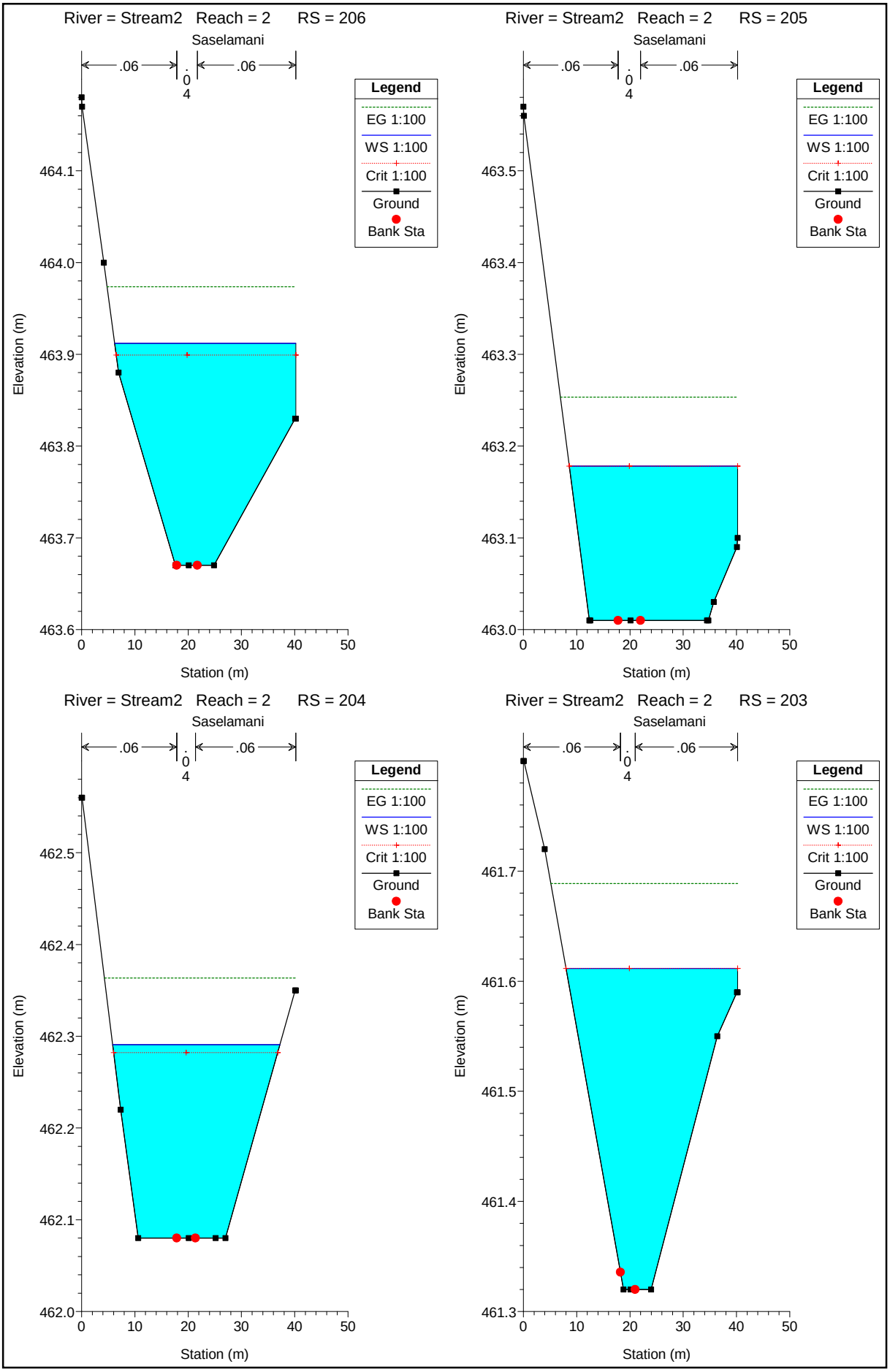

River = Stream2 Reach = 1 RS = 107
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
464.2
464.1
464.0
463.9
463.8
463.7
463.6
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 106
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
463.6
463.5
463.4
463.3
463.2
463.1
463.0
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 105
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
462.8
462.7
462.6
462.5
462.4
462.3
462.2
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 1 RS = 104
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
461.9
461.8
461.7
461.6
461.5
461.4
461.3
461.2
0
10
20
30
40
50
Station (m)

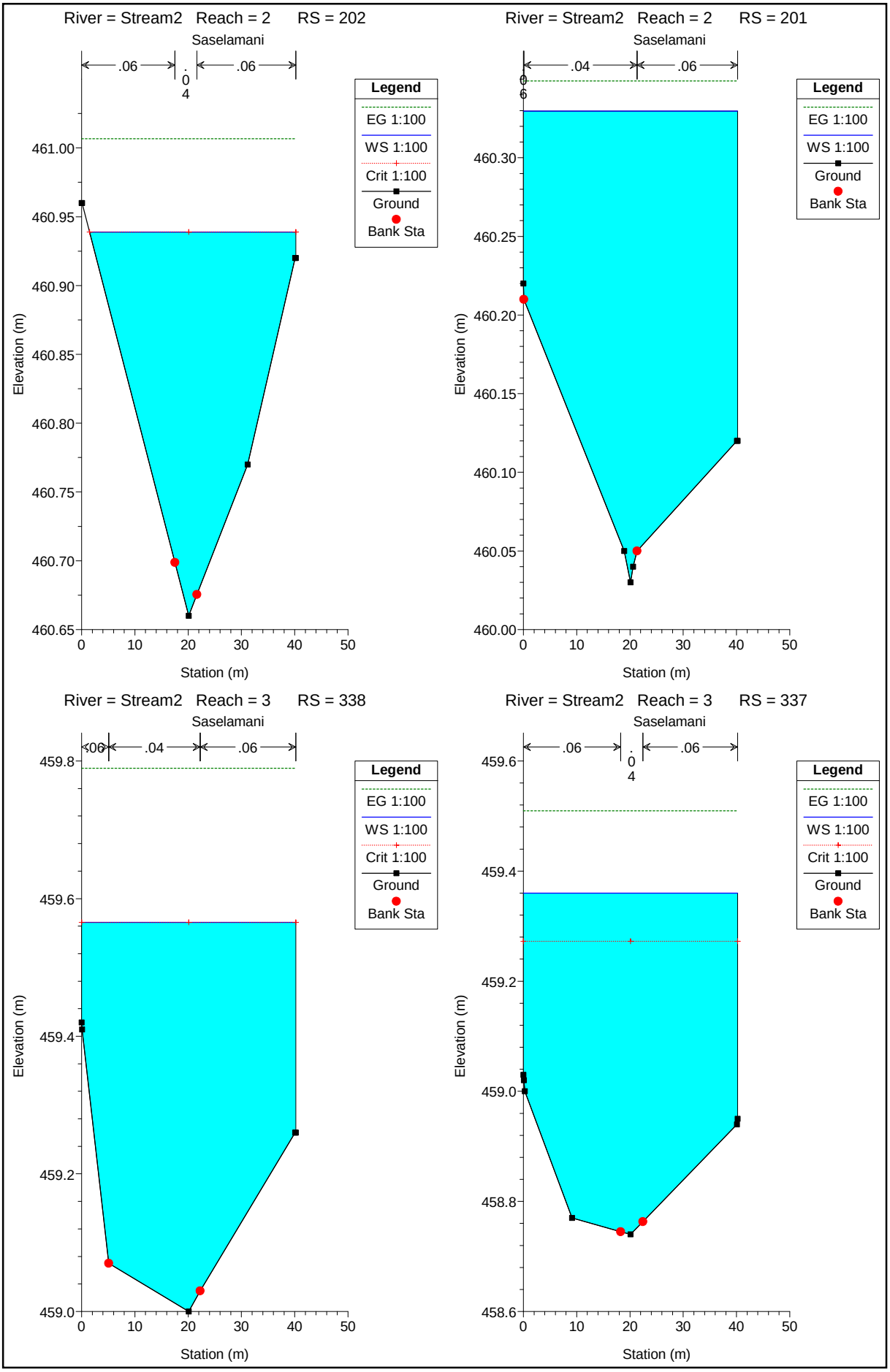

River = Stream2 Reach = 1 RS = 103
Saselamani
.06
.04
.06
461.4
461.2
461.0
460.8
460.6
460.4
Elevation (m)
0
10
20
30
40
50
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream2 Reach = 1 RS = 102
Saselamani
.06
.04
.06
461.2
461.0
460.8
460.6
460.4
460.2
460.0
459.8
Elevation (m)
0
10
20
30
40
50
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
River = Stream2 Reach = 1 RS = 101
Saselamani
.06
.04
.06
460.3
460.2
460.1
460.0
459.9
459.8
459.7
459.6
459.5
Elevation (m)
0
10
20
30
40
50
Station (m)
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
River = Stream2 Reach = 2 RS = 219
Saselamani
.06
.04
.06
470.6
470.5
470.4
470.3
470.2
470.1
470.0
469.9
Elevation (m)
0
10
20
30
40
50
Station (m)
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta

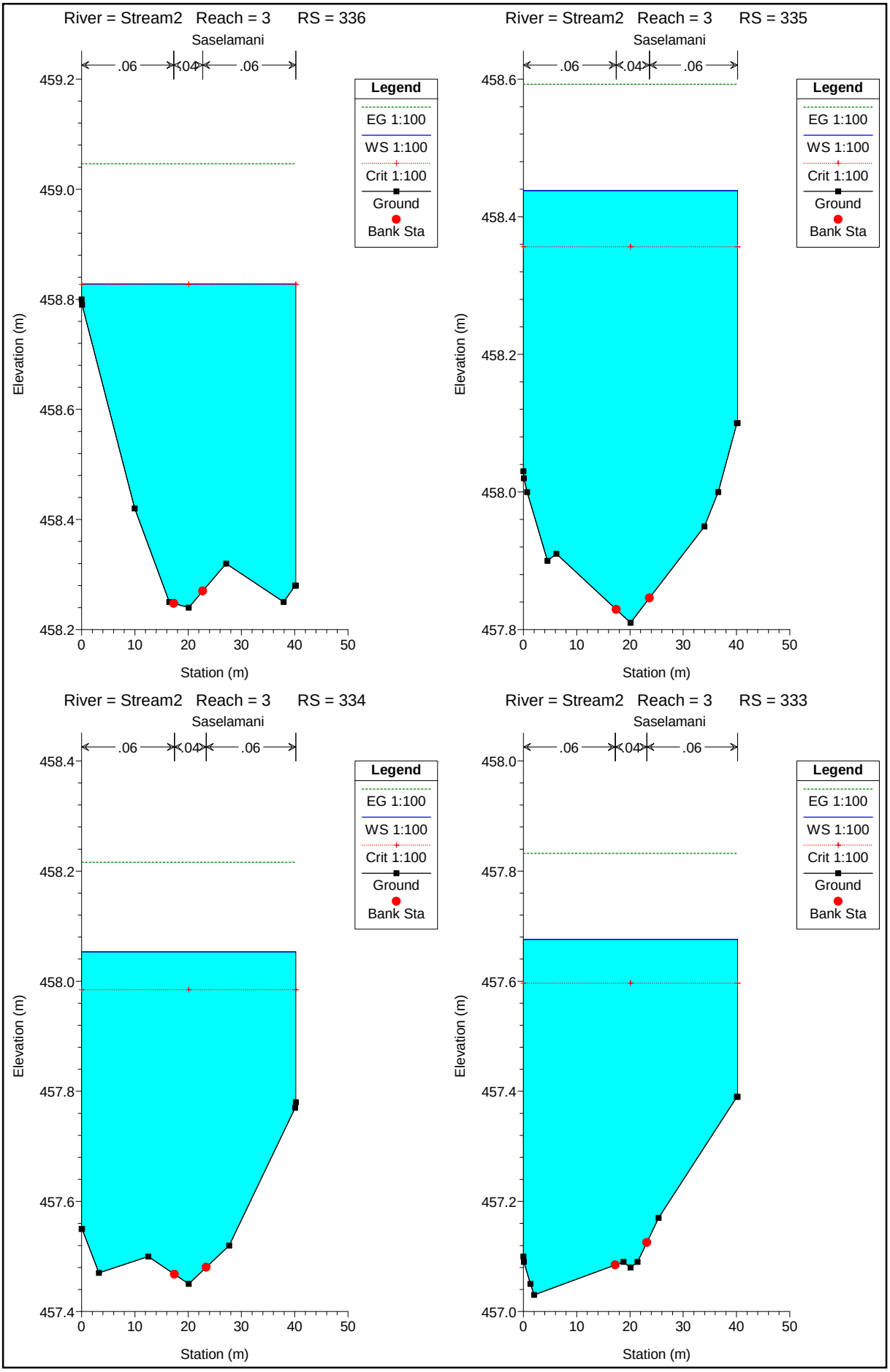

River = Stream2 Reach = 2 RS = 218
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 217
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 216
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 215
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

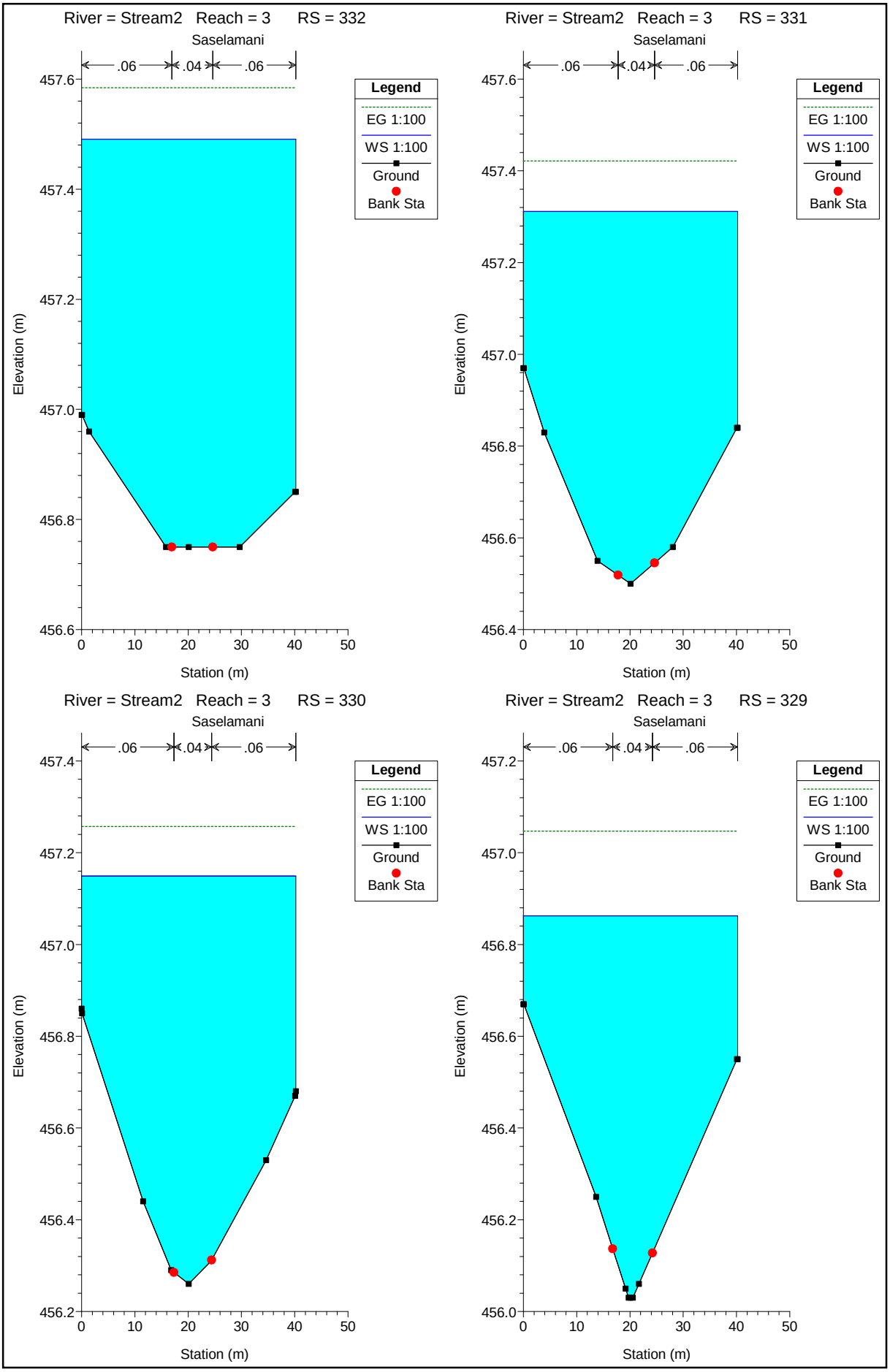

River = Stream2 Reach = 2 RS = 214
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 213
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 212
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 211
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

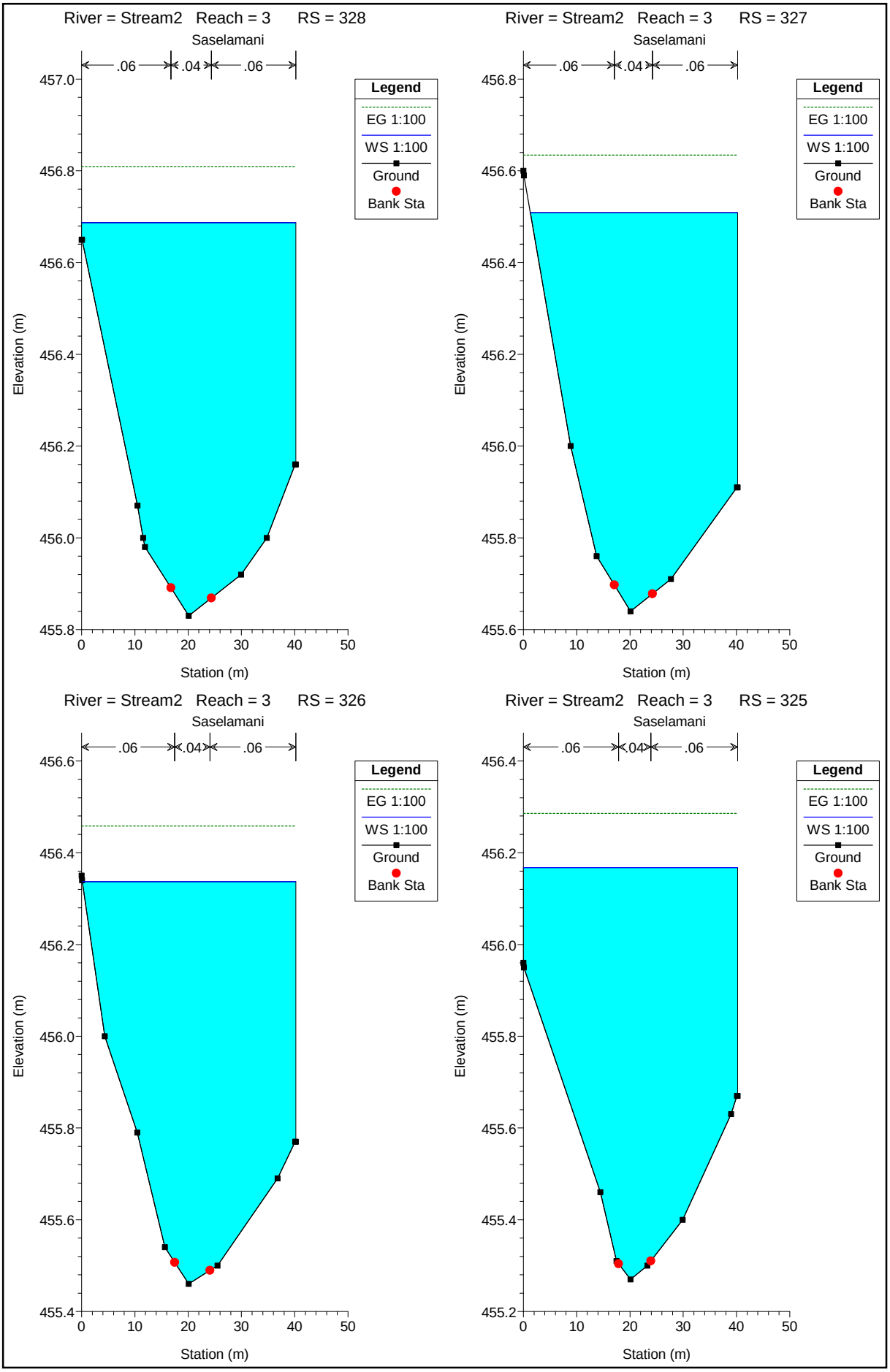

River = Stream2 Reach = 2 RS = 210
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 209
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 208
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 207
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

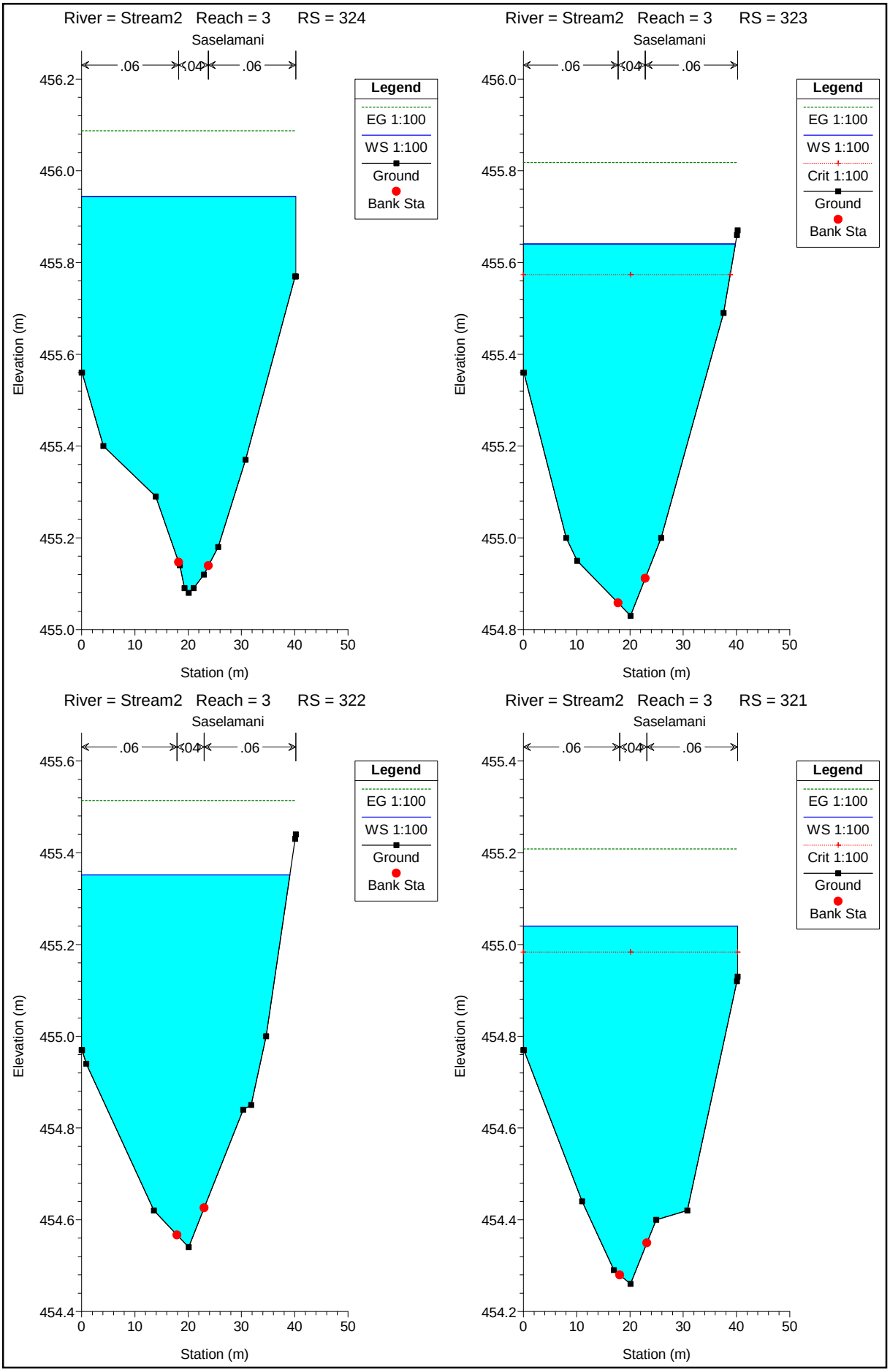

River = Stream2 Reach = 2 RS = 206
Saselamani
.06
.06
0
4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
464.1
464.0
463.9
463.8
463.7
463.6
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 2 RS = 205
Saselamani
.06
.06
0
4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
463.5
463.4
463.3
463.2
463.1
463.0
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 2 RS = 204
Saselamani
.06
.06
0
4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
462.5
462.4
462.3
462.2
462.1
462.0
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 2 RS = 203
Saselamani
.06
.06
0
4
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
461.7
461.6
461.5
461.4
461.3
0
10
20
30
40
50
Station (m)

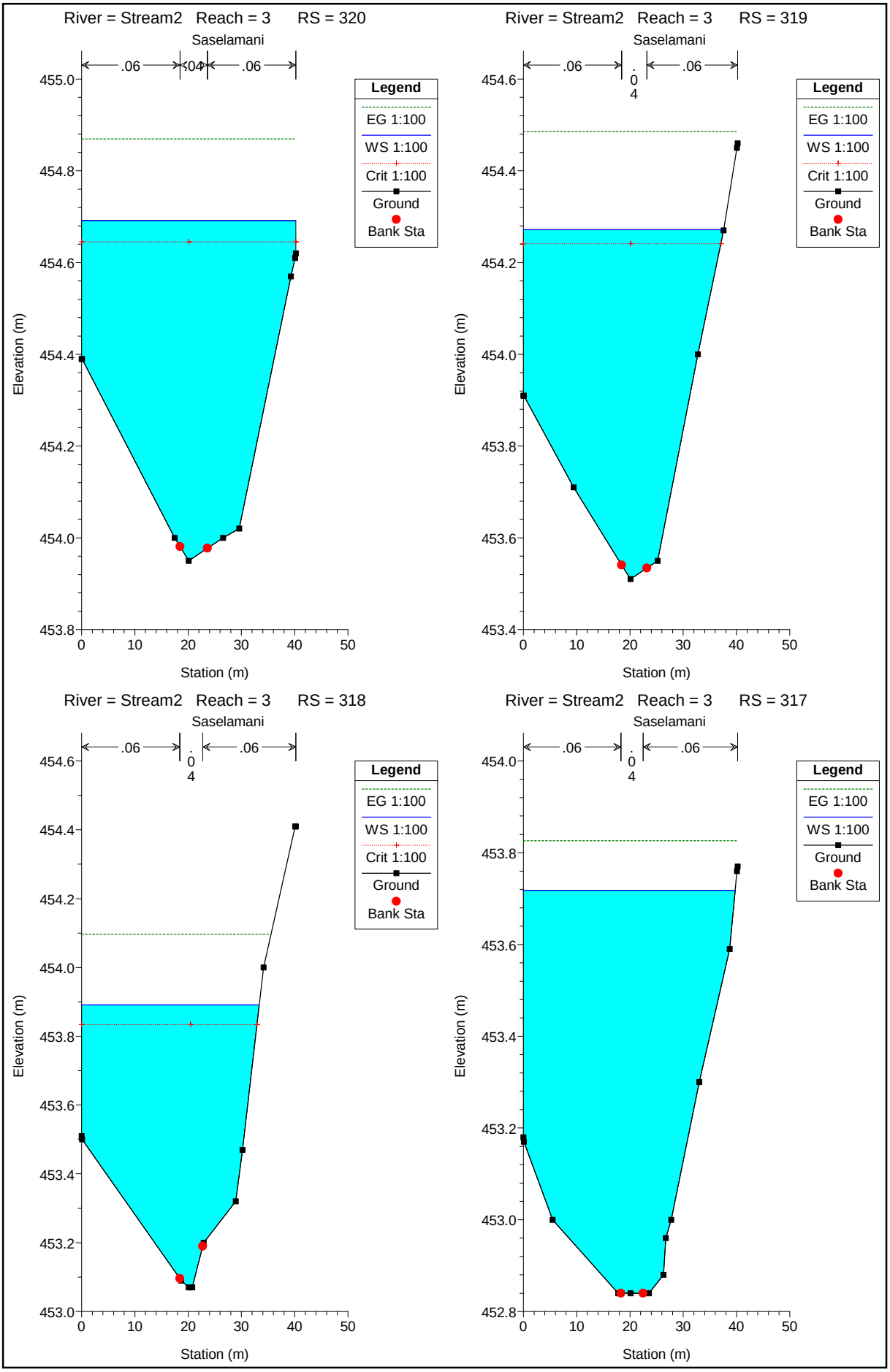

River = Stream2 Reach = 2 RS = 202
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 2 RS = 201
Saselamani
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 338
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 337
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

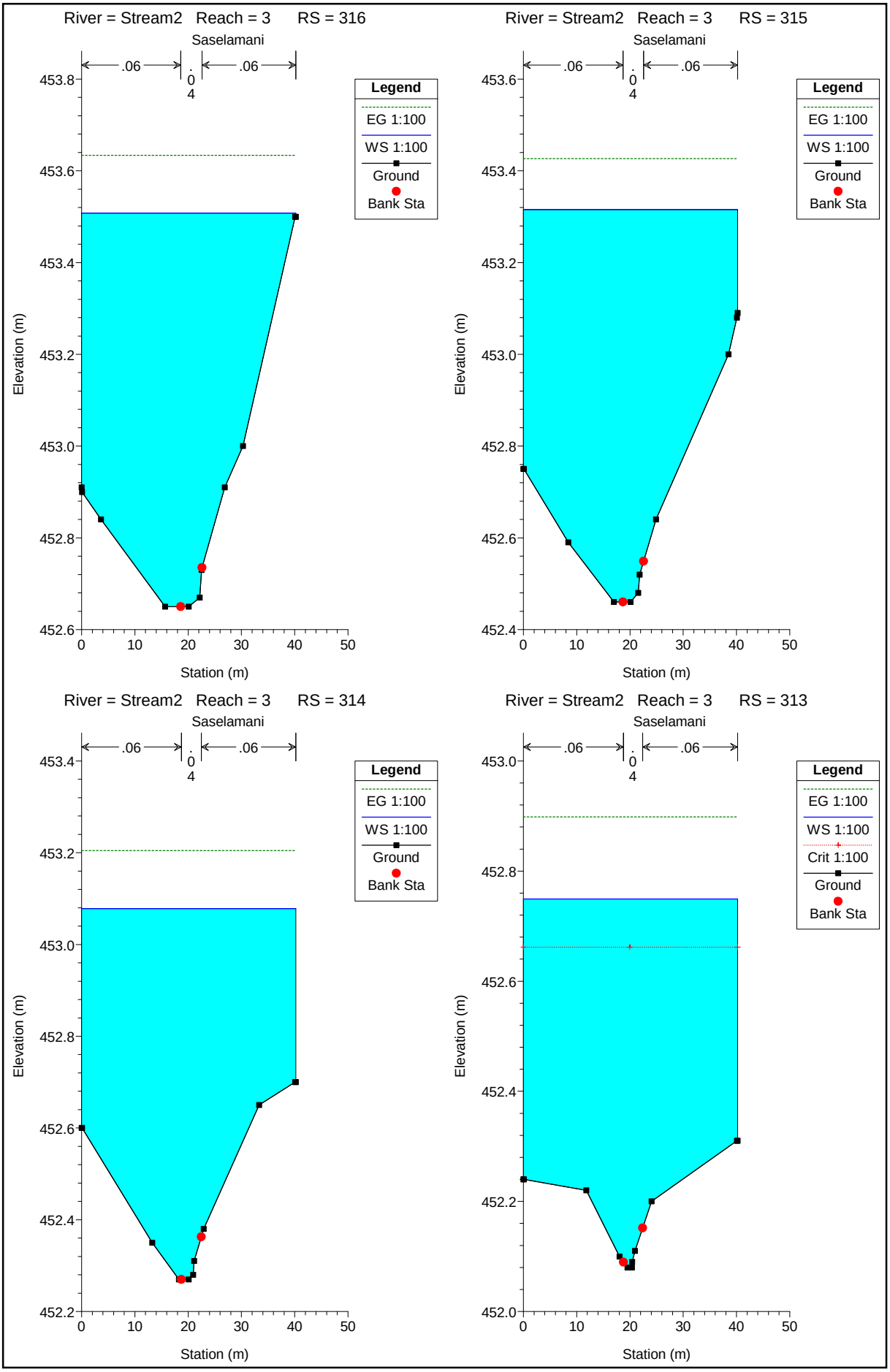

River = Stream2 Reach = 3 RS = 336
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 335
Saselamani
River = Stream2 Reach = 3 RS = 334
Saselamani
River = Stream2 Reach = 3 RS = 333
Saselamani

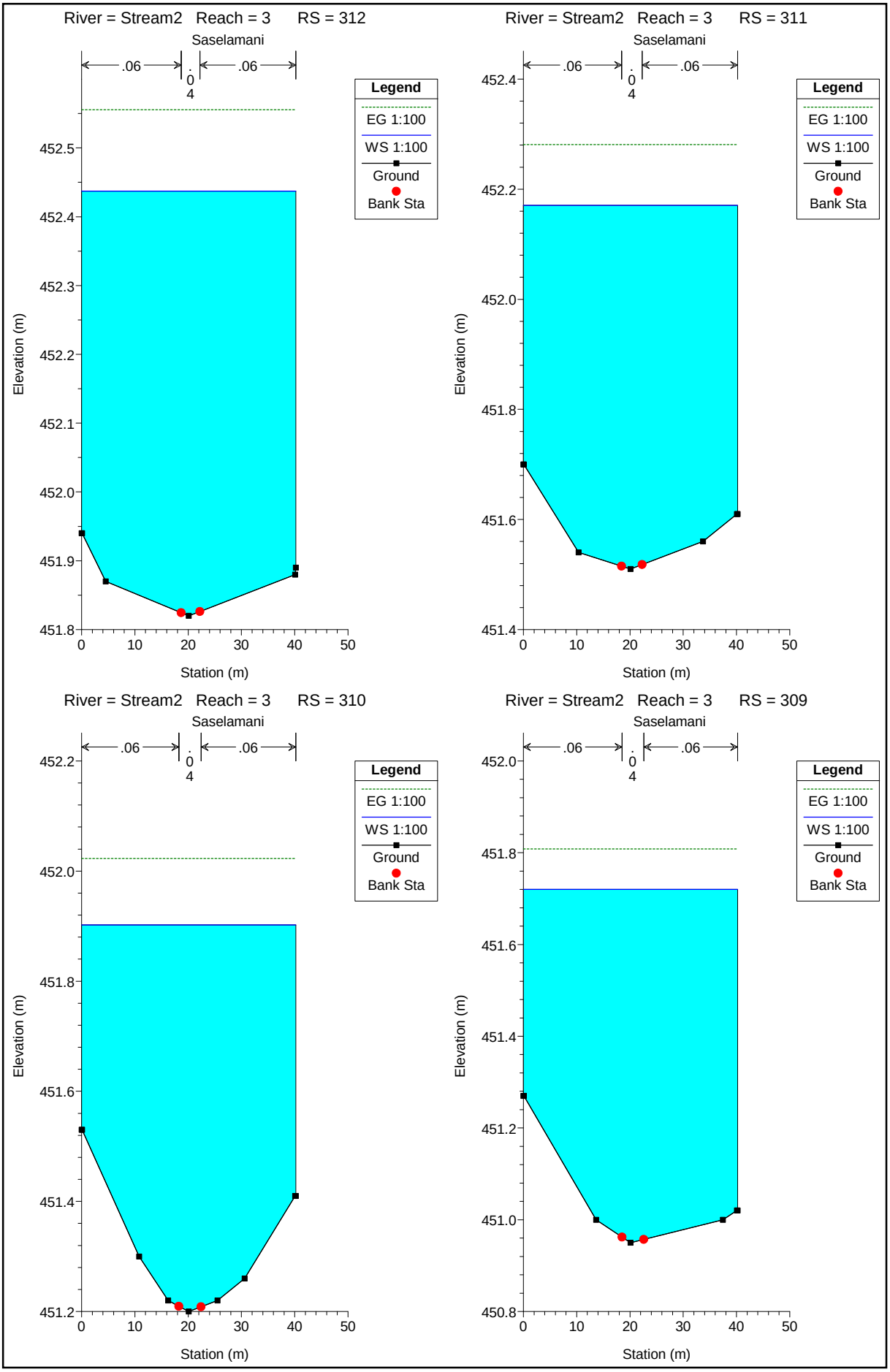

River = Stream2 Reach = 3 RS = 332
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 331
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 330
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 329
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

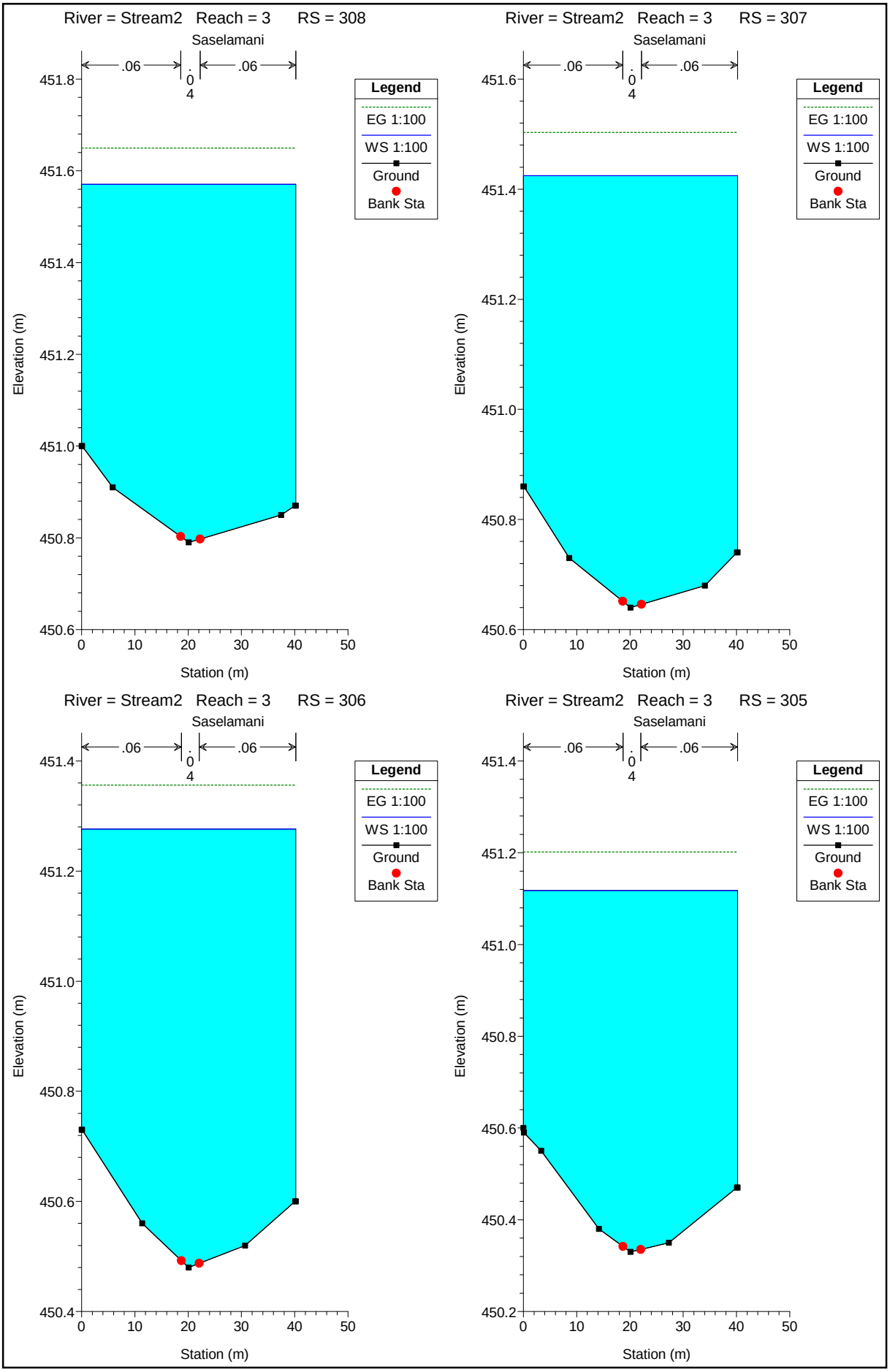

River = Stream2 Reach = 3 RS = 328
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 327
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 326
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 325
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

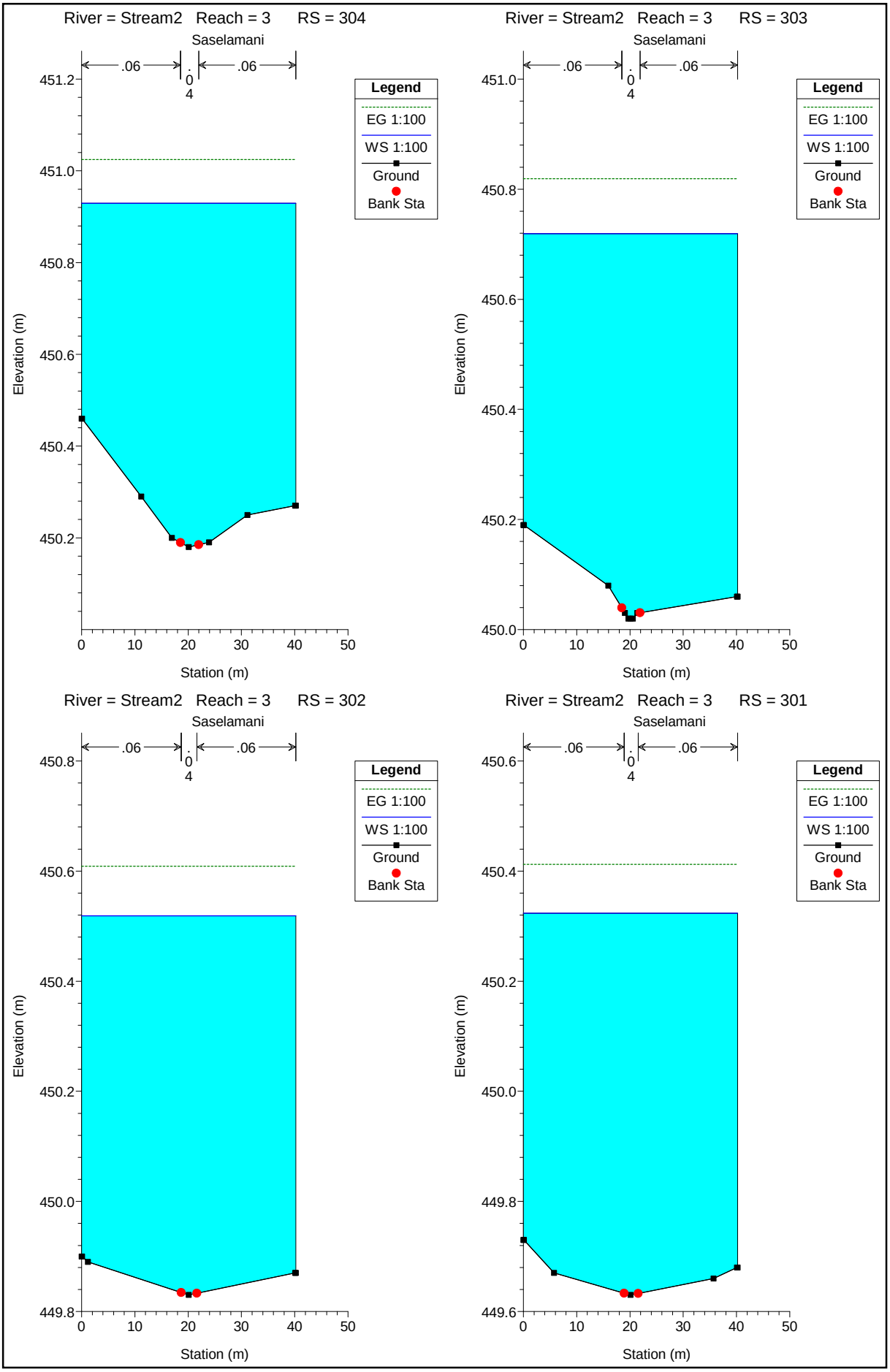

River = Stream2 Reach = 3 RS = 324
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 323
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 322
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 321
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)


River = Stream2 Reach = 3 RS = 320
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 319
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 318
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 317
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

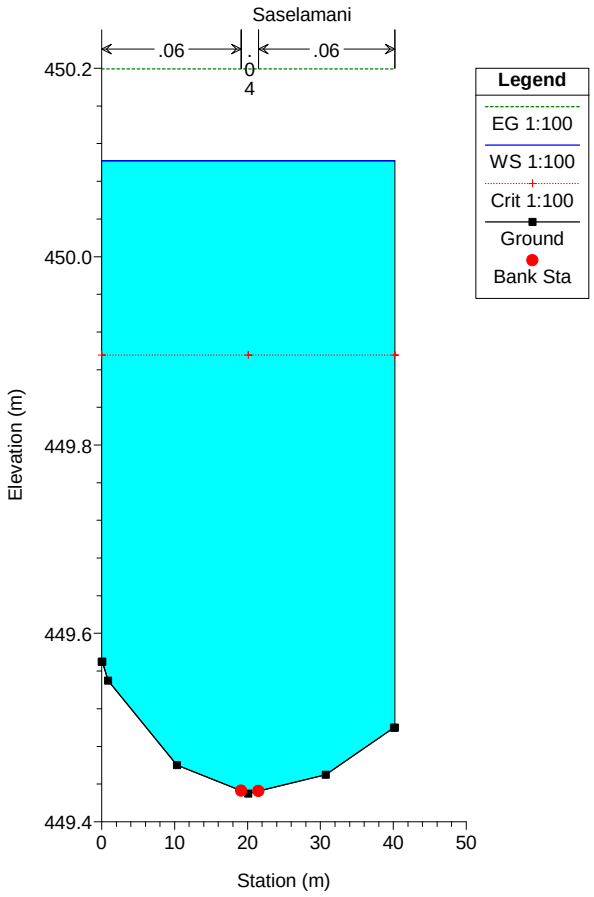

River = Stream2 Reach = 3 RS = 316
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 315
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 314
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 313
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

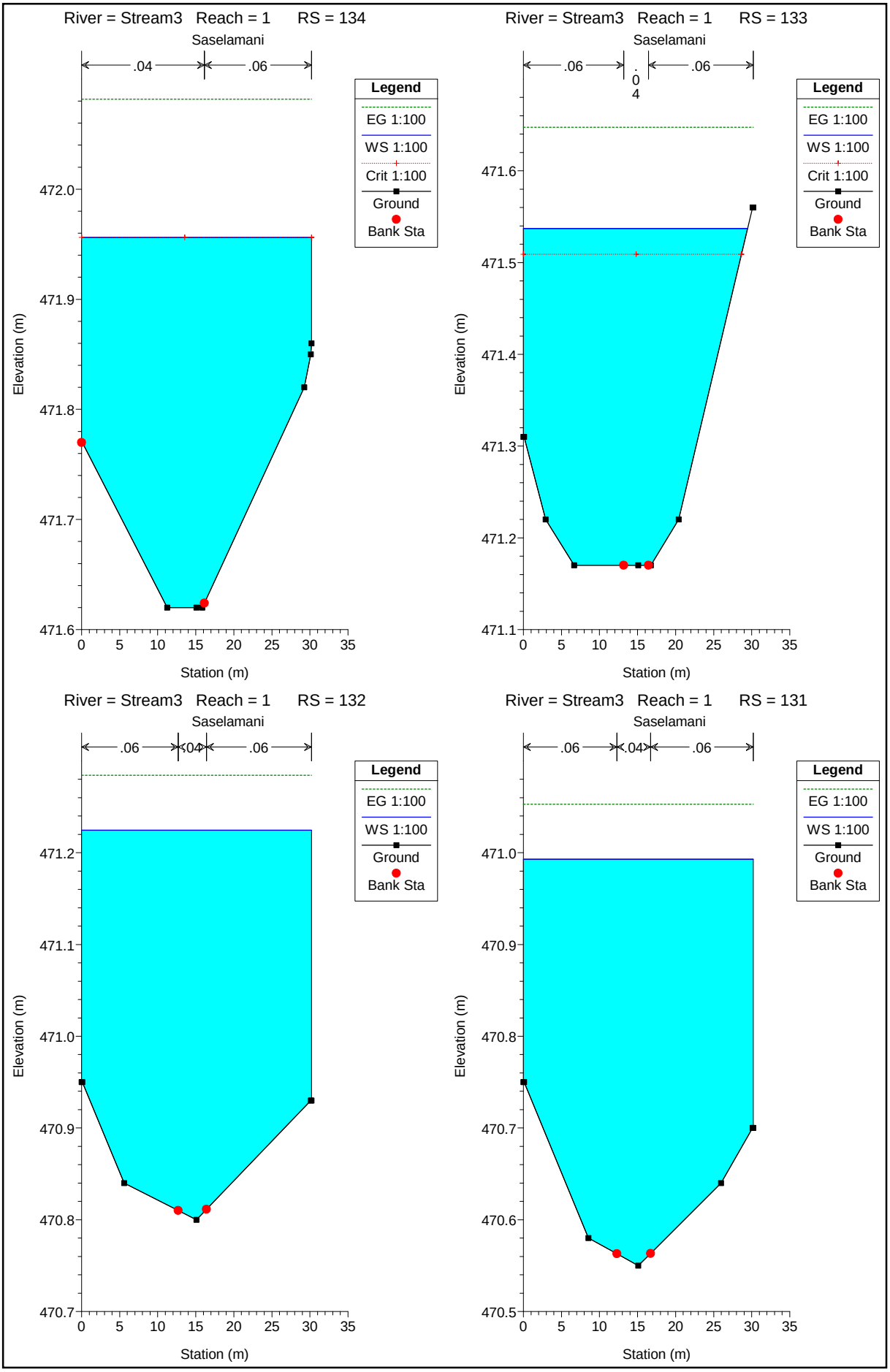

River = Stream2 Reach = 3 RS = 312
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
452.5
452.4
452.3
452.2
452.1
452.0
451.9
451.8
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 3 RS = 311
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
452.4
452.2
452.0
451.8
451.6
451.4
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 3 RS = 310
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
452.2
452.0
451.8
451.6
451.4
451.2
0
10
20
30
40
50
Station (m)
River = Stream2 Reach = 3 RS = 309
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
452.0
451.8
451.6
451.4
451.2
451.0
450.8
0
10
20
30
40
50
Station (m)

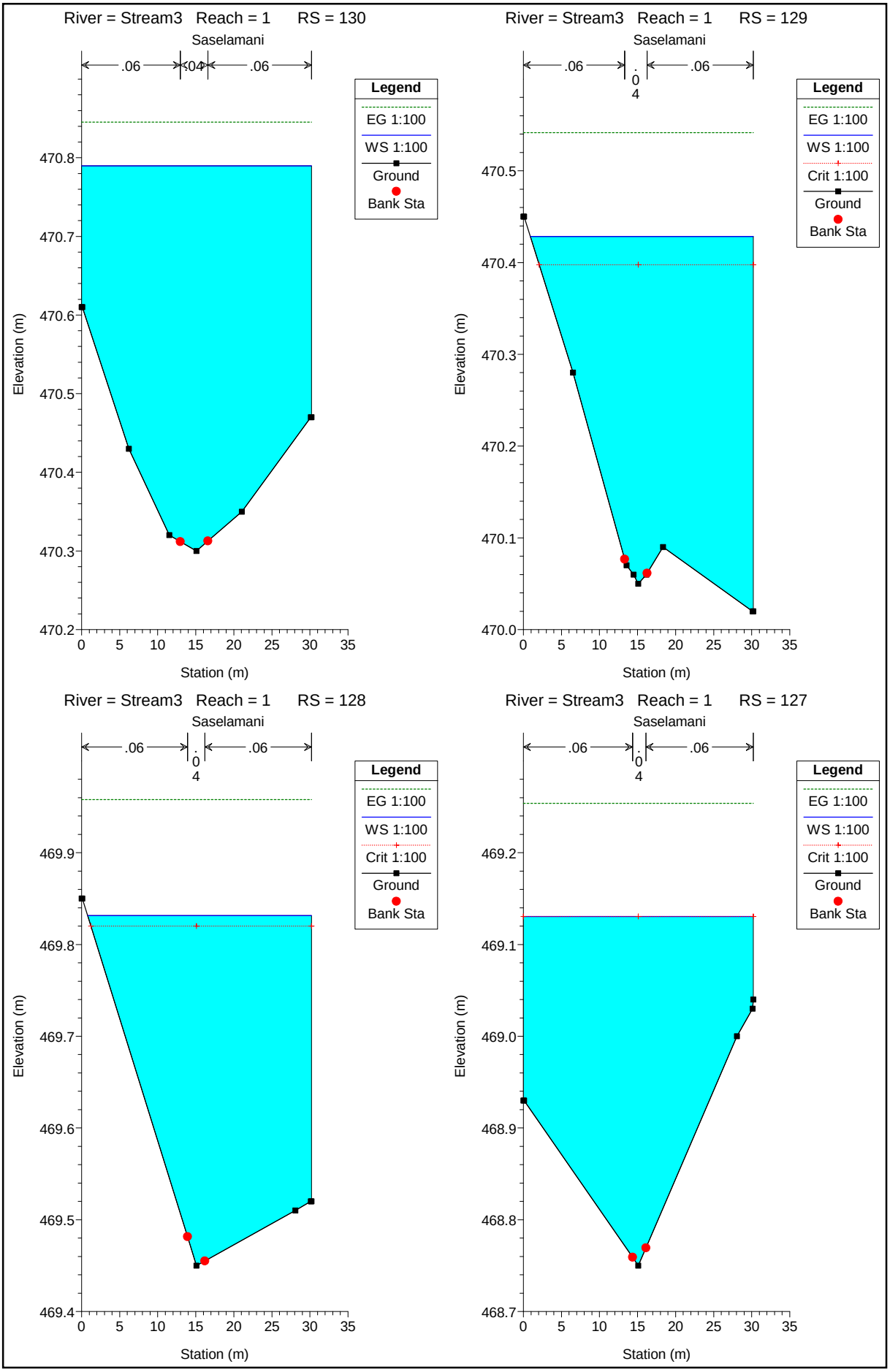

River = Stream2 Reach = 3 RS = 308
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 307
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 306
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 305
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

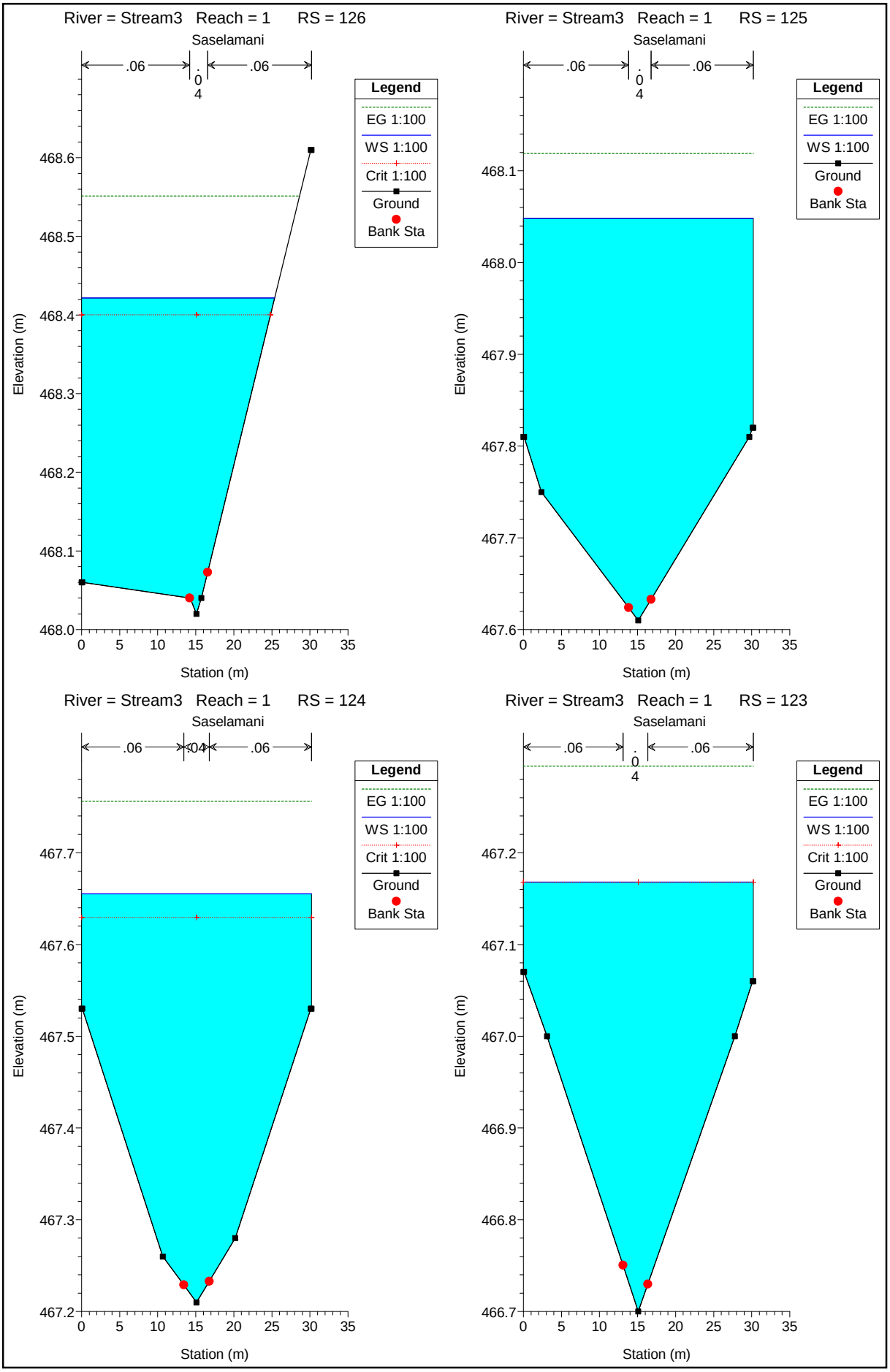

River = Stream2 Reach = 3 RS = 304
Saselamani
.06
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 303
Saselamani
.06
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 302
Saselamani
.06
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream2 Reach = 3 RS = 301
Saselamani
.06
.06
.04
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

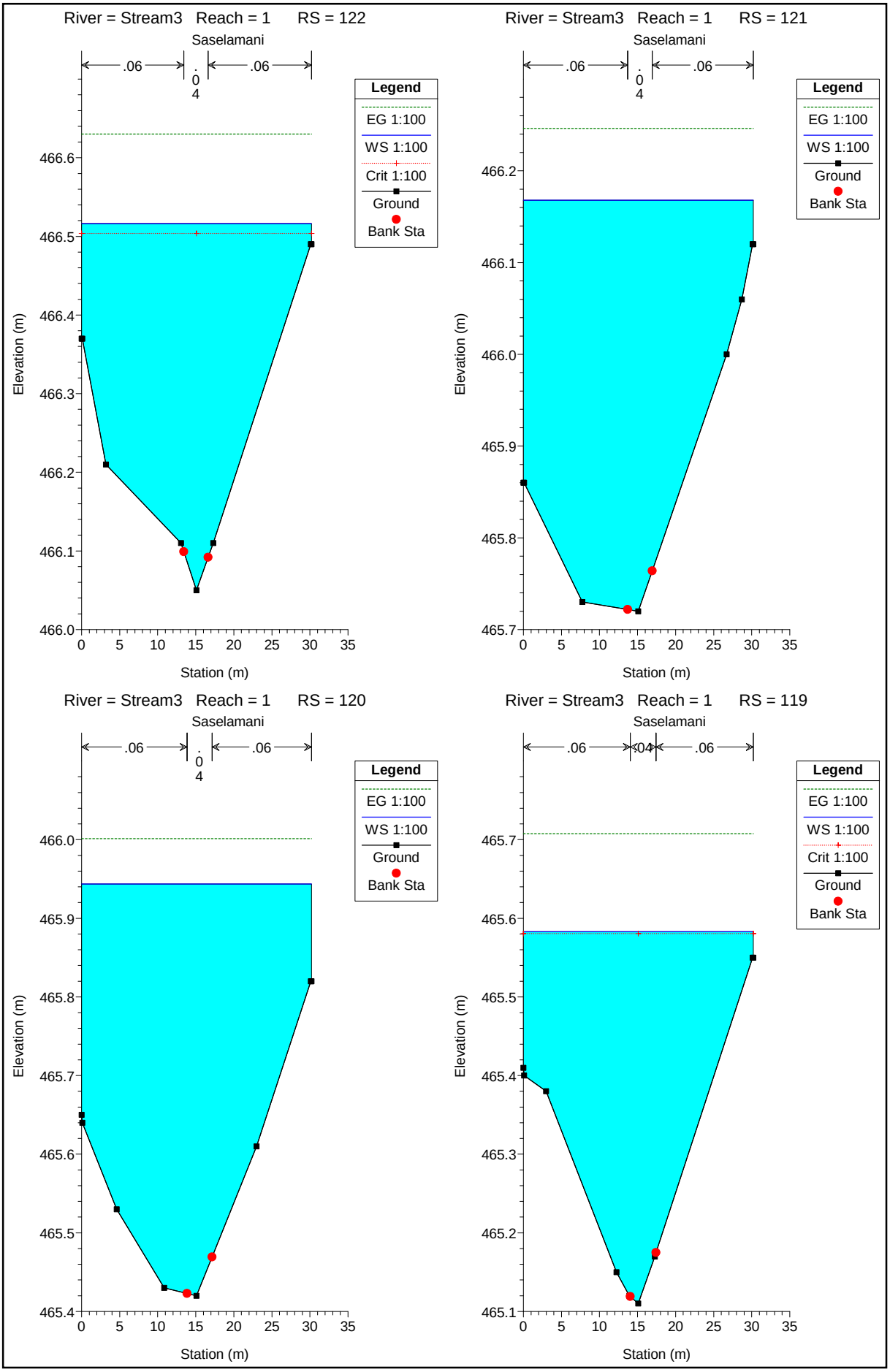
River = Stream2 Reach = 3 RS = 300

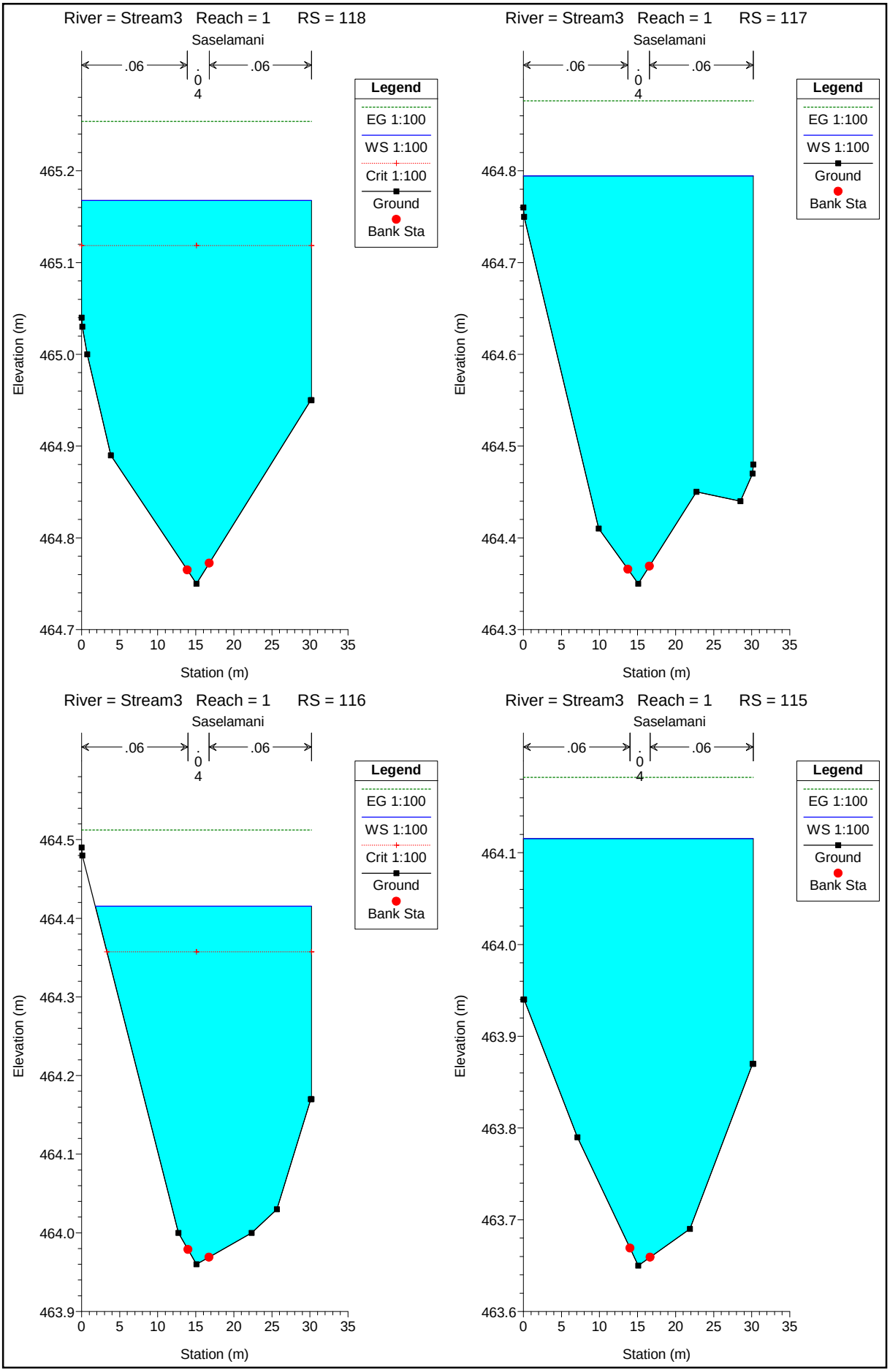


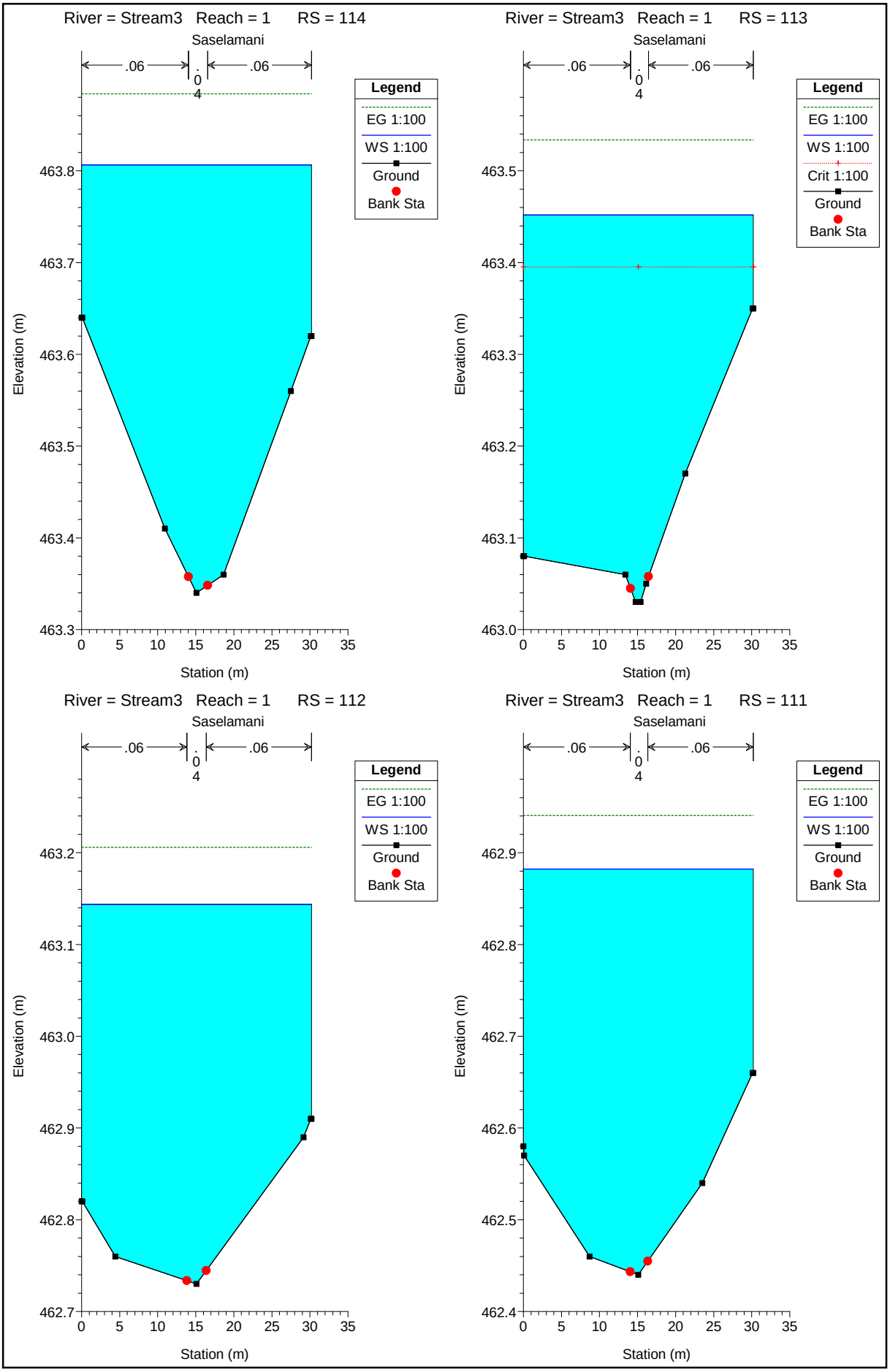

River = Stream3 Reach = 1 RS = 134
Saselamani
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 133
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 132
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 131
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

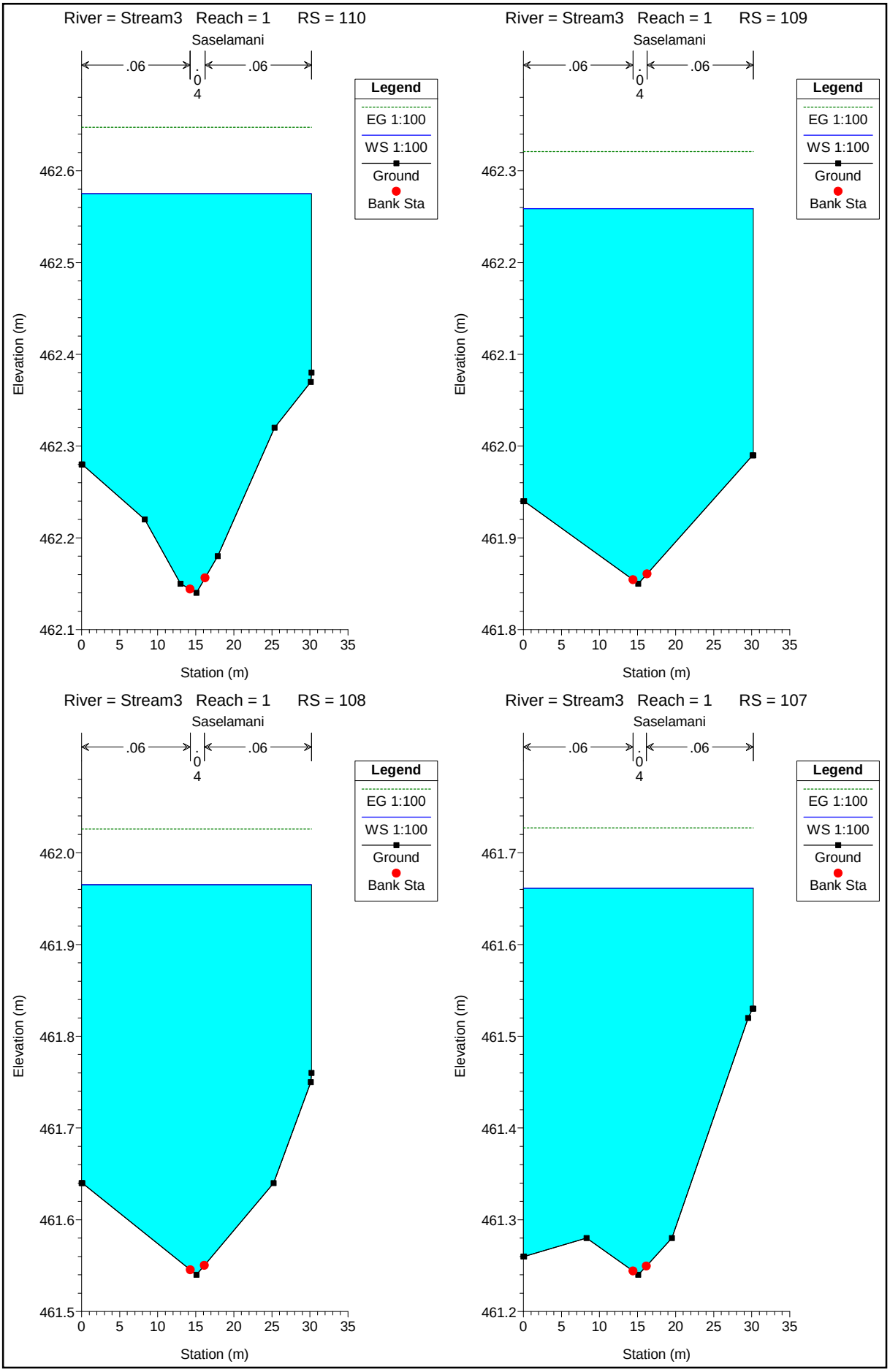

River = Stream3 Reach = 1 RS = 130
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 129
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 128
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 127
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

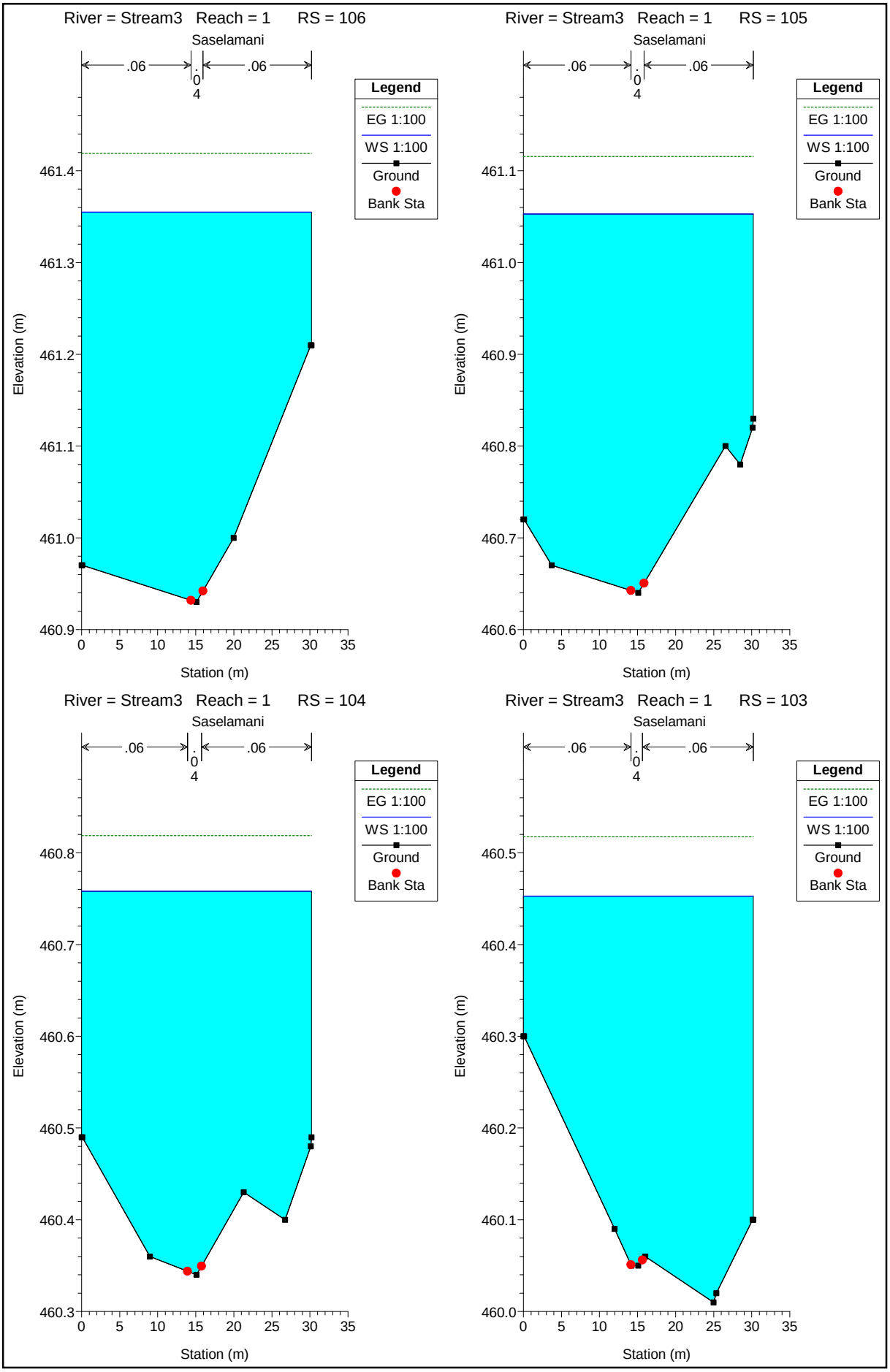

River = Stream3 Reach = 1 RS = 126
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 125
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 124
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 123
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

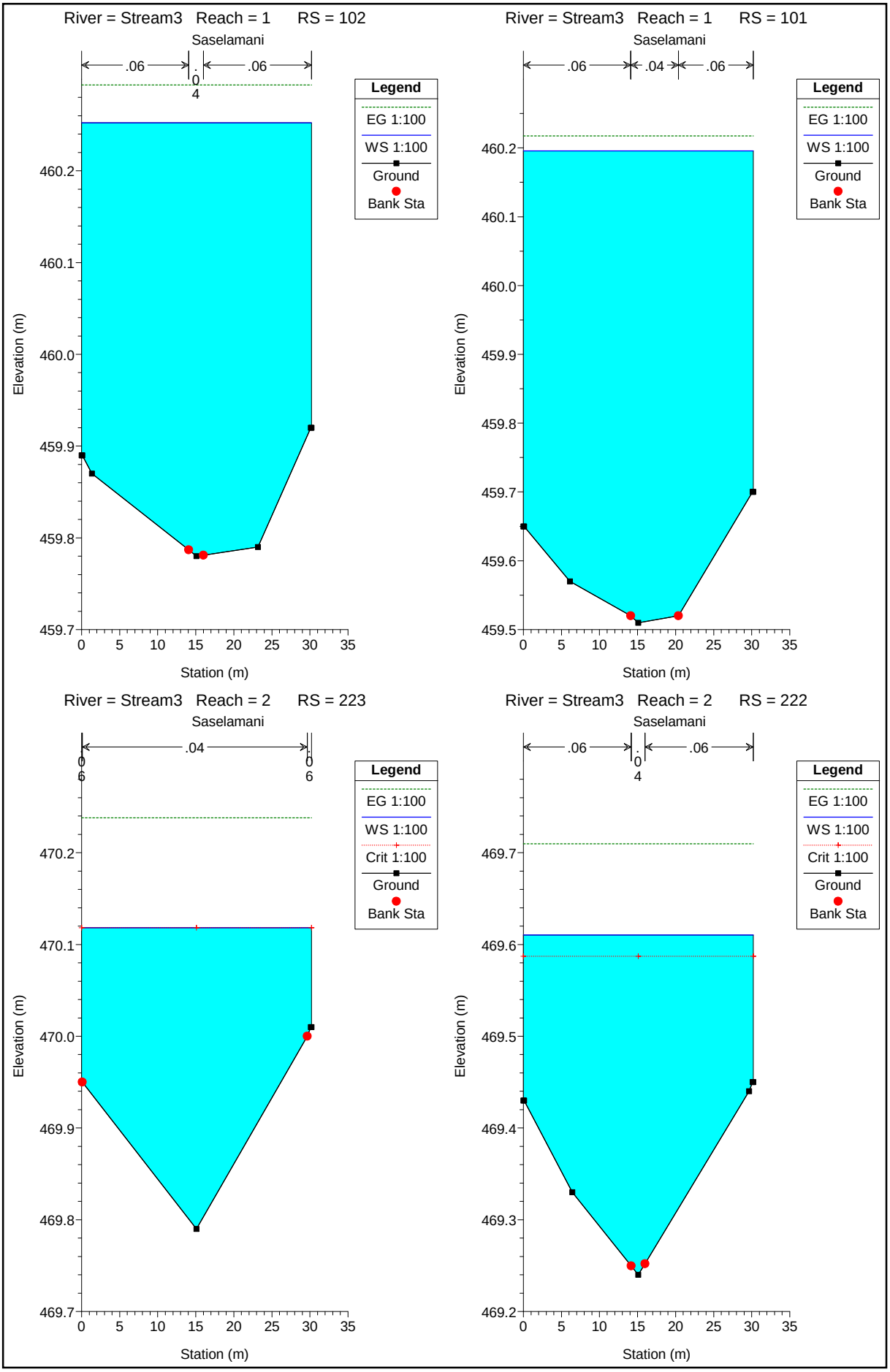

River = Stream3 Reach = 1 RS = 122
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 121
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 120
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 119
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

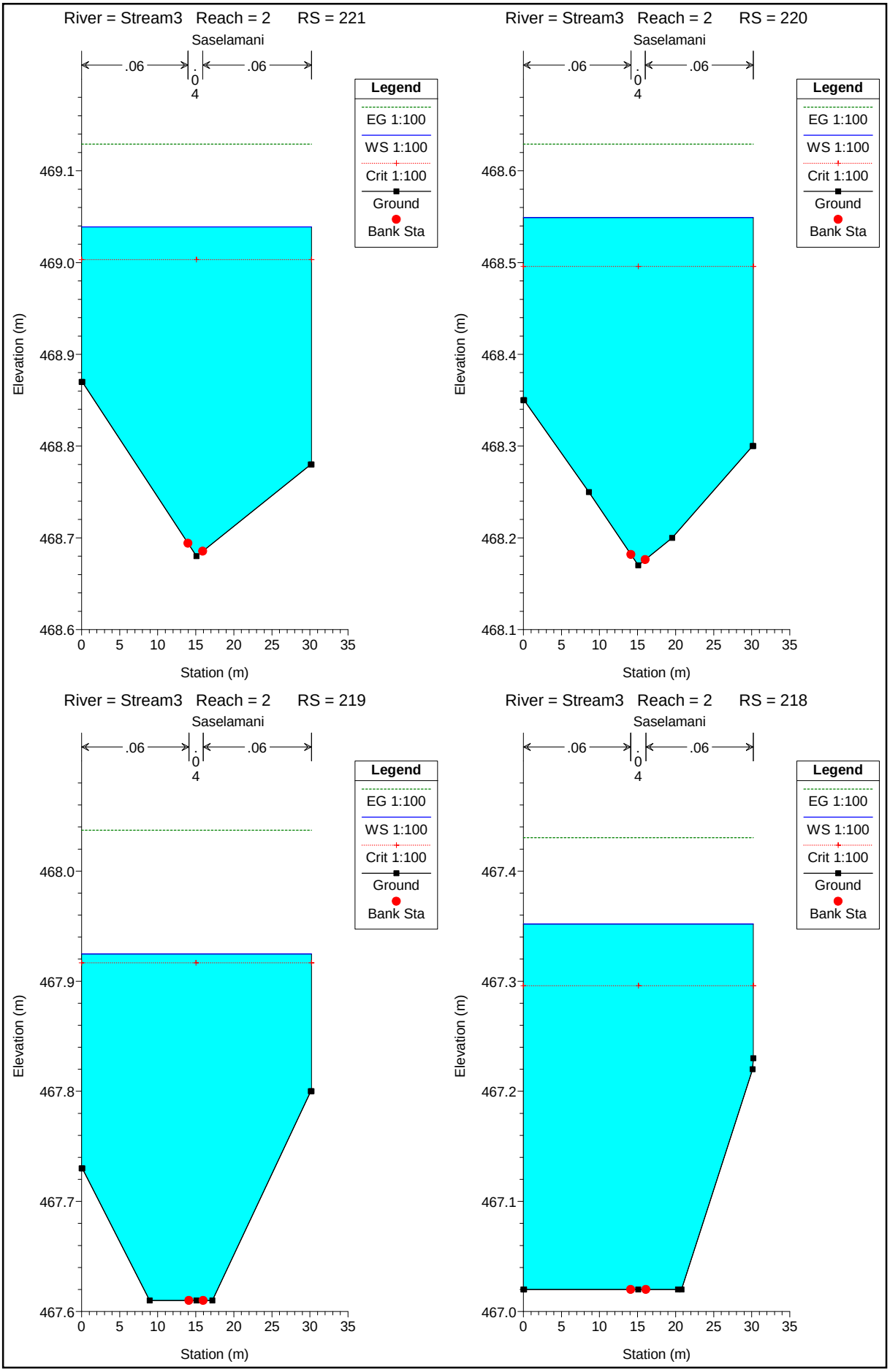

River = Stream3 Reach = 1 RS = 118
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 117
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 116
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 1 RS = 115
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

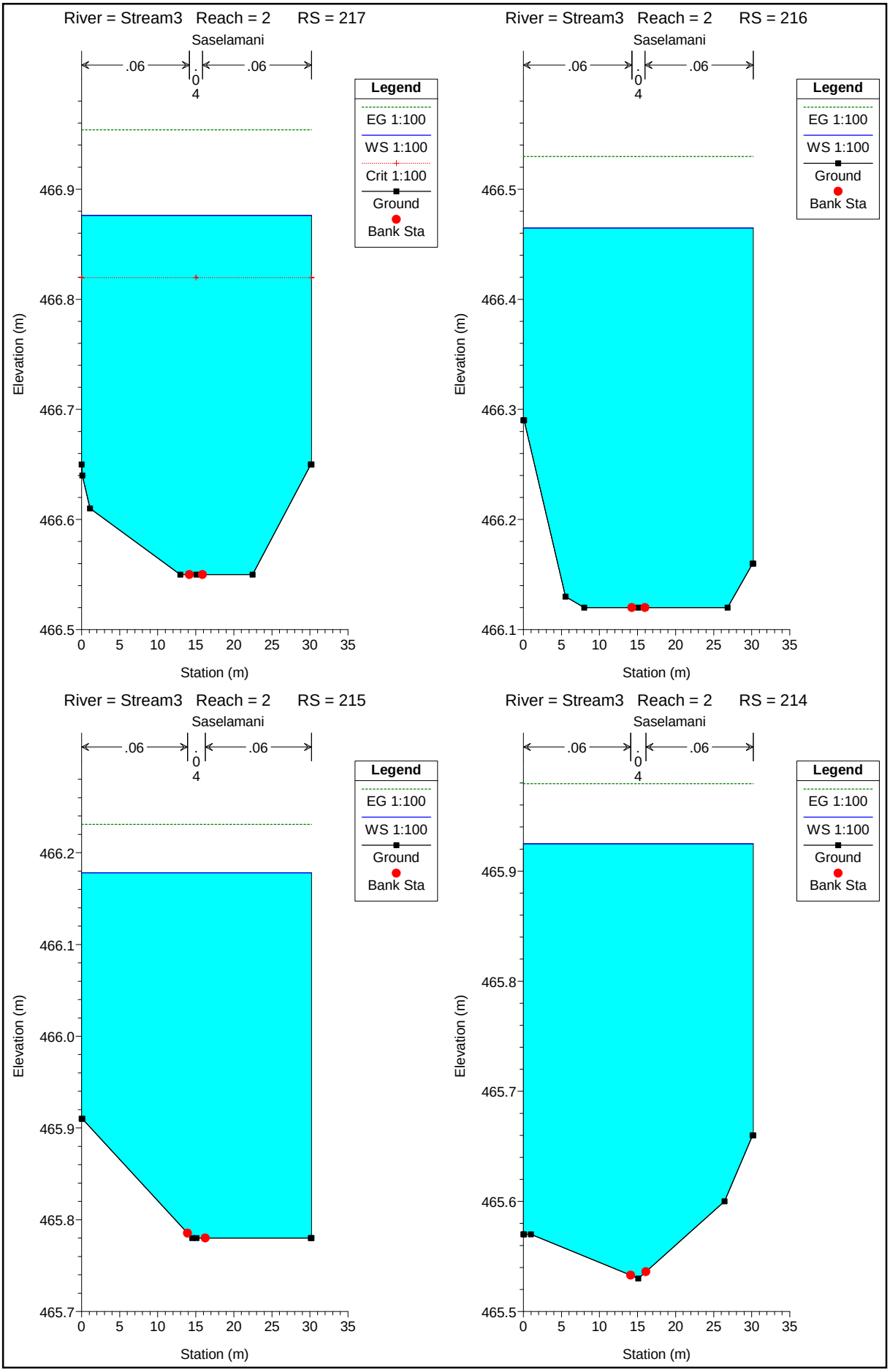

River = Stream3 Reach = 1 RS = 114
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
463.8
463.7
463.6
463.5
463.4
463.3
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 113
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
463.5
463.4
463.3
463.2
463.1
463.0
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 112
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
463.2
463.1
463.0
462.9
462.8
462.7
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 111
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
462.9
462.8
462.7
462.6
462.5
462.4
0 5 10 15 20 25 30 35
Station (m)

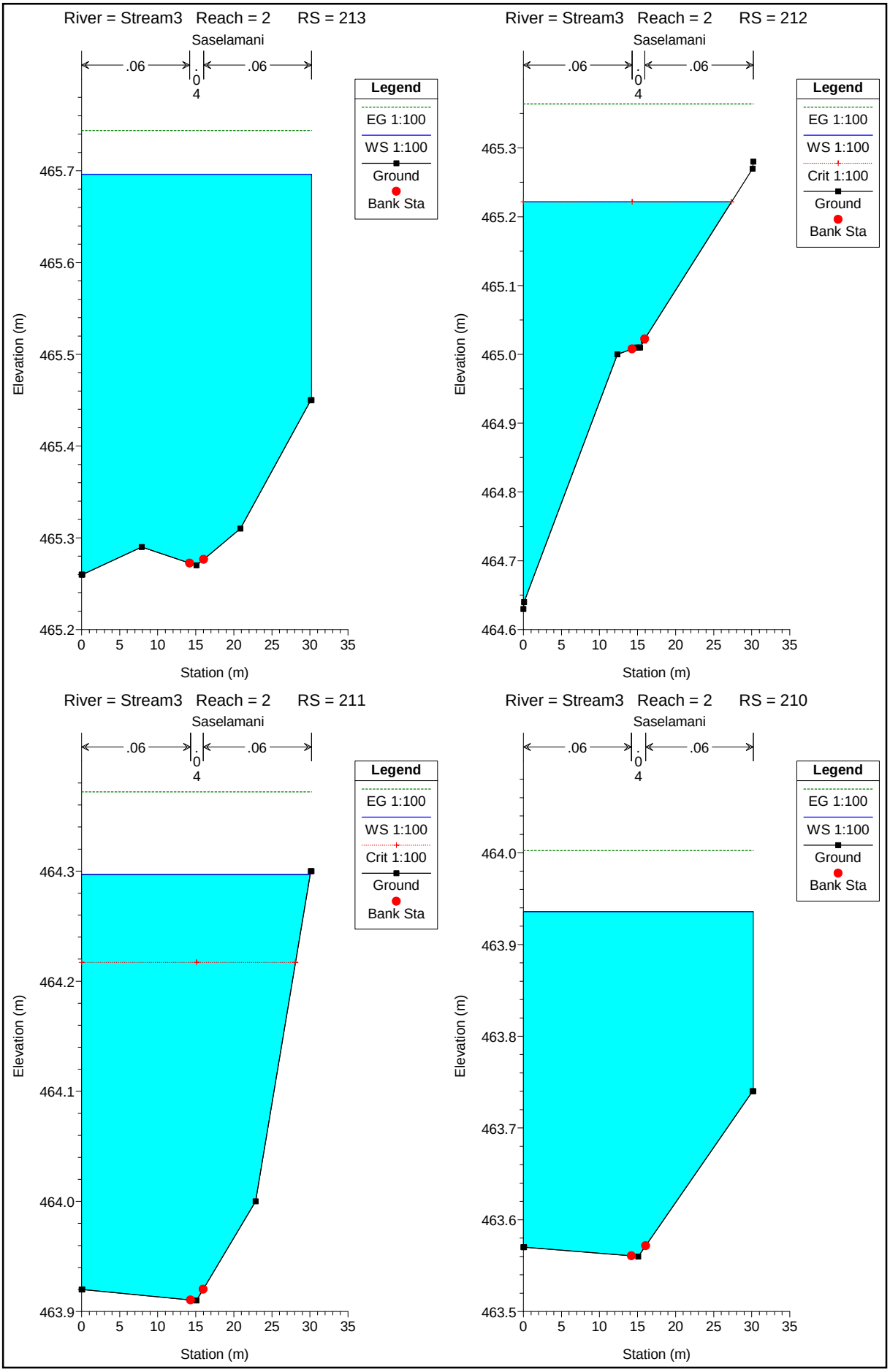

River = Stream3 Reach = 1 RS = 110
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
462.6
462.5
462.4
462.3
462.2
462.1
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 109
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
462.3
462.2
462.1
462.0
461.9
461.8
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 108
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
462.0
461.9
461.8
461.7
461.6
461.5
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 107
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
461.7
461.6
461.5
461.4
461.3
461.2
0 5 10 15 20 25 30 35
Station (m)

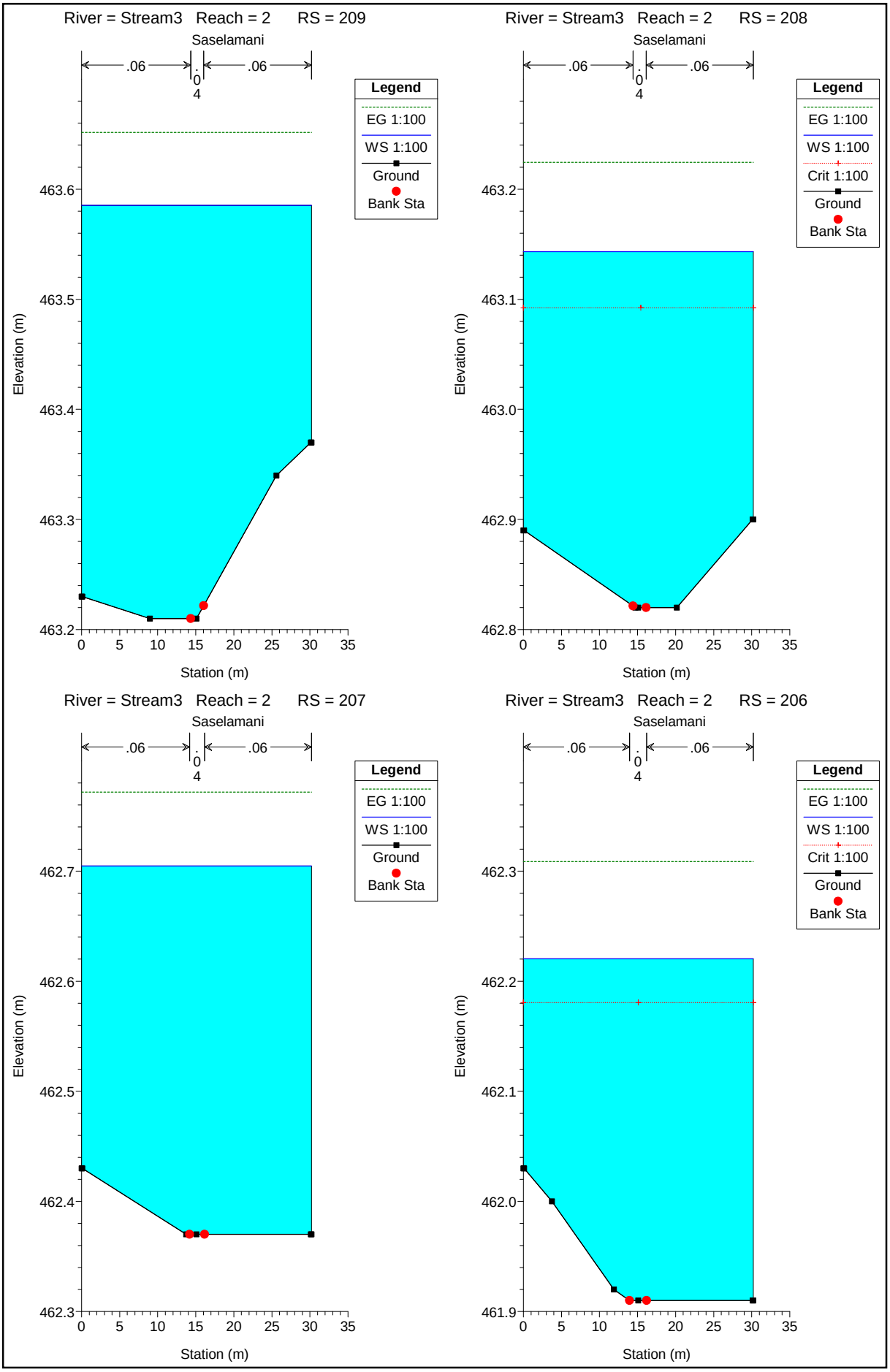

River = Stream3 Reach = 1 RS = 106
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
461.4
461.3
461.2
461.1
461.0
460.9
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 105
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
461.1
461.0
460.9
460.8
460.7
460.6
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 104
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.8
460.7
460.6
460.5
460.4
460.3
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 103
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.5
460.4
460.3
460.2
460.1
460.0
0 5 10 15 20 25 30 35
Station (m)

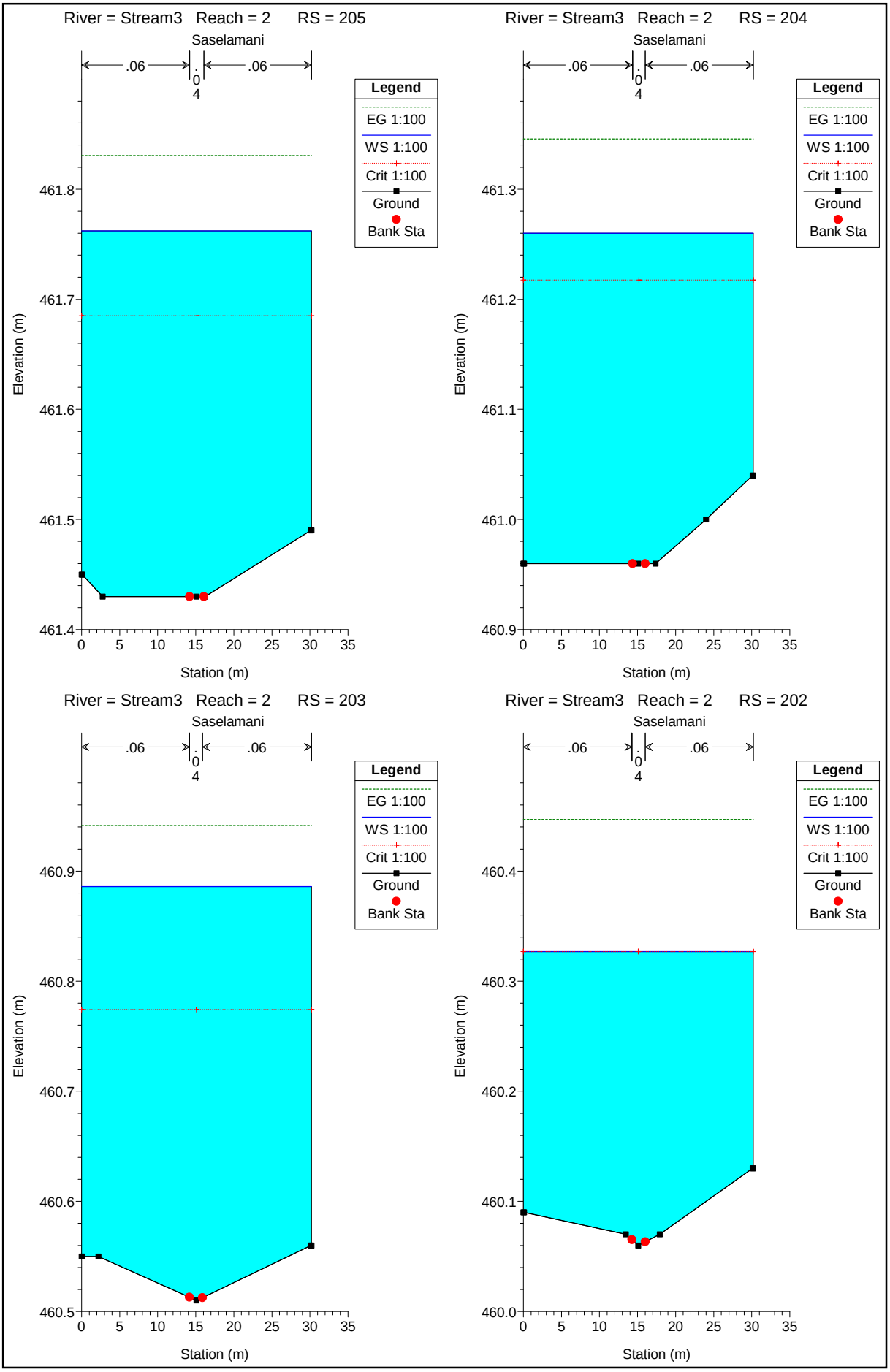

River = Stream3 Reach = 1 RS = 102
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.2
460.1
460.0
459.9
459.8
459.7
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 1 RS = 101
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.2
460.1
460.0
459.9
459.8
459.7
459.6
459.5
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 223
Saselamani
.04
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
470.2
470.1
470.0
469.9
469.8
469.7
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 222
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
469.7
469.6
469.5
469.4
469.3
469.2
0 5 10 15 20 25 30 35
Station (m)

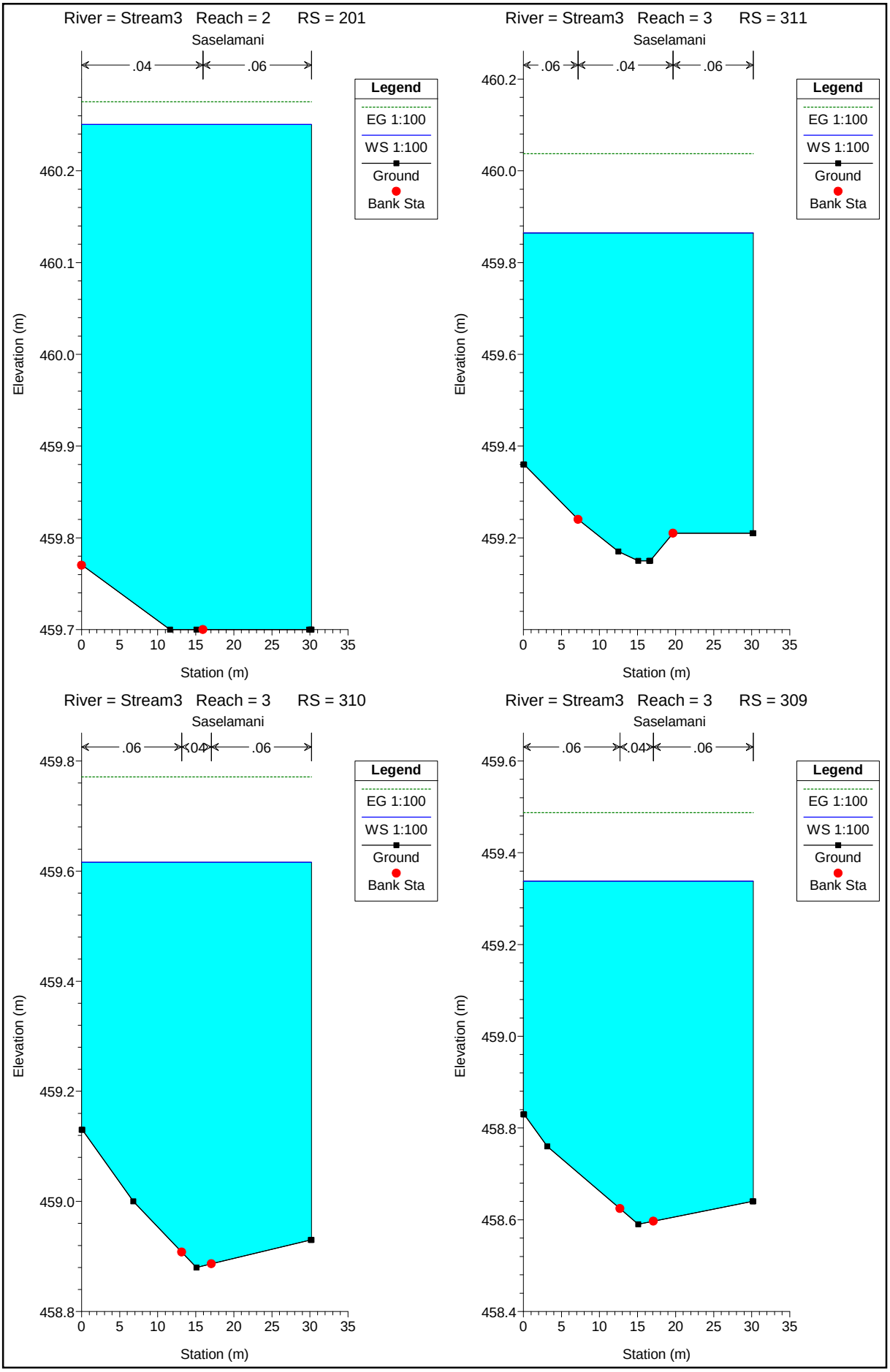

River = Stream3 Reach = 2 RS = 221
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
469.1
469.0
468.9
468.8
468.7
468.6
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 220
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
468.6
468.5
468.4
468.3
468.2
468.1
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 219
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
468.0
467.9
467.8
467.7
467.6
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 218
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
467.4
467.3
467.2
467.1
467.0
0 5 10 15 20 25 30 35
Station (m)

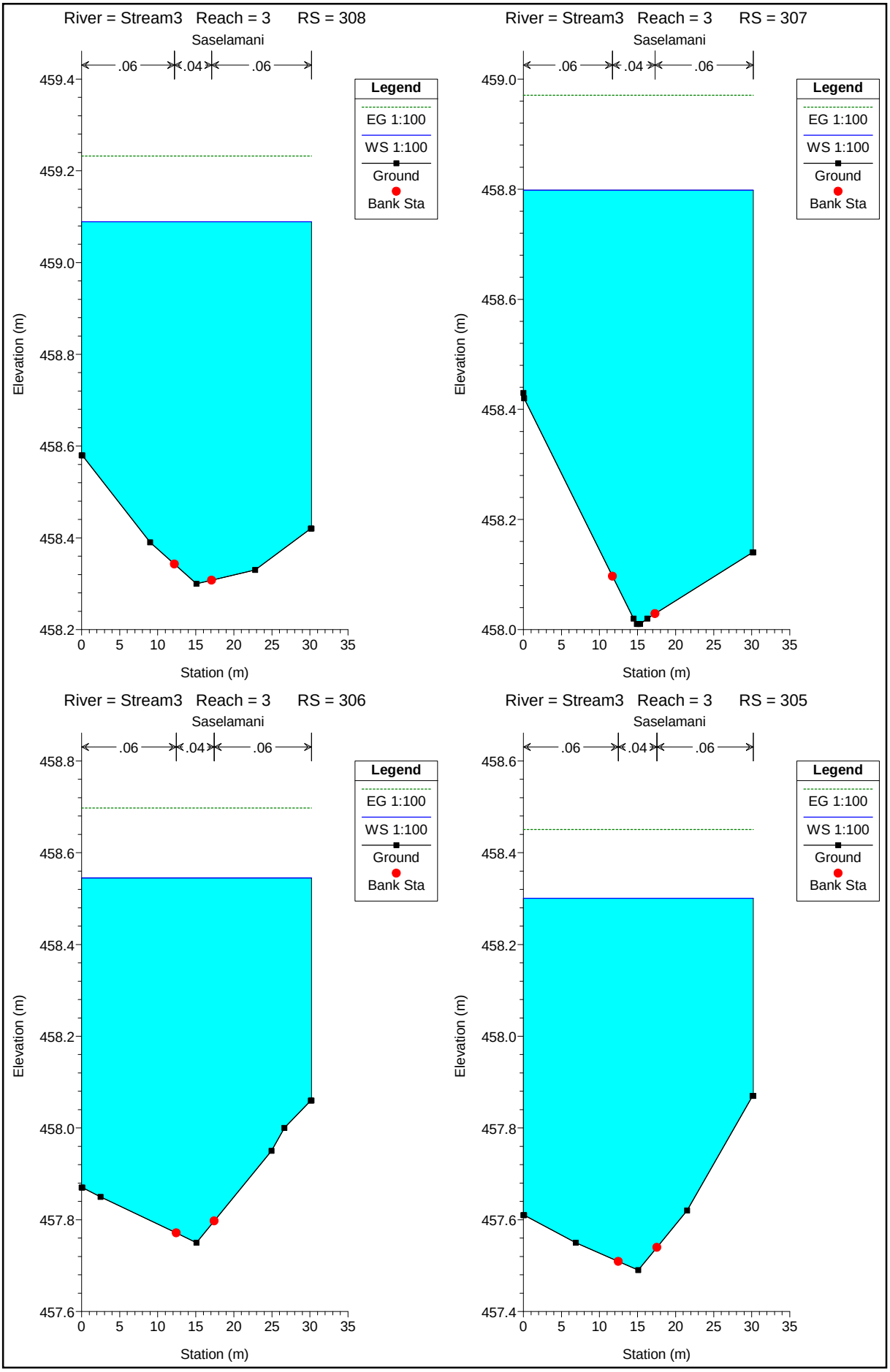

River = Stream3 Reach = 2 RS = 217
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
466.9
466.8
466.7
466.6
466.5
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 216
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
466.5
466.4
466.3
466.2
466.1
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 215
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
466.2
466.1
466.0
465.9
465.8
465.7
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 214
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
465.9
465.8
465.7
465.6
465.5
0 5 10 15 20 25 30 35
Station (m)

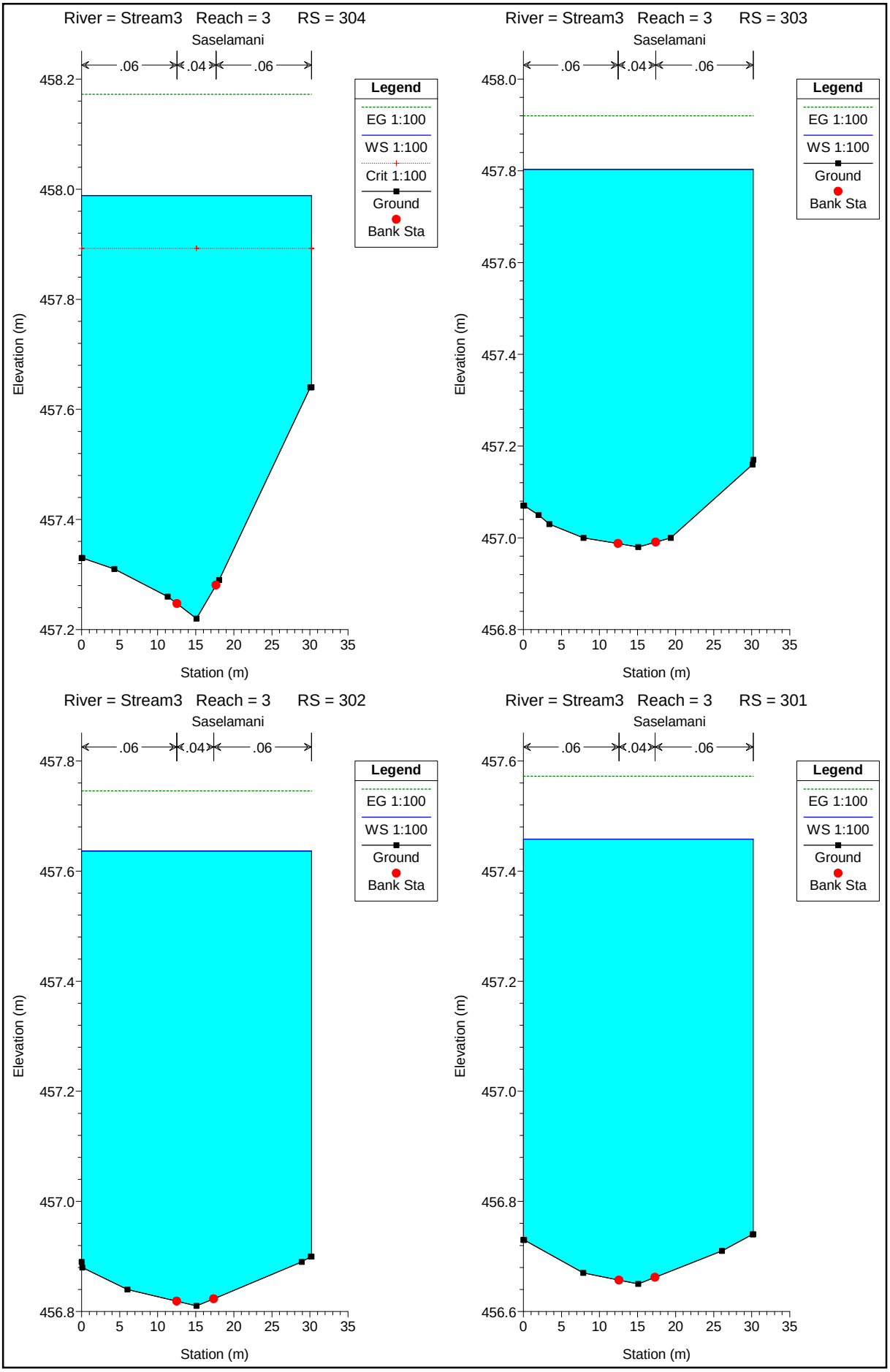

River = Stream3 Reach = 2 RS = 213
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 2 RS = 212
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 2 RS = 211
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 2 RS = 210
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)


River = Stream3 Reach = 2 RS = 209
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
463.6
463.5
463.4
463.3
463.2
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 208
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
463.2
463.1
463.0
462.9
462.8
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 207
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
462.7
462.6
462.5
462.4
462.3
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 206
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
462.3
462.2
462.1
462.0
461.9
0 5 10 15 20 25 30 35
Station (m)


River = Stream3 Reach = 2 RS = 205
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
461.8
461.7
461.6
461.5
461.4
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 204
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
461.3
461.2
461.1
461.0
460.9
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 203
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
460.9
460.8
460.7
460.6
460.5
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 2 RS = 202
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
460.4
460.3
460.2
460.1
460.0
0 5 10 15 20 25 30 35
Station (m)


River = Stream3 Reach = 2 RS = 201
Saselamani
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.2
460.1
460.0
459.9
459.8
459.7
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 3 RS = 311
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
460.2
460.0
459.8
459.6
459.4
459.2
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 3 RS = 310
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
459.8
459.6
459.4
459.2
459.0
458.8
0 5 10 15 20 25 30 35
Station (m)
River = Stream3 Reach = 3 RS = 309
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
459.6
459.4
459.2
459.0
458.8
458.6
458.4
0 5 10 15 20 25 30 35
Station (m)


River = Stream3 Reach = 3 RS = 308
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 3 RS = 307
Saselamani
River = Stream3 Reach = 3 RS = 306
Saselamani
River = Stream3 Reach = 3 RS = 305
Saselamani


River = Stream3 Reach = 3 RS = 304
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Crit 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 3 RS = 303
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 3 RS = 302
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)
River = Stream3 Reach = 3 RS = 301
Saselamani
.06
.04
.06
Legend
EG 1:100
WS 1:100
Ground
Bank Sta
Elevation (m)
Station (m)

River = Stream3 Reach = 3 RS = 300