



**STUDIO MACRI'  
TECNICI ASSOCIATI**

Progetti integrati  
d' Ingegneria  
ed Architettura



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# COMUNE DI CARDINALE

(PROVINCIA DI CATANZARO)

## PROGETTO ESECUTIVO

|               |                                                                 |                             |
|---------------|-----------------------------------------------------------------|-----------------------------|
| DATA:         | <b>A.T.P. (ASSOCIAZIONE TEMPORANEA TRA PROFESSIONISTI)</b>      |                             |
| DICEMBRE 2020 | <b>PROGETTISTI :</b>                                            | <b>DIREZIONE LAVORI:</b>    |
|               | <b>ING. DOMENICO MACRI' - CAPOGRUPPO MANDATARIO</b>             | <b>ING. DOMENICO MACRI'</b> |
|               | <b>ING. RENATO BARRA - MANDANTE</b>                             |                             |
|               |                                                                 |                             |
|               | <b>ARCH. MADDALENA TROMBY – MANDANTE GIOVANE PROFESSIONISTA</b> |                             |

|  |                                                                                                                                                       |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | TITOLO DEL PROGETTO:<br><br><b>INTERVENTI DI SISTEMAZIONE DELLE PENDICI SOVRASTANTI IL CENTRO STORICO DEL COMUNE DI CARDINALE – CODICE CZ042A/10.</b> |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                                                                    |    |
|----------------|------------------------------------------------------------------------------------|----|
| Prot. Dis.     | Modifiche:                                                                         | 1] |
|                | Sostituisce il N.                                                                  | 2] |
|                | Sostituito dal N.                                                                  | 3] |
| <b>ALL. N.</b> | Oggetto del Disegno:                                                               |    |
| <b>A1.3.a</b>  | <b>ALLEGATO A: TABULATI DELLE VERIFICHE IN MOTO PERMANENTE ESEGUITE IN HEC RAS</b> |    |

|        |                                                                                                                                              |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| SCALA: | ENTE APPALTANTE:                                                                                                                             |
|        | AMMINISTRAZIONE COMUNALE DI CARDINALE.                                                                                                       |
|        | RESPONSABILE UTC – ING. S. LUPICA e-mail: <a href="mailto:ufficio.tecnico@comune.cardinale.cz.it">ufficio.tecnico@comune.cardinale.cz.it</a> |

A TERMINI DI LEGGE – ART. 2578 DEL C.C. CI RISERVIAMO L'ESCLUSIVA PROPRIETA' DI QUESTO ELABORATO TECNICO, CON DIVIETO DI COPIARLO O RIPRODURLO SENZA IL NOSTRO CONSENSO SCRITTO

ALLEGATO 1: SIMULAZIONE HEC RAS – STATO DI FATTO CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO LIBERO

ALLEGATO 2: SIMULAZIONE HEC RAS – STATO DI FATTO CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO RIGURGITATO

ALLEGATO 3: SIMULAZIONE HEC RAS – STATO DI PROGETTO CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO LIBERO

ALLEGATO 4: SIMULAZIONE HEC RAS – STATO DI PROGETTO CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO RIGURGITATO

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**ALLEGATO 1: SIMULAZIONE HEC RAS – STATO DI FATTO CANALI  
A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO LIBERO**

HEC-RAS Plan: Attuale Profile: PF 1

| River    | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|----------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Marchese | 1     | 33        | PF 1    | 2.55              | 687.00           | 687.19           | 687.51           | 689.72           | 1.000164            | 7.04              | 0.36              | 2.34             | 5.71         |
| Marchese | 1     | 32        | PF 1    | 2.55              | 683.00           | 683.20           | 683.52           | 685.70           | 1.003083            | 6.99              | 0.36              | 2.39             | 5.72         |
| Marchese | 1     | 31        | PF 1    | 2.55              | 681.00           | 681.39           | 681.70           | 683.10           | 0.464101            | 5.80              | 0.44              | 2.05             | 4.00         |
| Marchese | 1     | 30        | PF 1    | 2.55              | 676.00           | 676.24           | 676.53           | 677.71           | 0.414013            | 5.38              | 0.47              | 2.28             | 3.76         |
| Marchese | 1     | 29        | PF 1    | 2.55              | 674.00           | 674.40           | 674.73           | 676.47           | 0.606523            | 6.37              | 0.40              | 1.98             | 4.52         |
| Marchese | 1     | 28        | PF 1    | 2.55              | 670.00           | 670.31           | 670.53           | 671.28           | 0.323419            | 4.36              | 0.58              | 3.37             | 3.35         |
| Marchese | 1     | 27        | PF 1    | 2.55              | 667.00           | 667.37           | 667.68           | 668.93           | 0.375186            | 5.54              | 0.46              | 1.93             | 3.62         |
| Marchese | 1     | 26        | PF 1    | 2.55              | 663.50           | 663.80           | 664.12           | 665.43           | 0.407425            | 5.65              | 0.45              | 1.95             | 3.75         |
| Marchese | 1     | 25        | PF 1    | 2.55              | 660.00           | 660.40           | 660.76           | 662.36           | 0.485041            | 6.19              | 0.41              | 1.70             | 4.02         |
| Marchese | 1     | 24        | PF 1    | 2.55              | 658.00           | 658.30           | 658.59           | 659.65           | 0.340696            | 5.14              | 0.50              | 2.20             | 3.46         |
| Marchese | 1     | 23        | PF 1    | 2.55              | 655.50           | 655.65           | 655.87           | 656.80           | 0.503966            | 4.75              | 0.54              | 3.76             | 4.02         |
| Marchese | 1     | 22        | PF 1    | 2.55              | 654.00           | 654.16           | 654.44           | 655.86           | 0.699040            | 5.78              | 0.44              | 2.91             | 4.74         |
| Marchese | 1     | 21        | PF 1    | 2.55              | 651.00           | 651.27           | 651.57           | 653.05           | 0.536636            | 5.90              | 0.43              | 2.25             | 4.30         |
| Marchese | 1     | 20        | PF 1    | 2.55              | 648.50           | 648.89           | 649.28           | 651.01           | 0.495817            | 6.45              | 0.40              | 1.50             | 4.01         |
| Marchese | 1     | 19        | PF 1    | 2.55              | 646.00           | 646.41           | 646.84           | 648.86           | 0.572333            | 6.93              | 0.37              | 1.34             | 4.22         |
| Marchese | 1     | 18        | PF 1    | 2.55              | 645.00           | 645.14           | 645.36           | 646.37           | 0.572107            | 4.91              | 0.52              | 3.80             | 4.24         |
| Marchese | 1     | 17        | PF 1    | 2.55              | 642.00           | 642.37           | 642.60           | 643.47           | 0.338842            | 4.64              | 0.55              | 2.95             | 3.43         |
| Marchese | 1     | 16        | PF 1    | 2.55              | 640.00           | 640.26           | 640.55           | 641.89           | 0.495364            | 5.67              | 0.45              | 2.35             | 4.14         |
| Marchese | 1     | 15        | PF 1    | 2.55              | 638.00           | 638.31           | 638.60           | 640.04           | 0.533064            | 5.83              | 0.44              | 2.31             | 4.28         |
| Marchese | 1     | 14        | PF 1    | 2.55              | 636.50           | 636.67           | 636.94           | 638.27           | 0.615630            | 5.61              | 0.45              | 2.85             | 4.48         |
| Marchese | 1     | 13        | PF 1    | 2.55              | 633.00           | 633.49           | 633.79           | 634.81           | 0.306726            | 5.10              | 0.50              | 2.01             | 3.26         |
| Marchese | 1     | 12        | PF 1    | 2.55              | 631.00           | 631.20           | 631.44           | 632.30           | 0.357414            | 4.63              | 0.55              | 3.06             | 3.49         |
| Marchese | 1     | 11        | PF 1    | 2.55              | 627.00           | 627.38           | 627.72           | 629.14           | 0.419828            | 5.87              | 0.43              | 1.78             | 3.80         |
| Marchese | 2     | 39        | PF 1    | 2.34              | 682.00           | 682.20           | 682.41           | 683.16           | 0.324634            | 4.33              | 0.54              | 3.13             | 3.33         |
| Marchese | 2     | 38        | PF 1    | 2.34              | 679.50           | 679.64           | 679.81           | 680.41           | 0.374569            | 3.89              | 0.60              | 4.64             | 3.45         |
| Marchese | 2     | 37        | PF 1    | 2.34              | 677.00           | 677.13           | 677.23           | 677.48           | 0.188294            | 2.64              | 0.89              | 7.37             | 2.43         |
| Marchese | 2     | 36        | PF 1    | 2.34              | 675.00           | 675.23           | 675.40           | 675.85           | 0.218661            | 3.48              | 0.67              | 4.10             | 2.74         |
| Marchese | 2     | 35        | PF 1    | 2.34              | 672.00           | 672.47           | 672.79           | 673.88           | 0.308489            | 5.26              | 0.44              | 1.60             | 3.19         |
| Marchese | 2     | 34        | PF 1    | 2.34              | 667.00           | 667.20           | 667.41           | 668.13           | 0.312733            | 4.27              | 0.55              | 3.14             | 3.26         |
| Marchese | 2     | 33        | PF 1    | 2.34              | 660.50           | 660.65           | 660.84           | 661.59           | 0.423637            | 4.30              | 0.54              | 3.90             | 3.67         |
| Marchese | 2     | 32        | PF 1    | 2.34              | 657.00           | 657.21           | 657.46           | 658.50           | 0.448168            | 5.03              | 0.47              | 2.75             | 3.90         |
| Marchese | 2     | 31        | PF 1    | 2.34              | 653.00           | 653.41           | 653.69           | 654.90           | 0.415546            | 5.42              | 0.43              | 2.05             | 3.77         |
| Marchese | 2     | 30        | PF 1    | 2.34              | 650.00           | 650.30           | 650.58           | 651.81           | 0.444230            | 5.45              | 0.43              | 2.18             | 3.92         |
| Marchese | 2     | 29        | PF 1    | 2.34              | 646.00           | 646.30           | 646.61           | 648.05           | 0.502843            | 5.86              | 0.40              | 1.96             | 4.14         |
| Marchese | 2     | 28        | PF 1    | 2.34              | 642.00           | 642.15           | 642.38           | 643.57           | 0.692308            | 5.27              | 0.44              | 3.44             | 4.68         |
| Marchese | 2     | 27        | PF 1    | 2.34              | 640.50           | 640.73           | 640.84           | 641.06           | 0.108092            | 2.54              | 0.92              | 5.33             | 1.95         |
| Marchese | 2     | 26        | PF 1    | 2.34              | 638.00           | 638.31           | 638.52           | 639.29           | 0.367250            | 4.39              | 0.53              | 3.37             | 3.52         |
| Marchese | 2     | 25        | PF 1    | 2.34              | 636.50           | 636.68           | 636.86           | 637.42           | 0.276013            | 3.82              | 0.61              | 3.83             | 3.05         |

HEC-RAS Plan: Attuale Profile: PF 1 (Continued)

| River    | 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)       |              |
| Marchese | 2     | 24        | PF 1    | 2.34       | 633.50    | 633.62    | 633.80    | 634.52    | 0.498042   | 4.18     | 0.56      | 4.79      | 3.91         |
| Marchese | 2     | 23        | PF 1    | 2.34       | 630.50    | 630.65    | 630.78    | 631.17    | 0.236856   | 3.19     | 0.73      | 5.43      | 2.77         |
| Marchese | 2     | 22        | PF 1    | 2.34       | 627.00    | 627.20    | 627.42    | 628.15    | 0.336678   | 4.31     | 0.54      | 3.27      | 3.38         |
| Marchese | 2     | 21        | PF 1    | 2.34       | 625.00    | 625.17    | 625.39    | 626.35    | 0.514662   | 4.82     | 0.49      | 3.40      | 4.08         |
| Marchese | 3     | 10        | PF 1    | 7.40       | 622.00    | 622.40    | 622.83    | 624.39    | 0.292445   | 6.25     | 1.18      | 3.43      | 3.40         |
| Marchese | 3     | 9         | PF 1    | 7.40       | 618.50    | 618.96    | 619.47    | 621.76    | 0.432775   | 7.41     | 1.00      | 3.09      | 4.16         |
| Marchese | 3     | 8         | PF 1    | 7.40       | 615.00    | 615.46    | 615.96    | 617.67    | 0.286467   | 6.59     | 1.12      | 2.79      | 3.31         |
| Marchese | 3     | 7         | PF 1    | 7.40       | 607.00    | 607.58    | 607.58    | 607.84    | 0.021811   | 2.23     | 3.32      | 6.64      | 1.01         |
| Marchese | 3     | 6         | PF 1    | 7.40       | 603.50    | 603.68    | 604.05    | 606.69    | 1.081703   | 7.69     | 0.96      | 5.92      | 6.09         |
| Marchese | 3     | 5         | PF 1    | 7.40       | 600.00    | 600.34    | 600.78    | 602.79    | 0.438776   | 6.94     | 1.07      | 3.73      | 4.15         |
| Marchese | 3     | 4         | PF 1    | 7.40       | 596.50    | 597.01    | 597.48    | 599.23    | 0.301048   | 6.61     | 1.12      | 3.08      | 3.50         |
| Marchese | 3     | 3         | PF 1    | 7.40       | 595.50    | 595.91    | 596.26    | 597.59    | 0.302252   | 5.75     | 1.29      | 4.64      | 3.48         |
| Marchese | 3     | 2         | PF 1    | 7.40       | 591.50    | 591.86    | 592.32    | 594.72    | 0.535227   | 7.49     | 0.99      | 3.57      | 4.55         |
| Marchese | 3     | 1         | PF 1    | 7.40       | 590.60    | 592.61    | 591.06    | 592.62    | 0.000123   | 0.42     | 18.76     | 11.59     | 0.10         |
| Marchese | 3     | 0.9       | PF 1    | 7.40       | 589.87    | 591.65    | 591.64    | 592.53    | 0.002053   | 4.16     | 1.78      | 5.11      | 1.00         |
| Marchese | 3     | 0.8       | PF 1    | 7.40       | 589.87    | 591.64    | 591.64    | 592.53    | 0.002072   | 4.17     | 1.77      | 5.11      | 1.00         |
| Marchese | 3     | 0.7       | PF 1    | 7.40       | 586.48    | 586.64    | 587.12    | 592.07    | 0.347428   | 10.32    | 0.72      | 4.56      | 8.32         |
| Marchese | 3     | 0.6       | PF 1    | 7.40       | 586.48    | 586.68    | 587.12    | 590.08    | 0.164429   | 8.17     | 0.91      | 4.61      | 5.89         |
| Marchese | 3     | 0.5       | PF 1    | 7.40       | 584.48    | 587.91    | 585.20    | 587.92    | 0.000038   | 0.49     | 15.19     | 5.07      | 0.09         |
| Marchese | 3     | 0.4       | PF 1    | 7.40       | 584.48    | 587.91    | 586.25    | 587.92    | 0.000030   | 0.47     | 16.15     | 6.20      | 0.09         |
| Marchese | 3     | 0.35      |         | Inl Struct |           |           |           |           |            |          |           |           |              |
| Marchese | 3     | 0.3       | PF 1    | 7.40       | 584.30    | 585.00    | 585.00    | 585.29    | 0.003231   | 2.38     | 3.11      | 6.20      | 0.97         |
| Giacco   | 1     | 16        | PF 1    | 9.64       | 592.00    | 592.71    | 593.22    | 594.70    | 0.190292   | 6.25     | 1.54      | 2.93      | 2.75         |
| Giacco   | 1     | 15        | PF 1    | 9.64       | 590.00    | 590.55    | 591.03    | 592.56    | 0.217406   | 6.28     | 1.53      | 3.43      | 3.00         |
| Giacco   | 1     | 14        | PF 1    | 9.64       | 588.00    | 588.41    | 588.82    | 590.27    | 0.271506   | 6.05     | 1.59      | 4.88      | 3.38         |
| Giacco   | 1     | 13        | PF 1    | 9.64       | 587.50    | 587.76    | 587.92    | 588.29    | 0.109706   | 3.24     | 2.97      | 11.98     | 2.08         |
| Giacco   | 1     | 12        | PF 1    | 9.64       | 585.00    | 585.37    | 585.62    | 586.31    | 0.162302   | 4.28     | 2.25      | 8.05      | 2.58         |
| Giacco   | 1     | 11        | PF 1    | 9.64       | 582.00    | 582.90    | 583.33    | 584.21    | 0.075636   | 5.21     | 2.04      | 3.70      | 1.86         |
| Giacco   | 1     | 10        | PF 1    | 9.64       | 577.50    | 577.86    | 578.41    | 581.10    | 0.504749   | 7.97     | 1.21      | 3.74      | 4.47         |
| Giacco   | 1     | 9         | PF 1    | 9.64       | 575.50    | 576.05    | 576.38    | 577.24    | 0.138578   | 4.84     | 1.99      | 5.09      | 2.47         |
| Giacco   | 1     | 8         | PF 1    | 9.64       | 574.50    | 574.92    | 575.20    | 575.88    | 0.119591   | 4.33     | 2.23      | 6.08      | 2.28         |
| Giacco   | 1     | 7         | PF 1    | 9.64       | 572.50    | 573.09    | 573.48    | 574.45    | 0.137032   | 5.17     | 1.90      | 5.06      | 2.50         |
| Giacco   | 1     | 6         | PF 1    | 9.64       | 570.49    | 571.02    | 571.52    | 573.13    | 0.236953   | 6.43     | 1.50      | 3.56      | 3.17         |
| Giacco   | 1     | 5.96      | PF 1    | 9.64       | 567.65    | 568.05    | 568.74    | 572.82    | 0.705538   | 9.67     | 1.00      | 2.82      | 5.19         |
| Giacco   | 1     | 5.95      | PF 1    | 9.64       | 567.65    | 568.12    | 568.74    | 571.52    | 0.430296   | 8.17     | 1.18      | 2.92      | 4.11         |
| Giacco   | 1     | 5.91      | PF 1    | 9.64       | 566.30    | 569.56    | 567.39    | 569.58    | 0.000236   | 0.65     | 17.20     | 9.24      | 0.12         |
| Giacco   | 1     | 5.9       | PF 1    | 9.64       | 566.30    | 569.56    | 567.39    | 569.58    | 0.000236   | 0.65     | 17.19     | 9.24      | 0.12         |
| Giacco   | 1     | 5.1       |         | Culvert    |           |           |           |           |            |          |           |           |              |

HEC-RAS Plan: Attuale Profile: PF 1 (Continued)

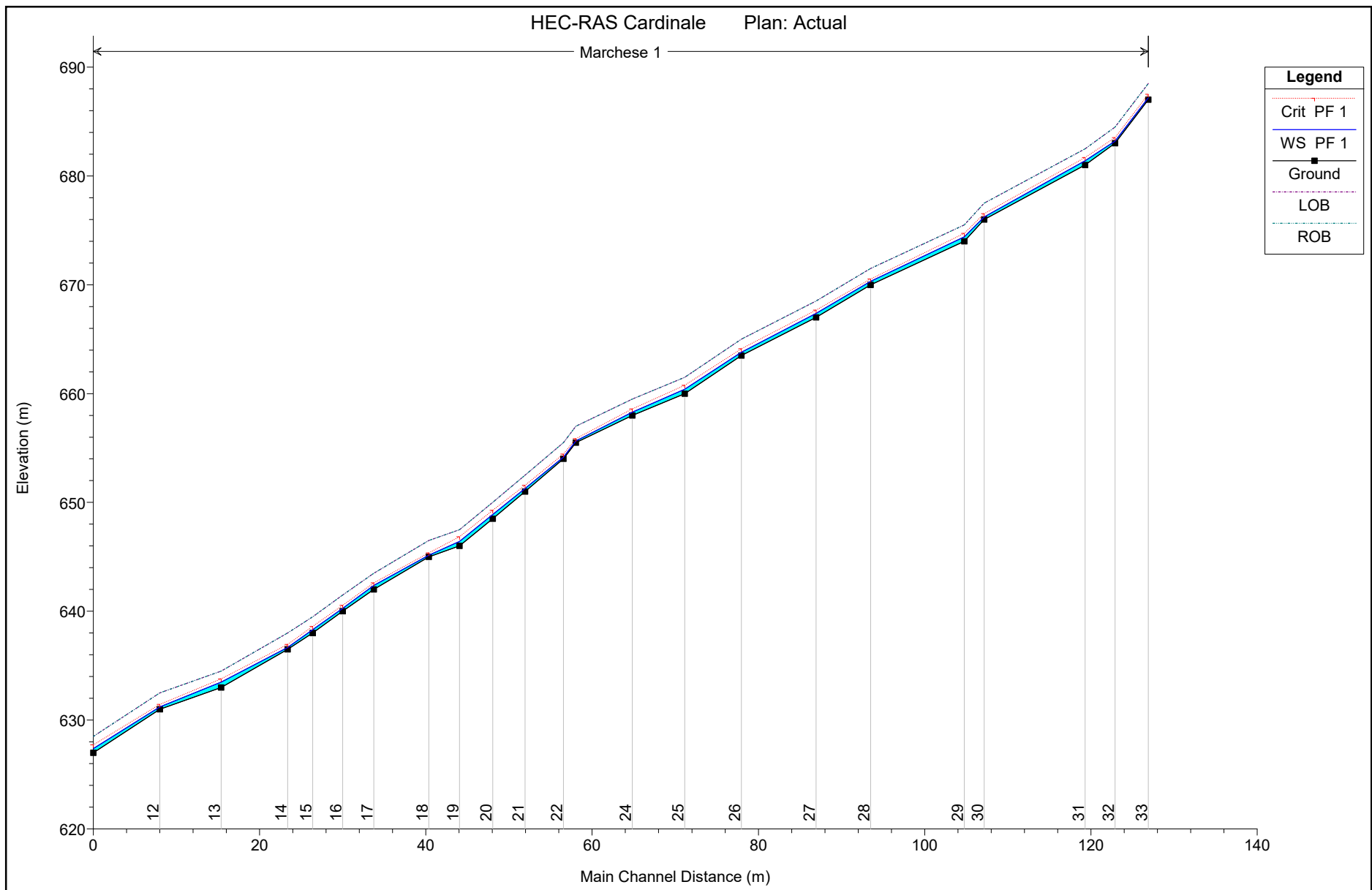
| River         | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|---------------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Giacco        | 1     | 5         | PF 1    | 9.64              | 565.50           | 566.30           | 566.59           | 567.24           | 0.068802            | 4.30              | 2.24              | 3.47             | 1.71         |
| Giacco        | 1     | 4         | PF 1    | 9.64              | 564.50           | 565.50           | 565.86           | 566.64           | 0.083560            | 4.72              | 2.04              | 3.01             | 1.83         |
| Giacco        | 1     | 3         | PF 1    | 9.64              | 564.00           | 564.49           | 564.81           | 565.77           | 0.198130            | 5.00              | 1.93              | 6.09             | 2.84         |
| Giacco        | 1     | 2         | PF 1    | 9.64              | 564.00           | 564.51           | 564.62           | 564.89           | 0.053951            | 2.71              | 3.56              | 11.09            | 1.53         |
| Giacco        | 1     | 1         | PF 1    | 9.64              | 563.00           | 563.97           | 564.18           | 564.59           | 0.047505            | 3.86              | 3.15              | 7.69             | 1.38         |
| Giacco        | 2     | 5070      | PF 1    | 11.24             | 560.15           | 560.50           | 561.12           | 564.28           | 0.596572            | 8.61              | 1.31              | 3.74             | 4.65         |
| Giacco        | 2     | 5067      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5065      | PF 1    | 11.24             | 559.45           | 560.01           | 560.49           | 561.85           | 0.115602            | 6.01              | 1.87              | 3.49             | 2.62         |
| Giacco        | 2     | 5060      | PF 1    | 11.24             | 558.46           | 558.86           | 559.42           | 561.72           | 0.253335            | 7.49              | 1.50              | 3.77             | 3.79         |
| Giacco        | 2     | 5050      | PF 1    | 11.24             | 557.94           | 558.42           | 558.83           | 559.99           | 0.111315            | 5.56              | 2.02              | 4.25             | 2.57         |
| Giacco        | 2     | 5040      | PF 1    | 11.24             | 557.08           | 557.81           | 558.03           | 558.62           | 0.036653            | 3.98              | 2.82              | 3.99             | 1.51         |
| Giacco        | 2     | 5035      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5030      | PF 1    | 11.24             | 556.83           | 557.67           | 557.78           | 558.23           | 0.021120            | 3.31              | 3.39              | 4.52             | 1.22         |
| Giacco        | 2     | 5020      | PF 1    | 11.24             | 556.36           | 557.29           | 557.40           | 557.83           | 0.019573            | 3.25              | 3.46              | 4.64             | 1.20         |
| Giacco        | 2     | 5010      | PF 1    | 11.24             | 555.54           | 556.76           | 556.64           | 557.08           | 0.009461            | 2.52              | 4.45              | 4.88             | 0.84         |
| Giacco        | 2     | 5005      | PF 1    | 11.24             | 555.24           | 556.78           | 556.36           | 556.96           | 0.004199            | 1.88              | 5.99              | 5.43             | 0.57         |
| Giacco        | 2     | 5002      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5000      | PF 1    | 11.24             | 554.87           | 555.24           | 555.56           | 556.45           | 0.103083            | 4.86              | 2.31              | 6.37             | 2.57         |
| Fosso Guardia | 1     | 6070      | PF 1    | 0.68              | 587.48           | 587.67           | 587.84           | 588.34           | 0.045040            | 3.63              | 0.19              | 1.04             | 2.73         |
| Fosso Guardia | 1     | 6060      | PF 1    | 0.68              | 586.94           | 587.13           | 587.31           | 587.80           | 0.045040            | 3.63              | 0.19              | 1.04             | 2.73         |
| Fosso Guardia | 1     | 6050      | PF 1    | 0.68              | 585.06           | 585.19           | 585.43           | 586.79           | 0.164892            | 5.60              | 0.12              | 0.99             | 5.11         |
| Fosso Guardia | 1     | 6040      | PF 1    | 0.68              | 580.34           | 580.46           | 580.71           | 582.22           | 0.190766            | 5.87              | 0.12              | 0.99             | 5.48         |
| Fosso Guardia | 2     | 6030      | PF 1    | 2.33              | 576.62           | 577.09           | 577.78           | 580.62           | 0.154282            | 8.32              | 0.28              | 0.79             | 4.47         |
| Fosso Guardia | 2     | 6020      | PF 1    | 2.33              | 572.36           | 572.78           | 573.52           | 577.41           | 0.219773            | 9.52              | 0.24              | 0.75             | 5.34         |
| Fosso Guardia | 2     | 6010      | PF 1    | 2.33              | 569.40           | 569.99           | 570.57           | 571.92           | 0.070397            | 6.16              | 0.38              | 0.89             | 3.01         |
| Fosso Guardia | 2     | 6000      | PF 1    | 2.33              | 566.44           | 566.95           | 567.60           | 569.79           | 0.116402            | 7.47              | 0.31              | 0.82             | 3.88         |
| Donnelerio    | 1     | 53        | PF 1    | 2.13              | 637.00           | 637.16           | 637.35           | 638.18           | 0.495320            | 4.48              | 0.48              | 3.66             | 3.97         |
| Donnelerio    | 1     | 52        | PF 1    | 2.13              | 631.50           | 631.61           | 631.75           | 632.36           | 0.539553            | 3.85              | 0.55              | 5.77             | 3.96         |
| Donnelerio    | 1     | 51        | PF 1    | 2.13              | 626.50           | 626.59           | 626.71           | 627.15           | 0.476341            | 3.31              | 0.64              | 7.66             | 3.64         |
| Donnelerio    | 1     | 50        | PF 1    | 2.13              | 618.50           | 618.59           | 618.73           | 619.38           | 0.690159            | 3.96              | 0.54              | 6.45             | 4.37         |
| Donnelerio    | 1     | 49        | PF 1    | 2.13              | 617.50           | 617.75           | 617.82           | 618.01           | 0.065764            | 2.28              | 0.93              | 4.29             | 1.56         |
| Donnelerio    | 1     | 48        | PF 1    | 2.13              | 613.00           | 613.17           | 613.56           | 616.98           | 1.670452            | 8.65              | 0.25              | 1.61             | 7.06         |
| Donnelerio    | 1     | 47        | PF 1    | 2.13              | 607.00           | 607.19           | 607.41           | 608.13           | 0.319271            | 4.28              | 0.50              | 2.84             | 3.27         |
| Donnelerio    | 1     | 46        | PF 1    | 2.13              | 605.00           | 605.20           | 605.43           | 606.19           | 0.323771            | 4.39              | 0.49              | 2.72             | 3.32         |
| Donnelerio    | 1     | 45        | PF 1    | 2.13              | 598.00           | 598.12           | 598.34           | 599.52           | 0.805025            | 5.22              | 0.41              | 3.58             | 4.94         |
| Donnelerio    | 1     | 44        | PF 1    | 2.13              | 597.00           | 597.27           | 597.32           | 597.46           | 0.047817            | 1.96              | 1.09              | 4.98             | 1.34         |
| Donnelerio    | 1     | 43        | PF 1    | 2.13              | 588.50           | 588.56           | 588.83           | 594.89           | 9.550076            | 11.15             | 0.19              | 3.47             | 15.16        |
| Donnelerio    | 1     | 42        | PF 1    | 2.13              | 580.70           | 581.61           | 581.14           | 581.61           | 0.000266            | 0.35              | 7.90              | 12.01            | 0.12         |

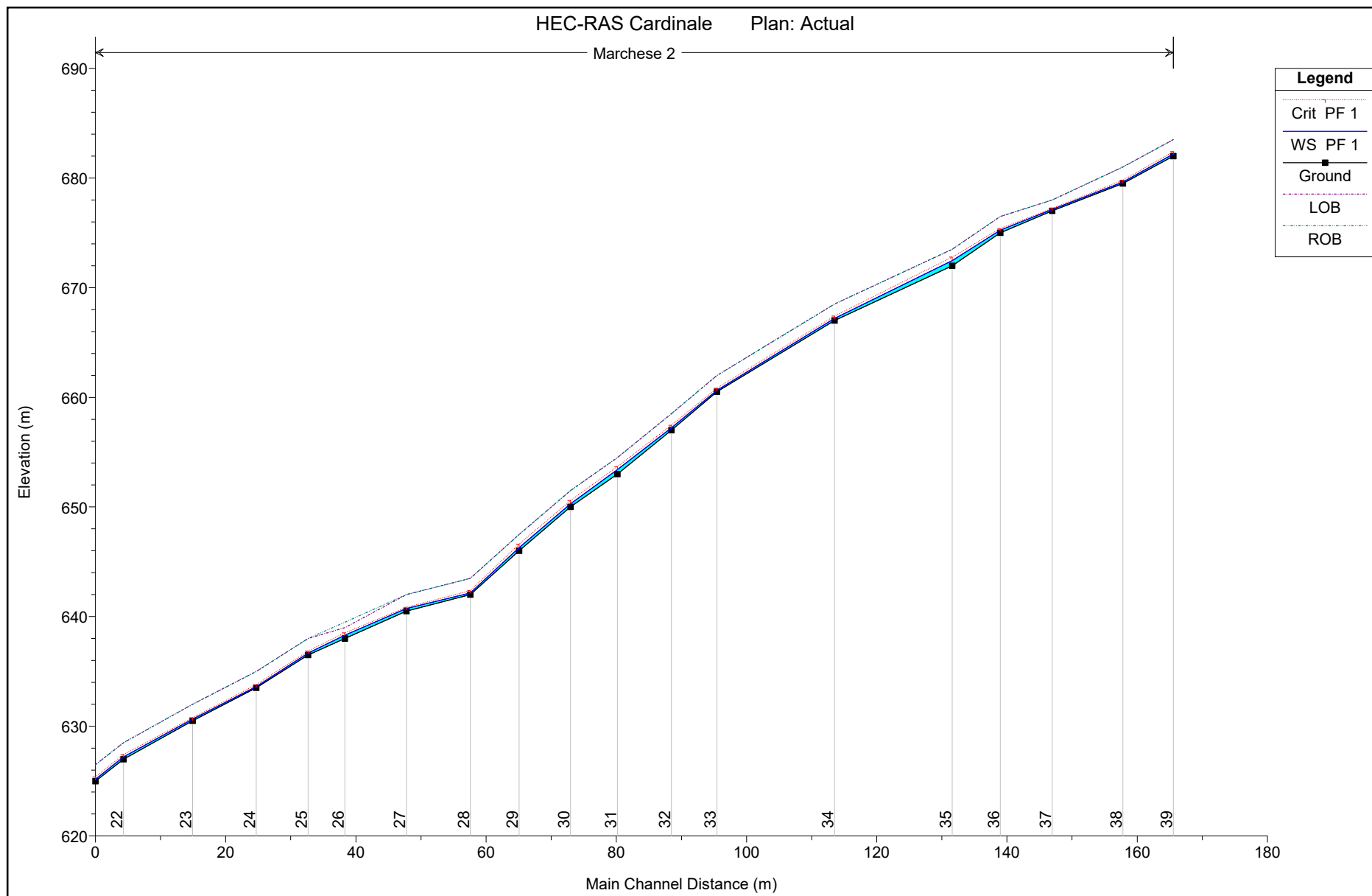
HEC-RAS Plan: Attuale Profile: PF 1 (Continued)

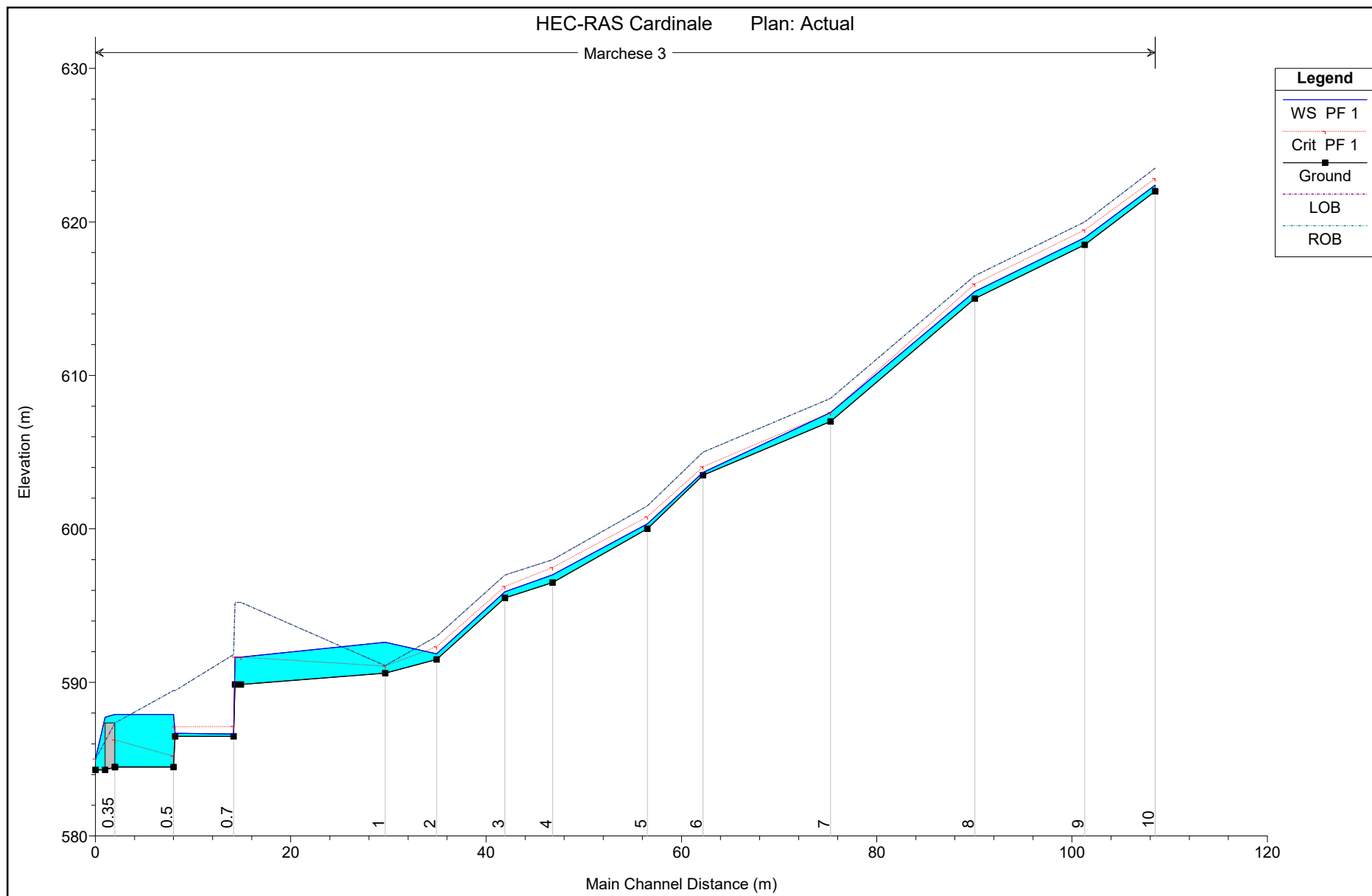
| River       | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|-------------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Donnelerio  | 1     | 40        | PF 1    | 2.13              | 580.69           | 581.28           | 581.28           | 581.58           | 0.006556            | 2.42              | 0.88              | 1.49             | 1.00         |
| Donnelerio  | 1     | 39        | PF 1    | 2.13              | 575.00           | 575.17           | 575.68           | 581.02           | 0.447483            | 10.72             | 0.20              | 1.21             | 8.44         |
| Donnelerio  | 1     | 38.5      |         | Culvert           |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Donnelerio  | 1     | 38        | PF 1    | 2.13              | 574.40           | 574.85           | 575.18           | 576.05           | 0.038493            | 4.85              | 0.44              | 1.16             | 2.52         |
| Donnelerio  | 1     | 37        | PF 1    | 2.13              | 573.94           | 574.31           | 574.68           | 575.92           | 0.059009            | 5.62              | 0.38              | 1.17             | 3.16         |
| Donnelerio  | 1     | 36        | PF 1    | 2.13              | 573.18           | 573.53           | 573.92           | 575.28           | 0.066182            | 5.86              | 0.36              | 1.16             | 3.34         |
| Donnelerio  | 1     | 35        | PF 1    | 2.13              | 570.22           | 570.51           | 570.96           | 573.21           | 0.121538            | 7.27              | 0.29              | 1.11             | 4.53         |
| Donnelerio  | 1     | 34        | PF 1    | 2.13              | 566.44           | 566.64           | 567.18           | 572.84           | 0.405138            | 11.03             | 0.19              | 1.05             | 8.22         |
| Donnelerio  | 3     | 6.200     | PF 1    | 5.13              | 565.64           | 566.12           | 567.44           | 572.76           | 0.226911            | 11.41             | 0.45              | 0.94             | 5.26         |
| Donnelerio  | 3     | 6.100     | PF 1    | 5.13              | 564.64           | 565.14           | 566.44           | 571.20           | 0.200804            | 10.90             | 0.47              | 0.94             | 4.91         |
| Cavaliere   | 1     | 39        | PF 1    | 4.87              | 621.50           | 621.84           | 622.06           | 622.79           | 0.235279            | 4.33              | 1.13              | 5.17             | 2.96         |
| Cavaliere   | 1     | 38        | PF 1    | 4.87              | 617.50           | 617.78           | 618.04           | 618.83           | 0.229875            | 4.55              | 1.07              | 4.44             | 2.96         |
| Cavaliere   | 1     | 37        | PF 1    | 4.87              | 614.00           | 614.33           | 614.64           | 615.63           | 0.245845            | 5.06              | 0.96              | 3.51             | 3.09         |
| Cavaliere   | 1     | 36        | PF 1    | 4.87              | 611.50           | 611.79           | 612.04           | 613.05           | 0.354332            | 4.98              | 0.98              | 4.98             | 3.59         |
| Cavaliere   | 1     | 35        | PF 1    | 4.87              | 610.00           | 610.19           | 610.42           | 611.34           | 0.392823            | 4.76              | 1.02              | 6.05             | 3.69         |
| Cavaliere   | 1     | 34        | PF 1    | 4.87              | 603.50           | 603.95           | 604.40           | 606.23           | 0.381031            | 6.69              | 0.73              | 2.25             | 3.76         |
| Cavaliere   | 1     | 33        | PF 1    | 4.87              | 602.50           | 602.88           | 603.23           | 604.42           | 0.260735            | 5.50              | 0.88              | 2.89             | 3.18         |
| Cavaliere   | 1     | 32        | PF 1    | 4.87              | 600.00           | 600.34           | 600.71           | 602.15           | 0.350527            | 5.96              | 0.82              | 3.02             | 3.66         |
| Cavaliere   | 1     | 31        | PF 1    | 4.87              | 589.01           | 589.63           | 589.63           | 589.87           | 0.022634            | 2.17              | 2.24              | 4.69             | 1.00         |
| Cavaliere   | 1     | 28        | PF 1    | 4.87              | 589.01           | 589.28           | 589.43           | 589.80           | 0.016965            | 3.20              | 1.52              | 5.74             | 1.98         |
| Cavaliere   | 1     | 27        | PF 1    | 4.87              | 585.62           | 585.75           | 586.11           | 589.47           | 0.317026            | 8.54              | 0.57              | 4.55             | 7.71         |
| Cavaliere   | 1     | 26        | PF 1    | 4.87              | 585.62           | 585.79           | 586.10           | 587.86           | 0.123179            | 6.37              | 0.76              | 4.60             | 4.99         |
| Cavaliere   | 1     | 25        | PF 1    | 4.87              | 583.62           | 586.62           | 584.17           | 586.63           | 0.000025            | 0.37              | 13.08             | 4.92             | 0.07         |
| Cavaliere   | 1     | 24        | PF 1    | 4.87              | 583.62           | 586.62           | 584.16           | 586.63           | 0.000023            | 0.37              | 13.32             | 6.20             | 0.07         |
| Cavaliere   | 1     | 23.5      |         | Lat Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 23        | PF 1    | 2.55              | 583.62           | 586.59           | 584.48           | 586.63           | 0.000044            | 0.86              | 2.97              | 5.03             | 0.16         |
| Cavaliere   | 1     | 22.5      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 22        | PF 1    | 2.55              | 583.44           | 583.79           | 583.79           | 583.96           | 0.004239            | 1.84              | 1.39              | 4.07             | 1.01         |
| Canale G.C. | 1     | 620       | PF 1    | 1.13              | 588.03           | 588.39           | 588.39           | 588.57           | 0.013373            | 1.87              | 0.60              | 1.72             | 1.01         |
| Canale G.C. | 1     | 610       | PF 1    | 1.13              | 587.40           | 587.66           | 587.83           | 588.23           | 0.063729            | 3.34              | 0.34              | 1.57             | 2.29         |
| Canale G.C. | 1     | 600       | PF 1    | 1.13              | 587.21           | 587.47           | 587.64           | 588.07           | 0.068447            | 3.44              | 0.33              | 1.52             | 2.36         |
| Canale G.C. | 1     | 590       | PF 1    | 1.13              | 586.90           | 587.14           | 587.34           | 587.87           | 0.088428            | 3.79              | 0.30              | 1.42             | 2.64         |
| Canale G.C. | 1     | 580       | PF 1    | 1.13              | 582.60           | 582.89           | 583.03           | 583.32           | 0.043601            | 2.92              | 0.39              | 1.63             | 1.92         |
| Canale G.C. | 1     | 570       | PF 1    | 1.13              | 582.39           | 582.81           | 582.81           | 582.98           | 0.011320            | 1.81              | 0.62              | 1.90             | 1.01         |
| Canale G.C. | 1     | 560       | PF 1    | 1.13              | 579.23           | 579.36           | 579.65           | 582.27           | 0.710814            | 7.56              | 0.15              | 1.30             | 7.13         |
| Canale G.C. | 1     | 550       | PF 1    | 1.13              | 577.44           | 577.63           | 577.86           | 578.77           | 0.173729            | 4.71              | 0.24              | 1.44             | 3.68         |
| Canale G.C. | 1     | 545       | PF 1    | 1.13              | 576.24           | 576.52           | 576.66           | 577.00           | 0.050896            | 3.09              | 0.37              | 1.60             | 2.06         |
| Canale G.C. | 1     | 540       | PF 1    | 1.13              | 575.70           | 575.97           | 576.13           | 576.53           | 0.061059            | 3.32              | 0.34              | 1.51             | 2.23         |

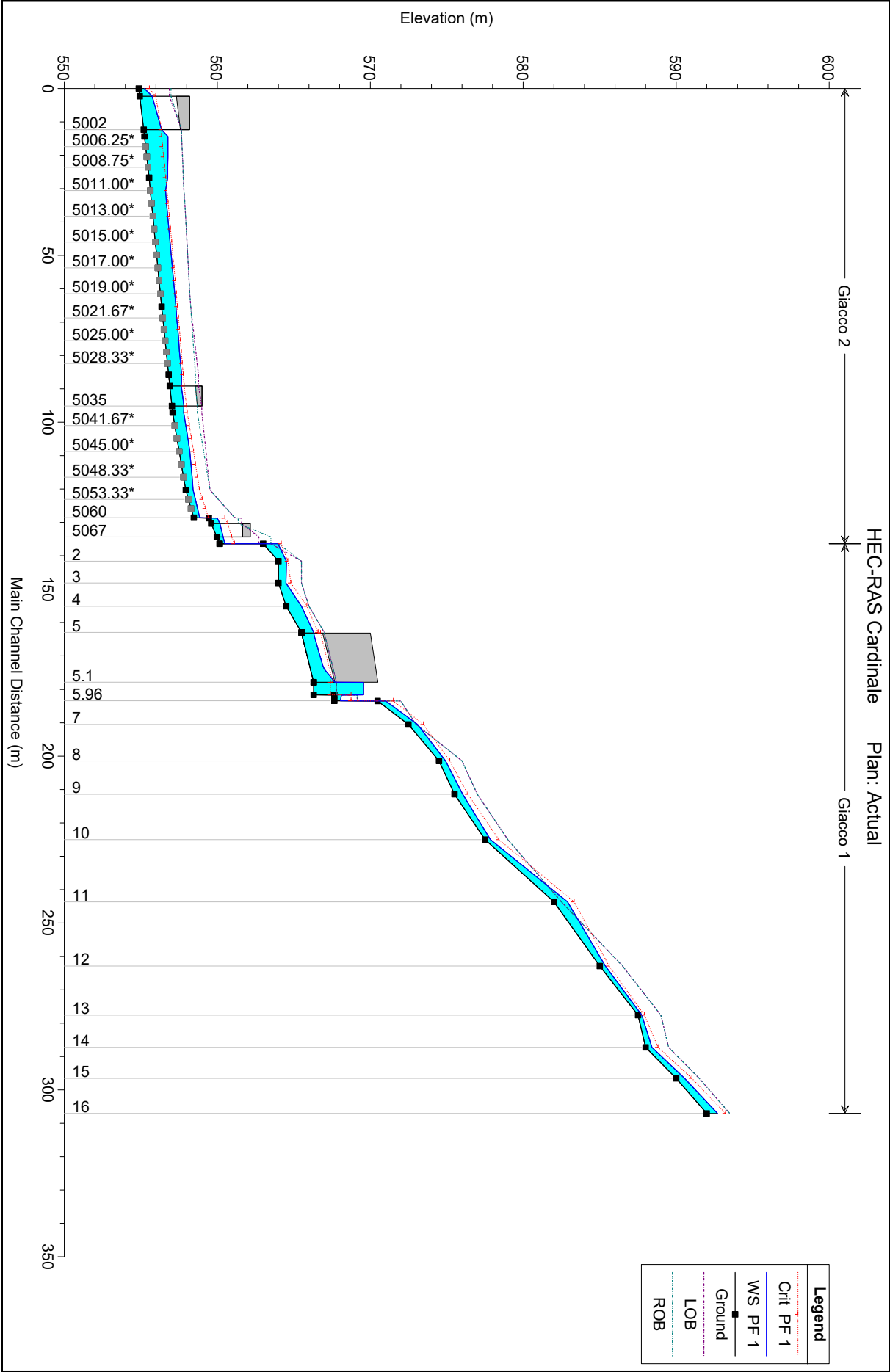
HEC-RAS Plan: Attuale Profile: PF 1 (Continued)

| River           | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|-----------------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Canale G.C.     | 1     | 530       | PF 1    | 1.13              | 574.67           | 574.95           | 575.09           | 575.43           | 0.049843            | 3.06              | 0.37              | 1.61             | 2.04         |
| Canale G.C.     | 1     | 520       | PF 1    | 1.60              | 573.65           | 574.05           | 574.17           | 574.45           | 0.029103            | 2.80              | 0.57              | 1.84             | 1.61         |
| Canale G.C.     | 1     | 510       | PF 1    | 1.60              | 570.67           | 570.89           | 571.19           | 572.61           | 0.232067            | 5.81              | 0.28              | 1.48             | 4.31         |
| Canale G.C.     | 1     | 505       | PF 1    | 1.60              | 568.00           | 568.22           | 568.52           | 569.89           | 0.222949            | 5.73              | 0.28              | 1.49             | 4.22         |
| Canale G.C.     | 1     | 500       | PF 1    | 1.60              | 563.12           | 563.33           | 563.64           | 565.19           | 0.259116            | 6.03              | 0.27              | 1.47             | 4.54         |
| Canale fugatore | 1     | 5250      | PF 1    | 0.01              | 585.17           | 586.23           | 585.19           | 586.23           | 0.000000            | 0.01              | 1.33              | 1.39             | 0.00         |
| Canale fugatore | 1     | 5240      | PF 1    | 2.33              | 584.99           | 585.59           | 585.73           | 586.14           | 0.013326            | 3.28              | 0.71              | 1.28             | 1.41         |
| Canale fugatore | 1     | 5235      | PF 1    | 2.33              | 584.44           | 584.93           | 585.18           | 585.76           | 0.023017            | 4.02              | 0.58              | 1.25             | 1.88         |
| Canale fugatore | 1     | 5230      | PF 1    | 2.33              | 583.81           | 584.28           | 584.55           | 585.18           | 0.025877            | 4.19              | 0.55              | 1.24             | 2.00         |
| Canale fugatore | 1     | 5220      | PF 1    | 2.33              | 582.92           | 583.40           | 583.66           | 584.29           | 0.025642            | 4.18              | 0.56              | 1.24             | 1.99         |
| Canale fugatore | 1     | 5210      | PF 1    | 2.33              | 581.93           | 582.40           | 582.67           | 583.31           | 0.026260            | 4.22              | 0.55              | 1.24             | 2.02         |
| Canale fugatore | 1     | 5200      | PF 1    | 2.33              | 580.35           | 580.83           | 581.09           | 581.71           | 0.025341            | 4.16              | 0.56              | 1.24             | 1.98         |
| Canale fugatore | 1     | 5199      | PF 1    | 2.33              | 579.98           | 580.67           | 580.72           | 581.07           | 0.008642            | 2.79              | 0.83              | 1.31             | 1.12         |
| Canale fugatore | 1     | 5198      | PF 1    | 2.33              | 579.84           | 580.53           | 580.58           | 580.93           | 0.008642            | 2.79              | 0.83              | 1.31             | 1.12         |

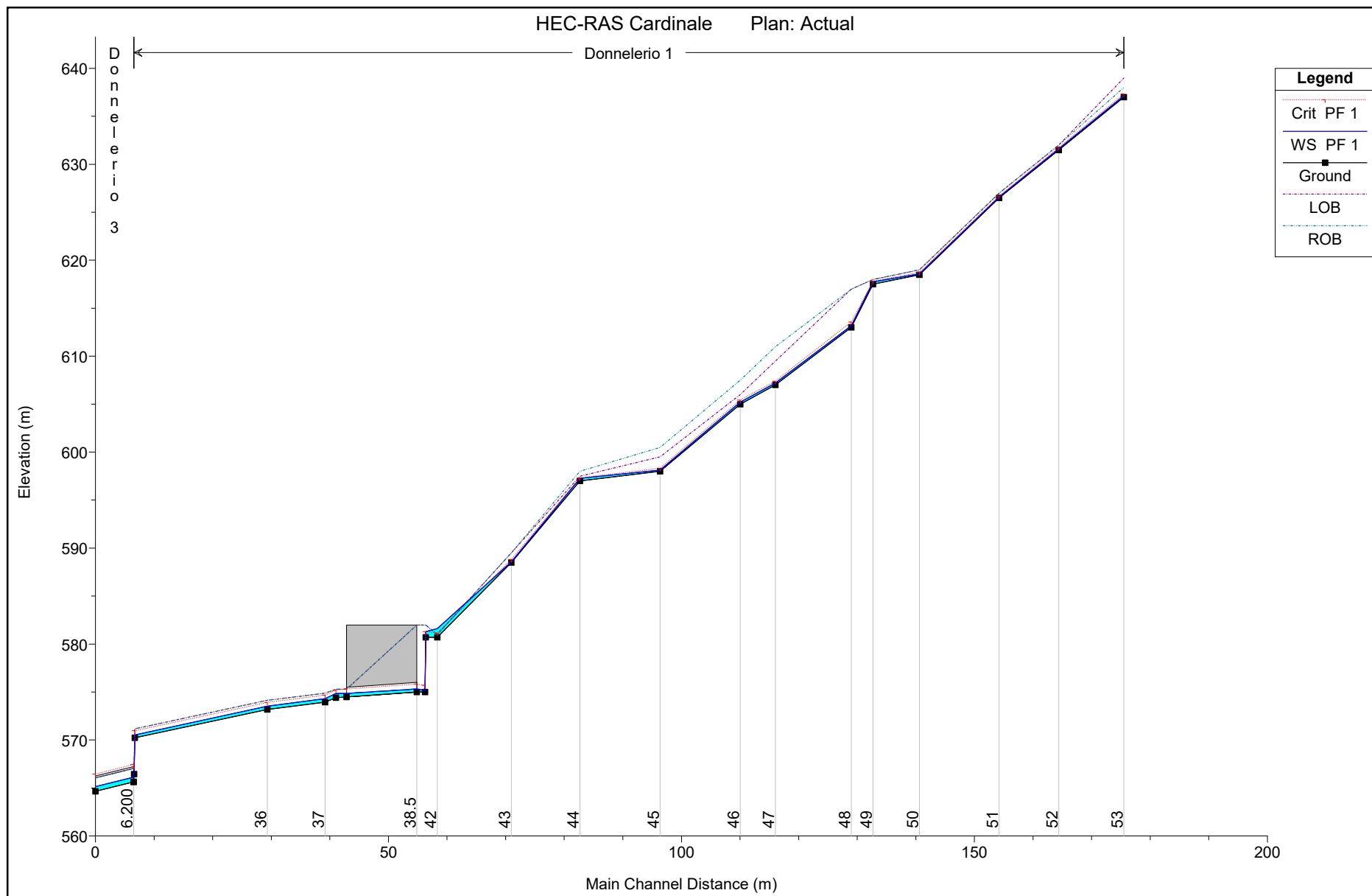


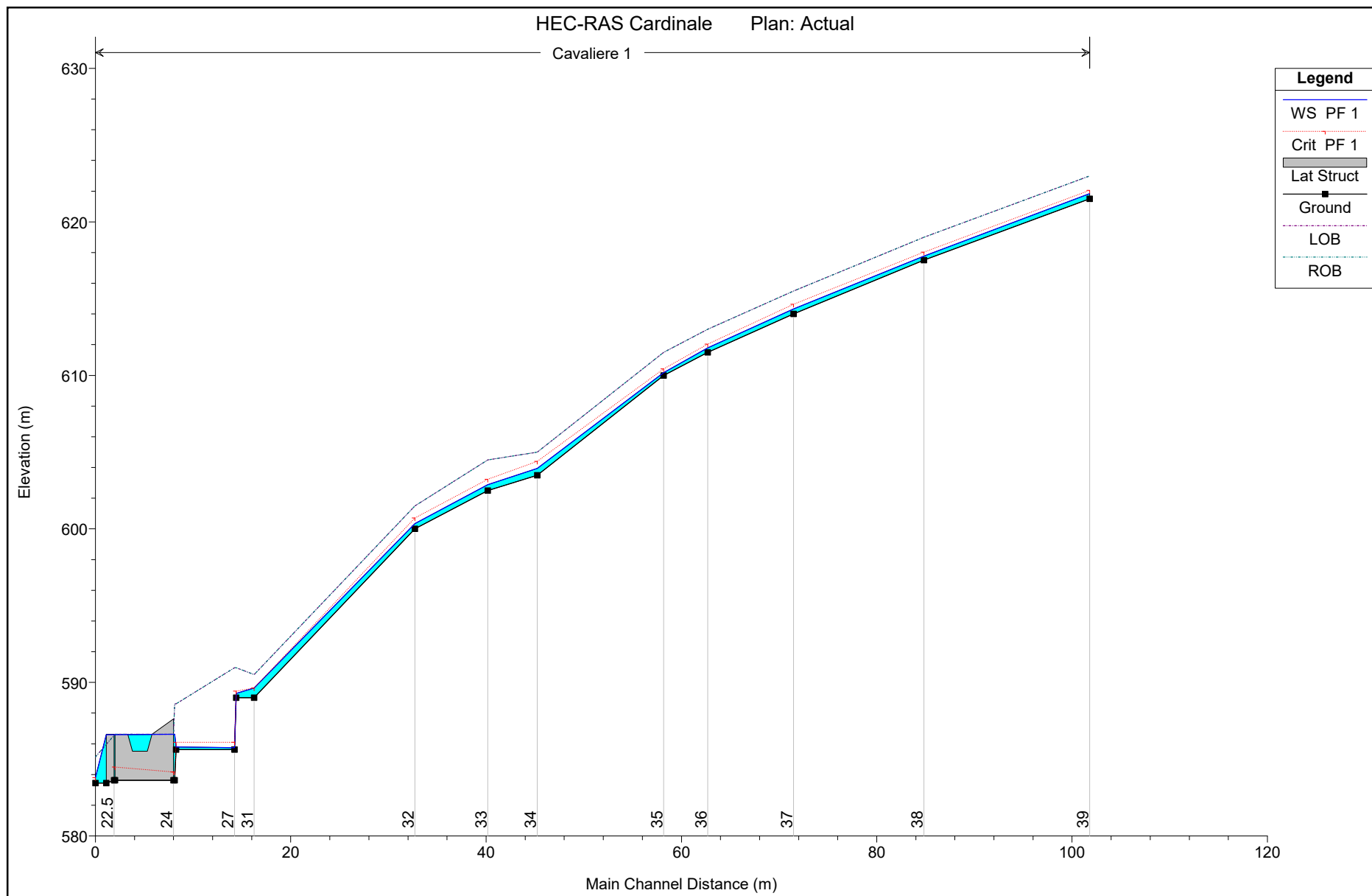


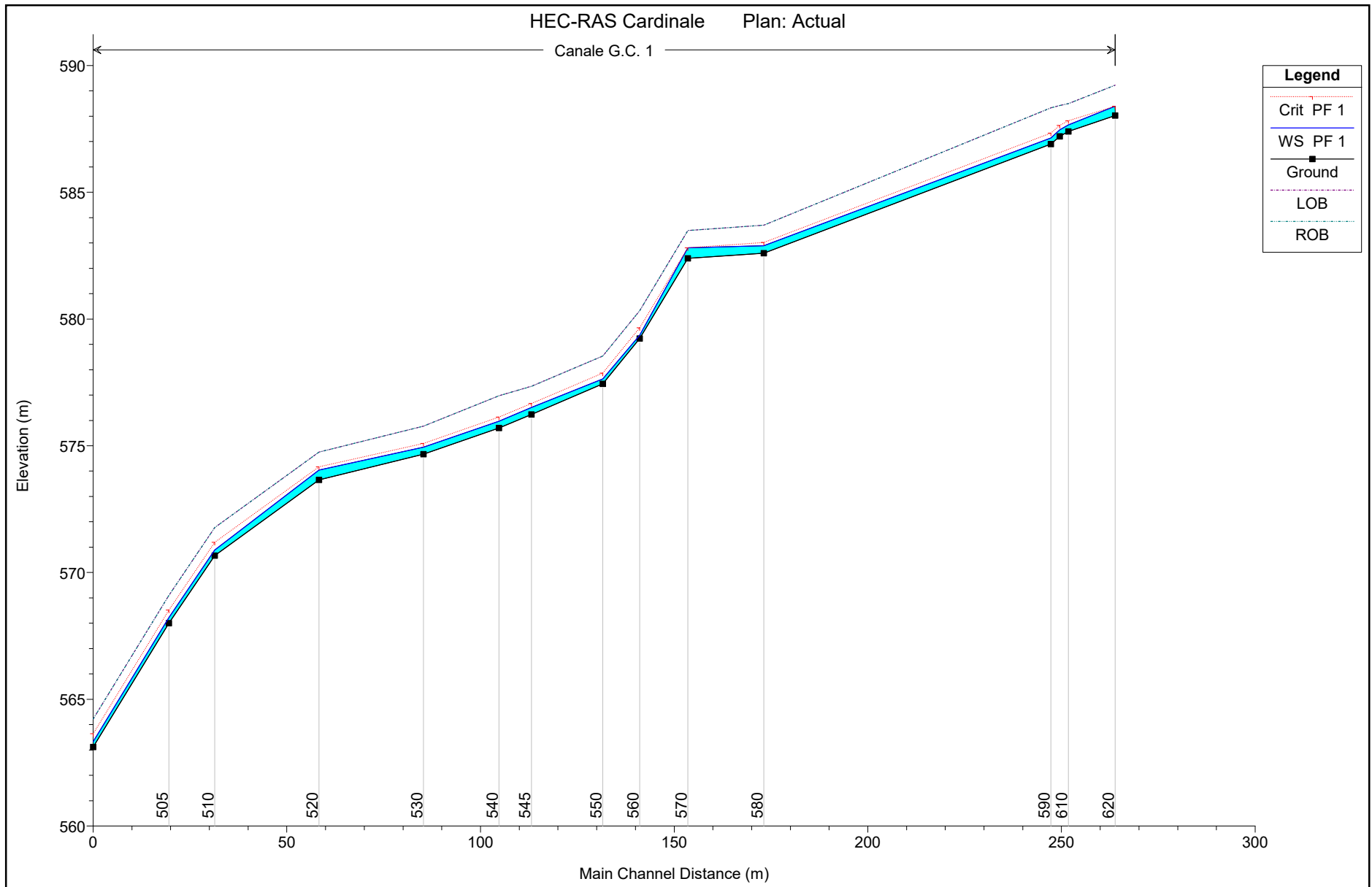






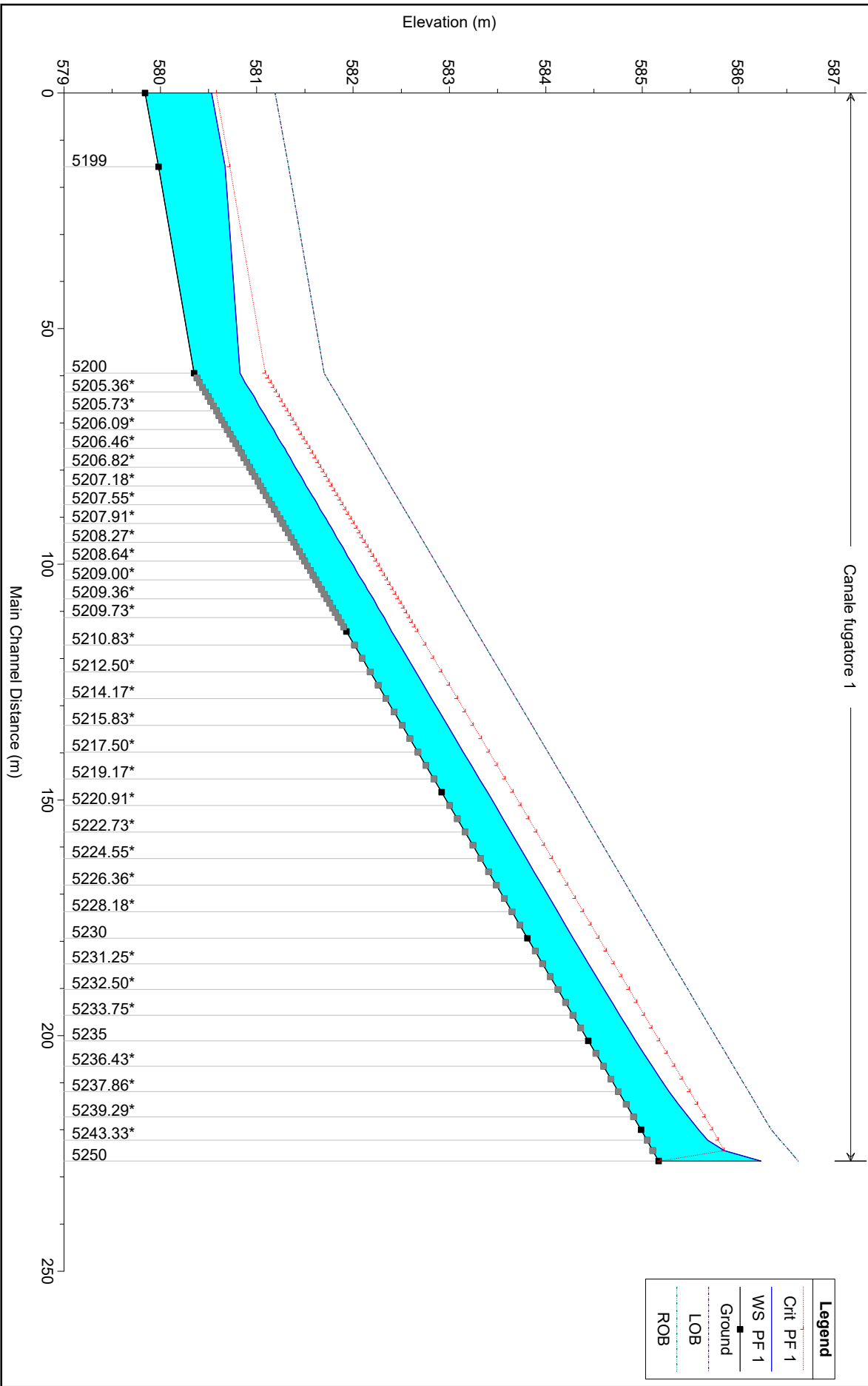






HEC-RAS Cardinale Plan: Actual

Canale fugatore 1



Plan: Attuale Canale fугatore 1 RS: 5250 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.23   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.23   | Reach Len. (m)       | 2.22    | 2.22    | 2.22     |
| Crit W.S. (m)      | 585.19   | Flow Area (m2)       |         | 1.33    |          |
| E.G. Slope (m/m)   | 0.000000 | Area (m2)            |         | 1.33    |          |
| Q Total (m3/s)     | 0.01     | Flow (m3/s)          |         | 0.01    |          |
| Top Width (m)      | 1.39     | Top Width (m)        |         | 1.39    |          |
| Vel Total (m/s)    | 0.01     | Avg. Vel. (m/s)      |         | 0.01    |          |
| Max Chl Dpth (m)   | 1.06     | Hydr. Depth (m)      |         | 0.95    |          |
| Conv. Total (m3/s) | 45.6     | Conv. (m3/s)         |         | 45.6    |          |
| Length Wtd. (m)    | 2.22     | Wetted Per. (m)      |         | 3.25    |          |
| Min Ch El (m)      | 585.17   | Shear (N/m2)         |         | 0.00    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.00    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.14    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.28    |          |

Plan: Attuale Canale fугatore 1 RS: 5240 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.14   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.55     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.59   | Reach Len. (m)       | 2.69    | 2.69    | 2.69     |
| Crit W.S. (m)      | 585.73   | Flow Area (m2)       |         | 0.71    |          |
| E.G. Slope (m/m)   | 0.013326 | Area (m2)            |         | 0.71    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.28     | Top Width (m)        |         | 1.28    |          |
| Vel Total (m/s)    | 3.28     | Avg. Vel. (m/s)      |         | 3.28    |          |
| Max Chl Dpth (m)   | 0.60     | Hydr. Depth (m)      |         | 0.55    |          |
| Conv. Total (m3/s) | 20.1     | Conv. (m3/s)         |         | 20.1    |          |
| Length Wtd. (m)    | 2.69     | Wetted Per. (m)      |         | 2.30    |          |
| Min Ch El (m)      | 584.99   | Shear (N/m2)         |         | 40.14   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 131.86  |          |
| Frctn Loss (m)     | 0.04     | Cum Volume (1000 m3) |         | 0.13    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.28    |          |

Plan: Attuale Canale fугatore 1 RS: 5235 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 585.76   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.82     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 584.93   | Reach Len. (m)       | 2.72    | 2.72    | 2.72     |
| Crit W.S. (m)      | 585.18   | Flow Area (m2)       |         | 0.58    |          |
| E.G. Slope (m/m)   | 0.023017 | Area (m2)            |         | 0.58    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.25     | Top Width (m)        |         | 1.25    |          |
| Vel Total (m/s)    | 4.02     | Avg. Vel. (m/s)      |         | 4.02    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m)      |         | 0.46    |          |
| Conv. Total (m3/s) | 15.3     | Conv. (m3/s)         |         | 15.3    |          |
| Length Wtd. (m)    | 2.72     | Wetted Per. (m)      |         | 2.10    |          |
| Min Ch El (m)      | 584.44   | Shear (N/m2)         |         | 62.27   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 250.24  |          |
| Frctn Loss (m)     | 0.06     | Cum Volume (1000 m3) |         | 0.12    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.25    |          |

Plan: Attuale Canale fугatore 1 RS: 5230 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 585.18   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 0.90     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 584.28   | Reach Len. (m) | 2.82    | 2.82    | 2.82     |
| Crit W.S. (m)    | 584.55   | Flow Area (m2) |         | 0.55    |          |
| E.G. Slope (m/m) | 0.025877 | Area (m2)      |         | 0.55    |          |
| Q Total (m3/s)   | 2.33     | Flow (m3/s)    |         | 2.33    |          |

Plan: Attuale Canale fugatore 1 RS: 5230 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 1.24   | Top Width (m)        |  | 1.24   |  |
| Vel Total (m/s)    | 4.19   | Avg. Vel. (m/s)      |  | 4.19   |  |
| Max Chl Dpth (m)   | 0.47   | Hydr. Depth (m)      |  | 0.45   |  |
| Conv. Total (m3/s) | 14.5   | Conv. (m3/s)         |  | 14.5   |  |
| Length Wtd. (m)    | 2.82   | Wetted Per. (m)      |  | 2.06   |  |
| Min Ch El (m)      | 583.81 | Shear (N/m2)         |  | 68.37  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 286.71 |  |
| Frctn Loss (m)     | 0.07   | Cum Volume (1000 m3) |  | 0.11   |  |
| C & E Loss (m)     | 0.00   | Cum SA (1000 m2)     |  | 0.22   |  |

Plan: Attuale Canale fugatore 1 RS: 5220 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 584.29   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.89     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 583.40   | Reach Len. (m)       | 2.84    | 2.84    | 2.84     |
| Crit W.S. (m)      | 583.66   | Flow Area (m2)       |         | 0.56    |          |
| E.G. Slope (m/m)   | 0.025642 | Area (m2)            |         | 0.56    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.24     | Top Width (m)        |         | 1.24    |          |
| Vel Total (m/s)    | 4.18     | Avg. Vel. (m/s)      |         | 4.18    |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m)      |         | 0.45    |          |
| Conv. Total (m3/s) | 14.5     | Conv. (m3/s)         |         | 14.5    |          |
| Length Wtd. (m)    | 2.84     | Wetted Per. (m)      |         | 2.06    |          |
| Min Ch El (m)      | 582.92   | Shear (N/m2)         |         | 67.87   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 283.69  |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.19    |          |

Plan: Attuale Canale fugatore 1 RS: 5210 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 583.31   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.91     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 582.40   | Reach Len. (m)       | 1.00    | 1.00    | 1.00     |
| Crit W.S. (m)      | 582.67   | Flow Area (m2)       |         | 0.55    |          |
| E.G. Slope (m/m)   | 0.026260 | Area (m2)            |         | 0.55    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.24     | Top Width (m)        |         | 1.24    |          |
| Vel Total (m/s)    | 4.22     | Avg. Vel. (m/s)      |         | 4.22    |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.44    |          |
| Conv. Total (m3/s) | 14.3     | Conv. (m3/s)         |         | 14.3    |          |
| Length Wtd. (m)    | 1.00     | Wetted Per. (m)      |         | 2.05    |          |
| Min Ch El (m)      | 581.93   | Shear (N/m2)         |         | 69.17   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 291.64  |          |
| Frctn Loss (m)     | 0.03     | Cum Volume (1000 m3) |         | 0.07    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.14    |          |

Plan: Attuale Canale fugatore 1 RS: 5200 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 581.71   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.88     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 580.83   | Reach Len. (m)  | 43.79   | 43.79   | 43.79    |
| Crit W.S. (m)      | 581.09   | Flow Area (m2)  |         | 0.56    |          |
| E.G. Slope (m/m)   | 0.025341 | Area (m2)       |         | 0.56    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)     |         | 2.33    |          |
| Top Width (m)      | 1.24     | Top Width (m)   |         | 1.24    |          |
| Vel Total (m/s)    | 4.16     | Avg. Vel. (m/s) |         | 4.16    |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m) |         | 0.45    |          |
| Conv. Total (m3/s) | 14.6     | Conv. (m3/s)    |         | 14.6    |          |
| Length Wtd. (m)    | 43.79    | Wetted Per. (m) |         | 2.06    |          |
| Min Ch El (m)      | 580.35   | Shear (N/m2)    |         | 67.24   |          |

Plan: Attuale Canale fугatore 1 RS: 5200 Profile: PF 1 (Continued)

|                |      |                      |  |        |  |
|----------------|------|----------------------|--|--------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 279.84 |  |
| Frctn Loss (m) | 0.53 | Cum Volume (1000 m3) |  | 0.04   |  |
| C & E Loss (m) | 0.16 | Cum SA (1000 m2)     |  | 0.08   |  |

Plan: Attuale Canale fугatore 1 RS: 5199 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.07   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.40     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 580.67   | Reach Len. (m)       | 15.66   | 15.66   | 15.66    |
| Crit W.S. (m)      | 580.72   | Flow Area (m2)       |         | 0.83    |          |
| E.G. Slope (m/m)   | 0.008642 | Area (m2)            |         | 0.83    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.31     | Top Width (m)        |         | 1.31    |          |
| Vel Total (m/s)    | 2.79     | Avg. Vel. (m/s)      |         | 2.79    |          |
| Max Chl Dpth (m)   | 0.69     | Hydr. Depth (m)      |         | 0.64    |          |
| Conv. Total (m3/s) | 25.0     | Conv. (m3/s)         |         | 25.0    |          |
| Length Wtd. (m)    | 15.66    | Wetted Per. (m)      |         | 2.50    |          |
| Min Ch EI (m)      | 579.98   | Shear (N/m2)         |         | 28.23   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 78.82   |          |
| Frctn Loss (m)     | 0.14     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.02    |          |

Plan: Attuale Canale fугatore 1 RS: 5198 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 580.93   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.40     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 580.53   | Reach Len. (m)       | 0.00    | 0.00    | 0.00     |
| Crit W.S. (m)      | 580.58   | Flow Area (m2)       |         | 0.83    |          |
| E.G. Slope (m/m)   | 0.008642 | Area (m2)            |         | 0.83    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 1.31     | Top Width (m)        |         | 1.31    |          |
| Vel Total (m/s)    | 2.79     | Avg. Vel. (m/s)      |         | 2.79    |          |
| Max Chl Dpth (m)   | 0.69     | Hydr. Depth (m)      |         | 0.64    |          |
| Conv. Total (m3/s) | 25.0     | Conv. (m3/s)         |         | 25.0    |          |
| Length Wtd. (m)    | 0.00     | Wetted Per. (m)      |         | 2.50    |          |
| Min Ch EI (m)      | 579.84   | Shear (N/m2)         |         | 28.23   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 78.81   |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Canale G.C. 1 RS: 620 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 588.57   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 588.39   | Reach Len. (m)       | 12.04   | 12.04   | 12.04    |
| Crit W.S. (m)      | 588.39   | Flow Area (m2)       |         | 0.60    |          |
| E.G. Slope (m/m)   | 0.013373 | Area (m2)            |         | 0.60    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.72     | Top Width (m)        |         | 1.72    |          |
| Vel Total (m/s)    | 1.87     | Avg. Vel. (m/s)      |         | 1.87    |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.35    |          |
| Conv. Total (m3/s) | 9.8      | Conv. (m3/s)         |         | 9.8     |          |
| Length Wtd. (m)    | 12.04    | Wetted Per. (m)      |         | 2.34    |          |
| Min Ch EI (m)      | 588.03   | Shear (N/m2)         |         | 33.84   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 63.44   |          |
| Frctn Loss (m)     | 0.30     | Cum Volume (1000 m3) |         | 0.10    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.42    |          |

Plan: Attuale Canale G.C. 1 RS: 610 Profile: PF 1

| E.G. Elev (m)      | 588.23   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.57     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 587.66   | Reach Len. (m)       | 2.24    | 2.24    | 2.24     |
| Crit W.S. (m)      | 587.83   | Flow Area (m2)       |         | 0.34    |          |
| E.G. Slope (m/m)   | 0.063729 | Area (m2)            |         | 0.34    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.57     | Top Width (m)        |         | 1.57    |          |
| Vel Total (m/s)    | 3.34     | Avg. Vel. (m/s)      |         | 3.34    |          |
| Max Chl Dpth (m)   | 0.26     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 4.5      | Conv. (m3/s)         |         | 4.5     |          |
| Length Wtd. (m)    | 2.24     | Wetted Per. (m)      |         | 1.78    |          |
| Min Ch El (m)      | 587.40   | Shear (N/m2)         |         | 118.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 396.35  |          |
| Frctn Loss (m)     | 0.15     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.40    |          |

Plan: Attuale Canale G.C. 1 RS: 600 Profile: PF 1

| E.G. Elev (m)      | 588.07   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.60     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 587.47   | Reach Len. (m)       | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)      | 587.64   | Flow Area (m2)       |         | 0.33    |          |
| E.G. Slope (m/m)   | 0.068447 | Area (m2)            |         | 0.33    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.52     | Top Width (m)        |         | 1.52    |          |
| Vel Total (m/s)    | 3.44     | Avg. Vel. (m/s)      |         | 3.44    |          |
| Max Chl Dpth (m)   | 0.26     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 4.3      | Conv. (m3/s)         |         | 4.3     |          |
| Length Wtd. (m)    | 2.34     | Wetted Per. (m)      |         | 1.74    |          |
| Min Ch El (m)      | 587.21   | Shear (N/m2)         |         | 126.54  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 435.40  |          |
| Frctn Loss (m)     | 0.18     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.39    |          |

Plan: Attuale Canale G.C. 1 RS: 590 Profile: PF 1

| E.G. Elev (m)      | 587.87   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.73     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 587.14   | Reach Len. (m)       | 74.10   | 74.10   | 74.10    |
| Crit W.S. (m)      | 587.34   | Flow Area (m2)       |         | 0.30    |          |
| E.G. Slope (m/m)   | 0.088428 | Area (m2)            |         | 0.30    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.42     | Top Width (m)        |         | 1.42    |          |
| Vel Total (m/s)    | 3.79     | Avg. Vel. (m/s)      |         | 3.79    |          |
| Max Chl Dpth (m)   | 0.24     | Hydr. Depth (m)      |         | 0.21    |          |
| Conv. Total (m3/s) | 3.8      | Conv. (m3/s)         |         | 3.8     |          |
| Length Wtd. (m)    | 74.10    | Wetted Per. (m)      |         | 1.66    |          |
| Min Ch El (m)      | 586.90   | Shear (N/m2)         |         | 155.89  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 590.64  |          |
| Frctn Loss (m)     | 4.46     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.09     | Cum SA (1000 m2)     |         | 0.39    |          |

Plan: Attuale Canale G.C. 1 RS: 580 Profile: PF 1

| E.G. Elev (m)    | 583.32   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.44     | Wt. n-Val.     |         | 0.025   |          |
| W.S. Elev (m)    | 582.89   | Reach Len. (m) | 19.62   | 19.62   | 19.62    |
| Crit W.S. (m)    | 583.03   | Flow Area (m2) |         | 0.39    |          |
| E.G. Slope (m/m) | 0.043601 | Area (m2)      |         | 0.39    |          |
| Q Total (m3/s)   | 1.13     | Flow (m3/s)    |         | 1.13    |          |

Plan: Attuale Canale G.C. 1 RS: 580 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 1.63   | Top Width (m)        |  | 1.63   |  |
| Vel Total (m/s)    | 2.92   | Avg. Vel. (m/s)      |  | 2.92   |  |
| Max Chl Dpth (m)   | 0.29   | Hydr. Depth (m)      |  | 0.24   |  |
| Conv. Total (m3/s) | 5.4    | Conv. (m3/s)         |  | 5.4    |  |
| Length Wtd. (m)    | 19.62  | Wetted Per. (m)      |  | 1.87   |  |
| Min Ch El (m)      | 582.60 | Shear (N/m2)         |  | 88.54  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 258.83 |  |
| Frctn Loss (m)     | 0.21   | Cum Volume (1000 m3) |  | 0.07   |  |
| C & E Loss (m)     | 0.00   | Cum SA (1000 m2)     |  | 0.28   |  |

Plan: Attuale Canale G.C. 1 RS: 570 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 582.98   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.17     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 582.81   | Reach Len. (m)       | 12.43   | 12.43   | 12.43    |
| Crit W.S. (m)      | 582.81   | Flow Area (m2)       |         | 0.62    |          |
| E.G. Slope (m/m)   | 0.011320 | Area (m2)            |         | 0.62    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.90     | Top Width (m)        |         | 1.90    |          |
| Vel Total (m/s)    | 1.81     | Avg. Vel. (m/s)      |         | 1.81    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 10.6     | Conv. (m3/s)         |         | 10.6    |          |
| Length Wtd. (m)    | 12.43    | Wetted Per. (m)      |         | 2.25    |          |
| Min Ch El (m)      | 582.39   | Shear (N/m2)         |         | 30.82   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 55.81   |          |
| Frctn Loss (m)     | 0.44     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.27     | Cum SA (1000 m2)     |         | 0.24    |          |

Plan: Attuale Canale G.C. 1 RS: 560 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 582.27   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.91     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 579.36   | Reach Len. (m)       | 9.54    | 9.54    | 9.54     |
| Crit W.S. (m)      | 579.65   | Flow Area (m2)       |         | 0.15    |          |
| E.G. Slope (m/m)   | 0.710814 | Area (m2)            |         | 0.15    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.30     | Top Width (m)        |         | 1.30    |          |
| Vel Total (m/s)    | 7.56     | Avg. Vel. (m/s)      |         | 7.56    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.11    |          |
| Conv. Total (m3/s) | 1.3      | Conv. (m3/s)         |         | 1.3     |          |
| Length Wtd. (m)    | 9.54     | Wetted Per. (m)      |         | 1.41    |          |
| Min Ch El (m)      | 579.23   | Shear (N/m2)         |         | 739.52  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5589.07 |          |
| Frctn Loss (m)     | 2.97     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.53     | Cum SA (1000 m2)     |         | 0.22    |          |

Plan: Attuale Canale G.C. 1 RS: 550 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 578.77   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.13     | Wt. n-Val.      |         | 0.025   |          |
| W.S. Elev (m)      | 577.63   | Reach Len. (m)  | 18.39   | 18.39   | 18.39    |
| Crit W.S. (m)      | 577.86   | Flow Area (m2)  |         | 0.24    |          |
| E.G. Slope (m/m)   | 0.173729 | Area (m2)       |         | 0.24    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)     |         | 1.13    |          |
| Top Width (m)      | 1.44     | Top Width (m)   |         | 1.44    |          |
| Vel Total (m/s)    | 4.71     | Avg. Vel. (m/s) |         | 4.71    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m) |         | 0.17    |          |
| Conv. Total (m3/s) | 2.7      | Conv. (m3/s)    |         | 2.7     |          |
| Length Wtd. (m)    | 18.39    | Wetted Per. (m) |         | 1.60    |          |
| Min Ch El (m)      | 577.44   | Shear (N/m2)    |         | 256.01  |          |

Plan: Attuale Canale G.C. 1 RS: 550 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 1206.47 |  |
| Frctn Loss (m) | 1.58 | Cum Volume (1000 m3) |  | 0.05    |  |
| C & E Loss (m) | 0.19 | Cum SA (1000 m2)     |  | 0.21    |  |

Plan: Attuale Canale G.C. 1 RS: 545 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 577.00   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.49     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 576.52   | Reach Len. (m)       | 8.39    | 8.39    | 8.39     |
| Crit W.S. (m)      | 576.66   | Flow Area (m2)       |         | 0.37    |          |
| E.G. Slope (m/m)   | 0.050896 | Area (m2)            |         | 0.37    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.60     | Top Width (m)        |         | 1.60    |          |
| Vel Total (m/s)    | 3.09     | Avg. Vel. (m/s)      |         | 3.09    |          |
| Max Chl Dpth (m)   | 0.28     | Hydr. Depth (m)      |         | 0.23    |          |
| Conv. Total (m3/s) | 5.0      | Conv. (m3/s)         |         | 5.0     |          |
| Length Wtd. (m)    | 8.39     | Wetted Per. (m)      |         | 1.83    |          |
| Min Ch EI (m)      | 576.24   | Shear (N/m2)         |         | 99.86   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 308.25  |          |
| Frctn Loss (m)     | 0.47     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.18    |          |

Plan: Attuale Canale G.C. 1 RS: 540 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 576.53   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 575.97   | Reach Len. (m)       | 19.46   | 19.46   | 19.46    |
| Crit W.S. (m)      | 576.13   | Flow Area (m2)       |         | 0.34    |          |
| E.G. Slope (m/m)   | 0.061059 | Area (m2)            |         | 0.34    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.51     | Top Width (m)        |         | 1.51    |          |
| Vel Total (m/s)    | 3.32     | Avg. Vel. (m/s)      |         | 3.32    |          |
| Max Chl Dpth (m)   | 0.27     | Hydr. Depth (m)      |         | 0.23    |          |
| Conv. Total (m3/s) | 4.6      | Conv. (m3/s)         |         | 4.6     |          |
| Length Wtd. (m)    | 19.46    | Wetted Per. (m)      |         | 1.75    |          |
| Min Ch EI (m)      | 575.70   | Shear (N/m2)         |         | 116.33  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 385.70  |          |
| Frctn Loss (m)     | 1.07     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.17    |          |

Plan: Attuale Canale G.C. 1 RS: 530 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 575.43   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.48     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 574.95   | Reach Len. (m)       | 27.02   | 27.02   | 27.02    |
| Crit W.S. (m)      | 575.09   | Flow Area (m2)       |         | 0.37    |          |
| E.G. Slope (m/m)   | 0.049843 | Area (m2)            |         | 0.37    |          |
| Q Total (m3/s)     | 1.13     | Flow (m3/s)          |         | 1.13    |          |
| Top Width (m)      | 1.61     | Top Width (m)        |         | 1.61    |          |
| Vel Total (m/s)    | 3.06     | Avg. Vel. (m/s)      |         | 3.06    |          |
| Max Chl Dpth (m)   | 0.28     | Hydr. Depth (m)      |         | 0.23    |          |
| Conv. Total (m3/s) | 5.1      | Conv. (m3/s)         |         | 5.1     |          |
| Length Wtd. (m)    | 27.02    | Wetted Per. (m)      |         | 1.84    |          |
| Min Ch EI (m)      | 574.67   | Shear (N/m2)         |         | 98.21   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 300.88  |          |
| Frctn Loss (m)     | 0.97     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.14    |          |

Plan: Attuale Canale G.C. 1 RS: 520 Profile: PF 1

| E.G. Elev (m)      | 574.45   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.40     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 574.05   | Reach Len. (m)       | 26.87   | 26.87   | 26.87    |
| Crit W.S. (m)      | 574.17   | Flow Area (m2)       |         | 0.57    |          |
| E.G. Slope (m/m)   | 0.029103 | Area (m2)            |         | 0.57    |          |
| Q Total (m3/s)     | 1.60     | Flow (m3/s)          |         | 1.60    |          |
| Top Width (m)      | 1.84     | Top Width (m)        |         | 1.84    |          |
| Vel Total (m/s)    | 2.80     | Avg. Vel. (m/s)      |         | 2.80    |          |
| Max Chl Dpth (m)   | 0.39     | Hydr. Depth (m)      |         | 0.31    |          |
| Conv. Total (m3/s) | 9.4      | Conv. (m3/s)         |         | 9.4     |          |
| Length Wtd. (m)    | 26.87    | Wetted Per. (m)      |         | 2.17    |          |
| Min Ch El (m)      | 573.65   | Shear (N/m2)         |         | 75.16   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 210.71  |          |
| Frctn Loss (m)     | 1.71     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.13     | Cum SA (1000 m2)     |         | 0.09    |          |

Plan: Attuale Canale G.C. 1 RS: 510 Profile: PF 1

| E.G. Elev (m)      | 572.61   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.72     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 570.89   | Reach Len. (m)       | 11.86   | 11.87   | 11.86    |
| Crit W.S. (m)      | 571.19   | Flow Area (m2)       |         | 0.28    |          |
| E.G. Slope (m/m)   | 0.232067 | Area (m2)            |         | 0.28    |          |
| Q Total (m3/s)     | 1.60     | Flow (m3/s)          |         | 1.60    |          |
| Top Width (m)      | 1.48     | Top Width (m)        |         | 1.48    |          |
| Vel Total (m/s)    | 5.81     | Avg. Vel. (m/s)      |         | 5.81    |          |
| Max Chl Dpth (m)   | 0.22     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)         |         | 3.3     |          |
| Length Wtd. (m)    | 11.87    | Wetted Per. (m)      |         | 1.66    |          |
| Min Ch El (m)      | 570.67   | Shear (N/m2)         |         | 376.58  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2187.14 |          |
| Frctn Loss (m)     | 2.70     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Attuale Canale G.C. 1 RS: 505 Profile: PF 1

| E.G. Elev (m)      | 569.89   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.67     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 568.22   | Reach Len. (m)       | 19.54   | 19.54   | 19.54    |
| Crit W.S. (m)      | 568.52   | Flow Area (m2)       |         | 0.28    |          |
| E.G. Slope (m/m)   | 0.222949 | Area (m2)            |         | 0.28    |          |
| Q Total (m3/s)     | 1.60     | Flow (m3/s)          |         | 1.60    |          |
| Top Width (m)      | 1.49     | Top Width (m)        |         | 1.49    |          |
| Vel Total (m/s)    | 5.73     | Avg. Vel. (m/s)      |         | 5.73    |          |
| Max Chl Dpth (m)   | 0.22     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 3.4      | Conv. (m3/s)         |         | 3.4     |          |
| Length Wtd. (m)    | 19.54    | Wetted Per. (m)      |         | 1.67    |          |
| Min Ch El (m)      | 568.00   | Shear (N/m2)         |         | 365.21  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2092.08 |          |
| Frctn Loss (m)     | 4.69     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.03    |          |

Plan: Attuale Canale G.C. 1 RS: 500 Profile: PF 1

| E.G. Elev (m)    | 565.19   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 1.85     | Wt. n-Val.     |         | 0.025   |          |
| W.S. Elev (m)    | 563.33   | Reach Len. (m) | 0.00    | 0.00    | 0.00     |
| Crit W.S. (m)    | 563.64   | Flow Area (m2) |         | 0.27    |          |
| E.G. Slope (m/m) | 0.259116 | Area (m2)      |         | 0.27    |          |
| Q Total (m3/s)   | 1.60     | Flow (m3/s)    |         | 1.60    |          |

Plan: Attuale Canale G.C. 1 RS: 500 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 1.47   | Top Width (m)        |  | 1.47    |  |
| Vel Total (m/s)    | 6.03   | Avg. Vel. (m/s)      |  | 6.03    |  |
| Max Chl Dpth (m)   | 0.21   | Hydr. Depth (m)      |  | 0.18    |  |
| Conv. Total (m3/s) | 3.1    | Conv. (m3/s)         |  | 3.1     |  |
| Length Wtd. (m)    | 0.00   | Wetted Per. (m)      |  | 1.65    |  |
| Min Ch EI (m)      | 563.12 | Shear (N/m2)         |  | 409.68  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 2471.00 |  |
| Frctn Loss (m)     | 0.00   | Cum Volume (1000 m3) |  | 0.00    |  |
| C & E Loss (m)     | 0.32   | Cum SA (1000 m2)     |  |         |  |

Plan: Attuale Cavaliere 1 RS: 39 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 622.79   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.95     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 621.84   | Reach Len. (m)       | 16.98   | 16.98   | 16.98    |
| Crit W.S. (m)      | 622.06   | Flow Area (m2)       |         | 1.13    |          |
| E.G. Slope (m/m)   | 0.235279 | Area (m2)            |         | 1.13    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 5.17     | Top Width (m)        |         | 5.17    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 10.0     | Conv. (m3/s)         |         | 10.0    |          |
| Length Wtd. (m)    | 16.98    | Wetted Per. (m)      |         | 5.28    |          |
| Min Ch EI (m)      | 621.50   | Shear (N/m2)         |         | 491.54  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2126.16 |          |
| Frctn Loss (m)     | 3.95     | Cum Volume (1000 m3) | 0.00    | 0.19    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.43    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 38 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 618.83   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.06     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 617.78   | Reach Len. (m)       | 13.36   | 13.36   | 13.36    |
| Crit W.S. (m)      | 618.04   | Flow Area (m2)       |         | 1.07    |          |
| E.G. Slope (m/m)   | 0.229875 | Area (m2)            |         | 1.07    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.44     | Top Width (m)        |         | 4.44    |          |
| Vel Total (m/s)    | 4.55     | Avg. Vel. (m/s)      |         | 4.55    |          |
| Max Chl Dpth (m)   | 0.28     | Hydr. Depth (m)      |         | 0.24    |          |
| Conv. Total (m3/s) | 10.2     | Conv. (m3/s)         |         | 10.2    |          |
| Length Wtd. (m)    | 13.36    | Wetted Per. (m)      |         | 4.58    |          |
| Min Ch EI (m)      | 617.50   | Shear (N/m2)         |         | 527.20  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2398.68 |          |
| Frctn Loss (m)     | 3.18     | Cum Volume (1000 m3) | 0.00    | 0.17    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.35    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 37 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 615.63   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.31     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 614.33   | Reach Len. (m)  | 8.77    | 8.77    | 8.77     |
| Crit W.S. (m)      | 614.64   | Flow Area (m2)  |         | 0.96    |          |
| E.G. Slope (m/m)   | 0.245845 | Area (m2)       |         | 0.96    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)     |         | 4.87    |          |
| Top Width (m)      | 3.51     | Top Width (m)   |         | 3.51    |          |
| Vel Total (m/s)    | 5.06     | Avg. Vel. (m/s) |         | 5.06    |          |
| Max Chl Dpth (m)   | 0.33     | Hydr. Depth (m) |         | 0.27    |          |
| Conv. Total (m3/s) | 9.8      | Conv. (m3/s)    |         | 9.8     |          |
| Length Wtd. (m)    | 8.77     | Wetted Per. (m) |         | 3.69    |          |
| Min Ch EI (m)      | 614.00   | Shear (N/m2)    |         | 628.96  |          |

Plan: Attuale Cavaliere 1 RS: 37 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 3183.19 |      |
| Frctn Loss (m) | 2.57 | Cum Volume (1000 m3) | 0.00 | 0.16    | 0.00 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2)     | 0.00 | 0.29    | 0.00 |

Plan: Attuale Cavaliere 1 RS: 36 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 613.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.27     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 611.79   | Reach Len. (m)       | 4.53    | 4.53    | 4.53     |
| Crit W.S. (m)      | 612.04   | Flow Area (m2)       |         | 0.98    |          |
| E.G. Slope (m/m)   | 0.354332 | Area (m2)            |         | 0.98    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.98     | Top Width (m)        |         | 4.98    |          |
| Vel Total (m/s)    | 4.98     | Avg. Vel. (m/s)      |         | 4.98    |          |
| Max Chl Dpth (m)   | 0.29     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 8.2      | Conv. (m3/s)         |         | 8.2     |          |
| Length Wtd. (m)    | 4.53     | Wetted Per. (m)      |         | 5.04    |          |
| Min Ch El (m)      | 611.50   | Shear (N/m2)         |         | 673.65  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3358.05 |          |
| Frctn Loss (m)     | 1.69     | Cum Volume (1000 m3) | 0.00    | 0.15    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.26    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 35 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 611.34   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.15     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 610.19   | Reach Len. (m)       | 12.92   | 12.93   | 12.92    |
| Crit W.S. (m)      | 610.42   | Flow Area (m2)       |         | 1.02    |          |
| E.G. Slope (m/m)   | 0.392823 | Area (m2)            |         | 1.02    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 6.05     | Top Width (m)        |         | 6.05    |          |
| Vel Total (m/s)    | 4.76     | Avg. Vel. (m/s)      |         | 4.76    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 7.8      | Conv. (m3/s)         |         | 7.8     |          |
| Length Wtd. (m)    | 12.93    | Wetted Per. (m)      |         | 6.11    |          |
| Min Ch El (m)      | 610.00   | Shear (N/m2)         |         | 644.84  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3068.88 |          |
| Frctn Loss (m)     | 5.00     | Cum Volume (1000 m3) | 0.00    | 0.15    | 0.00     |
| C & E Loss (m)     | 0.11     | Cum SA (1000 m2)     | 0.00    | 0.23    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 34 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 606.23   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.28     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 603.95   | Reach Len. (m)       | 5.06    | 5.06    | 5.06     |
| Crit W.S. (m)      | 604.40   | Flow Area (m2)       |         | 0.73    |          |
| E.G. Slope (m/m)   | 0.381031 | Area (m2)            |         | 0.73    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 2.25     | Top Width (m)        |         | 2.25    |          |
| Vel Total (m/s)    | 6.69     | Avg. Vel. (m/s)      |         | 6.69    |          |
| Max Chl Dpth (m)   | 0.45     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 7.9      | Conv. (m3/s)         |         | 7.9     |          |
| Length Wtd. (m)    | 5.06     | Wetted Per. (m)      |         | 2.55    |          |
| Min Ch El (m)      | 603.50   | Shear (N/m2)         |         | 1066.59 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7135.70 |          |
| Frctn Loss (m)     | 1.58     | Cum Volume (1000 m3) | 0.00    | 0.13    | 0.00     |
| C & E Loss (m)     | 0.22     | Cum SA (1000 m2)     | 0.00    | 0.18    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 33 Profile: PF 1

| E.G. Elev (m)      | 604.42   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 602.88   | Reach Len. (m)       | 7.48    | 7.47    | 7.48     |
| Crit W.S. (m)      | 603.23   | Flow Area (m2)       |         | 0.88    |          |
| E.G. Slope (m/m)   | 0.260735 | Area (m2)            |         | 0.88    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 2.89     | Top Width (m)        |         | 2.89    |          |
| Vel Total (m/s)    | 5.50     | Avg. Vel. (m/s)      |         | 5.50    |          |
| Max Chl Dpth (m)   | 0.38     | Hydr. Depth (m)      |         | 0.31    |          |
| Conv. Total (m3/s) | 9.5      | Conv. (m3/s)         |         | 9.5     |          |
| Length Wtd. (m)    | 7.47     | Wetted Per. (m)      |         | 3.13    |          |
| Min Ch El (m)      | 602.50   | Shear (N/m2)         |         | 723.86  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3984.06 |          |
| Frctn Loss (m)     | 2.25     | Cum Volume (1000 m3) | 0.00    | 0.13    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.16    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 32 Profile: PF 1

| E.G. Elev (m)      | 602.15   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.81     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 600.34   | Reach Len. (m)       | 16.46   | 16.46   | 16.46    |
| Crit W.S. (m)      | 600.71   | Flow Area (m2)       |         | 0.82    |          |
| E.G. Slope (m/m)   | 0.350527 | Area (m2)            |         | 0.82    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 3.02     | Top Width (m)        |         | 3.02    |          |
| Vel Total (m/s)    | 5.96     | Avg. Vel. (m/s)      |         | 5.96    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.27    |          |
| Conv. Total (m3/s) | 8.2      | Conv. (m3/s)         |         | 8.2     |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 3.20    |          |
| Min Ch El (m)      | 600.00   | Shear (N/m2)         |         | 878.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5234.95 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.12    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.14    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 31 Profile: PF 1

| E.G. Elev (m)      | 589.87   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.24     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 589.63   | Reach Len. (m)       | 1.85    | 1.85    | 1.85     |
| Crit W.S. (m)      | 589.63   | Flow Area (m2)       |         | 2.24    |          |
| E.G. Slope (m/m)   | 0.022634 | Area (m2)            |         | 2.24    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.69     | Top Width (m)        |         | 4.69    |          |
| Vel Total (m/s)    | 2.17     | Avg. Vel. (m/s)      |         | 2.17    |          |
| Max Chl Dpth (m)   | 0.62     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 32.4     | Conv. (m3/s)         |         | 32.4    |          |
| Length Wtd. (m)    | 1.85     | Wetted Per. (m)      |         | 5.11    |          |
| Min Ch El (m)      | 589.01   | Shear (N/m2)         |         | 97.40   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 211.55  |          |
| Frctn Loss (m)     | 0.04     | Cum Volume (1000 m3) | 0.00    | 0.10    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.08    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 28 Profile: PF 1

| E.G. Elev (m)    | 589.80   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.52     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 589.28   | Reach Len. (m) | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)    | 589.43   | Flow Area (m2) |         | 1.52    |          |
| E.G. Slope (m/m) | 0.016965 | Area (m2)      |         | 1.52    |          |
| Q Total (m3/s)   | 4.87     | Flow (m3/s)    |         | 4.87    |          |

Plan: Attuale Cavaliere 1 RS: 28 Profile: PF 1 (Continued)

|                    |        |                      |      |        |      |
|--------------------|--------|----------------------|------|--------|------|
| Top Width (m)      | 5.74   | Top Width (m)        |      | 5.74   |      |
| Vel Total (m/s)    | 3.20   | Avg. Vel. (m/s)      |      | 3.20   |      |
| Max Chl Dpth (m)   | 0.27   | Hydr. Depth (m)      |      | 0.27   |      |
| Conv. Total (m3/s) | 37.4   | Conv. (m3/s)         |      | 37.4   |      |
| Length Wtd. (m)    | 0.15   | Wetted Per. (m)      |      | 6.19   |      |
| Min Ch El (m)      | 589.01 | Shear (N/m2)         |      | 40.93  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 130.83 |      |
| Frctn Loss (m)     | 0.01   | Cum Volume (1000 m3) | 0.00 | 0.10   | 0.00 |
| C & E Loss (m)     | 0.32   | Cum SA (1000 m2)     | 0.00 | 0.07   | 0.00 |

Plan: Attuale Cavaliere 1 RS: 27 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.47   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.72     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.75   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 586.11   | Flow Area (m2)       |         | 0.57    |          |
| E.G. Slope (m/m)   | 0.317026 | Area (m2)            |         | 0.57    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.55     | Top Width (m)        |         | 4.55    |          |
| Vel Total (m/s)    | 8.54     | Avg. Vel. (m/s)      |         | 8.54    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 8.6      | Conv. (m3/s)         |         | 8.6     |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 4.77    |          |
| Min Ch El (m)      | 585.62   | Shear (N/m2)         |         | 371.89  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3177.24 |          |
| Frctn Loss (m)     | 1.12     | Cum Volume (1000 m3) | 0.00    | 0.10    | 0.00     |
| C & E Loss (m)     | 0.50     | Cum SA (1000 m2)     | 0.00    | 0.07    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 26 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 587.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.07     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.79   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 586.10   | Flow Area (m2)       |         | 0.76    |          |
| E.G. Slope (m/m)   | 0.123179 | Area (m2)            |         | 0.76    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.60     | Top Width (m)        |         | 4.60    |          |
| Vel Total (m/s)    | 6.37     | Avg. Vel. (m/s)      |         | 6.37    |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 13.9     | Conv. (m3/s)         |         | 13.9    |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 4.88    |          |
| Min Ch El (m)      | 585.62   | Shear (N/m2)         |         | 189.15  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1205.44 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.09    | 0.00     |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.00    | 0.04    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 25 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 586.63   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 586.62   | Reach Len. (m)  | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 584.17   | Flow Area (m2)  |         | 13.08   |          |
| E.G. Slope (m/m)   | 0.000025 | Area (m2)       |         | 13.08   |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)     |         | 4.87    |          |
| Top Width (m)      | 4.92     | Top Width (m)   |         | 4.92    |          |
| Vel Total (m/s)    | 0.37     | Avg. Vel. (m/s) |         | 0.37    |          |
| Max Chl Dpth (m)   | 3.00     | Hydr. Depth (m) |         | 2.66    |          |
| Conv. Total (m3/s) | 983.8    | Conv. (m3/s)    |         | 983.8   |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m) |         | 9.90    |          |
| Min Ch El (m)      | 583.62   | Shear (N/m2)    |         | 0.32    |          |

Plan: Attuale Cavaliere 1 RS: 25 Profile: PF 1 (Continued)

|                |      |                      |      |      |      |
|----------------|------|----------------------|------|------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 0.12 |      |
| Frctn Loss (m) | 0.00 | Cum Volume (1000 m3) | 0.00 | 0.09 | 0.00 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     | 0.00 | 0.04 | 0.00 |

Plan: Attuale Cavaliere 1 RS: 24 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.63   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.           | 0.016   | 0.016   | 0.060    |
| W.S. Elev (m)      | 586.62   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 584.16   | Flow Area (m2)       | 0.00    | 13.31   | 0.00     |
| E.G. Slope (m/m)   | 0.000023 | Area (m2)            | 0.00    | 13.31   | 0.00     |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          | 0.00    | 4.87    | 0.00     |
| Top Width (m)      | 6.20     | Top Width (m)        | 0.66    | 5.04    | 0.50     |
| Vel Total (m/s)    | 0.37     | Avg. Vel. (m/s)      | 0.01    | 0.37    | 0.00     |
| Max Chl Dpth (m)   | 3.00     | Hydr. Depth (m)      | 0.00    | 2.64    | 0.00     |
| Conv. Total (m3/s) | 1010.6   | Conv. (m3/s)         | 0.0     | 1010.6  | 0.0      |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      | 0.66    | 9.95    | 0.50     |
| Min Ch El (m)      | 583.62   | Shear (N/m2)         | 0.00    | 0.30    | 0.00     |
| Alpha              | 1.00     | Stream Power (N/m s) | 0.00    | 0.11    | 0.00     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.09    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.04    | 0.00     |

Plan: Attuale Cavaliere 1 RS: 23 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.63   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.04     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.59   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 584.48   | Flow Area (m2)       |         | 2.97    |          |
| E.G. Slope (m/m)   | 0.000044 | Area (m2)            |         | 13.14   |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 5.03     | Top Width (m)        |         | 5.03    |          |
| Vel Total (m/s)    | 0.86     | Avg. Vel. (m/s)      |         | 0.86    |          |
| Max Chl Dpth (m)   | 2.97     | Hydr. Depth (m)      |         | 2.97    |          |
| Conv. Total (m3/s) | 383.6    | Conv. (m3/s)         |         | 383.6   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch El (m)      | 583.62   | Shear (N/m2)         |         | 1.29    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1.11    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.01    |          |

Plan: Attuale Cavaliere 1 RS: 22 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 583.96   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.17     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 583.79   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 583.79   | Flow Area (m2)       |         | 1.39    |          |
| E.G. Slope (m/m)   | 0.004239 | Area (m2)            |         | 1.39    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 4.07     | Top Width (m)        |         | 4.07    |          |
| Vel Total (m/s)    | 1.84     | Avg. Vel. (m/s)      |         | 1.84    |          |
| Max Chl Dpth (m)   | 0.35     | Hydr. Depth (m)      |         | 0.34    |          |
| Conv. Total (m3/s) | 39.2     | Conv. (m3/s)         |         | 39.2    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.57    |          |
| Min Ch El (m)      | 583.44   | Shear (N/m2)         |         | 12.64   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 23.25   |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Donnelerio 1 RS: 53 Profile: PF 1

| E.G. Elev (m)      | 638.18   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.02     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 637.16   | Reach Len. (m)       | 11.10   | 11.10   | 11.10    |
| Crit W.S. (m)      | 637.35   | Flow Area (m2)       |         | 0.48    |          |
| E.G. Slope (m/m)   | 0.495320 | Area (m2)            |         | 0.48    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 3.66     | Top Width (m)        |         | 3.66    |          |
| Vel Total (m/s)    | 4.48     | Avg. Vel. (m/s)      |         | 4.48    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 3.0      | Conv. (m3/s)         |         | 3.0     |          |
| Length Wtd. (m)    | 11.10    | Wetted Per. (m)      |         | 3.71    |          |
| Min Ch El (m)      | 637.00   | Shear (N/m2)         |         | 623.53  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2791.78 |          |
| Frctn Loss (m)     | 5.74     | Cum Volume (1000 m3) | 0.02    | 0.09    | 0.02     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.03    | 0.57    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 52 Profile: PF 1

| E.G. Elev (m)      | 632.36   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.75     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 631.61   | Reach Len. (m)       | 10.20   | 10.20   | 10.20    |
| Crit W.S. (m)      | 631.75   | Flow Area (m2)       |         | 0.55    |          |
| E.G. Slope (m/m)   | 0.539553 | Area (m2)            |         | 0.55    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 5.77     | Top Width (m)        |         | 5.77    |          |
| Vel Total (m/s)    | 3.85     | Avg. Vel. (m/s)      |         | 3.85    |          |
| Max Chl Dpth (m)   | 0.11     | Hydr. Depth (m)      |         | 0.10    |          |
| Conv. Total (m3/s) | 2.9      | Conv. (m3/s)         |         | 2.9     |          |
| Length Wtd. (m)    | 10.20    | Wetted Per. (m)      |         | 5.78    |          |
| Min Ch El (m)      | 631.50   | Shear (N/m2)         |         | 506.96  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1949.34 |          |
| Frctn Loss (m)     | 5.17     | Cum Volume (1000 m3) | 0.02    | 0.09    | 0.02     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.03    | 0.51    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 51 Profile: PF 1

| E.G. Elev (m)      | 627.15   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 626.59   | Reach Len. (m)       | 13.61   | 13.61   | 13.61    |
| Crit W.S. (m)      | 626.71   | Flow Area (m2)       |         | 0.64    |          |
| E.G. Slope (m/m)   | 0.476341 | Area (m2)            |         | 0.64    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 7.66     | Top Width (m)        |         | 7.66    |          |
| Vel Total (m/s)    | 3.31     | Avg. Vel. (m/s)      |         | 3.31    |          |
| Max Chl Dpth (m)   | 0.09     | Hydr. Depth (m)      |         | 0.08    |          |
| Conv. Total (m3/s) | 3.1      | Conv. (m3/s)         |         | 3.1     |          |
| Length Wtd. (m)    | 13.61    | Wetted Per. (m)      |         | 7.68    |          |
| Min Ch El (m)      | 626.50   | Shear (N/m2)         |         | 391.86  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1295.66 |          |
| Frctn Loss (m)     | 7.74     | Cum Volume (1000 m3) | 0.02    | 0.08    | 0.02     |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.03    | 0.45    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 50 Profile: PF 1

| E.G. Elev (m)    | 619.38   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.80     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 618.59   | Reach Len. (m) | 7.90    | 7.90    | 7.90     |
| Crit W.S. (m)    | 618.73   | Flow Area (m2) |         | 0.54    |          |
| E.G. Slope (m/m) | 0.690159 | Area (m2)      |         | 0.54    |          |
| Q Total (m3/s)   | 2.13     | Flow (m3/s)    |         | 2.13    |          |

Plan: Attuale Donnelerio 1 RS: 50 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 6.45   | Top Width (m)        |      | 6.45    |      |
| Vel Total (m/s)    | 3.96   | Avg. Vel. (m/s)      |      | 3.96    |      |
| Max Chl Dpth (m)   | 0.09   | Hydr. Depth (m)      |      | 0.08    |      |
| Conv. Total (m3/s) | 2.6    | Conv. (m3/s)         |      | 2.6     |      |
| Length Wtd. (m)    | 7.90   | Wetted Per. (m)      |      | 6.48    |      |
| Min Ch El (m)      | 618.50 | Shear (N/m2)         |      | 562.61  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2225.65 |      |
| Frctn Loss (m)     | 1.21   | Cum Volume (1000 m3) | 0.02 | 0.07    | 0.02 |
| C & E Loss (m)     | 0.16   | Cum SA (1000 m2)     | 0.03 | 0.35    | 0.04 |

Plan: Attuale Donnelerio 1 RS: 49 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 618.01   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.26     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 617.75   | Reach Len. (m)       | 3.72    | 3.73    | 3.72     |
| Crit W.S. (m)      | 617.82   | Flow Area (m2)       |         | 0.93    |          |
| E.G. Slope (m/m)   | 0.065764 | Area (m2)            |         | 0.93    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 4.29     | Top Width (m)        |         | 4.29    |          |
| Vel Total (m/s)    | 2.28     | Avg. Vel. (m/s)      |         | 2.28    |          |
| Max Chl Dpth (m)   | 0.25     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 8.3      | Conv. (m3/s)         |         | 8.3     |          |
| Length Wtd. (m)    | 3.73     | Wetted Per. (m)      |         | 4.41    |          |
| Min Ch El (m)      | 617.50   | Shear (N/m2)         |         | 136.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 311.50  |          |
| Frctn Loss (m)     | 0.68     | Cum Volume (1000 m3) | 0.02    | 0.07    | 0.02     |
| C & E Loss (m)     | 0.35     | Cum SA (1000 m2)     | 0.03    | 0.31    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 48 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 616.98   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.81     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 613.17   | Reach Len. (m)       | 12.92   | 12.92    | 12.92    |
| Crit W.S. (m)      | 613.56   | Flow Area (m2)       |         | 0.25     |          |
| E.G. Slope (m/m)   | 1.670452 | Area (m2)            |         | 0.25     |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13     |          |
| Top Width (m)      | 1.61     | Top Width (m)        |         | 1.61     |          |
| Vel Total (m/s)    | 8.65     | Avg. Vel. (m/s)      |         | 8.65     |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m)      |         | 0.15     |          |
| Conv. Total (m3/s) | 1.6      | Conv. (m3/s)         |         | 1.6      |          |
| Length Wtd. (m)    | 12.92    | Wetted Per. (m)      |         | 1.78     |          |
| Min Ch El (m)      | 613.00   | Shear (N/m2)         |         | 2268.39  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 19618.06 |          |
| Frctn Loss (m)     | 7.99     | Cum Volume (1000 m3) | 0.02    | 0.06     | 0.02     |
| C & E Loss (m)     | 0.86     | Cum SA (1000 m2)     | 0.03    | 0.30     | 0.04     |

Plan: Attuale Donnelerio 1 RS: 47 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 608.13   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.93     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 607.19   | Reach Len. (m)  | 6.02    | 6.02    | 6.02     |
| Crit W.S. (m)      | 607.41   | Flow Area (m2)  |         | 0.50    |          |
| E.G. Slope (m/m)   | 0.319271 | Area (m2)       |         | 0.50    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)     |         | 2.13    |          |
| Top Width (m)      | 2.84     | Top Width (m)   |         | 2.84    |          |
| Vel Total (m/s)    | 4.28     | Avg. Vel. (m/s) |         | 4.28    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m) |         | 0.18    |          |
| Conv. Total (m3/s) | 3.8      | Conv. (m3/s)    |         | 3.8     |          |
| Length Wtd. (m)    | 6.02     | Wetted Per. (m) |         | 2.98    |          |
| Min Ch El (m)      | 607.00   | Shear (N/m2)    |         | 522.19  |          |

Plan: Attuale Donnelerio 1 RS: 47 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 2235.05 |      |
| Frctn Loss (m) | 1.94 | Cum Volume (1000 m3) | 0.02 | 0.06    | 0.02 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     | 0.03 | 0.27    | 0.04 |

Plan: Attuale Donnelerio 1 RS: 46 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 606.19   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.98     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 605.20   | Reach Len. (m)       | 13.67   | 13.67   | 13.67    |
| Crit W.S. (m)      | 605.43   | Flow Area (m2)       |         | 0.49    |          |
| E.G. Slope (m/m)   | 0.323771 | Area (m2)            |         | 0.49    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 2.72     | Top Width (m)        |         | 2.72    |          |
| Vel Total (m/s)    | 4.39     | Avg. Vel. (m/s)      |         | 4.39    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.7      | Conv. (m3/s)         |         | 3.7     |          |
| Length Wtd. (m)    | 13.67    | Wetted Per. (m)      |         | 2.83    |          |
| Min Ch EI (m)      | 605.00   | Shear (N/m2)         |         | 544.25  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2389.04 |          |
| Frctn Loss (m)     | 6.63     | Cum Volume (1000 m3) | 0.02    | 0.06    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.03    | 0.25    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 45 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 599.52   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.39     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 598.12   | Reach Len. (m)       | 13.69   | 13.69   | 13.69    |
| Crit W.S. (m)      | 598.34   | Flow Area (m2)       |         | 0.41    |          |
| E.G. Slope (m/m)   | 0.805025 | Area (m2)            |         | 0.41    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 3.58     | Top Width (m)        |         | 3.58    |          |
| Vel Total (m/s)    | 5.22     | Avg. Vel. (m/s)      |         | 5.22    |          |
| Max Chl Dpth (m)   | 0.12     | Hydr. Depth (m)      |         | 0.11    |          |
| Conv. Total (m3/s) | 2.4      | Conv. (m3/s)         |         | 2.4     |          |
| Length Wtd. (m)    | 13.69    | Wetted Per. (m)      |         | 3.63    |          |
| Min Ch EI (m)      | 598.00   | Shear (N/m2)         |         | 887.52  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4637.26 |          |
| Frctn Loss (m)     | 1.69     | Cum Volume (1000 m3) | 0.02    | 0.05    | 0.02     |
| C & E Loss (m)     | 0.36     | Cum SA (1000 m2)     | 0.03    | 0.21    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 44 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 597.46   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.20     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 597.27   | Reach Len. (m)       | 11.71   | 11.71   | 11.71    |
| Crit W.S. (m)      | 597.32   | Flow Area (m2)       |         | 1.09    |          |
| E.G. Slope (m/m)   | 0.047817 | Area (m2)            |         | 1.09    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 4.98     | Top Width (m)        |         | 4.98    |          |
| Vel Total (m/s)    | 1.96     | Avg. Vel. (m/s)      |         | 1.96    |          |
| Max Chl Dpth (m)   | 0.27     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 9.7      | Conv. (m3/s)         |         | 9.7     |          |
| Length Wtd. (m)    | 11.71    | Wetted Per. (m)      |         | 5.06    |          |
| Min Ch EI (m)      | 597.00   | Shear (N/m2)         |         | 100.71  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 197.44  |          |
| Frctn Loss (m)     | 1.95     | Cum Volume (1000 m3) | 0.02    | 0.04    | 0.02     |
| C & E Loss (m)     | 0.61     | Cum SA (1000 m2)     | 0.03    | 0.15    | 0.04     |

Plan: Attuale Donnelerio 1 RS: 43 Profile: PF 1

| E.G. Elev (m)      | 594.89   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 6.34     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 588.56   | Reach Len. (m)       | 12.63   | 12.62    | 12.63    |
| Crit W.S. (m)      | 588.83   | Flow Area (m2)       |         | 0.19     |          |
| E.G. Slope (m/m)   | 9.550076 | Area (m2)            |         | 0.19     |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13     |          |
| Top Width (m)      | 3.47     | Top Width (m)        |         | 3.47     |          |
| Vel Total (m/s)    | 11.15    | Avg. Vel. (m/s)      |         | 11.15    |          |
| Max Chl Dpth (m)   | 0.06     | Hydr. Depth (m)      |         | 0.06     |          |
| Conv. Total (m3/s) | 0.7      | Conv. (m3/s)         |         | 0.7      |          |
| Length Wtd. (m)    | 12.62    | Wetted Per. (m)      |         | 3.49     |          |
| Min Ch El (m)      | 588.50   | Shear (N/m2)         |         | 5132.90  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 57218.40 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.02    | 0.03     | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.03    | 0.10     | 0.04     |

Plan: Attuale Donnelerio 1 RS: 42 Profile: PF 1

| E.G. Elev (m)      | 581.61   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.00     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 581.61   | Reach Len. (m)       | 1.99    | 1.99    | 1.99     |
| Crit W.S. (m)      | 581.14   | Flow Area (m2)       | 2.43    | 2.12    | 3.35     |
| E.G. Slope (m/m)   | 0.000266 | Area (m2)            | 2.43    | 2.12    | 3.35     |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          | 0.58    | 0.74    | 0.81     |
| Top Width (m)      | 12.01    | Top Width (m)        | 4.00    | 2.50    | 5.51     |
| Vel Total (m/s)    | 0.27     | Avg. Vel. (m/s)      | 0.24    | 0.35    | 0.24     |
| Max Chl Dpth (m)   | 0.91     | Hydr. Depth (m)      | 0.61    | 0.85    | 0.61     |
| Conv. Total (m3/s) | 130.7    | Conv. (m3/s)         | 35.3    | 45.5    | 49.9     |
| Length Wtd. (m)    | 1.99     | Wetted Per. (m)      | 4.61    | 2.67    | 6.12     |
| Min Ch El (m)      | 580.70   | Shear (N/m2)         | 1.38    | 2.07    | 1.43     |
| Alpha              | 1.10     | Stream Power (N/m s) | 0.33    | 0.72    | 0.35     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.02    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.06    | 0.01     |

Plan: Attuale Donnelerio 1 RS: 40 Profile: PF 1

| E.G. Elev (m)      | 581.58   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.30     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 581.28   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 581.28   | Flow Area (m2)       |         | 0.88    |          |
| E.G. Slope (m/m)   | 0.006556 | Area (m2)            |         | 0.88    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 1.49     | Top Width (m)        |         | 1.49    |          |
| Vel Total (m/s)    | 2.42     | Avg. Vel. (m/s)      |         | 2.42    |          |
| Max Chl Dpth (m)   | 0.59     | Hydr. Depth (m)      |         | 0.59    |          |
| Conv. Total (m3/s) | 26.3     | Conv. (m3/s)         |         | 26.3    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 2.67    |          |
| Min Ch El (m)      | 580.69   | Shear (N/m2)         |         | 21.24   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 51.35   |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.56     | Cum SA (1000 m2)     |         | 0.06    |          |

Plan: Attuale Donnelerio 1 RS: 39 Profile: PF 1

| E.G. Elev (m)    | 581.02   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 5.86     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 575.17   | Reach Len. (m) | 15.22   | 15.22   | 15.22    |
| Crit W.S. (m)    | 575.68   | Flow Area (m2) |         | 0.20    |          |
| E.G. Slope (m/m) | 0.447483 | Area (m2)      |         | 0.20    |          |
| Q Total (m3/s)   | 2.13     | Flow (m3/s)    |         | 2.13    |          |

Plan: Attuale Donnelerio 1 RS: 39 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 1.21   | Top Width (m)        |  | 1.21    |  |
| Vel Total (m/s)    | 10.72  | Avg. Vel. (m/s)      |  | 10.72   |  |
| Max Chl Dpth (m)   | 0.17   | Hydr. Depth (m)      |  | 0.16    |  |
| Conv. Total (m3/s) | 3.2    | Conv. (m3/s)         |  | 3.2     |  |
| Length Wtd. (m)    | 15.22  | Wetted Per. (m)      |  | 1.53    |  |
| Min Ch EI (m)      | 575.00 | Shear (N/m2)         |  | 569.78  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 6108.37 |  |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) |  | 0.02    |  |
| C & E Loss (m)     |        | Cum SA (1000 m2)     |  | 0.06    |  |

Plan: Attuale Donnelerio 1 RS: 38 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 576.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.20     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 574.85   | Reach Len. (m)       | 1.84    | 1.84    | 1.84     |
| Crit W.S. (m)      | 575.18   | Flow Area (m2)       |         | 0.44    |          |
| E.G. Slope (m/m)   | 0.038493 | Area (m2)            |         | 0.44    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 1.16     | Top Width (m)        |         | 1.16    |          |
| Vel Total (m/s)    | 4.85     | Avg. Vel. (m/s)      |         | 4.85    |          |
| Max Chl Dpth (m)   | 0.45     | Hydr. Depth (m)      |         | 0.38    |          |
| Conv. Total (m3/s) | 10.9     | Conv. (m3/s)         |         | 10.9    |          |
| Length Wtd. (m)    | 1.84     | Wetted Per. (m)      |         | 1.77    |          |
| Min Ch EI (m)      | 574.40   | Shear (N/m2)         |         | 93.88   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 455.27  |          |
| Frctn Loss (m)     | 0.09     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Attuale Donnelerio 1 RS: 37 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 575.92   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.61     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 574.31   | Reach Len. (m)       | 9.85    | 9.85    | 9.85     |
| Crit W.S. (m)      | 574.68   | Flow Area (m2)       |         | 0.38    |          |
| E.G. Slope (m/m)   | 0.059009 | Area (m2)            |         | 0.38    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 1.17     | Top Width (m)        |         | 1.17    |          |
| Vel Total (m/s)    | 5.62     | Avg. Vel. (m/s)      |         | 5.62    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 8.8      | Conv. (m3/s)         |         | 8.8     |          |
| Length Wtd. (m)    | 9.85     | Wetted Per. (m)      |         | 1.68    |          |
| Min Ch EI (m)      | 573.94   | Shear (N/m2)         |         | 130.46  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 733.65  |          |
| Frctn Loss (m)     | 0.62     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Attuale Donnelerio 1 RS: 36 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 575.28   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.75     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 573.53   | Reach Len. (m)  | 22.64   | 22.64   | 22.64    |
| Crit W.S. (m)      | 573.92   | Flow Area (m2)  |         | 0.36    |          |
| E.G. Slope (m/m)   | 0.066182 | Area (m2)       |         | 0.36    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)     |         | 2.13    |          |
| Top Width (m)      | 1.16     | Top Width (m)   |         | 1.16    |          |
| Vel Total (m/s)    | 5.86     | Avg. Vel. (m/s) |         | 5.86    |          |
| Max Chl Dpth (m)   | 0.35     | Hydr. Depth (m) |         | 0.31    |          |
| Conv. Total (m3/s) | 8.3      | Conv. (m3/s)    |         | 8.3     |          |
| Length Wtd. (m)    | 22.64    | Wetted Per. (m) |         | 1.65    |          |
| Min Ch EI (m)      | 573.18   | Shear (N/m2)    |         | 142.79  |          |

Plan: Attuale Donnelerio 1 RS: 36 Profile: PF 1 (Continued)

|                |      |                      |  |        |  |
|----------------|------|----------------------|--|--------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 836.76 |  |
| Frctn Loss (m) | 1.98 | Cum Volume (1000 m3) |  | 0.01   |  |
| C & E Loss (m) | 0.09 | Cum SA (1000 m2)     |  | 0.03   |  |

Plan: Attuale Donnelerio 1 RS: 35 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 573.21   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.70     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 570.51   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 570.96   | Flow Area (m2)       |         | 0.29    |          |
| E.G. Slope (m/m)   | 0.121538 | Area (m2)            |         | 0.29    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 1.11     | Top Width (m)        |         | 1.11    |          |
| Vel Total (m/s)    | 7.27     | Avg. Vel. (m/s)      |         | 7.27    |          |
| Max Chl Dpth (m)   | 0.29     | Hydr. Depth (m)      |         | 0.26    |          |
| Conv. Total (m3/s) | 6.1      | Conv. (m3/s)         |         | 6.1     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.52    |          |
| Min Ch EI (m)      | 570.22   | Shear (N/m2)         |         | 229.73  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1670.29 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.35     | Cum SA (1000 m2)     |         | 0.00    |          |

Plan: Attuale Donnelerio 1 RS: 34 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 572.84   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 6.20     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 566.64   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 567.18   | Flow Area (m2)       |         | 0.19    |          |
| E.G. Slope (m/m)   | 0.405138 | Area (m2)            |         | 0.19    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 1.05     | Top Width (m)        |         | 1.05    |          |
| Vel Total (m/s)    | 11.03    | Avg. Vel. (m/s)      |         | 11.03   |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)         |         | 3.3     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.32    |          |
| Min Ch EI (m)      | 566.44   | Shear (N/m2)         |         | 579.71  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6391.72 |          |
| Frctn Loss (m)     | 0.03     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Donnelerio 3 RS: 6.200 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 572.76   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 6.64     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 566.12   | Reach Len. (m)       | 6.50    | 6.50    | 6.50     |
| Crit W.S. (m)      | 567.44   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.226911 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 5.13     | Flow (m3/s)          |         | 5.13    |          |
| Top Width (m)      | 0.94     | Top Width (m)        |         | 0.94    |          |
| Vel Total (m/s)    | 11.41    | Avg. Vel. (m/s)      |         | 11.41   |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 10.8     | Conv. (m3/s)         |         | 10.8    |          |
| Length Wtd. (m)    | 6.50     | Wetted Per. (m)      |         | 1.89    |          |
| Min Ch EI (m)      | 565.64   | Shear (N/m2)         |         | 528.11  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6027.00 |          |
| Frctn Loss (m)     | 1.39     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.18     | Cum SA (1000 m2)     |         | 0.01    |          |

Plan: Attuale Donnelerio 3 RS: 6.100 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 571.20   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 6.06     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 565.14   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 566.44   | Flow Area (m2)       |         | 0.47    |          |
| E.G. Slope (m/m)   | 0.200804 | Area (m2)            |         | 0.47    |          |
| Q Total (m3/s)     | 5.13     | Flow (m3/s)          |         | 5.13    |          |
| Top Width (m)      | 0.94     | Top Width (m)        |         | 0.94    |          |
| Vel Total (m/s)    | 10.90    | Avg. Vel. (m/s)      |         | 10.90   |          |
| Max Chl Dpth (m)   | 0.50     | Hydr. Depth (m)      |         | 0.50    |          |
| Conv. Total (m3/s) | 11.4     | Conv. (m3/s)         |         | 11.4    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 1.94    |          |
| Min Ch EI (m)      | 564.64   | Shear (N/m2)         |         | 477.98  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5209.01 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Fosso Guardia 1 RS: 6070 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 588.34   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.67     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 587.67   | Reach Len. (m)       | 11.90   | 11.90   | 11.90    |
| Crit W.S. (m)      | 587.84   | Flow Area (m2)       |         | 0.19    |          |
| E.G. Slope (m/m)   | 0.045040 | Area (m2)            |         | 0.19    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 1.04     | Top Width (m)        |         | 1.04    |          |
| Vel Total (m/s)    | 3.63     | Avg. Vel. (m/s)      |         | 3.63    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 11.90    | Wetted Per. (m)      |         | 1.31    |          |
| Min Ch EI (m)      | 587.48   | Shear (N/m2)         |         | 63.15   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 229.03  |          |
| Frctn Loss (m)     | 0.54     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Attuale Fosso Guardia 1 RS: 6060 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 587.80   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.67     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 587.13   | Reach Len. (m)       | 11.90   | 11.90   | 11.90    |
| Crit W.S. (m)      | 587.31   | Flow Area (m2)       |         | 0.19    |          |
| E.G. Slope (m/m)   | 0.045040 | Area (m2)            |         | 0.19    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 1.04     | Top Width (m)        |         | 1.04    |          |
| Vel Total (m/s)    | 3.63     | Avg. Vel. (m/s)      |         | 3.63    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 11.90    | Wetted Per. (m)      |         | 1.31    |          |
| Min Ch EI (m)      | 586.94   | Shear (N/m2)         |         | 63.15   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 229.03  |          |
| Frctn Loss (m)     | 0.92     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.09     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Attuale Fosso Guardia 1 RS: 6050 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 586.79   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 1.60     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 585.19   | Reach Len. (m) | 25.69   | 25.69   | 25.69    |
| Crit W.S. (m)    | 585.43   | Flow Area (m2) |         | 0.12    |          |
| E.G. Slope (m/m) | 0.164892 | Area (m2)      |         | 0.12    |          |
| Q Total (m3/s)   | 0.68     | Flow (m3/s)    |         | 0.68    |          |

Plan: Attuale Fosso Guardia 1 RS: 6050 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 0.99   | Top Width (m)        |  | 0.99   |  |
| Vel Total (m/s)    | 5.60   | Avg. Vel. (m/s)      |  | 5.60   |  |
| Max Chl Dpth (m)   | 0.13   | Hydr. Depth (m)      |  | 0.12   |  |
| Conv. Total (m3/s) | 1.7    | Conv. (m3/s)         |  | 1.7    |  |
| Length Wtd. (m)    | 25.69  | Wetted Per. (m)      |  | 1.17   |  |
| Min Ch El (m)      | 585.06 | Shear (N/m2)         |  | 167.46 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 937.21 |  |
| Frctn Loss (m)     | 4.55   | Cum Volume (1000 m3) |  | 0.00   |  |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     |  | 0.03   |  |

Plan: Attuale Fosso Guardia 1 RS: 6040 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 582.22   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.76     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 580.46   | Reach Len. (m)       | 0.00    | 0.00    | 0.00     |
| Crit W.S. (m)      | 580.71   | Flow Area (m2)       |         | 0.12    |          |
| E.G. Slope (m/m)   | 0.190766 | Area (m2)            |         | 0.12    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.99     | Top Width (m)        |         | 0.99    |          |
| Vel Total (m/s)    | 5.87     | Avg. Vel. (m/s)      |         | 5.87    |          |
| Max Chl Dpth (m)   | 0.12     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 1.6      | Conv. (m3/s)         |         | 1.6     |          |
| Length Wtd. (m)    | 0.00     | Wetted Per. (m)      |         | 1.16    |          |
| Min Ch El (m)      | 580.34   | Shear (N/m2)         |         | 186.61  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1095.67 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.31     | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Fosso Guardia 2 RS: 6030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 580.62   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.53     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 577.09   | Reach Len. (m)       | 16.99   | 16.99   | 16.99    |
| Crit W.S. (m)      | 577.78   | Flow Area (m2)       |         | 0.28    |          |
| E.G. Slope (m/m)   | 0.154282 | Area (m2)            |         | 0.28    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 0.79     | Top Width (m)        |         | 0.79    |          |
| Vel Total (m/s)    | 8.32     | Avg. Vel. (m/s)      |         | 8.32    |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.35    |          |
| Conv. Total (m3/s) | 5.9      | Conv. (m3/s)         |         | 5.9     |          |
| Length Wtd. (m)    | 16.99    | Wetted Per. (m)      |         | 1.42    |          |
| Min Ch El (m)      | 576.62   | Shear (N/m2)         |         | 298.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2483.00 |          |
| Frctn Loss (m)     | 3.10     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.11     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Attuale Fosso Guardia 2 RS: 6020 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 577.41   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 4.62     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 572.78   | Reach Len. (m)  | 40.78   | 40.78   | 40.78    |
| Crit W.S. (m)      | 573.52   | Flow Area (m2)  |         | 0.24    |          |
| E.G. Slope (m/m)   | 0.219773 | Area (m2)       |         | 0.24    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)     |         | 2.33    |          |
| Top Width (m)      | 0.75     | Top Width (m)   |         | 0.75    |          |
| Vel Total (m/s)    | 9.52     | Avg. Vel. (m/s) |         | 9.52    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m) |         | 0.32    |          |
| Conv. Total (m3/s) | 5.0      | Conv. (m3/s)    |         | 5.0     |          |
| Length Wtd. (m)    | 40.78    | Wetted Per. (m) |         | 1.32    |          |
| Min Ch El (m)      | 572.36   | Shear (N/m2)    |         | 399.36  |          |

Plan: Attuale Fosso Guardia 2 RS: 6020 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 3803.18 |  |
| Frctn Loss (m) | 4.68 | Cum Volume (1000 m3) |  | 0.02    |  |
| C & E Loss (m) | 0.81 | Cum SA (1000 m2)     |  | 0.05    |  |

Plan: Attuale Fosso Guardia 2 RS: 6010 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 571.92   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.93     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 569.99   | Reach Len. (m)       | 22.82   | 22.82   | 22.82    |
| Crit W.S. (m)      | 570.57   | Flow Area (m2)       |         | 0.38    |          |
| E.G. Slope (m/m)   | 0.070397 | Area (m2)            |         | 0.38    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 0.89     | Top Width (m)        |         | 0.89    |          |
| Vel Total (m/s)    | 6.16     | Avg. Vel. (m/s)      |         | 6.16    |          |
| Max Chl Dpth (m)   | 0.59     | Hydr. Depth (m)      |         | 0.43    |          |
| Conv. Total (m3/s) | 8.8      | Conv. (m3/s)         |         | 8.8     |          |
| Length Wtd. (m)    | 22.82    | Wetted Per. (m)      |         | 1.67    |          |
| Min Ch EI (m)      | 569.40   | Shear (N/m2)         |         | 156.12  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 961.00  |          |
| Frctn Loss (m)     | 2.03     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.09     | Cum SA (1000 m2)     |         | 0.02    |          |

Plan: Attuale Fosso Guardia 2 RS: 6000 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 569.79   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.84     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 566.95   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 567.60   | Flow Area (m2)       |         | 0.31    |          |
| E.G. Slope (m/m)   | 0.116402 | Area (m2)            |         | 0.31    |          |
| Q Total (m3/s)     | 2.33     | Flow (m3/s)          |         | 2.33    |          |
| Top Width (m)      | 0.82     | Top Width (m)        |         | 0.82    |          |
| Vel Total (m/s)    | 7.47     | Avg. Vel. (m/s)      |         | 7.47    |          |
| Max Chl Dpth (m)   | 0.51     | Hydr. Depth (m)      |         | 0.38    |          |
| Conv. Total (m3/s) | 6.8      | Conv. (m3/s)         |         | 6.8     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.50    |          |
| Min Ch EI (m)      | 566.44   | Shear (N/m2)         |         | 236.58  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1766.79 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Giacco 1 RS: 16 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 594.70   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.99     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 592.71   | Reach Len. (m)       | 10.53   | 10.53   | 10.53    |
| Crit W.S. (m)      | 593.22   | Flow Area (m2)       |         | 1.54    |          |
| E.G. Slope (m/m)   | 0.190292 | Area (m2)            |         | 1.54    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 2.93     | Top Width (m)        |         | 2.93    |          |
| Vel Total (m/s)    | 6.25     | Avg. Vel. (m/s)      |         | 6.25    |          |
| Max Chl Dpth (m)   | 0.71     | Hydr. Depth (m)      |         | 0.53    |          |
| Conv. Total (m3/s) | 22.1     | Conv. (m3/s)         |         | 22.1    |          |
| Length Wtd. (m)    | 10.53    | Wetted Per. (m)      |         | 3.56    |          |
| Min Ch EI (m)      | 592.00   | Shear (N/m2)         |         | 808.77  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5051.26 |          |
| Frctn Loss (m)     | 2.14     | Cum Volume (1000 m3) | 0.01    | 0.37    | 0.02     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.04    | 0.89    | 0.07     |

Plan: Attuale Giacco 1 RS: 15 Profile: PF 1

| E.G. Elev (m)      | 592.56   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.01     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 590.55   | Reach Len. (m)       | 9.25    | 9.25    | 9.25     |
| Crit W.S. (m)      | 591.03   | Flow Area (m2)       |         | 1.53    |          |
| E.G. Slope (m/m)   | 0.217406 | Area (m2)            |         | 1.53    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.43     | Top Width (m)        |         | 3.43    |          |
| Vel Total (m/s)    | 6.28     | Avg. Vel. (m/s)      |         | 6.28    |          |
| Max Chl Dpth (m)   | 0.55     | Hydr. Depth (m)      |         | 0.45    |          |
| Conv. Total (m3/s) | 20.7     | Conv. (m3/s)         |         | 20.7    |          |
| Length Wtd. (m)    | 9.25     | Wetted Per. (m)      |         | 3.88    |          |
| Min Ch El (m)      | 590.00   | Shear (N/m2)         |         | 843.52  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5299.24 |          |
| Frctn Loss (m)     | 2.24     | Cum Volume (1000 m3) | 0.01    | 0.36    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.04    | 0.85    | 0.07     |

Plan: Attuale Giacco 1 RS: 14 Profile: PF 1

| E.G. Elev (m)      | 590.27   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.86     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 588.41   | Reach Len. (m)       | 9.63    | 9.63    | 9.63     |
| Crit W.S. (m)      | 588.82   | Flow Area (m2)       |         | 1.59    |          |
| E.G. Slope (m/m)   | 0.271506 | Area (m2)            |         | 1.59    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 4.88     | Top Width (m)        |         | 4.88    |          |
| Vel Total (m/s)    | 6.05     | Avg. Vel. (m/s)      |         | 6.05    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 18.5     | Conv. (m3/s)         |         | 18.5    |          |
| Length Wtd. (m)    | 9.63     | Wetted Per. (m)      |         | 5.04    |          |
| Min Ch El (m)      | 588.00   | Shear (N/m2)         |         | 841.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5088.00 |          |
| Frctn Loss (m)     | 1.58     | Cum Volume (1000 m3) | 0.01    | 0.34    | 0.02     |
| C & E Loss (m)     | 0.40     | Cum SA (1000 m2)     | 0.04    | 0.81    | 0.07     |

Plan: Attuale Giacco 1 RS: 13 Profile: PF 1

| E.G. Elev (m)      | 588.29   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 587.76   | Reach Len. (m)       | 14.74   | 14.74   | 14.74    |
| Crit W.S. (m)      | 587.92   | Flow Area (m2)       |         | 2.97    |          |
| E.G. Slope (m/m)   | 0.109706 | Area (m2)            |         | 2.97    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 11.98    | Top Width (m)        |         | 11.98   |          |
| Vel Total (m/s)    | 3.24     | Avg. Vel. (m/s)      |         | 3.24    |          |
| Max Chl Dpth (m)   | 0.26     | Hydr. Depth (m)      |         | 0.25    |          |
| Conv. Total (m3/s) | 29.1     | Conv. (m3/s)         |         | 29.1    |          |
| Length Wtd. (m)    | 14.74    | Wetted Per. (m)      |         | 12.14   |          |
| Min Ch El (m)      | 587.50   | Shear (N/m2)         |         | 263.59  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 854.61  |          |
| Frctn Loss (m)     | 1.95     | Cum Volume (1000 m3) | 0.01    | 0.32    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.04    | 0.73    | 0.07     |

Plan: Attuale Giacco 1 RS: 12 Profile: PF 1

| E.G. Elev (m)    | 586.31   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.93     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 585.37   | Reach Len. (m) | 19.23   | 19.23   | 19.23    |
| Crit W.S. (m)    | 585.62   | Flow Area (m2) |         | 2.25    |          |
| E.G. Slope (m/m) | 0.162302 | Area (m2)      |         | 2.25    |          |
| Q Total (m3/s)   | 9.64     | Flow (m3/s)    |         | 9.64    |          |

Plan: Attuale Giacco 1 RS: 12 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 8.05   | Top Width (m)        |      | 8.05    |      |
| Vel Total (m/s)    | 4.28   | Avg. Vel. (m/s)      |      | 4.28    |      |
| Max Chl Dpth (m)   | 0.37   | Hydr. Depth (m)      |      | 0.28    |      |
| Conv. Total (m3/s) | 23.9   | Conv. (m3/s)         |      | 23.9    |      |
| Length Wtd. (m)    | 19.23  | Wetted Per. (m)      |      | 8.14    |      |
| Min Ch EI (m)      | 585.00 | Shear (N/m2)         |      | 440.46  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 1883.91 |      |
| Frctn Loss (m)     | 2.05   | Cum Volume (1000 m3) | 0.01 | 0.28    | 0.02 |
| C & E Loss (m)     | 0.04   | Cum SA (1000 m2)     | 0.04 | 0.59    | 0.07 |

Plan: Attuale Giacco 1 RS: 11 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 584.21   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.31     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 582.90   | Reach Len. (m)       | 18.62   | 18.62   | 18.62    |
| Crit W.S. (m)      | 583.33   | Flow Area (m2)       | 0.06    | 1.74    | 0.25     |
| E.G. Slope (m/m)   | 0.075636 | Area (m2)            | 0.06    | 1.74    | 0.25     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.08    | 9.05    | 0.51     |
| Top Width (m)      | 3.70     | Top Width (m)        | 0.28    | 2.17    | 1.25     |
| Vel Total (m/s)    | 4.72     | Avg. Vel. (m/s)      | 1.45    | 5.21    | 2.03     |
| Max Chl Dpth (m)   | 0.90     | Hydr. Depth (m)      | 0.20    | 0.80    | 0.20     |
| Conv. Total (m3/s) | 35.1     | Conv. (m3/s)         | 0.3     | 32.9    | 1.9      |
| Length Wtd. (m)    | 18.62    | Wetted Per. (m)      | 0.49    | 2.63    | 1.31     |
| Min Ch EI (m)      | 582.00   | Shear (N/m2)         | 85.58   | 489.62  | 142.09   |
| Alpha              | 1.16     | Stream Power (N/m s) | 123.97  | 2552.20 | 288.57   |
| Frctn Loss (m)     | 2.93     | Cum Volume (1000 m3) | 0.01    | 0.25    | 0.01     |
| C & E Loss (m)     | 0.19     | Cum SA (1000 m2)     | 0.03    | 0.49    | 0.05     |

Plan: Attuale Giacco 1 RS: 10 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 581.10   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.24     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 577.86   | Reach Len. (m)       | 13.58   | 13.59    | 13.58    |
| Crit W.S. (m)      | 578.41   | Flow Area (m2)       |         | 1.21     |          |
| E.G. Slope (m/m)   | 0.504749 | Area (m2)            |         | 1.21     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 3.74     | Top Width (m)        |         | 3.74     |          |
| Vel Total (m/s)    | 7.97     | Avg. Vel. (m/s)      |         | 7.97     |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.32     |          |
| Conv. Total (m3/s) | 13.6     | Conv. (m3/s)         |         | 13.6     |          |
| Length Wtd. (m)    | 13.59    | Wetted Per. (m)      |         | 4.03     |          |
| Min Ch EI (m)      | 577.50   | Shear (N/m2)         |         | 1486.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 11843.62 |          |
| Frctn Loss (m)     | 3.24     | Cum Volume (1000 m3) | 0.01    | 0.22     | 0.01     |
| C & E Loss (m)     | 0.61     | Cum SA (1000 m2)     | 0.03    | 0.43     | 0.04     |

Plan: Attuale Giacco 1 RS: 9 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 577.24   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.19     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 576.05   | Reach Len. (m)  | 10.04   | 10.04   | 10.04    |
| Crit W.S. (m)      | 576.38   | Flow Area (m2)  |         | 1.99    |          |
| E.G. Slope (m/m)   | 0.138578 | Area (m2)       |         | 1.99    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)     |         | 9.64    |          |
| Top Width (m)      | 5.09     | Top Width (m)   |         | 5.09    |          |
| Vel Total (m/s)    | 4.84     | Avg. Vel. (m/s) |         | 4.84    |          |
| Max Chl Dpth (m)   | 0.55     | Hydr. Depth (m) |         | 0.39    |          |
| Conv. Total (m3/s) | 25.9     | Conv. (m3/s)    |         | 25.9    |          |
| Length Wtd. (m)    | 10.04    | Wetted Per. (m) |         | 5.32    |          |
| Min Ch EI (m)      | 575.50   | Shear (N/m2)    |         | 509.15  |          |

Plan: Attuale Giacco 1 RS: 9 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 2462.58 |      |
| Frctn Loss (m) | 1.29 | Cum Volume (1000 m3) | 0.01 | 0.20    | 0.01 |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2)     | 0.03 | 0.37    | 0.04 |

Plan: Attuale Giacco 1 RS: 8 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 575.88   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 574.92   | Reach Len. (m)       | 10.90   | 10.90   | 10.90    |
| Crit W.S. (m)      | 575.20   | Flow Area (m2)       |         | 2.23    |          |
| E.G. Slope (m/m)   | 0.119591 | Area (m2)            |         | 2.23    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 6.08     | Top Width (m)        |         | 6.08    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.37    |          |
| Conv. Total (m3/s) | 27.9     | Conv. (m3/s)         |         | 27.9    |          |
| Length Wtd. (m)    | 10.90    | Wetted Per. (m)      |         | 6.29    |          |
| Min Ch EI (m)      | 574.50   | Shear (N/m2)         |         | 415.40  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1797.85 |          |
| Frctn Loss (m)     | 1.39     | Cum Volume (1000 m3) | 0.01    | 0.17    | 0.01     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.03    | 0.32    | 0.04     |

Plan: Attuale Giacco 1 RS: 7 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 574.45   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.36     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 573.09   | Reach Len. (m)       | 7.04    | 7.04    | 7.04     |
| Crit W.S. (m)      | 573.48   | Flow Area (m2)       | 0.01    | 1.86    | 0.03     |
| E.G. Slope (m/m)   | 0.137032 | Area (m2)            | 0.01    | 1.86    | 0.03     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.00    | 9.60    | 0.03     |
| Top Width (m)      | 5.06     | Top Width (m)        | 0.11    | 4.27    | 0.68     |
| Vel Total (m/s)    | 5.09     | Avg. Vel. (m/s)      | 0.89    | 5.17    | 1.06     |
| Max Chl Dpth (m)   | 0.59     | Hydr. Depth (m)      | 0.05    | 0.44    | 0.05     |
| Conv. Total (m3/s) | 26.0     | Conv. (m3/s)         | 0.0     | 25.9    | 0.1      |
| Length Wtd. (m)    | 7.04     | Wetted Per. (m)      | 0.15    | 4.45    | 0.69     |
| Min Ch EI (m)      | 572.50   | Shear (N/m2)         | 48.10   | 560.80  | 62.46    |
| Alpha              | 1.03     | Stream Power (N/m s) | 42.97   | 2898.27 | 66.42    |
| Frctn Loss (m)     | 1.25     | Cum Volume (1000 m3) | 0.01    | 0.15    | 0.01     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.03    | 0.26    | 0.04     |

Plan: Attuale Giacco 1 RS: 6 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 573.13   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.11     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 571.02   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 571.52   | Flow Area (m2)       |         | 1.50    |          |
| E.G. Slope (m/m)   | 0.236953 | Area (m2)            |         | 1.50    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.56     | Top Width (m)        |         | 3.56    |          |
| Vel Total (m/s)    | 6.43     | Avg. Vel. (m/s)      |         | 6.43    |          |
| Max Chl Dpth (m)   | 0.53     | Hydr. Depth (m)      |         | 0.42    |          |
| Conv. Total (m3/s) | 19.8     | Conv. (m3/s)         |         | 19.8    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 3.90    |          |
| Min Ch EI (m)      | 570.49   | Shear (N/m2)         |         | 892.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5740.91 |          |
| Frctn Loss (m)     | 0.04     | Cum Volume (1000 m3) | 0.01    | 0.14    | 0.01     |
| C & E Loss (m)     | 0.27     | Cum SA (1000 m2)     | 0.03    | 0.23    | 0.04     |

Plan: Attuale Giacco 1 RS: 5.96 Profile: PF 1

| E.G. Elev (m)      | 572.82   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 4.77     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 568.05   | Reach Len. (m)       | 1.65    | 1.65     | 1.65     |
| Crit W.S. (m)      | 568.74   | Flow Area (m2)       |         | 1.00     |          |
| E.G. Slope (m/m)   | 0.705538 | Area (m2)            |         | 1.00     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 2.82     | Top Width (m)        |         | 2.82     |          |
| Vel Total (m/s)    | 9.67     | Avg. Vel. (m/s)      |         | 9.67     |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.35     |          |
| Conv. Total (m3/s) | 11.5     | Conv. (m3/s)         |         | 11.5     |          |
| Length Wtd. (m)    | 1.65     | Wetted Per. (m)      |         | 3.19     |          |
| Min Ch EI (m)      | 567.65   | Shear (N/m2)         |         | 2162.91  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 20920.74 |          |
| Frctn Loss (m)     | 0.90     | Cum Volume (1000 m3) | 0.01    | 0.14     | 0.01     |
| C & E Loss (m)     | 0.41     | Cum SA (1000 m2)     | 0.03    | 0.23     | 0.04     |

Plan: Attuale Giacco 1 RS: 5.95 Profile: PF 1

| E.G. Elev (m)      | 571.52   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 3.40     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 568.12   | Reach Len. (m)       | 0.10    | 0.10     | 0.10     |
| Crit W.S. (m)      | 568.74   | Flow Area (m2)       |         | 1.18     |          |
| E.G. Slope (m/m)   | 0.430296 | Area (m2)            |         | 1.18     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 2.92     | Top Width (m)        |         | 2.92     |          |
| Vel Total (m/s)    | 8.17     | Avg. Vel. (m/s)      |         | 8.17     |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.40     |          |
| Conv. Total (m3/s) | 14.7     | Conv. (m3/s)         |         | 14.7     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 3.36     |          |
| Min Ch EI (m)      | 567.65   | Shear (N/m2)         |         | 1483.72  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 12121.54 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.14     | 0.01     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.03    | 0.23     | 0.04     |

Plan: Attuale Giacco 1 RS: 5.91 Profile: PF 1

| E.G. Elev (m)      | 569.58   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 569.56   | Reach Len. (m)       | 3.70    | 3.70    | 3.70     |
| Crit W.S. (m)      | 567.39   | Flow Area (m2)       | 1.24    | 13.30   | 2.66     |
| E.G. Slope (m/m)   | 0.000236 | Area (m2)            | 1.24    | 13.30   | 2.66     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.29    | 8.63    | 0.73     |
| Top Width (m)      | 9.24     | Top Width (m)        | 1.37    | 4.67    | 3.20     |
| Vel Total (m/s)    | 0.56     | Avg. Vel. (m/s)      | 0.23    | 0.65    | 0.27     |
| Max Chl Dpth (m)   | 3.26     | Hydr. Depth (m)      | 0.90    | 2.85    | 0.83     |
| Conv. Total (m3/s) | 627.5    | Conv. (m3/s)         | 18.6    | 561.5   | 47.5     |
| Length Wtd. (m)    | 3.70     | Wetted Per. (m)      | 2.23    | 6.06    | 3.70     |
| Min Ch EI (m)      | 566.30   | Shear (N/m2)         | 1.28    | 5.08    | 1.66     |
| Alpha              | 1.22     | Stream Power (N/m s) | 0.30    | 3.29    | 0.46     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.14    | 0.01     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.03    | 0.23    | 0.04     |

Plan: Attuale Giacco 1 RS: 5.9 Profile: PF 1

| E.G. Elev (m)    | 569.58   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.02     | Wt. n-Val.     | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)    | 569.56   | Reach Len. (m) | 15.00   | 15.00   | 15.00    |
| Crit W.S. (m)    | 567.39   | Flow Area (m2) | 1.24    | 13.30   | 2.66     |
| E.G. Slope (m/m) | 0.000236 | Area (m2)      | 1.24    | 13.30   | 2.66     |
| Q Total (m3/s)   | 9.64     | Flow (m3/s)    | 0.29    | 8.63    | 0.73     |

Plan: Attuale Giacco 1 RS: 5.9 Profile: PF 1 (Continued)

|                    |        |                      |      |       |      |
|--------------------|--------|----------------------|------|-------|------|
| Top Width (m)      | 9.24   | Top Width (m)        | 1.37 | 4.67  | 3.20 |
| Vel Total (m/s)    | 0.56   | Avg. Vel. (m/s)      | 0.23 | 0.65  | 0.27 |
| Max Chl Dpth (m)   | 3.26   | Hydr. Depth (m)      | 0.90 | 2.85  | 0.83 |
| Conv. Total (m3/s) | 627.2  | Conv. (m3/s)         | 18.6 | 561.2 | 47.4 |
| Length Wtd. (m)    | 15.00  | Wetted Per. (m)      | 2.23 | 6.06  | 3.70 |
| Min Ch El (m)      | 566.30 | Shear (N/m2)         | 1.29 | 5.08  | 1.67 |
| Alpha              | 1.22   | Stream Power (N/m s) | 0.30 | 3.30  | 0.46 |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) | 0.00 | 0.09  |      |
| C & E Loss (m)     |        | Cum SA (1000 m2)     | 0.02 | 0.21  | 0.02 |

Plan: Attuale Giacco 1 RS: 5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 567.24   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.94     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 566.30   | Reach Len. (m)       | 7.81    | 7.81    | 7.81     |
| Crit W.S. (m)      | 566.59   | Flow Area (m2)       |         | 2.24    |          |
| E.G. Slope (m/m)   | 0.068802 | Area (m2)            |         | 2.24    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.47     | Top Width (m)        |         | 3.47    |          |
| Vel Total (m/s)    | 4.30     | Avg. Vel. (m/s)      |         | 4.30    |          |
| Max Chl Dpth (m)   | 0.80     | Hydr. Depth (m)      |         | 0.65    |          |
| Conv. Total (m3/s) | 36.8     | Conv. (m3/s)         |         | 36.8    |          |
| Length Wtd. (m)    | 7.81     | Wetted Per. (m)      |         | 4.21    |          |
| Min Ch El (m)      | 565.50   | Shear (N/m2)         |         | 358.64  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1543.22 |          |
| Frctn Loss (m)     | 0.59     | Cum Volume (1000 m3) | 0.00    | 0.06    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.01    | 0.15    |          |

Plan: Attuale Giacco 1 RS: 4 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 566.64   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.14     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 565.50   | Reach Len. (m)       | 6.98    | 6.98    | 6.98     |
| Crit W.S. (m)      | 565.86   | Flow Area (m2)       |         | 2.04    |          |
| E.G. Slope (m/m)   | 0.083560 | Area (m2)            |         | 2.04    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.01     | Top Width (m)        |         | 3.01    |          |
| Vel Total (m/s)    | 4.72     | Avg. Vel. (m/s)      |         | 4.72    |          |
| Max Chl Dpth (m)   | 1.00     | Hydr. Depth (m)      |         | 0.68    |          |
| Conv. Total (m3/s) | 33.3     | Conv. (m3/s)         |         | 33.3    |          |
| Length Wtd. (m)    | 6.98     | Wetted Per. (m)      |         | 3.87    |          |
| Min Ch El (m)      | 564.50   | Shear (N/m2)         |         | 432.76  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2043.32 |          |
| Frctn Loss (m)     | 0.86     | Cum Volume (1000 m3) | 0.00    | 0.05    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.01    | 0.12    |          |

Plan: Attuale Giacco 1 RS: 3 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 565.77   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.28     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 564.49   | Reach Len. (m)  | 6.55    | 6.55    | 6.55     |
| Crit W.S. (m)      | 564.81   | Flow Area (m2)  |         | 1.93    |          |
| E.G. Slope (m/m)   | 0.198130 | Area (m2)       |         | 1.93    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)     |         | 9.64    |          |
| Top Width (m)      | 6.09     | Top Width (m)   |         | 6.09    |          |
| Vel Total (m/s)    | 5.00     | Avg. Vel. (m/s) |         | 5.00    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m) |         | 0.32    |          |
| Conv. Total (m3/s) | 21.7     | Conv. (m3/s)    |         | 21.7    |          |
| Length Wtd. (m)    | 6.55     | Wetted Per. (m) |         | 6.39    |          |
| Min Ch El (m)      | 564.00   | Shear (N/m2)    |         | 585.59  |          |

Plan: Attuale Giacco 1 RS: 3 Profile: PF 1 (Continued)

|                |      |                      |      |         |  |
|----------------|------|----------------------|------|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 2929.32 |  |
| Frctn Loss (m) | 0.61 | Cum Volume (1000 m3) | 0.00 | 0.03    |  |
| C & E Loss (m) | 0.27 | Cum SA (1000 m2)     | 0.01 | 0.09    |  |

Plan: Attuale Giacco 1 RS: 2 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 564.89   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.37     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 564.51   | Reach Len. (m)       | 5.24    | 5.24    | 5.24     |
| Crit W.S. (m)      | 564.62   | Flow Area (m2)       |         | 3.56    |          |
| E.G. Slope (m/m)   | 0.053951 | Area (m2)            |         | 3.56    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 11.09    | Top Width (m)        |         | 11.09   |          |
| Vel Total (m/s)    | 2.71     | Avg. Vel. (m/s)      |         | 2.71    |          |
| Max Chl Dpth (m)   | 0.51     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 41.5     | Conv. (m3/s)         |         | 41.5    |          |
| Length Wtd. (m)    | 5.24     | Wetted Per. (m)      |         | 11.19   |          |
| Min Ch El (m)      | 564.00   | Shear (N/m2)         |         | 168.42  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 455.96  |          |
| Frctn Loss (m)     | 0.27     | Cum Volume (1000 m3) | 0.00    | 0.01    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.01    | 0.04    |          |

Plan: Attuale Giacco 1 RS: 1 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 564.59   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.62     | Wt. n-Val.           | 0.045   | 0.040   |          |
| W.S. Elev (m)      | 563.97   | Reach Len. (m)       | 0.00    | 0.00    | 0.00     |
| Crit W.S. (m)      | 564.18   | Flow Area (m2)       | 1.25    | 1.90    |          |
| E.G. Slope (m/m)   | 0.047505 | Area (m2)            | 1.25    | 1.90    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 2.32    | 7.32    |          |
| Top Width (m)      | 7.69     | Top Width (m)        | 5.29    | 2.40    |          |
| Vel Total (m/s)    | 3.06     | Avg. Vel. (m/s)      | 1.85    | 3.86    |          |
| Max Chl Dpth (m)   | 0.97     | Hydr. Depth (m)      | 0.24    | 0.79    |          |
| Conv. Total (m3/s) | 44.2     | Conv. (m3/s)         | 10.7    | 33.6    |          |
| Length Wtd. (m)    | 0.00     | Wetted Per. (m)      | 5.31    | 3.19    |          |
| Min Ch El (m)      | 563.00   | Shear (N/m2)         | 110.03  | 277.31  |          |
| Alpha              | 1.30     | Stream Power (N/m s) | 203.63  | 1069.27 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Giacco 2 RS: 5070 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 564.28   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.78     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 560.50   | Reach Len. (m)       | 2.00    | 2.00     | 2.00     |
| Crit W.S. (m)      | 561.12   | Flow Area (m2)       |         | 1.31     |          |
| E.G. Slope (m/m)   | 0.596572 | Area (m2)            |         | 1.31     |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24    |          |
| Top Width (m)      | 3.74     | Top Width (m)        |         | 3.74     |          |
| Vel Total (m/s)    | 8.61     | Avg. Vel. (m/s)      |         | 8.61     |          |
| Max Chl Dpth (m)   | 0.35     | Hydr. Depth (m)      |         | 0.35     |          |
| Conv. Total (m3/s) | 14.6     | Conv. (m3/s)         |         | 14.6     |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 4.39     |          |
| Min Ch El (m)      | 560.15   | Shear (N/m2)         |         | 1740.83  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 14982.43 |          |
| Frctn Loss (m)     | 0.89     | Cum Volume (1000 m3) |         | 0.40     |          |
| C & E Loss (m)     | 0.33     | Cum SA (1000 m2)     |         | 0.53     |          |

Plan: Attuale Giacco 2 RS: 5067 BR U Profile: PF 1

| E.G. Elev (m)      | 563.05   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.66     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 560.39   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 560.95   | Flow Area (m2)       |         | 1.55    |          |
| E.G. Slope (m/m)   | 0.347216 | Area (m2)            |         | 1.55    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.75     | Top Width (m)        |         | 3.75    |          |
| Vel Total (m/s)    | 7.23     | Avg. Vel. (m/s)      |         | 7.23    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 19.1     | Conv. (m3/s)         |         | 19.1    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.52    |          |
| Min Ch EI (m)      | 559.97   | Shear (N/m2)         |         | 1170.57 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8462.44 |          |
| Frctn Loss (m)     | 0.76     | Cum Volume (1000 m3) |         | 0.40    |          |
| C & E Loss (m)     | 0.23     | Cum SA (1000 m2)     |         | 0.52    |          |

Plan: Attuale Giacco 2 RS: 5067 BR D Profile: PF 1

| E.G. Elev (m)      | 562.06   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.89     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.17   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 560.68   | Flow Area (m2)       |         | 1.85    |          |
| E.G. Slope (m/m)   | 0.119792 | Area (m2)            |         | 1.85    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.23     | Top Width (m)        |         | 3.23    |          |
| Vel Total (m/s)    | 6.09     | Avg. Vel. (m/s)      |         | 6.09    |          |
| Max Chl Dpth (m)   | 0.57     | Hydr. Depth (m)      |         | 0.57    |          |
| Conv. Total (m3/s) | 32.5     | Conv. (m3/s)         |         | 32.5    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.37    |          |
| Min Ch EI (m)      | 559.60   | Shear (N/m2)         |         | 496.03  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3019.62 |          |
| Frctn Loss (m)     | 0.20     | Cum Volume (1000 m3) |         | 0.40    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.52    |          |

Plan: Attuale Giacco 2 RS: 5065 Profile: PF 1

| E.G. Elev (m)      | 561.85   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.84     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.01   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 560.49   | Flow Area (m2)       |         | 1.87    |          |
| E.G. Slope (m/m)   | 0.115602 | Area (m2)            |         | 1.87    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.49     | Top Width (m)        |         | 3.49    |          |
| Vel Total (m/s)    | 6.01     | Avg. Vel. (m/s)      |         | 6.01    |          |
| Max Chl Dpth (m)   | 0.56     | Hydr. Depth (m)      |         | 0.54    |          |
| Conv. Total (m3/s) | 33.1     | Conv. (m3/s)         |         | 33.1    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 4.40    |          |
| Min Ch EI (m)      | 559.45   | Shear (N/m2)         |         | 481.94  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2895.12 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.40    |          |
| C & E Loss (m)     | 0.10     | Cum SA (1000 m2)     |         | 0.52    |          |

Plan: Attuale Giacco 2 RS: 5060 Profile: PF 1

| E.G. Elev (m)    | 561.72   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 2.86     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 558.86   | Reach Len. (m) | 2.77    | 2.77    | 2.77     |
| Crit W.S. (m)    | 559.42   | Flow Area (m2) |         | 1.50    |          |
| E.G. Slope (m/m) | 0.253335 | Area (m2)      |         | 1.50    |          |
| Q Total (m3/s)   | 11.24    | Flow (m3/s)    |         | 11.24   |          |

Plan: Attuale Giacco 2 RS: 5060 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 3.77   | Top Width (m)        |  | 3.77    |  |
| Vel Total (m/s)    | 7.49   | Avg. Vel. (m/s)      |  | 7.49    |  |
| Max Chl Dpth (m)   | 0.40   | Hydr. Depth (m)      |  | 0.40    |  |
| Conv. Total (m3/s) | 22.3   | Conv. (m3/s)         |  | 22.3    |  |
| Length Wtd. (m)    | 2.77   | Wetted Per. (m)      |  | 4.57    |  |
| Min Ch El (m)      | 558.46 | Shear (N/m2)         |  | 816.47  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 6115.92 |  |
| Frctn Loss (m)     | 0.58   | Cum Volume (1000 m3) |  | 0.40    |  |
| C & E Loss (m)     | 0.19   | Cum SA (1000 m2)     |  | 0.52    |  |

Plan: Attuale Giacco 2 RS: 5050 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 559.99   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.58     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.42   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 558.83   | Flow Area (m2)       |         | 2.02    |          |
| E.G. Slope (m/m)   | 0.111315 | Area (m2)            |         | 2.02    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.25     | Top Width (m)        |         | 4.25    |          |
| Vel Total (m/s)    | 5.56     | Avg. Vel. (m/s)      |         | 5.56    |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 33.7     | Conv. (m3/s)         |         | 33.7    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.19    |          |
| Min Ch El (m)      | 557.94   | Shear (N/m2)         |         | 425.01  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2362.69 |          |
| Frctn Loss (m)     | 0.34     | Cum Volume (1000 m3) |         | 0.38    |          |
| C & E Loss (m)     | 0.12     | Cum SA (1000 m2)     |         | 0.49    |          |

Plan: Attuale Giacco 2 RS: 5040 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.62   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.81     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.81   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 558.03   | Flow Area (m2)       |         | 2.82    |          |
| E.G. Slope (m/m)   | 0.036653 | Area (m2)            |         | 2.82    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.99     | Top Width (m)        |         | 3.99    |          |
| Vel Total (m/s)    | 3.98     | Avg. Vel. (m/s)      |         | 3.98    |          |
| Max Chl Dpth (m)   | 0.73     | Hydr. Depth (m)      |         | 0.71    |          |
| Conv. Total (m3/s) | 58.7     | Conv. (m3/s)         |         | 58.7    |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 5.21    |          |
| Min Ch El (m)      | 557.08   | Shear (N/m2)         |         | 194.95  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 775.70  |          |
| Frctn Loss (m)     | 0.06     | Cum Volume (1000 m3) |         | 0.32    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.40    |          |

Plan: Attuale Giacco 2 RS: 5035 BR U Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 558.52   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.69     | Wt. n-Val.      |         | 0.032   |          |
| W.S. Elev (m)      | 557.83   | Reach Len. (m)  |         |         |          |
| Crit W.S. (m)      | 557.99   | Flow Area (m2)  |         | 3.06    |          |
| E.G. Slope (m/m)   | 0.028959 | Area (m2)       |         | 3.06    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)     |         | 11.24   |          |
| Top Width (m)      | 3.99     | Top Width (m)   |         | 3.99    |          |
| Vel Total (m/s)    | 3.68     | Avg. Vel. (m/s) |         | 3.68    |          |
| Max Chl Dpth (m)   | 0.79     | Hydr. Depth (m) |         | 0.77    |          |
| Conv. Total (m3/s) | 66.1     | Conv. (m3/s)    |         | 66.1    |          |
| Length Wtd. (m)    |          | Wetted Per. (m) |         | 5.32    |          |
| Min Ch El (m)      | 557.04   | Shear (N/m2)    |         | 163.26  |          |

Plan: Attuale Giacco 2 RS: 5035 BR U Profile: PF 1 (Continued)

|                |      |                      |  |        |  |
|----------------|------|----------------------|--|--------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 600.25 |  |
| Frctn Loss (m) | 0.17 | Cum Volume (1000 m3) |  | 0.32   |  |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     |  | 0.39   |  |

Plan: Attuale Giacco 2 RS: 5035 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.35   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.69     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.66   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 557.84   | Flow Area (m2)       |         | 3.06    |          |
| E.G. Slope (m/m)   | 0.029070 | Area (m2)            |         | 3.06    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.52     | Top Width (m)        |         | 4.52    |          |
| Vel Total (m/s)    | 3.68     | Avg. Vel. (m/s)      |         | 3.68    |          |
| Max Chl Dpth (m)   | 0.76     | Hydr. Depth (m)      |         | 0.68    |          |
| Conv. Total (m3/s) | 65.9     | Conv. (m3/s)         |         | 65.9    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.32    |          |
| Min Ch EI (m)      | 556.90   | Shear (N/m2)         |         | 163.58  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 601.83  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) |         | 0.32    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.39    |          |

Plan: Attuale Giacco 2 RS: 5030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.23   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.67   | Reach Len. (m)       | 3.41    | 3.41    | 3.41     |
| Crit W.S. (m)      | 557.78   | Flow Area (m2)       |         | 3.39    |          |
| E.G. Slope (m/m)   | 0.021120 | Area (m2)            |         | 3.39    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.52     | Top Width (m)        |         | 4.52    |          |
| Vel Total (m/s)    | 3.31     | Avg. Vel. (m/s)      |         | 3.31    |          |
| Max Chl Dpth (m)   | 0.84     | Hydr. Depth (m)      |         | 0.75    |          |
| Conv. Total (m3/s) | 77.3     | Conv. (m3/s)         |         | 77.3    |          |
| Length Wtd. (m)    | 3.41     | Wetted Per. (m)      |         | 5.45    |          |
| Min Ch EI (m)      | 556.83   | Shear (N/m2)         |         | 128.97  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 427.12  |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) |         | 0.32    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.39    |          |

Plan: Attuale Giacco 2 RS: 5020 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.83   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.29   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 557.40   | Flow Area (m2)       |         | 3.46    |          |
| E.G. Slope (m/m)   | 0.019573 | Area (m2)            |         | 3.46    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.64     | Top Width (m)        |         | 4.64    |          |
| Vel Total (m/s)    | 3.25     | Avg. Vel. (m/s)      |         | 3.25    |          |
| Max Chl Dpth (m)   | 0.93     | Hydr. Depth (m)      |         | 0.75    |          |
| Conv. Total (m3/s) | 80.3     | Conv. (m3/s)         |         | 80.3    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.41    |          |
| Min Ch EI (m)      | 556.36   | Shear (N/m2)         |         | 122.78  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 398.49  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) |         | 0.25    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.29    |          |

Plan: Attuale Giacco 2 RS: 5010 Profile: PF 1

| E.G. Elev (m)      | 557.08   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.32     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 556.76   | Reach Len. (m)       | 3.08    | 3.08    | 3.08     |
| Crit W.S. (m)      | 556.64   | Flow Area (m2)       |         | 4.45    |          |
| E.G. Slope (m/m)   | 0.009461 | Area (m2)            |         | 4.45    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.88     | Top Width (m)        |         | 4.88    |          |
| Vel Total (m/s)    | 2.52     | Avg. Vel. (m/s)      |         | 2.52    |          |
| Max Chl Dpth (m)   | 1.22     | Hydr. Depth (m)      |         | 0.91    |          |
| Conv. Total (m3/s) | 115.6    | Conv. (m3/s)         |         | 115.6   |          |
| Length Wtd. (m)    | 3.08     | Wetted Per. (m)      |         | 5.89    |          |
| Min Ch El (m)      | 555.54   | Shear (N/m2)         |         | 70.19   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 177.13  |          |
| Frctn Loss (m)     | 0.03     | Cum Volume (1000 m3) |         | 0.11    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.12    |          |

Plan: Attuale Giacco 2 RS: 5005 Profile: PF 1

| E.G. Elev (m)      | 556.96   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 556.78   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 556.36   | Flow Area (m2)       |         | 5.99    |          |
| E.G. Slope (m/m)   | 0.004199 | Area (m2)            |         | 5.99    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 5.43     | Top Width (m)        |         | 5.43    |          |
| Vel Total (m/s)    | 1.88     | Avg. Vel. (m/s)      |         | 1.88    |          |
| Max Chl Dpth (m)   | 1.54     | Hydr. Depth (m)      |         | 1.10    |          |
| Conv. Total (m3/s) | 173.5    | Conv. (m3/s)         |         | 173.5   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 6.70    |          |
| Min Ch El (m)      | 555.24   | Shear (N/m2)         |         | 36.77   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 69.04   |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Attuale Giacco 2 RS: 5002 BR U Profile: PF 1

| E.G. Elev (m)      | 556.91   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 556.36   | Reach Len. (m)       | 10.00   | 10.00   | 10.00    |
| Crit W.S. (m)      | 556.36   | Flow Area (m2)       |         | 3.44    |          |
| E.G. Slope (m/m)   | 0.018126 | Area (m2)            |         | 3.44    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.15     | Top Width (m)        |         | 3.15    |          |
| Vel Total (m/s)    | 3.27     | Avg. Vel. (m/s)      |         | 3.27    |          |
| Max Chl Dpth (m)   | 1.17     | Hydr. Depth (m)      |         | 1.09    |          |
| Conv. Total (m3/s) | 83.5     | Conv. (m3/s)         |         | 83.5    |          |
| Length Wtd. (m)    | 10.00    | Wetted Per. (m)      |         | 5.02    |          |
| Min Ch El (m)      | 555.19   | Shear (N/m2)         |         | 121.72  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 397.88  |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Attuale Giacco 2 RS: 5002 BR D Profile: PF 1

| E.G. Elev (m)    | 556.61   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.87     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 555.74   | Reach Len. (m) | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)    | 555.98   | Flow Area (m2) |         | 2.72    |          |
| E.G. Slope (m/m) | 0.039263 | Area (m2)      |         | 2.72    |          |
| Q Total (m3/s)   | 11.24    | Flow (m3/s)    |         | 11.24   |          |

Plan: Attuale Giacco 2 RS: 5002 BR D Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 3.35   | Top Width (m)        |  | 3.35   |  |
| Vel Total (m/s)    | 4.14   | Avg. Vel. (m/s)      |  | 4.14   |  |
| Max Chl Dpth (m)   | 0.81   | Hydr. Depth (m)      |  | 0.81   |  |
| Conv. Total (m3/s) | 56.7   | Conv. (m3/s)         |  | 56.7   |  |
| Length Wtd. (m)    | 2.34   | Wetted Per. (m)      |  | 4.97   |  |
| Min Ch El (m)      | 554.93 | Shear (N/m2)         |  | 210.35 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 870.49 |  |
| Frctn Loss (m)     | 0.14   | Cum Volume (1000 m3) |  | 0.01   |  |
| C & E Loss (m)     | 0.03   | Cum SA (1000 m2)     |  | 0.01   |  |

Plan: Attuale Giacco 2 RS: 5000 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 556.45   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.20     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 555.24   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 555.56   | Flow Area (m2)       |         | 2.31    |          |
| E.G. Slope (m/m)   | 0.103083 | Area (m2)            |         | 2.31    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 6.37     | Top Width (m)        |         | 6.37    |          |
| Vel Total (m/s)    | 4.86     | Avg. Vel. (m/s)      |         | 4.86    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.36    |          |
| Conv. Total (m3/s) | 35.0     | Conv. (m3/s)         |         | 35.0    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 6.86    |          |
| Min Ch El (m)      | 554.87   | Shear (N/m2)         |         | 340.72  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1655.68 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Marchese 1 RS: 33 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 689.72   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 2.53     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 687.19   | Reach Len. (m)       | 4.00    | 4.00     | 4.00     |
| Crit W.S. (m)      | 687.51   | Flow Area (m2)       |         | 0.36     |          |
| E.G. Slope (m/m)   | 1.000164 | Area (m2)            |         | 0.36     |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55     |          |
| Top Width (m)      | 2.34     | Top Width (m)        |         | 2.34     |          |
| Vel Total (m/s)    | 7.04     | Avg. Vel. (m/s)      |         | 7.04     |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.15     |          |
| Conv. Total (m3/s) | 2.5      | Conv. (m3/s)         |         | 2.5      |          |
| Length Wtd. (m)    | 4.00     | Wetted Per. (m)      |         | 2.42     |          |
| Min Ch El (m)      | 687.00   | Shear (N/m2)         |         | 1466.53  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 10329.26 |          |
| Frctn Loss (m)     | 4.01     | Cum Volume (1000 m3) |         | 0.07     |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.30     |          |

Plan: Attuale Marchese 1 RS: 32 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 685.70   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.49     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 683.20   | Reach Len. (m)  | 3.59    | 3.59    | 3.59     |
| Crit W.S. (m)      | 683.52   | Flow Area (m2)  |         | 0.36    |          |
| E.G. Slope (m/m)   | 1.003083 | Area (m2)       |         | 0.36    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     |         | 2.55    |          |
| Top Width (m)      | 2.39     | Top Width (m)   |         | 2.39    |          |
| Vel Total (m/s)    | 6.99     | Avg. Vel. (m/s) |         | 6.99    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m) |         | 0.15    |          |
| Conv. Total (m3/s) | 2.5      | Conv. (m3/s)    |         | 2.5     |          |
| Length Wtd. (m)    | 3.59     | Wetted Per. (m) |         | 2.47    |          |
| Min Ch El (m)      | 683.00   | Shear (N/m2)    |         | 1451.45 |          |

Plan: Attuale Marchese 1 RS: 32 Profile: PF 1 (Continued)

|                |      |                      |  |          |  |
|----------------|------|----------------------|--|----------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 10147.91 |  |
| Frctn Loss (m) | 2.36 | Cum Volume (1000 m3) |  | 0.07     |  |
| C & E Loss (m) | 0.23 | Cum SA (1000 m2)     |  | 0.29     |  |

Plan: Attuale Marchese 1 RS: 31 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 683.10   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.72     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 681.39   | Reach Len. (m)       | 12.15   | 12.15   | 12.15    |
| Crit W.S. (m)      | 681.70   | Flow Area (m2)       |         | 0.44    |          |
| E.G. Slope (m/m)   | 0.464101 | Area (m2)            |         | 0.44    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.05     | Top Width (m)        |         | 2.05    |          |
| Vel Total (m/s)    | 5.80     | Avg. Vel. (m/s)      |         | 5.80    |          |
| Max Chl Dpth (m)   | 0.39     | Hydr. Depth (m)      |         | 0.21    |          |
| Conv. Total (m3/s) | 3.7      | Conv. (m3/s)         |         | 3.7     |          |
| Length Wtd. (m)    | 12.15    | Wetted Per. (m)      |         | 2.21    |          |
| Min Ch EI (m)      | 681.00   | Shear (N/m2)         |         | 905.03  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5251.30 |          |
| Frctn Loss (m)     | 5.32     | Cum Volume (1000 m3) |         | 0.07    |          |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     |         | 0.29    |          |

Plan: Attuale Marchese 1 RS: 30 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 677.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.47     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 676.24   | Reach Len. (m)       | 2.40    | 2.40    | 2.40     |
| Crit W.S. (m)      | 676.53   | Flow Area (m2)       |         | 0.47    |          |
| E.G. Slope (m/m)   | 0.414013 | Area (m2)            |         | 0.47    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.28     | Top Width (m)        |         | 2.28    |          |
| Vel Total (m/s)    | 5.38     | Avg. Vel. (m/s)      |         | 5.38    |          |
| Max Chl Dpth (m)   | 0.24     | Hydr. Depth (m)      |         | 0.21    |          |
| Conv. Total (m3/s) | 4.0      | Conv. (m3/s)         |         | 4.0     |          |
| Length Wtd. (m)    | 2.40     | Wetted Per. (m)      |         | 2.46    |          |
| Min Ch EI (m)      | 676.00   | Shear (N/m2)         |         | 784.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4216.35 |          |
| Frctn Loss (m)     | 1.19     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.26    |          |

Plan: Attuale Marchese 1 RS: 29 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 676.47   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.07     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 674.40   | Reach Len. (m)       | 11.25   | 11.25   | 11.25    |
| Crit W.S. (m)      | 674.73   | Flow Area (m2)       |         | 0.40    |          |
| E.G. Slope (m/m)   | 0.606523 | Area (m2)            |         | 0.40    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.98     | Top Width (m)        |         | 1.98    |          |
| Vel Total (m/s)    | 6.37     | Avg. Vel. (m/s)      |         | 6.37    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)         |         | 3.3     |          |
| Length Wtd. (m)    | 11.25    | Wetted Per. (m)      |         | 2.14    |          |
| Min Ch EI (m)      | 674.00   | Shear (N/m2)         |         | 1112.00 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7078.87 |          |
| Frctn Loss (m)     | 4.86     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.33     | Cum SA (1000 m2)     |         | 0.26    |          |

Plan: Attuale Marchese 1 RS: 28 Profile: PF 1

| E.G. Elev (m)      | 671.28   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.97     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 670.31   | Reach Len. (m)       | 6.58    | 6.58    | 6.58     |
| Crit W.S. (m)      | 670.53   | Flow Area (m2)       |         | 0.58    |          |
| E.G. Slope (m/m)   | 0.323419 | Area (m2)            |         | 0.58    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.37     | Top Width (m)        |         | 3.37    |          |
| Vel Total (m/s)    | 4.36     | Avg. Vel. (m/s)      |         | 4.36    |          |
| Max Chl Dpth (m)   | 0.31     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 4.5      | Conv. (m3/s)         |         | 4.5     |          |
| Length Wtd. (m)    | 6.58     | Wetted Per. (m)      |         | 3.44    |          |
| Min Ch El (m)      | 670.00   | Shear (N/m2)         |         | 539.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2353.79 |          |
| Frctn Loss (m)     | 2.29     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.23    |          |

Plan: Attuale Marchese 1 RS: 27 Profile: PF 1

| E.G. Elev (m)      | 668.93   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.56     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 667.37   | Reach Len. (m)       | 8.97    | 8.96    | 8.97     |
| Crit W.S. (m)      | 667.68   | Flow Area (m2)       |         | 0.46    |          |
| E.G. Slope (m/m)   | 0.375186 | Area (m2)            |         | 0.46    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.93     | Top Width (m)        |         | 1.93    |          |
| Vel Total (m/s)    | 5.54     | Avg. Vel. (m/s)      |         | 5.54    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.24    |          |
| Conv. Total (m3/s) | 4.2      | Conv. (m3/s)         |         | 4.2     |          |
| Length Wtd. (m)    | 8.96     | Wetted Per. (m)      |         | 2.12    |          |
| Min Ch El (m)      | 667.00   | Shear (N/m2)         |         | 799.80  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4427.81 |          |
| Frctn Loss (m)     | 3.50     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.21    |          |

Plan: Attuale Marchese 1 RS: 26 Profile: PF 1

| E.G. Elev (m)      | 665.43   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.63     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 663.80   | Reach Len. (m)       | 6.84    | 6.84    | 6.84     |
| Crit W.S. (m)      | 664.12   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.407425 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.95     | Top Width (m)        |         | 1.95    |          |
| Vel Total (m/s)    | 5.65     | Avg. Vel. (m/s)      |         | 5.65    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m)      |         | 0.23    |          |
| Conv. Total (m3/s) | 4.0      | Conv. (m3/s)         |         | 4.0     |          |
| Length Wtd. (m)    | 6.84     | Wetted Per. (m)      |         | 2.14    |          |
| Min Ch El (m)      | 663.50   | Shear (N/m2)         |         | 842.37  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4761.72 |          |
| Frctn Loss (m)     | 3.03     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.19    |          |

Plan: Attuale Marchese 1 RS: 25 Profile: PF 1

| E.G. Elev (m)    | 662.36   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 1.96     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 660.40   | Reach Len. (m) | 6.29    | 6.29    | 6.29     |
| Crit W.S. (m)    | 660.76   | Flow Area (m2) |         | 0.41    |          |
| E.G. Slope (m/m) | 0.485041 | Area (m2)      |         | 0.41    |          |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Attuale Marchese 1 RS: 25 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 1.70   | Top Width (m)        |  | 1.70    |  |
| Vel Total (m/s)    | 6.19   | Avg. Vel. (m/s)      |  | 6.19    |  |
| Max Chl Dpth (m)   | 0.40   | Hydr. Depth (m)      |  | 0.24    |  |
| Conv. Total (m3/s) | 3.7    | Conv. (m3/s)         |  | 3.7     |  |
| Length Wtd. (m)    | 6.29   | Wetted Per. (m)      |  | 1.94    |  |
| Min Ch EI (m)      | 660.00 | Shear (N/m2)         |  | 1009.37 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 6252.52 |  |
| Frctn Loss (m)     | 2.54   | Cum Volume (1000 m3) |  | 0.05    |  |
| C & E Loss (m)     | 0.18   | Cum SA (1000 m2)     |  | 0.18    |  |

Plan: Attuale Marchese 1 RS: 24 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 659.65   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.35     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 658.30   | Reach Len. (m)       | 6.80    | 6.80    | 6.80     |
| Crit W.S. (m)      | 658.59   | Flow Area (m2)       |         | 0.50    |          |
| E.G. Slope (m/m)   | 0.340696 | Area (m2)            |         | 0.50    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.20     | Top Width (m)        |         | 2.20    |          |
| Vel Total (m/s)    | 5.14     | Avg. Vel. (m/s)      |         | 5.14    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m)      |         | 0.23    |          |
| Conv. Total (m3/s) | 4.4      | Conv. (m3/s)         |         | 4.4     |          |
| Length Wtd. (m)    | 6.80     | Wetted Per. (m)      |         | 2.37    |          |
| Min Ch EI (m)      | 658.00   | Shear (N/m2)         |         | 699.18  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3596.29 |          |
| Frctn Loss (m)     | 2.79     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.17    |          |

Plan: Attuale Marchese 1 RS: 23 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 656.80   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.15     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 655.65   | Reach Len. (m)       | 1.49    | 1.50    | 1.49     |
| Crit W.S. (m)      | 655.87   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.503966 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.76     | Top Width (m)        |         | 3.76    |          |
| Vel Total (m/s)    | 4.75     | Avg. Vel. (m/s)      |         | 4.75    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m)      |         | 0.14    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 1.50     | Wetted Per. (m)      |         | 3.87    |          |
| Min Ch EI (m)      | 655.50   | Shear (N/m2)         |         | 685.02  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3256.11 |          |
| Frctn Loss (m)     | 0.88     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.15    |          |

Plan: Attuale Marchese 1 RS: 22 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 655.86   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.70     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 654.16   | Reach Len. (m)  | 4.60    | 4.60    | 4.60     |
| Crit W.S. (m)      | 654.44   | Flow Area (m2)  |         | 0.44    |          |
| E.G. Slope (m/m)   | 0.699040 | Area (m2)       |         | 0.44    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     |         | 2.55    |          |
| Top Width (m)      | 2.91     | Top Width (m)   |         | 2.91    |          |
| Vel Total (m/s)    | 5.78     | Avg. Vel. (m/s) |         | 5.78    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m) |         | 0.15    |          |
| Conv. Total (m3/s) | 3.0      | Conv. (m3/s)    |         | 3.0     |          |
| Length Wtd. (m)    | 4.60     | Wetted Per. (m) |         | 3.04    |          |
| Min Ch EI (m)      | 654.00   | Shear (N/m2)    |         | 995.62  |          |

Plan: Attuale Marchese 1 RS: 22 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 5750.01 |  |
| Frctn Loss (m) | 2.81 | Cum Volume (1000 m3) |  | 0.04    |  |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2)     |  | 0.14    |  |

Plan: Attuale Marchese 1 RS: 21 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 653.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.78     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 651.27   | Reach Len. (m)       | 3.90    | 3.89    | 3.90     |
| Crit W.S. (m)      | 651.57   | Flow Area (m2)       |         | 0.43    |          |
| E.G. Slope (m/m)   | 0.536636 | Area (m2)            |         | 0.43    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.25     | Top Width (m)        |         | 2.25    |          |
| Vel Total (m/s)    | 5.90     | Avg. Vel. (m/s)      |         | 5.90    |          |
| Max Chl Dpth (m)   | 0.27     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 3.5      | Conv. (m3/s)         |         | 3.5     |          |
| Length Wtd. (m)    | 3.89     | Wetted Per. (m)      |         | 2.36    |          |
| Min Ch EI (m)      | 651.00   | Shear (N/m2)         |         | 963.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5688.09 |          |
| Frctn Loss (m)     | 2.01     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.13    |          |

Plan: Attuale Marchese 1 RS: 20 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 651.01   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.12     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 648.89   | Reach Len. (m)       | 4.00    | 4.00    | 4.00     |
| Crit W.S. (m)      | 649.28   | Flow Area (m2)       |         | 0.40    |          |
| E.G. Slope (m/m)   | 0.495817 | Area (m2)            |         | 0.40    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.50     | Top Width (m)        |         | 1.50    |          |
| Vel Total (m/s)    | 6.45     | Avg. Vel. (m/s)      |         | 6.45    |          |
| Max Chl Dpth (m)   | 0.39     | Hydr. Depth (m)      |         | 0.26    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 4.00     | Wetted Per. (m)      |         | 1.78    |          |
| Min Ch EI (m)      | 648.50   | Shear (N/m2)         |         | 1078.46 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6956.36 |          |
| Frctn Loss (m)     | 2.13     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.12    |          |

Plan: Attuale Marchese 1 RS: 19 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 648.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.45     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 646.41   | Reach Len. (m)       | 3.69    | 3.69    | 3.69     |
| Crit W.S. (m)      | 646.84   | Flow Area (m2)       |         | 0.37    |          |
| E.G. Slope (m/m)   | 0.572333 | Area (m2)            |         | 0.37    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.34     | Top Width (m)        |         | 1.34    |          |
| Vel Total (m/s)    | 6.93     | Avg. Vel. (m/s)      |         | 6.93    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 3.4      | Conv. (m3/s)         |         | 3.4     |          |
| Length Wtd. (m)    | 3.69     | Wetted Per. (m)      |         | 1.66    |          |
| Min Ch EI (m)      | 646.00   | Shear (N/m2)         |         | 1244.95 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8627.95 |          |
| Frctn Loss (m)     | 2.11     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.37     | Cum SA (1000 m2)     |         | 0.12    |          |

Plan: Attuale Marchese 1 RS: 18 Profile: PF 1

| E.G. Elev (m)      | 646.37   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.23     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 645.14   | Reach Len. (m)       | 6.61    | 6.61    | 6.61     |
| Crit W.S. (m)      | 645.36   | Flow Area (m2)       |         | 0.52    |          |
| E.G. Slope (m/m)   | 0.572107 | Area (m2)            |         | 0.52    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.80     | Top Width (m)        |         | 3.80    |          |
| Vel Total (m/s)    | 4.91     | Avg. Vel. (m/s)      |         | 4.91    |          |
| Max Chl Dpth (m)   | 0.14     | Hydr. Depth (m)      |         | 0.14    |          |
| Conv. Total (m3/s) | 3.4      | Conv. (m3/s)         |         | 3.4     |          |
| Length Wtd. (m)    | 6.61     | Wetted Per. (m)      |         | 3.92    |          |
| Min Ch El (m)      | 645.00   | Shear (N/m2)         |         | 742.50  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3646.23 |          |
| Frctn Loss (m)     | 2.86     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.11    |          |

Plan: Attuale Marchese 1 RS: 17 Profile: PF 1

| E.G. Elev (m)      | 643.47   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.10     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 642.37   | Reach Len. (m)       | 3.76    | 3.76    | 3.76     |
| Crit W.S. (m)      | 642.60   | Flow Area (m2)       |         | 0.55    |          |
| E.G. Slope (m/m)   | 0.338842 | Area (m2)            |         | 0.55    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.95     | Top Width (m)        |         | 2.95    |          |
| Vel Total (m/s)    | 4.64     | Avg. Vel. (m/s)      |         | 4.64    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 4.4      | Conv. (m3/s)         |         | 4.4     |          |
| Length Wtd. (m)    | 3.76     | Wetted Per. (m)      |         | 3.05    |          |
| Min Ch El (m)      | 642.00   | Shear (N/m2)         |         | 599.03  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2781.95 |          |
| Frctn Loss (m)     | 1.53     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.08    |          |

Plan: Attuale Marchese 1 RS: 16 Profile: PF 1

| E.G. Elev (m)      | 641.89   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.64     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 640.26   | Reach Len. (m)       | 3.60    | 3.60    | 3.60     |
| Crit W.S. (m)      | 640.55   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.495364 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.35     | Top Width (m)        |         | 2.35    |          |
| Vel Total (m/s)    | 5.67     | Avg. Vel. (m/s)      |         | 5.67    |          |
| Max Chl Dpth (m)   | 0.26     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 3.60     | Wetted Per. (m)      |         | 2.46    |          |
| Min Ch El (m)      | 640.00   | Shear (N/m2)         |         | 888.28  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5035.35 |          |
| Frctn Loss (m)     | 1.85     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Attuale Marchese 1 RS: 15 Profile: PF 1

| E.G. Elev (m)    | 640.04   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 1.73     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 638.31   | Reach Len. (m) | 3.02    | 3.02    | 3.02     |
| Crit W.S. (m)    | 638.60   | Flow Area (m2) |         | 0.44    |          |
| E.G. Slope (m/m) | 0.533064 | Area (m2)      |         | 0.44    |          |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Attuale Marchese 1 RS: 15 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 2.31   | Top Width (m)        |  | 2.31    |  |
| Vel Total (m/s)    | 5.83   | Avg. Vel. (m/s)      |  | 5.83    |  |
| Max Chl Dpth (m)   | 0.31   | Hydr. Depth (m)      |  | 0.19    |  |
| Conv. Total (m3/s) | 3.5    | Conv. (m3/s)         |  | 3.5     |  |
| Length Wtd. (m)    | 3.02   | Wetted Per. (m)      |  | 2.42    |  |
| Min Ch EI (m)      | 638.00 | Shear (N/m2)         |  | 943.82  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 5503.25 |  |
| Frctn Loss (m)     | 1.73   | Cum Volume (1000 m3) |  | 0.02    |  |
| C & E Loss (m)     | 0.04   | Cum SA (1000 m2)     |  | 0.07    |  |

Plan: Attuale Marchese 1 RS: 14 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 638.27   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.60     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 636.67   | Reach Len. (m)       | 8.00    | 8.00    | 8.00     |
| Crit W.S. (m)      | 636.94   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.615630 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.85     | Top Width (m)        |         | 2.85    |          |
| Vel Total (m/s)    | 5.61     | Avg. Vel. (m/s)      |         | 5.61    |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 8.00     | Wetted Per. (m)      |         | 2.98    |          |
| Min Ch EI (m)      | 636.50   | Shear (N/m2)         |         | 922.62  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5173.12 |          |
| Frctn Loss (m)     | 3.37     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     |         | 0.06    |          |

Plan: Attuale Marchese 1 RS: 13 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 634.81   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.32     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 633.49   | Reach Len. (m)       | 7.37    | 7.37    | 7.37     |
| Crit W.S. (m)      | 633.79   | Flow Area (m2)       |         | 0.50    |          |
| E.G. Slope (m/m)   | 0.306726 | Area (m2)            |         | 0.50    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.01     | Top Width (m)        |         | 2.01    |          |
| Vel Total (m/s)    | 5.10     | Avg. Vel. (m/s)      |         | 5.10    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m)      |         | 0.25    |          |
| Conv. Total (m3/s) | 4.6      | Conv. (m3/s)         |         | 4.6     |          |
| Length Wtd. (m)    | 7.37     | Wetted Per. (m)      |         | 2.24    |          |
| Min Ch EI (m)      | 633.00   | Shear (N/m2)         |         | 671.53  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3421.77 |          |
| Frctn Loss (m)     | 2.44     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Attuale Marchese 1 RS: 12 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 632.30   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.09     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 631.20   | Reach Len. (m)  | 8.00    | 8.00    | 8.00     |
| Crit W.S. (m)      | 631.44   | Flow Area (m2)  |         | 0.55    |          |
| E.G. Slope (m/m)   | 0.357414 | Area (m2)       |         | 0.55    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     |         | 2.55    |          |
| Top Width (m)      | 3.06     | Top Width (m)   |         | 3.06    |          |
| Vel Total (m/s)    | 4.63     | Avg. Vel. (m/s) |         | 4.63    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m) |         | 0.18    |          |
| Conv. Total (m3/s) | 4.3      | Conv. (m3/s)    |         | 4.3     |          |
| Length Wtd. (m)    | 8.00     | Wetted Per. (m) |         | 3.19    |          |
| Min Ch EI (m)      | 631.00   | Shear (N/m2)    |         | 605.11  |          |

Plan: Attuale Marchese 1 RS: 12 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 2804.09 |  |
| Frctn Loss (m) | 3.09 | Cum Volume (1000 m3) |  | 0.02    |  |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2)     |  | 0.02    |  |

Plan: Attuale Marchese 1 RS: 11 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 629.14   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.76     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 627.38   | Reach Len. (m)       | 14.82   | 14.82   | 14.82    |
| Crit W.S. (m)      | 627.72   | Flow Area (m2)       |         | 0.43    |          |
| E.G. Slope (m/m)   | 0.419828 | Area (m2)            |         | 0.43    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.78     | Top Width (m)        |         | 1.78    |          |
| Vel Total (m/s)    | 5.87     | Avg. Vel. (m/s)      |         | 5.87    |          |
| Max Chl Dpth (m)   | 0.38     | Hydr. Depth (m)      |         | 0.24    |          |
| Conv. Total (m3/s) | 3.9      | Conv. (m3/s)         |         | 3.9     |          |
| Length Wtd. (m)    | 14.82    | Wetted Per. (m)      |         | 1.99    |          |
| Min Ch EI (m)      | 627.00   | Shear (N/m2)         |         | 898.37  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5274.48 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Attuale Marchese 2 RS: 39 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 683.16   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 682.20   | Reach Len. (m)       | 7.73    | 7.72    | 7.73     |
| Crit W.S. (m)      | 682.41   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.324634 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.13     | Top Width (m)        |         | 3.13    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 4.1      | Conv. (m3/s)         |         | 4.1     |          |
| Length Wtd. (m)    | 7.72     | Wetted Per. (m)      |         | 3.23    |          |
| Min Ch EI (m)      | 682.00   | Shear (N/m2)         |         | 533.48  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2309.76 |          |
| Frctn Loss (m)     | 2.69     | Cum Volume (1000 m3) |         | 0.10    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.61    |          |

Plan: Attuale Marchese 2 RS: 38 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 680.41   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.77     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 679.64   | Reach Len. (m)       | 10.89   | 10.89   | 10.89    |
| Crit W.S. (m)      | 679.81   | Flow Area (m2)       |         | 0.60    |          |
| E.G. Slope (m/m)   | 0.374569 | Area (m2)            |         | 0.60    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.64     | Top Width (m)        |         | 4.64    |          |
| Vel Total (m/s)    | 3.89     | Avg. Vel. (m/s)      |         | 3.89    |          |
| Max Chl Dpth (m)   | 0.14     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 3.8      | Conv. (m3/s)         |         | 3.8     |          |
| Length Wtd. (m)    | 10.89    | Wetted Per. (m)      |         | 4.69    |          |
| Min Ch EI (m)      | 679.50   | Shear (N/m2)         |         | 471.01  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1832.55 |          |
| Frctn Loss (m)     | 2.81     | Cum Volume (1000 m3) |         | 0.10    |          |
| C & E Loss (m)     | 0.13     | Cum SA (1000 m2)     |         | 0.58    |          |

Plan: Attuale Marchese 2 RS: 37 Profile: PF 1

| E.G. Elev (m)      | 677.48   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.35     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 677.13   | Reach Len. (m)       | 7.98    | 7.97    | 7.98     |
| Crit W.S. (m)      | 677.23   | Flow Area (m2)       |         | 0.89    |          |
| E.G. Slope (m/m)   | 0.188294 | Area (m2)            |         | 0.89    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 7.37     | Top Width (m)        |         | 7.37    |          |
| Vel Total (m/s)    | 2.64     | Avg. Vel. (m/s)      |         | 2.64    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 5.4      | Conv. (m3/s)         |         | 5.4     |          |
| Length Wtd. (m)    | 7.97     | Wetted Per. (m)      |         | 7.41    |          |
| Min Ch El (m)      | 677.00   | Shear (N/m2)         |         | 221.20  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 583.14  |          |
| Frctn Loss (m)     | 1.61     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.52    |          |

Plan: Attuale Marchese 2 RS: 36 Profile: PF 1

| E.G. Elev (m)      | 675.85   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.62     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 675.23   | Reach Len. (m)       | 7.36    | 7.36    | 7.36     |
| Crit W.S. (m)      | 675.40   | Flow Area (m2)       |         | 0.67    |          |
| E.G. Slope (m/m)   | 0.218661 | Area (m2)            |         | 0.67    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.10     | Top Width (m)        |         | 4.10    |          |
| Vel Total (m/s)    | 3.48     | Avg. Vel. (m/s)      |         | 3.48    |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 5.0      | Conv. (m3/s)         |         | 5.0     |          |
| Length Wtd. (m)    | 7.36     | Wetted Per. (m)      |         | 4.15    |          |
| Min Ch El (m)      | 675.00   | Shear (N/m2)         |         | 347.98  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1210.28 |          |
| Frctn Loss (m)     | 1.90     | Cum Volume (1000 m3) |         | 0.08    |          |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     |         | 0.47    |          |

Plan: Attuale Marchese 2 RS: 35 Profile: PF 1

| E.G. Elev (m)      | 673.88   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.41     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 672.47   | Reach Len. (m)       | 18.06   | 18.07   | 18.06    |
| Crit W.S. (m)      | 672.79   | Flow Area (m2)       |         | 0.44    |          |
| E.G. Slope (m/m)   | 0.308489 | Area (m2)            |         | 0.44    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.60     | Top Width (m)        |         | 1.60    |          |
| Vel Total (m/s)    | 5.26     | Avg. Vel. (m/s)      |         | 5.26    |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 4.2      | Conv. (m3/s)         |         | 4.2     |          |
| Length Wtd. (m)    | 18.07    | Wetted Per. (m)      |         | 1.91    |          |
| Min Ch El (m)      | 672.00   | Shear (N/m2)         |         | 705.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3711.30 |          |
| Frctn Loss (m)     | 5.61     | Cum Volume (1000 m3) |         | 0.08    |          |
| C & E Loss (m)     | 0.14     | Cum SA (1000 m2)     |         | 0.45    |          |

Plan: Attuale Marchese 2 RS: 34 Profile: PF 1

| E.G. Elev (m)    | 668.13   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.93     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 667.20   | Reach Len. (m) | 18.07   | 18.07   | 18.07    |
| Crit W.S. (m)    | 667.41   | Flow Area (m2) |         | 0.55    |          |
| E.G. Slope (m/m) | 0.312733 | Area (m2)      |         | 0.55    |          |
| Q Total (m3/s)   | 2.34     | Flow (m3/s)    |         | 2.34    |          |

Plan: Attuale Marchese 2 RS: 34 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 3.14   | Top Width (m)        |  | 3.14    |  |
| Vel Total (m/s)    | 4.27   | Avg. Vel. (m/s)      |  | 4.27    |  |
| Max Chl Dpth (m)   | 0.20   | Hydr. Depth (m)      |  | 0.17    |  |
| Conv. Total (m3/s) | 4.2    | Conv. (m3/s)         |  | 4.2     |  |
| Length Wtd. (m)    | 18.07  | Wetted Per. (m)      |  | 3.25    |  |
| Min Ch EI (m)      | 667.00 | Shear (N/m2)         |  | 517.79  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 2211.33 |  |
| Frctn Loss (m)     | 6.54   | Cum Volume (1000 m3) |  | 0.07    |  |
| C & E Loss (m)     | 0.00   | Cum SA (1000 m2)     |  | 0.41    |  |

Plan: Attuale Marchese 2 RS: 33 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 661.59   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.94     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 660.65   | Reach Len. (m)       | 7.00    | 7.00    | 7.00     |
| Crit W.S. (m)      | 660.84   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.423637 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.90     | Top Width (m)        |         | 3.90    |          |
| Vel Total (m/s)    | 4.30     | Avg. Vel. (m/s)      |         | 4.30    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m)      |         | 0.14    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 7.00     | Wetted Per. (m)      |         | 4.01    |          |
| Min Ch EI (m)      | 660.50   | Shear (N/m2)         |         | 563.65  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2421.69 |          |
| Frctn Loss (m)     | 3.05     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.34    |          |

Plan: Attuale Marchese 2 RS: 32 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 658.50   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.29     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 657.21   | Reach Len. (m)       | 8.28    | 8.28    | 8.28     |
| Crit W.S. (m)      | 657.46   | Flow Area (m2)       |         | 0.47    |          |
| E.G. Slope (m/m)   | 0.448168 | Area (m2)            |         | 0.47    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 2.75     | Top Width (m)        |         | 2.75    |          |
| Vel Total (m/s)    | 5.03     | Avg. Vel. (m/s)      |         | 5.03    |          |
| Max Chl Dpth (m)   | 0.21     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 3.5      | Conv. (m3/s)         |         | 3.5     |          |
| Length Wtd. (m)    | 8.28     | Wetted Per. (m)      |         | 2.83    |          |
| Min Ch EI (m)      | 657.00   | Shear (N/m2)         |         | 723.20  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3634.56 |          |
| Frctn Loss (m)     | 3.57     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.32    |          |

Plan: Attuale Marchese 2 RS: 31 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 654.90   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.50     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 653.41   | Reach Len. (m)  | 7.20    | 7.20    | 7.20     |
| Crit W.S. (m)      | 653.69   | Flow Area (m2)  |         | 0.43    |          |
| E.G. Slope (m/m)   | 0.415546 | Area (m2)       |         | 0.43    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     |         | 2.34    |          |
| Top Width (m)      | 2.05     | Top Width (m)   |         | 2.05    |          |
| Vel Total (m/s)    | 5.42     | Avg. Vel. (m/s) |         | 5.42    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m) |         | 0.21    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)    |         | 3.6     |          |
| Length Wtd. (m)    | 7.20     | Wetted Per. (m) |         | 2.21    |          |
| Min Ch EI (m)      | 653.00   | Shear (N/m2)    |         | 795.44  |          |

Plan: Attuale Marchese 2 RS: 31 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 4313.57 |  |
| Frctn Loss (m) | 3.09 | Cum Volume (1000 m3) |  | 0.05    |  |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     |  | 0.30    |  |

Plan: Attuale Marchese 2 RS: 30 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 651.81   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.51     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 650.30   | Reach Len. (m)       | 7.92    | 7.92    | 7.92     |
| Crit W.S. (m)      | 650.58   | Flow Area (m2)       |         | 0.43    |          |
| E.G. Slope (m/m)   | 0.444230 | Area (m2)            |         | 0.43    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 2.18     | Top Width (m)        |         | 2.18    |          |
| Vel Total (m/s)    | 5.45     | Avg. Vel. (m/s)      |         | 5.45    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 3.5      | Conv. (m3/s)         |         | 3.5     |          |
| Length Wtd. (m)    | 7.92     | Wetted Per. (m)      |         | 2.30    |          |
| Min Ch EI (m)      | 650.00   | Shear (N/m2)         |         | 814.90  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4441.22 |          |
| Frctn Loss (m)     | 3.74     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.29    |          |

Plan: Attuale Marchese 2 RS: 29 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 648.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.75     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 646.30   | Reach Len. (m)       | 7.50    | 7.49    | 7.50     |
| Crit W.S. (m)      | 646.61   | Flow Area (m2)       |         | 0.40    |          |
| E.G. Slope (m/m)   | 0.502843 | Area (m2)            |         | 0.40    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.96     | Top Width (m)        |         | 1.96    |          |
| Vel Total (m/s)    | 5.86     | Avg. Vel. (m/s)      |         | 5.86    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)         |         | 3.3     |          |
| Length Wtd. (m)    | 7.49     | Wetted Per. (m)      |         | 2.10    |          |
| Min Ch EI (m)      | 646.00   | Shear (N/m2)         |         | 937.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5497.57 |          |
| Frctn Loss (m)     | 4.39     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.10     | Cum SA (1000 m2)     |         | 0.27    |          |

Plan: Attuale Marchese 2 RS: 28 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 643.57   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.42     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 642.15   | Reach Len. (m)       | 9.82    | 9.82    | 9.82     |
| Crit W.S. (m)      | 642.38   | Flow Area (m2)       |         | 0.44    |          |
| E.G. Slope (m/m)   | 0.692308 | Area (m2)            |         | 0.44    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.44     | Top Width (m)        |         | 3.44    |          |
| Vel Total (m/s)    | 5.27     | Avg. Vel. (m/s)      |         | 5.27    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 2.8      | Conv. (m3/s)         |         | 2.8     |          |
| Length Wtd. (m)    | 9.82     | Wetted Per. (m)      |         | 3.48    |          |
| Min Ch EI (m)      | 642.00   | Shear (N/m2)         |         | 865.35  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4559.02 |          |
| Frctn Loss (m)     | 2.18     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.33     | Cum SA (1000 m2)     |         | 0.25    |          |

Plan: Attuale Marchese 2 RS: 27 Profile: PF 1

| E.G. Elev (m)      | 641.06   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.33     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 640.73   | Reach Len. (m)       | 9.43    | 9.43    | 9.43     |
| Crit W.S. (m)      | 640.84   | Flow Area (m2)       |         | 0.92    |          |
| E.G. Slope (m/m)   | 0.108092 | Area (m2)            |         | 0.92    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 5.33     | Top Width (m)        |         | 5.33    |          |
| Vel Total (m/s)    | 2.54     | Avg. Vel. (m/s)      |         | 2.54    |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 7.1      | Conv. (m3/s)         |         | 7.1     |          |
| Length Wtd. (m)    | 9.43     | Wetted Per. (m)      |         | 5.37    |          |
| Min Ch El (m)      | 640.50   | Shear (N/m2)         |         | 181.97  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 462.00  |          |
| Frctn Loss (m)     | 1.71     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     |         | 0.21    |          |

Plan: Attuale Marchese 2 RS: 26 Profile: PF 1

| E.G. Elev (m)      | 639.29   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.98     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 638.31   | Reach Len. (m)       | 5.68    | 5.67    | 5.68     |
| Crit W.S. (m)      | 638.52   | Flow Area (m2)       |         | 0.53    |          |
| E.G. Slope (m/m)   | 0.367250 | Area (m2)            |         | 0.53    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.37     | Top Width (m)        |         | 3.37    |          |
| Vel Total (m/s)    | 4.39     | Avg. Vel. (m/s)      |         | 4.39    |          |
| Max Chl Dpth (m)   | 0.31     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 3.9      | Conv. (m3/s)         |         | 3.9     |          |
| Length Wtd. (m)    | 5.67     | Wetted Per. (m)      |         | 3.43    |          |
| Min Ch El (m)      | 638.00   | Shear (N/m2)         |         | 560.79  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2459.11 |          |
| Frctn Loss (m)     | 1.80     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     |         | 0.17    |          |

Plan: Attuale Marchese 2 RS: 25 Profile: PF 1

| E.G. Elev (m)      | 637.42   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.74     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 636.68   | Reach Len. (m)       | 7.95    | 7.95    | 7.95     |
| Crit W.S. (m)      | 636.86   | Flow Area (m2)       |         | 0.61    |          |
| E.G. Slope (m/m)   | 0.276013 | Area (m2)            |         | 0.61    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.83     | Top Width (m)        |         | 3.83    |          |
| Vel Total (m/s)    | 3.82     | Avg. Vel. (m/s)      |         | 3.82    |          |
| Max Chl Dpth (m)   | 0.18     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 4.5      | Conv. (m3/s)         |         | 4.5     |          |
| Length Wtd. (m)    | 7.95     | Wetted Per. (m)      |         | 3.91    |          |
| Min Ch El (m)      | 636.50   | Shear (N/m2)         |         | 423.97  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1618.06 |          |
| Frctn Loss (m)     | 2.88     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.14    |          |

Plan: Attuale Marchese 2 RS: 24 Profile: PF 1

| E.G. Elev (m)    | 634.52   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.89     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 633.62   | Reach Len. (m) | 9.78    | 9.78    | 9.78     |
| Crit W.S. (m)    | 633.80   | Flow Area (m2) |         | 0.56    |          |
| E.G. Slope (m/m) | 0.498042 | Area (m2)      |         | 0.56    |          |
| Q Total (m3/s)   | 2.34     | Flow (m3/s)    |         | 2.34    |          |

Plan: Attuale Marchese 2 RS: 24 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 4.79   | Top Width (m)        |  | 4.79    |  |
| Vel Total (m/s)    | 4.18   | Avg. Vel. (m/s)      |  | 4.18    |  |
| Max Chl Dpth (m)   | 0.12   | Hydr. Depth (m)      |  | 0.12    |  |
| Conv. Total (m3/s) | 3.3    | Conv. (m3/s)         |  | 3.3     |  |
| Length Wtd. (m)    | 9.78   | Wetted Per. (m)      |  | 4.84    |  |
| Min Ch EI (m)      | 633.50 | Shear (N/m2)         |  | 564.20  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 2361.04 |  |
| Frctn Loss (m)     | 3.25   | Cum Volume (1000 m3) |  | 0.02    |  |
| C & E Loss (m)     | 0.11   | Cum SA (1000 m2)     |  | 0.11    |  |

Plan: Attuale Marchese 2 RS: 23 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 631.17   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.52     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 630.65   | Reach Len. (m)       | 10.60   | 10.60   | 10.60    |
| Crit W.S. (m)      | 630.78   | Flow Area (m2)       |         | 0.73    |          |
| E.G. Slope (m/m)   | 0.236856 | Area (m2)            |         | 0.73    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 5.43     | Top Width (m)        |         | 5.43    |          |
| Vel Total (m/s)    | 3.19     | Avg. Vel. (m/s)      |         | 3.19    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m)      |         | 0.14    |          |
| Conv. Total (m3/s) | 4.8      | Conv. (m3/s)         |         | 4.8     |          |
| Length Wtd. (m)    | 10.60    | Wetted Per. (m)      |         | 5.47    |          |
| Min Ch EI (m)      | 630.50   | Shear (N/m2)         |         | 311.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 992.83  |          |
| Frctn Loss (m)     | 2.97     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.06    |          |

Plan: Attuale Marchese 2 RS: 22 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 628.15   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.95     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 627.20   | Reach Len. (m)       | 4.31    | 4.32    | 4.31     |
| Crit W.S. (m)      | 627.42   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.336678 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.27     | Top Width (m)        |         | 3.27    |          |
| Vel Total (m/s)    | 4.31     | Avg. Vel. (m/s)      |         | 4.31    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 4.0      | Conv. (m3/s)         |         | 4.0     |          |
| Length Wtd. (m)    | 4.32     | Wetted Per. (m)      |         | 3.34    |          |
| Min Ch EI (m)      | 627.00   | Shear (N/m2)         |         | 535.50  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2310.26 |          |
| Frctn Loss (m)     | 1.78     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.01    |          |

Plan: Attuale Marchese 2 RS: 21 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 626.35   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.19     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 625.17   | Reach Len. (m)  | 14.82   | 14.82   | 14.82    |
| Crit W.S. (m)      | 625.39   | Flow Area (m2)  |         | 0.49    |          |
| E.G. Slope (m/m)   | 0.514662 | Area (m2)       |         | 0.49    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     |         | 2.34    |          |
| Top Width (m)      | 3.40     | Top Width (m)   |         | 3.40    |          |
| Vel Total (m/s)    | 4.82     | Avg. Vel. (m/s) |         | 4.82    |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m) |         | 0.14    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)    |         | 3.3     |          |
| Length Wtd. (m)    | 14.82    | Wetted Per. (m) |         | 3.48    |          |
| Min Ch EI (m)      | 625.00   | Shear (N/m2)    |         | 704.10  |          |

Plan: Attuale Marchese 2 RS: 21 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 3396.78 |  |
| Frctn Loss (m) | 4.73 | Cum Volume (1000 m3) |  | 0.01    |  |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2)     |  |         |  |

Plan: Attuale Marchese 3 RS: 10 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 624.39   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.99     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 622.40   | Reach Len. (m)       | 7.23    | 7.23    | 7.23     |
| Crit W.S. (m)      | 622.83   | Flow Area (m2)       |         | 1.18    |          |
| E.G. Slope (m/m)   | 0.292445 | Area (m2)            |         | 1.18    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 3.43     | Top Width (m)        |         | 3.43    |          |
| Vel Total (m/s)    | 6.25     | Avg. Vel. (m/s)      |         | 6.25    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.35    |          |
| Conv. Total (m3/s) | 13.7     | Conv. (m3/s)         |         | 13.7    |          |
| Length Wtd. (m)    | 7.23     | Wetted Per. (m)      |         | 3.76    |          |
| Min Ch EI (m)      | 622.00   | Shear (N/m2)         |         | 901.85  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5638.30 |          |
| Frctn Loss (m)     | 2.55     | Cum Volume (1000 m3) | 0.01    | 0.46    | 0.01     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.02    | 0.52    | 0.02     |

Plan: Attuale Marchese 3 RS: 9 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 621.76   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.80     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 618.96   | Reach Len. (m)       | 11.24   | 11.24   | 11.24    |
| Crit W.S. (m)      | 619.47   | Flow Area (m2)       |         | 1.00    |          |
| E.G. Slope (m/m)   | 0.432775 | Area (m2)            |         | 1.00    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 3.09     | Top Width (m)        |         | 3.09    |          |
| Vel Total (m/s)    | 7.41     | Avg. Vel. (m/s)      |         | 7.41    |          |
| Max Chl Dpth (m)   | 0.46     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 11.2     | Conv. (m3/s)         |         | 11.2    |          |
| Length Wtd. (m)    | 11.24    | Wetted Per. (m)      |         | 3.31    |          |
| Min Ch EI (m)      | 618.50   | Shear (N/m2)         |         | 1282.48 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 9498.10 |          |
| Frctn Loss (m)     | 3.92     | Cum Volume (1000 m3) | 0.01    | 0.46    | 0.01     |
| C & E Loss (m)     | 0.18     | Cum SA (1000 m2)     | 0.02    | 0.50    | 0.02     |

Plan: Attuale Marchese 3 RS: 8 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 617.67   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.21     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 615.46   | Reach Len. (m)       | 14.77   | 14.77   | 14.77    |
| Crit W.S. (m)      | 615.96   | Flow Area (m2)       |         | 1.12    |          |
| E.G. Slope (m/m)   | 0.286467 | Area (m2)            |         | 1.12    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 2.79     | Top Width (m)        |         | 2.79    |          |
| Vel Total (m/s)    | 6.59     | Avg. Vel. (m/s)      |         | 6.59    |          |
| Max Chl Dpth (m)   | 0.46     | Hydr. Depth (m)      |         | 0.40    |          |
| Conv. Total (m3/s) | 13.8     | Conv. (m3/s)         |         | 13.8    |          |
| Length Wtd. (m)    | 14.77    | Wetted Per. (m)      |         | 3.25    |          |
| Min Ch EI (m)      | 615.00   | Shear (N/m2)         |         | 970.06  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6388.77 |          |
| Frctn Loss (m)     | 0.34     | Cum Volume (1000 m3) | 0.01    | 0.44    | 0.01     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.02    | 0.46    | 0.02     |

Plan: Attuale Marchese 3 RS: 7 Profile: PF 1

| E.G. Elev (m)      | 607.84   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.25     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 607.58   | Reach Len. (m)       | 13.08   | 13.08   | 13.08    |
| Crit W.S. (m)      | 607.58   | Flow Area (m2)       |         | 3.32    |          |
| E.G. Slope (m/m)   | 0.021811 | Area (m2)            |         | 3.32    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 6.64     | Top Width (m)        |         | 6.64    |          |
| Vel Total (m/s)    | 2.23     | Avg. Vel. (m/s)      |         | 2.23    |          |
| Max Chl Dpth (m)   | 0.58     | Hydr. Depth (m)      |         | 0.50    |          |
| Conv. Total (m3/s) | 50.1     | Conv. (m3/s)         |         | 50.1    |          |
| Length Wtd. (m)    | 13.08    | Wetted Per. (m)      |         | 7.08    |          |
| Min Ch El (m)      | 607.00   | Shear (N/m2)         |         | 100.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 223.67  |          |
| Frctn Loss (m)     | 0.87     | Cum Volume (1000 m3) | 0.01    | 0.41    | 0.01     |
| C & E Loss (m)     | 0.28     | Cum SA (1000 m2)     | 0.02    | 0.39    | 0.02     |

Plan: Attuale Marchese 3 RS: 6 Profile: PF 1

| E.G. Elev (m)      | 606.69   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 3.01     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 603.68   | Reach Len. (m)       | 5.69    | 5.69     | 5.69     |
| Crit W.S. (m)      | 604.05   | Flow Area (m2)       |         | 0.96     |          |
| E.G. Slope (m/m)   | 1.081703 | Area (m2)            |         | 0.96     |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40     |          |
| Top Width (m)      | 5.92     | Top Width (m)        |         | 5.92     |          |
| Vel Total (m/s)    | 7.69     | Avg. Vel. (m/s)      |         | 7.69     |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m)      |         | 0.16     |          |
| Conv. Total (m3/s) | 7.1      | Conv. (m3/s)         |         | 7.1      |          |
| Length Wtd. (m)    | 5.69     | Wetted Per. (m)      |         | 5.99     |          |
| Min Ch El (m)      | 603.50   | Shear (N/m2)         |         | 1704.86  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 13103.72 |          |
| Frctn Loss (m)     | 3.73     | Cum Volume (1000 m3) | 0.01    | 0.38     | 0.01     |
| C & E Loss (m)     | 0.17     | Cum SA (1000 m2)     | 0.02    | 0.31     | 0.02     |

Plan: Attuale Marchese 3 RS: 5 Profile: PF 1

| E.G. Elev (m)      | 602.79   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.46     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 600.34   | Reach Len. (m)       | 9.71    | 9.71    | 9.71     |
| Crit W.S. (m)      | 600.78   | Flow Area (m2)       |         | 1.07    |          |
| E.G. Slope (m/m)   | 0.438776 | Area (m2)            |         | 1.07    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 3.73     | Top Width (m)        |         | 3.73    |          |
| Vel Total (m/s)    | 6.94     | Avg. Vel. (m/s)      |         | 6.94    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.29    |          |
| Conv. Total (m3/s) | 11.2     | Conv. (m3/s)         |         | 11.2    |          |
| Length Wtd. (m)    | 9.71     | Wetted Per. (m)      |         | 3.92    |          |
| Min Ch El (m)      | 600.00   | Shear (N/m2)         |         | 1168.47 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8114.31 |          |
| Frctn Loss (m)     | 3.50     | Cum Volume (1000 m3) | 0.01    | 0.38    | 0.01     |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     | 0.02    | 0.28    | 0.02     |

Plan: Attuale Marchese 3 RS: 4 Profile: PF 1

| E.G. Elev (m)    | 599.23   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 2.22     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 597.01   | Reach Len. (m) | 4.87    | 4.88    | 4.87     |
| Crit W.S. (m)    | 597.48   | Flow Area (m2) |         | 1.12    |          |
| E.G. Slope (m/m) | 0.301048 | Area (m2)      |         | 1.12    |          |
| Q Total (m3/s)   | 7.40     | Flow (m3/s)    |         | 7.40    |          |

Plan: Attuale Marchese 3 RS: 4 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 3.08   | Top Width (m)        |      | 3.08    |      |
| Vel Total (m/s)    | 6.61   | Avg. Vel. (m/s)      |      | 6.61    |      |
| Max Chl Dpth (m)   | 0.51   | Hydr. Depth (m)      |      | 0.36    |      |
| Conv. Total (m3/s) | 13.5   | Conv. (m3/s)         |      | 13.5    |      |
| Length Wtd. (m)    | 4.88   | Wetted Per. (m)      |      | 3.35    |      |
| Min Ch EI (m)      | 596.50 | Shear (N/m2)         |      | 986.52  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 6516.31 |      |
| Frctn Loss (m)     | 1.47   | Cum Volume (1000 m3) | 0.01 | 0.37    | 0.01 |
| C & E Loss (m)     | 0.16   | Cum SA (1000 m2)     | 0.02 | 0.25    | 0.02 |

Plan: Attuale Marchese 3 RS: 3 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 597.59   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.68     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 595.91   | Reach Len. (m)       | 7.00    | 7.00    | 7.00     |
| Crit W.S. (m)      | 596.26   | Flow Area (m2)       |         | 1.29    |          |
| E.G. Slope (m/m)   | 0.302252 | Area (m2)            |         | 1.29    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 4.64     | Top Width (m)        |         | 4.64    |          |
| Vel Total (m/s)    | 5.75     | Avg. Vel. (m/s)      |         | 5.75    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 13.5     | Conv. (m3/s)         |         | 13.5    |          |
| Length Wtd. (m)    | 7.00     | Wetted Per. (m)      |         | 4.76    |          |
| Min Ch EI (m)      | 595.50   | Shear (N/m2)         |         | 801.39  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4605.51 |          |
| Frctn Loss (m)     | 2.76     | Cum Volume (1000 m3) | 0.01    | 0.36    | 0.01     |
| C & E Loss (m)     | 0.12     | Cum SA (1000 m2)     | 0.02    | 0.23    | 0.02     |

Plan: Attuale Marchese 3 RS: 2 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 594.72   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 2.86     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 591.86   | Reach Len. (m)       | 5.25    | 5.25     | 5.25     |
| Crit W.S. (m)      | 592.32   | Flow Area (m2)       |         | 0.99     |          |
| E.G. Slope (m/m)   | 0.535227 | Area (m2)            |         | 0.99     |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40     |          |
| Top Width (m)      | 3.57     | Top Width (m)        |         | 3.57     |          |
| Vel Total (m/s)    | 7.49     | Avg. Vel. (m/s)      |         | 7.49     |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.28     |          |
| Conv. Total (m3/s) | 10.1     | Conv. (m3/s)         |         | 10.1     |          |
| Length Wtd. (m)    | 5.25     | Wetted Per. (m)      |         | 3.77     |          |
| Min Ch EI (m)      | 591.50   | Shear (N/m2)         |         | 1375.80  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 10306.29 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.35     | 0.01     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     | 0.02    | 0.20     | 0.02     |

Plan: Attuale Marchese 3 RS: 1 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 592.62   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.      | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 592.61   | Reach Len. (m)  | 14.77   | 14.77   | 14.77    |
| Crit W.S. (m)      | 591.06   | Flow Area (m2)  | 1.22    | 16.70   | 0.84     |
| E.G. Slope (m/m)   | 0.000123 | Area (m2)       | 1.22    | 16.70   | 0.84     |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)     | 0.20    | 7.09    | 0.11     |
| Top Width (m)      | 11.59    | Top Width (m)   | 1.61    | 8.45    | 1.53     |
| Vel Total (m/s)    | 0.39     | Avg. Vel. (m/s) | 0.17    | 0.42    | 0.13     |
| Max Chl Dpth (m)   | 2.01     | Hydr. Depth (m) | 0.76    | 1.98    | 0.55     |
| Conv. Total (m3/s) | 668.0    | Conv. (m3/s)    | 18.3    | 639.9   | 9.7      |
| Length Wtd. (m)    | 14.77    | Wetted Per. (m) | 2.21    | 8.79    | 2.24     |
| Min Ch EI (m)      | 590.60   | Shear (N/m2)    | 0.66    | 2.28    | 0.45     |

Plan: Attuale Marchese 3 RS: 1 Profile: PF 1 (Continued)

|                |      |                      |      |      |      |
|----------------|------|----------------------|------|------|------|
| Alpha          | 1.12 | Stream Power (N/m s) | 0.11 | 0.97 | 0.06 |
| Frctn Loss (m) | 0.00 | Cum Volume (1000 m3) | 0.01 | 0.31 | 0.01 |
| C & E Loss (m) | 0.09 | Cum SA (1000 m2)     | 0.02 | 0.17 | 0.01 |

Plan: Attuale Marchese 3 RS: 0.9 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 592.53   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.88     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 591.65   | Reach Len. (m)       | 0.60    | 0.60    | 0.60     |
| Crit W.S. (m)      | 591.64   | Flow Area (m2)       |         | 1.78    |          |
| E.G. Slope (m/m)   | 0.002053 | Area (m2)            |         | 8.56    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 5.11     | Top Width (m)        |         | 5.11    |          |
| Vel Total (m/s)    | 4.16     | Avg. Vel. (m/s)      |         | 4.16    |          |
| Max Chl Dpth (m)   | 1.78     | Hydr. Depth (m)      |         | 1.78    |          |
| Conv. Total (m3/s) | 163.3    | Conv. (m3/s)         |         | 163.3   |          |
| Length Wtd. (m)    | 0.60     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch EI (m)      | 589.87   | Shear (N/m2)         |         | 35.82   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 148.97  |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.12    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.07    | 0.00     |

Plan: Attuale Marchese 3 RS: 0.8 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 592.53   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.89     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 591.64   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 591.64   | Flow Area (m2)       |         | 1.77    |          |
| E.G. Slope (m/m)   | 0.002072 | Area (m2)            |         | 8.53    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 5.11     | Top Width (m)        |         | 5.11    |          |
| Vel Total (m/s)    | 4.17     | Avg. Vel. (m/s)      |         | 4.17    |          |
| Max Chl Dpth (m)   | 1.77     | Hydr. Depth (m)      |         | 1.77    |          |
| Conv. Total (m3/s) | 162.6    | Conv. (m3/s)         |         | 162.6   |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch EI (m)      | 589.87   | Shear (N/m2)         |         | 36.06   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 150.34  |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.45     | Cum SA (1000 m2)     | 0.00    | 0.07    | 0.00     |

Plan: Attuale Marchese 3 RS: 0.7 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 592.07   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 5.44     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.64   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 587.12   | Flow Area (m2)       |         | 0.72    |          |
| E.G. Slope (m/m)   | 0.347428 | Area (m2)            |         | 0.72    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 4.56     | Top Width (m)        |         | 4.56    |          |
| Vel Total (m/s)    | 10.32    | Avg. Vel. (m/s)      |         | 10.32   |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 12.6     | Conv. (m3/s)         |         | 12.6    |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 4.83    |          |
| Min Ch EI (m)      | 586.48   | Shear (N/m2)         |         | 505.51  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5219.32 |          |
| Frctn Loss (m)     | 1.39     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.61     | Cum SA (1000 m2)     | 0.00    | 0.07    | 0.00     |

Plan: Attuale Marchese 3 RS: 0.6 Profile: PF 1

| E.G. Elev (m)      | 590.08   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 3.41     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.68   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 587.12   | Flow Area (m2)       |         | 0.91    |          |
| E.G. Slope (m/m)   | 0.164429 | Area (m2)            |         | 0.91    |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 4.61     | Top Width (m)        |         | 4.61    |          |
| Vel Total (m/s)    | 8.17     | Avg. Vel. (m/s)      |         | 8.17    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 18.2     | Conv. (m3/s)         |         | 18.2    |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 4.94    |          |
| Min Ch El (m)      | 586.48   | Shear (N/m2)         |         | 295.35  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2414.23 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.00    | 0.04    | 0.00     |

Plan: Attuale Marchese 3 RS: 0.5 Profile: PF 1

| E.G. Elev (m)      | 587.92   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 587.91   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 585.20   | Flow Area (m2)       |         | 15.19   |          |
| E.G. Slope (m/m)   | 0.000038 | Area (m2)            |         | 15.19   |          |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          |         | 7.40    |          |
| Top Width (m)      | 5.07     | Top Width (m)        |         | 5.07    |          |
| Vel Total (m/s)    | 0.49     | Avg. Vel. (m/s)      |         | 0.49    |          |
| Max Chl Dpth (m)   | 3.43     | Hydr. Depth (m)      |         | 2.99    |          |
| Conv. Total (m3/s) | 1194.0   | Conv. (m3/s)         |         | 1194.0  |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 10.76   |          |
| Min Ch El (m)      | 584.48   | Shear (N/m2)         |         | 0.53    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.26    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.04    | 0.00     |

Plan: Attuale Marchese 3 RS: 0.4 Profile: PF 1

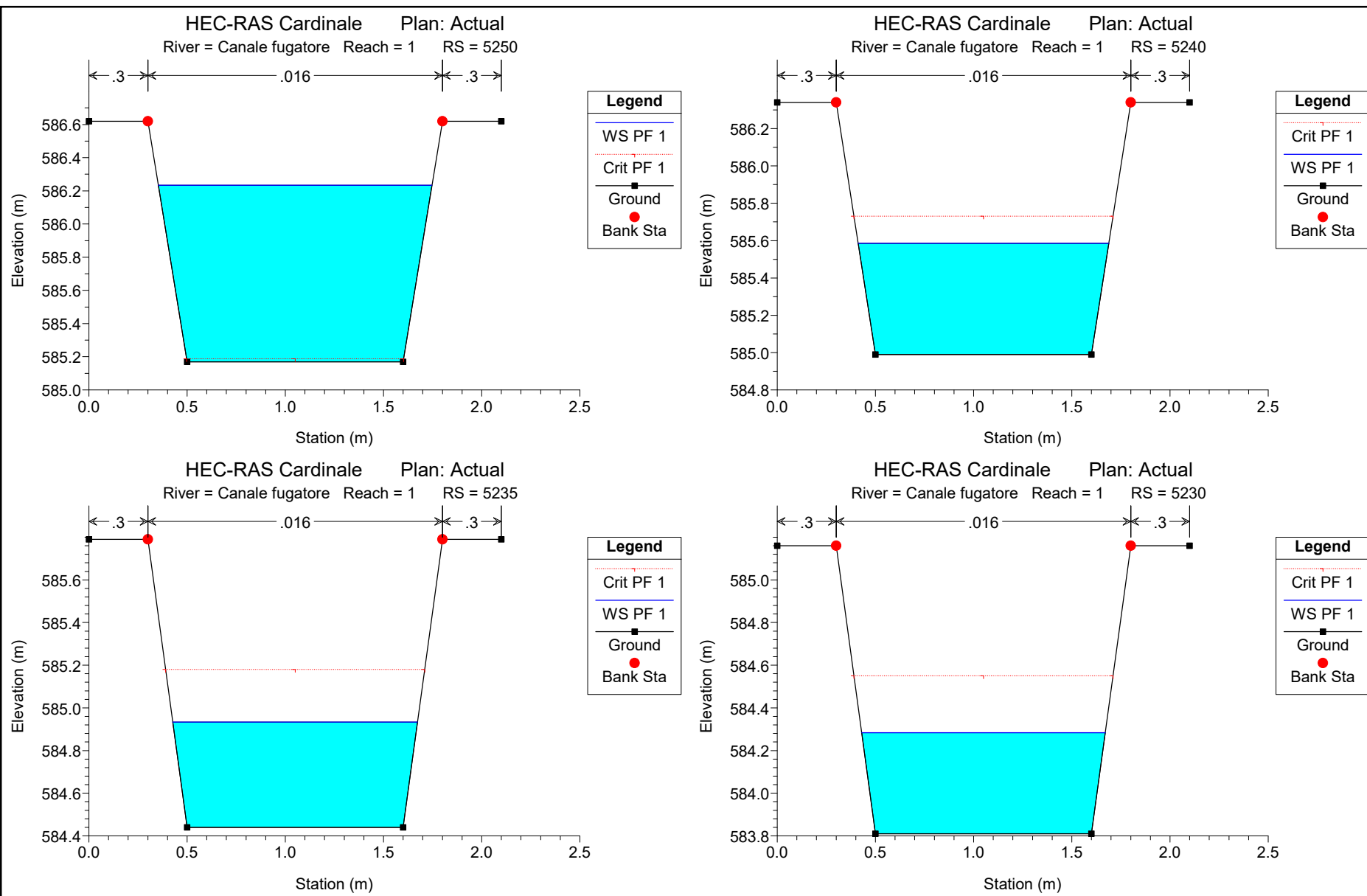
| E.G. Elev (m)      | 587.92   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           | 0.016   | 0.016   | 0.016    |
| W.S. Elev (m)      | 587.91   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 586.25   | Flow Area (m2)       | 0.36    | 15.51   | 0.27     |
| E.G. Slope (m/m)   | 0.000030 | Area (m2)            | 0.36    | 15.51   | 0.27     |
| Q Total (m3/s)     | 7.40     | Flow (m3/s)          | 0.06    | 7.31    | 0.04     |
| Top Width (m)      | 6.20     | Top Width (m)        | 0.66    | 5.04    | 0.50     |
| Vel Total (m/s)    | 0.46     | Avg. Vel. (m/s)      | 0.15    | 0.47    | 0.14     |
| Max Chl Dpth (m)   | 3.43     | Hydr. Depth (m)      | 0.55    | 3.08    | 0.55     |
| Conv. Total (m3/s) | 1342.1   | Conv. (m3/s)         | 10.1    | 1325.1  | 7.0      |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      | 1.21    | 9.71    | 1.05     |
| Min Ch El (m)      | 584.48   | Shear (N/m2)         | 0.09    | 0.48    | 0.08     |
| Alpha              | 1.04     | Stream Power (N/m s) | 0.01    | 0.22    | 0.01     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.01    | 0.00     |

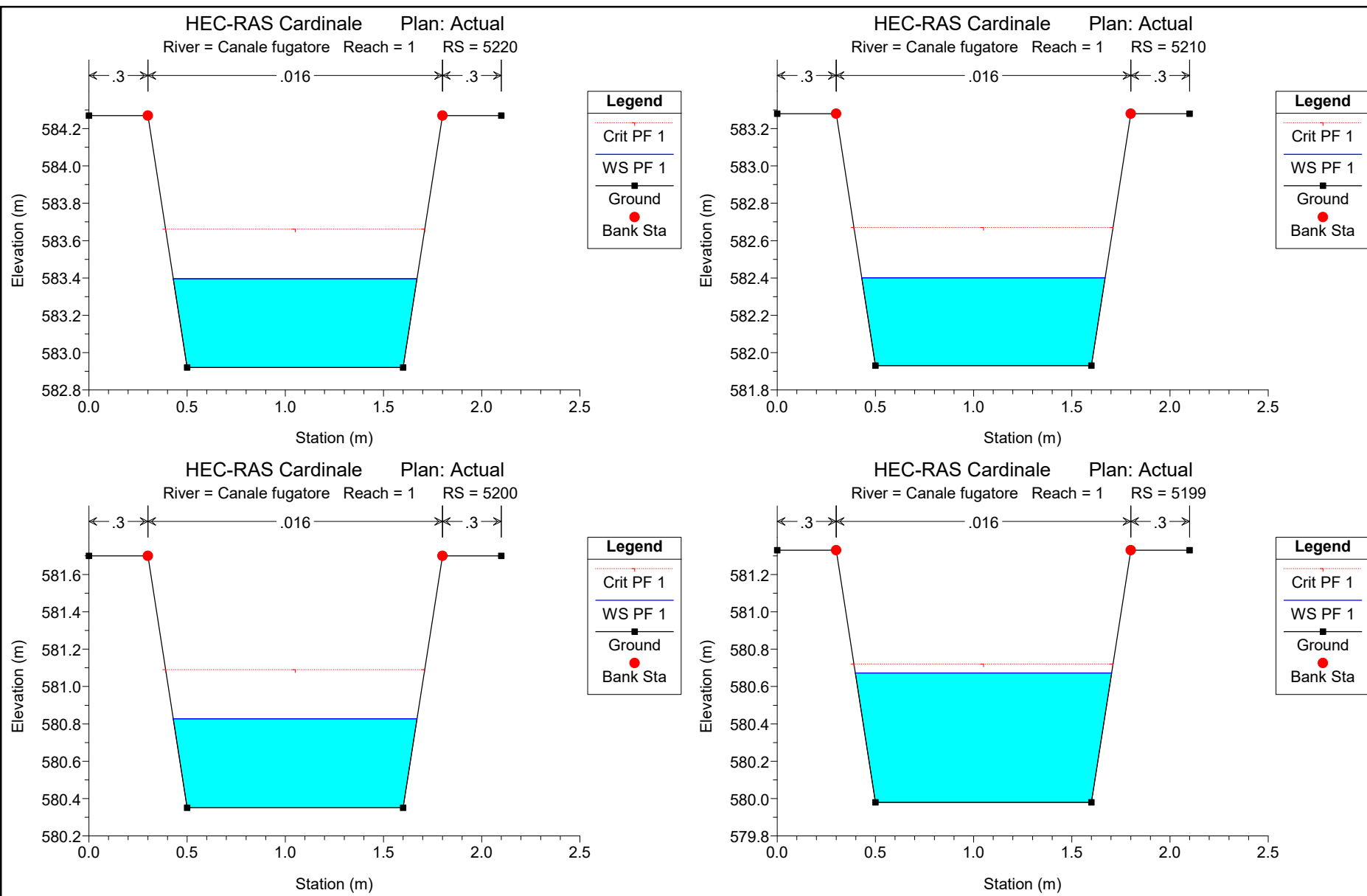
Plan: Attuale Marchese 3 RS: 0.3 Profile: PF 1

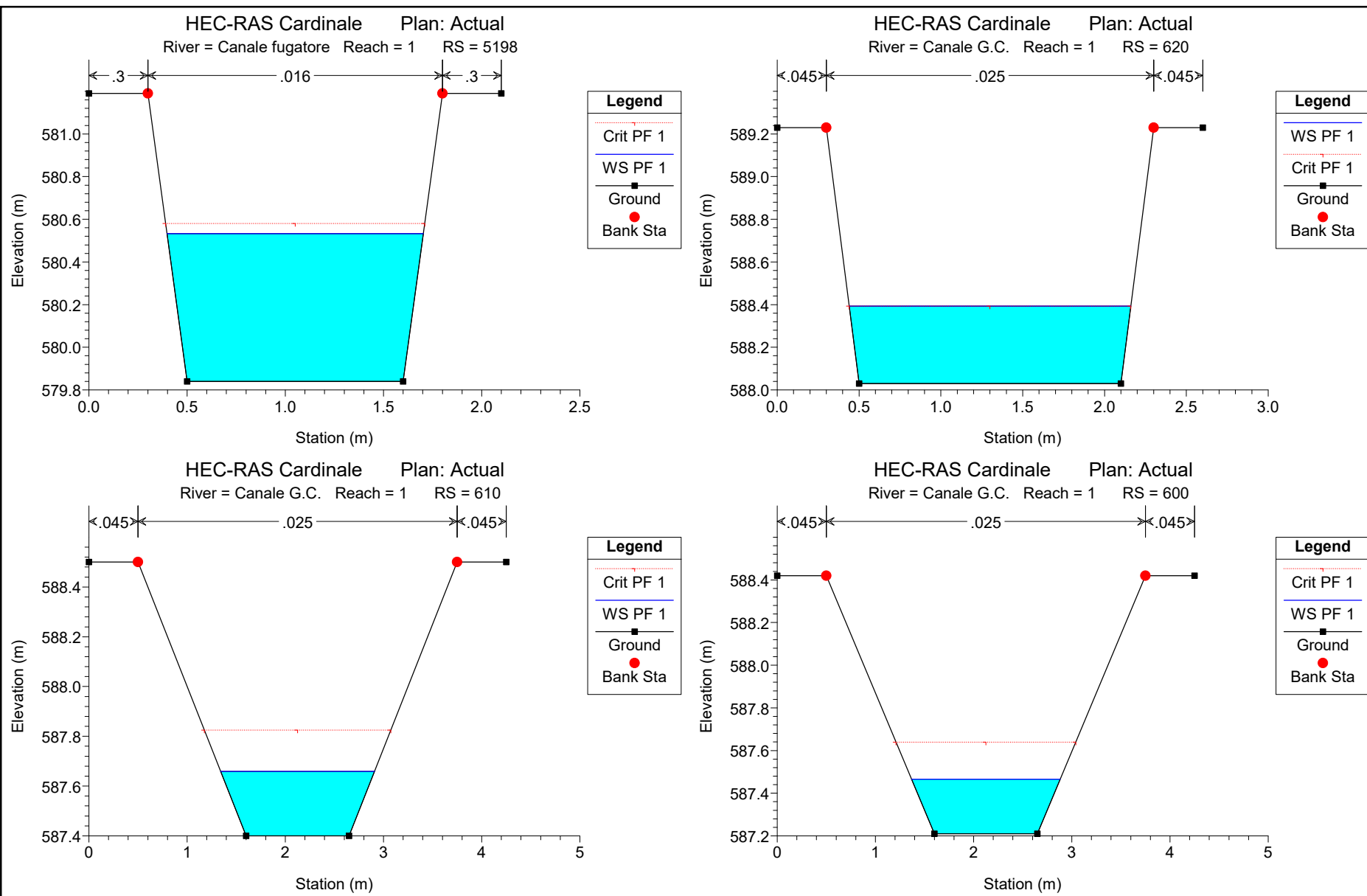
| E.G. Elev (m)    | 585.29   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.29     | Wt. n-Val.     | 0.016   | 0.016   | 0.016    |
| W.S. Elev (m)    | 585.00   | Reach Len. (m) |         |         |          |
| Crit W.S. (m)    | 585.00   | Flow Area (m2) | 0.00    | 3.11    | 0.00     |
| E.G. Slope (m/m) | 0.003231 | Area (m2)      | 0.00    | 3.11    | 0.00     |
| Q Total (m3/s)   | 7.40     | Flow (m3/s)    | 0.00    | 7.40    | 0.00     |

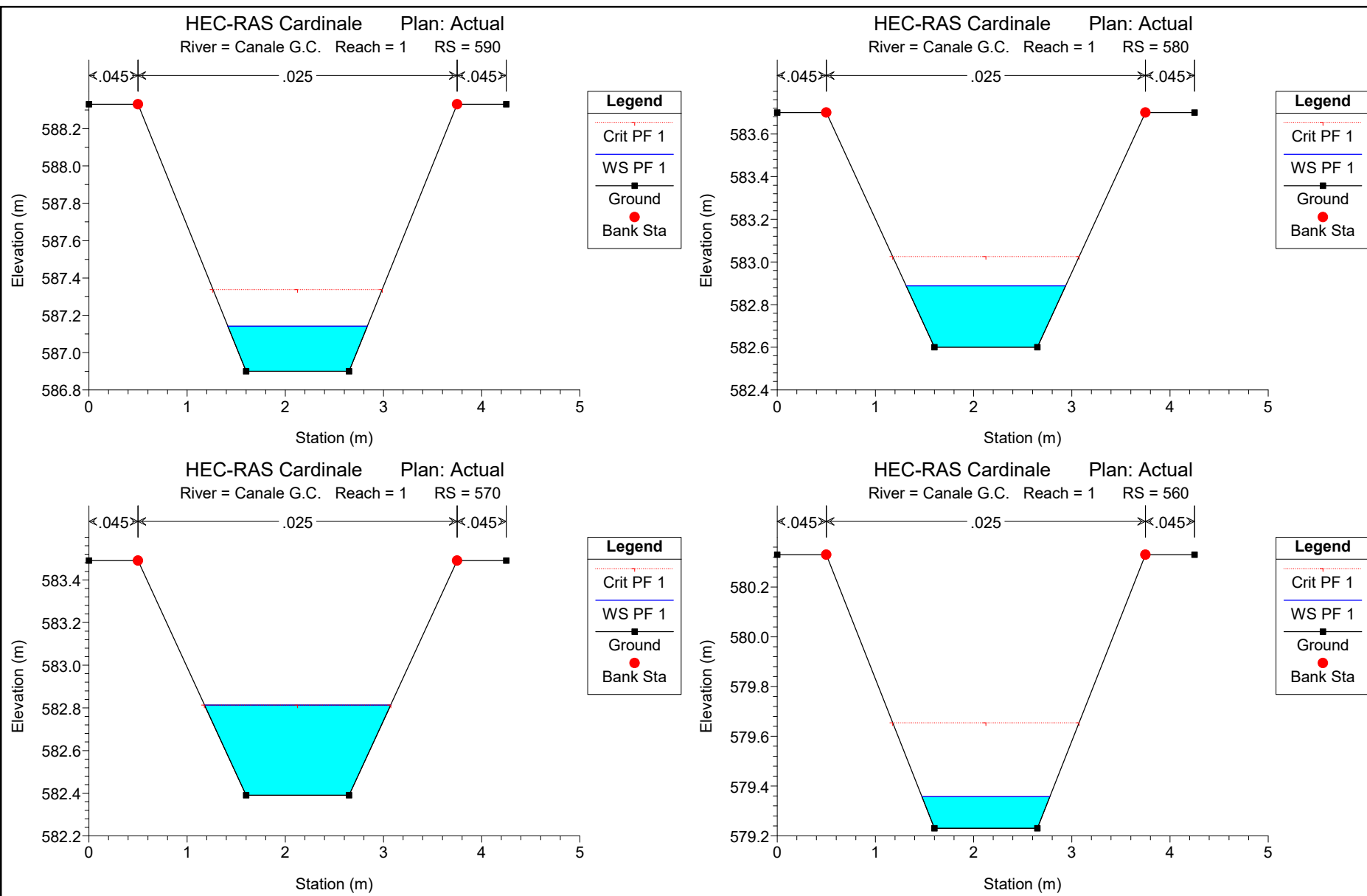
Plan: Attuale Marchese 3 RS: 0.3 Profile: PF 1 (Continued)

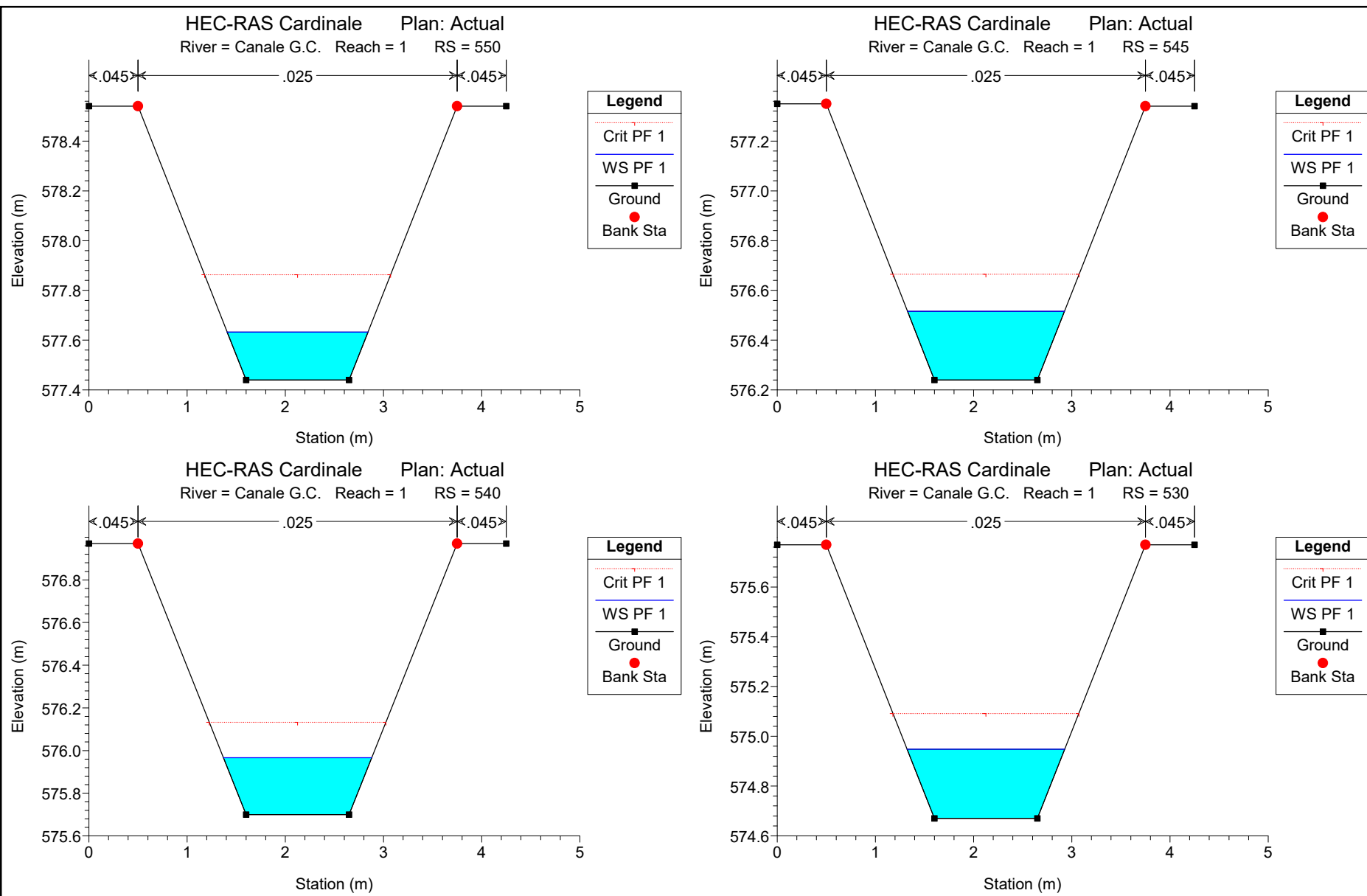
|                    |        |                      |      |       |      |
|--------------------|--------|----------------------|------|-------|------|
| Top Width (m)      | 6.20   | Top Width (m)        | 0.66 | 5.04  | 0.50 |
| Vel Total (m/s)    | 2.38   | Avg. Vel. (m/s)      | 0.06 | 2.38  | 0.06 |
| Max Chl Dpth (m)   | 0.70   | Hydr. Depth (m)      | 0.00 | 0.62  | 0.00 |
| Conv. Total (m3/s) | 130.2  | Conv. (m3/s)         | 0.0  | 130.2 | 0.0  |
| Length Wtd. (m)    |        | Wetted Per. (m)      | 0.66 | 5.68  | 0.50 |
| Min Ch El (m)      | 584.30 | Shear (N/m2)         | 0.07 | 17.35 | 0.07 |
| Alpha              | 1.00   | Stream Power (N/m s) | 0.00 | 41.26 | 0.00 |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) |      |       |      |
| C & E Loss (m)     |        | Cum SA (1000 m2)     |      |       |      |

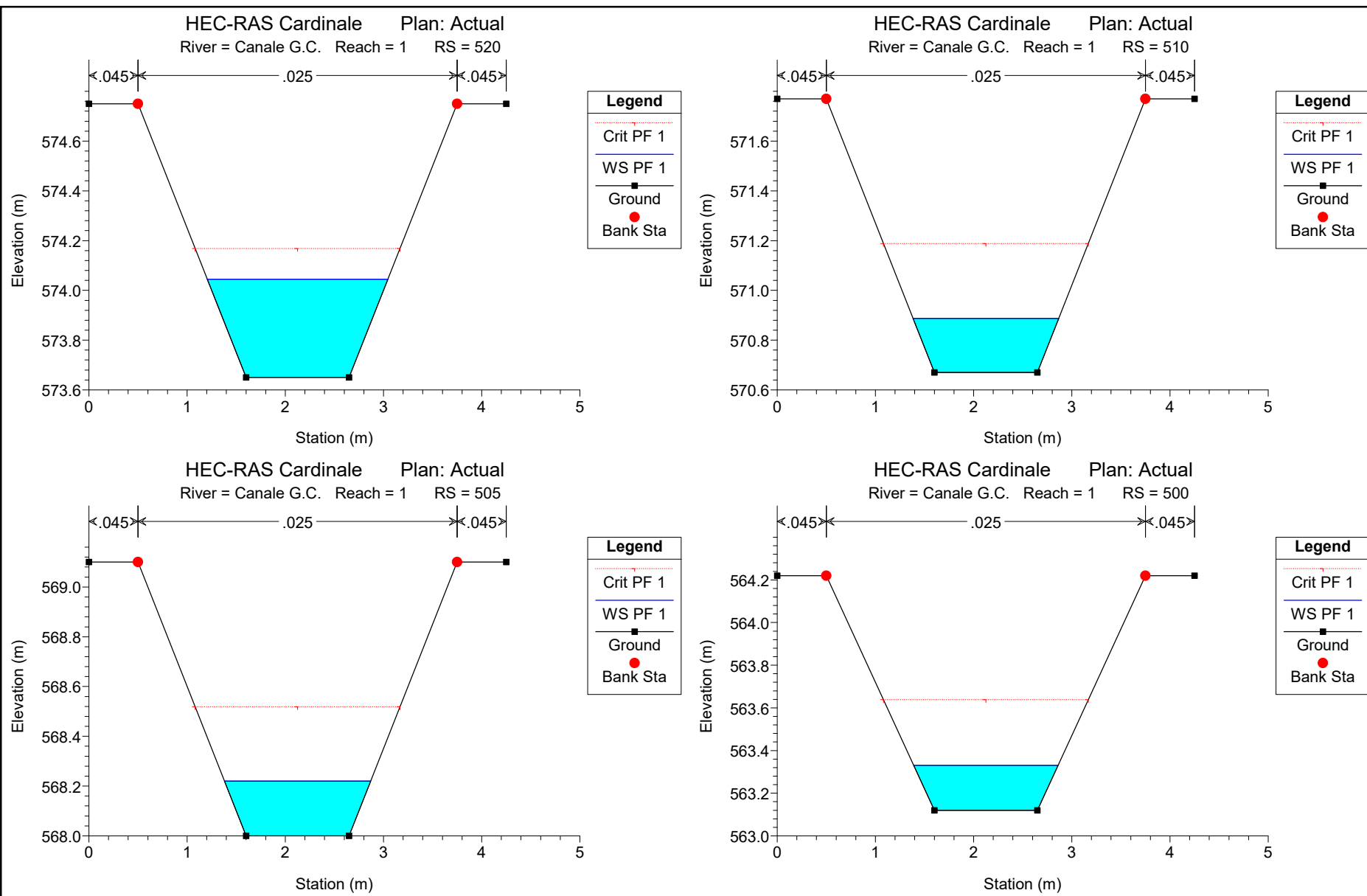


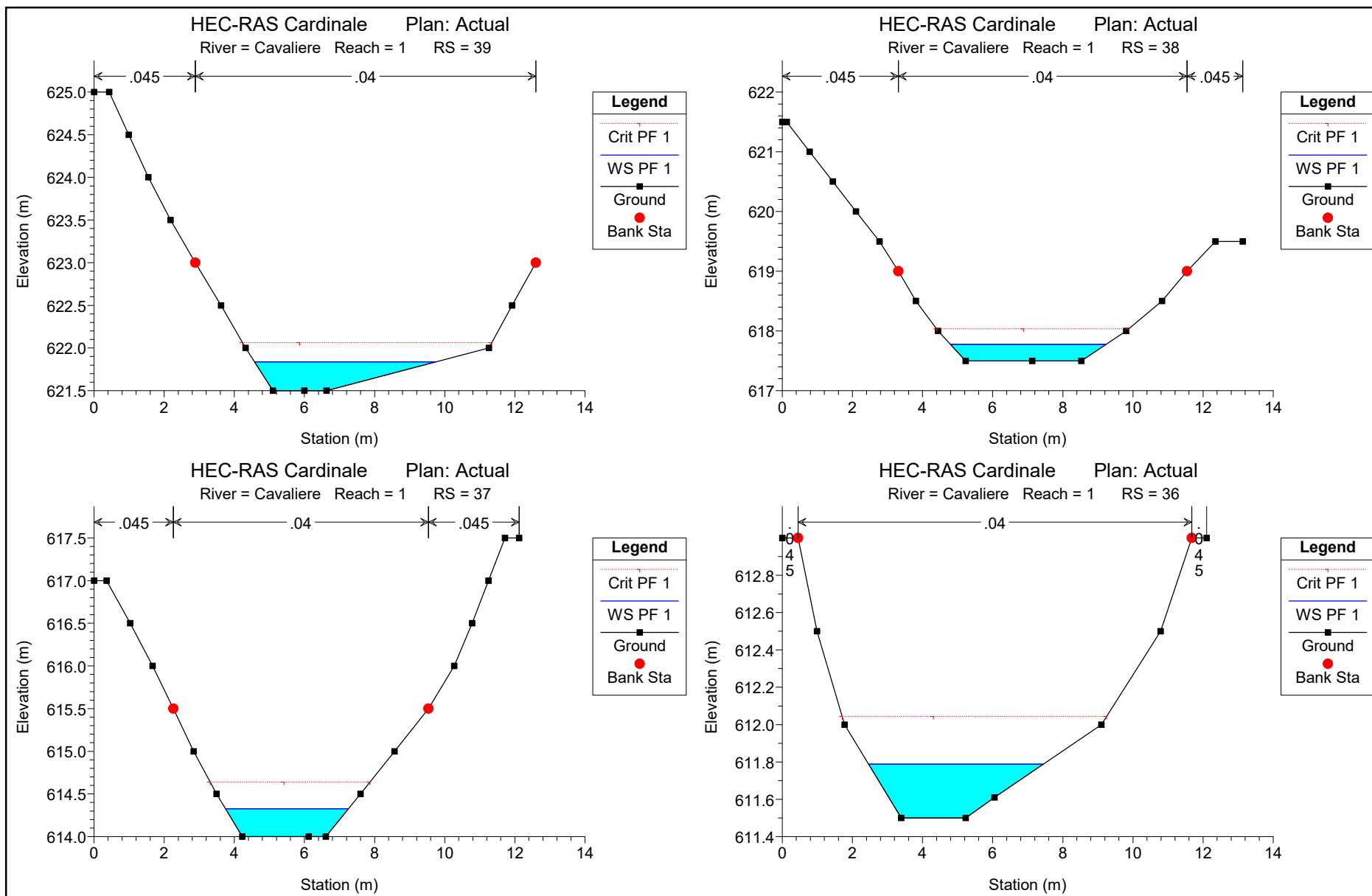


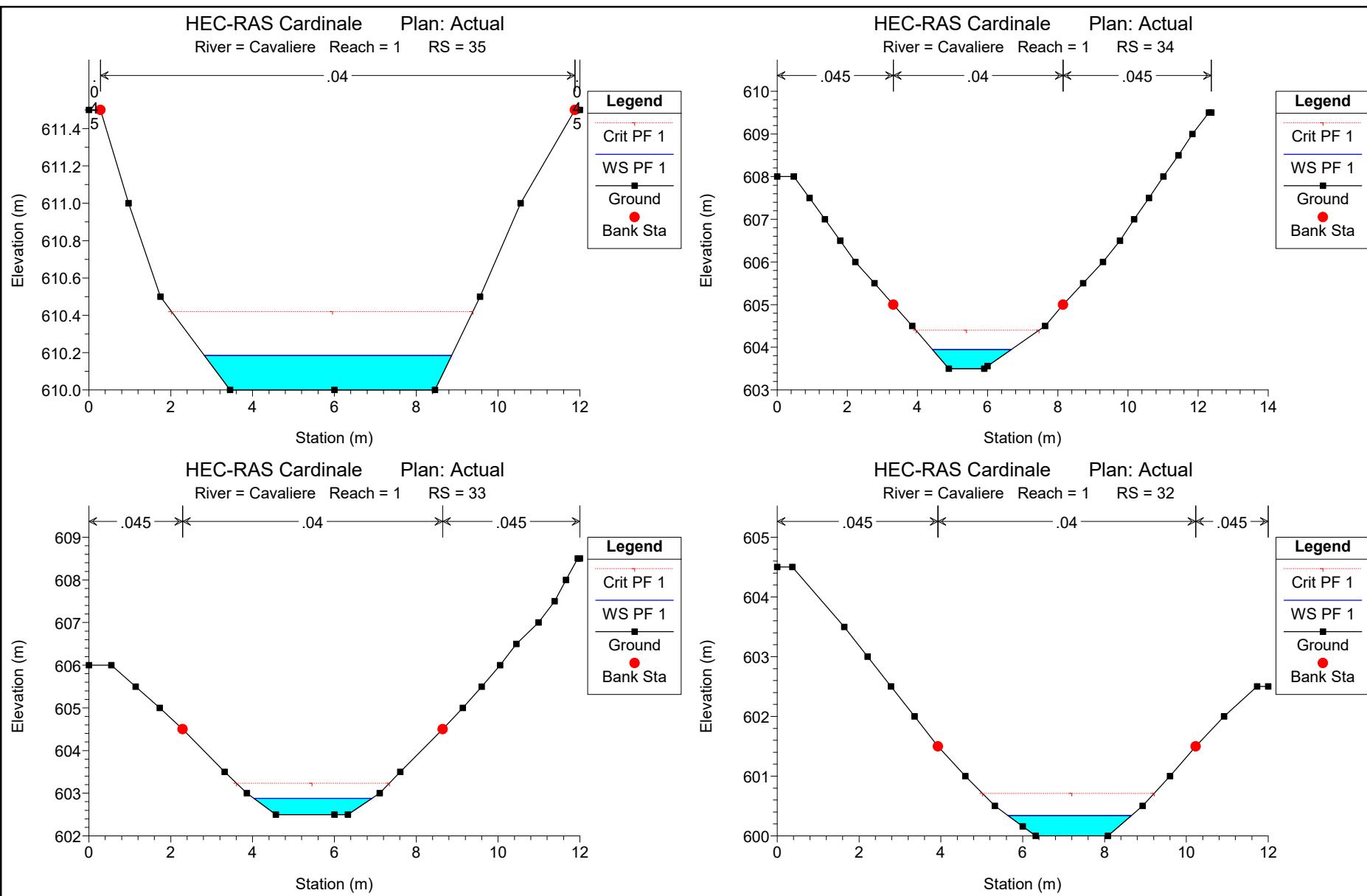


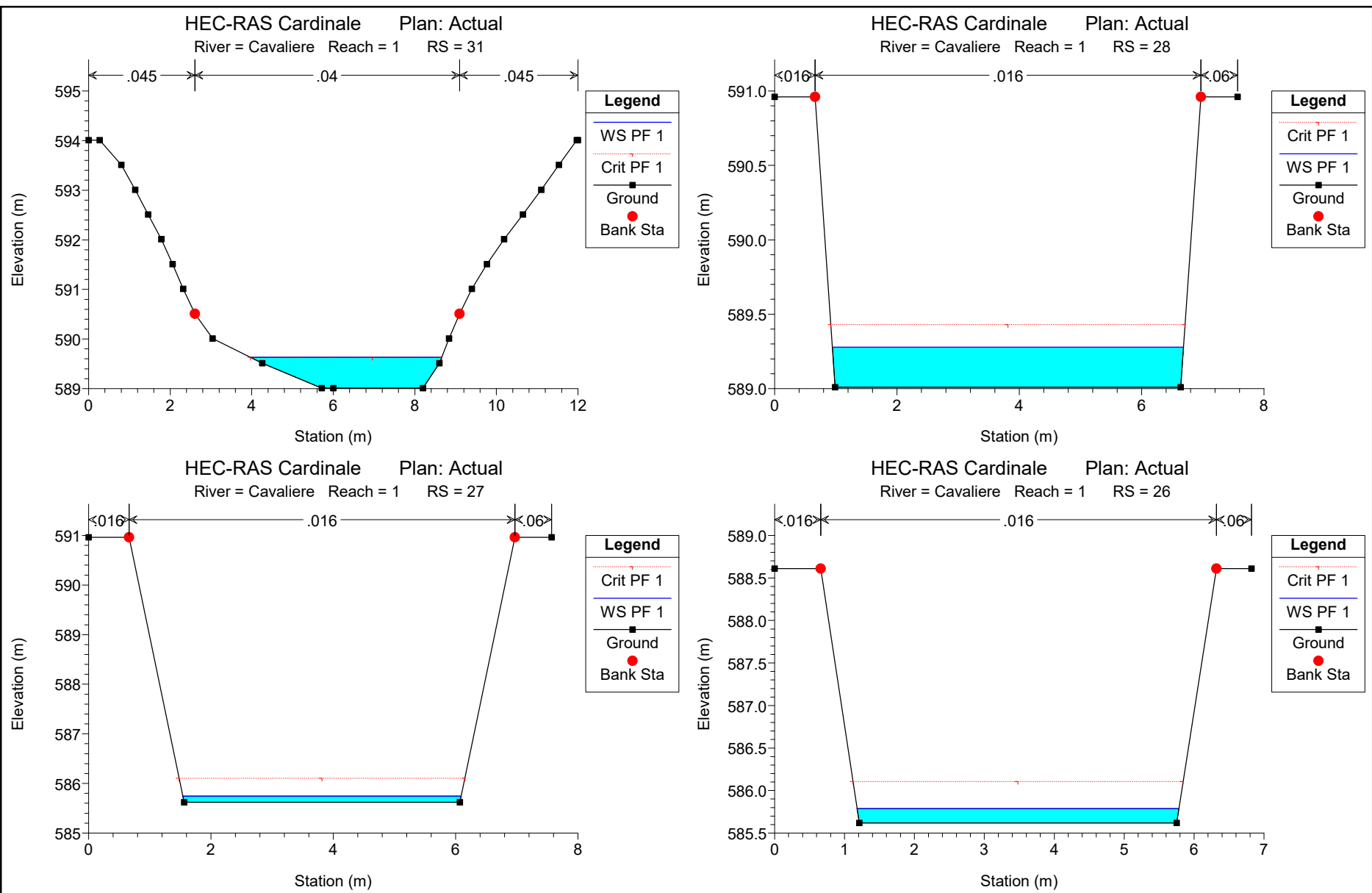


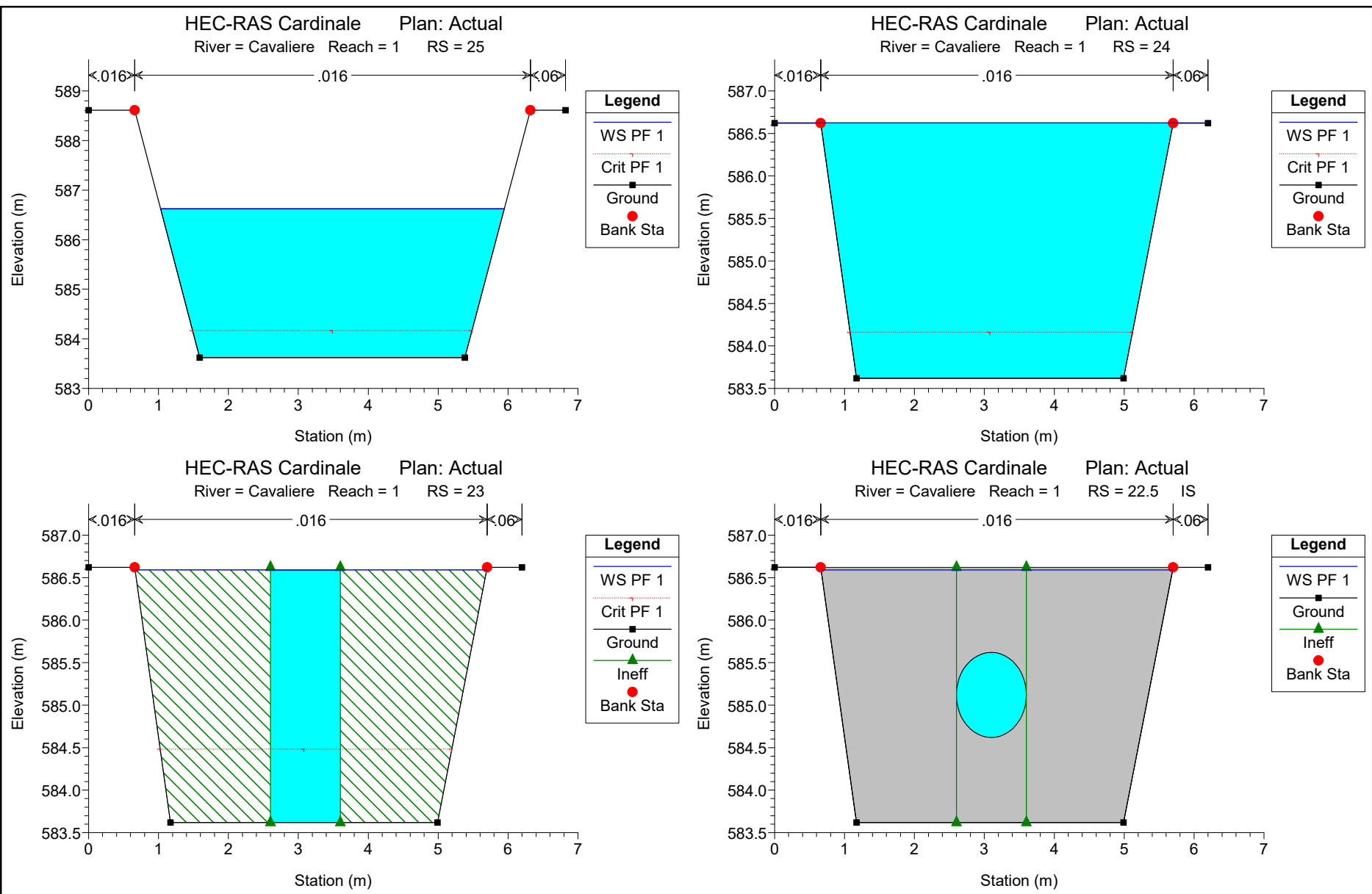


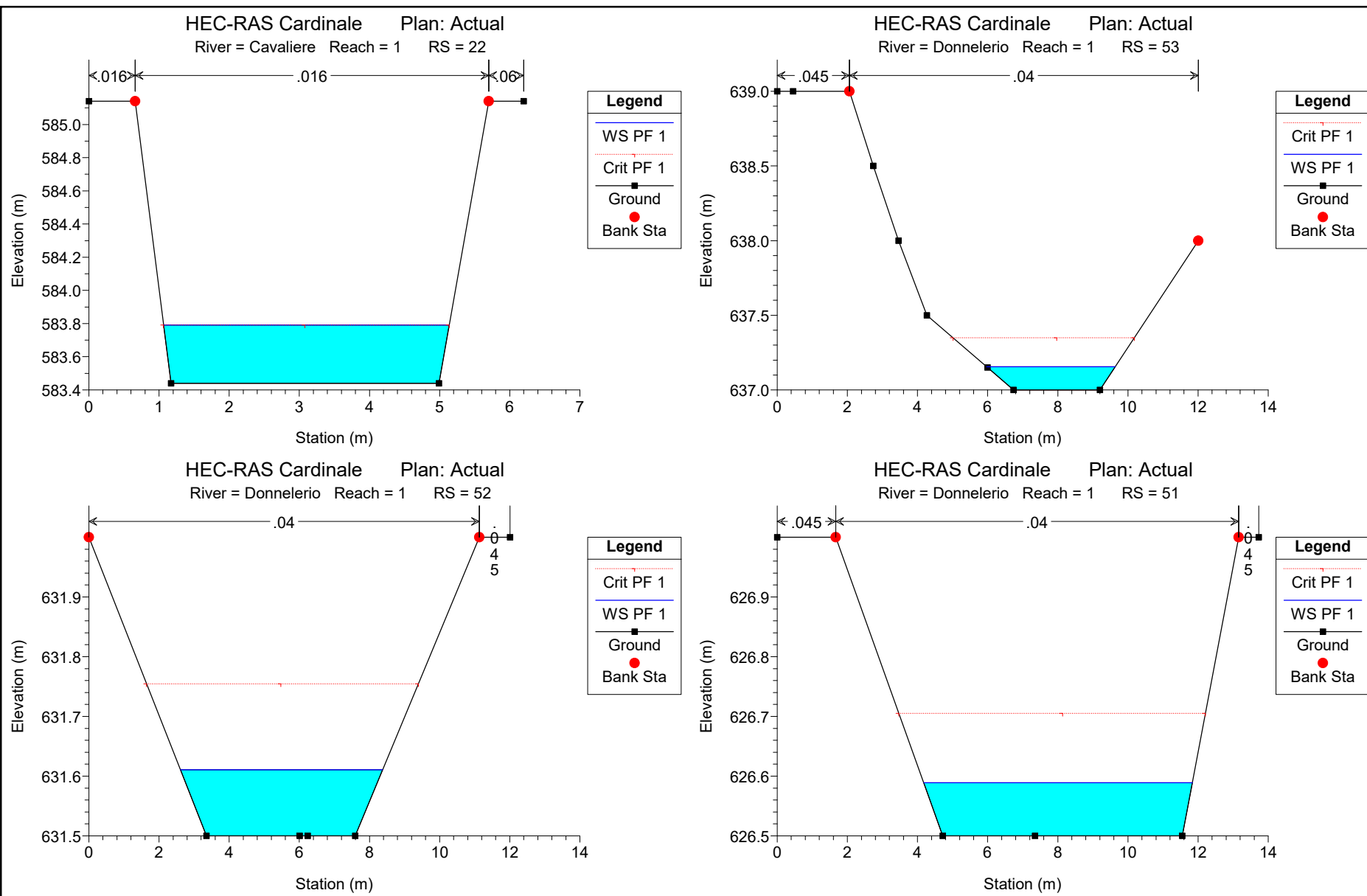


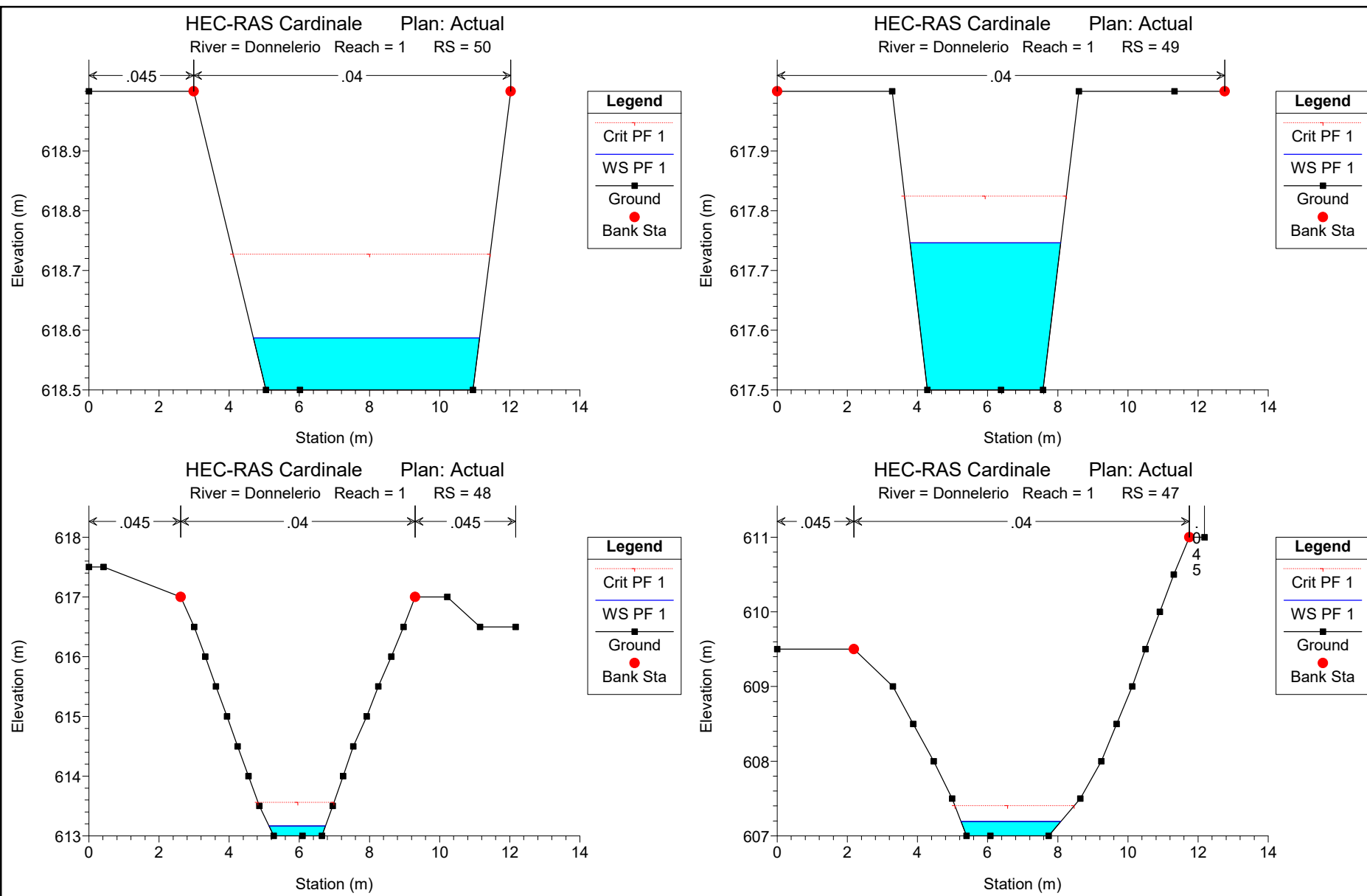


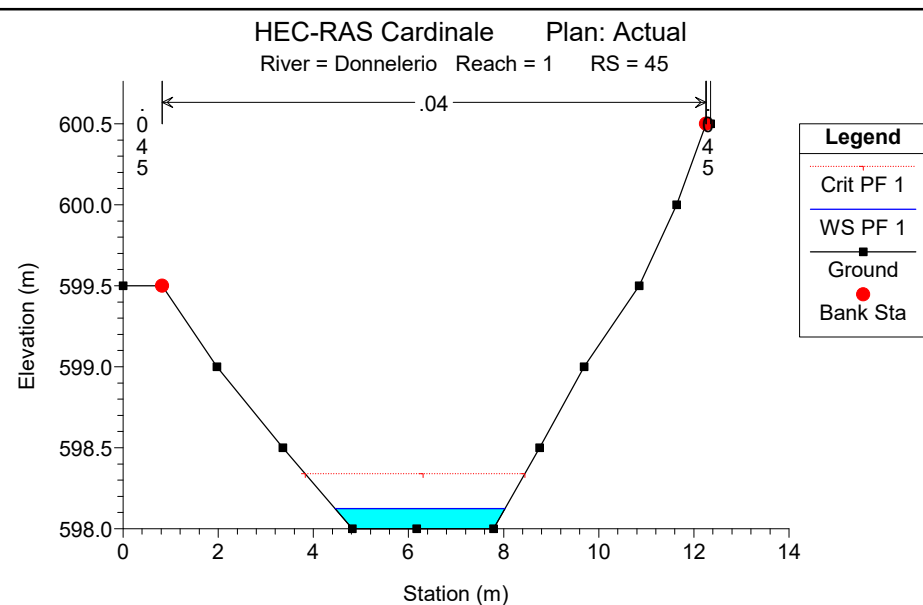
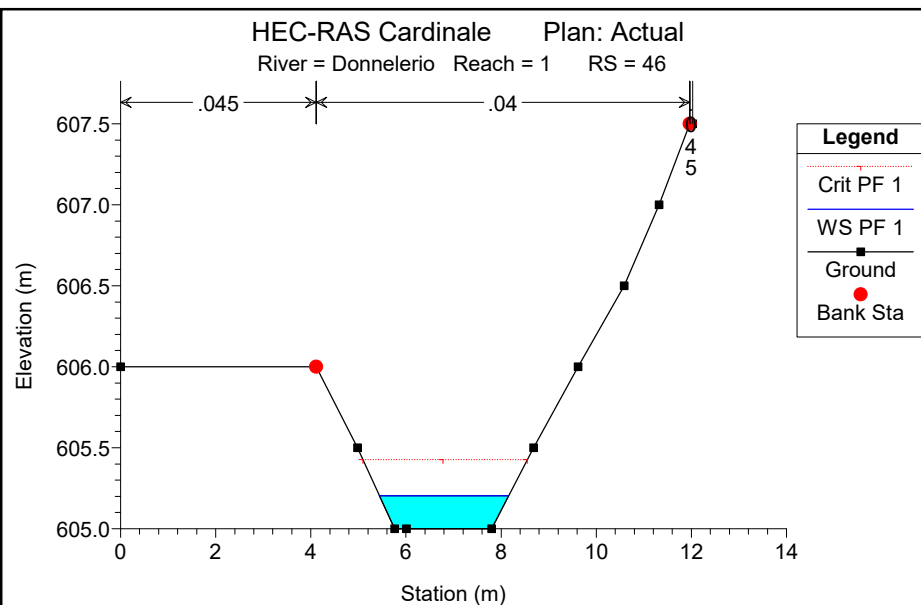


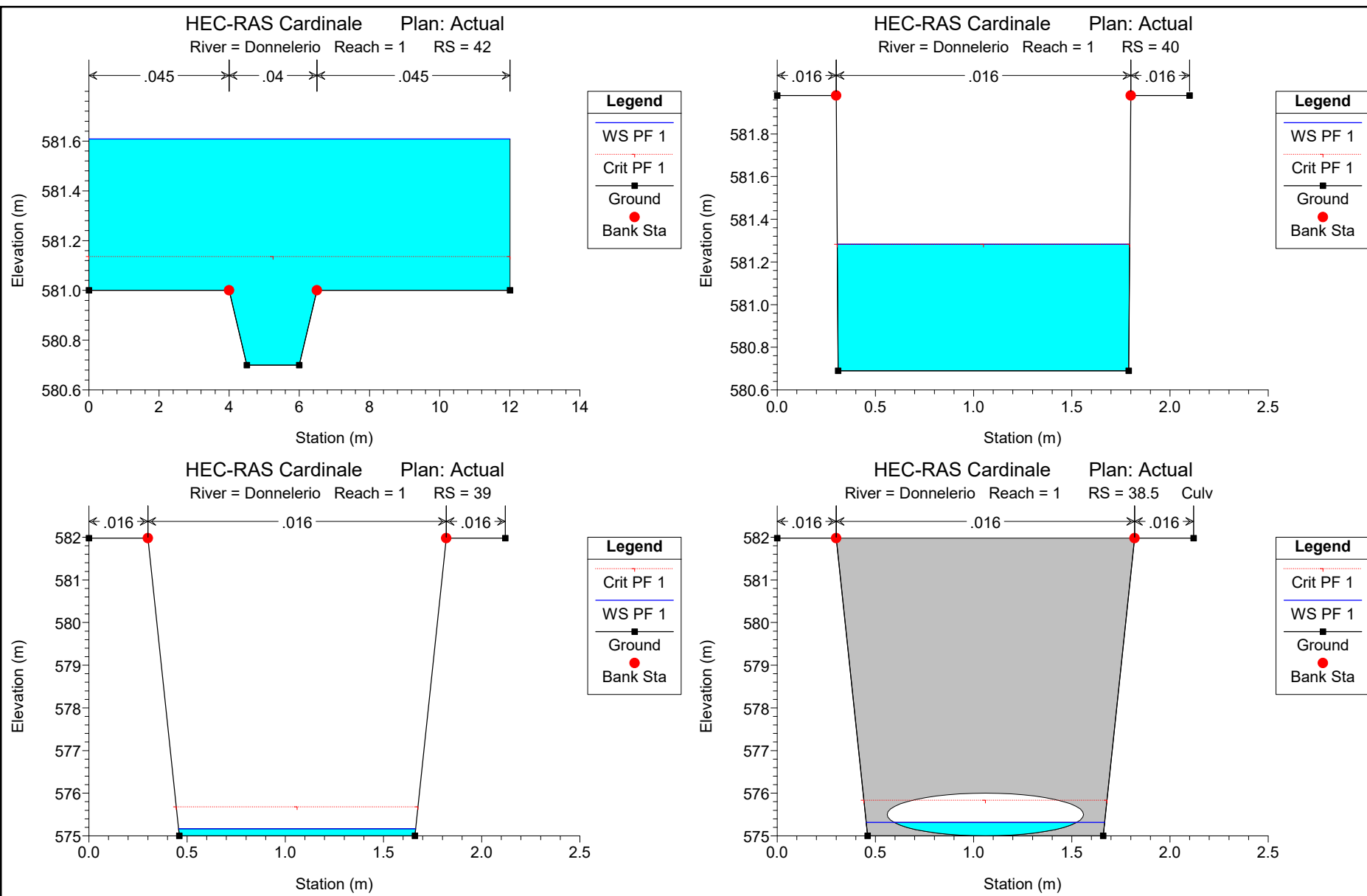


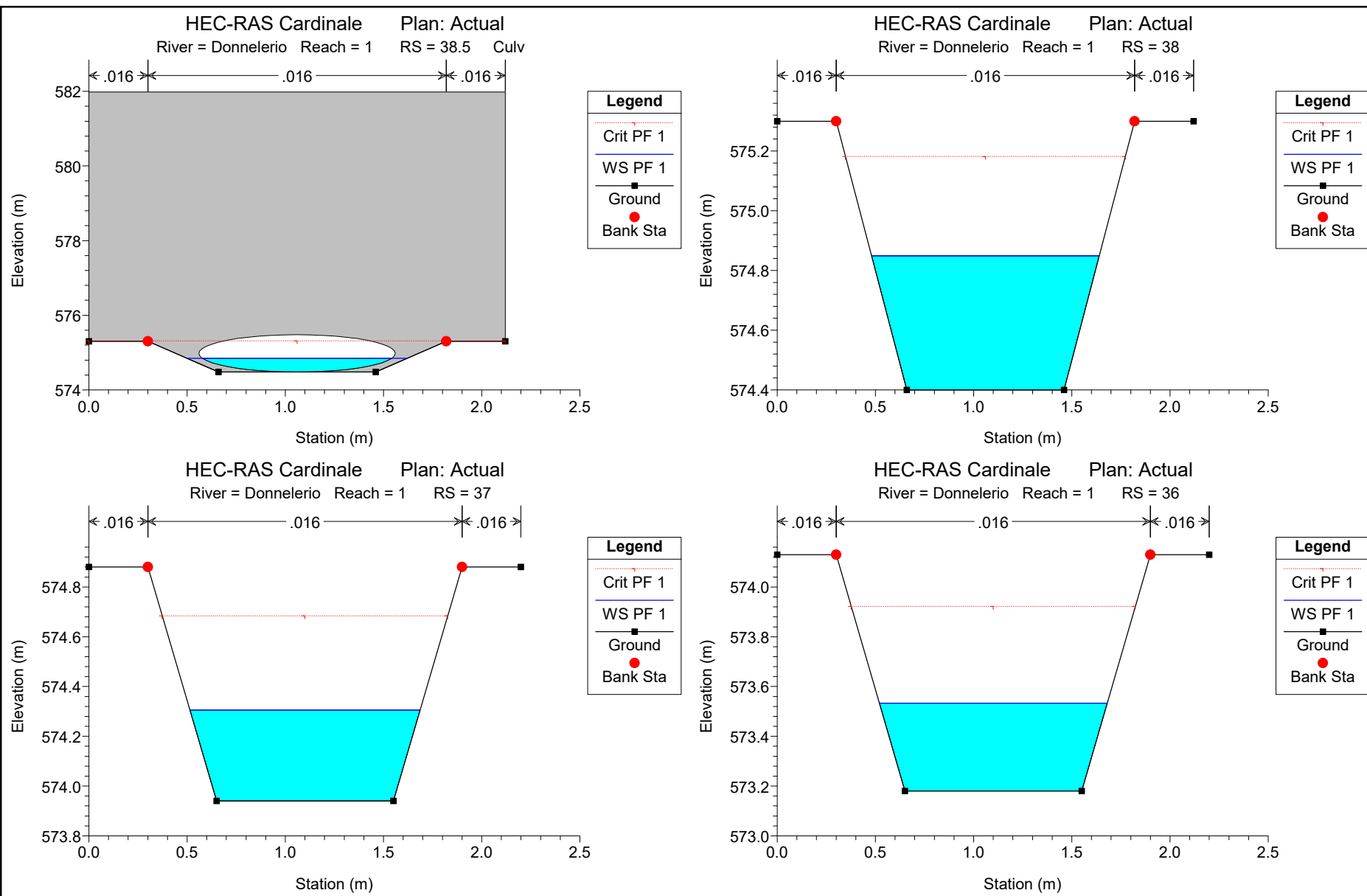


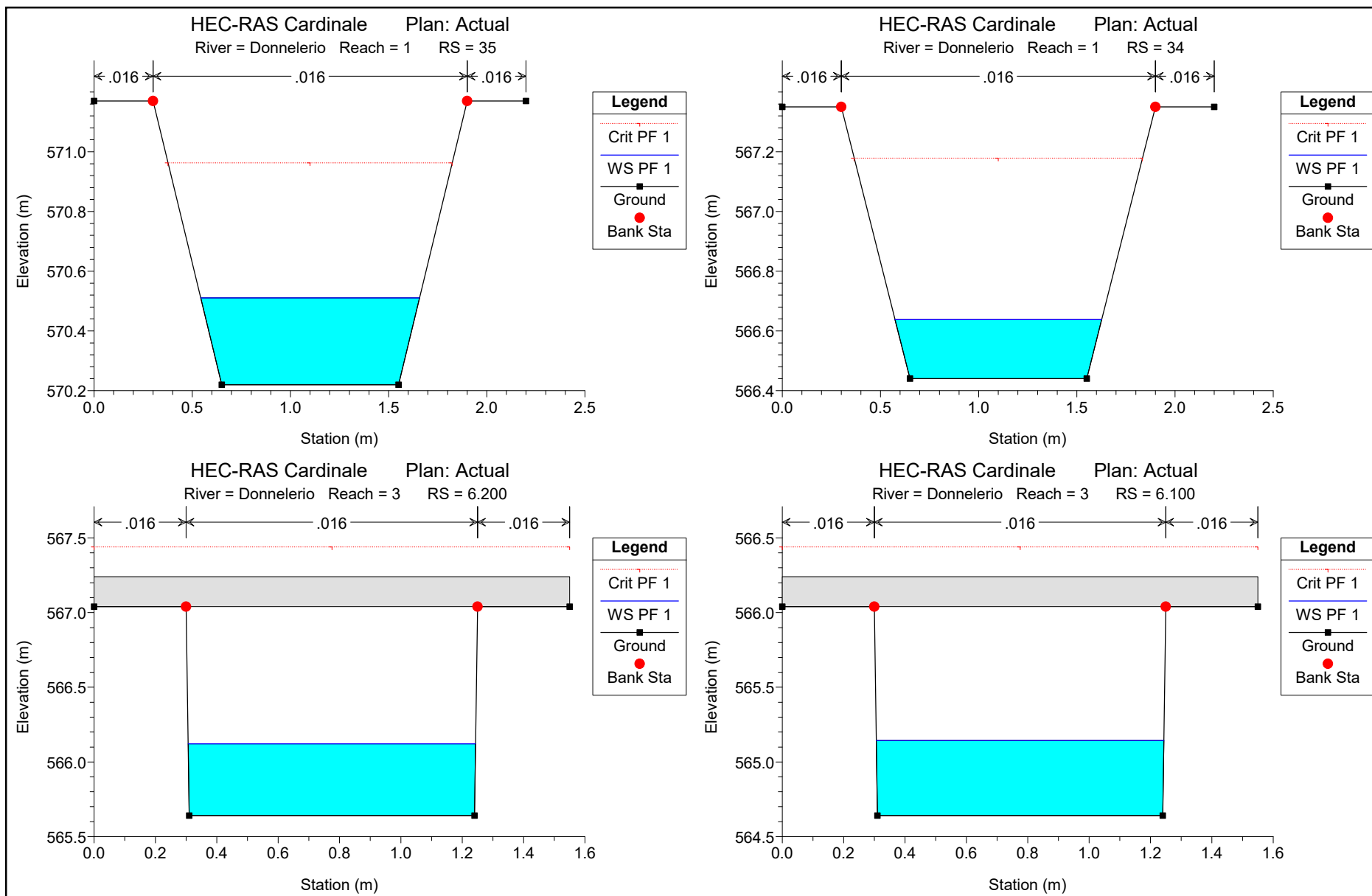


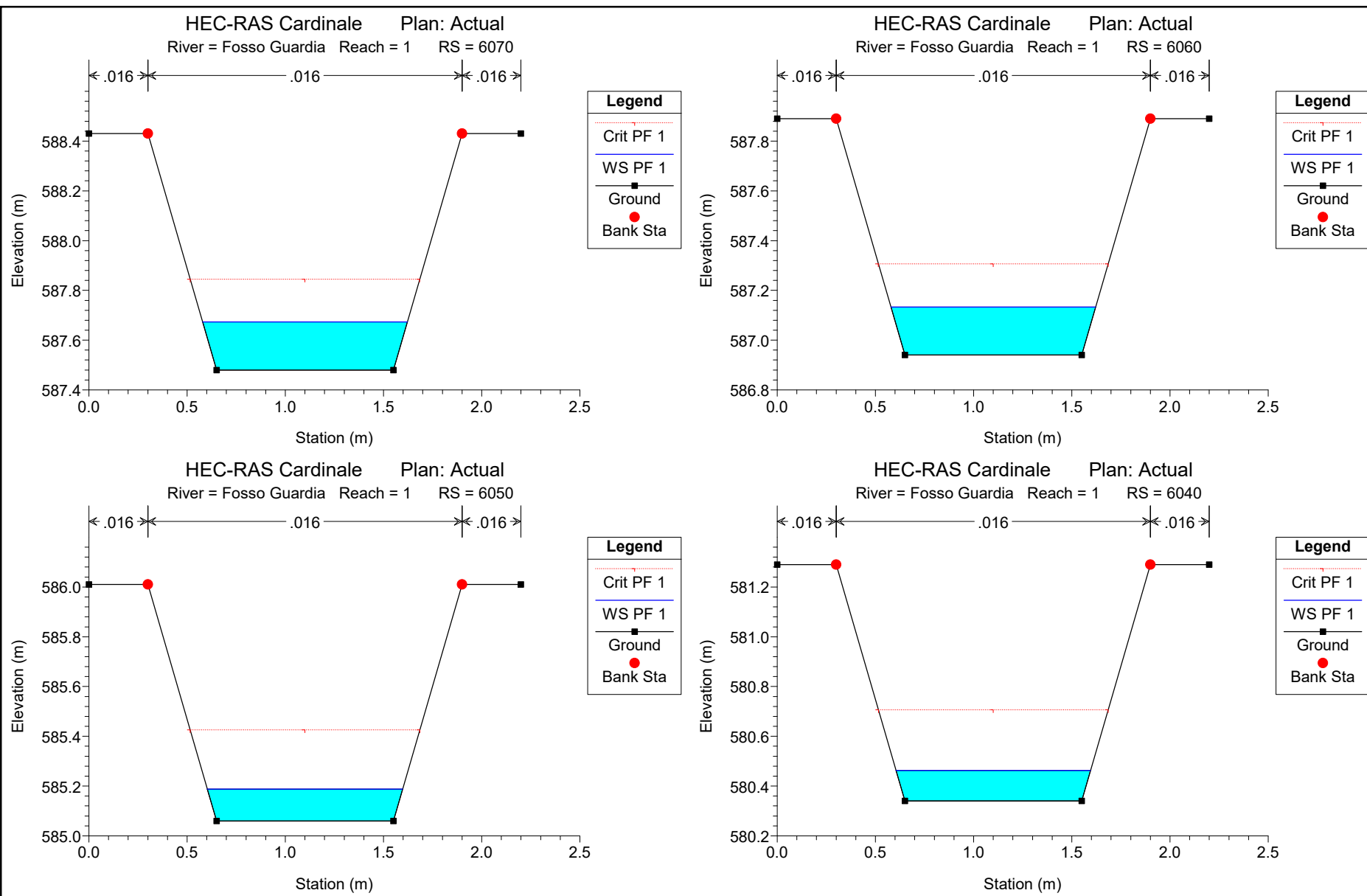


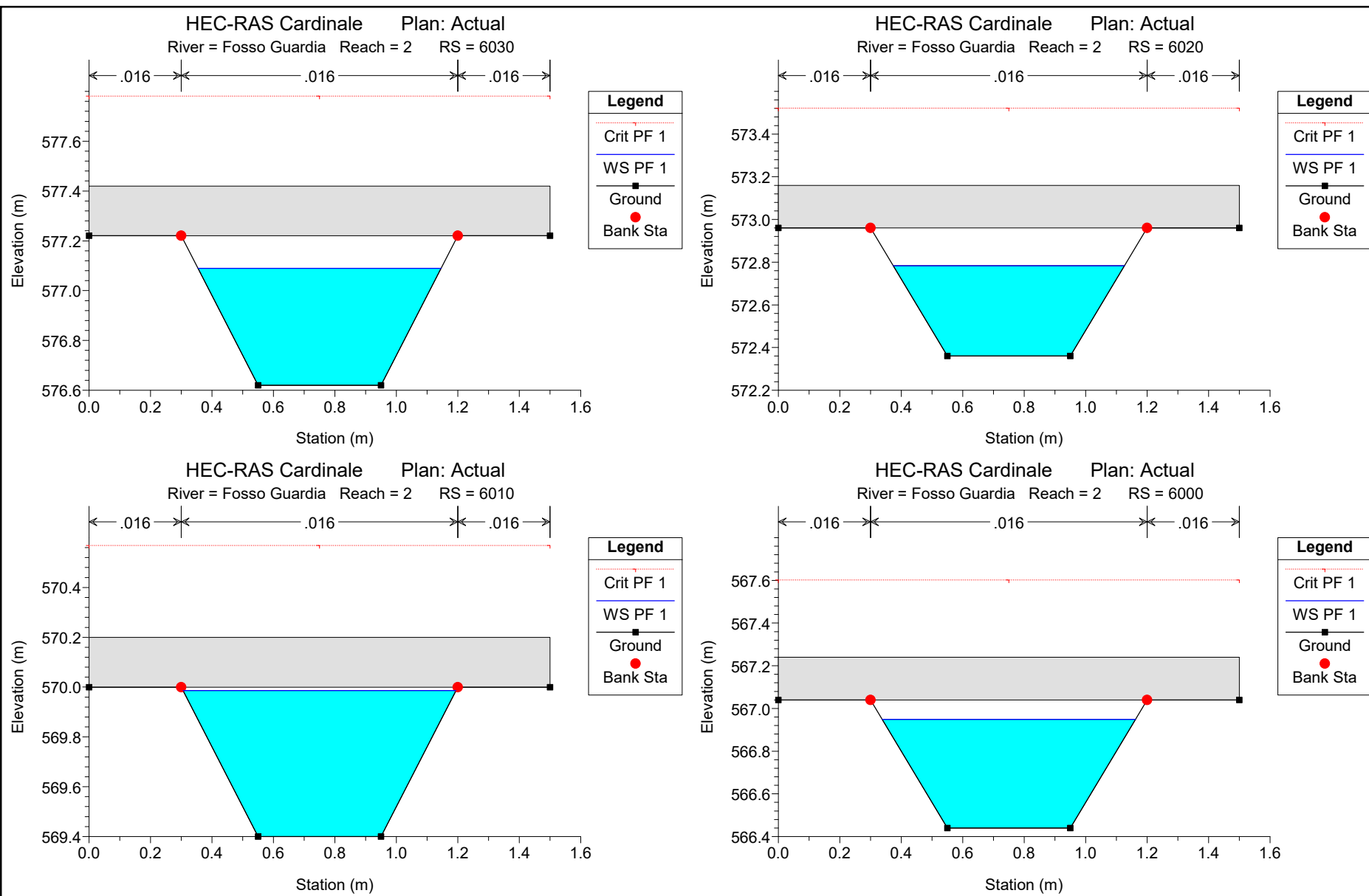


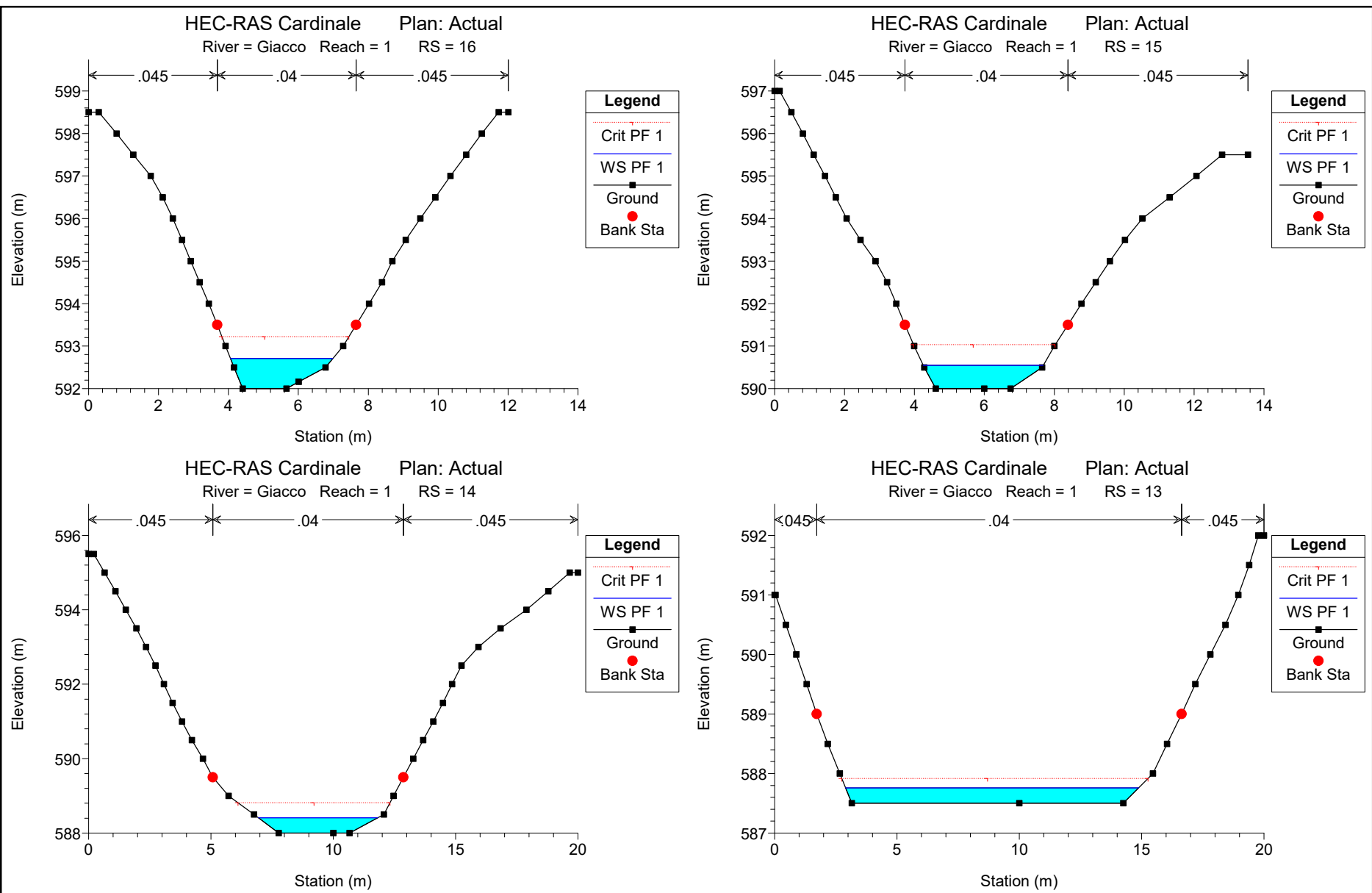


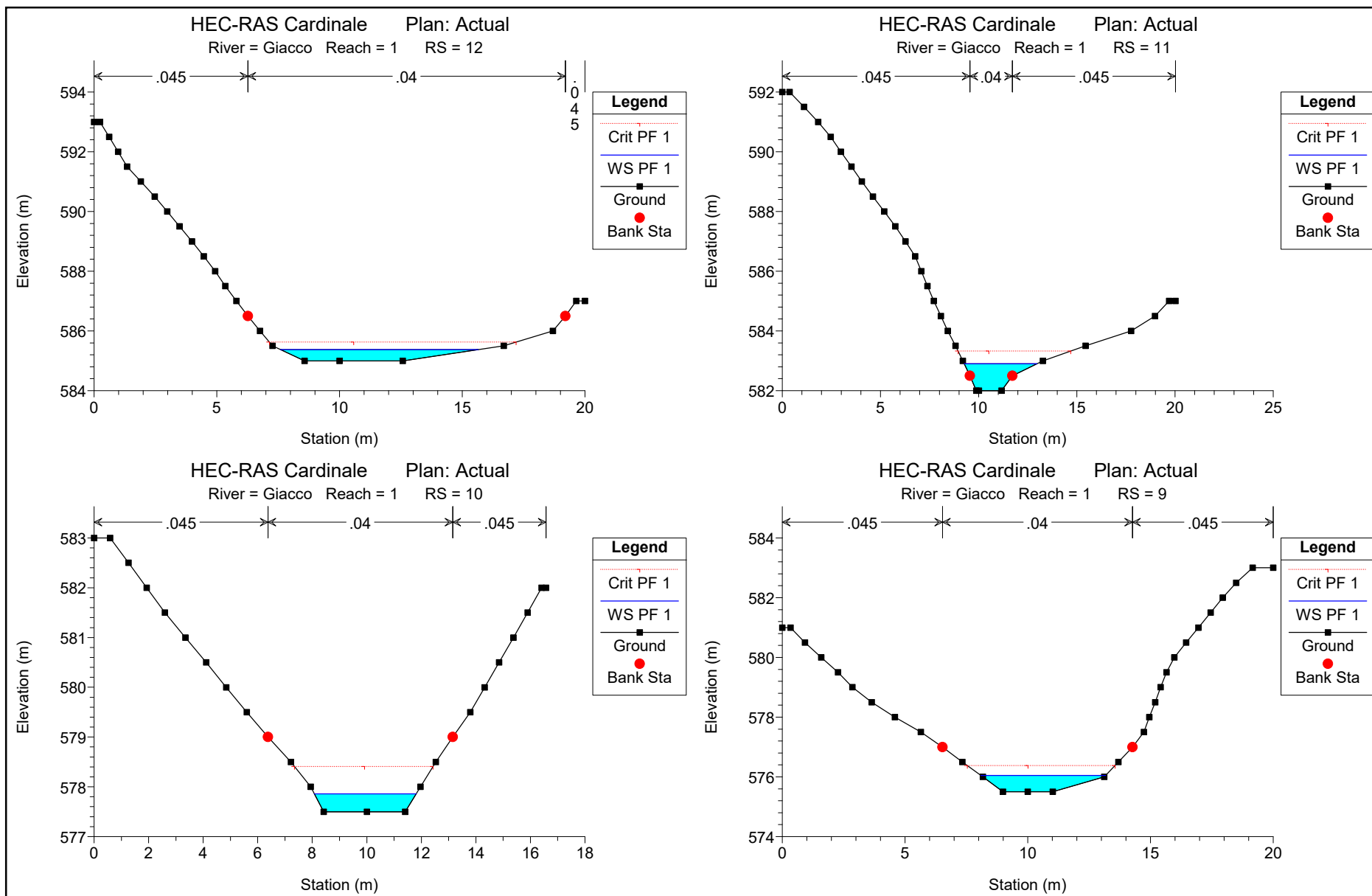


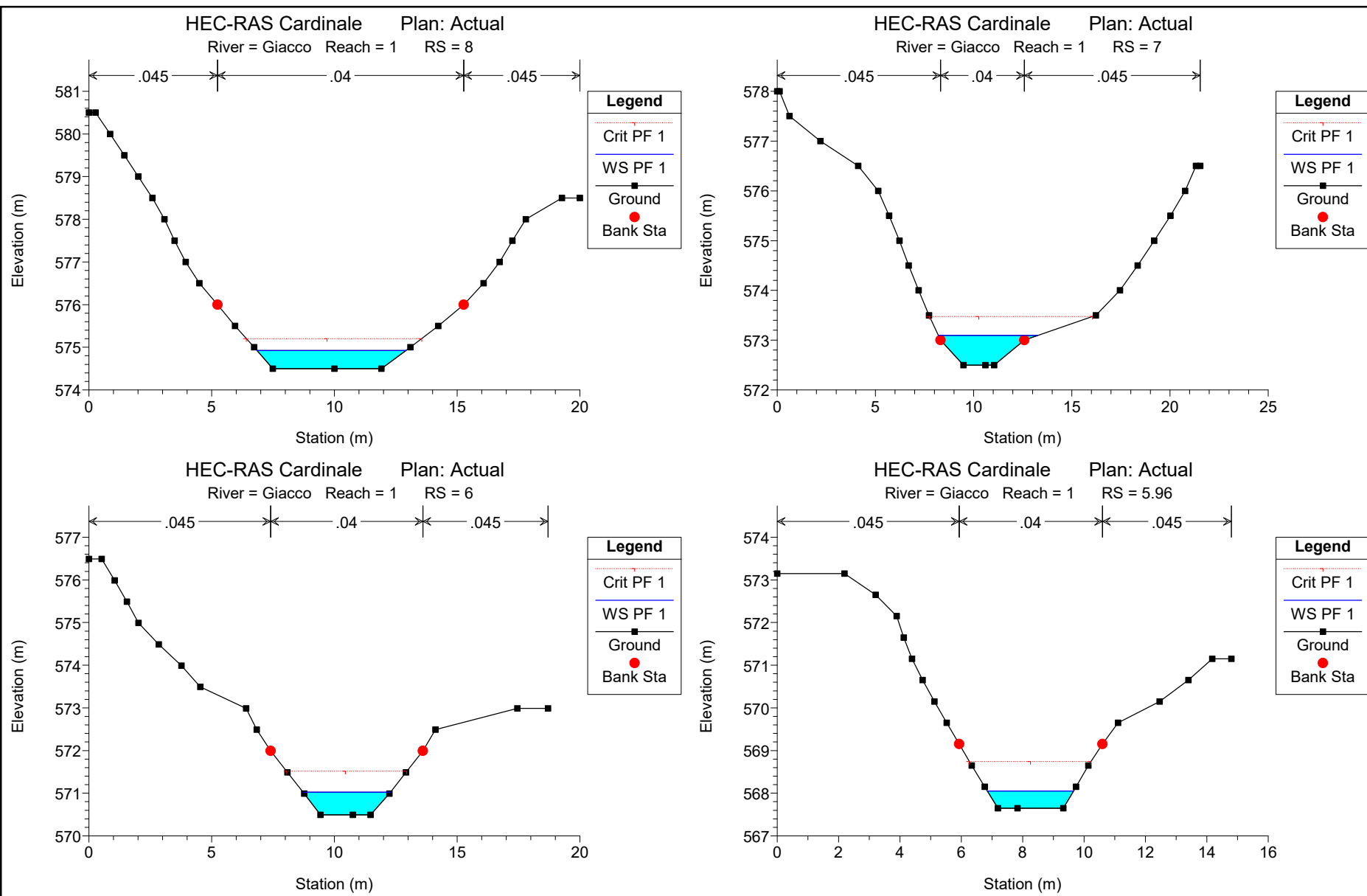


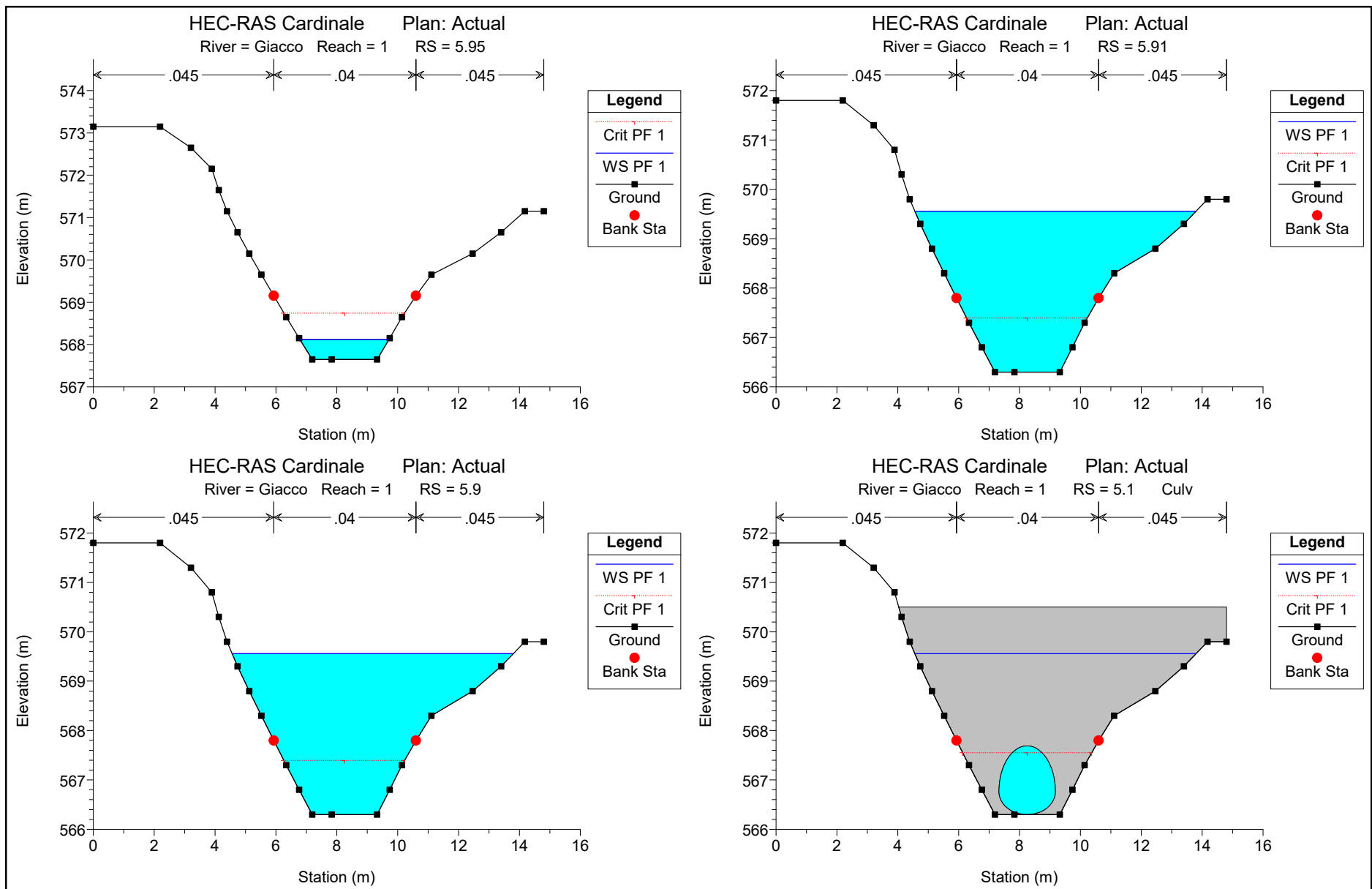


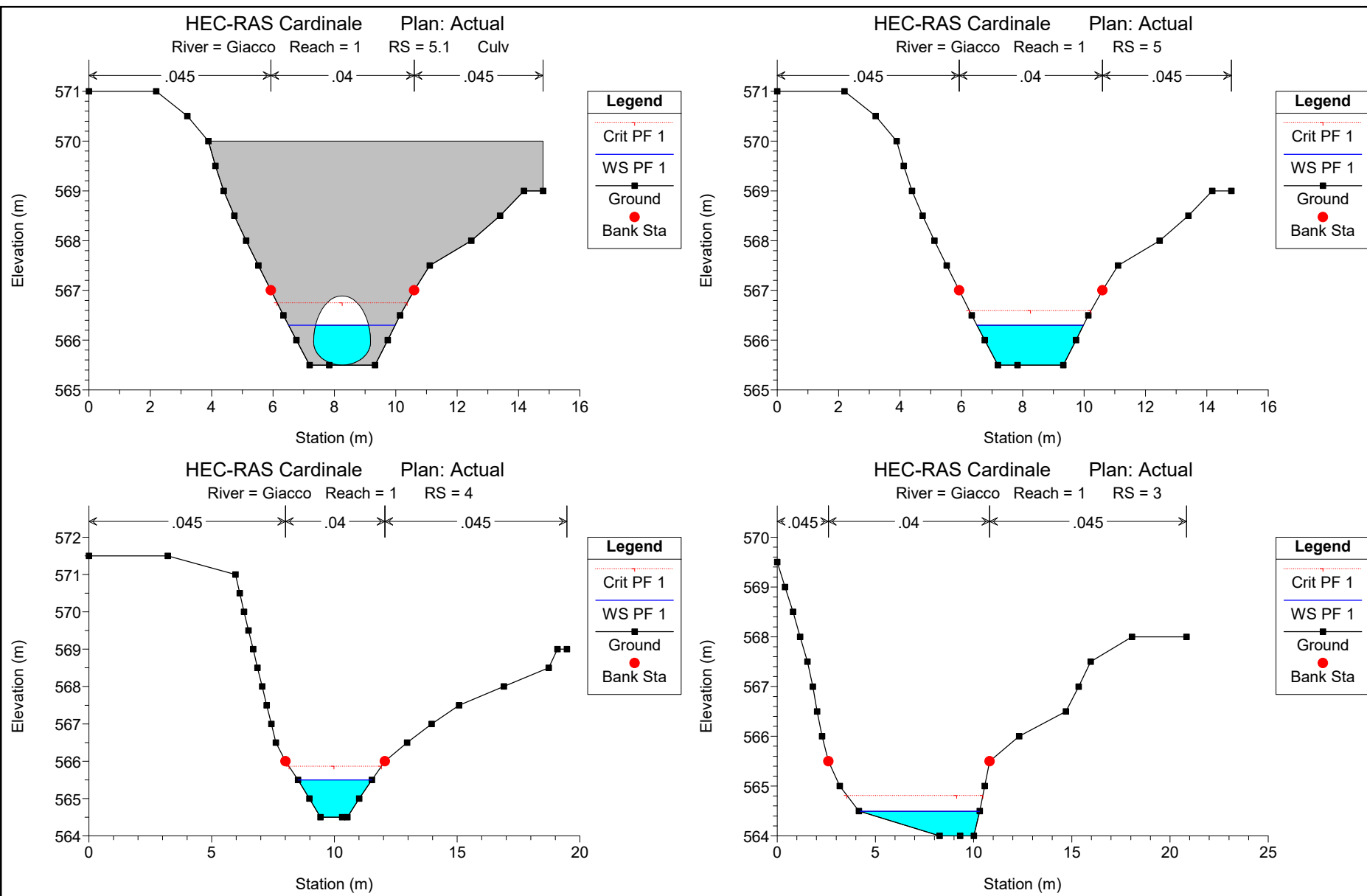


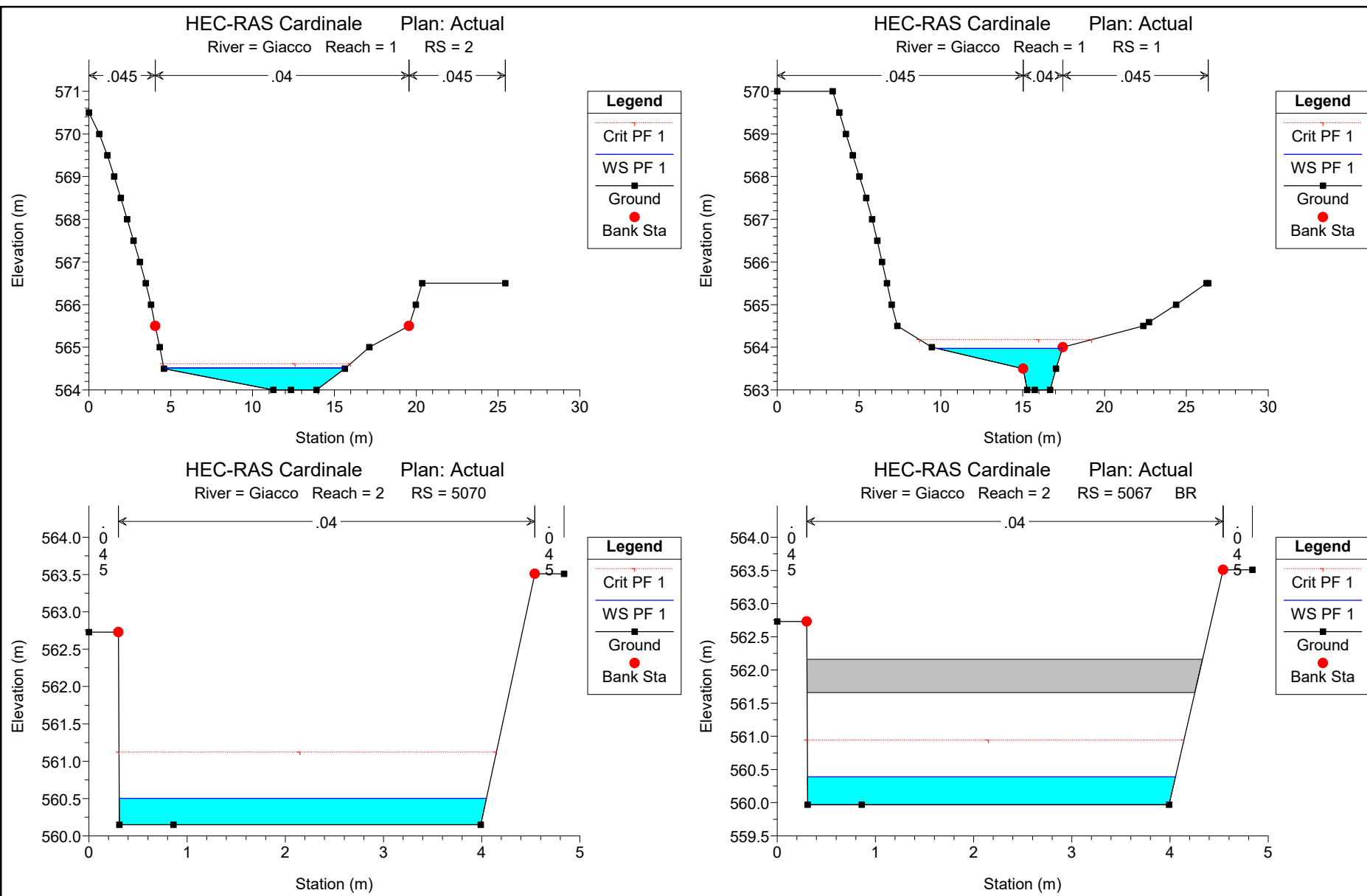


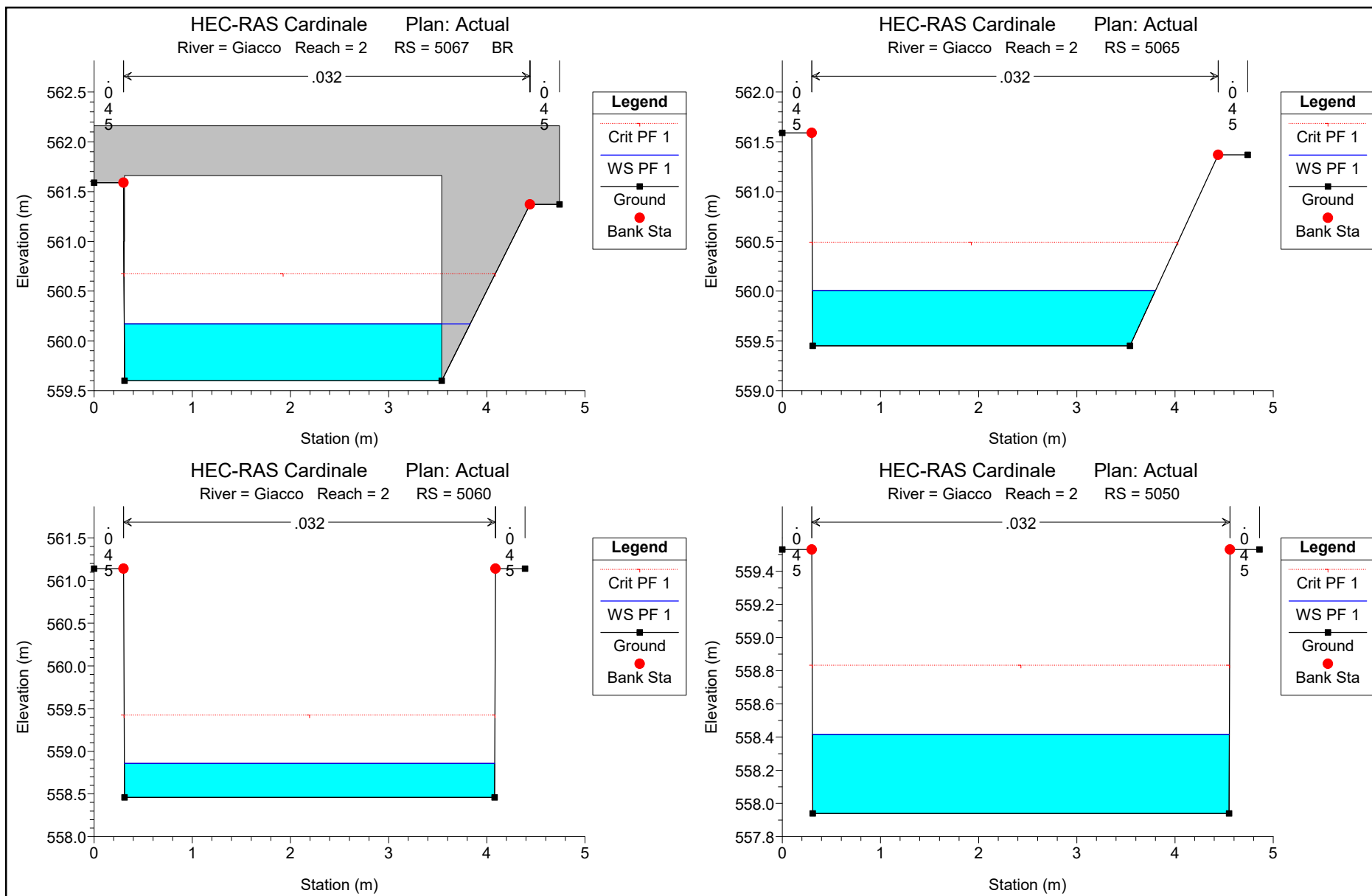


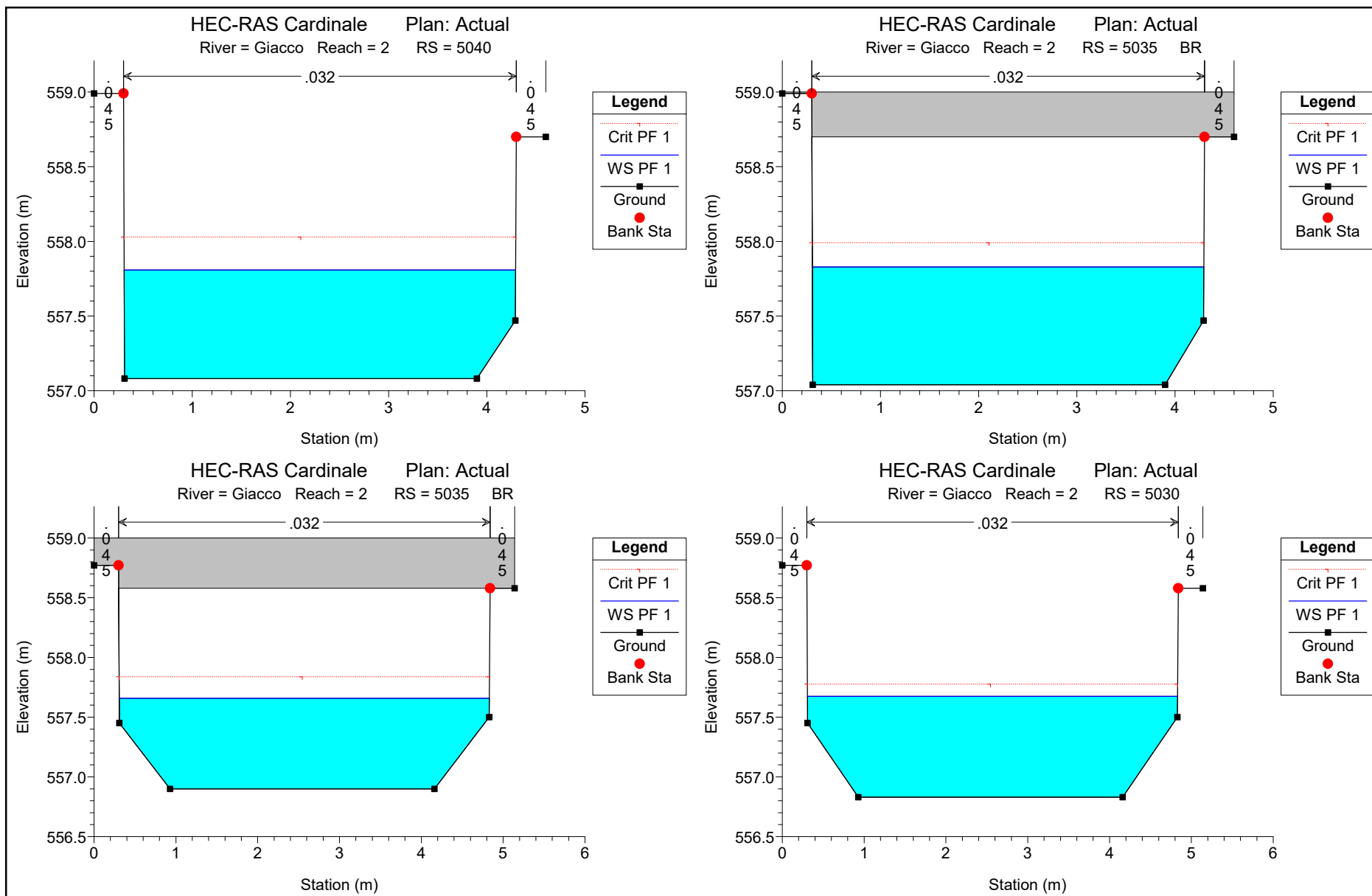


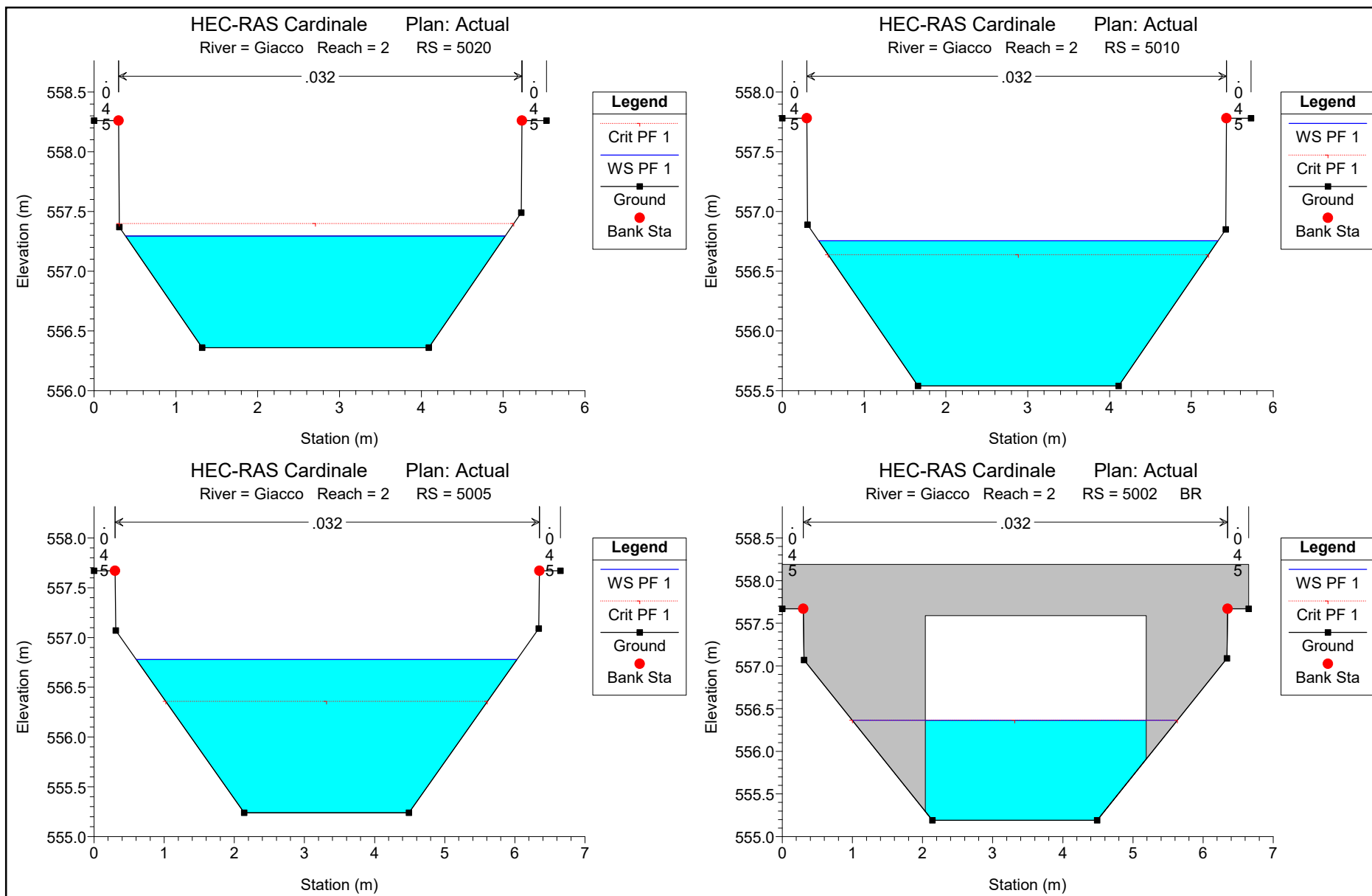


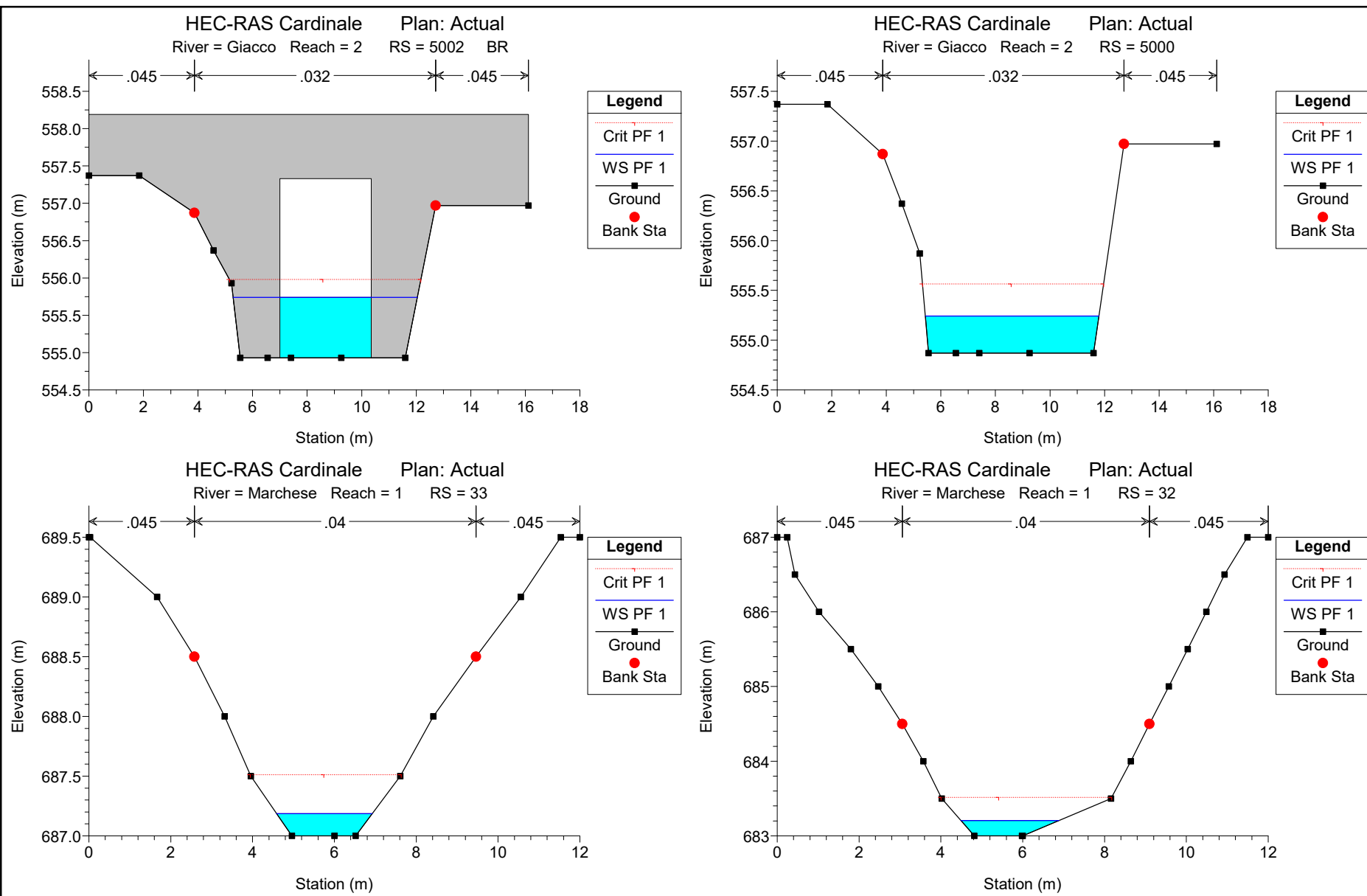


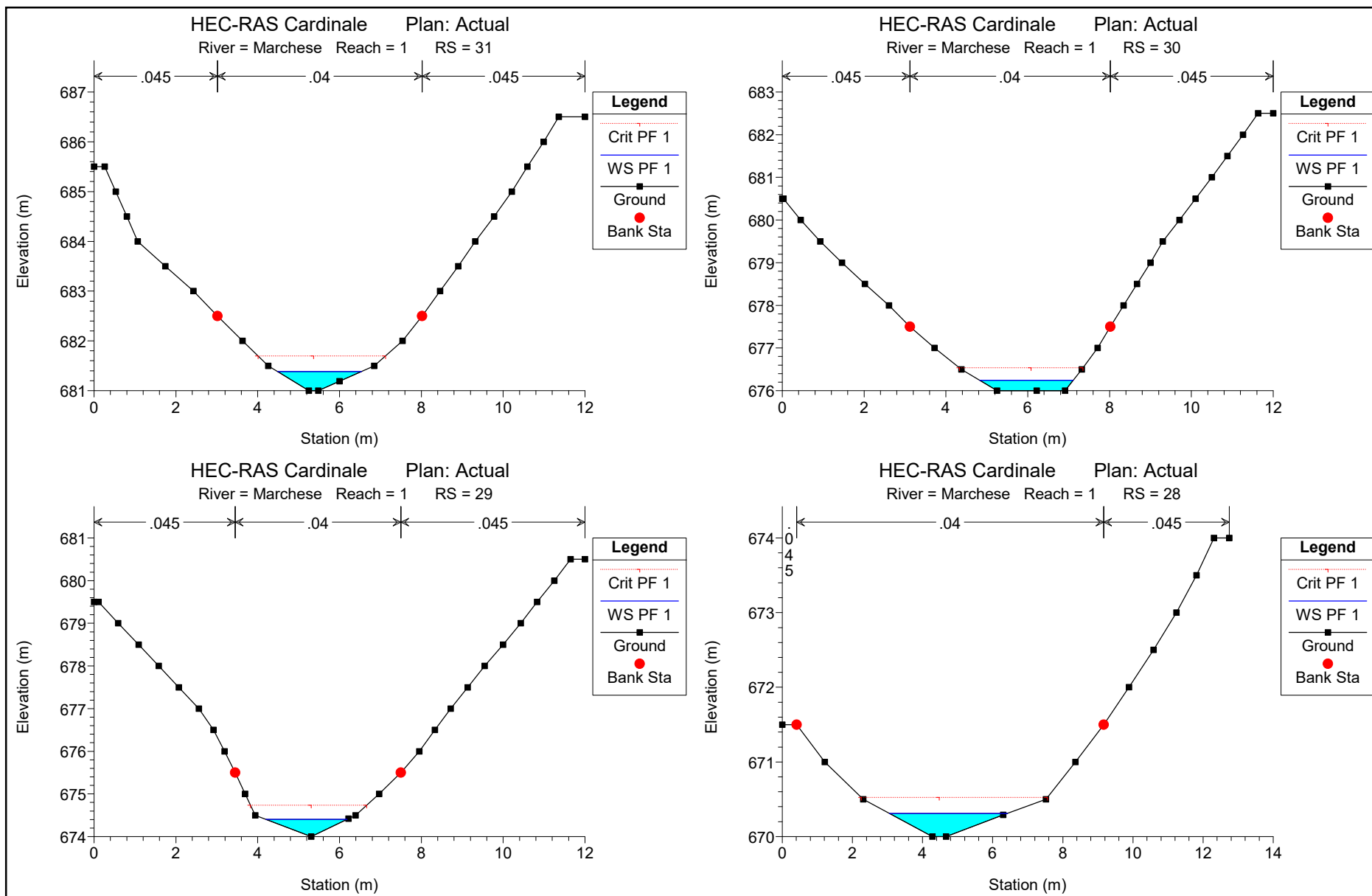


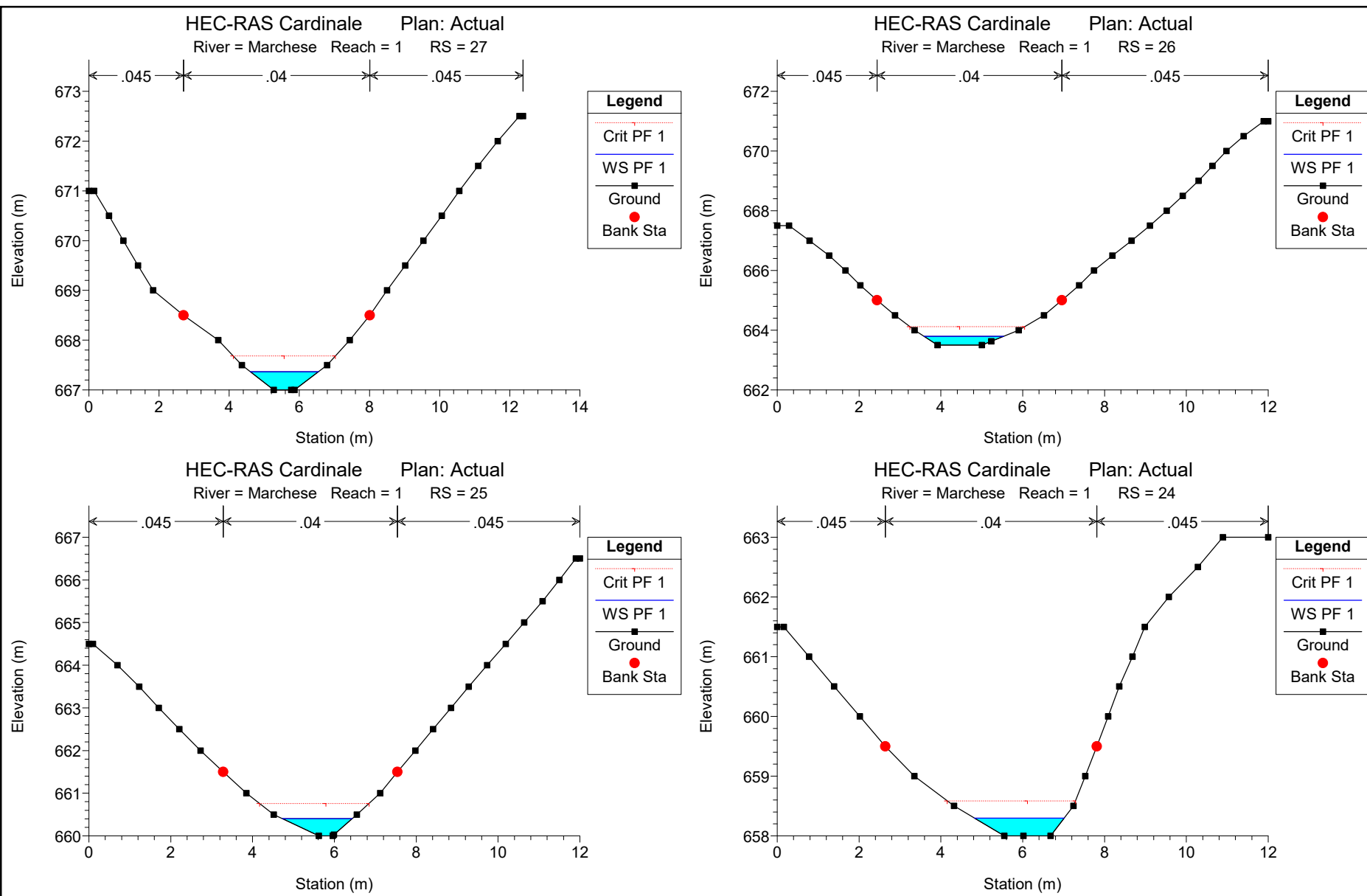


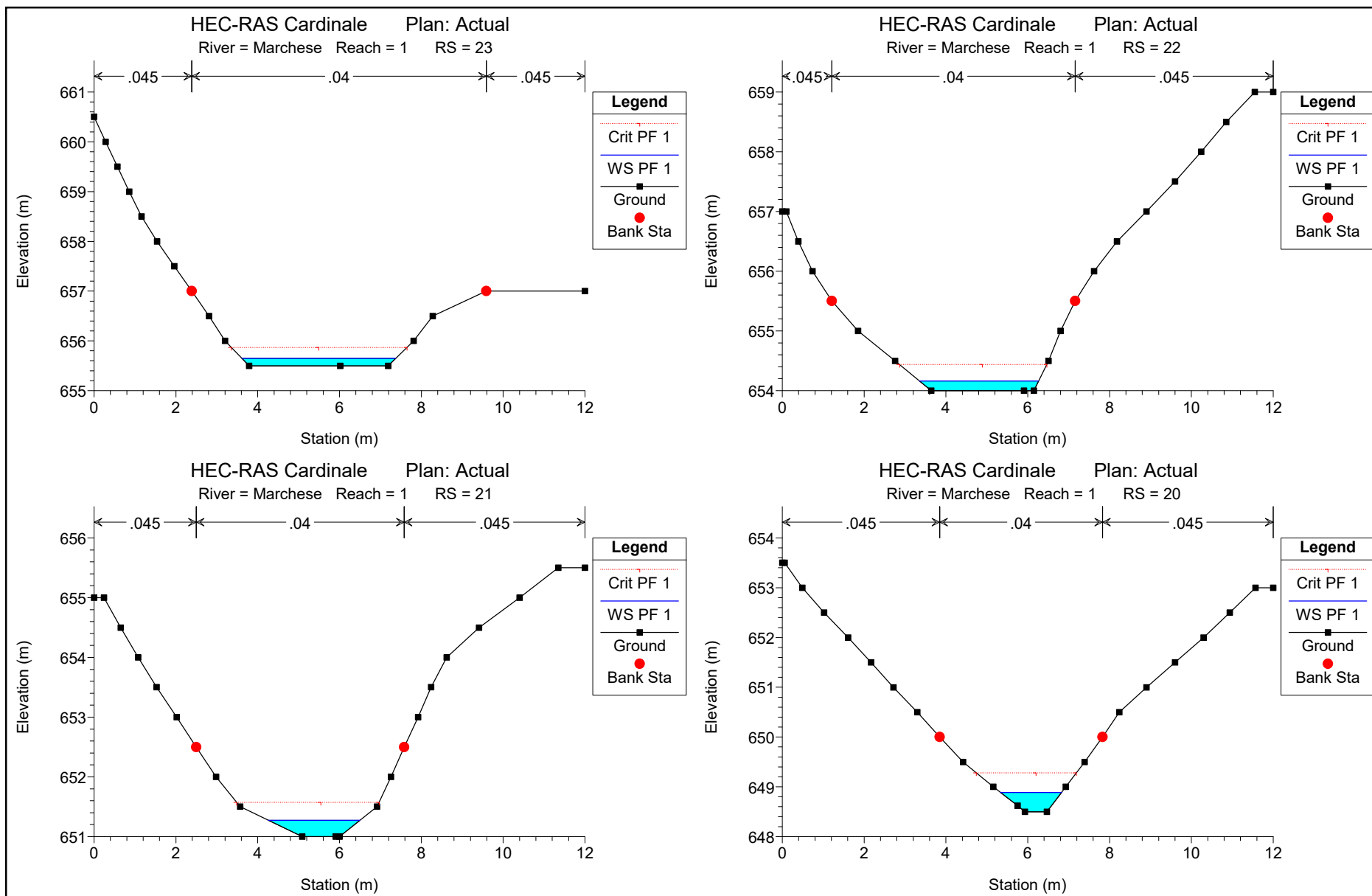


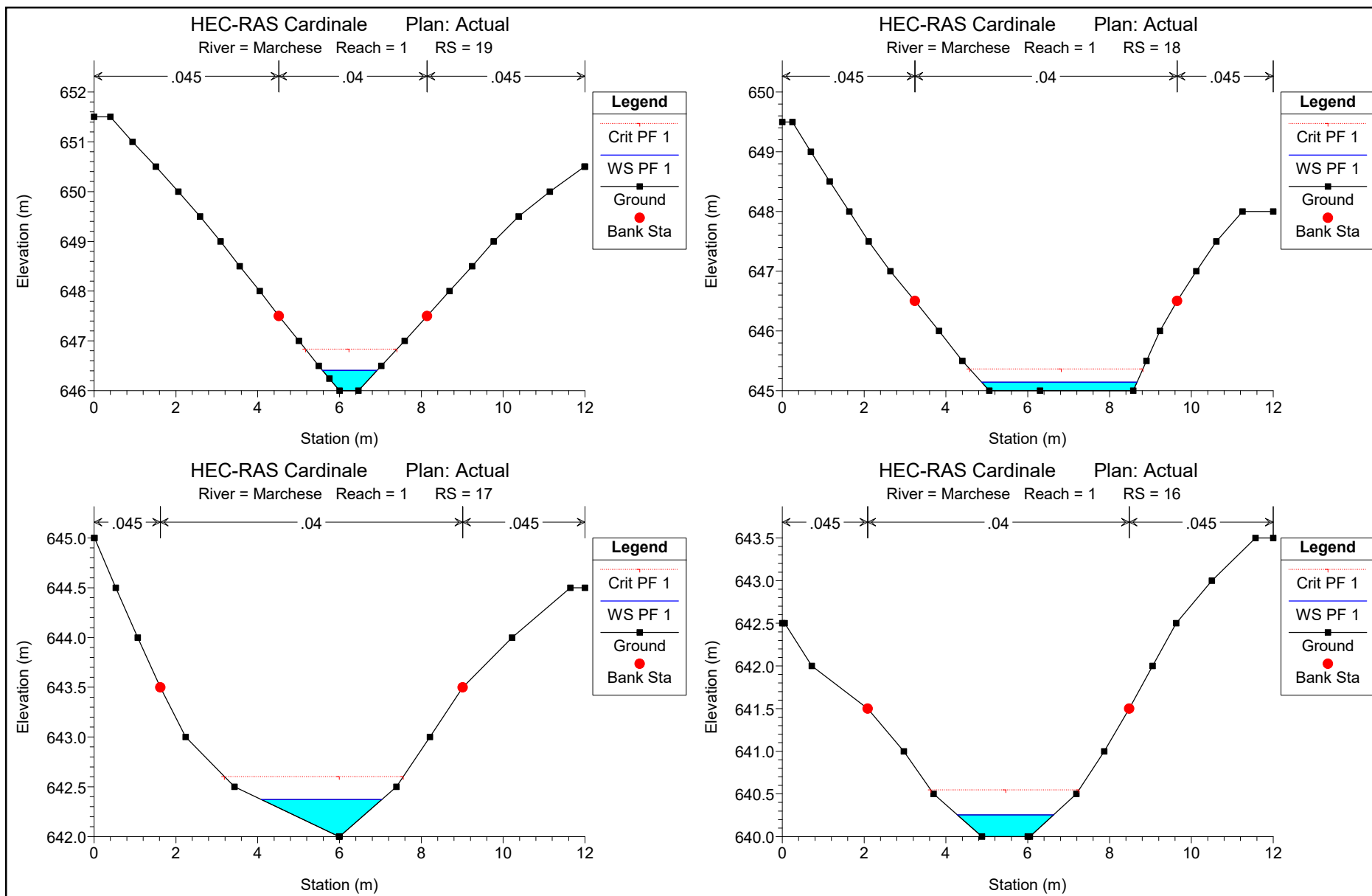


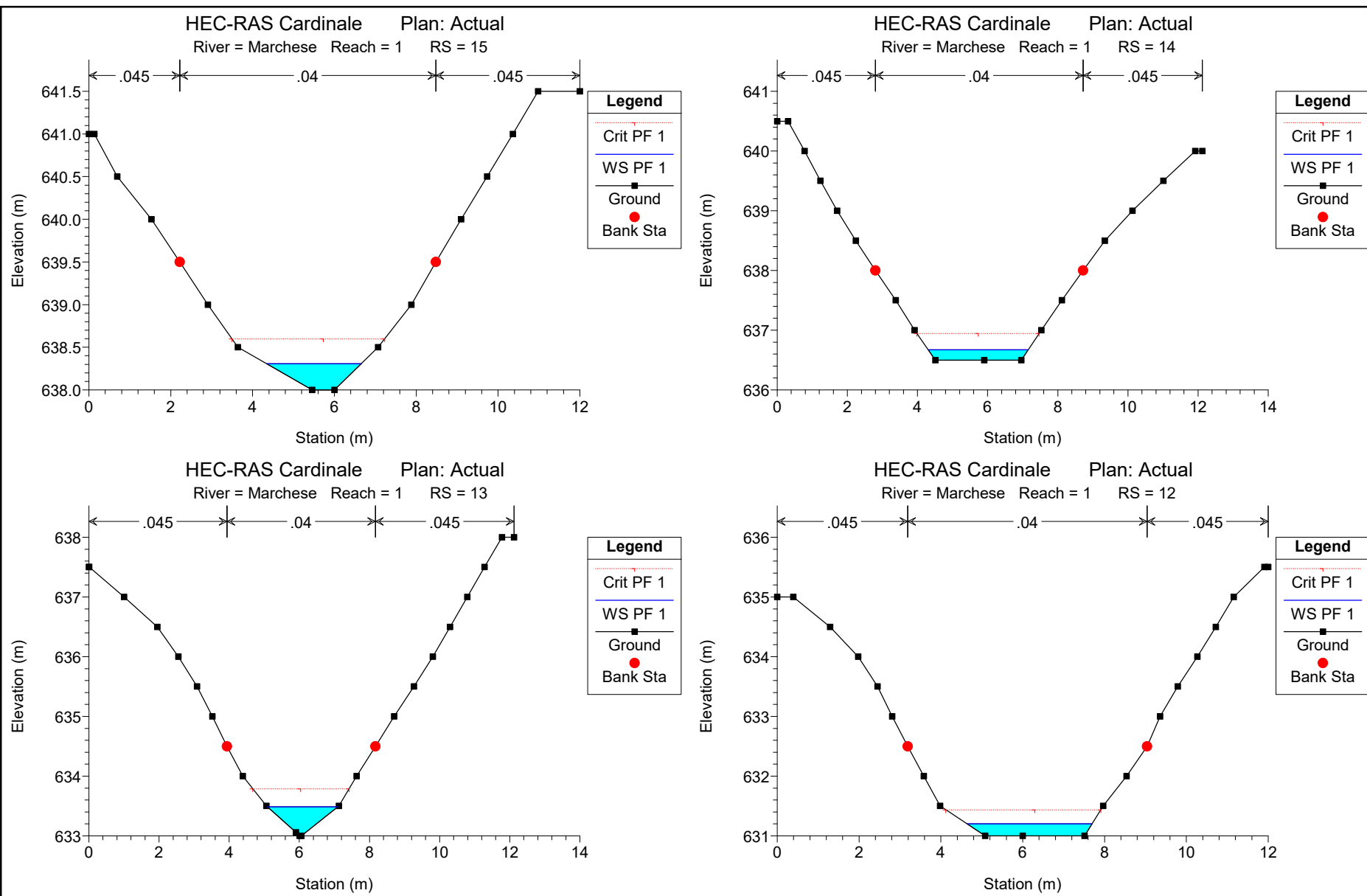


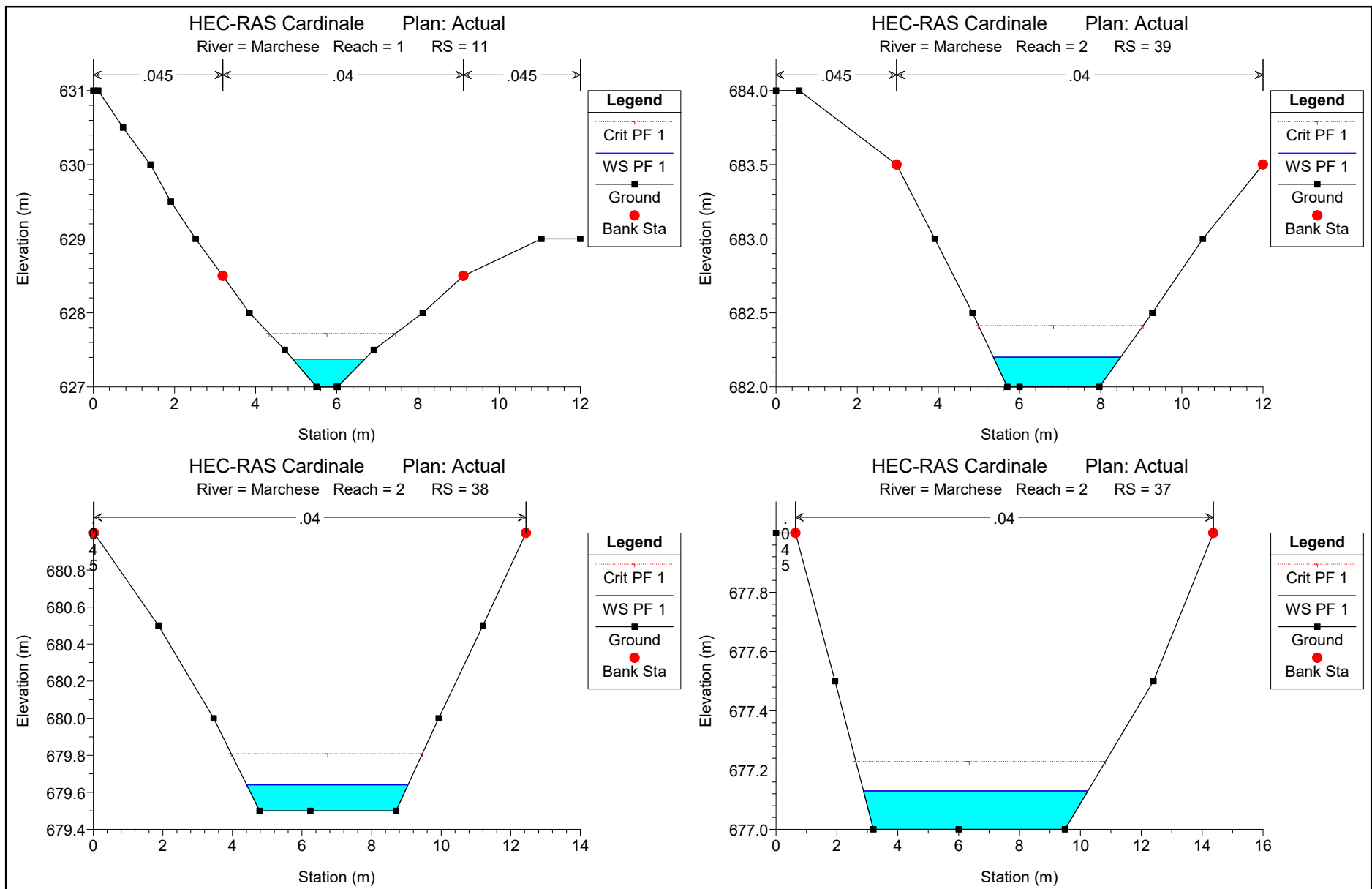


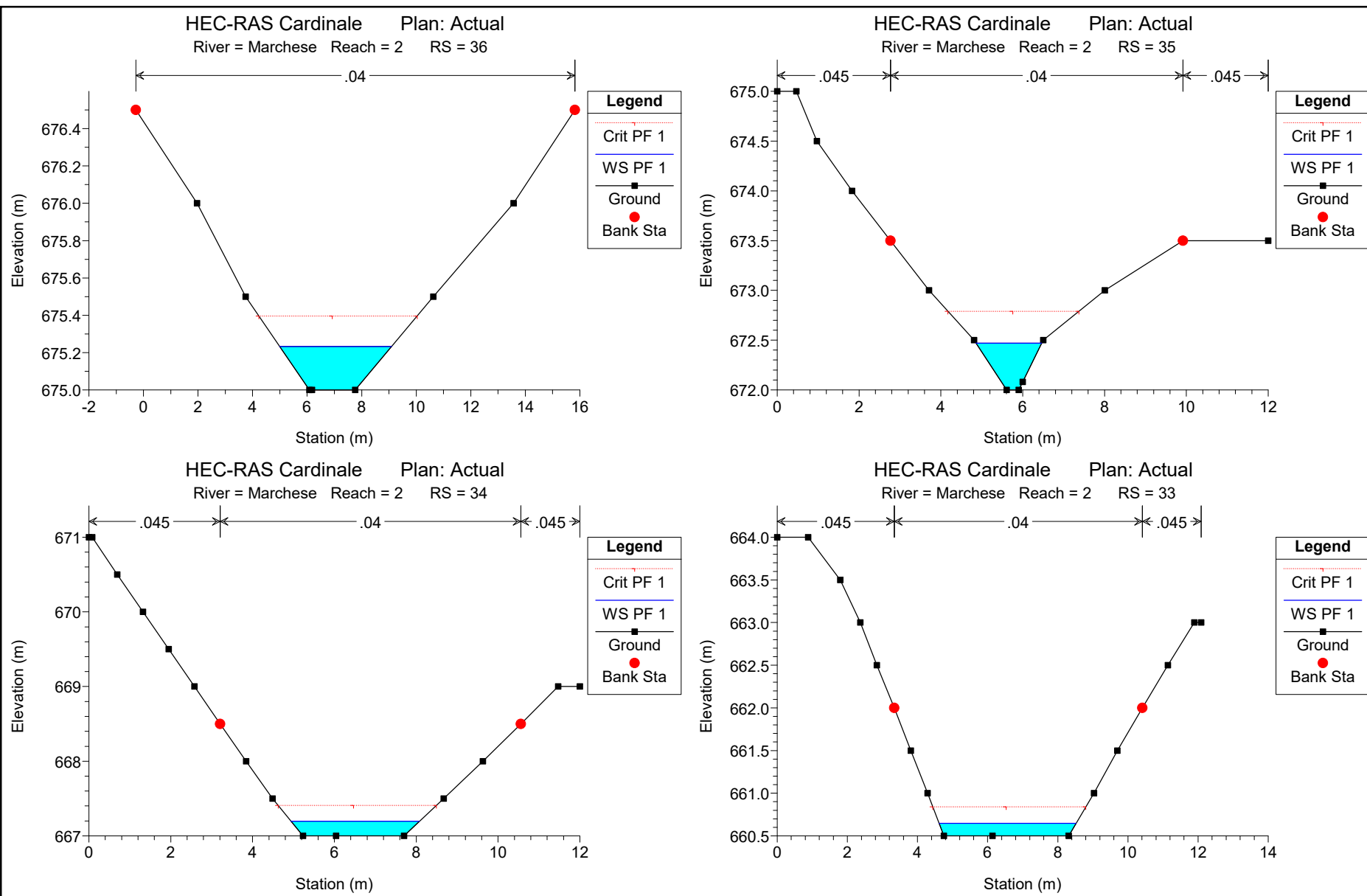


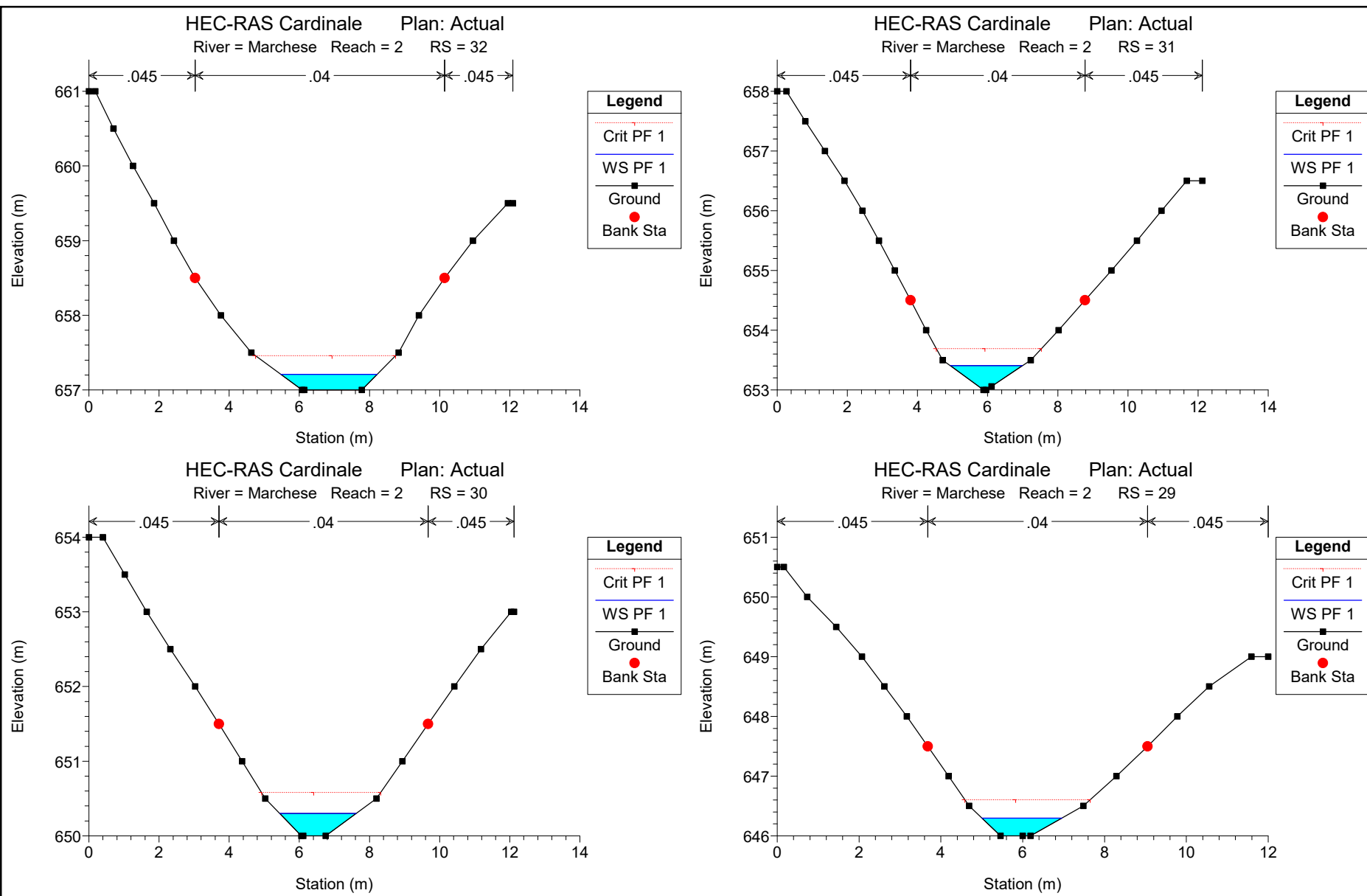


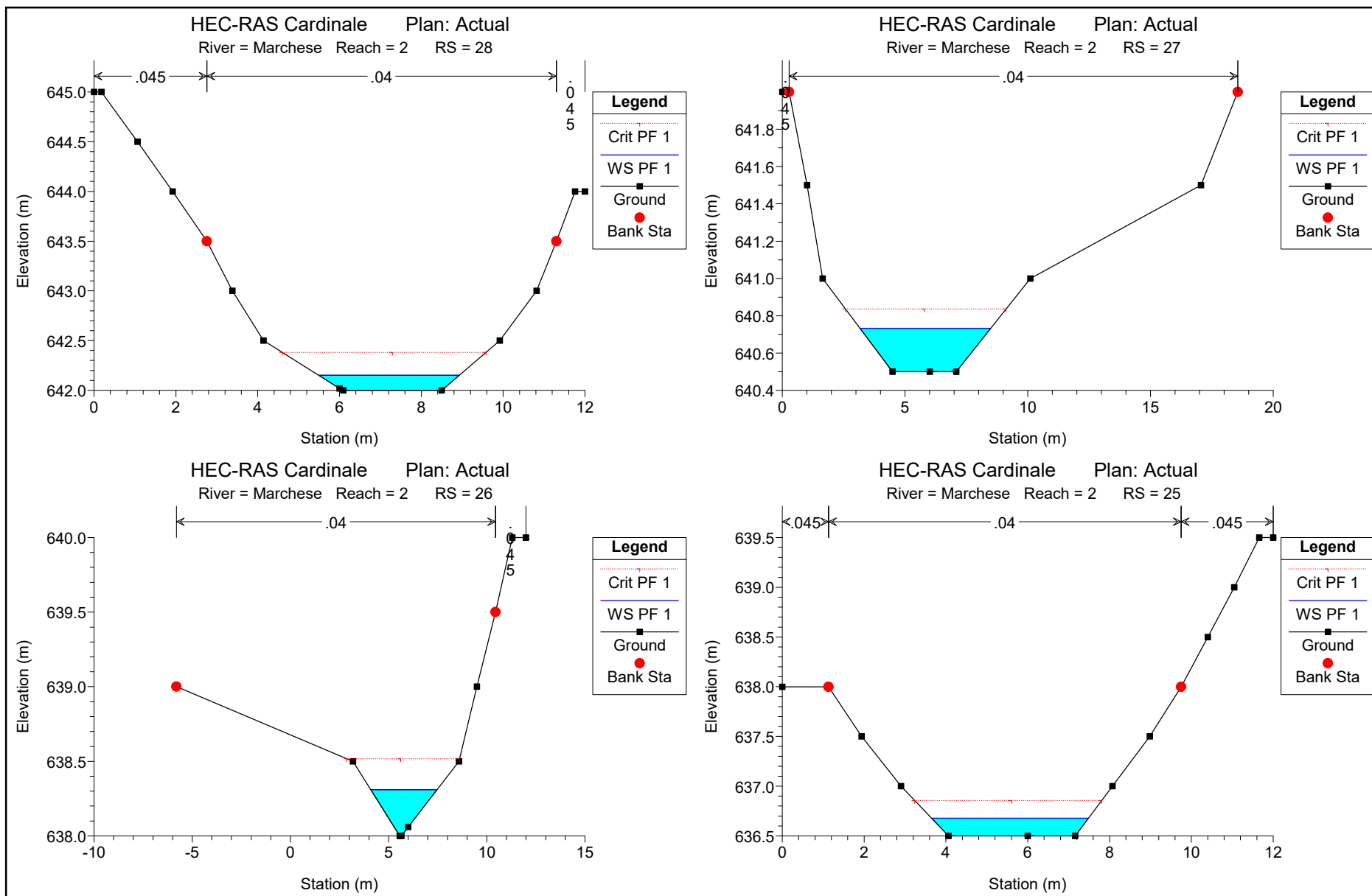


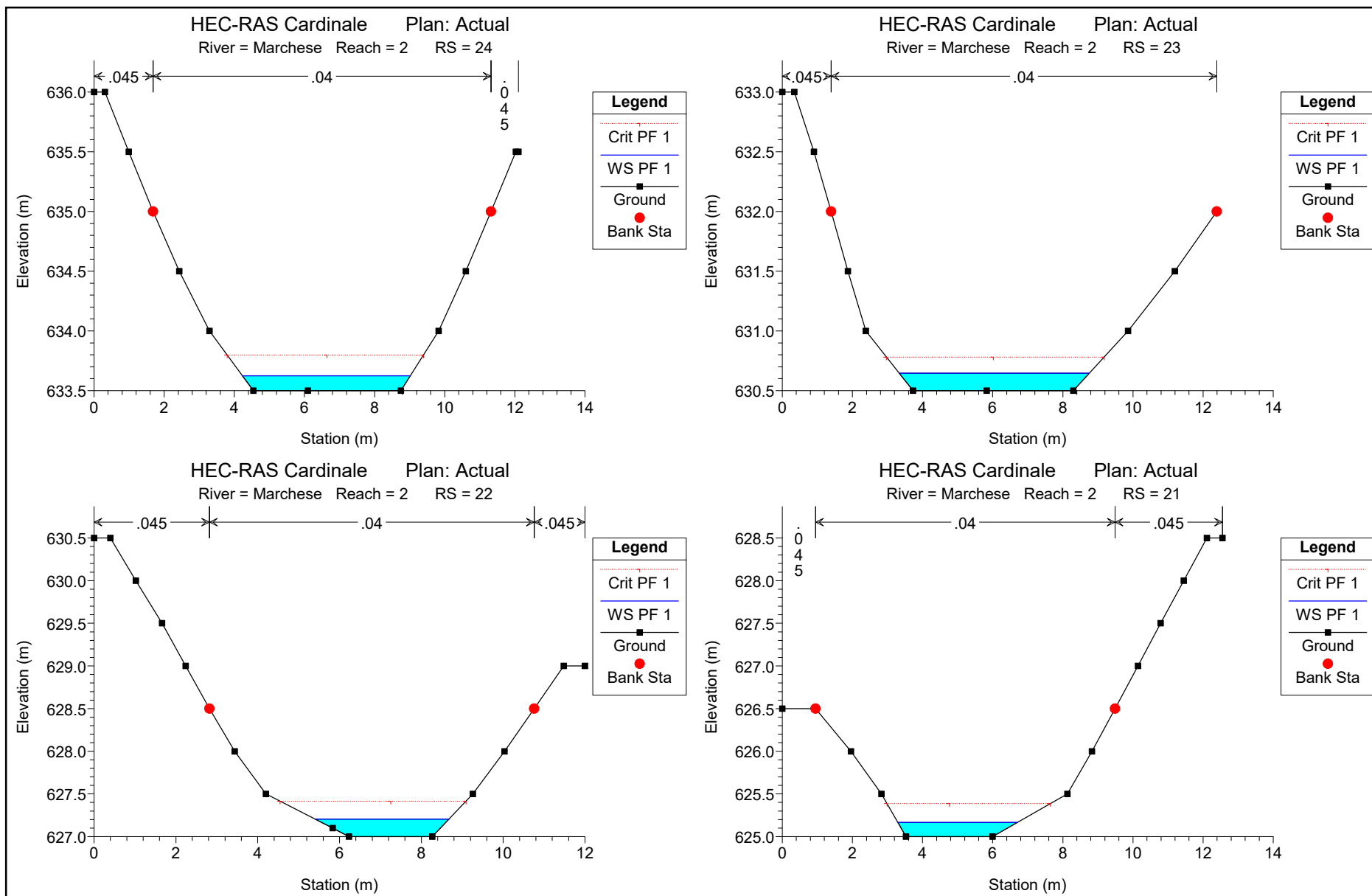


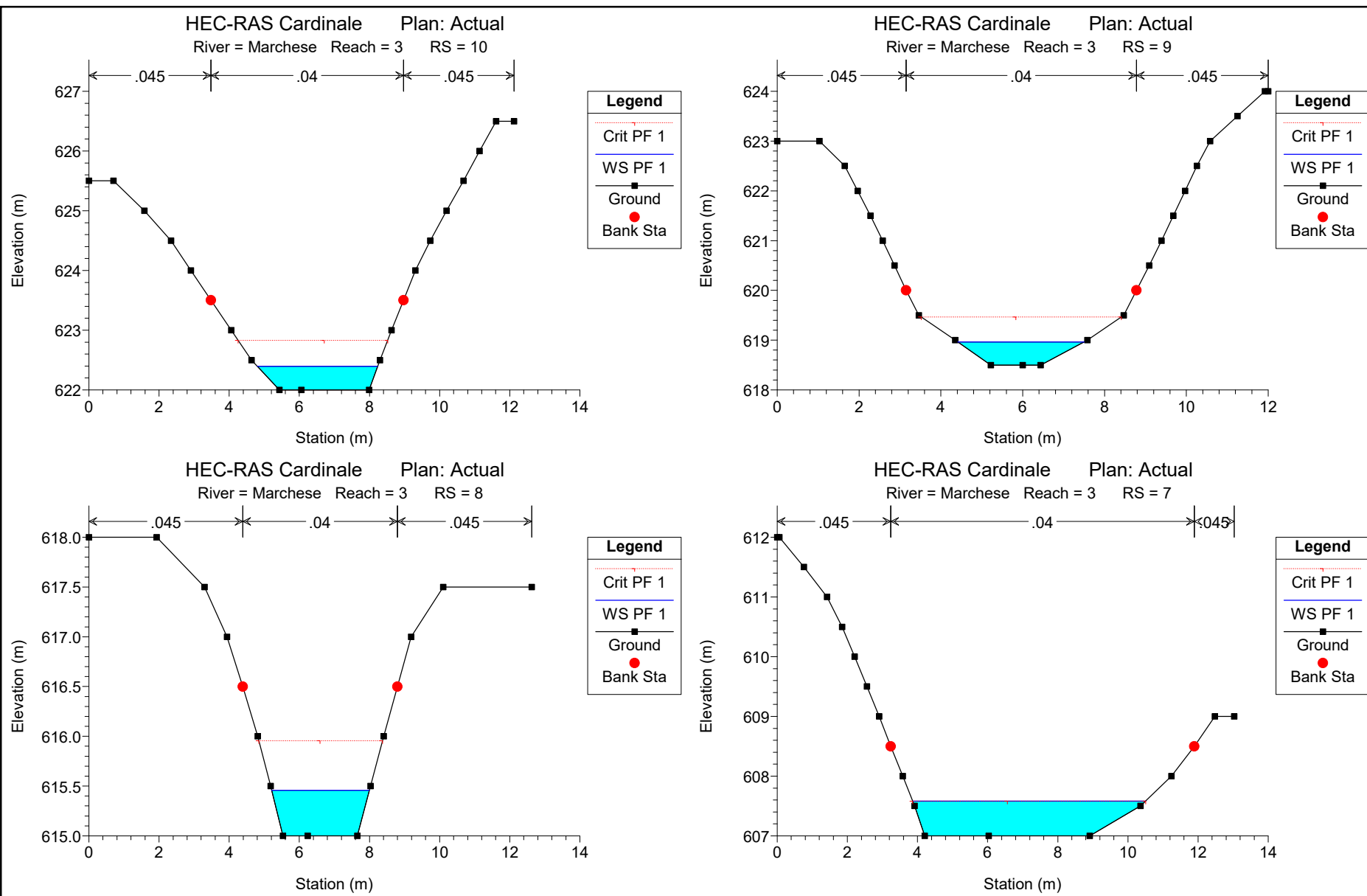


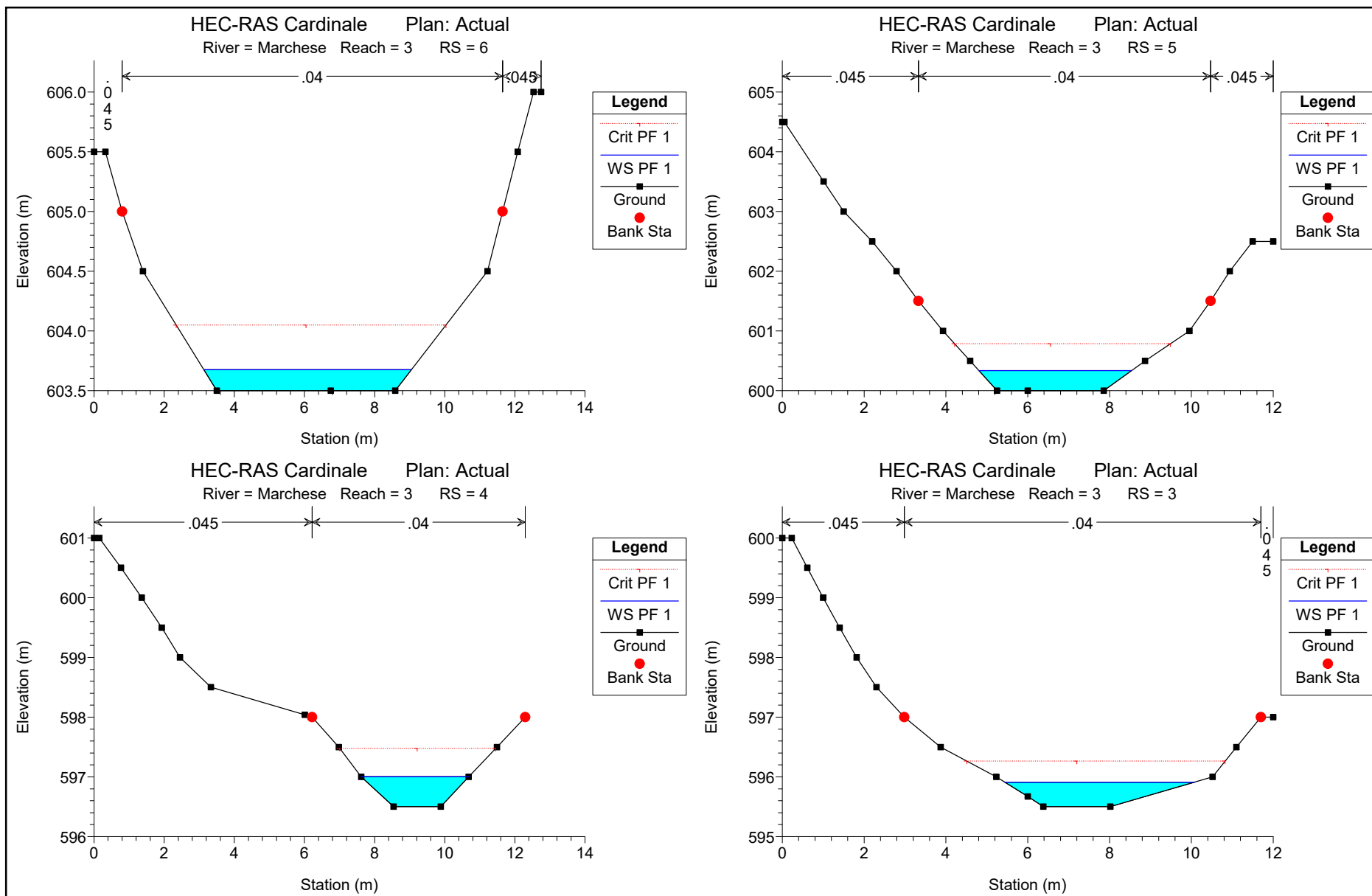


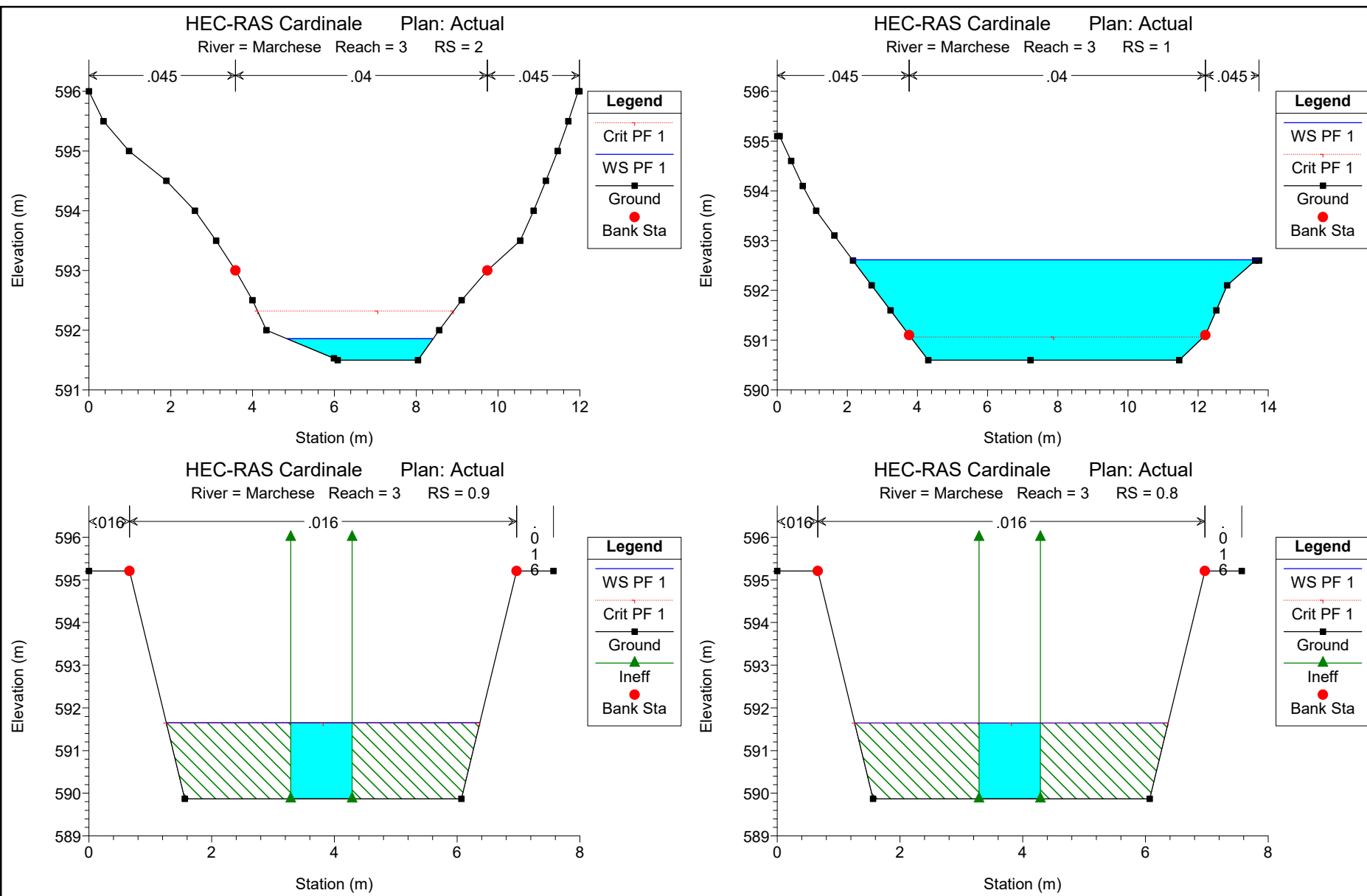


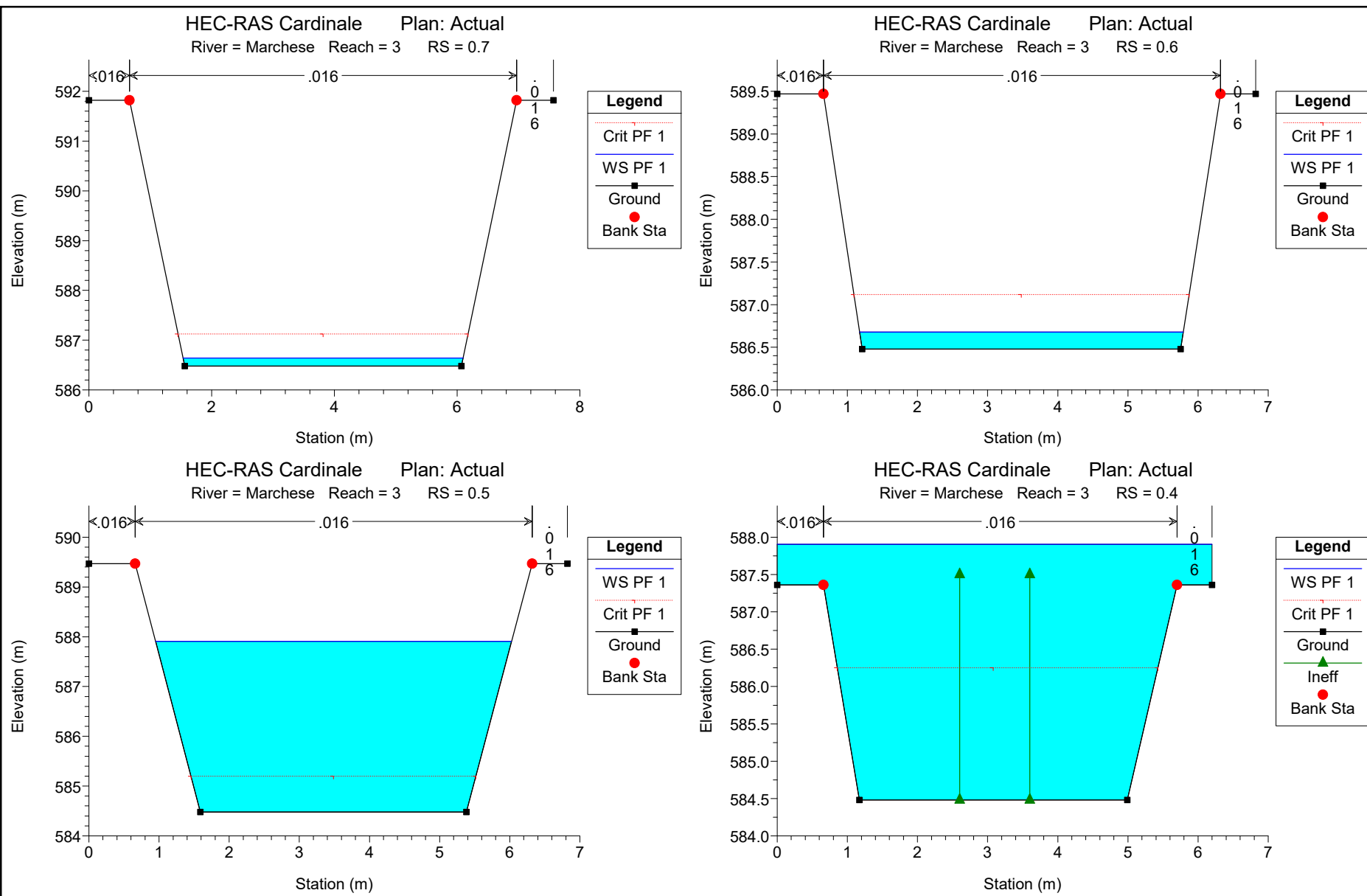


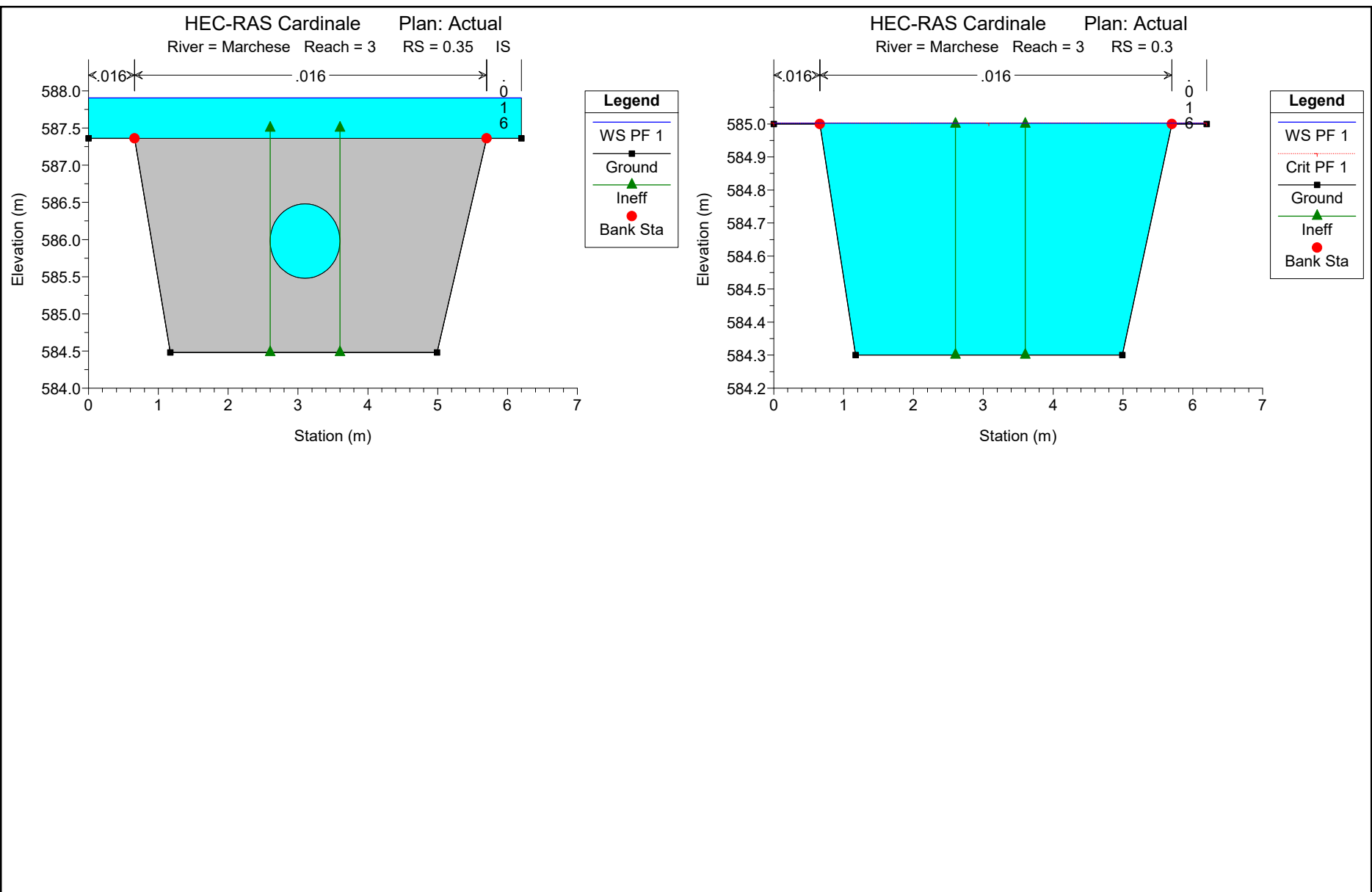












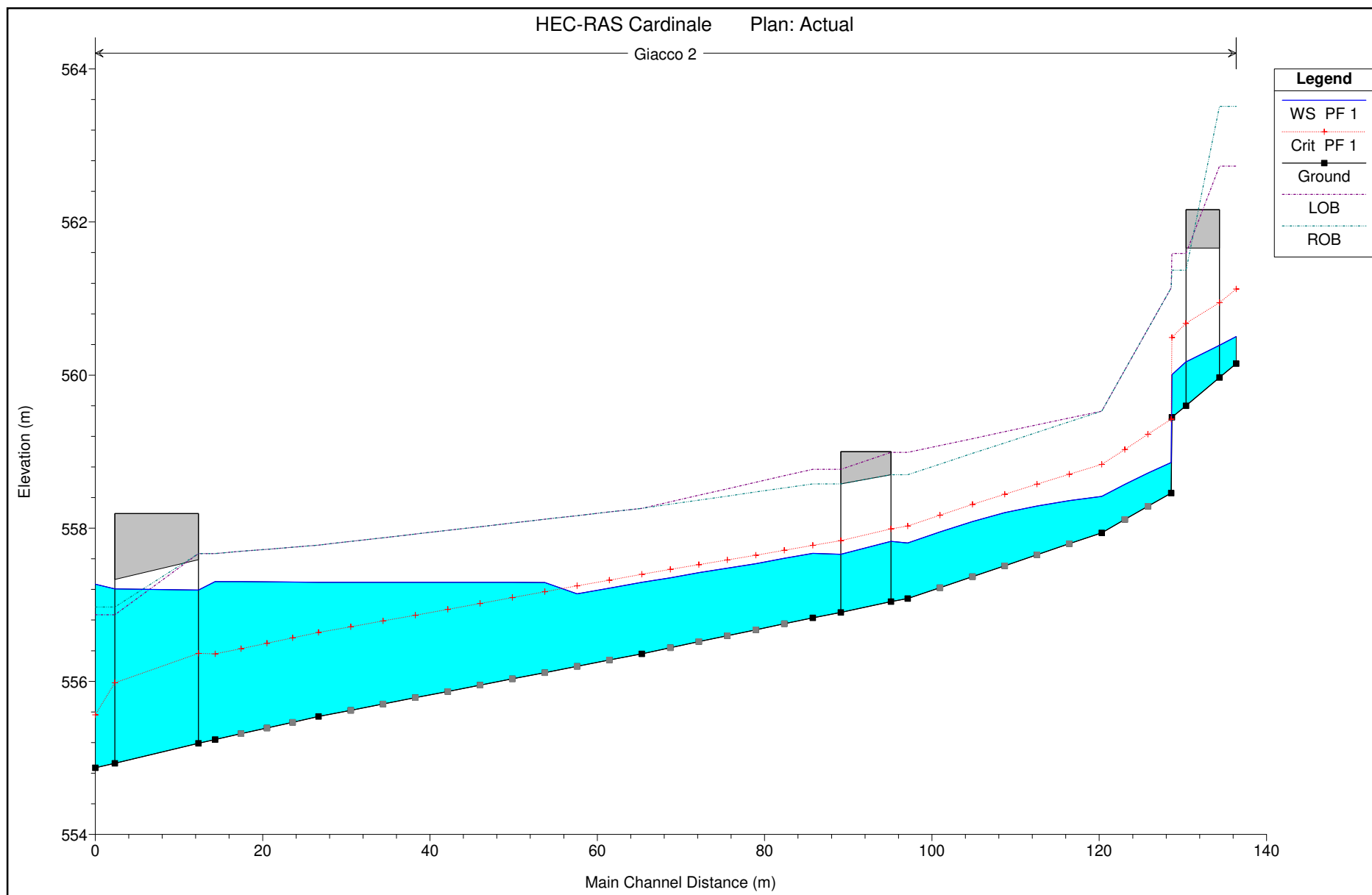
**ALLEGATO 2: SIMULAZIONE HEC RAS – STATO DI FATTO CANALI  
A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO  
RIGURGITATO**

N.B. Viene riportata unicamente l'analisi in moto permanente del fosso Giacco ramo 2 in quanto l'unico influenzato dall'imposizione della quota di efflusso di valle.

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HEC-RAS Plan: Actual River: Giacco Reach: 2 Profile: PF 1

| 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)       |              |
| 2     | 5070      | PF 1    | 11.24   | 560.15    | 560.50    | 561.12    | 564.28    | 0.596572   | 8.61     | 1.31      | 3.74      | 4.65         |
| 2     | 5067      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5065      | PF 1    | 11.24   | 559.45    | 560.01    | 560.49    | 561.85    | 0.115602   | 6.01     | 1.87      | 3.49      | 2.62         |
| 2     | 5060      | PF 1    | 11.24   | 558.46    | 558.86    | 559.42    | 561.72    | 0.253335   | 7.49     | 1.50      | 3.77      | 3.79         |
| 2     | 5050      | PF 1    | 11.24   | 557.94    | 558.42    | 558.83    | 559.99    | 0.111315   | 5.56     | 2.02      | 4.25      | 2.57         |
| 2     | 5040      | PF 1    | 11.24   | 557.08    | 557.81    | 558.03    | 558.62    | 0.036653   | 3.98     | 2.82      | 3.99      | 1.51         |
| 2     | 5035      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5030      | PF 1    | 11.24   | 556.83    | 557.67    | 557.78    | 558.23    | 0.021120   | 3.31     | 3.39      | 4.52      | 1.22         |
| 2     | 5020      | PF 1    | 11.24   | 556.36    | 557.29    | 557.40    | 557.83    | 0.019573   | 3.25     | 3.46      | 4.64      | 1.20         |
| 2     | 5010      | PF 1    | 11.24   | 555.54    | 557.29    | 556.64    | 557.42    | 0.002438   | 1.56     | 7.19      | 5.12      | 0.42         |
| 2     | 5005      | PF 1    | 11.24   | 555.24    | 557.30    | 556.36    | 557.38    | 0.001337   | 1.24     | 9.06      | 6.04      | 0.32         |
| 2     | 5002      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5000      | PF 1    | 11.24   | 554.87    | 557.27    | 555.56    | 557.29    | 0.000211   | 0.62     | 19.19     | 13.86     | 0.14         |



Plan: Actual Giacco 2 RS: 5070 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 564.28   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.78     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 560.50   | Reach Len. (m)       | 2.00    | 2.00     | 2.00     |
| Crit W.S. (m)      | 561.12   | Flow Area (m2)       |         | 1.31     |          |
| E.G. Slope (m/m)   | 0.596572 | Area (m2)            |         | 1.31     |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24    |          |
| Top Width (m)      | 3.74     | Top Width (m)        |         | 3.74     |          |
| Vel Total (m/s)    | 8.61     | Avg. Vel. (m/s)      |         | 8.61     |          |
| Max Chl Dpth (m)   | 0.35     | Hydr. Depth (m)      |         | 0.35     |          |
| Conv. Total (m3/s) | 14.6     | Conv. (m3/s)         |         | 14.6     |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 4.39     |          |
| Min Ch EI (m)      | 560.15   | Shear (N/m2)         |         | 1740.83  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 14982.43 |          |
| Frctn Loss (m)     | 0.89     | Cum Volume (1000 m3) | 0.00    | 0.57     | 0.00     |
| C & E Loss (m)     | 0.33     | Cum SA (1000 m2)     | 0.00    | 0.55     | 0.00     |

Plan: Actual Giacco 2 RS: 5067 BR U Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 563.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.66     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 560.39   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 560.95   | Flow Area (m2)       |         | 1.55    |          |
| E.G. Slope (m/m)   | 0.347216 | Area (m2)            |         | 1.55    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.75     | Top Width (m)        |         | 3.75    |          |
| Vel Total (m/s)    | 7.23     | Avg. Vel. (m/s)      |         | 7.23    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 19.1     | Conv. (m3/s)         |         | 19.1    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.52    |          |
| Min Ch EI (m)      | 559.97   | Shear (N/m2)         |         | 1170.57 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8462.44 |          |
| Frctn Loss (m)     | 0.76     | Cum Volume (1000 m3) | 0.00    | 0.57    | 0.00     |
| C & E Loss (m)     | 0.23     | Cum SA (1000 m2)     | 0.00    | 0.55    | 0.00     |

Plan: Actual Giacco 2 RS: 5067 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 562.06   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.89     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.17   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 560.68   | Flow Area (m2)       |         | 1.85    |          |
| E.G. Slope (m/m)   | 0.119792 | Area (m2)            |         | 1.85    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.23     | Top Width (m)        |         | 3.23    |          |
| Vel Total (m/s)    | 6.09     | Avg. Vel. (m/s)      |         | 6.09    |          |
| Max Chl Dpth (m)   | 0.57     | Hydr. Depth (m)      |         | 0.57    |          |
| Conv. Total (m3/s) | 32.5     | Conv. (m3/s)         |         | 32.5    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.37    |          |
| Min Ch EI (m)      | 559.60   | Shear (N/m2)         |         | 496.03  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3019.62 |          |
| Frctn Loss (m)     | 0.20     | Cum Volume (1000 m3) | 0.00    | 0.57    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.55    | 0.00     |

Plan: Actual Giacco 2 RS: 5065 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 561.85   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 1.84     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 560.01   | Reach Len. (m) | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)    | 560.49   | Flow Area (m2) |         | 1.87    |          |
| E.G. Slope (m/m) | 0.115602 | Area (m2)      |         | 1.87    |          |
| Q Total (m3/s)   | 11.24    | Flow (m3/s)    |         | 11.24   |          |

Plan: Actual Giacco 2 RS: 5065 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 3.49   | Top Width (m)        |      | 3.49    |      |
| Vel Total (m/s)    | 6.01   | Avg. Vel. (m/s)      |      | 6.01    |      |
| Max Chl Dpth (m)   | 0.56   | Hydr. Depth (m)      |      | 0.54    |      |
| Conv. Total (m3/s) | 33.1   | Conv. (m3/s)         |      | 33.1    |      |
| Length Wtd. (m)    | 0.10   | Wetted Per. (m)      |      | 4.40    |      |
| Min Ch EI (m)      | 559.45 | Shear (N/m2)         |      | 481.94  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2895.12 |      |
| Frctn Loss (m)     | 0.02   | Cum Volume (1000 m3) | 0.00 | 0.57    | 0.00 |
| C & E Loss (m)     | 0.10   | Cum SA (1000 m2)     | 0.00 | 0.55    | 0.00 |

Plan: Actual Giacco 2 RS: 5060 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 561.72   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.86     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.86   | Reach Len. (m)       | 2.77    | 2.77    | 2.77     |
| Crit W.S. (m)      | 559.42   | Flow Area (m2)       |         | 1.50    |          |
| E.G. Slope (m/m)   | 0.253335 | Area (m2)            |         | 1.50    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.77     | Top Width (m)        |         | 3.77    |          |
| Vel Total (m/s)    | 7.49     | Avg. Vel. (m/s)      |         | 7.49    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.40    |          |
| Conv. Total (m3/s) | 22.3     | Conv. (m3/s)         |         | 22.3    |          |
| Length Wtd. (m)    | 2.77     | Wetted Per. (m)      |         | 4.57    |          |
| Min Ch EI (m)      | 558.46   | Shear (N/m2)         |         | 816.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6115.92 |          |
| Frctn Loss (m)     | 0.58     | Cum Volume (1000 m3) | 0.00    | 0.57    | 0.00     |
| C & E Loss (m)     | 0.19     | Cum SA (1000 m2)     | 0.00    | 0.55    | 0.00     |

Plan: Actual Giacco 2 RS: 5050 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 559.99   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.58     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.42   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 558.83   | Flow Area (m2)       |         | 2.02    |          |
| E.G. Slope (m/m)   | 0.111315 | Area (m2)            |         | 2.02    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.25     | Top Width (m)        |         | 4.25    |          |
| Vel Total (m/s)    | 5.56     | Avg. Vel. (m/s)      |         | 5.56    |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 33.7     | Conv. (m3/s)         |         | 33.7    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.19    |          |
| Min Ch EI (m)      | 557.94   | Shear (N/m2)         |         | 425.01  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2362.69 |          |
| Frctn Loss (m)     | 0.34     | Cum Volume (1000 m3) | 0.00    | 0.55    | 0.00     |
| C & E Loss (m)     | 0.12     | Cum SA (1000 m2)     | 0.00    | 0.51    | 0.00     |

Plan: Actual Giacco 2 RS: 5040 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 558.62   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.81     | Wt. n-Val.      |         | 0.032   |          |
| W.S. Elev (m)      | 557.81   | Reach Len. (m)  | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 558.03   | Flow Area (m2)  |         | 2.82    |          |
| E.G. Slope (m/m)   | 0.036653 | Area (m2)       |         | 2.82    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)     |         | 11.24   |          |
| Top Width (m)      | 3.99     | Top Width (m)   |         | 3.99    |          |
| Vel Total (m/s)    | 3.98     | Avg. Vel. (m/s) |         | 3.98    |          |
| Max Chl Dpth (m)   | 0.73     | Hydr. Depth (m) |         | 0.71    |          |
| Conv. Total (m3/s) | 58.7     | Conv. (m3/s)    |         | 58.7    |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m) |         | 5.21    |          |
| Min Ch EI (m)      | 557.08   | Shear (N/m2)    |         | 194.95  |          |

Plan: Actual Giacco 2 RS: 5040 Profile: PF 1 (Continued)

|                |      |                      |      |        |      |
|----------------|------|----------------------|------|--------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 775.70 |      |
| Frctn Loss (m) | 0.06 | Cum Volume (1000 m3) | 0.00 | 0.49   | 0.00 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2)     | 0.00 | 0.42   | 0.00 |

Plan: Actual Giacco 2 RS: 5035 BR U Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.52   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.69     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.83   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 557.99   | Flow Area (m2)       |         | 3.06    |          |
| E.G. Slope (m/m)   | 0.028959 | Area (m2)            |         | 3.06    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.99     | Top Width (m)        |         | 3.99    |          |
| Vel Total (m/s)    | 3.68     | Avg. Vel. (m/s)      |         | 3.68    |          |
| Max Chl Dpth (m)   | 0.79     | Hydr. Depth (m)      |         | 0.77    |          |
| Conv. Total (m3/s) | 66.1     | Conv. (m3/s)         |         | 66.1    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.32    |          |
| Min Ch EI (m)      | 557.04   | Shear (N/m2)         |         | 163.26  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 600.25  |          |
| Frctn Loss (m)     | 0.17     | Cum Volume (1000 m3) | 0.00    | 0.48    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Actual Giacco 2 RS: 5035 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.35   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.69     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.66   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 557.84   | Flow Area (m2)       |         | 3.06    |          |
| E.G. Slope (m/m)   | 0.029070 | Area (m2)            |         | 3.06    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.52     | Top Width (m)        |         | 4.52    |          |
| Vel Total (m/s)    | 3.68     | Avg. Vel. (m/s)      |         | 3.68    |          |
| Max Chl Dpth (m)   | 0.76     | Hydr. Depth (m)      |         | 0.68    |          |
| Conv. Total (m3/s) | 65.9     | Conv. (m3/s)         |         | 65.9    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.32    |          |
| Min Ch EI (m)      | 556.90   | Shear (N/m2)         |         | 163.58  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 601.83  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) | 0.00    | 0.48    | 0.00     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Actual Giacco 2 RS: 5030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.23   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.67   | Reach Len. (m)       | 3.41    | 3.41    | 3.41     |
| Crit W.S. (m)      | 557.78   | Flow Area (m2)       |         | 3.39    |          |
| E.G. Slope (m/m)   | 0.021120 | Area (m2)            |         | 3.39    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.52     | Top Width (m)        |         | 4.52    |          |
| Vel Total (m/s)    | 3.31     | Avg. Vel. (m/s)      |         | 3.31    |          |
| Max Chl Dpth (m)   | 0.84     | Hydr. Depth (m)      |         | 0.75    |          |
| Conv. Total (m3/s) | 77.3     | Conv. (m3/s)         |         | 77.3    |          |
| Length Wtd. (m)    | 3.41     | Wetted Per. (m)      |         | 5.45    |          |
| Min Ch EI (m)      | 556.83   | Shear (N/m2)         |         | 128.97  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 427.12  |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) | 0.00    | 0.48    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Actual Giacco 2 RS: 5020 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.83   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.29   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 557.40   | Flow Area (m2)       |         | 3.46    |          |
| E.G. Slope (m/m)   | 0.019573 | Area (m2)            |         | 3.46    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 4.64     | Top Width (m)        |         | 4.64    |          |
| Vel Total (m/s)    | 3.25     | Avg. Vel. (m/s)      |         | 3.25    |          |
| Max Chl Dpth (m)   | 0.93     | Hydr. Depth (m)      |         | 0.75    |          |
| Conv. Total (m3/s) | 80.3     | Conv. (m3/s)         |         | 80.3    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.41    |          |
| Min Ch EI (m)      | 556.36   | Shear (N/m2)         |         | 122.78  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 398.49  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) | 0.00    | 0.41    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.32    | 0.00     |

Plan: Actual Giacco 2 RS: 5010 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.42   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.12     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.29   | Reach Len. (m)       | 3.08    | 3.08    | 3.08     |
| Crit W.S. (m)      | 556.64   | Flow Area (m2)       |         | 7.19    |          |
| E.G. Slope (m/m)   | 0.002438 | Area (m2)            |         | 7.19    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 5.12     | Top Width (m)        |         | 5.12    |          |
| Vel Total (m/s)    | 1.56     | Avg. Vel. (m/s)      |         | 1.56    |          |
| Max Chl Dpth (m)   | 1.75     | Hydr. Depth (m)      |         | 1.41    |          |
| Conv. Total (m3/s) | 227.7    | Conv. (m3/s)         |         | 227.7   |          |
| Length Wtd. (m)    | 3.08     | Wetted Per. (m)      |         | 7.06    |          |
| Min Ch EI (m)      | 555.54   | Shear (N/m2)         |         | 24.36   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 38.06   |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.21    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.12    | 0.00     |

Plan: Actual Giacco 2 RS: 5005 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.38   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.08     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.30   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 556.36   | Flow Area (m2)       |         | 9.06    |          |
| E.G. Slope (m/m)   | 0.001337 | Area (m2)            |         | 9.06    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 6.04     | Top Width (m)        |         | 6.04    |          |
| Vel Total (m/s)    | 1.24     | Avg. Vel. (m/s)      |         | 1.24    |          |
| Max Chl Dpth (m)   | 2.06     | Hydr. Depth (m)      |         | 1.50    |          |
| Conv. Total (m3/s) | 307.4    | Conv. (m3/s)         |         | 307.4   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 8.00    |          |
| Min Ch EI (m)      | 555.24   | Shear (N/m2)         |         | 14.84   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 18.41   |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.06    | 0.00     |

Plan: Actual Giacco 2 RS: 5002 BR U Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 557.37   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 0.18     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 557.19   | Reach Len. (m) | 10.00   | 10.00   | 10.00    |
| Crit W.S. (m)    | 556.36   | Flow Area (m2) |         | 6.05    |          |
| E.G. Slope (m/m) | 0.004035 | Area (m2)      |         | 6.05    |          |
| Q Total (m3/s)   | 11.24    | Flow (m3/s)    |         | 11.24   |          |

Plan: Actual Giacco 2 RS: 5002 BR U Profile: PF 1 (Continued)

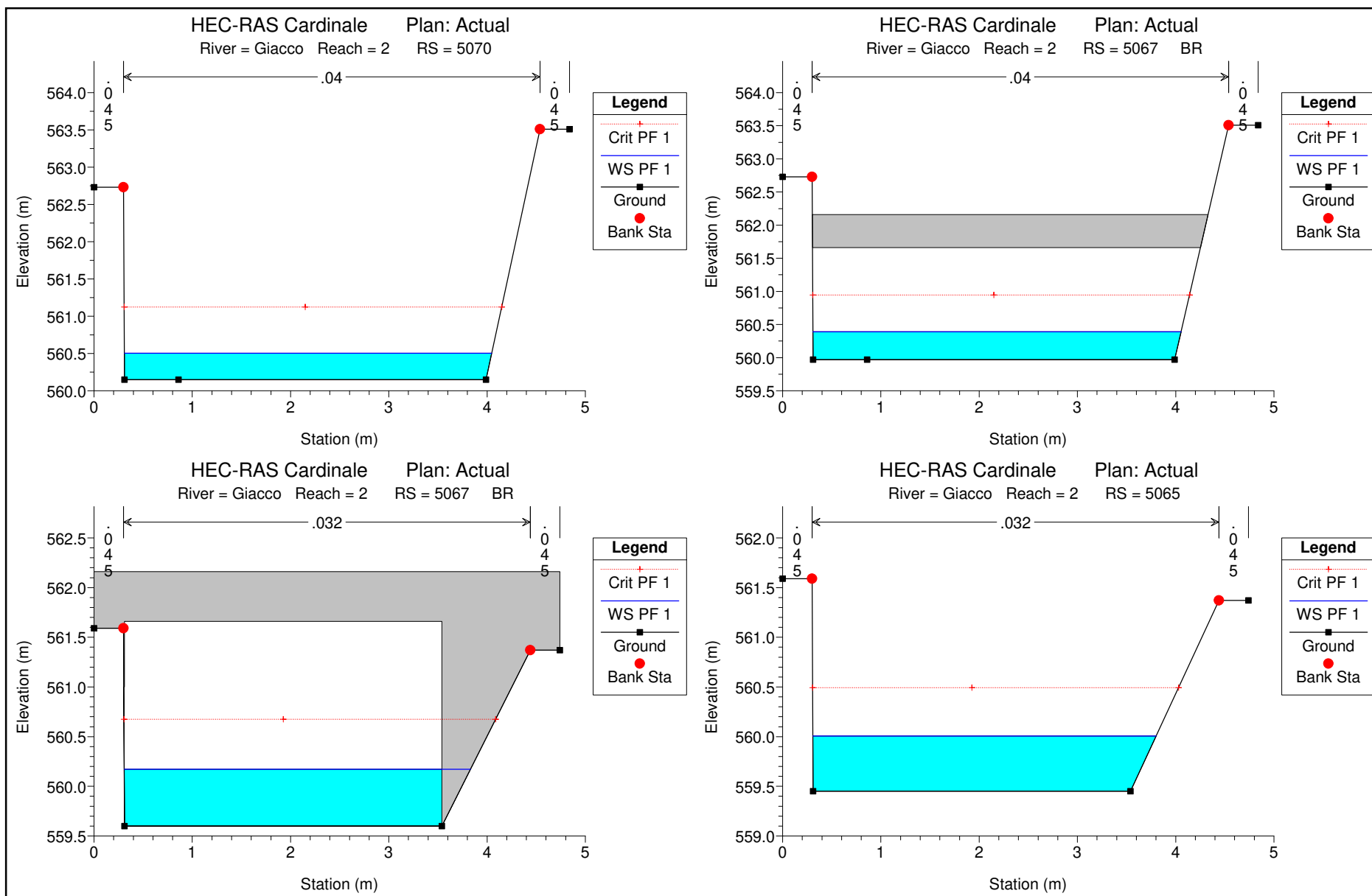
|                    |        |                      |      |       |      |
|--------------------|--------|----------------------|------|-------|------|
| Top Width (m)      | 3.15   | Top Width (m)        |      | 3.15  |      |
| Vel Total (m/s)    | 1.86   | Avg. Vel. (m/s)      |      | 1.86  |      |
| Max Chl Dpth (m)   | 2.00   | Hydr. Depth (m)      |      | 1.92  |      |
| Conv. Total (m3/s) | 176.9  | Conv. (m3/s)         |      | 176.9 |      |
| Length Wtd. (m)    | 10.00  | Wetted Per. (m)      |      | 6.68  |      |
| Min Ch El (m)      | 555.19 | Shear (N/m2)         |      | 35.84 |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 66.60 |      |
| Frctn Loss (m)     | 0.03   | Cum Volume (1000 m3) | 0.00 | 0.10  | 0.00 |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     | 0.00 | 0.05  | 0.00 |

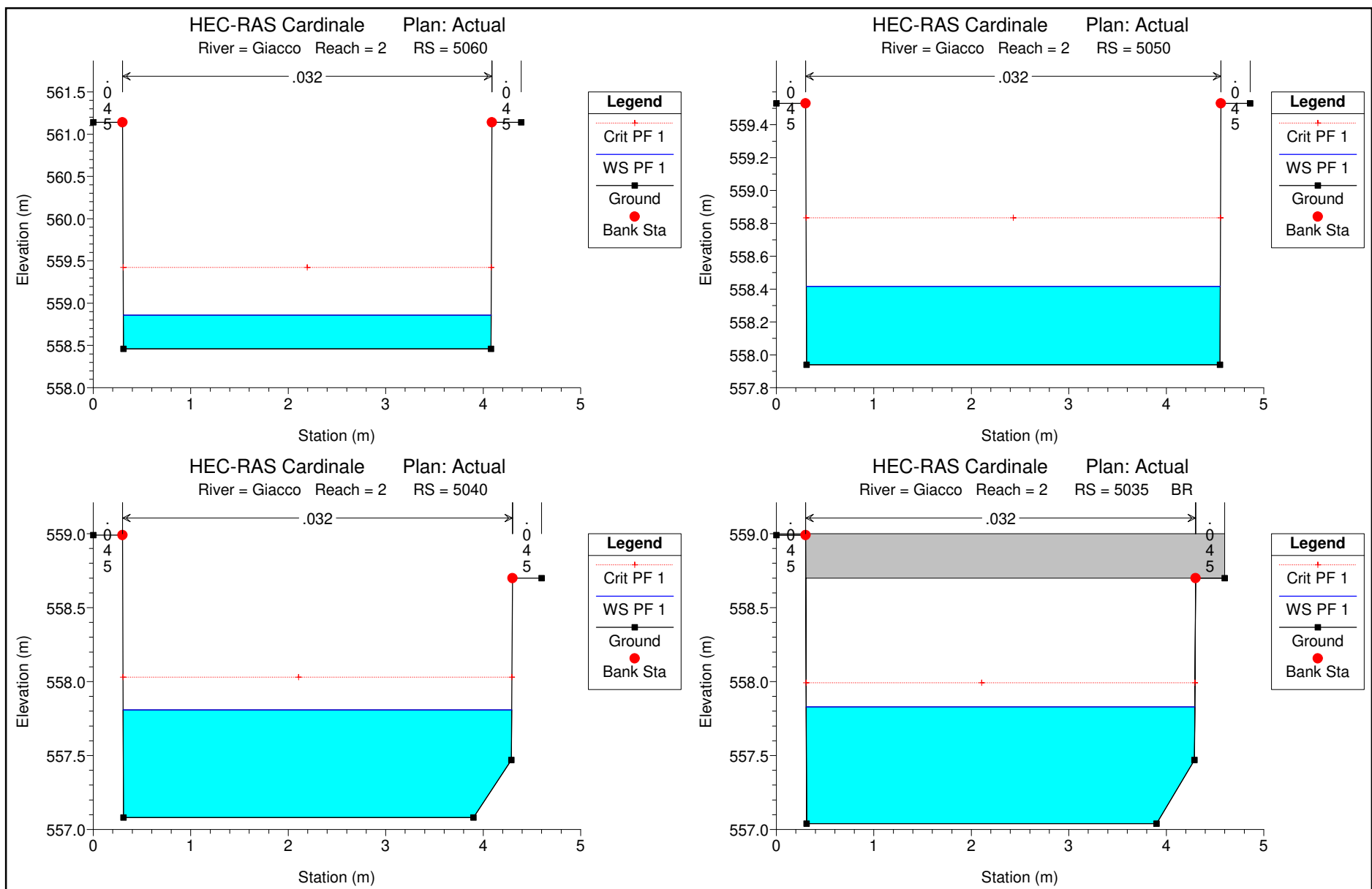
Plan: Actual Giacco 2 RS: 5002 BR D Profile: PF 1

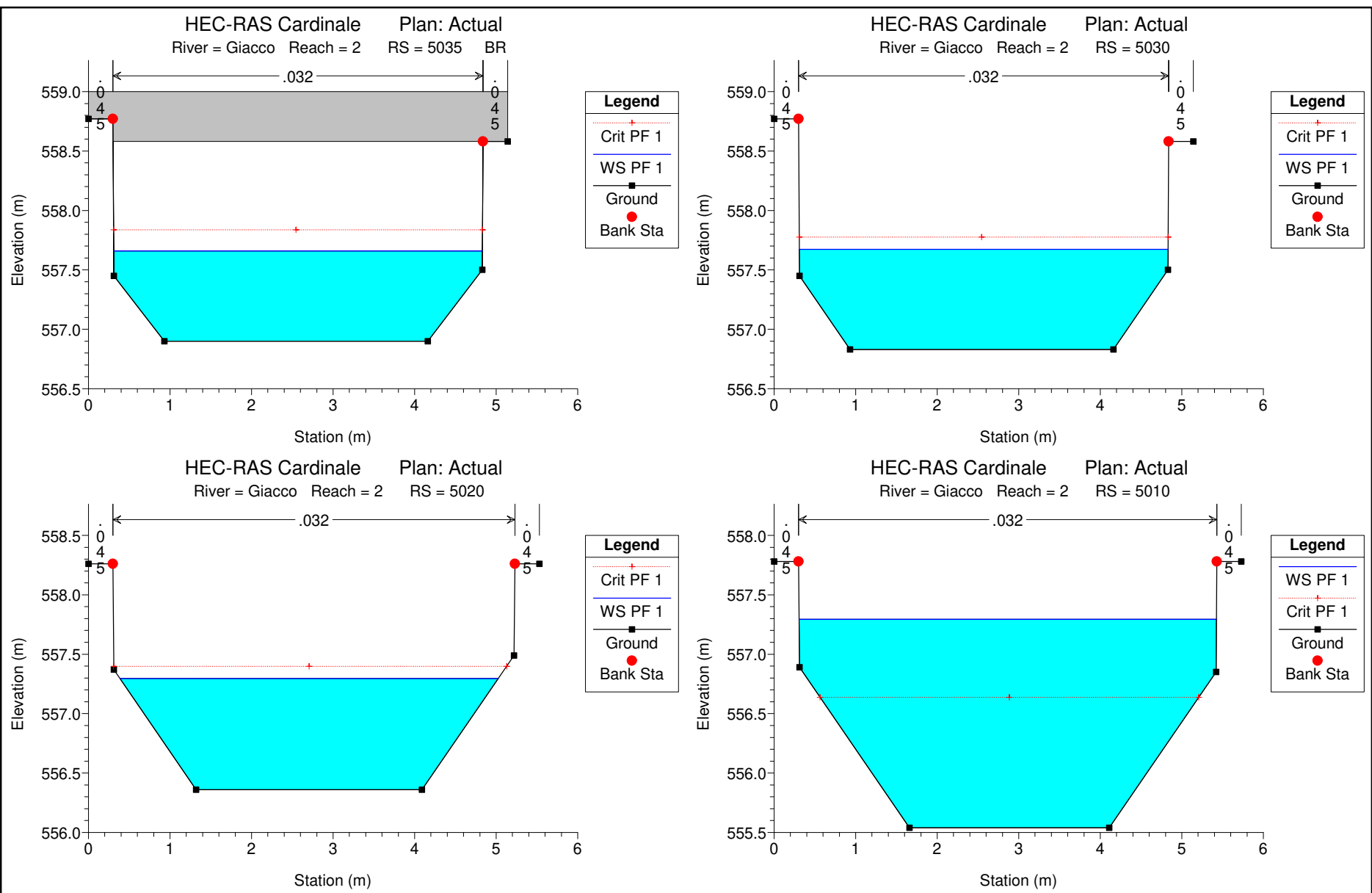
|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.32   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.11     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.21   | Reach Len. (m)       | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)      | 555.98   | Flow Area (m2)       |         | 7.63    |          |
| E.G. Slope (m/m)   | 0.002330 | Area (m2)            |         | 7.63    |          |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          |         | 11.24   |          |
| Top Width (m)      | 3.35     | Top Width (m)        |         | 3.35    |          |
| Vel Total (m/s)    | 1.47     | Avg. Vel. (m/s)      |         | 1.47    |          |
| Max Chl Dpth (m)   | 2.28     | Hydr. Depth (m)      |         | 2.28    |          |
| Conv. Total (m3/s) | 232.9    | Conv. (m3/s)         |         | 232.9   |          |
| Length Wtd. (m)    | 2.34     | Wetted Per. (m)      |         | 7.91    |          |
| Min Ch El (m)      | 554.93   | Shear (N/m2)         |         | 22.05   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 32.49   |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.03    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.01    | 0.00     |

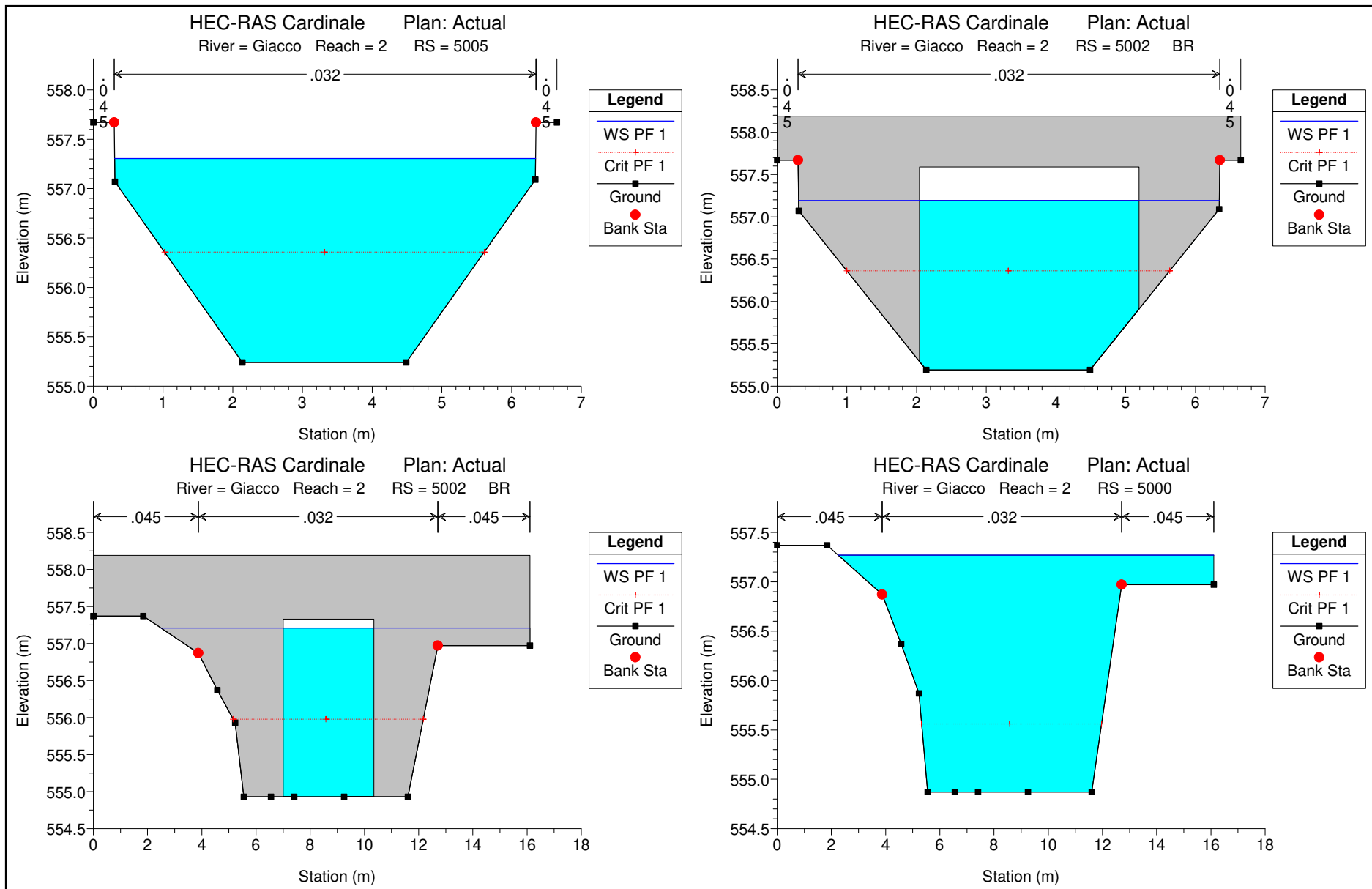
Plan: Actual Giacco 2 RS: 5000 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.29   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.032   | 0.045    |
| W.S. Elev (m)      | 557.27   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 555.56   | Flow Area (m2)       | 0.33    | 17.84   | 1.02     |
| E.G. Slope (m/m)   | 0.000211 | Area (m2)            | 0.33    | 17.84   | 1.02     |
| Q Total (m3/s)     | 11.24    | Flow (m3/s)          | 0.04    | 11.07   | 0.14     |
| Top Width (m)      | 13.86    | Top Width (m)        | 1.62    | 8.84    | 3.40     |
| Vel Total (m/s)    | 0.59     | Avg. Vel. (m/s)      | 0.11    | 0.62    | 0.14     |
| Max Chl Dpth (m)   | 2.40     | Hydr. Depth (m)      | 0.20    | 2.02    | 0.30     |
| Conv. Total (m3/s) | 774.1    | Conv. (m3/s)         | 2.4     | 762.1   | 9.6      |
| Length Wtd. (m)    |          | Wetted Per. (m)      | 1.67    | 11.16   | 3.70     |
| Min Ch El (m)      | 554.87   | Shear (N/m2)         | 0.40    | 3.30    | 0.57     |
| Alpha              | 1.10     | Stream Power (N/m s) | 0.04    | 2.05    | 0.08     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |









**ALLEGATO 3: SIMULAZIONE HEC RAS – STATO DI PROGETTO  
CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO  
LIBERO**

HEC-RAS Plan: Plan 05 Profile: PF 1

| River    | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|----------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Marchese | 1     | 33        | PF 1    | 2.55              | 687.00           | 687.19           | 687.51           | 689.72           | 1.000164            | 7.04              | 0.36              | 2.34             | 5.71         |
| Marchese | 1     | 32        | PF 1    | 2.55              | 683.00           | 683.20           | 683.52           | 685.70           | 1.003083            | 6.99              | 0.36              | 2.39             | 5.72         |
| Marchese | 1     | 31.5      | PF 1    | 2.55              | 683.00           | 683.68           | 683.31           | 683.71           | 0.001579            | 0.74              | 3.57              | 5.93             | 0.29         |
| Marchese | 1     | 31.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 31        | PF 1    | 2.55              | 681.00           | 681.70           | 681.70           | 681.90           | 0.024808            | 2.02              | 1.26              | 3.11             | 1.01         |
| Marchese | 1     | 30        | PF 1    | 2.55              | 676.00           | 676.15           | 676.53           | 680.52           | 2.128705            | 9.26              | 0.28              | 2.04             | 8.05         |
| Marchese | 1     | 29.5      | PF 1    | 2.55              | 676.00           | 676.13           | 676.40           | 678.08           | 1.024312            | 6.19              | 0.41              | 3.28             | 5.57         |
| Marchese | 1     | 29.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 29        | PF 1    | 2.55              | 674.00           | 674.73           | 674.73           | 674.95           | 0.025730            | 2.09              | 1.22              | 2.83             | 1.01         |
| Marchese | 1     | 28        | PF 1    | 2.55              | 670.00           | 670.22           | 670.53           | 673.70           | 1.787774            | 8.27              | 0.31              | 2.46             | 7.46         |
| Marchese | 1     | 27.5      | PF 1    | 2.55              | 669.00           | 669.69           | 669.29           | 669.71           | 0.001120            | 0.65              | 4.21              | 6.94             | 0.25         |
| Marchese | 1     | 27.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 27        | PF 1    | 2.55              | 667.00           | 667.68           | 667.68           | 667.90           | 0.024906            | 2.06              | 1.24              | 2.91             | 1.01         |
| Marchese | 1     | 26        | PF 1    | 2.55              | 663.50           | 663.73           | 664.12           | 666.92           | 1.058719            | 7.91              | 0.32              | 1.74             | 5.87         |
| Marchese | 1     | 25.5      | PF 1    | 2.55              | 662.00           | 662.18           | 662.42           | 663.26           | 0.321352            | 4.60              | 0.55              | 4.41             | 3.42         |
| Marchese | 1     | 25.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 25        | PF 1    | 2.55              | 660.00           | 660.76           | 660.76           | 660.99           | 0.025950            | 2.12              | 1.20              | 2.68             | 1.01         |
| Marchese | 1     | 24        | PF 1    | 2.55              | 658.00           | 658.25           | 658.59           | 660.35           | 0.636734            | 6.42              | 0.40              | 2.03             | 4.64         |
| Marchese | 1     | 23.5      | PF 1    | 2.55              | 657.50           | 658.20           | 657.75           | 658.21           | 0.000888            | 0.55              | 4.75              | 7.34             | 0.21         |
| Marchese | 1     | 23.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 23        | PF 1    | 2.55              | 655.50           | 655.87           | 655.87           | 656.03           | 0.024466            | 1.80              | 1.42              | 4.29             | 1.00         |
| Marchese | 1     | 22        | PF 1    | 2.55              | 654.00           | 654.17           | 654.44           | 655.79           | 0.649061            | 5.64              | 0.45              | 2.92             | 4.58         |
| Marchese | 1     | 21.5      | PF 1    | 2.55              | 653.00           | 653.68           | 653.31           | 653.71           | 0.001601            | 0.74              | 3.54              | 5.74             | 0.29         |
| Marchese | 1     | 21.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 21        | PF 1    | 2.55              | 651.00           | 651.57           | 651.57           | 651.76           | 0.024489            | 1.94              | 1.31              | 3.49             | 1.01         |
| Marchese | 1     | 20        | PF 1    | 2.55              | 648.50           | 648.87           | 649.28           | 651.28           | 0.589771            | 6.88              | 0.37              | 1.45             | 4.35         |
| Marchese | 1     | 19.5      | PF 1    | 2.55              | 648.00           | 648.16           | 648.39           | 649.40           | 0.509427            | 4.93              | 0.52              | 3.43             | 4.06         |
| Marchese | 1     | 19.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 19        | PF 1    | 2.55              | 646.00           | 646.84           | 646.84           | 647.10           | 0.028410            | 2.25              | 1.13              | 2.24             | 1.01         |
| Marchese | 1     | 18        | PF 1    | 2.55              | 645.00           | 645.13           | 645.36           | 646.67           | 0.820337            | 5.49              | 0.46              | 3.77             | 5.00         |
| Marchese | 1     | 17.5      | PF 1    | 2.55              | 644.00           | 644.70           | 644.23           | 644.71           | 0.000544            | 0.46              | 5.96              | 9.78             | 0.18         |
| Marchese | 1     | 17.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 17        | PF 1    | 2.55              | 642.00           | 642.60           | 642.60           | 642.77           | 0.024558            | 1.80              | 1.42              | 4.37             | 1.01         |
| Marchese | 1     | 16        | PF 1    | 2.55              | 640.00           | 640.23           | 640.55           | 642.31           | 0.692367            | 6.38              | 0.40              | 2.25             | 4.84         |
| Marchese | 1     | 15.5      | PF 1    | 2.55              | 640.00           | 640.69           | 640.26           | 640.71           | 0.000885            | 0.57              | 4.67              | 7.64             | 0.22         |
| Marchese | 1     | 15.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 15        | PF 1    | 2.55              | 638.00           | 638.60           | 638.60           | 638.78           | 0.024170            | 1.89              | 1.35              | 3.74             | 1.01         |
| Marchese | 1     | 14        | PF 1    | 2.55              | 636.50           | 636.66           | 636.94           | 638.42           | 0.710836            | 5.87              | 0.43              | 2.83             | 4.79         |

HEC-RAS Plan: Plan 05 Profile: PF 1 (Continued)

| River    | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|----------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Marchese | 1     | 13.5      | PF 1    | 2.55              | 635.00           | 635.68           | 635.33           | 635.71           | 0.001933            | 0.84              | 3.25              | 5.47             | 0.33         |
| Marchese | 1     | 13.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 1     | 13        | PF 1    | 2.55              | 633.00           | 633.78           | 633.78           | 634.01           | 0.025939            | 2.11              | 1.21              | 2.73             | 1.01         |
| Marchese | 1     | 12        | PF 1    | 2.55              | 631.00           | 631.15           | 631.44           | 633.26           | 0.980312            | 6.43              | 0.40              | 2.89             | 5.55         |
| Marchese | 1     | 11        | PF 1    | 2.55              | 627.00           | 627.40           | 627.72           | 628.86           | 0.325875            | 5.34              | 0.48              | 1.86             | 3.37         |
| Marchese | 2     | 39        | PF 1    | 2.34              | 682.00           | 682.20           | 682.41           | 683.16           | 0.324634            | 4.33              | 0.54              | 3.13             | 3.33         |
| Marchese | 2     | 38        | PF 1    | 2.34              | 679.50           | 679.64           | 679.81           | 680.41           | 0.374569            | 3.89              | 0.60              | 4.64             | 3.45         |
| Marchese | 2     | 37        | PF 1    | 2.34              | 677.00           | 677.13           | 677.23           | 677.48           | 0.188294            | 2.64              | 0.89              | 7.37             | 2.43         |
| Marchese | 2     | 36        | PF 1    | 2.34              | 675.00           | 675.23           | 675.40           | 675.85           | 0.218661            | 3.48              | 0.67              | 4.10             | 2.74         |
| Marchese | 2     | 35.5      | PF 1    | 2.34              | 674.00           | 674.67           | 674.21           | 674.68           | 0.000468            | 0.41              | 6.38              | 11.79            | 0.16         |
| Marchese | 2     | 35.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 2     | 35        | PF 1    | 2.34              | 672.00           | 672.79           | 672.79           | 672.98           | 0.026405            | 1.94              | 1.20              | 3.20             | 1.01         |
| Marchese | 2     | 34        | PF 1    | 2.34              | 667.00           | 667.10           | 667.41           | 671.02           | 2.914860            | 8.76              | 0.27              | 2.82             | 9.09         |
| Marchese | 2     | 33        | PF 1    | 2.34              | 660.50           | 660.69           | 660.84           | 661.26           | 0.191134            | 3.34              | 0.70              | 4.00             | 2.55         |
| Marchese | 2     | 32.5      | PF 1    | 2.34              | 659.00           | 659.66           | 659.22           | 659.68           | 0.000639            | 0.48              | 5.16              | 8.73             | 0.19         |
| Marchese | 2     | 32.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 2     | 32        | PF 1    | 2.34              | 657.00           | 657.46           | 657.46           | 657.62           | 0.024594            | 1.80              | 1.30              | 3.98             | 1.01         |
| Marchese | 2     | 31        | PF 1    | 2.34              | 653.00           | 653.33           | 653.69           | 656.69           | 1.218907            | 8.12              | 0.29              | 1.68             | 6.25         |
| Marchese | 2     | 30.5      | PF 1    | 2.34              | 652.00           | 652.66           | 652.25           | 652.67           | 0.000850            | 0.55              | 4.56              | 7.86             | 0.22         |
| Marchese | 2     | 30.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 2     | 30        | PF 1    | 2.34              | 650.00           | 650.58           | 650.58           | 650.77           | 0.024123            | 1.89              | 1.24              | 3.40             | 1.00         |
| Marchese | 2     | 29        | PF 1    | 2.34              | 646.00           | 646.23           | 646.61           | 649.83           | 1.354058            | 8.40              | 0.28              | 1.68             | 6.60         |
| Marchese | 2     | 28.5      | PF 1    | 2.34              | 644.00           | 644.67           | 644.20           | 644.67           | 0.000455            | 0.40              | 6.03              | 9.92             | 0.16         |
| Marchese | 2     | 28.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 2     | 28        | PF 1    | 2.34              | 642.00           | 642.38           | 642.38           | 642.52           | 0.024862            | 1.67              | 1.40              | 4.97             | 1.00         |
| Marchese | 2     | 27        | PF 1    | 2.34              | 640.50           | 640.65           | 640.84           | 641.74           | 0.602247            | 4.63              | 0.51              | 4.32             | 4.32         |
| Marchese | 2     | 26        | PF 1    | 2.34              | 638.00           | 638.36           | 638.51           | 638.90           | 0.164493            | 3.24              | 0.72              | 3.92             | 2.41         |
| Marchese | 2     | 25        | PF 1    | 2.34              | 636.50           | 636.66           | 636.86           | 637.54           | 0.354800            | 4.14              | 0.57              | 3.78             | 3.42         |
| Marchese | 2     | 24        | PF 1    | 2.34              | 633.50           | 633.63           | 633.80           | 634.44           | 0.423641            | 3.98              | 0.59              | 4.82             | 3.63         |
| Marchese | 2     | 23        | PF 1    | 2.34              | 630.50           | 630.64           | 630.78           | 631.19           | 0.256158            | 3.27              | 0.72              | 5.41             | 2.87         |
| Marchese | 2     | 22.5      | PF 1    | 2.34              | 629.00           | 629.67           | 629.20           | 629.68           | 0.000462            | 0.41              | 6.04              | 9.84             | 0.16         |
| Marchese | 2     | 22.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 2     | 22        | PF 1    | 2.34              | 627.00           | 627.41           | 627.41           | 627.56           | 0.024831            | 1.72              | 1.36              | 4.53             | 1.01         |
| Marchese | 2     | 21        | PF 1    | 2.34              | 625.00           | 625.13           | 625.39           | 627.07           | 1.078287            | 6.16              | 0.38              | 3.22             | 5.73         |
| Marchese | 3     | 10        | PF 1    | 6.84              | 620.56           | 623.43           | 621.70           | 623.51           | 0.001050            | 1.22              | 5.59              | 5.36             | 0.23         |
| Marchese | 3     | 9.6       |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 3     | 9.5       | PF 1    | 6.84              | 620.45           | 621.38           | 621.38           | 621.68           | 0.021495            | 2.43              | 2.81              | 4.75             | 1.01         |
| Marchese | 3     | 9         | PF 1    | 6.84              | 618.50           | 618.97           | 619.43           | 621.26           | 0.347833            | 6.69              | 1.02              | 3.11             | 3.73         |

HEC-RAS Plan: Plan 05 Profile: PF 1 (Continued)

| River    | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|----------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Marchese | 3     | 8         | PF 1    | 6.84              | 615.00           | 615.43           | 615.91           | 617.60           | 0.299423            | 6.52              | 1.05              | 2.75             | 3.37         |
| Marchese | 3     | 7         | PF 1    | 6.84              | 607.00           | 607.55           | 607.56           | 607.80           | 0.022052            | 2.18              | 3.14              | 6.57             | 1.01         |
| Marchese | 3     | 6         | PF 1    | 6.84              | 603.50           | 603.66           | 604.02           | 606.65           | 1.165788            | 7.65              | 0.89              | 5.86             | 6.25         |
| Marchese | 3     | 5         | PF 1    | 6.84              | 600.00           | 600.32           | 600.75           | 602.64           | 0.433498            | 6.74              | 1.01              | 3.69             | 4.10         |
| Marchese | 3     | 4         | PF 1    | 6.84              | 596.50           | 596.99           | 597.44           | 599.11           | 0.300512            | 6.46              | 1.06              | 3.01             | 3.48         |
| Marchese | 3     | 3         | PF 1    | 6.84              | 595.50           | 595.90           | 596.23           | 597.49           | 0.297514            | 5.59              | 1.22              | 4.53             | 3.44         |
| Marchese | 3     | 2         | PF 1    | 6.84              | 591.50           | 591.84           | 592.28           | 594.62           | 0.548490            | 7.38              | 0.93              | 3.49             | 4.58         |
| Marchese | 3     | 1         | PF 1    | 6.84              | 590.60           | 591.61           | 591.04           | 591.65           | 0.001330            | 0.81              | 8.47              | 9.31             | 0.27         |
| Marchese | 3     | 0.95      |         | Lat Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 3     | 0.9       | PF 1    | 1.30              | 589.87           | 591.61           | 590.43           | 591.64           | 0.000068            | 0.75              | 1.74              | 5.10             | 0.18         |
| Marchese | 3     | 0.85      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 3     | 0.8       | PF 1    | 1.30              | 589.87           | 590.43           | 590.43           | 590.70           | 0.003043            | 2.33              | 0.56              | 4.70             | 1.00         |
| Marchese | 3     | 0.7       | PF 1    | 1.30              | 586.48           | 586.51           | 586.68           | 590.34           | 1.832116            | 8.66              | 0.15              | 4.52             | 15.19        |
| Marchese | 3     | 0.6       | PF 1    | 1.30              | 586.48           | 586.55           | 586.68           | 587.36           | 0.140624            | 3.97              | 0.33              | 4.57             | 4.74         |
| Marchese | 3     | 0.5       | PF 1    | 1.30              | 584.48           | 586.60           | 584.71           | 586.60           | 0.000005            | 0.15              | 8.89              | 4.59             | 0.03         |
| Marchese | 3     | 0.4       | PF 1    | 1.30              | 584.48           | 586.58           | 585.04           | 586.60           | 0.000036            | 0.62              | 2.10              | 4.71             | 0.14         |
| Marchese | 3     | 0.35      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Marchese | 3     | 0.3       | PF 1    | 1.30              | 584.30           | 584.86           | 584.86           | 585.13           | 0.003014            | 2.33              | 0.56              | 4.79             | 0.99         |
| Giacco   | 1     | 16        | PF 1    | 9.64              | 592.00           | 592.71           | 593.22           | 594.70           | 0.190292            | 6.25              | 1.54              | 2.93             | 2.75         |
| Giacco   | 1     | 15        | PF 1    | 9.64              | 590.00           | 590.55           | 591.03           | 592.56           | 0.217406            | 6.28              | 1.53              | 3.43             | 3.00         |
| Giacco   | 1     | 14        | PF 1    | 9.64              | 588.00           | 588.41           | 588.82           | 590.27           | 0.271506            | 6.05              | 1.59              | 4.88             | 3.38         |
| Giacco   | 1     | 13        | PF 1    | 9.64              | 587.50           | 587.76           | 587.92           | 588.29           | 0.109706            | 3.24              | 2.97              | 11.98            | 2.08         |
| Giacco   | 1     | 12        | PF 1    | 9.64              | 585.00           | 585.37           | 585.62           | 586.31           | 0.162302            | 4.28              | 2.25              | 8.05             | 2.58         |
| Giacco   | 1     | 11        | PF 1    | 9.64              | 582.00           | 582.90           | 583.33           | 584.21           | 0.075636            | 5.21              | 2.04              | 3.70             | 1.86         |
| Giacco   | 1     | 10        | PF 1    | 9.64              | 577.50           | 577.86           | 578.41           | 581.10           | 0.504749            | 7.97              | 1.21              | 3.74             | 4.47         |
| Giacco   | 1     | 9         | PF 1    | 9.64              | 575.50           | 576.05           | 576.38           | 577.24           | 0.138578            | 4.84              | 1.99              | 5.09             | 2.47         |
| Giacco   | 1     | 8         | PF 1    | 9.64              | 574.50           | 574.92           | 575.20           | 575.88           | 0.119591            | 4.33              | 2.23              | 6.08             | 2.28         |
| Giacco   | 1     | 7         | PF 1    | 9.64              | 572.50           | 573.09           | 573.48           | 574.45           | 0.137032            | 5.17              | 1.90              | 5.06             | 2.50         |
| Giacco   | 1     | 6         | PF 1    | 9.64              | 570.49           | 571.02           | 571.52           | 573.13           | 0.236953            | 6.43              | 1.50              | 3.56             | 3.17         |
| Giacco   | 1     | 5.96      | PF 1    | 9.64              | 567.65           | 568.05           | 568.74           | 572.82           | 0.705538            | 9.67              | 1.00              | 2.82             | 5.19         |
| Giacco   | 1     | 5.95      | PF 1    | 9.64              | 567.65           | 568.12           | 568.74           | 571.52           | 0.430296            | 8.17              | 1.18              | 2.92             | 4.11         |
| Giacco   | 1     | 5.91      | PF 1    | 9.64              | 566.30           | 569.56           | 567.39           | 569.58           | 0.000236            | 0.65              | 17.20             | 9.24             | 0.12         |
| Giacco   | 1     | 5.9       | PF 1    | 9.64              | 566.30           | 569.56           | 567.39           | 569.58           | 0.000236            | 0.65              | 17.19             | 9.24             | 0.12         |
| Giacco   | 1     | 5.1       |         | Culvert           |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco   | 1     | 5         | PF 1    | 9.64              | 565.50           | 566.30           | 566.59           | 567.24           | 0.068802            | 4.30              | 2.24              | 3.47             | 1.71         |
| Giacco   | 1     | 4         | PF 1    | 9.64              | 564.50           | 565.50           | 565.86           | 566.64           | 0.083560            | 4.72              | 2.04              | 3.01             | 1.83         |
| Giacco   | 1     | 3         | PF 1    | 9.64              | 564.00           | 564.49           | 564.81           | 565.77           | 0.198130            | 5.00              | 1.93              | 6.09             | 2.84         |
| Giacco   | 1     | 2         | PF 1    | 9.64              | 564.00           | 564.51           | 564.62           | 564.89           | 0.053951            | 2.71              | 3.56              | 11.09            | 1.53         |

HEC-RAS Plan: Plan 05 Profile: PF 1 (Continued)

| River         | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|---------------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Giacco        | 1     | 1         | PF 1    | 9.64              | 563.00           | 563.97           | 564.18           | 564.59           | 0.047505            | 3.86              | 3.15              | 7.69             | 1.38         |
| Giacco        | 2     | 5070      | PF 1    | 17.26             | 560.15           | 560.55           | 561.44           | 567.44           | 0.944865            | 11.63             | 1.48              | 3.75             | 5.90         |
| Giacco        | 2     | 5067      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5065      | PF 1    | 17.26             | 559.45           | 560.09           | 560.82           | 563.35           | 0.178377            | 8.00              | 2.16              | 3.53             | 3.27         |
| Giacco        | 2     | 5060      | PF 1    | 17.26             | 558.46           | 558.96           | 559.74           | 563.23           | 0.295238            | 9.15              | 1.89              | 3.77             | 4.13         |
| Giacco        | 2     | 5050      | PF 1    | 17.26             | 557.94           | 558.52           | 559.13           | 561.01           | 0.141695            | 6.98              | 2.47              | 4.25             | 2.92         |
| Giacco        | 2     | 5040      | PF 1    | 17.26             | 557.08           | 558.03           | 558.34           | 559.14           | 0.039107            | 4.66              | 3.70              | 3.99             | 1.55         |
| Giacco        | 2     | 5035      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5030      | PF 1    | 17.26             | 556.83           | 557.88           | 558.06           | 558.69           | 0.024203            | 3.98              | 4.34              | 4.53             | 1.30         |
| Giacco        | 2     | 5020      | PF 1    | 17.26             | 556.36           | 557.53           | 557.67           | 558.25           | 0.020712            | 3.76              | 4.59              | 4.91             | 1.24         |
| Giacco        | 2     | 5010      | PF 1    | 17.26             | 555.54           | 557.31           | 556.93           | 557.60           | 0.005528            | 2.37              | 7.29              | 5.12             | 0.63         |
| Giacco        | 2     | 5005      | PF 1    | 17.26             | 555.24           | 557.34           | 556.67           | 557.52           | 0.002943            | 1.86              | 9.28              | 6.04             | 0.48         |
| Giacco        | 2     | 5002      |         | Bridge            |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Giacco        | 2     | 5000      | PF 1    | 17.26             | 554.87           | 555.36           | 555.79           | 556.97           | 0.099183            | 5.62              | 3.07              | 6.47             | 2.60         |
| Fosso Guardia | 1     | 6070      | PF 1    | 0.68              | 587.48           | 587.67           | 587.85           | 588.34           | 0.045040            | 3.63              | 0.19              | 1.04             | 2.73         |
| Fosso Guardia | 1     | 6060      | PF 1    | 0.68              | 586.94           | 587.13           | 587.31           | 587.81           | 0.045704            | 3.64              | 0.19              | 1.04             | 2.75         |
| Fosso Guardia | 1     | 6050      | PF 1    | 0.68              | 585.06           | 585.19           | 585.43           | 586.78           | 0.164739            | 5.60              | 0.12              | 0.99             | 5.11         |
| Fosso Guardia | 1     | 6040      | PF 1    | 0.68              | 580.34           | 580.46           | 580.71           | 582.22           | 0.190766            | 5.87              | 0.12              | 0.99             | 5.48         |
| Fosso Guardia | 1     | 6030      | PF 1    | 0.68              | 576.62           | 577.17           | 577.17           | 577.37           | 0.007713            | 1.98              | 0.34              | 0.86             | 1.00         |
| Fosso Guardia | 1     | 6020      | PF 1    | 0.68              | 572.36           | 572.52           | 572.91           | 576.57           | 0.430928            | 8.91              | 0.08              | 0.54             | 7.55         |
| Fosso Guardia | 1     | 6010      | PF 1    | 0.68              | 569.40           | 569.70           | 569.95           | 570.62           | 0.057214            | 4.24              | 0.16              | 0.65             | 2.74         |
| Fosso Guardia | 1     | 6000      | PF 1    | 0.68              | 566.44           | 566.67           | 566.99           | 568.54           | 0.149162            | 6.06              | 0.11              | 0.59             | 4.44         |
| Donnelerio    | 1     | 53        | PF 1    | 2.13              | 637.00           | 637.16           | 637.35           | 638.18           | 0.495320            | 4.48              | 0.48              | 3.66             | 3.97         |
| Donnelerio    | 1     | 52        | PF 1    | 2.13              | 631.50           | 631.61           | 631.75           | 632.36           | 0.539553            | 3.85              | 0.55              | 5.77             | 3.96         |
| Donnelerio    | 1     | 51        | PF 1    | 2.13              | 626.50           | 626.59           | 626.71           | 627.15           | 0.476341            | 3.31              | 0.64              | 7.66             | 3.64         |
| Donnelerio    | 1     | 50        | PF 1    | 2.13              | 618.50           | 618.59           | 618.73           | 619.38           | 0.690159            | 3.96              | 0.54              | 6.45             | 4.37         |
| Donnelerio    | 1     | 49        | PF 1    | 2.13              | 617.50           | 617.75           | 617.82           | 618.01           | 0.065764            | 2.28              | 0.93              | 4.29             | 1.56         |
| Donnelerio    | 1     | 48.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Donnelerio    | 1     | 48        | PF 1    | 2.13              | 613.00           | 613.56           | 613.56           | 613.79           | 0.028366            | 2.14              | 1.00              | 2.16             | 1.01         |
| Donnelerio    | 1     | 47        | PF 1    | 2.13              | 607.00           | 607.09           | 607.41           | 612.07           | 4.396863            | 9.88              | 0.22              | 2.57             | 10.89        |
| Donnelerio    | 1     | 46.5      | PF 1    | 2.13              | 607.00           | 607.63           | 607.20           | 607.64           | 0.000565            | 0.40              | 5.37              | 9.45             | 0.17         |
| Donnelerio    | 1     | 46.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Donnelerio    | 1     | 46        | PF 1    | 2.13              | 605.00           | 605.43           | 605.43           | 605.59           | 0.024451            | 1.82              | 1.17              | 3.45             | 1.00         |
| Donnelerio    | 1     | 45        | PF 1    | 2.13              | 598.00           | 598.06           | 598.34           | 603.81           | 7.568701            | 10.62             | 0.20              | 3.28             | 13.71        |
| Donnelerio    | 1     | 44        | PF 1    | 2.13              | 597.00           | 597.21           | 597.32           | 597.55           | 0.105900            | 2.57              | 0.83              | 4.62             | 1.93         |
| Donnelerio    | 1     | 43        | PF 1    | 2.13              | 588.50           | 588.57           | 588.83           | 593.26           | 5.900620            | 9.59              | 0.22              | 3.52             | 12.18        |
| Donnelerio    | 1     | 42        | PF 1    | 2.13              | 580.70           | 581.86           | 581.14           | 581.86           | 0.000097            | 0.25              | 10.90             | 12.01            | 0.08         |
| Donnelerio    | 1     | 41        | PF 1    | 2.13              | 580.70           | 581.86           | 581.14           | 581.86           | 0.000097            | 0.25              | 10.90             | 12.01            | 0.08         |

HEC-RAS Plan: Plan 04 Profile: PF 1

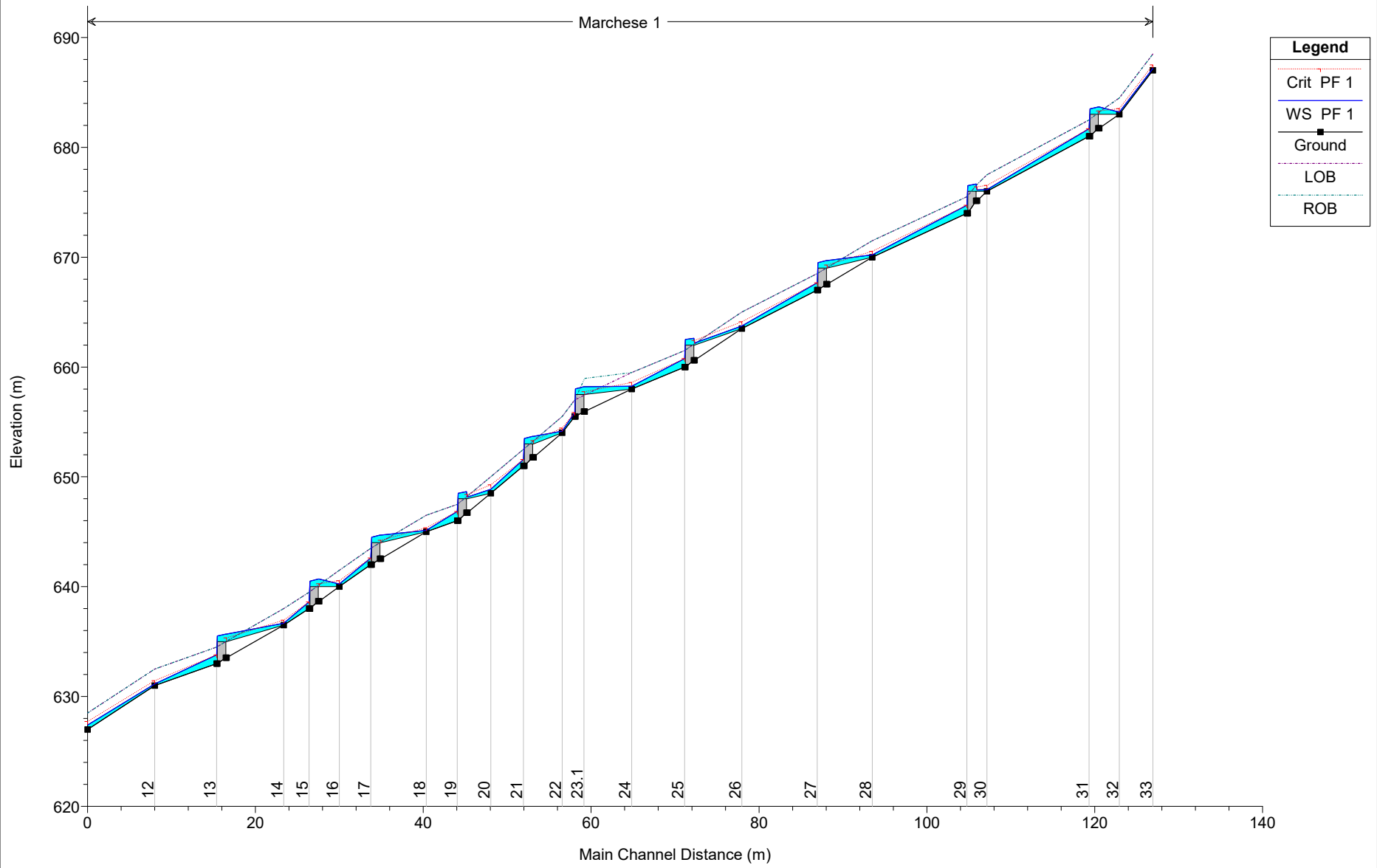
| River       | Reach | River Sta | Profile | Q Total<br>(m3/s) | Min Ch El<br>(m) | W.S. Elev<br>(m) | Crit W.S.<br>(m) | E.G. Elev<br>(m) | E.G. Slope<br>(m/m) | Vel Chnl<br>(m/s) | Flow Area<br>(m2) | Top Width<br>(m) | Froude # Chl |
|-------------|-------|-----------|---------|-------------------|------------------|------------------|------------------|------------------|---------------------|-------------------|-------------------|------------------|--------------|
| Donnelerio  | 2     | 40        | PF 1    | 4.47              | 580.35           | 581.32           | 581.32           | 581.81           | 0.007743            | 3.09              | 1.44              | 1.49             | 1.00         |
| Donnelerio  | 2     | 39        | PF 1    | 4.47              | 575.00           | 579.85           | 576.11           | 579.88           | 0.000259            | 0.70              | 6.36              | 1.42             | 0.11         |
| Donnelerio  | 2     | 38.5      |         | Culvert           |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Donnelerio  | 2     | 38        | PF 1    | 4.47              | 574.40           | 575.13           | 575.58           | 576.72           | 0.033881            | 5.57              | 0.80              | 1.39             | 2.34         |
| Donnelerio  | 2     | 37        | PF 1    | 4.47              | 573.94           | 574.57           | 575.10           | 576.60           | 0.047196            | 6.31              | 0.71              | 1.37             | 2.80         |
| Donnelerio  | 2     | 36        | PF 1    | 4.47              | 573.18           | 573.78           | 574.34           | 576.07           | 0.055437            | 6.70              | 0.67              | 1.34             | 3.03         |
| Donnelerio  | 2     | 35        | PF 1    | 4.47              | 570.22           | 570.71           | 571.38           | 574.28           | 0.100862            | 8.37              | 0.53              | 1.26             | 4.11         |
| Donnelerio  | 2     | 34        | PF 1    | 4.47              | 566.44           | 566.80           | 567.58           | 573.91           | 0.260274            | 11.81             | 0.38              | 1.18             | 6.66         |
| Donnelerio  | 3     | 6.200     | PF 1    | 5.15              | 565.64           | 567.45           | 567.45           | 567.97           | 0.015558            | 3.25              | 1.64              | 1.55             | 0.76         |
| Donnelerio  | 3     | 6.100     | PF 1    | 5.15              | 564.64           | 565.49           | 566.45           | 567.64           | 0.053159            | 6.49              | 0.79              | 0.94             | 2.26         |
| Cavaliere   | 1     | 39        | PF 1    | 4.87              | 621.50           | 621.84           | 622.06           | 622.79           | 0.235279            | 4.33              | 1.13              | 5.17             | 2.96         |
| Cavaliere   | 1     | 38        | PF 1    | 4.87              | 617.50           | 617.78           | 618.04           | 618.83           | 0.229875            | 4.55              | 1.07              | 4.44             | 2.96         |
| Cavaliere   | 1     | 37        | PF 1    | 4.87              | 614.00           | 614.33           | 614.64           | 615.63           | 0.245845            | 5.06              | 0.96              | 3.51             | 3.09         |
| Cavaliere   | 1     | 36        | PF 1    | 4.87              | 611.50           | 613.02           | 612.04           | 613.03           | 0.000261            | 0.41              | 12.01             | 11.27            | 0.13         |
| Cavaliere   | 1     | 35.5      | PF 1    | 4.87              | 610.40           | 613.02           | 610.83           | 613.02           | 0.000026            | 0.18              | 27.39             | 15.57            | 0.04         |
| Cavaliere   | 1     | 35.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 35        | PF 1    | 4.87              | 610.00           | 610.42           | 610.42           | 610.60           | 0.022665            | 1.86              | 2.62              | 7.38             | 1.00         |
| Cavaliere   | 1     | 34        | PF 1    | 4.87              | 603.50           | 603.83           | 604.40           | 609.16           | 1.235965            | 10.23             | 0.48              | 1.91             | 6.55         |
| Cavaliere   | 1     | 33        | PF 1    | 4.87              | 602.50           | 602.84           | 603.23           | 604.90           | 0.396455            | 6.37              | 0.76              | 2.77             | 3.87         |
| Cavaliere   | 1     | 32.5      | PF 1    | 4.87              | 600.40           | 603.02           | 601.11           | 603.03           | 0.000086            | 0.35              | 15.00             | 9.27             | 0.08         |
| Cavaliere   | 1     | 32.1      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 32        | PF 1    | 4.87              | 600.00           | 600.71           | 600.71           | 600.97           | 0.022129            | 2.25              | 2.16              | 4.19             | 1.00         |
| Cavaliere   | 1     | 31        | PF 1    | 4.87              | 589.01           | 589.40           | 589.63           | 590.18           | 0.123166            | 3.91              | 1.24              | 3.93             | 2.22         |
| Cavaliere   | 1     | 28        | PF 1    | 4.87              | 589.01           | 589.22           | 589.43           | 590.06           | 0.036370            | 4.05              | 1.20              | 5.72             | 2.82         |
| Cavaliere   | 1     | 27        | PF 1    | 4.87              | 585.62           | 585.74           | 586.11           | 589.73           | 0.354401            | 8.84              | 0.55              | 4.55             | 8.11         |
| Cavaliere   | 1     | 26        | PF 1    | 4.87              | 585.62           | 585.78           | 586.10           | 587.96           | 0.133758            | 6.54              | 0.75              | 4.60             | 5.19         |
| Cavaliere   | 1     | 25        | PF 1    | 4.87              | 583.62           | 586.61           | 584.17           | 586.61           | 0.000025            | 0.37              | 12.99             | 4.91             | 0.07         |
| Cavaliere   | 1     | 24        | PF 1    | 4.87              | 583.62           | 586.61           | 584.16           | 586.61           | 0.000024            | 0.37              | 13.23             | 5.04             | 0.07         |
| Cavaliere   | 1     | 23.5      |         | Lat Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 23        | PF 1    | 2.53              | 583.62           | 586.57           | 584.49           | 586.61           | 0.000044            | 0.86              | 2.95              | 5.02             | 0.16         |
| Cavaliere   | 1     | 22.5      |         | Inl Struct        |                  |                  |                  |                  |                     |                   |                   |                  |              |
| Cavaliere   | 1     | 22        | PF 1    | 2.53              | 583.44           | 583.79           | 583.79           | 583.96           | 0.004175            | 1.82              | 1.39              | 4.07             | 1.00         |
| Canale G.C. | 1     | 650       | PF 1    | 0.00              | 589.17           | 590.00           | 589.19           | 590.00           | 0.000000            | 0.00              | 1.37              | 1.68             | 0.00         |
| Canale G.C. | 1     | 640       | PF 1    | 5.54              | 588.21           | 589.26           | 589.26           | 589.78           | 0.017370            | 3.18              | 1.74              | 1.70             | 1.01         |
| Canale G.C. | 1     | 630       | PF 1    | 5.54              | 588.00           | 588.90           | 589.05           | 589.61           | 0.026637            | 3.75              | 1.48              | 1.69             | 1.28         |
| Canale G.C. | 1     | 620       | PF 1    | 7.15              | 587.53           | 588.65           | 588.76           | 589.34           | 0.020992            | 3.67              | 1.95              | 1.86             | 1.15         |
| Canale G.C. | 1     | 610       | PF 1    | 7.15              | 587.40           | 588.35           | 588.58           | 589.07           | 0.021759            | 3.76              | 1.90              | 2.95             | 1.50         |
| Canale G.C. | 1     | 600       | PF 1    | 7.15              | 587.21           | 588.13           | 588.41           | 589.00           | 0.027753            | 4.14              | 1.73              | 2.72             | 1.66         |

HEC-RAS Plan: Plan 04 Profile: PF 1 (Continued)

| River           | 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)       |              |
| Canale G.C.     | 1     | 590       | PF 1    | 7.15    | 586.90    | 587.78    | 588.14    | 588.90    | 0.037866   | 4.68     | 1.53      | 2.41      | 1.88         |
| Canale G.C.     | 1     | 580       | PF 1    | 7.15    | 582.60    | 583.30    | 583.78    | 585.06    | 0.072432   | 5.87     | 1.22      | 2.44      | 2.66         |
| Canale G.C.     | 1     | 570       | PF 1    | 7.15    | 582.39    | 583.35    | 583.57    | 584.05    | 0.020734   | 3.69     | 1.94      | 2.97      | 1.46         |
| Canale G.C.     | 1     | 560       | PF 1    | 7.15    | 579.23    | 579.78    | 580.41    | 583.20    | 0.179280   | 8.19     | 0.87      | 2.14      | 4.10         |
| Canale G.C.     | 1     | 550       | PF 1    | 7.15    | 577.44    | 577.98    | 578.62    | 581.46    | 0.183425   | 8.26     | 0.87      | 2.14      | 4.14         |
| Canale G.C.     | 1     | 545       | PF 1    | 7.15    | 576.24    | 576.92    | 577.42    | 578.84    | 0.081677   | 6.14     | 1.16      | 2.40      | 2.81         |
| Canale G.C.     | 1     | 540       | PF 1    | 7.15    | 575.70    | 576.43    | 576.90    | 578.16    | 0.068971   | 5.82     | 1.23      | 2.32      | 2.55         |
| Canale G.C.     | 1     | 530       | PF 1    | 7.15    | 574.67    | 575.42    | 575.85    | 576.87    | 0.055866   | 5.34     | 1.34      | 2.54      | 2.35         |
| Canale G.C.     | 1     | 520       | PF 1    | 7.62    | 573.65    | 574.52    | 574.86    | 575.58    | 0.035035   | 4.56     | 1.67      | 2.79      | 1.88         |
| Canale G.C.     | 1     | 510       | PF 1    | 7.62    | 570.67    | 571.31    | 571.88    | 573.87    | 0.115435   | 7.09     | 1.07      | 2.32      | 3.33         |
| Canale G.C.     | 1     | 505       | PF 1    | 7.62    | 568.00    | 568.57    | 569.21    | 572.09    | 0.178247   | 8.31     | 0.92      | 2.18      | 4.10         |
| Canale G.C.     | 1     | 500       | PF 1    | 7.62    | 563.12    | 563.64    | 564.33    | 568.00    | 0.238619   | 9.25     | 0.82      | 2.10      | 4.71         |
| Canale fugatore | 1     | 5250      | PF 1    | 0.00    | 585.17    | 586.25    | 585.18    | 586.25    | 0.000000   | 0.00     | 1.35      | 1.40      | 0.00         |
| Canale fugatore | 1     | 5240      | PF 1    | 2.34    | 584.99    | 585.59    | 585.73    | 586.14    | 0.013440   | 3.30     | 0.71      | 1.28      | 1.41         |
| Canale fugatore | 1     | 5235      | PF 1    | 2.34    | 584.44    | 584.86    | 585.18    | 586.05    | 0.038034   | 4.83     | 0.48      | 1.22      | 2.45         |
| Canale fugatore | 1     | 5230      | PF 1    | 2.34    | 583.71    | 584.10    | 584.45    | 585.48    | 0.046851   | 5.20     | 0.45      | 1.22      | 2.73         |
| Canale fugatore | 1     | 5220      | PF 1    | 2.34    | 582.92    | 583.37    | 583.66    | 584.38    | 0.030341   | 4.45     | 0.53      | 1.23      | 2.18         |
| Canale fugatore | 1     | 5210      | PF 1    | 2.34    | 581.93    | 582.36    | 582.67    | 583.45    | 0.033714   | 4.62     | 0.51      | 1.23      | 2.30         |
| Canale fugatore | 1     | 5202      | PF 1    | 2.34    | 580.55    | 580.85    | 581.29    | 583.22    | 0.100892   | 6.82     | 0.34      | 1.19      | 4.05         |
| Canale fugatore | 1     | 5201      | PF 1    | 2.34    | 580.48    | 581.82    | 581.03    | 581.86    | 0.000391   | 0.87     | 2.68      | 2.20      | 0.25         |
| Canale fugatore | 1     | 5200      | PF 1    | 2.34    | 580.35    | 581.82    | 580.90    | 581.86    | 0.000277   | 0.79     | 3.05      | 2.80      | 0.22         |

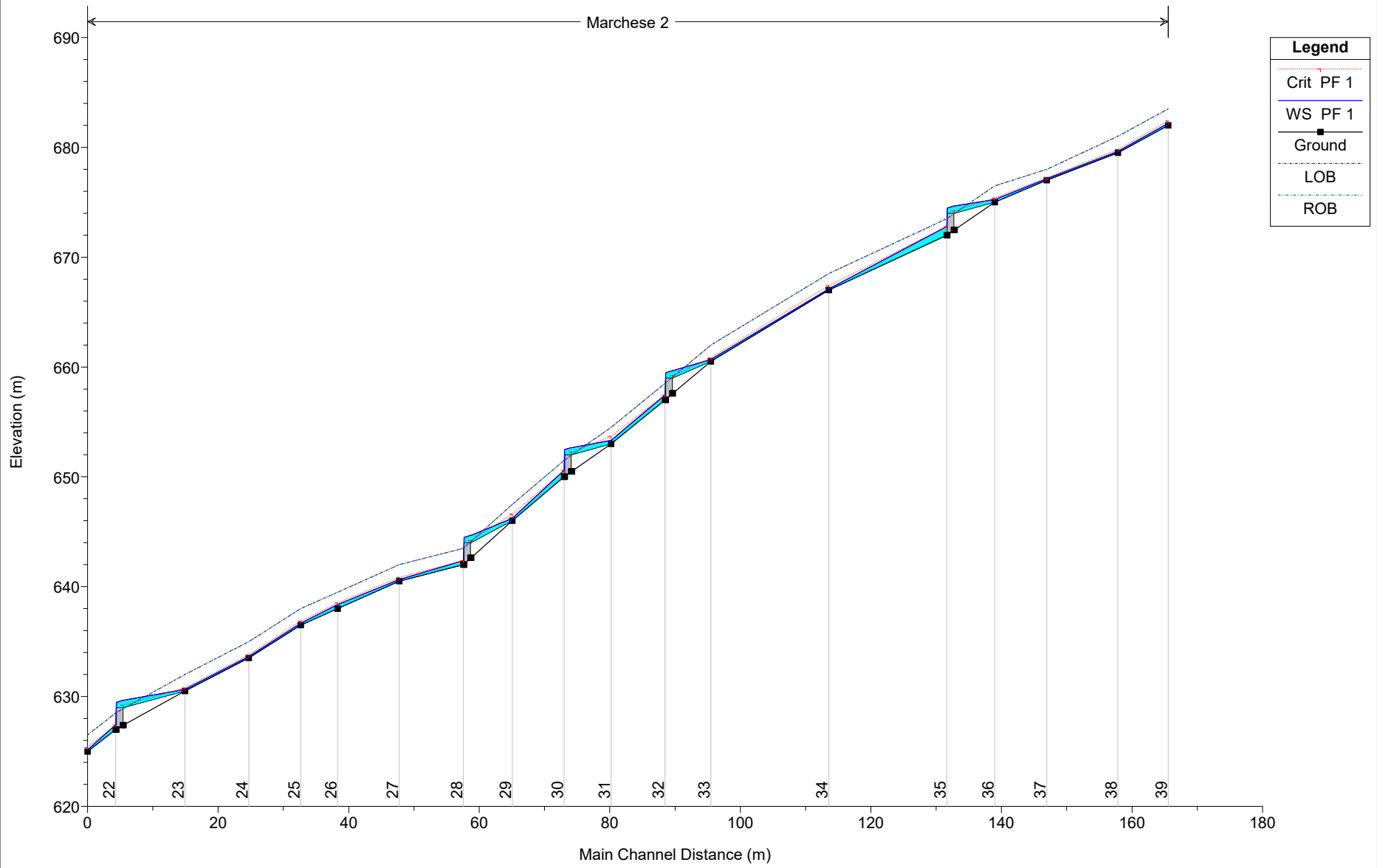
# HEC-RAS Cardinale Plan: Plan 05

Marchese 1



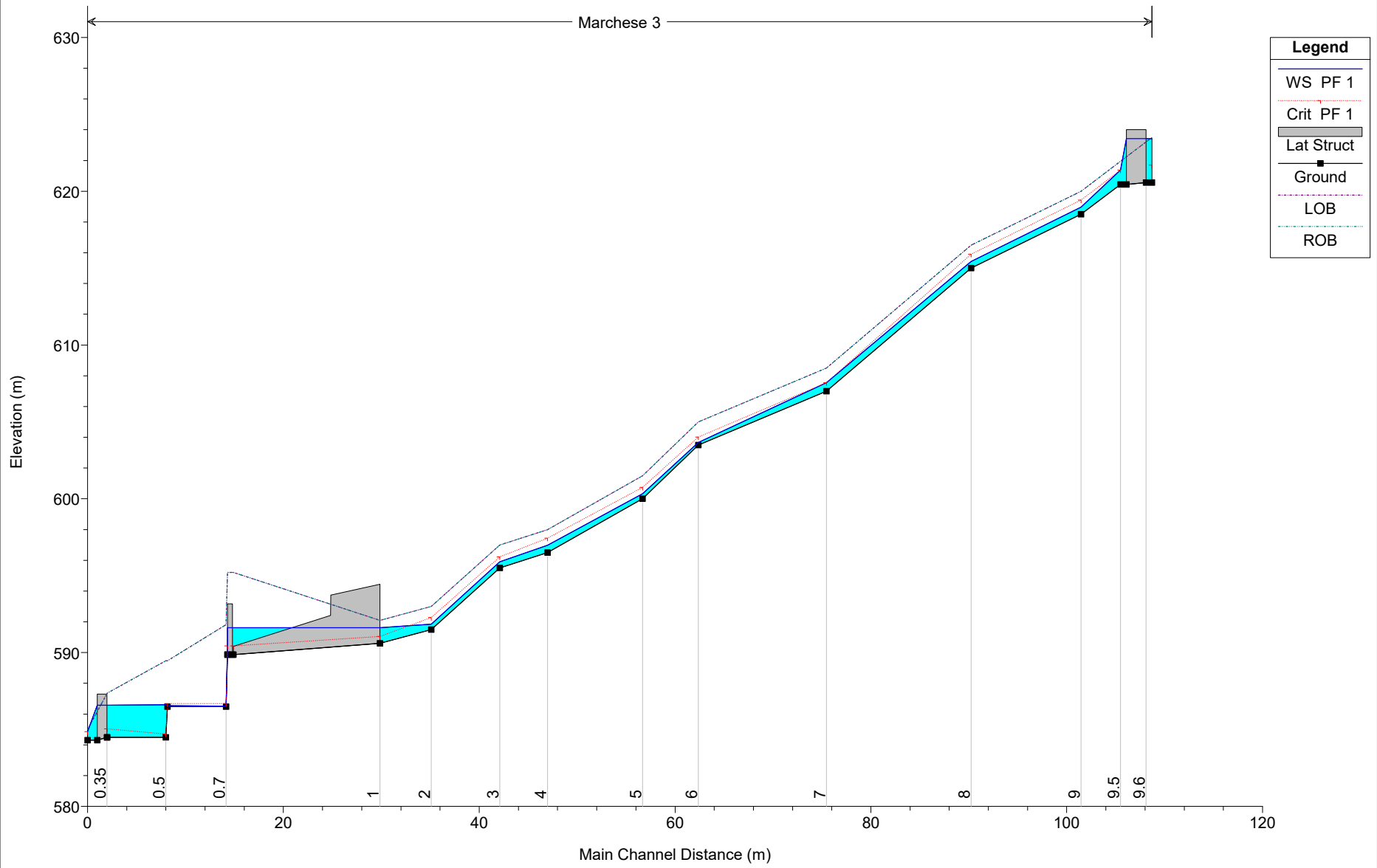
# HEC-RAS Cardinale Plan: Plan 05

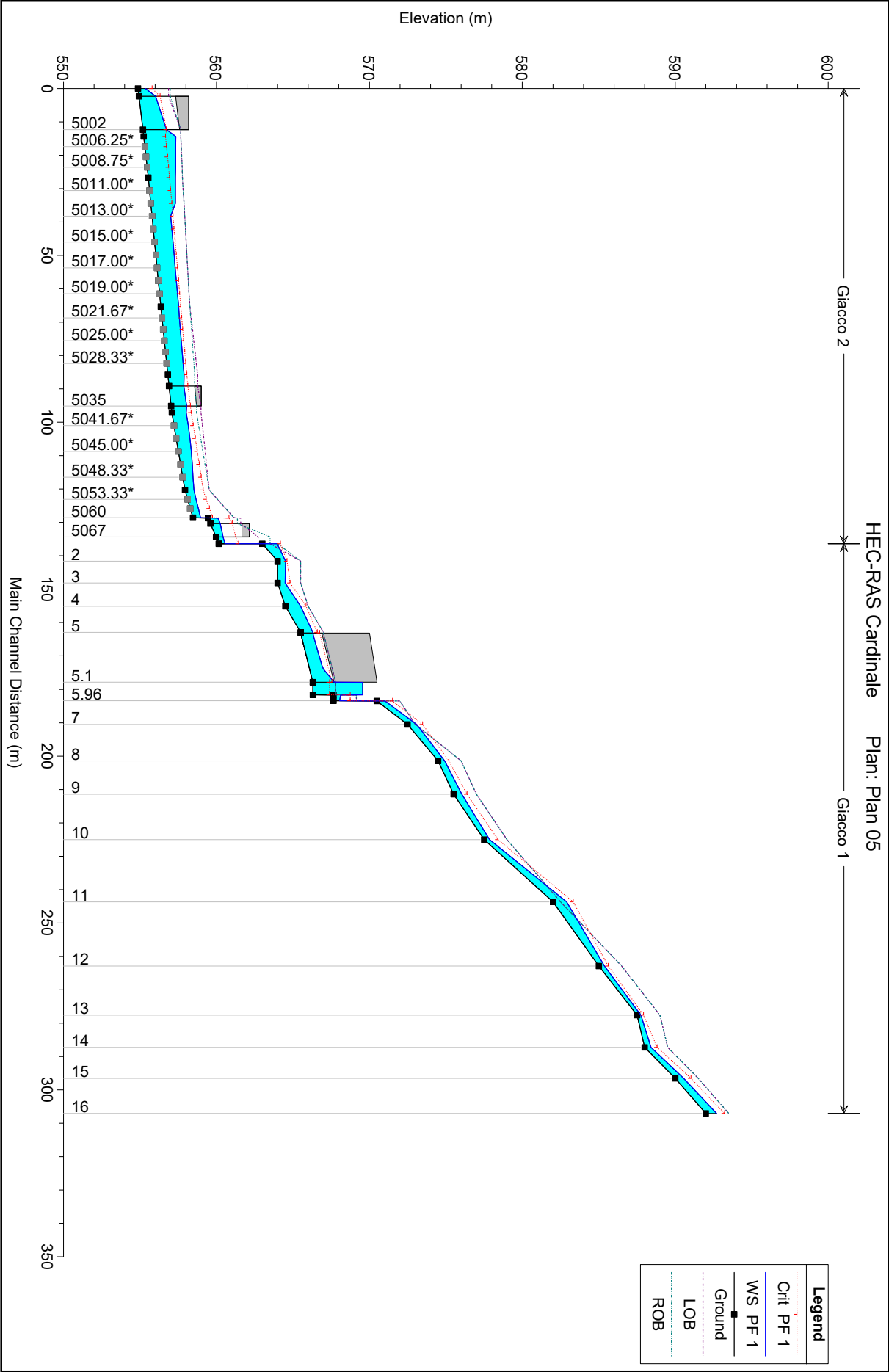
Marchese 2



# HEC-RAS Cardinale Plan: Plan 05

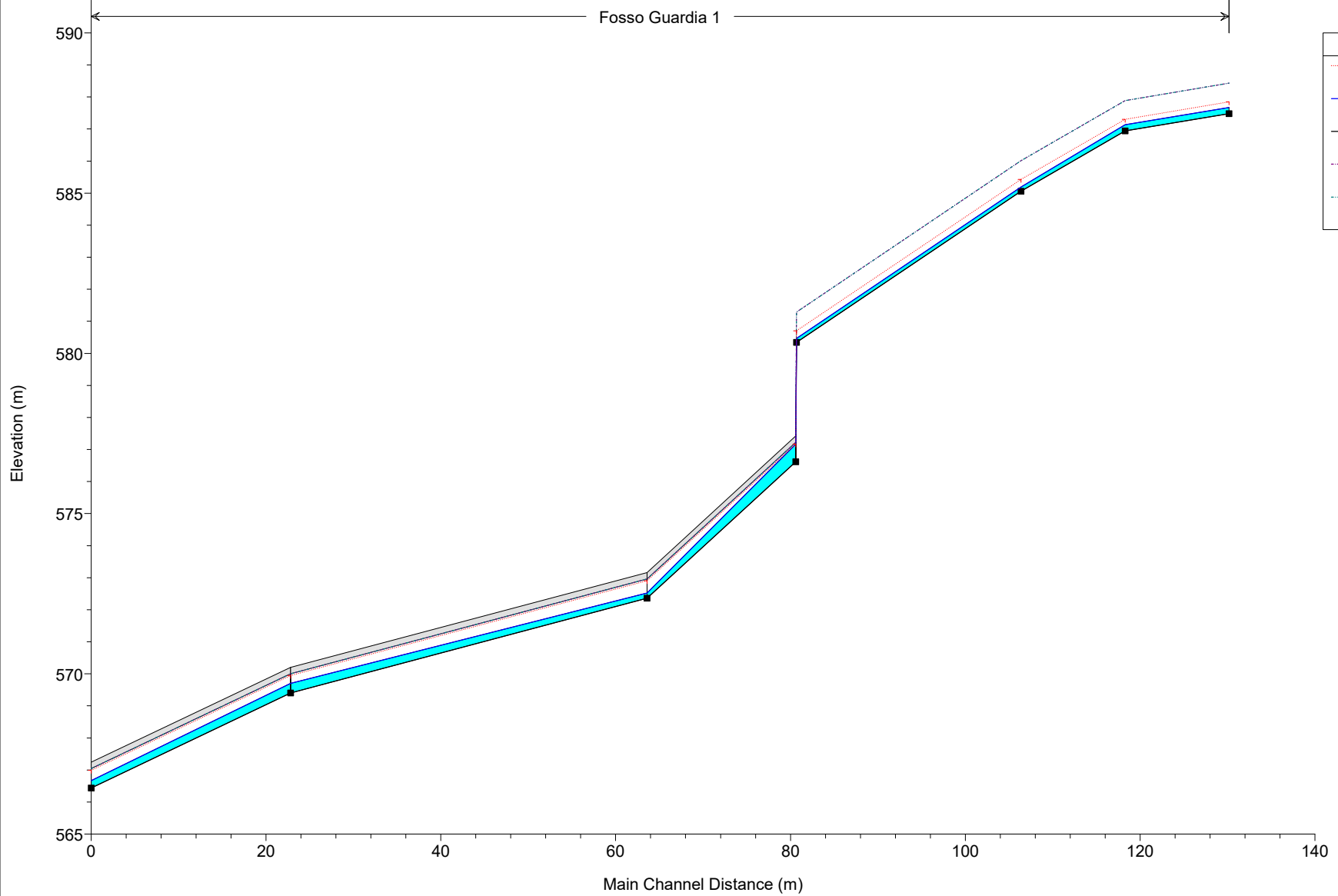
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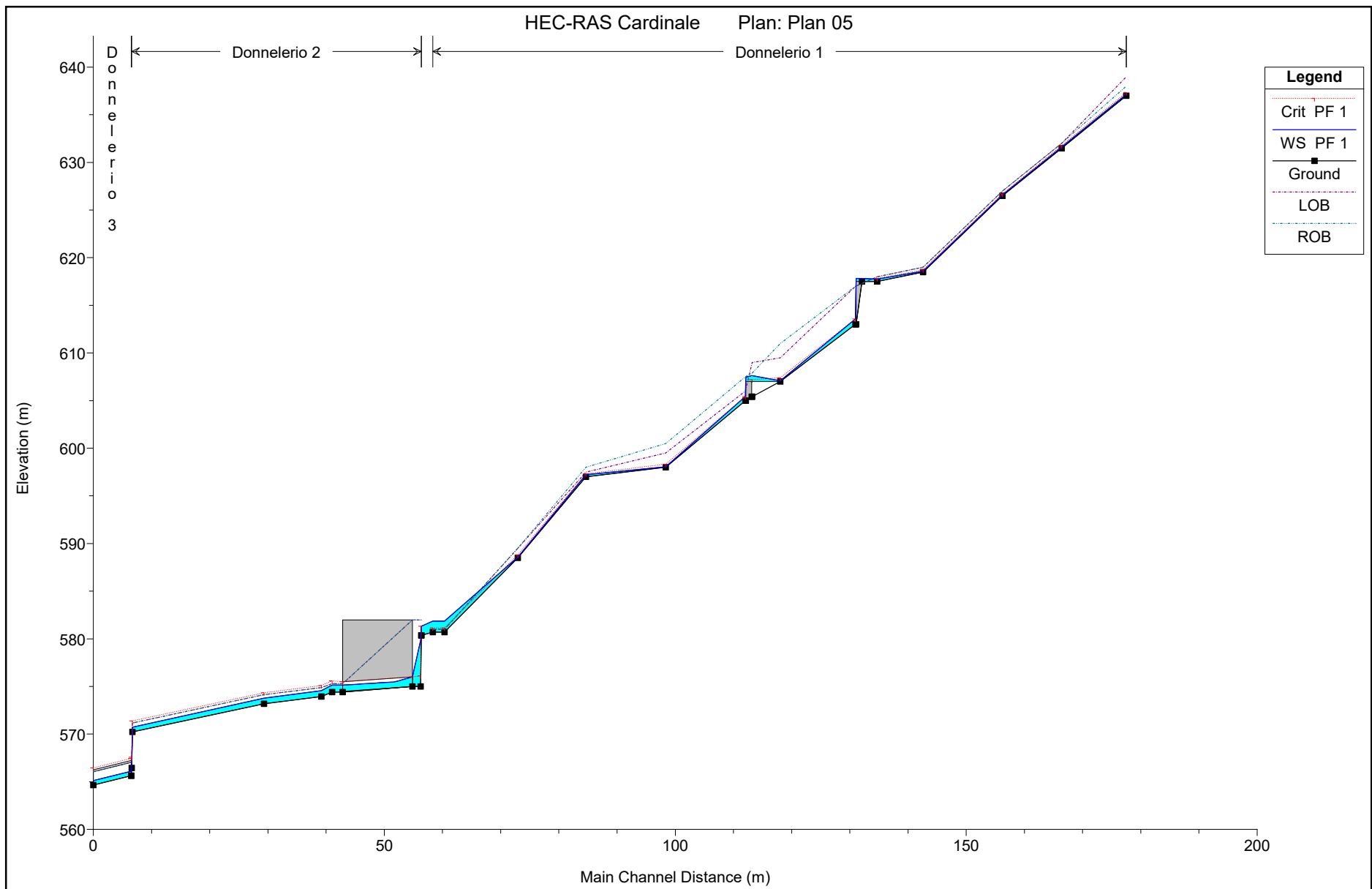


# HEC-RAS Cardinale Plan: Plan 05

Fosso Guardia 1

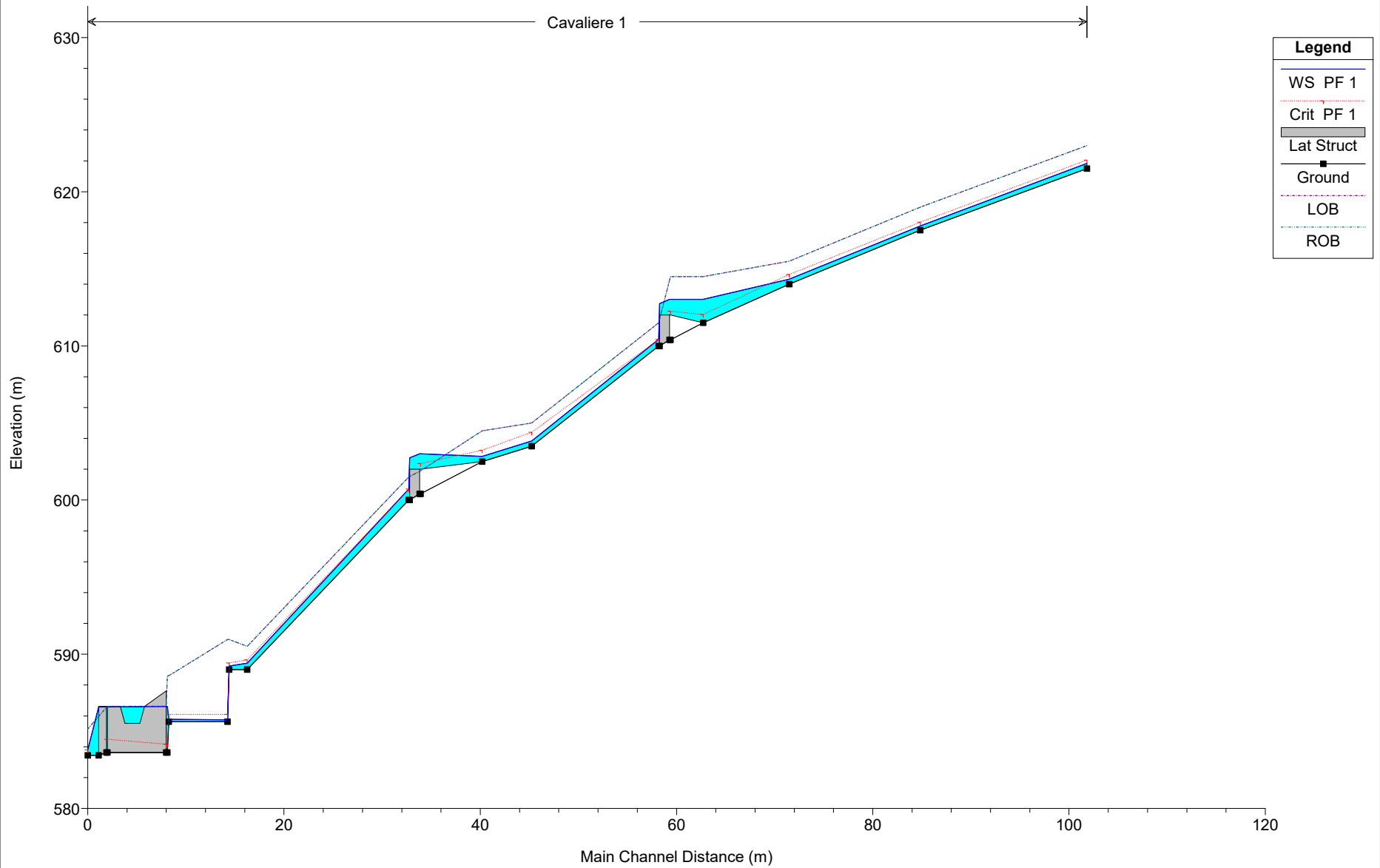


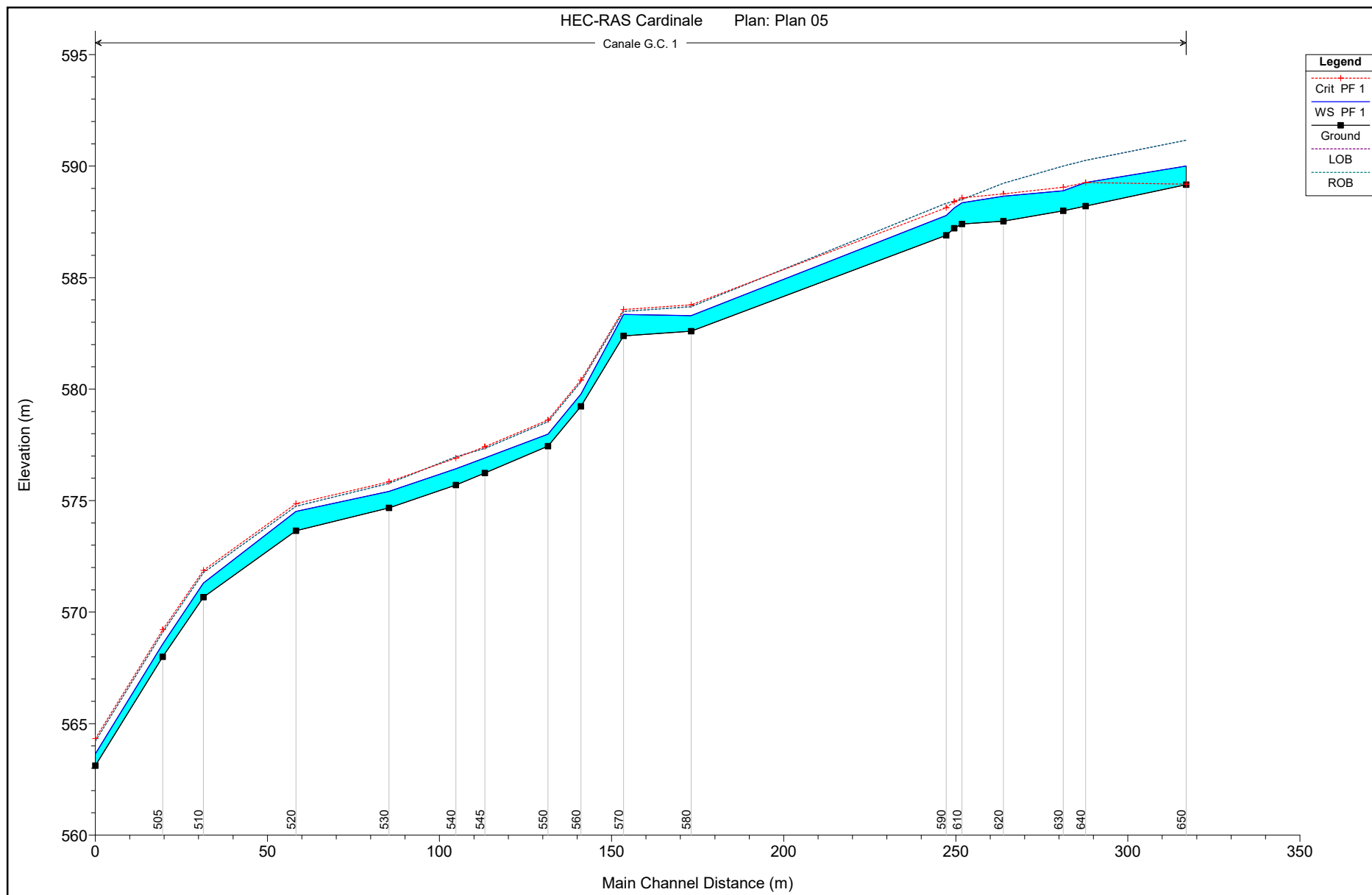
| Legend    |  |
|-----------|--|
| Crit PF 1 |  |
| WS PF 1   |  |
| Ground    |  |
| LOB       |  |
| ROB       |  |



HEC-RAS Cardinale Plan: Plan 05

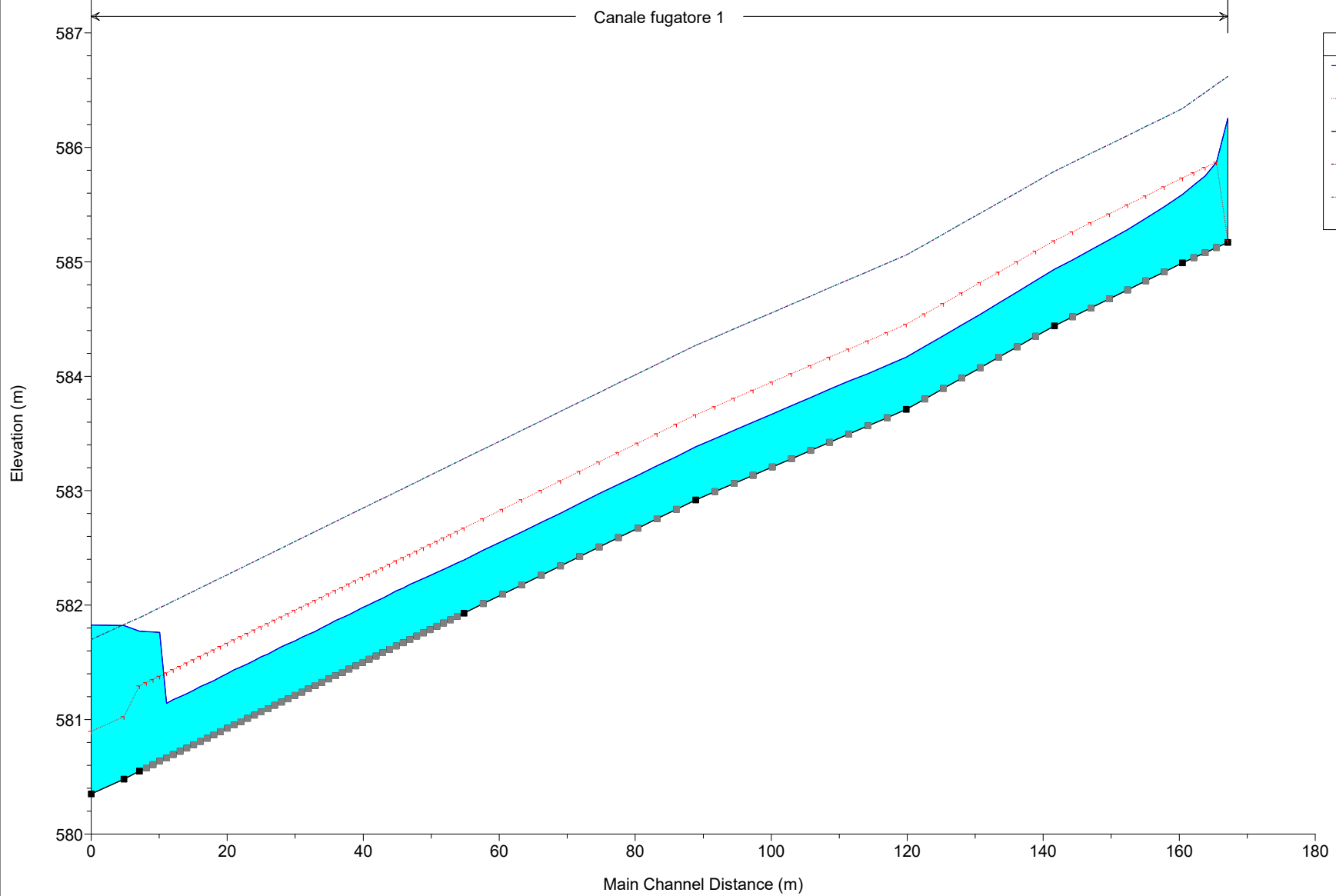
Cavaliere 1





# HEC-RAS Cardinale Plan: Plan 05

Canale fugatore 1



| Legend    |   |
|-----------|---|
| WS PF 1   |   |
| Crit PF 1 |   |
| Ground    | ■ |
| LOB       |   |
| ROB       |   |

Plan: Plan 04 Canale fugatore 1 RS: 5250 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.25   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.25   | Reach Len. (m)       | 1.66    | 1.66    | 1.66     |
| Crit W.S. (m)      | 585.18   | Flow Area (m2)       |         | 1.35    |          |
| E.G. Slope (m/m)   | 0.000000 | Area (m2)            |         | 1.35    |          |
| Q Total (m3/s)     | 0.00     | Flow (m3/s)          |         | 0.00    |          |
| Top Width (m)      | 1.40     | Top Width (m)        |         | 1.40    |          |
| Vel Total (m/s)    | 0.00     | Avg. Vel. (m/s)      |         | 0.00    |          |
| Max Chl Dpth (m)   | 1.08     | Hydr. Depth (m)      |         | 0.97    |          |
| Conv. Total (m3/s) | 46.8     | Conv. (m3/s)         |         | 46.8    |          |
| Length Wtd. (m)    | 1.66     | Wetted Per. (m)      |         | 3.29    |          |
| Min Ch El (m)      | 585.17   | Shear (N/m2)         |         | 0.00    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.00    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.05    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.11    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5240 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.14   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.59   | Reach Len. (m)       | 1.88    | 1.88    | 1.88     |
| Crit W.S. (m)      | 585.73   | Flow Area (m2)       |         | 0.71    |          |
| E.G. Slope (m/m)   | 0.013440 | Area (m2)            |         | 0.71    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.28     | Top Width (m)        |         | 1.28    |          |
| Vel Total (m/s)    | 3.30     | Avg. Vel. (m/s)      |         | 3.30    |          |
| Max Chl Dpth (m)   | 0.60     | Hydr. Depth (m)      |         | 0.56    |          |
| Conv. Total (m3/s) | 20.2     | Conv. (m3/s)         |         | 20.2    |          |
| Length Wtd. (m)    | 1.88     | Wetted Per. (m)      |         | 2.31    |          |
| Min Ch El (m)      | 584.99   | Shear (N/m2)         |         | 40.52   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 133.74  |          |
| Frctn Loss (m)     | 0.04     | Cum Volume (1000 m3) | 0.00    | 0.05    | 0.00     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.00    | 0.10    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5235 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.19     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 584.86   | Reach Len. (m)       | 1.98    | 1.98    | 1.98     |
| Crit W.S. (m)      | 585.18   | Flow Area (m2)       |         | 0.48    |          |
| E.G. Slope (m/m)   | 0.038034 | Area (m2)            |         | 0.48    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.22     | Top Width (m)        |         | 1.22    |          |
| Vel Total (m/s)    | 4.83     | Avg. Vel. (m/s)      |         | 4.83    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.40    |          |
| Conv. Total (m3/s) | 12.0     | Conv. (m3/s)         |         | 12.0    |          |
| Length Wtd. (m)    | 1.98     | Wetted Per. (m)      |         | 1.94    |          |
| Min Ch El (m)      | 584.44   | Shear (N/m2)         |         | 93.01   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 449.13  |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) | 0.00    | 0.05    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.10    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5230 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 585.48   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 1.38     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 584.10   | Reach Len. (m) | 1.94    | 1.94    | 1.94     |
| Crit W.S. (m)    | 584.45   | Flow Area (m2) |         | 0.45    |          |
| E.G. Slope (m/m) | 0.046851 | Area (m2)      |         | 0.45    |          |
| Q Total (m3/s)   | 2.34     | Flow (m3/s)    |         | 2.34    |          |

Plan: Plan 04 Canale fugatore 1 RS: 5230 Profile: PF 1 (Continued)

|                    |        |                      |      |        |      |
|--------------------|--------|----------------------|------|--------|------|
| Top Width (m)      | 1.22   | Top Width (m)        |      | 1.22   |      |
| Vel Total (m/s)    | 5.20   | Avg. Vel. (m/s)      |      | 5.20   |      |
| Max Chl Dpth (m)   | 0.39   | Hydr. Depth (m)      |      | 0.37   |      |
| Conv. Total (m3/s) | 10.8   | Conv. (m3/s)         |      | 10.8   |      |
| Length Wtd. (m)    | 1.94   | Wetted Per. (m)      |      | 1.89   |      |
| Min Ch El (m)      | 583.71 | Shear (N/m2)         |      | 109.59 |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 570.20 |      |
| Frctn Loss (m)     | 0.09   | Cum Volume (1000 m3) | 0.00 | 0.04   | 0.00 |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     | 0.00 | 0.08   | 0.00 |

Plan: Plan 04 Canale fugatore 1 RS: 5220 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 584.38   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.01     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 583.37   | Reach Len. (m)       | 1.89    | 1.89    | 1.89     |
| Crit W.S. (m)      | 583.66   | Flow Area (m2)       |         | 0.53    |          |
| E.G. Slope (m/m)   | 0.030341 | Area (m2)            |         | 0.53    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.23     | Top Width (m)        |         | 1.23    |          |
| Vel Total (m/s)    | 4.45     | Avg. Vel. (m/s)      |         | 4.45    |          |
| Max Chl Dpth (m)   | 0.45     | Hydr. Depth (m)      |         | 0.43    |          |
| Conv. Total (m3/s) | 13.4     | Conv. (m3/s)         |         | 13.4    |          |
| Length Wtd. (m)    | 1.89     | Wetted Per. (m)      |         | 2.01    |          |
| Min Ch El (m)      | 582.92   | Shear (N/m2)         |         | 77.79   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 346.23  |          |
| Frctn Loss (m)     | 0.06     | Cum Volume (1000 m3) | 0.00    | 0.02    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.05    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5210 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 583.45   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.09     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 582.36   | Reach Len. (m)       | 1.99    | 1.99    | 1.99     |
| Crit W.S. (m)      | 582.67   | Flow Area (m2)       |         | 0.51    |          |
| E.G. Slope (m/m)   | 0.033714 | Area (m2)            |         | 0.51    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 1.23     | Top Width (m)        |         | 1.23    |          |
| Vel Total (m/s)    | 4.62     | Avg. Vel. (m/s)      |         | 4.62    |          |
| Max Chl Dpth (m)   | 0.43     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 12.7     | Conv. (m3/s)         |         | 12.7    |          |
| Length Wtd. (m)    | 1.99     | Wetted Per. (m)      |         | 1.98    |          |
| Min Ch El (m)      | 581.93   | Shear (N/m2)         |         | 84.56   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 390.99  |          |
| Frctn Loss (m)     | 0.11     | Cum Volume (1000 m3) | 0.00    | 0.01    | 0.00     |
| C & E Loss (m)     | 0.13     | Cum SA (1000 m2)     | 0.00    | 0.01    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5202 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 583.22   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.37     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 580.85   | Reach Len. (m)  | 1.15    | 1.15    | 1.15     |
| Crit W.S. (m)      | 581.29   | Flow Area (m2)  |         | 0.34    |          |
| E.G. Slope (m/m)   | 0.100892 | Area (m2)       |         | 0.34    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     |         | 2.34    |          |
| Top Width (m)      | 1.19     | Top Width (m)   |         | 1.19    |          |
| Vel Total (m/s)    | 6.82     | Avg. Vel. (m/s) |         | 6.82    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m) |         | 0.29    |          |
| Conv. Total (m3/s) | 7.4      | Conv. (m3/s)    |         | 7.4     |          |
| Length Wtd. (m)    | 1.15     | Wetted Per. (m) |         | 1.71    |          |
| Min Ch El (m)      | 580.55   | Shear (N/m2)    |         | 199.05  |          |

Plan: Plan 04 Canale fugatore 1 RS: 5202 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 1356.78 |      |
| Frctn Loss (m) | 0.00 | Cum Volume (1000 m3) | 0.00 | 0.01    | 0.00 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2)     | 0.00 | 0.01    | 0.00 |

Plan: Plan 04 Canale fugatore 1 RS: 5201 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.04     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 581.82   | Reach Len. (m)       | 1.60    | 1.60    | 1.60     |
| Crit W.S. (m)      | 581.03   | Flow Area (m2)       |         | 2.68    |          |
| E.G. Slope (m/m)   | 0.000391 | Area (m2)            |         | 2.68    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 2.20     | Top Width (m)        |         | 2.20    |          |
| Vel Total (m/s)    | 0.87     | Avg. Vel. (m/s)      |         | 0.87    |          |
| Max Chl Dpth (m)   | 1.34     | Hydr. Depth (m)      |         | 1.22    |          |
| Conv. Total (m3/s) | 118.3    | Conv. (m3/s)         |         | 118.3   |          |
| Length Wtd. (m)    | 1.60     | Wetted Per. (m)      |         | 4.51    |          |
| Min Ch El (m)      | 580.48   | Shear (N/m2)         |         | 2.28    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1.99    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.01    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.00    | 0.00     |

Plan: Plan 04 Canale fugatore 1 RS: 5200 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.03     | Wt. n-Val.           | 0.320   | 0.016   | 0.300    |
| W.S. Elev (m)      | 581.82   | Reach Len. (m)       | 0.99    | 0.99    | 0.99     |
| Crit W.S. (m)      | 580.90   | Flow Area (m2)       | 0.04    | 2.98    | 0.04     |
| E.G. Slope (m/m)   | 0.000277 | Area (m2)            | 0.04    | 2.98    | 0.04     |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          | 0.00    | 2.34    | 0.00     |
| Top Width (m)      | 2.80     | Top Width (m)        | 0.30    | 2.20    | 0.30     |
| Vel Total (m/s)    | 0.77     | Avg. Vel. (m/s)      | 0.01    | 0.79    | 0.01     |
| Max Chl Dpth (m)   | 1.47     | Hydr. Depth (m)      | 0.12    | 1.35    | 0.12     |
| Conv. Total (m3/s) | 140.5    | Conv. (m3/s)         | 0.0     | 140.5   | 0.0      |
| Length Wtd. (m)    | 0.99     | Wetted Per. (m)      | 0.42    | 4.53    | 0.42     |
| Min Ch El (m)      | 580.35   | Shear (N/m2)         | 0.24    | 1.79    | 0.24     |
| Alpha              | 1.05     | Stream Power (N/m s) | 0.00    | 1.40    | 0.00     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.00    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 04 Canale G.C. 1 RS: 650 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 590.00   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 590.00   | Reach Len. (m)       | 29.19   | 29.19   | 29.19    |
| Crit W.S. (m)      | 589.19   | Flow Area (m2)       |         | 1.37    |          |
| E.G. Slope (m/m)   | 0.000000 | Area (m2)            |         | 1.37    |          |
| Q Total (m3/s)     | 0.00     | Flow (m3/s)          |         | 0.00    |          |
| Top Width (m)      | 1.68     | Top Width (m)        |         | 1.68    |          |
| Vel Total (m/s)    | 0.00     | Avg. Vel. (m/s)      |         | 0.00    |          |
| Max Chl Dpth (m)   | 0.83     | Hydr. Depth (m)      |         | 0.81    |          |
| Conv. Total (m3/s) | 30.6     | Conv. (m3/s)         |         | 30.6    |          |
| Length Wtd. (m)    | 29.19    | Wetted Per. (m)      |         | 3.27    |          |
| Min Ch El (m)      | 589.17   | Shear (N/m2)         |         | 0.00    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.00    |          |
| Frctn Loss (m)     | 0.17     | Cum Volume (1000 m3) |         | 0.44    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.74    |          |

Plan: Plan 04 Canale G.C. 1 RS: 640 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.78   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.52     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 589.26   | Reach Len. (m)       | 6.49    | 6.49    | 6.49     |
| Crit W.S. (m)      | 589.26   | Flow Area (m2)       |         | 1.74    |          |
| E.G. Slope (m/m)   | 0.017370 | Area (m2)            |         | 1.74    |          |
| Q Total (m3/s)     | 5.54     | Flow (m3/s)          |         | 5.54    |          |
| Top Width (m)      | 1.70     | Top Width (m)        |         | 1.70    |          |
| Vel Total (m/s)    | 3.18     | Avg. Vel. (m/s)      |         | 3.18    |          |
| Max Chl Dpth (m)   | 1.05     | Hydr. Depth (m)      |         | 1.02    |          |
| Conv. Total (m3/s) | 42.0     | Conv. (m3/s)         |         | 42.0    |          |
| Length Wtd. (m)    | 6.49     | Wetted Per. (m)      |         | 3.71    |          |
| Min Ch El (m)      | 588.21   | Shear (N/m2)         |         | 79.91   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 254.35  |          |
| Frctn Loss (m)     | 0.14     | Cum Volume (1000 m3) |         | 0.40    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.69    |          |

Plan: Plan 04 Canale G.C. 1 RS: 630 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.61   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.72     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 588.90   | Reach Len. (m)       | 17.41   | 17.41   | 17.41    |
| Crit W.S. (m)      | 589.05   | Flow Area (m2)       |         | 1.48    |          |
| E.G. Slope (m/m)   | 0.026637 | Area (m2)            |         | 1.48    |          |
| Q Total (m3/s)     | 5.54     | Flow (m3/s)          |         | 5.54    |          |
| Top Width (m)      | 1.69     | Top Width (m)        |         | 1.69    |          |
| Vel Total (m/s)    | 3.75     | Avg. Vel. (m/s)      |         | 3.75    |          |
| Max Chl Dpth (m)   | 0.90     | Hydr. Depth (m)      |         | 0.87    |          |
| Conv. Total (m3/s) | 34.0     | Conv. (m3/s)         |         | 34.0    |          |
| Length Wtd. (m)    | 17.41    | Wetted Per. (m)      |         | 3.40    |          |
| Min Ch El (m)      | 588.00   | Shear (N/m2)         |         | 113.60  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 425.69  |          |
| Frctn Loss (m)     | 0.35     | Cum Volume (1000 m3) |         | 0.39    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.68    |          |

Plan: Plan 04 Canale G.C. 1 RS: 620 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.34   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.69     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 588.65   | Reach Len. (m)       | 12.04   | 12.04   | 12.04    |
| Crit W.S. (m)      | 588.76   | Flow Area (m2)       |         | 1.95    |          |
| E.G. Slope (m/m)   | 0.020992 | Area (m2)            |         | 1.95    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 1.86     | Top Width (m)        |         | 1.86    |          |
| Vel Total (m/s)    | 3.67     | Avg. Vel. (m/s)      |         | 3.67    |          |
| Max Chl Dpth (m)   | 1.12     | Hydr. Depth (m)      |         | 1.04    |          |
| Conv. Total (m3/s) | 49.3     | Conv. (m3/s)         |         | 49.3    |          |
| Length Wtd. (m)    | 12.04    | Wetted Per. (m)      |         | 3.86    |          |
| Min Ch El (m)      | 587.53   | Shear (N/m2)         |         | 103.76  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 380.87  |          |
| Frctn Loss (m)     | 0.26     | Cum Volume (1000 m3) |         | 0.36    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.64    |          |

Plan: Plan 04 Canale G.C. 1 RS: 610 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 589.07   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 0.72     | Wt. n-Val.     |         | 0.025   |          |
| W.S. Elev (m)    | 588.35   | Reach Len. (m) | 2.24    | 2.24    | 2.24     |
| Crit W.S. (m)    | 588.58   | Flow Area (m2) |         | 1.90    |          |
| E.G. Slope (m/m) | 0.021759 | Area (m2)      |         | 1.90    |          |
| Q Total (m3/s)   | 7.15     | Flow (m3/s)    |         | 7.15    |          |

Plan: Plan 04 Canale G.C. 1 RS: 610 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 2.95   | Top Width (m)        |  | 2.95   |  |
| Vel Total (m/s)    | 3.76   | Avg. Vel. (m/s)      |  | 3.76   |  |
| Max Chl Dpth (m)   | 0.95   | Hydr. Depth (m)      |  | 0.64   |  |
| Conv. Total (m3/s) | 48.5   | Conv. (m3/s)         |  | 48.5   |  |
| Length Wtd. (m)    | 2.24   | Wetted Per. (m)      |  | 3.74   |  |
| Min Ch El (m)      | 587.40 | Shear (N/m2)         |  | 108.54 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 408.08 |  |
| Frctn Loss (m)     | 0.05   | Cum Volume (1000 m3) |  | 0.33   |  |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     |  | 0.62   |  |

Plan: Plan 04 Canale G.C. 1 RS: 600 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.00   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.87     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 588.13   | Reach Len. (m)       | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)      | 588.41   | Flow Area (m2)       |         | 1.73    |          |
| E.G. Slope (m/m)   | 0.027753 | Area (m2)            |         | 1.73    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.72     | Top Width (m)        |         | 2.72    |          |
| Vel Total (m/s)    | 4.14     | Avg. Vel. (m/s)      |         | 4.14    |          |
| Max Chl Dpth (m)   | 0.92     | Hydr. Depth (m)      |         | 0.64    |          |
| Conv. Total (m3/s) | 42.9     | Conv. (m3/s)         |         | 42.9    |          |
| Length Wtd. (m)    | 2.34     | Wetted Per. (m)      |         | 3.53    |          |
| Min Ch El (m)      | 587.21   | Shear (N/m2)         |         | 133.23  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 551.46  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) |         | 0.33    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.61    |          |

Plan: Plan 04 Canale G.C. 1 RS: 590 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 588.90   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.12     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 587.78   | Reach Len. (m)       | 74.10   | 74.10   | 74.10    |
| Crit W.S. (m)      | 588.14   | Flow Area (m2)       |         | 1.53    |          |
| E.G. Slope (m/m)   | 0.037866 | Area (m2)            |         | 1.53    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.41     | Top Width (m)        |         | 2.41    |          |
| Vel Total (m/s)    | 4.68     | Avg. Vel. (m/s)      |         | 4.68    |          |
| Max Chl Dpth (m)   | 0.88     | Hydr. Depth (m)      |         | 0.63    |          |
| Conv. Total (m3/s) | 36.7     | Conv. (m3/s)         |         | 36.7    |          |
| Length Wtd. (m)    | 74.10    | Wetted Per. (m)      |         | 3.28    |          |
| Min Ch El (m)      | 586.90   | Shear (N/m2)         |         | 173.04  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 809.60  |          |
| Frctn Loss (m)     | 3.78     | Cum Volume (1000 m3) |         | 0.33    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.60    |          |

Plan: Plan 04 Canale G.C. 1 RS: 580 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 585.06   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.76     | Wt. n-Val.      |         | 0.025   |          |
| W.S. Elev (m)      | 583.30   | Reach Len. (m)  | 19.62   | 19.62   | 19.62    |
| Crit W.S. (m)      | 583.78   | Flow Area (m2)  |         | 1.22    |          |
| E.G. Slope (m/m)   | 0.072432 | Area (m2)       |         | 1.22    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)     |         | 7.15    |          |
| Top Width (m)      | 2.44     | Top Width (m)   |         | 2.44    |          |
| Vel Total (m/s)    | 5.87     | Avg. Vel. (m/s) |         | 5.87    |          |
| Max Chl Dpth (m)   | 0.70     | Hydr. Depth (m) |         | 0.50    |          |
| Conv. Total (m3/s) | 26.6     | Conv. (m3/s)    |         | 26.6    |          |
| Length Wtd. (m)    | 19.62    | Wetted Per. (m) |         | 3.02    |          |
| Min Ch El (m)      | 582.60   | Shear (N/m2)    |         | 286.23  |          |

Plan: Plan 04 Canale G.C. 1 RS: 580 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 1681.04 |  |
| Frctn Loss (m) | 0.69 | Cum Volume (1000 m3) |  | 0.22    |  |
| C & E Loss (m) | 0.32 | Cum SA (1000 m2)     |  | 0.42    |  |

Plan: Plan 04 Canale G.C. 1 RS: 570 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 584.05   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.70     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 583.35   | Reach Len. (m)       | 12.43   | 12.43   | 12.43    |
| Crit W.S. (m)      | 583.57   | Flow Area (m2)       |         | 1.94    |          |
| E.G. Slope (m/m)   | 0.020734 | Area (m2)            |         | 1.94    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.97     | Top Width (m)        |         | 2.97    |          |
| Vel Total (m/s)    | 3.69     | Avg. Vel. (m/s)      |         | 3.69    |          |
| Max Chl Dpth (m)   | 0.96     | Hydr. Depth (m)      |         | 0.65    |          |
| Conv. Total (m3/s) | 49.7     | Conv. (m3/s)         |         | 49.7    |          |
| Length Wtd. (m)    | 12.43    | Wetted Per. (m)      |         | 3.77    |          |
| Min Ch El (m)      | 582.39   | Shear (N/m2)         |         | 104.38  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 385.46  |          |
| Frctn Loss (m)     | 0.57     | Cum Volume (1000 m3) |         | 0.19    |          |
| C & E Loss (m)     | 0.27     | Cum SA (1000 m2)     |         | 0.37    |          |

Plan: Plan 04 Canale G.C. 1 RS: 560 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 583.20   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.42     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 579.78   | Reach Len. (m)       | 9.54    | 9.54    | 9.54     |
| Crit W.S. (m)      | 580.41   | Flow Area (m2)       |         | 0.87    |          |
| E.G. Slope (m/m)   | 0.179280 | Area (m2)            |         | 0.87    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.14     | Top Width (m)        |         | 2.14    |          |
| Vel Total (m/s)    | 8.19     | Avg. Vel. (m/s)      |         | 8.19    |          |
| Max Chl Dpth (m)   | 0.55     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 16.9     | Conv. (m3/s)         |         | 16.9    |          |
| Length Wtd. (m)    | 9.54     | Wetted Per. (m)      |         | 2.60    |          |
| Min Ch El (m)      | 579.23   | Shear (N/m2)         |         | 591.15  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4841.31 |          |
| Frctn Loss (m)     | 1.73     | Cum Volume (1000 m3) |         | 0.17    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.34    |          |

Plan: Plan 04 Canale G.C. 1 RS: 550 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.46   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.48     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 577.98   | Reach Len. (m)       | 18.39   | 18.39   | 18.39    |
| Crit W.S. (m)      | 578.62   | Flow Area (m2)       |         | 0.87    |          |
| E.G. Slope (m/m)   | 0.183425 | Area (m2)            |         | 0.87    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.14     | Top Width (m)        |         | 2.14    |          |
| Vel Total (m/s)    | 8.26     | Avg. Vel. (m/s)      |         | 8.26    |          |
| Max Chl Dpth (m)   | 0.54     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 16.7     | Conv. (m3/s)         |         | 16.7    |          |
| Length Wtd. (m)    | 18.39    | Wetted Per. (m)      |         | 2.59    |          |
| Min Ch El (m)      | 577.44   | Shear (N/m2)         |         | 602.02  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4971.57 |          |
| Frctn Loss (m)     | 2.16     | Cum Volume (1000 m3) |         | 0.17    |          |
| C & E Loss (m)     | 0.47     | Cum SA (1000 m2)     |         | 0.32    |          |

Plan: Plan 05 Canale G.C. 1 RS: 545 Profile: PF 1

| E.G. Elev (m)      | 578.84   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.92     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 576.92   | Reach Len. (m)       | 8.39    | 8.39    | 8.39     |
| Crit W.S. (m)      | 577.42   | Flow Area (m2)       |         | 1.16    |          |
| E.G. Slope (m/m)   | 0.081762 | Area (m2)            |         | 1.16    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.40     | Top Width (m)        |         | 2.40    |          |
| Vel Total (m/s)    | 6.14     | Avg. Vel. (m/s)      |         | 6.14    |          |
| Max Chl Dpth (m)   | 0.68     | Hydr. Depth (m)      |         | 0.49    |          |
| Conv. Total (m3/s) | 25.0     | Conv. (m3/s)         |         | 25.0    |          |
| Length Wtd. (m)    | 8.39     | Wetted Per. (m)      |         | 2.96    |          |
| Min Ch El (m)      | 576.24   | Shear (N/m2)         |         | 315.62  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1938.92 |          |
| Frctn Loss (m)     | 0.63     | Cum Volume (1000 m3) |         | 0.14    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.28    |          |

Plan: Plan 05 Canale G.C. 1 RS: 540 Profile: PF 1

| E.G. Elev (m)      | 578.16   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.73     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 576.43   | Reach Len. (m)       | 19.46   | 19.46   | 19.46    |
| Crit W.S. (m)      | 576.90   | Flow Area (m2)       |         | 1.23    |          |
| E.G. Slope (m/m)   | 0.068997 | Area (m2)            |         | 1.23    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.32     | Top Width (m)        |         | 2.32    |          |
| Vel Total (m/s)    | 5.82     | Avg. Vel. (m/s)      |         | 5.82    |          |
| Max Chl Dpth (m)   | 0.73     | Hydr. Depth (m)      |         | 0.53    |          |
| Conv. Total (m3/s) | 27.2     | Conv. (m3/s)         |         | 27.2    |          |
| Length Wtd. (m)    | 19.46    | Wetted Per. (m)      |         | 2.98    |          |
| Min Ch El (m)      | 575.70   | Shear (N/m2)         |         | 278.79  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1622.01 |          |
| Frctn Loss (m)     | 1.20     | Cum Volume (1000 m3) |         | 0.13    |          |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     |         | 0.26    |          |

Plan: Plan 05 Canale G.C. 1 RS: 530 Profile: PF 1

| E.G. Elev (m)      | 576.87   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.45     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 575.42   | Reach Len. (m)       | 27.02   | 27.02   | 27.02    |
| Crit W.S. (m)      | 575.85   | Flow Area (m2)       |         | 1.34    |          |
| E.G. Slope (m/m)   | 0.055866 | Area (m2)            |         | 1.34    |          |
| Q Total (m3/s)     | 7.15     | Flow (m3/s)          |         | 7.15    |          |
| Top Width (m)      | 2.54     | Top Width (m)        |         | 2.54    |          |
| Vel Total (m/s)    | 5.34     | Avg. Vel. (m/s)      |         | 5.34    |          |
| Max Chl Dpth (m)   | 0.75     | Hydr. Depth (m)      |         | 0.53    |          |
| Conv. Total (m3/s) | 30.3     | Conv. (m3/s)         |         | 30.3    |          |
| Length Wtd. (m)    | 27.02    | Wetted Per. (m)      |         | 3.16    |          |
| Min Ch El (m)      | 574.67   | Shear (N/m2)         |         | 232.30  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1239.55 |          |
| Frctn Loss (m)     | 1.17     | Cum Volume (1000 m3) |         | 0.11    |          |
| C & E Loss (m)     | 0.12     | Cum SA (1000 m2)     |         | 0.21    |          |

Plan: Plan 05 Canale G.C. 1 RS: 520 Profile: PF 1

| E.G. Elev (m)    | 575.58   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 1.06     | Wt. n-Val.     |         | 0.025   |          |
| W.S. Elev (m)    | 574.52   | Reach Len. (m) | 26.87   | 26.87   | 26.87    |
| Crit W.S. (m)    | 574.86   | Flow Area (m2) |         | 1.67    |          |
| E.G. Slope (m/m) | 0.035035 | Area (m2)      |         | 1.67    |          |
| Q Total (m3/s)   | 7.62     | Flow (m3/s)    |         | 7.62    |          |

Plan: Plan 05 Canale G.C. 1 RS: 520 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 2.79   | Top Width (m)        |  | 2.79   |  |
| Vel Total (m/s)    | 4.56   | Avg. Vel. (m/s)      |  | 4.56   |  |
| Max Chl Dpth (m)   | 0.87   | Hydr. Depth (m)      |  | 0.60   |  |
| Conv. Total (m3/s) | 40.7   | Conv. (m3/s)         |  | 40.7   |  |
| Length Wtd. (m)    | 26.87  | Wetted Per. (m)      |  | 3.51   |  |
| Min Ch EI (m)      | 573.65 | Shear (N/m2)         |  | 163.45 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 745.78 |  |
| Frctn Loss (m)     | 1.57   | Cum Volume (1000 m3) |  | 0.07   |  |
| C & E Loss (m)     | 0.15   | Cum SA (1000 m2)     |  | 0.14   |  |

Plan: Plan 05 Canale G.C. 1 RS: 510 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 573.87   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.56     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 571.31   | Reach Len. (m)       | 11.86   | 11.87   | 11.86    |
| Crit W.S. (m)      | 571.88   | Flow Area (m2)       |         | 1.07    |          |
| E.G. Slope (m/m)   | 0.115435 | Area (m2)            |         | 1.07    |          |
| Q Total (m3/s)     | 7.62     | Flow (m3/s)          |         | 7.62    |          |
| Top Width (m)      | 2.32     | Top Width (m)        |         | 2.32    |          |
| Vel Total (m/s)    | 7.09     | Avg. Vel. (m/s)      |         | 7.09    |          |
| Max Chl Dpth (m)   | 0.64     | Hydr. Depth (m)      |         | 0.46    |          |
| Conv. Total (m3/s) | 22.4     | Conv. (m3/s)         |         | 22.4    |          |
| Length Wtd. (m)    | 11.87    | Wetted Per. (m)      |         | 2.85    |          |
| Min Ch EI (m)      | 570.67   | Shear (N/m2)         |         | 426.59  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3024.72 |          |
| Frctn Loss (m)     | 1.68     | Cum Volume (1000 m3) |         | 0.03    |          |
| C & E Loss (m)     | 0.10     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Canale G.C. 1 RS: 505 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 572.09   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.52     | Wt. n-Val.           |         | 0.025   |          |
| W.S. Elev (m)      | 568.57   | Reach Len. (m)       | 19.54   | 19.54   | 19.54    |
| Crit W.S. (m)      | 569.21   | Flow Area (m2)       |         | 0.92    |          |
| E.G. Slope (m/m)   | 0.178247 | Area (m2)            |         | 0.92    |          |
| Q Total (m3/s)     | 7.62     | Flow (m3/s)          |         | 7.62    |          |
| Top Width (m)      | 2.18     | Top Width (m)        |         | 2.18    |          |
| Vel Total (m/s)    | 8.31     | Avg. Vel. (m/s)      |         | 8.31    |          |
| Max Chl Dpth (m)   | 0.57     | Hydr. Depth (m)      |         | 0.42    |          |
| Conv. Total (m3/s) | 18.0     | Conv. (m3/s)         |         | 18.0    |          |
| Length Wtd. (m)    | 19.54    | Wetted Per. (m)      |         | 2.65    |          |
| Min Ch EI (m)      | 568.00   | Shear (N/m2)         |         | 603.80  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5019.95 |          |
| Frctn Loss (m)     | 4.01     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Canale G.C. 1 RS: 500 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 568.00   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 4.36     | Wt. n-Val.      |         | 0.025   |          |
| W.S. Elev (m)      | 563.64   | Reach Len. (m)  | 0.55    | 0.55    | 0.55     |
| Crit W.S. (m)      | 564.33   | Flow Area (m2)  |         | 0.82    |          |
| E.G. Slope (m/m)   | 0.238619 | Area (m2)       |         | 0.82    |          |
| Q Total (m3/s)     | 7.62     | Flow (m3/s)     |         | 7.62    |          |
| Top Width (m)      | 2.10     | Top Width (m)   |         | 2.10    |          |
| Vel Total (m/s)    | 9.25     | Avg. Vel. (m/s) |         | 9.25    |          |
| Max Chl Dpth (m)   | 0.52     | Hydr. Depth (m) |         | 0.39    |          |
| Conv. Total (m3/s) | 15.6     | Conv. (m3/s)    |         | 15.6    |          |
| Length Wtd. (m)    | 0.55     | Wetted Per. (m) |         | 2.53    |          |
| Min Ch EI (m)      | 563.12   | Shear (N/m2)    |         | 761.80  |          |

Plan: Plan 05 Canale G.C. 1 RS: 500 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 7044.32 |  |
| Frctn Loss (m) | 0.31 | Cum Volume (1000 m3) |  | 0.00    |  |
| C & E Loss (m) | 0.25 | Cum SA (1000 m2)     |  |         |  |

Plan: Plan 05 Cavaliere 1 RS: 39 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 622.79   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.95     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 621.84   | Reach Len. (m)       | 16.98   | 16.98   | 16.98    |
| Crit W.S. (m)      | 622.06   | Flow Area (m2)       |         | 1.13    |          |
| E.G. Slope (m/m)   | 0.235279 | Area (m2)            |         | 1.13    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 5.17     | Top Width (m)        |         | 5.17    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 10.0     | Conv. (m3/s)         |         | 10.0    |          |
| Length Wtd. (m)    | 16.98    | Wetted Per. (m)      |         | 5.28    |          |
| Min Ch EI (m)      | 621.50   | Shear (N/m2)         |         | 491.54  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2126.16 |          |
| Frctn Loss (m)     | 3.94     | Cum Volume (1000 m3) | 0.00    | 0.31    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.51    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 38 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 618.83   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.05     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 617.78   | Reach Len. (m)       | 13.36   | 13.36   | 13.36    |
| Crit W.S. (m)      | 618.04   | Flow Area (m2)       |         | 1.07    |          |
| E.G. Slope (m/m)   | 0.229235 | Area (m2)            |         | 1.07    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.45     | Top Width (m)        |         | 4.45    |          |
| Vel Total (m/s)    | 4.55     | Avg. Vel. (m/s)      |         | 4.55    |          |
| Max Chl Dpth (m)   | 0.28     | Hydr. Depth (m)      |         | 0.24    |          |
| Conv. Total (m3/s) | 10.2     | Conv. (m3/s)         |         | 10.2    |          |
| Length Wtd. (m)    | 13.36    | Wetted Per. (m)      |         | 4.58    |          |
| Min Ch EI (m)      | 617.50   | Shear (N/m2)         |         | 526.10  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2391.46 |          |
| Frctn Loss (m)     | 3.17     | Cum Volume (1000 m3) | 0.00    | 0.30    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.43    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 37 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 615.63   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.31     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 614.33   | Reach Len. (m)       | 8.77    | 8.77    | 8.77     |
| Crit W.S. (m)      | 614.64   | Flow Area (m2)       |         | 0.96    |          |
| E.G. Slope (m/m)   | 0.246140 | Area (m2)            |         | 0.96    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 3.51     | Top Width (m)        |         | 3.51    |          |
| Vel Total (m/s)    | 5.06     | Avg. Vel. (m/s)      |         | 5.06    |          |
| Max Chl Dpth (m)   | 0.33     | Hydr. Depth (m)      |         | 0.27    |          |
| Conv. Total (m3/s) | 9.8      | Conv. (m3/s)         |         | 9.8     |          |
| Length Wtd. (m)    | 8.77     | Wetted Per. (m)      |         | 3.69    |          |
| Min Ch EI (m)      | 614.00   | Shear (N/m2)         |         | 629.54  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3187.39 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.28    | 0.00     |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     | 0.00    | 0.38    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 36 Profile: PF 1

| E.G. Elev (m)      | 613.02   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 613.02   | Reach Len. (m)       | 3.33    | 3.33    | 3.33     |
| Crit W.S. (m)      | 612.04   | Flow Area (m2)       |         | 12.00   |          |
| E.G. Slope (m/m)   | 0.000262 | Area (m2)            |         | 12.00   |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 11.27    | Top Width (m)        |         | 11.27   |          |
| Vel Total (m/s)    | 0.41     | Avg. Vel. (m/s)      |         | 0.41    |          |
| Max Chl Dpth (m)   | 1.52     | Hydr. Depth (m)      |         | 1.06    |          |
| Conv. Total (m3/s) | 301.0    | Conv. (m3/s)         |         | 301.0   |          |
| Length Wtd. (m)    | 3.33     | Wetted Per. (m)      |         | 11.93   |          |
| Min Ch EI (m)      | 611.50   | Shear (N/m2)         |         | 2.58    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1.05    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.23    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.31    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 35.5 Profile: PF 1

| E.G. Elev (m)      | 613.02   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 613.02   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 612.26   | Flow Area (m2)       |         | 13.83   |          |
| E.G. Slope (m/m)   | 0.000242 | Area (m2)            |         | 13.83   |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 15.54    | Top Width (m)        |         | 15.54   |          |
| Vel Total (m/s)    | 0.35     | Avg. Vel. (m/s)      |         | 0.35    |          |
| Max Chl Dpth (m)   | 1.02     | Hydr. Depth (m)      |         | 0.89    |          |
| Conv. Total (m3/s) | 313.0    | Conv. (m3/s)         |         | 313.0   |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      |         | 16.06   |          |
| Min Ch EI (m)      | 612.00   | Shear (N/m2)         |         | 2.04    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.72    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.18    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.27    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 35 Profile: PF 1

| E.G. Elev (m)      | 610.60   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 610.42   | Reach Len. (m)       | 12.92   | 12.93   | 12.92    |
| Crit W.S. (m)      | 610.42   | Flow Area (m2)       |         | 2.62    |          |
| E.G. Slope (m/m)   | 0.022708 | Area (m2)            |         | 2.62    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 7.37     | Top Width (m)        |         | 7.37    |          |
| Vel Total (m/s)    | 1.86     | Avg. Vel. (m/s)      |         | 1.86    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.35    |          |
| Conv. Total (m3/s) | 32.3     | Conv. (m3/s)         |         | 32.3    |          |
| Length Wtd. (m)    | 12.93    | Wetted Per. (m)      |         | 7.53    |          |
| Min Ch EI (m)      | 610.00   | Shear (N/m2)         |         | 77.38   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 144.08  |          |
| Frctn Loss (m)     | 0.92     | Cum Volume (1000 m3) | 0.00    | 0.18    | 0.00     |
| C & E Loss (m)     | 0.52     | Cum SA (1000 m2)     | 0.00    | 0.25    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 34 Profile: PF 1

| E.G. Elev (m)    | 609.16   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 5.33     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 603.83   | Reach Len. (m) | 5.06    | 5.06    | 5.06     |
| Crit W.S. (m)    | 604.40   | Flow Area (m2) |         | 0.48    |          |
| E.G. Slope (m/m) | 1.235965 | Area (m2)      |         | 0.48    |          |
| Q Total (m3/s)   | 4.87     | Flow (m3/s)    |         | 4.87    |          |

Plan: Plan 05 Cavaliere 1 RS: 34 Profile: PF 1 (Continued)

|                    |        |                      |      |          |      |
|--------------------|--------|----------------------|------|----------|------|
| Top Width (m)      | 1.91   | Top Width (m)        |      | 1.91     |      |
| Vel Total (m/s)    | 10.23  | Avg. Vel. (m/s)      |      | 10.23    |      |
| Max Chl Dpth (m)   | 0.33   | Hydr. Depth (m)      |      | 0.25     |      |
| Conv. Total (m3/s) | 4.4    | Conv. (m3/s)         |      | 4.4      |      |
| Length Wtd. (m)    | 5.06   | Wetted Per. (m)      |      | 2.13     |      |
| Min Ch El (m)      | 603.50 | Shear (N/m2)         |      | 2706.15  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 27681.17 |      |
| Frctn Loss (m)     | 3.27   | Cum Volume (1000 m3) | 0.00 | 0.16     | 0.00 |
| C & E Loss (m)     | 0.98   | Cum SA (1000 m2)     | 0.00 | 0.19     | 0.01 |

Plan: Plan 05 Cavaliere 1 RS: 33 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 604.90   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.07     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 602.84   | Reach Len. (m)       | 6.28    | 6.28    | 6.28     |
| Crit W.S. (m)      | 603.23   | Flow Area (m2)       |         | 0.76    |          |
| E.G. Slope (m/m)   | 0.396455 | Area (m2)            |         | 0.76    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 2.77     | Top Width (m)        |         | 2.77    |          |
| Vel Total (m/s)    | 6.37     | Avg. Vel. (m/s)      |         | 6.37    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 7.7      | Conv. (m3/s)         |         | 7.7     |          |
| Length Wtd. (m)    | 6.28     | Wetted Per. (m)      |         | 2.97    |          |
| Min Ch El (m)      | 602.50   | Shear (N/m2)         |         | 1000.13 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6367.88 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.15    | 0.00     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.00    | 0.18    | 0.01     |

Plan: Plan 05 Cavaliere 1 RS: 32.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 603.02   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 603.00   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 602.38   | Flow Area (m2)       | 0.69    | 6.31    | 0.87     |
| E.G. Slope (m/m)   | 0.000748 | Area (m2)            | 0.69    | 6.31    | 0.87     |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          | 0.24    | 4.32    | 0.31     |
| Top Width (m)      | 9.22     | Top Width (m)        | 1.27    | 6.30    | 1.66     |
| Vel Total (m/s)    | 0.62     | Avg. Vel. (m/s)      | 0.34    | 0.68    | 0.36     |
| Max Chl Dpth (m)   | 1.00     | Hydr. Depth (m)      | 0.55    | 1.00    | 0.53     |
| Conv. Total (m3/s) | 178.1    | Conv. (m3/s)         | 8.6     | 158.1   | 11.4     |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 1.64    | 6.30    | 1.96     |
| Min Ch El (m)      | 602.00   | Shear (N/m2)         | 3.08    | 7.35    | 3.28     |
| Alpha              | 1.13     | Stream Power (N/m s) | 1.05    | 5.03    | 1.16     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.13    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.15    | 0.00     |

Plan: Plan 05 Cavaliere 1 RS: 32 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 600.97   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.26     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 600.71   | Reach Len. (m)  | 16.46   | 16.46   | 16.46    |
| Crit W.S. (m)      | 600.71   | Flow Area (m2)  |         | 2.16    |          |
| E.G. Slope (m/m)   | 0.022129 | Area (m2)       |         | 2.16    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)     |         | 4.87    |          |
| Top Width (m)      | 4.19     | Top Width (m)   |         | 4.19    |          |
| Vel Total (m/s)    | 2.25     | Avg. Vel. (m/s) |         | 2.25    |          |
| Max Chl Dpth (m)   | 0.71     | Hydr. Depth (m) |         | 0.52    |          |
| Conv. Total (m3/s) | 32.7     | Conv. (m3/s)    |         | 32.7    |          |
| Length Wtd. (m)    | 16.46    | Wetted Per. (m) |         | 4.58    |          |
| Min Ch El (m)      | 600.00   | Shear (N/m2)    |         | 102.34  |          |

Plan: Plan 05 Cavaliere 1 RS: 32 Profile: PF 1 (Continued)

|                |      |                      |  |        |  |
|----------------|------|----------------------|--|--------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 230.60 |  |
| Frctn Loss (m) | 1.33 | Cum Volume (1000 m3) |  | 0.13   |  |
| C & E Loss (m) | 1.43 | Cum SA (1000 m2)     |  | 0.15   |  |

Plan: Plan 05 Cavaliere 1 RS: 31 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 590.09   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.66     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 589.43   | Reach Len. (m)       | 1.85    | 1.85    | 1.85     |
| Crit W.S. (m)      | 589.63   | Flow Area (m2)       |         | 1.35    |          |
| E.G. Slope (m/m)   | 0.096723 | Area (m2)            |         | 1.35    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.03     | Top Width (m)        |         | 4.03    |          |
| Vel Total (m/s)    | 3.60     | Avg. Vel. (m/s)      |         | 3.60    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.34    |          |
| Conv. Total (m3/s) | 15.7     | Conv. (m3/s)         |         | 15.7    |          |
| Length Wtd. (m)    | 1.85     | Wetted Per. (m)      |         | 4.30    |          |
| Min Ch El (m)      | 589.01   | Shear (N/m2)         |         | 298.72  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1075.11 |          |
| Frctn Loss (m)     | 0.09     | Cum Volume (1000 m3) |         | 0.10    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.08    |          |

Plan: Plan 05 Cavaliere 1 RS: 28 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.98   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.75     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 589.23   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 589.43   | Flow Area (m2)       |         | 1.27    |          |
| E.G. Slope (m/m)   | 0.030611 | Area (m2)            |         | 1.27    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 5.73     | Top Width (m)        |         | 5.73    |          |
| Vel Total (m/s)    | 3.84     | Avg. Vel. (m/s)      |         | 3.84    |          |
| Max Chl Dpth (m)   | 0.22     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 27.8     | Conv. (m3/s)         |         | 27.8    |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 6.10    |          |
| Min Ch El (m)      | 589.01   | Shear (N/m2)         |         | 62.42   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 239.55  |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.32     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Cavaliere 1 RS: 27 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 589.65   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.91     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.74   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 586.11   | Flow Area (m2)       |         | 0.56    |          |
| E.G. Slope (m/m)   | 0.343598 | Area (m2)            |         | 0.56    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.55     | Top Width (m)        |         | 4.55    |          |
| Vel Total (m/s)    | 8.76     | Avg. Vel. (m/s)      |         | 8.76    |          |
| Max Chl Dpth (m)   | 0.12     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 8.3      | Conv. (m3/s)         |         | 8.3     |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 4.76    |          |
| Min Ch El (m)      | 585.62   | Shear (N/m2)         |         | 393.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3448.02 |          |
| Frctn Loss (m)     | 1.20     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.53     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Cavaliere 1 RS: 26 Profile: PF 1

| E.G. Elev (m)      | 587.93   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.15     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.78   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 586.10   | Flow Area (m2)       |         | 0.75    |          |
| E.G. Slope (m/m)   | 0.130714 | Area (m2)            |         | 0.75    |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.60     | Top Width (m)        |         | 4.60    |          |
| Vel Total (m/s)    | 6.49     | Avg. Vel. (m/s)      |         | 6.49    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 13.5     | Conv. (m3/s)         |         | 13.5    |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 4.87    |          |
| Min Ch El (m)      | 585.62   | Shear (N/m2)         |         | 197.33  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1280.79 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Cavaliere 1 RS: 25 Profile: PF 1

| E.G. Elev (m)      | 586.61   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.61   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 584.17   | Flow Area (m2)       |         | 12.99   |          |
| E.G. Slope (m/m)   | 0.000025 | Area (m2)            |         | 12.99   |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 4.91     | Top Width (m)        |         | 4.91    |          |
| Vel Total (m/s)    | 0.37     | Avg. Vel. (m/s)      |         | 0.37    |          |
| Max Chl Dpth (m)   | 2.99     | Hydr. Depth (m)      |         | 2.65    |          |
| Conv. Total (m3/s) | 975.6    | Conv. (m3/s)         |         | 975.6   |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 9.87    |          |
| Min Ch El (m)      | 583.62   | Shear (N/m2)         |         | 0.32    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.12    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Cavaliere 1 RS: 24 Profile: PF 1

| E.G. Elev (m)      | 586.61   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.61   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 584.16   | Flow Area (m2)       |         | 13.23   |          |
| E.G. Slope (m/m)   | 0.000024 | Area (m2)            |         | 13.23   |          |
| Q Total (m3/s)     | 4.87     | Flow (m3/s)          |         | 4.87    |          |
| Top Width (m)      | 5.04     | Top Width (m)        |         | 5.04    |          |
| Vel Total (m/s)    | 0.37     | Avg. Vel. (m/s)      |         | 0.37    |          |
| Max Chl Dpth (m)   | 2.99     | Hydr. Depth (m)      |         | 2.63    |          |
| Conv. Total (m3/s) | 1001.5   | Conv. (m3/s)         |         | 1001.5  |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 9.92    |          |
| Min Ch El (m)      | 583.62   | Shear (N/m2)         |         | 0.31    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.11    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Cavaliere 1 RS: 23 Profile: PF 1

| E.G. Elev (m)    | 586.61   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.04     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 586.57   | Reach Len. (m) | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)    | 584.49   | Flow Area (m2) |         | 2.95    |          |
| E.G. Slope (m/m) | 0.000044 | Area (m2)      |         | 13.06   |          |
| Q Total (m3/s)   | 2.53     | Flow (m3/s)    |         | 2.53    |          |

Plan: Plan 05 Cavaliere 1 RS: 23 Profile: PF 1 (Continued)

|                    |        |                      |  |       |  |
|--------------------|--------|----------------------|--|-------|--|
| Top Width (m)      | 5.02   | Top Width (m)        |  | 5.02  |  |
| Vel Total (m/s)    | 0.86   | Avg. Vel. (m/s)      |  | 0.86  |  |
| Max Chl Dpth (m)   | 2.95   | Hydr. Depth (m)      |  | 2.95  |  |
| Conv. Total (m3/s) | 380.1  | Conv. (m3/s)         |  | 380.1 |  |
| Length Wtd. (m)    | 2.00   | Wetted Per. (m)      |  | 1.00  |  |
| Min Ch El (m)      | 583.62 | Shear (N/m2)         |  | 1.28  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 1.10  |  |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) |  | 0.01  |  |
| C & E Loss (m)     |        | Cum SA (1000 m2)     |  | 0.01  |  |

Plan: Plan 05 Cavaliere 1 RS: 22 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 583.96   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.17     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 583.79   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 583.79   | Flow Area (m2)       |         | 1.39    |          |
| E.G. Slope (m/m)   | 0.004175 | Area (m2)            |         | 1.39    |          |
| Q Total (m3/s)     | 2.53     | Flow (m3/s)          |         | 2.53    |          |
| Top Width (m)      | 4.07     | Top Width (m)        |         | 4.07    |          |
| Vel Total (m/s)    | 1.82     | Avg. Vel. (m/s)      |         | 1.82    |          |
| Max Chl Dpth (m)   | 0.35     | Hydr. Depth (m)      |         | 0.34    |          |
| Conv. Total (m3/s) | 39.2     | Conv. (m3/s)         |         | 39.2    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.57    |          |
| Min Ch El (m)      | 583.44   | Shear (N/m2)         |         | 12.43   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 22.69   |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Donnelerio 1 RS: 53 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 638.18   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.02     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 637.16   | Reach Len. (m)       | 11.10   | 11.10   | 11.10    |
| Crit W.S. (m)      | 637.35   | Flow Area (m2)       |         | 0.48    |          |
| E.G. Slope (m/m)   | 0.495320 | Area (m2)            |         | 0.48    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 3.66     | Top Width (m)        |         | 3.66    |          |
| Vel Total (m/s)    | 4.48     | Avg. Vel. (m/s)      |         | 4.48    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 3.0      | Conv. (m3/s)         |         | 3.0     |          |
| Length Wtd. (m)    | 11.10    | Wetted Per. (m)      |         | 3.71    |          |
| Min Ch El (m)      | 637.00   | Shear (N/m2)         |         | 623.53  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2791.78 |          |
| Frctn Loss (m)     | 5.74     | Cum Volume (1000 m3) | 0.03    | 0.11    | 0.04     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.03    | 0.53    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 52 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 632.36   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.75     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 631.61   | Reach Len. (m)  | 10.20   | 10.20   | 10.20    |
| Crit W.S. (m)      | 631.75   | Flow Area (m2)  |         | 0.55    |          |
| E.G. Slope (m/m)   | 0.539553 | Area (m2)       |         | 0.55    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)     |         | 2.13    |          |
| Top Width (m)      | 5.77     | Top Width (m)   |         | 5.77    |          |
| Vel Total (m/s)    | 3.85     | Avg. Vel. (m/s) |         | 3.85    |          |
| Max Chl Dpth (m)   | 0.11     | Hydr. Depth (m) |         | 0.10    |          |
| Conv. Total (m3/s) | 2.9      | Conv. (m3/s)    |         | 2.9     |          |
| Length Wtd. (m)    | 10.20    | Wetted Per. (m) |         | 5.78    |          |
| Min Ch El (m)      | 631.50   | Shear (N/m2)    |         | 506.96  |          |

Plan: Plan 05 Donnelerio 1 RS: 52 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 1949.34 |      |
| Frctn Loss (m) | 5.17 | Cum Volume (1000 m3) | 0.03 | 0.10    | 0.04 |
| C & E Loss (m) | 0.06 | Cum SA (1000 m2)     | 0.03 | 0.48    | 0.05 |

Plan: Plan 05 Donnelerio 1 RS: 51 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 627.15   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.56     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 626.59   | Reach Len. (m)       | 13.61   | 13.61   | 13.61    |
| Crit W.S. (m)      | 626.71   | Flow Area (m2)       |         | 0.64    |          |
| E.G. Slope (m/m)   | 0.476341 | Area (m2)            |         | 0.64    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 7.66     | Top Width (m)        |         | 7.66    |          |
| Vel Total (m/s)    | 3.31     | Avg. Vel. (m/s)      |         | 3.31    |          |
| Max Chl Dpth (m)   | 0.09     | Hydr. Depth (m)      |         | 0.08    |          |
| Conv. Total (m3/s) | 3.1      | Conv. (m3/s)         |         | 3.1     |          |
| Length Wtd. (m)    | 13.61    | Wetted Per. (m)      |         | 7.68    |          |
| Min Ch EI (m)      | 626.50   | Shear (N/m2)         |         | 391.86  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1295.66 |          |
| Frctn Loss (m)     | 7.74     | Cum Volume (1000 m3) | 0.03    | 0.10    | 0.04     |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.03    | 0.41    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 50 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 619.38   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.80     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 618.59   | Reach Len. (m)       | 7.90    | 7.90    | 7.90     |
| Crit W.S. (m)      | 618.73   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.690159 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 6.45     | Top Width (m)        |         | 6.45    |          |
| Vel Total (m/s)    | 3.96     | Avg. Vel. (m/s)      |         | 3.96    |          |
| Max Chl Dpth (m)   | 0.09     | Hydr. Depth (m)      |         | 0.08    |          |
| Conv. Total (m3/s) | 2.6      | Conv. (m3/s)         |         | 2.6     |          |
| Length Wtd. (m)    | 7.90     | Wetted Per. (m)      |         | 6.48    |          |
| Min Ch EI (m)      | 618.50   | Shear (N/m2)         |         | 562.61  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2225.65 |          |
| Frctn Loss (m)     | 1.21     | Cum Volume (1000 m3) | 0.03    | 0.09    | 0.04     |
| C & E Loss (m)     | 0.16     | Cum SA (1000 m2)     | 0.03    | 0.31    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 49 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 618.01   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.26     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 617.75   | Reach Len. (m)       | 3.72    | 3.73    | 3.72     |
| Crit W.S. (m)      | 617.82   | Flow Area (m2)       |         | 0.93    |          |
| E.G. Slope (m/m)   | 0.065764 | Area (m2)            |         | 0.93    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 4.29     | Top Width (m)        |         | 4.29    |          |
| Vel Total (m/s)    | 2.28     | Avg. Vel. (m/s)      |         | 2.28    |          |
| Max Chl Dpth (m)   | 0.25     | Hydr. Depth (m)      |         | 0.22    |          |
| Conv. Total (m3/s) | 8.3      | Conv. (m3/s)         |         | 8.3     |          |
| Length Wtd. (m)    | 3.73     | Wetted Per. (m)      |         | 4.41    |          |
| Min Ch EI (m)      | 617.50   | Shear (N/m2)         |         | 136.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 311.50  |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.03    | 0.08    | 0.04     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.03    | 0.27    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 48 Profile: PF 1

| E.G. Elev (m)      | 613.79   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.23     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 613.56   | Reach Len. (m)       | 12.92   | 12.92   | 12.92    |
| Crit W.S. (m)      | 613.56   | Flow Area (m2)       |         | 1.00    |          |
| E.G. Slope (m/m)   | 0.028366 | Area (m2)            |         | 1.00    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 2.16     | Top Width (m)        |         | 2.16    |          |
| Vel Total (m/s)    | 2.14     | Avg. Vel. (m/s)      |         | 2.14    |          |
| Max Chl Dpth (m)   | 0.56     | Hydr. Depth (m)      |         | 0.46    |          |
| Conv. Total (m3/s) | 12.6     | Conv. (m3/s)         |         | 12.6    |          |
| Length Wtd. (m)    | 12.92    | Wetted Per. (m)      |         | 2.75    |          |
| Min Ch El (m)      | 613.00   | Shear (N/m2)         |         | 100.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 215.56  |          |
| Frctn Loss (m)     | 1.26     | Cum Volume (1000 m3) | 0.03    | 0.08    | 0.04     |
| C & E Loss (m)     | 0.47     | Cum SA (1000 m2)     | 0.03    | 0.26    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 47 Profile: PF 1

| E.G. Elev (m)      | 612.07   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 4.98     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 607.09   | Reach Len. (m)       | 4.82    | 4.82     | 4.82     |
| Crit W.S. (m)      | 607.41   | Flow Area (m2)       |         | 0.22     |          |
| E.G. Slope (m/m)   | 4.396863 | Area (m2)            |         | 0.22     |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13     |          |
| Top Width (m)      | 2.57     | Top Width (m)        |         | 2.57     |          |
| Vel Total (m/s)    | 9.88     | Avg. Vel. (m/s)      |         | 9.88     |          |
| Max Chl Dpth (m)   | 0.09     | Hydr. Depth (m)      |         | 0.08     |          |
| Conv. Total (m3/s) | 1.0      | Conv. (m3/s)         |         | 1.0      |          |
| Length Wtd. (m)    | 4.82     | Wetted Per. (m)      |         | 2.63     |          |
| Min Ch El (m)      | 607.00   | Shear (N/m2)         |         | 3528.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 34862.77 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.03    | 0.07     | 0.04     |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.03    | 0.23     | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 46.5 Profile: PF 1

| E.G. Elev (m)      | 607.64   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.01     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 607.63   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 607.20   | Flow Area (m2)       |         | 5.37    |          |
| E.G. Slope (m/m)   | 0.000565 | Area (m2)            |         | 5.37    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 9.45     | Top Width (m)        |         | 9.45    |          |
| Vel Total (m/s)    | 0.40     | Avg. Vel. (m/s)      |         | 0.40    |          |
| Max Chl Dpth (m)   | 0.63     | Hydr. Depth (m)      |         | 0.57    |          |
| Conv. Total (m3/s) | 89.6     | Conv. (m3/s)         |         | 89.6    |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      |         | 9.84    |          |
| Min Ch El (m)      | 607.00   | Shear (N/m2)         |         | 3.02    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1.20    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.03    | 0.05    | 0.04     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.03    | 0.20    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 46 Profile: PF 1

| E.G. Elev (m)    | 605.59   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.17     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 605.43   | Reach Len. (m) | 13.67   | 13.67   | 13.67    |
| Crit W.S. (m)    | 605.43   | Flow Area (m2) |         | 1.17    |          |
| E.G. Slope (m/m) | 0.024451 | Area (m2)      |         | 1.17    |          |
| Q Total (m3/s)   | 2.13     | Flow (m3/s)    |         | 2.13    |          |

Plan: Plan 05 Donnelerio 1 RS: 46 Profile: PF 1 (Continued)

|                    |        |                      |      |        |      |
|--------------------|--------|----------------------|------|--------|------|
| Top Width (m)      | 3.45   | Top Width (m)        |      | 3.45   |      |
| Vel Total (m/s)    | 1.82   | Avg. Vel. (m/s)      |      | 1.82   |      |
| Max Chl Dpth (m)   | 0.43   | Hydr. Depth (m)      |      | 0.34   |      |
| Conv. Total (m3/s) | 13.6   | Conv. (m3/s)         |      | 13.6   |      |
| Length Wtd. (m)    | 13.67  | Wetted Per. (m)      |      | 3.69   |      |
| Min Ch EI (m)      | 605.00 | Shear (N/m2)         |      | 76.06  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 138.31 |      |
| Frctn Loss (m)     | 1.22   | Cum Volume (1000 m3) | 0.03 | 0.05   | 0.04 |
| C & E Loss (m)     | 0.56   | Cum SA (1000 m2)     | 0.03 | 0.19   | 0.05 |

Plan: Plan 05 Donnelerio 1 RS: 45 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 603.81   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 5.75     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 598.06   | Reach Len. (m)       | 13.69   | 13.69    | 13.69    |
| Crit W.S. (m)      | 598.34   | Flow Area (m2)       |         | 0.20     |          |
| E.G. Slope (m/m)   | 7.568701 | Area (m2)            |         | 0.20     |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13     |          |
| Top Width (m)      | 3.28     | Top Width (m)        |         | 3.28     |          |
| Vel Total (m/s)    | 10.62    | Avg. Vel. (m/s)      |         | 10.62    |          |
| Max Chl Dpth (m)   | 0.06     | Hydr. Depth (m)      |         | 0.06     |          |
| Conv. Total (m3/s) | 0.8      | Conv. (m3/s)         |         | 0.8      |          |
| Length Wtd. (m)    | 13.69    | Wetted Per. (m)      |         | 3.31     |          |
| Min Ch EI (m)      | 598.00   | Shear (N/m2)         |         | 4501.42  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 47790.79 |          |
| Frctn Loss (m)     | 4.64     | Cum Volume (1000 m3) | 0.03    | 0.04     | 0.04     |
| C & E Loss (m)     | 1.62     | Cum SA (1000 m2)     | 0.03    | 0.14     | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 44 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 597.55   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.34     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 597.21   | Reach Len. (m)       | 11.71   | 11.71   | 11.71    |
| Crit W.S. (m)      | 597.32   | Flow Area (m2)       |         | 0.83    |          |
| E.G. Slope (m/m)   | 0.105900 | Area (m2)            |         | 0.83    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          |         | 2.13    |          |
| Top Width (m)      | 4.62     | Top Width (m)        |         | 4.62    |          |
| Vel Total (m/s)    | 2.57     | Avg. Vel. (m/s)      |         | 2.57    |          |
| Max Chl Dpth (m)   | 0.21     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 6.5      | Conv. (m3/s)         |         | 6.5     |          |
| Length Wtd. (m)    | 11.71    | Wetted Per. (m)      |         | 4.68    |          |
| Min Ch EI (m)      | 597.00   | Shear (N/m2)         |         | 184.11  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 472.70  |          |
| Frctn Loss (m)     | 3.86     | Cum Volume (1000 m3) | 0.03    | 0.03    | 0.04     |
| C & E Loss (m)     | 0.44     | Cum SA (1000 m2)     | 0.03    | 0.09    | 0.05     |

Plan: Plan 05 Donnelerio 1 RS: 43 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 593.26   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 4.69     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 588.57   | Reach Len. (m)  | 12.63   | 12.62   | 12.63    |
| Crit W.S. (m)      | 588.83   | Flow Area (m2)  |         | 0.22    |          |
| E.G. Slope (m/m)   | 5.900620 | Area (m2)       |         | 0.22    |          |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)     |         | 2.13    |          |
| Top Width (m)      | 3.52     | Top Width (m)   |         | 3.52    |          |
| Vel Total (m/s)    | 9.59     | Avg. Vel. (m/s) |         | 9.59    |          |
| Max Chl Dpth (m)   | 0.07     | Hydr. Depth (m) |         | 0.06    |          |
| Conv. Total (m3/s) | 0.9      | Conv. (m3/s)    |         | 0.9     |          |
| Length Wtd. (m)    | 12.62    | Wetted Per. (m) |         | 3.54    |          |
| Min Ch EI (m)      | 588.50   | Shear (N/m2)    |         | 3631.11 |          |

Plan: Plan 05 Donnelerio 1 RS: 43 Profile: PF 1 (Continued)

|                |      |                      |      |          |      |
|----------------|------|----------------------|------|----------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 34821.48 |      |
| Frctn Loss (m) | 0.00 | Cum Volume (1000 m3) | 0.03 | 0.03     | 0.04 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2)     | 0.03 | 0.04     | 0.05 |

Plan: Plan 05 Donnelerio 1 RS: 42 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 581.86   | Reach Len. (m)       | 1.99    | 1.99    | 1.99     |
| Crit W.S. (m)      | 581.14   | Flow Area (m2)       | 3.43    | 2.74    | 4.73     |
| E.G. Slope (m/m)   | 0.000097 | Area (m2)            | 3.43    | 2.74    | 4.73     |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          | 0.59    | 0.69    | 0.85     |
| Top Width (m)      | 12.01    | Top Width (m)        | 4.00    | 2.50    | 5.51     |
| Vel Total (m/s)    | 0.20     | Avg. Vel. (m/s)      | 0.17    | 0.25    | 0.18     |
| Max Chl Dpth (m)   | 1.16     | Hydr. Depth (m)      | 0.86    | 1.10    | 0.86     |
| Conv. Total (m3/s) | 216.5    | Conv. (m3/s)         | 60.5    | 69.9    | 86.1     |
| Length Wtd. (m)    | 1.99     | Wetted Per. (m)      | 4.86    | 2.67    | 6.37     |
| Min Ch El (m)      | 580.70   | Shear (N/m2)         | 0.67    | 0.98    | 0.70     |
| Alpha              | 1.09     | Stream Power (N/m s) | 0.12    | 0.24    | 0.13     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.01    | 0.01     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.01    | 0.00    | 0.01     |

Plan: Plan 05 Donnelerio 1 RS: 41 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 581.86   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 581.14   | Flow Area (m2)       | 3.43    | 2.74    | 4.73     |
| E.G. Slope (m/m)   | 0.000097 | Area (m2)            | 3.43    | 2.74    | 4.73     |
| Q Total (m3/s)     | 2.13     | Flow (m3/s)          | 0.59    | 0.69    | 0.85     |
| Top Width (m)      | 12.01    | Top Width (m)        | 4.00    | 2.50    | 5.51     |
| Vel Total (m/s)    | 0.20     | Avg. Vel. (m/s)      | 0.17    | 0.25    | 0.18     |
| Max Chl Dpth (m)   | 1.16     | Hydr. Depth (m)      | 0.86    | 1.10    | 0.86     |
| Conv. Total (m3/s) | 216.4    | Conv. (m3/s)         | 60.4    | 69.9    | 86.1     |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      | 4.86    | 2.67    | 6.37     |
| Min Ch El (m)      | 580.70   | Shear (N/m2)         | 0.67    | 0.98    | 0.70     |
| Alpha              | 1.09     | Stream Power (N/m s) | 0.12    | 0.25    | 0.13     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.00    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Donnelerio 2 RS: 40 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 581.81   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.49     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 581.32   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 581.32   | Flow Area (m2)       |         | 1.44    |          |
| E.G. Slope (m/m)   | 0.007743 | Area (m2)            |         | 1.44    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.49     | Top Width (m)        |         | 1.49    |          |
| Vel Total (m/s)    | 3.09     | Avg. Vel. (m/s)      |         | 3.09    |          |
| Max Chl Dpth (m)   | 0.97     | Hydr. Depth (m)      |         | 0.97    |          |
| Conv. Total (m3/s) | 50.8     | Conv. (m3/s)         |         | 50.8    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 3.42    |          |
| Min Ch El (m)      | 580.35   | Shear (N/m2)         |         | 32.03   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 99.10   |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     | 0.14     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Donnelerio 2 RS: 39 Profile: PF 1

| E.G. Elev (m)      | 579.88   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.03     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 579.85   | Reach Len. (m)       | 15.22   | 15.22   | 15.22    |
| Crit W.S. (m)      | 576.11   | Flow Area (m2)       |         | 6.36    |          |
| E.G. Slope (m/m)   | 0.000259 | Area (m2)            |         | 6.36    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.42     | Top Width (m)        |         | 1.42    |          |
| Vel Total (m/s)    | 0.70     | Avg. Vel. (m/s)      |         | 0.70    |          |
| Max Chl Dpth (m)   | 4.85     | Hydr. Depth (m)      |         | 4.47    |          |
| Conv. Total (m3/s) | 277.5    | Conv. (m3/s)         |         | 277.5   |          |
| Length Wtd. (m)    | 15.22    | Wetted Per. (m)      |         | 10.90   |          |
| Min Ch El (m)      | 575.00   | Shear (N/m2)         |         | 1.48    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1.04    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.04    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Donnelerio 2 RS: 38 Profile: PF 1

| E.G. Elev (m)      | 576.72   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.58     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 575.13   | Reach Len. (m)       | 1.84    | 1.84    | 1.84     |
| Crit W.S. (m)      | 575.58   | Flow Area (m2)       |         | 0.80    |          |
| E.G. Slope (m/m)   | 0.033881 | Area (m2)            |         | 0.80    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.39     | Top Width (m)        |         | 1.39    |          |
| Vel Total (m/s)    | 5.57     | Avg. Vel. (m/s)      |         | 5.57    |          |
| Max Chl Dpth (m)   | 0.73     | Hydr. Depth (m)      |         | 0.58    |          |
| Conv. Total (m3/s) | 24.3     | Conv. (m3/s)         |         | 24.3    |          |
| Length Wtd. (m)    | 1.84     | Wetted Per. (m)      |         | 2.38    |          |
| Min Ch El (m)      | 574.40   | Shear (N/m2)         |         | 111.97  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 623.83  |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Plan 05 Donnelerio 2 RS: 37 Profile: PF 1

| E.G. Elev (m)      | 576.60   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.03     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 574.57   | Reach Len. (m)       | 9.85    | 9.85    | 9.85     |
| Crit W.S. (m)      | 575.10   | Flow Area (m2)       |         | 0.71    |          |
| E.G. Slope (m/m)   | 0.047196 | Area (m2)            |         | 0.71    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.37     | Top Width (m)        |         | 1.37    |          |
| Vel Total (m/s)    | 6.31     | Avg. Vel. (m/s)      |         | 6.31    |          |
| Max Chl Dpth (m)   | 0.63     | Hydr. Depth (m)      |         | 0.52    |          |
| Conv. Total (m3/s) | 20.6     | Conv. (m3/s)         |         | 20.6    |          |
| Length Wtd. (m)    | 9.85     | Wetted Per. (m)      |         | 2.23    |          |
| Min Ch El (m)      | 573.94   | Shear (N/m2)         |         | 146.69  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 925.89  |          |
| Frctn Loss (m)     | 0.50     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Donnelerio 2 RS: 36 Profile: PF 1

| E.G. Elev (m)    | 576.07   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 2.29     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 573.78   | Reach Len. (m) | 22.64   | 22.64   | 22.64    |
| Crit W.S. (m)    | 574.34   | Flow Area (m2) |         | 0.67    |          |
| E.G. Slope (m/m) | 0.055437 | Area (m2)      |         | 0.67    |          |
| Q Total (m3/s)   | 4.47     | Flow (m3/s)    |         | 4.47    |          |

Plan: Plan 05 Donnelerio 2 RS: 36 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 1.34   | Top Width (m)        |  | 1.34    |  |
| Vel Total (m/s)    | 6.70   | Avg. Vel. (m/s)      |  | 6.70    |  |
| Max Chl Dpth (m)   | 0.60   | Hydr. Depth (m)      |  | 0.50    |  |
| Conv. Total (m3/s) | 19.0   | Conv. (m3/s)         |  | 19.0    |  |
| Length Wtd. (m)    | 22.64  | Wetted Per. (m)      |  | 2.17    |  |
| Min Ch EI (m)      | 573.18 | Shear (N/m2)         |  | 167.09  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 1119.84 |  |
| Frctn Loss (m)     | 1.66   | Cum Volume (1000 m3) |  | 0.01    |  |
| C & E Loss (m)     | 0.13   | Cum SA (1000 m2)     |  | 0.03    |  |

Plan: Plan 05 Donnelerio 2 RS: 35 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 574.28   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.57     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 570.71   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 571.38   | Flow Area (m2)       |         | 0.53    |          |
| E.G. Slope (m/m)   | 0.100862 | Area (m2)            |         | 0.53    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.26     | Top Width (m)        |         | 1.26    |          |
| Vel Total (m/s)    | 8.37     | Avg. Vel. (m/s)      |         | 8.37    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m)      |         | 0.42    |          |
| Conv. Total (m3/s) | 14.1     | Conv. (m3/s)         |         | 14.1    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.95    |          |
| Min Ch EI (m)      | 570.22   | Shear (N/m2)         |         | 270.64  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2264.12 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.35     | Cum SA (1000 m2)     |         | 0.00    |          |

Plan: Plan 05 Donnelerio 2 RS: 34 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 573.91   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 7.11     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 566.80   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 567.58   | Flow Area (m2)       |         | 0.38    |          |
| E.G. Slope (m/m)   | 0.260274 | Area (m2)            |         | 0.38    |          |
| Q Total (m3/s)     | 4.47     | Flow (m3/s)          |         | 4.47    |          |
| Top Width (m)      | 1.18     | Top Width (m)        |         | 1.18    |          |
| Vel Total (m/s)    | 11.81    | Avg. Vel. (m/s)      |         | 11.81   |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 8.8      | Conv. (m3/s)         |         | 8.8     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.68    |          |
| Min Ch EI (m)      | 566.44   | Shear (N/m2)         |         | 575.12  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6790.44 |          |
| Frctn Loss (m)     | 0.03     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Donnelerio 3 RS: 6.200 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 573.82   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 7.74     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 566.09   | Reach Len. (m)  | 6.50    | 6.50    | 6.50     |
| Crit W.S. (m)      | 567.45   | Flow Area (m2)  |         | 0.42    |          |
| E.G. Slope (m/m)   | 0.277318 | Area (m2)       |         | 0.42    |          |
| Q Total (m3/s)     | 5.15     | Flow (m3/s)     |         | 5.15    |          |
| Top Width (m)      | 0.94     | Top Width (m)   |         | 0.94    |          |
| Vel Total (m/s)    | 12.32    | Avg. Vel. (m/s) |         | 12.32   |          |
| Max Chl Dpth (m)   | 0.45     | Hydr. Depth (m) |         | 0.45    |          |
| Conv. Total (m3/s) | 9.8      | Conv. (m3/s)    |         | 9.8     |          |
| Length Wtd. (m)    | 6.50     | Wetted Per. (m) |         | 1.83    |          |
| Min Ch EI (m)      | 565.64   | Shear (N/m2)    |         | 622.62  |          |

Plan: Plan 05 Donnelerio 3 RS: 6.200 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 7669.06 |  |
| Frctn Loss (m) | 1.65 | Cum Volume (1000 m3) |  | 0.00    |  |
| C & E Loss (m) | 0.29 | Cum SA (1000 m2)     |  | 0.01    |  |

Plan: Plan 05 Donnelerio 3 RS: 6.100 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 571.89   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 6.77     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 565.12   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 566.45   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.232044 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 5.15     | Flow (m3/s)          |         | 5.15    |          |
| Top Width (m)      | 0.94     | Top Width (m)        |         | 0.94    |          |
| Vel Total (m/s)    | 11.52    | Avg. Vel. (m/s)      |         | 11.52   |          |
| Max Chl Dpth (m)   | 0.48     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 10.7     | Conv. (m3/s)         |         | 10.7    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 1.89    |          |
| Min Ch EI (m)      | 564.64   | Shear (N/m2)         |         | 538.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6207.57 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6070 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 588.34   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.67     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 587.67   | Reach Len. (m)       | 11.90   | 11.90   | 11.90    |
| Crit W.S. (m)      | 587.85   | Flow Area (m2)       |         | 0.19    |          |
| E.G. Slope (m/m)   | 0.045040 | Area (m2)            |         | 0.19    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 1.04     | Top Width (m)        |         | 1.04    |          |
| Vel Total (m/s)    | 3.63     | Avg. Vel. (m/s)      |         | 3.63    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 11.90    | Wetted Per. (m)      |         | 1.31    |          |
| Min Ch EI (m)      | 587.48   | Shear (N/m2)         |         | 63.15   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 229.03  |          |
| Frctn Loss (m)     | 0.54     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.10    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6060 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 587.81   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.68     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 587.13   | Reach Len. (m)       | 11.90   | 11.90   | 11.90    |
| Crit W.S. (m)      | 587.31   | Flow Area (m2)       |         | 0.19    |          |
| E.G. Slope (m/m)   | 0.045704 | Area (m2)            |         | 0.19    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 1.04     | Top Width (m)        |         | 1.04    |          |
| Vel Total (m/s)    | 3.64     | Avg. Vel. (m/s)      |         | 3.64    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 11.90    | Wetted Per. (m)      |         | 1.31    |          |
| Min Ch EI (m)      | 586.94   | Shear (N/m2)         |         | 63.86   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 232.74  |          |
| Frctn Loss (m)     | 0.93     | Cum Volume (1000 m3) |         | 0.02    |          |
| C & E Loss (m)     | 0.09     | Cum SA (1000 m2)     |         | 0.09    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6050 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.78   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.60     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 585.19   | Reach Len. (m)       | 25.69   | 25.69   | 25.69    |
| Crit W.S. (m)      | 585.43   | Flow Area (m2)       |         | 0.12    |          |
| E.G. Slope (m/m)   | 0.164739 | Area (m2)            |         | 0.12    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.99     | Top Width (m)        |         | 0.99    |          |
| Vel Total (m/s)    | 5.60     | Avg. Vel. (m/s)      |         | 5.60    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 1.7      | Conv. (m3/s)         |         | 1.7     |          |
| Length Wtd. (m)    | 25.69    | Wetted Per. (m)      |         | 1.17    |          |
| Min Ch El (m)      | 585.06   | Shear (N/m2)         |         | 167.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 936.28  |          |
| Frctn Loss (m)     | 4.55     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         | 0.08    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6040 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 582.22   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.76     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 580.46   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 580.71   | Flow Area (m2)       |         | 0.12    |          |
| E.G. Slope (m/m)   | 0.190766 | Area (m2)            |         | 0.12    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.99     | Top Width (m)        |         | 0.99    |          |
| Vel Total (m/s)    | 5.87     | Avg. Vel. (m/s)      |         | 5.87    |          |
| Max Chl Dpth (m)   | 0.12     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 1.6      | Conv. (m3/s)         |         | 1.6     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 1.16    |          |
| Min Ch El (m)      | 580.34   | Shear (N/m2)         |         | 186.61  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1095.67 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 577.37   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.20     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 577.17   | Reach Len. (m)       | 16.99   | 16.99   | 16.99    |
| Crit W.S. (m)      | 577.17   | Flow Area (m2)       |         | 0.34    |          |
| E.G. Slope (m/m)   | 0.007713 | Area (m2)            |         | 0.34    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.86     | Top Width (m)        |         | 0.86    |          |
| Vel Total (m/s)    | 1.98     | Avg. Vel. (m/s)      |         | 1.98    |          |
| Max Chl Dpth (m)   | 0.55     | Hydr. Depth (m)      |         | 0.40    |          |
| Conv. Total (m3/s) | 7.7      | Conv. (m3/s)         |         | 7.7     |          |
| Length Wtd. (m)    | 16.99    | Wetted Per. (m)      |         | 1.58    |          |
| Min Ch El (m)      | 576.62   | Shear (N/m2)         |         | 16.39   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 32.45   |          |
| Frctn Loss (m)     | 0.41     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.39     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6020 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 576.57   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 4.05     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 572.52   | Reach Len. (m) | 40.78   | 40.78   | 40.78    |
| Crit W.S. (m)    | 572.91   | Flow Area (m2) |         | 0.08    |          |
| E.G. Slope (m/m) | 0.430928 | Area (m2)      |         | 0.08    |          |
| Q Total (m3/s)   | 0.68     | Flow (m3/s)    |         | 0.68    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6020 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 0.54   | Top Width (m)        |  | 0.54    |  |
| Vel Total (m/s)    | 8.91   | Avg. Vel. (m/s)      |  | 8.91    |  |
| Max Chl Dpth (m)   | 0.16   | Hydr. Depth (m)      |  | 0.14    |  |
| Conv. Total (m3/s) | 1.0    | Conv. (m3/s)         |  | 1.0     |  |
| Length Wtd. (m)    | 40.78  | Wetted Per. (m)      |  | 0.75    |  |
| Min Ch El (m)      | 572.36 | Shear (N/m2)         |  | 427.95  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 3814.70 |  |
| Frctn Loss (m)     | 5.01   | Cum Volume (1000 m3) |  | 0.01    |  |
| C & E Loss (m)     | 0.94   | Cum SA (1000 m2)     |  | 0.04    |  |

Plan: Plan 05 Fosso Guardia 1 RS: 6010 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 570.62   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.92     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 569.70   | Reach Len. (m)       | 22.82   | 22.82   | 22.82    |
| Crit W.S. (m)      | 569.95   | Flow Area (m2)       |         | 0.16    |          |
| E.G. Slope (m/m)   | 0.057214 | Area (m2)            |         | 0.16    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.65     | Top Width (m)        |         | 0.65    |          |
| Vel Total (m/s)    | 4.24     | Avg. Vel. (m/s)      |         | 4.24    |          |
| Max Chl Dpth (m)   | 0.30     | Hydr. Depth (m)      |         | 0.25    |          |
| Conv. Total (m3/s) | 2.8      | Conv. (m3/s)         |         | 2.8     |          |
| Length Wtd. (m)    | 22.82    | Wetted Per. (m)      |         | 1.06    |          |
| Min Ch El (m)      | 569.40   | Shear (N/m2)         |         | 84.88   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 360.26  |          |
| Frctn Loss (m)     | 1.99     | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     | 0.10     | Cum SA (1000 m2)     |         | 0.01    |          |

Plan: Plan 05 Fosso Guardia 1 RS: 6000 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 568.54   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.87     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 566.67   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 566.99   | Flow Area (m2)       |         | 0.11    |          |
| E.G. Slope (m/m)   | 0.149162 | Area (m2)            |         | 0.11    |          |
| Q Total (m3/s)     | 0.68     | Flow (m3/s)          |         | 0.68    |          |
| Top Width (m)      | 0.59     | Top Width (m)        |         | 0.59    |          |
| Vel Total (m/s)    | 6.06     | Avg. Vel. (m/s)      |         | 6.06    |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.19    |          |
| Conv. Total (m3/s) | 1.8      | Conv. (m3/s)         |         | 1.8     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 0.89    |          |
| Min Ch El (m)      | 566.44   | Shear (N/m2)         |         | 184.06  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1115.66 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.00    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Giacco 1 RS: 16 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 594.70   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.99     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 592.71   | Reach Len. (m)  | 10.53   | 10.53   | 10.53    |
| Crit W.S. (m)      | 593.22   | Flow Area (m2)  |         | 1.54    |          |
| E.G. Slope (m/m)   | 0.190292 | Area (m2)       |         | 1.54    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)     |         | 9.64    |          |
| Top Width (m)      | 2.93     | Top Width (m)   |         | 2.93    |          |
| Vel Total (m/s)    | 6.25     | Avg. Vel. (m/s) |         | 6.25    |          |
| Max Chl Dpth (m)   | 0.71     | Hydr. Depth (m) |         | 0.53    |          |
| Conv. Total (m3/s) | 22.1     | Conv. (m3/s)    |         | 22.1    |          |
| Length Wtd. (m)    | 10.53    | Wetted Per. (m) |         | 3.56    |          |
| Min Ch El (m)      | 592.00   | Shear (N/m2)    |         | 808.77  |          |

Plan: Plan 05 Giacco 1 RS: 16 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 5051.26 |      |
| Frctn Loss (m) | 2.14 | Cum Volume (1000 m3) | 0.01 | 0.37    | 0.02 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     | 0.04 | 0.89    | 0.07 |

Plan: Plan 05 Giacco 1 RS: 15 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 592.56   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.01     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 590.55   | Reach Len. (m)       | 9.25    | 9.25    | 9.25     |
| Crit W.S. (m)      | 591.03   | Flow Area (m2)       |         | 1.53    |          |
| E.G. Slope (m/m)   | 0.217406 | Area (m2)            |         | 1.53    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.43     | Top Width (m)        |         | 3.43    |          |
| Vel Total (m/s)    | 6.28     | Avg. Vel. (m/s)      |         | 6.28    |          |
| Max Chl Dpth (m)   | 0.55     | Hydr. Depth (m)      |         | 0.45    |          |
| Conv. Total (m3/s) | 20.7     | Conv. (m3/s)         |         | 20.7    |          |
| Length Wtd. (m)    | 9.25     | Wetted Per. (m)      |         | 3.88    |          |
| Min Ch El (m)      | 590.00   | Shear (N/m2)         |         | 843.52  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5299.24 |          |
| Frctn Loss (m)     | 2.24     | Cum Volume (1000 m3) | 0.01    | 0.36    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.04    | 0.85    | 0.07     |

Plan: Plan 05 Giacco 1 RS: 14 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 590.27   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.86     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 588.41   | Reach Len. (m)       | 9.63    | 9.63    | 9.63     |
| Crit W.S. (m)      | 588.82   | Flow Area (m2)       |         | 1.59    |          |
| E.G. Slope (m/m)   | 0.271506 | Area (m2)            |         | 1.59    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 4.88     | Top Width (m)        |         | 4.88    |          |
| Vel Total (m/s)    | 6.05     | Avg. Vel. (m/s)      |         | 6.05    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 18.5     | Conv. (m3/s)         |         | 18.5    |          |
| Length Wtd. (m)    | 9.63     | Wetted Per. (m)      |         | 5.04    |          |
| Min Ch El (m)      | 588.00   | Shear (N/m2)         |         | 841.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5088.00 |          |
| Frctn Loss (m)     | 1.58     | Cum Volume (1000 m3) | 0.01    | 0.34    | 0.02     |
| C & E Loss (m)     | 0.40     | Cum SA (1000 m2)     | 0.04    | 0.81    | 0.07     |

Plan: Plan 05 Giacco 1 RS: 13 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 588.29   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 587.76   | Reach Len. (m)       | 14.74   | 14.74   | 14.74    |
| Crit W.S. (m)      | 587.92   | Flow Area (m2)       |         | 2.97    |          |
| E.G. Slope (m/m)   | 0.109706 | Area (m2)            |         | 2.97    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 11.98    | Top Width (m)        |         | 11.98   |          |
| Vel Total (m/s)    | 3.24     | Avg. Vel. (m/s)      |         | 3.24    |          |
| Max Chl Dpth (m)   | 0.26     | Hydr. Depth (m)      |         | 0.25    |          |
| Conv. Total (m3/s) | 29.1     | Conv. (m3/s)         |         | 29.1    |          |
| Length Wtd. (m)    | 14.74    | Wetted Per. (m)      |         | 12.14   |          |
| Min Ch El (m)      | 587.50   | Shear (N/m2)         |         | 263.59  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 854.61  |          |
| Frctn Loss (m)     | 1.95     | Cum Volume (1000 m3) | 0.01    | 0.32    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.04    | 0.73    | 0.07     |

Plan: Plan 05 Giacco 1 RS: 12 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.31   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.93     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 585.37   | Reach Len. (m)       | 19.23   | 19.23   | 19.23    |
| Crit W.S. (m)      | 585.62   | Flow Area (m2)       |         | 2.25    |          |
| E.G. Slope (m/m)   | 0.162302 | Area (m2)            |         | 2.25    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 8.05     | Top Width (m)        |         | 8.05    |          |
| Vel Total (m/s)    | 4.28     | Avg. Vel. (m/s)      |         | 4.28    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 23.9     | Conv. (m3/s)         |         | 23.9    |          |
| Length Wtd. (m)    | 19.23    | Wetted Per. (m)      |         | 8.14    |          |
| Min Ch El (m)      | 585.00   | Shear (N/m2)         |         | 440.46  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1883.91 |          |
| Frctn Loss (m)     | 2.05     | Cum Volume (1000 m3) | 0.01    | 0.28    | 0.02     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.04    | 0.59    | 0.07     |

Plan: Plan 05 Giacco 1 RS: 11 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 584.21   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.31     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 582.90   | Reach Len. (m)       | 18.62   | 18.62   | 18.62    |
| Crit W.S. (m)      | 583.33   | Flow Area (m2)       | 0.06    | 1.74    | 0.25     |
| E.G. Slope (m/m)   | 0.075636 | Area (m2)            | 0.06    | 1.74    | 0.25     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.08    | 9.05    | 0.51     |
| Top Width (m)      | 3.70     | Top Width (m)        | 0.28    | 2.17    | 1.25     |
| Vel Total (m/s)    | 4.72     | Avg. Vel. (m/s)      | 1.45    | 5.21    | 2.03     |
| Max Chl Dpth (m)   | 0.90     | Hydr. Depth (m)      | 0.20    | 0.80    | 0.20     |
| Conv. Total (m3/s) | 35.1     | Conv. (m3/s)         | 0.3     | 32.9    | 1.9      |
| Length Wtd. (m)    | 18.62    | Wetted Per. (m)      | 0.49    | 2.63    | 1.31     |
| Min Ch El (m)      | 582.00   | Shear (N/m2)         | 85.58   | 489.62  | 142.09   |
| Alpha              | 1.16     | Stream Power (N/m s) | 123.97  | 2552.20 | 288.57   |
| Frctn Loss (m)     | 2.93     | Cum Volume (1000 m3) | 0.01    | 0.25    | 0.01     |
| C & E Loss (m)     | 0.19     | Cum SA (1000 m2)     | 0.03    | 0.49    | 0.05     |

Plan: Plan 05 Giacco 1 RS: 10 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 581.10   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.24     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 577.86   | Reach Len. (m)       | 13.58   | 13.59    | 13.58    |
| Crit W.S. (m)      | 578.41   | Flow Area (m2)       |         | 1.21     |          |
| E.G. Slope (m/m)   | 0.504749 | Area (m2)            |         | 1.21     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 3.74     | Top Width (m)        |         | 3.74     |          |
| Vel Total (m/s)    | 7.97     | Avg. Vel. (m/s)      |         | 7.97     |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.32     |          |
| Conv. Total (m3/s) | 13.6     | Conv. (m3/s)         |         | 13.6     |          |
| Length Wtd. (m)    | 13.59    | Wetted Per. (m)      |         | 4.03     |          |
| Min Ch El (m)      | 577.50   | Shear (N/m2)         |         | 1486.75  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 11843.62 |          |
| Frctn Loss (m)     | 3.24     | Cum Volume (1000 m3) | 0.01    | 0.22     | 0.01     |
| C & E Loss (m)     | 0.61     | Cum SA (1000 m2)     | 0.03    | 0.43     | 0.04     |

Plan: Plan 05 Giacco 1 RS: 9 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 577.24   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 1.19     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 576.05   | Reach Len. (m) | 10.04   | 10.04   | 10.04    |
| Crit W.S. (m)    | 576.38   | Flow Area (m2) |         | 1.99    |          |
| E.G. Slope (m/m) | 0.138578 | Area (m2)      |         | 1.99    |          |
| Q Total (m3/s)   | 9.64     | Flow (m3/s)    |         | 9.64    |          |

Plan: Plan 05 Giacco 1 RS: 9 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 5.09   | Top Width (m)        |      | 5.09    |      |
| Vel Total (m/s)    | 4.84   | Avg. Vel. (m/s)      |      | 4.84    |      |
| Max Chl Dpth (m)   | 0.55   | Hydr. Depth (m)      |      | 0.39    |      |
| Conv. Total (m3/s) | 25.9   | Conv. (m3/s)         |      | 25.9    |      |
| Length Wtd. (m)    | 10.04  | Wetted Per. (m)      |      | 5.32    |      |
| Min Ch El (m)      | 575.50 | Shear (N/m2)         |      | 509.15  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2462.58 |      |
| Frctn Loss (m)     | 1.29   | Cum Volume (1000 m3) | 0.01 | 0.20    | 0.01 |
| C & E Loss (m)     | 0.07   | Cum SA (1000 m2)     | 0.03 | 0.37    | 0.04 |

Plan: Plan 05 Giacco 1 RS: 8 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 575.88   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 574.92   | Reach Len. (m)       | 10.90   | 10.90   | 10.90    |
| Crit W.S. (m)      | 575.20   | Flow Area (m2)       |         | 2.23    |          |
| E.G. Slope (m/m)   | 0.119591 | Area (m2)            |         | 2.23    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 6.08     | Top Width (m)        |         | 6.08    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.42     | Hydr. Depth (m)      |         | 0.37    |          |
| Conv. Total (m3/s) | 27.9     | Conv. (m3/s)         |         | 27.9    |          |
| Length Wtd. (m)    | 10.90    | Wetted Per. (m)      |         | 6.29    |          |
| Min Ch El (m)      | 574.50   | Shear (N/m2)         |         | 415.40  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1797.85 |          |
| Frctn Loss (m)     | 1.39     | Cum Volume (1000 m3) | 0.01    | 0.17    | 0.01     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.03    | 0.32    | 0.04     |

Plan: Plan 05 Giacco 1 RS: 7 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 574.45   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.36     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 573.09   | Reach Len. (m)       | 7.04    | 7.04    | 7.04     |
| Crit W.S. (m)      | 573.48   | Flow Area (m2)       | 0.01    | 1.86    | 0.03     |
| E.G. Slope (m/m)   | 0.137032 | Area (m2)            | 0.01    | 1.86    | 0.03     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.00    | 9.60    | 0.03     |
| Top Width (m)      | 5.06     | Top Width (m)        | 0.11    | 4.27    | 0.68     |
| Vel Total (m/s)    | 5.09     | Avg. Vel. (m/s)      | 0.89    | 5.17    | 1.06     |
| Max Chl Dpth (m)   | 0.59     | Hydr. Depth (m)      | 0.05    | 0.44    | 0.05     |
| Conv. Total (m3/s) | 26.0     | Conv. (m3/s)         | 0.0     | 25.9    | 0.1      |
| Length Wtd. (m)    | 7.04     | Wetted Per. (m)      | 0.15    | 4.45    | 0.69     |
| Min Ch El (m)      | 572.50   | Shear (N/m2)         | 48.10   | 560.80  | 62.46    |
| Alpha              | 1.03     | Stream Power (N/m s) | 42.97   | 2898.27 | 66.42    |
| Frctn Loss (m)     | 1.25     | Cum Volume (1000 m3) | 0.01    | 0.15    | 0.01     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.03    | 0.26    | 0.04     |

Plan: Plan 05 Giacco 1 RS: 6 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 573.13   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.11     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 571.02   | Reach Len. (m)  | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 571.52   | Flow Area (m2)  |         | 1.50    |          |
| E.G. Slope (m/m)   | 0.236953 | Area (m2)       |         | 1.50    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)     |         | 9.64    |          |
| Top Width (m)      | 3.56     | Top Width (m)   |         | 3.56    |          |
| Vel Total (m/s)    | 6.43     | Avg. Vel. (m/s) |         | 6.43    |          |
| Max Chl Dpth (m)   | 0.53     | Hydr. Depth (m) |         | 0.42    |          |
| Conv. Total (m3/s) | 19.8     | Conv. (m3/s)    |         | 19.8    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m) |         | 3.90    |          |
| Min Ch El (m)      | 570.49   | Shear (N/m2)    |         | 892.68  |          |

Plan: Plan 05 Giacco 1 RS: 6 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 5740.91 |      |
| Frctn Loss (m) | 0.04 | Cum Volume (1000 m3) | 0.01 | 0.14    | 0.01 |
| C & E Loss (m) | 0.27 | Cum SA (1000 m2)     | 0.03 | 0.23    | 0.04 |

Plan: Plan 05 Giacco 1 RS: 5.96 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 572.82   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 4.77     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 568.05   | Reach Len. (m)       | 1.65    | 1.65     | 1.65     |
| Crit W.S. (m)      | 568.74   | Flow Area (m2)       |         | 1.00     |          |
| E.G. Slope (m/m)   | 0.705538 | Area (m2)            |         | 1.00     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 2.82     | Top Width (m)        |         | 2.82     |          |
| Vel Total (m/s)    | 9.67     | Avg. Vel. (m/s)      |         | 9.67     |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.35     |          |
| Conv. Total (m3/s) | 11.5     | Conv. (m3/s)         |         | 11.5     |          |
| Length Wtd. (m)    | 1.65     | Wetted Per. (m)      |         | 3.19     |          |
| Min Ch EI (m)      | 567.65   | Shear (N/m2)         |         | 2162.91  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 20920.74 |          |
| Frctn Loss (m)     | 0.90     | Cum Volume (1000 m3) | 0.01    | 0.14     | 0.01     |
| C & E Loss (m)     | 0.41     | Cum SA (1000 m2)     | 0.03    | 0.23     | 0.04     |

Plan: Plan 05 Giacco 1 RS: 5.95 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 571.52   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.40     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 568.12   | Reach Len. (m)       | 0.10    | 0.10     | 0.10     |
| Crit W.S. (m)      | 568.74   | Flow Area (m2)       |         | 1.18     |          |
| E.G. Slope (m/m)   | 0.430296 | Area (m2)            |         | 1.18     |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64     |          |
| Top Width (m)      | 2.92     | Top Width (m)        |         | 2.92     |          |
| Vel Total (m/s)    | 8.17     | Avg. Vel. (m/s)      |         | 8.17     |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.40     |          |
| Conv. Total (m3/s) | 14.7     | Conv. (m3/s)         |         | 14.7     |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 3.36     |          |
| Min Ch EI (m)      | 567.65   | Shear (N/m2)         |         | 1483.72  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 12121.54 |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.14     | 0.01     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.03    | 0.23     | 0.04     |

Plan: Plan 05 Giacco 1 RS: 5.91 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 569.58   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 569.56   | Reach Len. (m)       | 3.70    | 3.70    | 3.70     |
| Crit W.S. (m)      | 567.39   | Flow Area (m2)       | 1.24    | 13.30   | 2.66     |
| E.G. Slope (m/m)   | 0.000236 | Area (m2)            | 1.24    | 13.30   | 2.66     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.29    | 8.63    | 0.73     |
| Top Width (m)      | 9.24     | Top Width (m)        | 1.37    | 4.67    | 3.20     |
| Vel Total (m/s)    | 0.56     | Avg. Vel. (m/s)      | 0.23    | 0.65    | 0.27     |
| Max Chl Dpth (m)   | 3.26     | Hydr. Depth (m)      | 0.90    | 2.85    | 0.83     |
| Conv. Total (m3/s) | 627.5    | Conv. (m3/s)         | 18.6    | 561.5   | 47.5     |
| Length Wtd. (m)    | 3.70     | Wetted Per. (m)      | 2.23    | 6.06    | 3.70     |
| Min Ch EI (m)      | 566.30   | Shear (N/m2)         | 1.28    | 5.08    | 1.66     |
| Alpha              | 1.22     | Stream Power (N/m s) | 0.30    | 3.29    | 0.46     |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.01    | 0.14    | 0.01     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.03    | 0.23    | 0.04     |

Plan: Plan 05 Giacco 1 RS: 5.9 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 569.58   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 569.56   | Reach Len. (m)       | 15.00   | 15.00   | 15.00    |
| Crit W.S. (m)      | 567.39   | Flow Area (m2)       | 1.24    | 13.30   | 2.66     |
| E.G. Slope (m/m)   | 0.000236 | Area (m2)            | 1.24    | 13.30   | 2.66     |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 0.29    | 8.63    | 0.73     |
| Top Width (m)      | 9.24     | Top Width (m)        | 1.37    | 4.67    | 3.20     |
| Vel Total (m/s)    | 0.56     | Avg. Vel. (m/s)      | 0.23    | 0.65    | 0.27     |
| Max Chl Dpth (m)   | 3.26     | Hydr. Depth (m)      | 0.90    | 2.85    | 0.83     |
| Conv. Total (m3/s) | 627.2    | Conv. (m3/s)         | 18.6    | 561.2   | 47.4     |
| Length Wtd. (m)    | 15.00    | Wetted Per. (m)      | 2.23    | 6.06    | 3.70     |
| Min Ch El (m)      | 566.30   | Shear (N/m2)         | 1.29    | 5.08    | 1.67     |
| Alpha              | 1.22     | Stream Power (N/m s) | 0.30    | 3.30    | 0.46     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.09    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.02    | 0.21    | 0.02     |

Plan: Plan 05 Giacco 1 RS: 5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 567.24   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.94     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 566.30   | Reach Len. (m)       | 7.81    | 7.81    | 7.81     |
| Crit W.S. (m)      | 566.59   | Flow Area (m2)       |         | 2.24    |          |
| E.G. Slope (m/m)   | 0.068802 | Area (m2)            |         | 2.24    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.47     | Top Width (m)        |         | 3.47    |          |
| Vel Total (m/s)    | 4.30     | Avg. Vel. (m/s)      |         | 4.30    |          |
| Max Chl Dpth (m)   | 0.80     | Hydr. Depth (m)      |         | 0.65    |          |
| Conv. Total (m3/s) | 36.8     | Conv. (m3/s)         |         | 36.8    |          |
| Length Wtd. (m)    | 7.81     | Wetted Per. (m)      |         | 4.21    |          |
| Min Ch El (m)      | 565.50   | Shear (N/m2)         |         | 358.64  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1543.22 |          |
| Frctn Loss (m)     | 0.59     | Cum Volume (1000 m3) | 0.00    | 0.06    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.01    | 0.15    |          |

Plan: Plan 05 Giacco 1 RS: 4 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 566.64   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.14     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 565.50   | Reach Len. (m)       | 6.98    | 6.98    | 6.98     |
| Crit W.S. (m)      | 565.86   | Flow Area (m2)       |         | 2.04    |          |
| E.G. Slope (m/m)   | 0.083560 | Area (m2)            |         | 2.04    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 3.01     | Top Width (m)        |         | 3.01    |          |
| Vel Total (m/s)    | 4.72     | Avg. Vel. (m/s)      |         | 4.72    |          |
| Max Chl Dpth (m)   | 1.00     | Hydr. Depth (m)      |         | 0.68    |          |
| Conv. Total (m3/s) | 33.3     | Conv. (m3/s)         |         | 33.3    |          |
| Length Wtd. (m)    | 6.98     | Wetted Per. (m)      |         | 3.87    |          |
| Min Ch El (m)      | 564.50   | Shear (N/m2)         |         | 432.76  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2043.32 |          |
| Frctn Loss (m)     | 0.86     | Cum Volume (1000 m3) | 0.00    | 0.05    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.01    | 0.12    |          |

Plan: Plan 05 Giacco 1 RS: 3 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 565.77   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 1.28     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 564.49   | Reach Len. (m) | 6.55    | 6.55    | 6.55     |
| Crit W.S. (m)    | 564.81   | Flow Area (m2) |         | 1.93    |          |
| E.G. Slope (m/m) | 0.198130 | Area (m2)      |         | 1.93    |          |
| Q Total (m3/s)   | 9.64     | Flow (m3/s)    |         | 9.64    |          |

Plan: Plan 05 Giacco 1 RS: 3 Profile: PF 1 (Continued)

|                    |        |                      |      |         |  |
|--------------------|--------|----------------------|------|---------|--|
| Top Width (m)      | 6.09   | Top Width (m)        |      | 6.09    |  |
| Vel Total (m/s)    | 5.00   | Avg. Vel. (m/s)      |      | 5.00    |  |
| Max Chl Dpth (m)   | 0.49   | Hydr. Depth (m)      |      | 0.32    |  |
| Conv. Total (m3/s) | 21.7   | Conv. (m3/s)         |      | 21.7    |  |
| Length Wtd. (m)    | 6.55   | Wetted Per. (m)      |      | 6.39    |  |
| Min Ch El (m)      | 564.00 | Shear (N/m2)         |      | 585.59  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2929.32 |  |
| Frctn Loss (m)     | 0.61   | Cum Volume (1000 m3) | 0.00 | 0.03    |  |
| C & E Loss (m)     | 0.27   | Cum SA (1000 m2)     | 0.01 | 0.09    |  |

Plan: Plan 05 Giacco 1 RS: 2 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 564.89   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.37     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 564.51   | Reach Len. (m)       | 5.24    | 5.24    | 5.24     |
| Crit W.S. (m)      | 564.62   | Flow Area (m2)       |         | 3.56    |          |
| E.G. Slope (m/m)   | 0.053951 | Area (m2)            |         | 3.56    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          |         | 9.64    |          |
| Top Width (m)      | 11.09    | Top Width (m)        |         | 11.09   |          |
| Vel Total (m/s)    | 2.71     | Avg. Vel. (m/s)      |         | 2.71    |          |
| Max Chl Dpth (m)   | 0.51     | Hydr. Depth (m)      |         | 0.32    |          |
| Conv. Total (m3/s) | 41.5     | Conv. (m3/s)         |         | 41.5    |          |
| Length Wtd. (m)    | 5.24     | Wetted Per. (m)      |         | 11.19   |          |
| Min Ch El (m)      | 564.00   | Shear (N/m2)         |         | 168.42  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 455.96  |          |
| Frctn Loss (m)     | 0.27     | Cum Volume (1000 m3) | 0.00    | 0.01    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     | 0.01    | 0.04    |          |

Plan: Plan 05 Giacco 1 RS: 1 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 564.59   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.62     | Wt. n-Val.           | 0.045   | 0.040   |          |
| W.S. Elev (m)      | 563.97   | Reach Len. (m)       | 0.00    | 0.00    | 0.00     |
| Crit W.S. (m)      | 564.18   | Flow Area (m2)       | 1.25    | 1.90    |          |
| E.G. Slope (m/m)   | 0.047505 | Area (m2)            | 1.25    | 1.90    |          |
| Q Total (m3/s)     | 9.64     | Flow (m3/s)          | 2.32    | 7.32    |          |
| Top Width (m)      | 7.69     | Top Width (m)        | 5.29    | 2.40    |          |
| Vel Total (m/s)    | 3.06     | Avg. Vel. (m/s)      | 1.85    | 3.86    |          |
| Max Chl Dpth (m)   | 0.97     | Hydr. Depth (m)      | 0.24    | 0.79    |          |
| Conv. Total (m3/s) | 44.2     | Conv. (m3/s)         | 10.7    | 33.6    |          |
| Length Wtd. (m)    | 0.00     | Wetted Per. (m)      | 5.31    | 3.19    |          |
| Min Ch El (m)      | 563.00   | Shear (N/m2)         | 110.03  | 277.31  |          |
| Alpha              | 1.30     | Stream Power (N/m s) | 203.63  | 1069.27 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Giacco 2 RS: 5070 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 567.44   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 6.89     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 560.55   | Reach Len. (m)  | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 561.44   | Flow Area (m2)  |         | 1.48    |          |
| E.G. Slope (m/m)   | 0.944865 | Area (m2)       |         | 1.48    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)     |         | 17.26   |          |
| Top Width (m)      | 3.75     | Top Width (m)   |         | 3.75    |          |
| Vel Total (m/s)    | 11.63    | Avg. Vel. (m/s) |         | 11.63   |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m) |         | 0.40    |          |
| Conv. Total (m3/s) | 17.8     | Conv. (m3/s)    |         | 17.8    |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m) |         | 4.48    |          |
| Min Ch El (m)      | 560.15   | Shear (N/m2)    |         | 3066.76 |          |

Plan: Plan 05    Giacco    2    RS: 5070    Profile: PF 1 (Continued)

|                |      |                      |  |          |  |
|----------------|------|----------------------|--|----------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 35659.09 |  |
| Frctn Loss (m) | 1.45 | Cum Volume (1000 m3) |  | 0.56     |  |
| C & E Loss (m) | 0.57 | Cum SA (1000 m2)     |  | 0.56     |  |

Plan: Plan 05    Giacco    2    RS: 5067    BR U    Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 565.42   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 4.98     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 560.44   | Reach Len. (m)       |         |          |          |
| Crit W.S. (m)      | 561.27   | Flow Area (m2)       |         | 1.75     |          |
| E.G. Slope (m/m)   | 0.573395 | Area (m2)            |         | 1.75     |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26    |          |
| Top Width (m)      | 3.75     | Top Width (m)        |         | 3.75     |          |
| Vel Total (m/s)    | 9.89     | Avg. Vel. (m/s)      |         | 9.89     |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.46     |          |
| Conv. Total (m3/s) | 22.8     | Conv. (m3/s)         |         | 22.8     |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.62     |          |
| Min Ch El (m)      | 559.97   | Shear (N/m2)         |         | 2122.39  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 20984.52 |          |
| Frctn Loss (m)     | 1.25     | Cum Volume (1000 m3) |         | 0.56     |          |
| C & E Loss (m)     | 0.45     | Cum SA (1000 m2)     |         | 0.55     |          |

Plan: Plan 05    Giacco    2    RS: 5067    BR D    Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 563.73   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.48     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.25   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 561.03   | Flow Area (m2)       |         | 2.09    |          |
| E.G. Slope (m/m)   | 0.195656 | Area (m2)            |         | 2.09    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.23     | Top Width (m)        |         | 3.23    |          |
| Vel Total (m/s)    | 8.26     | Avg. Vel. (m/s)      |         | 8.26    |          |
| Max Chl Dpth (m)   | 0.65     | Hydr. Depth (m)      |         | 0.65    |          |
| Conv. Total (m3/s) | 39.0     | Conv. (m3/s)         |         | 39.0    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.52    |          |
| Min Ch El (m)      | 559.60   | Shear (N/m2)         |         | 886.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7321.61 |          |
| Frctn Loss (m)     | 0.31     | Cum Volume (1000 m3) |         | 0.56    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.55    |          |

Plan: Plan 05    Giacco    2    RS: 5065    Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 563.35   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.26     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.09   | Reach Len. (m)       | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)      | 560.82   | Flow Area (m2)       |         | 2.16    |          |
| E.G. Slope (m/m)   | 0.178377 | Area (m2)            |         | 2.16    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.53     | Top Width (m)        |         | 3.53    |          |
| Vel Total (m/s)    | 8.00     | Avg. Vel. (m/s)      |         | 8.00    |          |
| Max Chl Dpth (m)   | 0.64     | Hydr. Depth (m)      |         | 0.61    |          |
| Conv. Total (m3/s) | 40.9     | Conv. (m3/s)         |         | 40.9    |          |
| Length Wtd. (m)    | 0.10     | Wetted Per. (m)      |         | 4.57    |          |
| Min Ch El (m)      | 559.45   | Shear (N/m2)         |         | 825.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6602.29 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.56    |          |
| C & E Loss (m)     | 0.10     | Cum SA (1000 m2)     |         | 0.55    |          |

Plan: Plan 05 Giacco 2 RS: 5060 Profile: PF 1

| E.G. Elev (m)      | 563.23   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 4.27     | Wt. n-Val.           |         | 0.032    |          |
| W.S. Elev (m)      | 558.96   | Reach Len. (m)       | 2.77    | 2.77     | 2.77     |
| Crit W.S. (m)      | 559.74   | Flow Area (m2)       |         | 1.89     |          |
| E.G. Slope (m/m)   | 0.295238 | Area (m2)            |         | 1.89     |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26    |          |
| Top Width (m)      | 3.77     | Top Width (m)        |         | 3.77     |          |
| Vel Total (m/s)    | 9.15     | Avg. Vel. (m/s)      |         | 9.15     |          |
| Max Chl Dpth (m)   | 0.50     | Hydr. Depth (m)      |         | 0.50     |          |
| Conv. Total (m3/s) | 31.8     | Conv. (m3/s)         |         | 31.8     |          |
| Length Wtd. (m)    | 2.77     | Wetted Per. (m)      |         | 4.77     |          |
| Min Ch El (m)      | 558.46   | Shear (N/m2)         |         | 1145.02  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 10475.27 |          |
| Frctn Loss (m)     | 0.70     | Cum Volume (1000 m3) |         | 0.56     |          |
| C & E Loss (m)     | 0.24     | Cum SA (1000 m2)     |         | 0.55     |          |

Plan: Plan 05 Giacco 2 RS: 5050 Profile: PF 1

| E.G. Elev (m)      | 561.01   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.49     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.52   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 559.13   | Flow Area (m2)       |         | 2.47    |          |
| E.G. Slope (m/m)   | 0.141695 | Area (m2)            |         | 2.47    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.25     | Top Width (m)        |         | 4.25    |          |
| Vel Total (m/s)    | 6.98     | Avg. Vel. (m/s)      |         | 6.98    |          |
| Max Chl Dpth (m)   | 0.58     | Hydr. Depth (m)      |         | 0.58    |          |
| Conv. Total (m3/s) | 45.9     | Conv. (m3/s)         |         | 45.9    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.41    |          |
| Min Ch El (m)      | 557.94   | Shear (N/m2)         |         | 635.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4437.18 |          |
| Frctn Loss (m)     | 0.44     | Cum Volume (1000 m3) |         | 0.54    |          |
| C & E Loss (m)     | 0.17     | Cum SA (1000 m2)     |         | 0.51    |          |

Plan: Plan 05 Giacco 2 RS: 5040 Profile: PF 1

| E.G. Elev (m)      | 559.14   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.11     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.03   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 558.34   | Flow Area (m2)       |         | 3.70    |          |
| E.G. Slope (m/m)   | 0.039107 | Area (m2)            |         | 3.70    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.99     | Top Width (m)        |         | 3.99    |          |
| Vel Total (m/s)    | 4.66     | Avg. Vel. (m/s)      |         | 4.66    |          |
| Max Chl Dpth (m)   | 0.95     | Hydr. Depth (m)      |         | 0.93    |          |
| Conv. Total (m3/s) | 87.3     | Conv. (m3/s)         |         | 87.3    |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 5.65    |          |
| Min Ch El (m)      | 557.08   | Shear (N/m2)         |         | 251.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1171.95 |          |
| Frctn Loss (m)     | 0.07     | Cum Volume (1000 m3) |         | 0.46    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.42    |          |

Plan: Plan 05 Giacco 2 RS: 5035 BR U Profile: PF 1

| E.G. Elev (m)    | 559.03   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.98     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 558.05   | Reach Len. (m) |         |         |          |
| Crit W.S. (m)    | 558.30   | Flow Area (m2) |         | 3.94    |          |
| E.G. Slope (m/m) | 0.032601 | Area (m2)      |         | 3.94    |          |
| Q Total (m3/s)   | 17.26    | Flow (m3/s)    |         | 17.26   |          |

Plan: Plan 05 Giacco 2 RS: 5035 BR U Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 3.99   | Top Width (m)        |  | 3.99   |  |
| Vel Total (m/s)    | 4.38   | Avg. Vel. (m/s)      |  | 4.38   |  |
| Max Chl Dpth (m)   | 1.01   | Hydr. Depth (m)      |  | 0.99   |  |
| Conv. Total (m3/s) | 95.6   | Conv. (m3/s)         |  | 95.6   |  |
| Length Wtd. (m)    |        | Wetted Per. (m)      |  | 5.76   |  |
| Min Ch El (m)      | 557.04 | Shear (N/m2)         |  | 218.68 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 957.86 |  |
| Frctn Loss (m)     | 0.19   | Cum Volume (1000 m3) |  | 0.46   |  |
| C & E Loss (m)     | 0.01   | Cum SA (1000 m2)     |  | 0.41   |  |

Plan: Plan 05 Giacco 2 RS: 5035 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.82   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.86   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 558.12   | Flow Area (m2)       |         | 3.98    |          |
| E.G. Slope (m/m)   | 0.031315 | Area (m2)            |         | 3.98    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 4.34     | Avg. Vel. (m/s)      |         | 4.34    |          |
| Max Chl Dpth (m)   | 0.96     | Hydr. Depth (m)      |         | 0.88    |          |
| Conv. Total (m3/s) | 97.5     | Conv. (m3/s)         |         | 97.5    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.73    |          |
| Min Ch El (m)      | 556.90   | Shear (N/m2)         |         | 213.21  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 924.48  |          |
| Frctn Loss (m)     | 0.09     | Cum Volume (1000 m3) |         | 0.46    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.41    |          |

Plan: Plan 05 Giacco 2 RS: 5030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.69   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.81     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.88   | Reach Len. (m)       | 3.41    | 3.41    | 3.41     |
| Crit W.S. (m)      | 558.06   | Flow Area (m2)       |         | 4.34    |          |
| E.G. Slope (m/m)   | 0.024203 | Area (m2)            |         | 4.34    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 3.98     | Avg. Vel. (m/s)      |         | 3.98    |          |
| Max Chl Dpth (m)   | 1.05     | Hydr. Depth (m)      |         | 0.96    |          |
| Conv. Total (m3/s) | 110.9    | Conv. (m3/s)         |         | 110.9   |          |
| Length Wtd. (m)    | 3.41     | Wetted Per. (m)      |         | 5.87    |          |
| Min Ch El (m)      | 556.83   | Shear (N/m2)         |         | 175.55  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 698.02  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) |         | 0.46    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.41    |          |

Plan: Plan 05 Giacco 2 RS: 5020 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 558.25   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.72     | Wt. n-Val.      |         | 0.032   |          |
| W.S. Elev (m)      | 557.53   | Reach Len. (m)  | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 557.67   | Flow Area (m2)  |         | 4.59    |          |
| E.G. Slope (m/m)   | 0.020712 | Area (m2)       |         | 4.59    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)     |         | 17.26   |          |
| Top Width (m)      | 4.91     | Top Width (m)   |         | 4.91    |          |
| Vel Total (m/s)    | 3.76     | Avg. Vel. (m/s) |         | 3.76    |          |
| Max Chl Dpth (m)   | 1.17     | Hydr. Depth (m) |         | 0.93    |          |
| Conv. Total (m3/s) | 119.9    | Conv. (m3/s)    |         | 119.9   |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m) |         | 5.99    |          |
| Min Ch El (m)      | 556.36   | Shear (N/m2)    |         | 155.46  |          |

Plan: Plan 05 Giacco 2 RS: 5020 Profile: PF 1 (Continued)

|                |      |                      |  |        |  |
|----------------|------|----------------------|--|--------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 585.02 |  |
| Frctn Loss (m) | 0.08 | Cum Volume (1000 m3) |  | 0.36   |  |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2)     |  | 0.32   |  |

Plan: Plan 05 Giacco 2 RS: 5010 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.60   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.29     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.31   | Reach Len. (m)       | 3.08    | 3.08    | 3.08     |
| Crit W.S. (m)      | 556.93   | Flow Area (m2)       |         | 7.29    |          |
| E.G. Slope (m/m)   | 0.005528 | Area (m2)            |         | 7.29    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 5.12     | Top Width (m)        |         | 5.12    |          |
| Vel Total (m/s)    | 2.37     | Avg. Vel. (m/s)      |         | 2.37    |          |
| Max Chl Dpth (m)   | 1.77     | Hydr. Depth (m)      |         | 1.42    |          |
| Conv. Total (m3/s) | 232.1    | Conv. (m3/s)         |         | 232.1   |          |
| Length Wtd. (m)    | 3.08     | Wetted Per. (m)      |         | 7.10    |          |
| Min Ch EI (m)      | 555.54   | Shear (N/m2)         |         | 55.71   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 131.82  |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.17    |          |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     |         | 0.12    |          |

Plan: Plan 05 Giacco 2 RS: 5005 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.52   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.34   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 556.67   | Flow Area (m2)       |         | 9.28    |          |
| E.G. Slope (m/m)   | 0.002943 | Area (m2)            |         | 9.28    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 6.04     | Top Width (m)        |         | 6.04    |          |
| Vel Total (m/s)    | 1.86     | Avg. Vel. (m/s)      |         | 1.86    |          |
| Max Chl Dpth (m)   | 2.10     | Hydr. Depth (m)      |         | 1.54    |          |
| Conv. Total (m3/s) | 318.2    | Conv. (m3/s)         |         | 318.2   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 8.07    |          |
| Min Ch EI (m)      | 555.24   | Shear (N/m2)         |         | 33.17   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 61.69   |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.05    |          |

Plan: Plan 05 Giacco 2 RS: 5002 BR U Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.45   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.73     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 556.72   | Reach Len. (m)       | 10.00   | 10.00   | 10.00    |
| Crit W.S. (m)      | 556.72   | Flow Area (m2)       |         | 4.57    |          |
| E.G. Slope (m/m)   | 0.019743 | Area (m2)            |         | 4.57    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.15     | Top Width (m)        |         | 3.15    |          |
| Vel Total (m/s)    | 3.77     | Avg. Vel. (m/s)      |         | 3.77    |          |
| Max Chl Dpth (m)   | 1.53     | Hydr. Depth (m)      |         | 1.45    |          |
| Conv. Total (m3/s) | 122.8    | Conv. (m3/s)         |         | 122.8   |          |
| Length Wtd. (m)    | 10.00    | Wetted Per. (m)      |         | 5.74    |          |
| Min Ch EI (m)      | 555.19   | Shear (N/m2)         |         | 154.22  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 581.91  |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Giacco 2 RS: 5002 BR D Profile: PF 1

| E.G. Elev (m)      | 557.15   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.12     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 556.03   | Reach Len. (m)       | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)      | 556.32   | Flow Area (m2)       |         | 3.68    |          |
| E.G. Slope (m/m)   | 0.038838 | Area (m2)            |         | 3.68    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.35     | Top Width (m)        |         | 3.35    |          |
| Vel Total (m/s)    | 4.69     | Avg. Vel. (m/s)      |         | 4.69    |          |
| Max Chl Dpth (m)   | 1.10     | Hydr. Depth (m)      |         | 1.10    |          |
| Conv. Total (m3/s) | 87.6     | Conv. (m3/s)         |         | 87.6    |          |
| Length Wtd. (m)    | 2.34     | Wetted Per. (m)      |         | 5.55    |          |
| Min Ch EI (m)      | 554.93   | Shear (N/m2)         |         | 252.80  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1184.69 |          |
| Frctn Loss (m)     | 0.14     | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     |         | 0.01    |          |

Plan: Plan 05 Giacco 2 RS: 5000 Profile: PF 1

| E.G. Elev (m)      | 556.97   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.61     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 555.36   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 555.79   | Flow Area (m2)       |         | 3.07    |          |
| E.G. Slope (m/m)   | 0.099183 | Area (m2)            |         | 3.07    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 6.47     | Top Width (m)        |         | 6.47    |          |
| Vel Total (m/s)    | 5.62     | Avg. Vel. (m/s)      |         | 5.62    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m)      |         | 0.48    |          |
| Conv. Total (m3/s) | 54.8     | Conv. (m3/s)         |         | 54.8    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 7.12    |          |
| Min Ch EI (m)      | 554.87   | Shear (N/m2)         |         | 419.59  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2357.64 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Marchese 1 RS: 33 Profile: PF 1

| E.G. Elev (m)      | 689.72   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 2.53     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 687.19   | Reach Len. (m)       | 4.00    | 4.00     | 4.00     |
| Crit W.S. (m)      | 687.51   | Flow Area (m2)       |         | 0.36     |          |
| E.G. Slope (m/m)   | 1.000164 | Area (m2)            |         | 0.36     |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55     |          |
| Top Width (m)      | 2.34     | Top Width (m)        |         | 2.34     |          |
| Vel Total (m/s)    | 7.04     | Avg. Vel. (m/s)      |         | 7.04     |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.15     |          |
| Conv. Total (m3/s) | 2.5      | Conv. (m3/s)         |         | 2.5      |          |
| Length Wtd. (m)    | 4.00     | Wetted Per. (m)      |         | 2.42     |          |
| Min Ch EI (m)      | 687.00   | Shear (N/m2)         |         | 1466.53  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 10329.26 |          |
| Frctn Loss (m)     | 4.01     | Cum Volume (1000 m3) | 0.00    | 0.24     | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.01    | 0.40     | 0.01     |

Plan: Plan 05 Marchese 1 RS: 32 Profile: PF 1

| E.G. Elev (m)    | 685.70   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 2.49     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 683.20   | Reach Len. (m) | 2.39    | 2.39    | 2.39     |
| Crit W.S. (m)    | 683.52   | Flow Area (m2) |         | 0.36    |          |
| E.G. Slope (m/m) | 1.003083 | Area (m2)      |         | 0.36    |          |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Plan 05 Marchese 1 RS: 32 Profile: PF 1 (Continued)

|                    |        |                      |      |          |      |
|--------------------|--------|----------------------|------|----------|------|
| Top Width (m)      | 2.39   | Top Width (m)        |      | 2.39     |      |
| Vel Total (m/s)    | 6.99   | Avg. Vel. (m/s)      |      | 6.99     |      |
| Max Chl Dpth (m)   | 0.20   | Hydr. Depth (m)      |      | 0.15     |      |
| Conv. Total (m3/s) | 2.5    | Conv. (m3/s)         |      | 2.5      |      |
| Length Wtd. (m)    | 2.39   | Wetted Per. (m)      |      | 2.47     |      |
| Min Ch El (m)      | 683.00 | Shear (N/m2)         |      | 1451.45  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 10147.91 |      |
| Frctn Loss (m)     | 0.01   | Cum Volume (1000 m3) | 0.00 | 0.24     | 0.00 |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     | 0.01 | 0.39     | 0.01 |

Plan: Plan 05 Marchese 1 RS: 31.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 683.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.03     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 683.68   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 683.31   | Flow Area (m2)       | 0.12    | 3.35    | 0.09     |
| E.G. Slope (m/m)   | 0.001579 | Area (m2)            | 0.12    | 3.35    | 0.09     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.03    | 2.49    | 0.02     |
| Top Width (m)      | 5.93     | Top Width (m)        | 0.53    | 5.00    | 0.40     |
| Vel Total (m/s)    | 0.72     | Avg. Vel. (m/s)      | 0.27    | 0.74    | 0.25     |
| Max Chl Dpth (m)   | 0.68     | Hydr. Depth (m)      | 0.23    | 0.67    | 0.23     |
| Conv. Total (m3/s) | 64.2     | Conv. (m3/s)         | 0.8     | 62.8    | 0.6      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 0.70    | 5.18    | 0.60     |
| Min Ch El (m)      | 683.00   | Shear (N/m2)         | 2.67    | 10.03   | 2.32     |
| Alpha              | 1.06     | Stream Power (N/m s) | 0.73    | 7.46    | 0.58     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.23    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.39    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 31 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 681.90   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.21     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 681.70   | Reach Len. (m)       | 12.16   | 12.16   | 12.16    |
| Crit W.S. (m)      | 681.70   | Flow Area (m2)       |         | 1.26    |          |
| E.G. Slope (m/m)   | 0.024808 | Area (m2)            |         | 1.26    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.11     | Top Width (m)        |         | 3.11    |          |
| Vel Total (m/s)    | 2.02     | Avg. Vel. (m/s)      |         | 2.02    |          |
| Max Chl Dpth (m)   | 0.70     | Hydr. Depth (m)      |         | 0.41    |          |
| Conv. Total (m3/s) | 16.2     | Conv. (m3/s)         |         | 16.2    |          |
| Length Wtd. (m)    | 12.16    | Wetted Per. (m)      |         | 3.45    |          |
| Min Ch El (m)      | 681.00   | Shear (N/m2)         |         | 89.20   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 179.93  |          |
| Frctn Loss (m)     | 0.97     | Cum Volume (1000 m3) | 0.00    | 0.23    | 0.00     |
| C & E Loss (m)     | 0.42     | Cum SA (1000 m2)     | 0.01    | 0.38    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 30 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 680.52   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 4.37     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 676.15   | Reach Len. (m)  | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 676.53   | Flow Area (m2)  |         | 0.28    |          |
| E.G. Slope (m/m)   | 2.128705 | Area (m2)       |         | 0.28    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     |         | 2.55    |          |
| Top Width (m)      | 2.04     | Top Width (m)   |         | 2.04    |          |
| Vel Total (m/s)    | 9.26     | Avg. Vel. (m/s) |         | 9.26    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m) |         | 0.13    |          |
| Conv. Total (m3/s) | 1.7      | Conv. (m3/s)    |         | 1.7     |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m) |         | 2.15    |          |
| Min Ch El (m)      | 676.00   | Shear (N/m2)    |         | 2671.47 |          |

Plan: Plan 05 Marchese 1 RS: 30 Profile: PF 1 (Continued)

|                |      |                      |      |          |      |
|----------------|------|----------------------|------|----------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 24745.43 |      |
| Frctn Loss (m) | 1.71 | Cum Volume (1000 m3) | 0.00 | 0.22     | 0.00 |
| C & E Loss (m) | 0.73 | Cum SA (1000 m2)     | 0.01 | 0.35     | 0.01 |

Plan: Plan 05 Marchese 1 RS: 29.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 678.08   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.95     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 676.13   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 676.40   | Flow Area (m2)       |         | 0.41    |          |
| E.G. Slope (m/m)   | 1.024312 | Area (m2)            |         | 0.41    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.28     | Top Width (m)        |         | 3.28    |          |
| Vel Total (m/s)    | 6.19     | Avg. Vel. (m/s)      |         | 6.19    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 2.5      | Conv. (m3/s)         |         | 2.5     |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      |         | 3.41    |          |
| Min Ch EI (m)      | 676.00   | Shear (N/m2)         |         | 1214.59 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7514.66 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.22    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.35    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 29 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 674.95   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.22     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 674.73   | Reach Len. (m)       | 11.26   | 11.26   | 11.26    |
| Crit W.S. (m)      | 674.73   | Flow Area (m2)       |         | 1.22    |          |
| E.G. Slope (m/m)   | 0.025730 | Area (m2)            |         | 1.22    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.83     | Top Width (m)        |         | 2.83    |          |
| Vel Total (m/s)    | 2.09     | Avg. Vel. (m/s)      |         | 2.09    |          |
| Max Chl Dpth (m)   | 0.73     | Hydr. Depth (m)      |         | 0.43    |          |
| Conv. Total (m3/s) | 15.9     | Conv. (m3/s)         |         | 15.9    |          |
| Length Wtd. (m)    | 11.26    | Wetted Per. (m)      |         | 3.26    |          |
| Min Ch EI (m)      | 674.00   | Shear (N/m2)         |         | 94.64   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 197.38  |          |
| Frctn Loss (m)     | 0.92     | Cum Volume (1000 m3) | 0.00    | 0.22    | 0.00     |
| C & E Loss (m)     | 0.33     | Cum SA (1000 m2)     | 0.01    | 0.34    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 28 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 673.70   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.49     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 670.22   | Reach Len. (m)       | 5.38    | 5.38     | 5.38     |
| Crit W.S. (m)      | 670.53   | Flow Area (m2)       |         | 0.31     |          |
| E.G. Slope (m/m)   | 1.787774 | Area (m2)            |         | 0.31     |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55     |          |
| Top Width (m)      | 2.46     | Top Width (m)        |         | 2.46     |          |
| Vel Total (m/s)    | 8.27     | Avg. Vel. (m/s)      |         | 8.27     |          |
| Max Chl Dpth (m)   | 0.22     | Hydr. Depth (m)      |         | 0.13     |          |
| Conv. Total (m3/s) | 1.9      | Conv. (m3/s)         |         | 1.9      |          |
| Length Wtd. (m)    | 5.38     | Wetted Per. (m)      |         | 2.51     |          |
| Min Ch EI (m)      | 670.00   | Shear (N/m2)         |         | 2157.32  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 17840.42 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) | 0.00    | 0.21     | 0.00     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.01    | 0.31     | 0.01     |

Plan: Plan 05 Marchese 1 RS: 27.5 Profile: PF 1

| E.G. Elev (m)      | 669.71   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 669.69   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 669.29   | Flow Area (m2)       | 0.35    | 3.66    | 0.20     |
| E.G. Slope (m/m)   | 0.001120 | Area (m2)            | 0.35    | 3.66    | 0.20     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.11    | 2.38    | 0.06     |
| Top Width (m)      | 6.94     | Top Width (m)        | 0.99    | 5.31    | 0.64     |
| Vel Total (m/s)    | 0.61     | Avg. Vel. (m/s)      | 0.33    | 0.65    | 0.27     |
| Max Chl Dpth (m)   | 0.69     | Hydr. Depth (m)      | 0.35    | 0.69    | 0.32     |
| Conv. Total (m3/s) | 76.2     | Conv. (m3/s)         | 3.4     | 71.1    | 1.6      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 1.19    | 5.34    | 0.90     |
| Min Ch El (m)      | 669.00   | Shear (N/m2)         | 3.22    | 7.53    | 2.45     |
| Alpha              | 1.09     | Stream Power (N/m s) | 1.05    | 4.90    | 0.67     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.20    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.29    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 27 Profile: PF 1

| E.G. Elev (m)      | 667.90   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.22     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 667.68   | Reach Len. (m)       | 8.97    | 8.96    | 8.97     |
| Crit W.S. (m)      | 667.68   | Flow Area (m2)       |         | 1.24    |          |
| E.G. Slope (m/m)   | 0.024906 | Area (m2)            |         | 1.24    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.91     | Top Width (m)        |         | 2.91    |          |
| Vel Total (m/s)    | 2.06     | Avg. Vel. (m/s)      |         | 2.06    |          |
| Max Chl Dpth (m)   | 0.68     | Hydr. Depth (m)      |         | 0.43    |          |
| Conv. Total (m3/s) | 16.2     | Conv. (m3/s)         |         | 16.2    |          |
| Length Wtd. (m)    | 8.96     | Wetted Per. (m)      |         | 3.28    |          |
| Min Ch El (m)      | 667.00   | Shear (N/m2)         |         | 92.10   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 189.65  |          |
| Frctn Loss (m)     | 0.68     | Cum Volume (1000 m3) | 0.00    | 0.19    | 0.00     |
| C & E Loss (m)     | 0.30     | Cum SA (1000 m2)     | 0.01    | 0.29    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 26 Profile: PF 1

| E.G. Elev (m)      | 666.92   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 3.19     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 663.73   | Reach Len. (m)       | 5.64    | 5.64     | 5.64     |
| Crit W.S. (m)      | 664.12   | Flow Area (m2)       |         | 0.32     |          |
| E.G. Slope (m/m)   | 1.058719 | Area (m2)            |         | 0.32     |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55     |          |
| Top Width (m)      | 1.74     | Top Width (m)        |         | 1.74     |          |
| Vel Total (m/s)    | 7.91     | Avg. Vel. (m/s)      |         | 7.91     |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.18     |          |
| Conv. Total (m3/s) | 2.5      | Conv. (m3/s)         |         | 2.5      |          |
| Length Wtd. (m)    | 5.64     | Wetted Per. (m)      |         | 1.89     |          |
| Min Ch El (m)      | 663.50   | Shear (N/m2)         |         | 1770.26  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 14002.24 |          |
| Frctn Loss (m)     | 3.01     | Cum Volume (1000 m3) | 0.00    | 0.19     | 0.00     |
| C & E Loss (m)     | 0.63     | Cum SA (1000 m2)     | 0.01    | 0.27     | 0.01     |

Plan: Plan 05 Marchese 1 RS: 25.5 Profile: PF 1

| E.G. Elev (m)    | 663.26   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 1.08     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 662.18   | Reach Len. (m) | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)    | 662.42   | Flow Area (m2) |         | 0.55    |          |
| E.G. Slope (m/m) | 0.321352 | Area (m2)      | 0.00    | 0.78    | 0.00     |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Plan 05 Marchese 1 RS: 25.5 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 4.41   | Top Width (m)        | 0.08 | 4.26    | 0.07 |
| Vel Total (m/s)    | 4.60   | Avg. Vel. (m/s)      |      | 4.60    |      |
| Max Chl Dpth (m)   | 0.18   | Hydr. Depth (m)      |      | 0.18    |      |
| Conv. Total (m3/s) | 4.5    | Conv. (m3/s)         |      | 4.5     |      |
| Length Wtd. (m)    | 1.20   | Wetted Per. (m)      |      | 3.00    |      |
| Min Ch El (m)      | 662.00 | Shear (N/m2)         |      | 582.51  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2678.77 |      |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) | 0.00 | 0.18    | 0.00 |
| C & E Loss (m)     |        | Cum SA (1000 m2)     | 0.01 | 0.25    | 0.01 |

Plan: Plan 05 Marchese 1 RS: 25 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 660.99   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.23     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 660.76   | Reach Len. (m)       | 6.29    | 6.29    | 6.29     |
| Crit W.S. (m)      | 660.76   | Flow Area (m2)       |         | 1.20    |          |
| E.G. Slope (m/m)   | 0.025950 | Area (m2)            |         | 1.20    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.68     | Top Width (m)        |         | 2.68    |          |
| Vel Total (m/s)    | 2.12     | Avg. Vel. (m/s)      |         | 2.12    |          |
| Max Chl Dpth (m)   | 0.76     | Hydr. Depth (m)      |         | 0.45    |          |
| Conv. Total (m3/s) | 15.8     | Conv. (m3/s)         |         | 15.8    |          |
| Length Wtd. (m)    | 6.29     | Wetted Per. (m)      |         | 3.15    |          |
| Min Ch El (m)      | 660.00   | Shear (N/m2)         |         | 97.15   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 205.91  |          |
| Frctn Loss (m)     | 0.45     | Cum Volume (1000 m3) | 0.00    | 0.18    | 0.00     |
| C & E Loss (m)     | 0.19     | Cum SA (1000 m2)     | 0.01    | 0.24    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 24 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 660.35   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.10     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 658.25   | Reach Len. (m)       | 5.60    | 5.60    | 5.60     |
| Crit W.S. (m)      | 658.59   | Flow Area (m2)       |         | 0.40    |          |
| E.G. Slope (m/m)   | 0.636734 | Area (m2)            |         | 0.40    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.03     | Top Width (m)        |         | 2.03    |          |
| Vel Total (m/s)    | 6.42     | Avg. Vel. (m/s)      |         | 6.42    |          |
| Max Chl Dpth (m)   | 0.25     | Hydr. Depth (m)      |         | 0.20    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 5.60     | Wetted Per. (m)      |         | 2.18    |          |
| Min Ch El (m)      | 658.00   | Shear (N/m2)         |         | 1140.16 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7320.64 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.18    | 0.00     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.01    | 0.23    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 23.5 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 658.21   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.      | 0.045   | 0.040   |          |
| W.S. Elev (m)      | 658.20   | Reach Len. (m)  | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 657.75   | Flow Area (m2)  | 0.24    | 4.51    |          |
| E.G. Slope (m/m)   | 0.000888 | Area (m2)       | 0.24    | 4.51    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     | 0.06    | 2.49    |          |
| Top Width (m)      | 7.34     | Top Width (m)   | 0.64    | 6.71    |          |
| Vel Total (m/s)    | 0.54     | Avg. Vel. (m/s) | 0.26    | 0.55    |          |
| Max Chl Dpth (m)   | 0.70     | Hydr. Depth (m) | 0.37    | 0.67    |          |
| Conv. Total (m3/s) | 85.6     | Conv. (m3/s)    | 2.1     | 83.5    |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m) | 0.96    | 7.08    |          |
| Min Ch El (m)      | 657.50   | Shear (N/m2)    | 2.16    | 5.55    |          |

Plan: Plan 05 Marchese 1 RS: 23.5 Profile: PF 1 (Continued)

|                |      |                      |      |      |      |
|----------------|------|----------------------|------|------|------|
| Alpha          | 1.03 | Stream Power (N/m s) | 0.57 | 3.06 |      |
| Frctn Loss (m) |      | Cum Volume (1000 m3) | 0.00 | 0.16 | 0.00 |
| C & E Loss (m) |      | Cum SA (1000 m2)     | 0.01 | 0.21 | 0.01 |

Plan: Plan 05 Marchese 1 RS: 23 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 656.03   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.16     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 655.87   | Reach Len. (m)       | 1.49    | 1.50    | 1.49     |
| Crit W.S. (m)      | 655.87   | Flow Area (m2)       |         | 1.42    |          |
| E.G. Slope (m/m)   | 0.024466 | Area (m2)            |         | 1.42    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 4.29     | Top Width (m)        |         | 4.29    |          |
| Vel Total (m/s)    | 1.80     | Avg. Vel. (m/s)      |         | 1.80    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 16.3     | Conv. (m3/s)         |         | 16.3    |          |
| Length Wtd. (m)    | 1.50     | Wetted Per. (m)      |         | 4.56    |          |
| Min Ch El (m)      | 655.50   | Shear (N/m2)         |         | 74.71   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 134.21  |          |
| Frctn Loss (m)     | 0.10     | Cum Volume (1000 m3) | 0.00    | 0.16    | 0.00     |
| C & E Loss (m)     | 0.15     | Cum SA (1000 m2)     | 0.01    | 0.20    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 22 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 655.79   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.62     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 654.17   | Reach Len. (m)       | 3.40    | 3.40    | 3.40     |
| Crit W.S. (m)      | 654.44   | Flow Area (m2)       |         | 0.45    |          |
| E.G. Slope (m/m)   | 0.649061 | Area (m2)            |         | 0.45    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.92     | Top Width (m)        |         | 2.92    |          |
| Vel Total (m/s)    | 5.64     | Avg. Vel. (m/s)      |         | 5.64    |          |
| Max Chl Dpth (m)   | 0.17     | Hydr. Depth (m)      |         | 0.15    |          |
| Conv. Total (m3/s) | 3.2      | Conv. (m3/s)         |         | 3.2     |          |
| Length Wtd. (m)    | 3.40     | Wetted Per. (m)      |         | 3.05    |          |
| Min Ch El (m)      | 654.00   | Shear (N/m2)         |         | 943.03  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5318.14 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.16    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     | 0.01    | 0.19    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 21.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 653.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.03     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 653.68   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 653.31   | Flow Area (m2)       | 0.08    | 3.41    | 0.06     |
| E.G. Slope (m/m)   | 0.001601 | Area (m2)            | 0.08    | 3.41    | 0.06     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.02    | 2.52    | 0.01     |
| Top Width (m)      | 5.74     | Top Width (m)        | 0.39    | 5.08    | 0.27     |
| Vel Total (m/s)    | 0.72     | Avg. Vel. (m/s)      | 0.24    | 0.74    | 0.21     |
| Max Chl Dpth (m)   | 0.68     | Hydr. Depth (m)      | 0.20    | 0.67    | 0.20     |
| Conv. Total (m3/s) | 63.7     | Conv. (m3/s)         | 0.5     | 63.0    | 0.3      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 0.56    | 5.35    | 0.49     |
| Min Ch El (m)      | 653.00   | Shear (N/m2)         | 2.19    | 9.99    | 1.78     |
| Alpha              | 1.04     | Stream Power (N/m s) | 0.52    | 7.39    | 0.37     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.15    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.18    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 21 Profile: PF 1

| E.G. Elev (m)      | 651.76   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.19     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 651.57   | Reach Len. (m)       | 3.90    | 3.89    | 3.90     |
| Crit W.S. (m)      | 651.57   | Flow Area (m2)       |         | 1.31    |          |
| E.G. Slope (m/m)   | 0.024489 | Area (m2)            |         | 1.31    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.49     | Top Width (m)        |         | 3.49    |          |
| Vel Total (m/s)    | 1.94     | Avg. Vel. (m/s)      |         | 1.94    |          |
| Max Chl Dpth (m)   | 0.57     | Hydr. Depth (m)      |         | 0.38    |          |
| Conv. Total (m3/s) | 16.3     | Conv. (m3/s)         |         | 16.3    |          |
| Length Wtd. (m)    | 3.89     | Wetted Per. (m)      |         | 3.76    |          |
| Min Ch El (m)      | 651.00   | Shear (N/m2)         |         | 83.95   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 162.98  |          |
| Frctn Loss (m)     | 0.26     | Cum Volume (1000 m3) | 0.00    | 0.15    | 0.00     |
| C & E Loss (m)     | 0.22     | Cum SA (1000 m2)     | 0.01    | 0.17    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 20 Profile: PF 1

| E.G. Elev (m)      | 651.28   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.41     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 648.87   | Reach Len. (m)       | 2.80    | 2.80    | 2.80     |
| Crit W.S. (m)      | 649.28   | Flow Area (m2)       |         | 0.37    |          |
| E.G. Slope (m/m)   | 0.589771 | Area (m2)            |         | 0.37    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.45     | Top Width (m)        |         | 1.45    |          |
| Vel Total (m/s)    | 6.88     | Avg. Vel. (m/s)      |         | 6.88    |          |
| Max Chl Dpth (m)   | 0.37     | Hydr. Depth (m)      |         | 0.25    |          |
| Conv. Total (m3/s) | 3.3      | Conv. (m3/s)         |         | 3.3     |          |
| Length Wtd. (m)    | 2.80     | Wetted Per. (m)      |         | 1.73    |          |
| Min Ch El (m)      | 648.50   | Shear (N/m2)         |         | 1240.19 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8530.30 |          |
| Frctn Loss (m)     | 1.53     | Cum Volume (1000 m3) | 0.00    | 0.14    | 0.00     |
| C & E Loss (m)     | 0.35     | Cum SA (1000 m2)     | 0.01    | 0.17    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 19.5 Profile: PF 1

| E.G. Elev (m)      | 649.40   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.24     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 648.16   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 648.39   | Flow Area (m2)       |         | 0.52    |          |
| E.G. Slope (m/m)   | 0.509427 | Area (m2)            |         | 0.52    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.43     | Top Width (m)        |         | 3.43    |          |
| Vel Total (m/s)    | 4.93     | Avg. Vel. (m/s)      |         | 4.93    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.15    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      |         | 3.56    |          |
| Min Ch El (m)      | 648.00   | Shear (N/m2)         |         | 726.04  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3581.15 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.14    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.16    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 19 Profile: PF 1

| E.G. Elev (m)    | 647.10   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.26     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 646.84   | Reach Len. (m) | 3.69    | 3.69    | 3.69     |
| Crit W.S. (m)    | 646.84   | Flow Area (m2) |         | 1.13    |          |
| E.G. Slope (m/m) | 0.028410 | Area (m2)      |         | 1.13    |          |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Plan 05 Marchese 1 RS: 19 Profile: PF 1 (Continued)

|                    |        |                      |      |        |      |
|--------------------|--------|----------------------|------|--------|------|
| Top Width (m)      | 2.24   | Top Width (m)        |      | 2.24   |      |
| Vel Total (m/s)    | 2.25   | Avg. Vel. (m/s)      |      | 2.25   |      |
| Max Chl Dpth (m)   | 0.84   | Hydr. Depth (m)      |      | 0.51   |      |
| Conv. Total (m3/s) | 15.1   | Conv. (m3/s)         |      | 15.1   |      |
| Length Wtd. (m)    | 3.69   | Wetted Per. (m)      |      | 2.90   |      |
| Min Ch El (m)      | 646.00 | Shear (N/m2)         |      | 108.75 |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 244.76 |      |
| Frctn Loss (m)     | 0.30   | Cum Volume (1000 m3) | 0.00 | 0.14   | 0.00 |
| C & E Loss (m)     | 0.13   | Cum SA (1000 m2)     | 0.01 | 0.15   | 0.01 |

Plan: Plan 05 Marchese 1 RS: 18 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 646.67   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 645.13   | Reach Len. (m)       | 5.41    | 5.41    | 5.41     |
| Crit W.S. (m)      | 645.36   | Flow Area (m2)       |         | 0.46    |          |
| E.G. Slope (m/m)   | 0.820337 | Area (m2)            |         | 0.46    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.77     | Top Width (m)        |         | 3.77    |          |
| Vel Total (m/s)    | 5.49     | Avg. Vel. (m/s)      |         | 5.49    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 2.8      | Conv. (m3/s)         |         | 2.8     |          |
| Length Wtd. (m)    | 5.41     | Wetted Per. (m)      |         | 3.88    |          |
| Min Ch El (m)      | 645.00   | Shear (N/m2)         |         | 961.67  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5284.13 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.14    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     | 0.01    | 0.14    | 0.01     |

Plan: Plan 05 Marchese 1 RS: 17.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 644.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 644.70   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 644.23   | Flow Area (m2)       | 0.24    | 5.18    | 0.53     |
| E.G. Slope (m/m)   | 0.000544 | Area (m2)            | 0.24    | 5.18    | 0.53     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.05    | 2.38    | 0.12     |
| Top Width (m)      | 9.78     | Top Width (m)        | 0.72    | 7.39    | 1.67     |
| Vel Total (m/s)    | 0.43     | Avg. Vel. (m/s)      | 0.20    | 0.46    | 0.23     |
| Max Chl Dpth (m)   | 0.70     | Hydr. Depth (m)      | 0.33    | 0.70    | 0.32     |
| Conv. Total (m3/s) | 109.4    | Conv. (m3/s)         | 2.1     | 102.0   | 5.3      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 0.98    | 7.42    | 1.80     |
| Min Ch El (m)      | 644.00   | Shear (N/m2)         | 1.31    | 3.72    | 1.59     |
| Alpha              | 1.09     | Stream Power (N/m s) | 0.27    | 1.71    | 0.37     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.12    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.11    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 17 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 642.77   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.17     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 642.60   | Reach Len. (m)  | 3.76    | 3.76    | 3.76     |
| Crit W.S. (m)      | 642.60   | Flow Area (m2)  |         | 1.42    |          |
| E.G. Slope (m/m)   | 0.024558 | Area (m2)       |         | 1.42    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)     |         | 2.55    |          |
| Top Width (m)      | 4.37     | Top Width (m)   |         | 4.37    |          |
| Vel Total (m/s)    | 1.80     | Avg. Vel. (m/s) |         | 1.80    |          |
| Max Chl Dpth (m)   | 0.60     | Hydr. Depth (m) |         | 0.32    |          |
| Conv. Total (m3/s) | 16.3     | Conv. (m3/s)    |         | 16.3    |          |
| Length Wtd. (m)    | 3.76     | Wetted Per. (m) |         | 4.55    |          |
| Min Ch El (m)      | 642.00   | Shear (N/m2)    |         | 74.94   |          |

Plan: Plan 05 Marchese 1 RS: 17 Profile: PF 1 (Continued)

|                |      |                      |      |        |      |
|----------------|------|----------------------|------|--------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 134.83 |      |
| Frctn Loss (m) | 0.26 | Cum Volume (1000 m3) | 0.00 | 0.12   | 0.00 |
| C & E Loss (m) | 0.19 | Cum SA (1000 m2)     | 0.00 | 0.11   | 0.00 |

Plan: Plan 05 Marchese 1 RS: 16 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 642.31   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.08     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 640.23   | Reach Len. (m)       | 2.40    | 2.40    | 2.40     |
| Crit W.S. (m)      | 640.55   | Flow Area (m2)       |         | 0.40    |          |
| E.G. Slope (m/m)   | 0.692367 | Area (m2)            |         | 0.40    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.25     | Top Width (m)        |         | 2.25    |          |
| Vel Total (m/s)    | 6.38     | Avg. Vel. (m/s)      |         | 6.38    |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 3.1      | Conv. (m3/s)         |         | 3.1     |          |
| Length Wtd. (m)    | 2.40     | Wetted Per. (m)      |         | 2.35    |          |
| Min Ch EI (m)      | 640.00   | Shear (N/m2)         |         | 1154.31 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7369.08 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.12    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.09    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 15.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 640.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 640.69   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 640.26   | Flow Area (m2)       | 0.19    | 4.31    | 0.17     |
| E.G. Slope (m/m)   | 0.000885 | Area (m2)            | 0.19    | 4.31    | 0.17     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.04    | 2.47    | 0.04     |
| Top Width (m)      | 7.64     | Top Width (m)        | 0.73    | 6.26    | 0.65     |
| Vel Total (m/s)    | 0.55     | Avg. Vel. (m/s)      | 0.23    | 0.57    | 0.23     |
| Max Chl Dpth (m)   | 0.69     | Hydr. Depth (m)      | 0.26    | 0.69    | 0.26     |
| Conv. Total (m3/s) | 85.7     | Conv. (m3/s)         | 1.5     | 82.9    | 1.3      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 0.90    | 6.38    | 0.84     |
| Min Ch EI (m)      | 640.00   | Shear (N/m2)         | 1.83    | 5.86    | 1.77     |
| Alpha              | 1.07     | Stream Power (N/m s) | 0.43    | 3.36    | 0.41     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.08    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 15 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 638.78   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 638.60   | Reach Len. (m)       | 3.02    | 3.02    | 3.02     |
| Crit W.S. (m)      | 638.60   | Flow Area (m2)       |         | 1.35    |          |
| E.G. Slope (m/m)   | 0.024170 | Area (m2)            |         | 1.35    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 3.74     | Top Width (m)        |         | 3.74    |          |
| Vel Total (m/s)    | 1.89     | Avg. Vel. (m/s)      |         | 1.89    |          |
| Max Chl Dpth (m)   | 0.60     | Hydr. Depth (m)      |         | 0.36    |          |
| Conv. Total (m3/s) | 16.4     | Conv. (m3/s)         |         | 16.4    |          |
| Length Wtd. (m)    | 3.02     | Wetted Per. (m)      |         | 3.97    |          |
| Min Ch EI (m)      | 638.00   | Shear (N/m2)         |         | 80.44   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 152.11  |          |
| Frctn Loss (m)     | 0.21     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.16     | Cum SA (1000 m2)     | 0.00    | 0.08    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 14 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 638.42   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.76     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 636.66   | Reach Len. (m)       | 6.80    | 6.80    | 6.80     |
| Crit W.S. (m)      | 636.94   | Flow Area (m2)       |         | 0.43    |          |
| E.G. Slope (m/m)   | 0.710836 | Area (m2)            |         | 0.43    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.83     | Top Width (m)        |         | 2.83    |          |
| Vel Total (m/s)    | 5.87     | Avg. Vel. (m/s)      |         | 5.87    |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.15    |          |
| Conv. Total (m3/s) | 3.0      | Conv. (m3/s)         |         | 3.0     |          |
| Length Wtd. (m)    | 6.80     | Wetted Per. (m)      |         | 2.95    |          |
| Min Ch El (m)      | 636.50   | Shear (N/m2)         |         | 1024.90 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6017.84 |          |
| Frctn Loss (m)     | 0.03     | Cum Volume (1000 m3) | 0.00    | 0.10    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     | 0.00    | 0.07    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 13.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 635.71   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.03     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 635.68   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 635.33   | Flow Area (m2)       | 0.18    | 2.86    | 0.22     |
| E.G. Slope (m/m)   | 0.001933 | Area (m2)            | 0.18    | 2.86    | 0.22     |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          | 0.06    | 2.41    | 0.08     |
| Top Width (m)      | 5.47     | Top Width (m)        | 0.55    | 4.23    | 0.70     |
| Vel Total (m/s)    | 0.78     | Avg. Vel. (m/s)      | 0.34    | 0.84    | 0.37     |
| Max Chl Dpth (m)   | 0.68     | Hydr. Depth (m)      | 0.32    | 0.68    | 0.32     |
| Conv. Total (m3/s) | 58.0     | Conv. (m3/s)         | 1.4     | 54.8    | 1.9      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 0.85    | 4.25    | 0.95     |
| Min Ch El (m)      | 635.00   | Shear (N/m2)         | 3.93    | 12.73   | 4.43     |
| Alpha              | 1.10     | Stream Power (N/m s) | 1.34    | 10.73   | 1.64     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.00    | 0.04    | 0.00     |

Plan: Plan 05 Marchese 1 RS: 13 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 634.01   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.23     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 633.78   | Reach Len. (m)       | 7.37    | 7.37    | 7.37     |
| Crit W.S. (m)      | 633.78   | Flow Area (m2)       |         | 1.21    |          |
| E.G. Slope (m/m)   | 0.025939 | Area (m2)            |         | 1.21    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 2.73     | Top Width (m)        |         | 2.73    |          |
| Vel Total (m/s)    | 2.11     | Avg. Vel. (m/s)      |         | 2.11    |          |
| Max Chl Dpth (m)   | 0.78     | Hydr. Depth (m)      |         | 0.44    |          |
| Conv. Total (m3/s) | 15.8     | Conv. (m3/s)         |         | 15.8    |          |
| Length Wtd. (m)    | 7.37     | Wetted Per. (m)      |         | 3.18    |          |
| Min Ch El (m)      | 633.00   | Shear (N/m2)         |         | 96.66   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 204.19  |          |
| Frctn Loss (m)     | 0.56     | Cum Volume (1000 m3) |         | 0.09    |          |
| C & E Loss (m)     | 0.19     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Marchese 1 RS: 12 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 633.26   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 2.11     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 631.15   | Reach Len. (m) | 8.00    | 8.00    | 8.00     |
| Crit W.S. (m)    | 631.44   | Flow Area (m2) |         | 0.40    |          |
| E.G. Slope (m/m) | 0.980312 | Area (m2)      |         | 0.40    |          |
| Q Total (m3/s)   | 2.55     | Flow (m3/s)    |         | 2.55    |          |

Plan: Plan 05 Marchese 1 RS: 12 Profile: PF 1 (Continued)

|                    |        |                      |  |         |  |
|--------------------|--------|----------------------|--|---------|--|
| Top Width (m)      | 2.89   | Top Width (m)        |  | 2.89    |  |
| Vel Total (m/s)    | 6.43   | Avg. Vel. (m/s)      |  | 6.43    |  |
| Max Chl Dpth (m)   | 0.15   | Hydr. Depth (m)      |  | 0.14    |  |
| Conv. Total (m3/s) | 2.6    | Conv. (m3/s)         |  | 2.6     |  |
| Length Wtd. (m)    | 8.00   | Wetted Per. (m)      |  | 2.99    |  |
| Min Ch EI (m)      | 631.00 | Shear (N/m2)         |  | 1273.63 |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 8192.98 |  |
| Frctn Loss (m)     | 4.20   | Cum Volume (1000 m3) |  | 0.08    |  |
| C & E Loss (m)     | 0.20   | Cum SA (1000 m2)     |  | 0.02    |  |

Plan: Plan 05 Marchese 1 RS: 11 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 628.86   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.46     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 627.40   | Reach Len. (m)       | 14.82   | 14.82   | 14.82    |
| Crit W.S. (m)      | 627.72   | Flow Area (m2)       |         | 0.48    |          |
| E.G. Slope (m/m)   | 0.325875 | Area (m2)            |         | 0.48    |          |
| Q Total (m3/s)     | 2.55     | Flow (m3/s)          |         | 2.55    |          |
| Top Width (m)      | 1.86     | Top Width (m)        |         | 1.86    |          |
| Vel Total (m/s)    | 5.34     | Avg. Vel. (m/s)      |         | 5.34    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.26    |          |
| Conv. Total (m3/s) | 4.5      | Conv. (m3/s)         |         | 4.5     |          |
| Length Wtd. (m)    | 14.82    | Wetted Per. (m)      |         | 2.08    |          |
| Min Ch EI (m)      | 627.00   | Shear (N/m2)         |         | 732.35  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3913.99 |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.08    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Marchese 2 RS: 39 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 683.16   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 682.20   | Reach Len. (m)       | 7.73    | 7.72    | 7.73     |
| Crit W.S. (m)      | 682.41   | Flow Area (m2)       |         | 0.54    |          |
| E.G. Slope (m/m)   | 0.324634 | Area (m2)            |         | 0.54    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.13     | Top Width (m)        |         | 3.13    |          |
| Vel Total (m/s)    | 4.33     | Avg. Vel. (m/s)      |         | 4.33    |          |
| Max Chl Dpth (m)   | 0.20     | Hydr. Depth (m)      |         | 0.17    |          |
| Conv. Total (m3/s) | 4.1      | Conv. (m3/s)         |         | 4.1     |          |
| Length Wtd. (m)    | 7.72     | Wetted Per. (m)      |         | 3.23    |          |
| Min Ch EI (m)      | 682.00   | Shear (N/m2)         |         | 533.48  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 2309.76 |          |
| Frctn Loss (m)     | 2.69     | Cum Volume (1000 m3) | 0.01    | 0.24    | 0.01     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.02    | 0.73    | 0.03     |

Plan: Plan 05 Marchese 2 RS: 38 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 680.41   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.77     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 679.64   | Reach Len. (m)  | 10.89   | 10.89   | 10.89    |
| Crit W.S. (m)      | 679.81   | Flow Area (m2)  |         | 0.60    |          |
| E.G. Slope (m/m)   | 0.374569 | Area (m2)       |         | 0.60    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     |         | 2.34    |          |
| Top Width (m)      | 4.64     | Top Width (m)   |         | 4.64    |          |
| Vel Total (m/s)    | 3.89     | Avg. Vel. (m/s) |         | 3.89    |          |
| Max Chl Dpth (m)   | 0.14     | Hydr. Depth (m) |         | 0.13    |          |
| Conv. Total (m3/s) | 3.8      | Conv. (m3/s)    |         | 3.8     |          |
| Length Wtd. (m)    | 10.89    | Wetted Per. (m) |         | 4.69    |          |
| Min Ch EI (m)      | 679.50   | Shear (N/m2)    |         | 471.01  |          |

Plan: Plan 05 Marchese 2 RS: 38 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 1832.55 |      |
| Frctn Loss (m) | 2.81 | Cum Volume (1000 m3) | 0.01 | 0.24    | 0.01 |
| C & E Loss (m) | 0.13 | Cum SA (1000 m2)     | 0.02 | 0.70    | 0.03 |

Plan: Plan 05 Marchese 2 RS: 37 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 677.48   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.35     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 677.13   | Reach Len. (m)       | 7.98    | 7.97    | 7.98     |
| Crit W.S. (m)      | 677.23   | Flow Area (m2)       |         | 0.89    |          |
| E.G. Slope (m/m)   | 0.188294 | Area (m2)            |         | 0.89    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 7.37     | Top Width (m)        |         | 7.37    |          |
| Vel Total (m/s)    | 2.64     | Avg. Vel. (m/s)      |         | 2.64    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 5.4      | Conv. (m3/s)         |         | 5.4     |          |
| Length Wtd. (m)    | 7.97     | Wetted Per. (m)      |         | 7.41    |          |
| Min Ch EI (m)      | 677.00   | Shear (N/m2)         |         | 221.20  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 583.14  |          |
| Frctn Loss (m)     | 1.61     | Cum Volume (1000 m3) | 0.01    | 0.23    | 0.01     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.02    | 0.63    | 0.03     |

Plan: Plan 05 Marchese 2 RS: 36 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 675.85   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.62     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 675.23   | Reach Len. (m)       | 6.16    | 6.16    | 6.16     |
| Crit W.S. (m)      | 675.40   | Flow Area (m2)       |         | 0.67    |          |
| E.G. Slope (m/m)   | 0.218661 | Area (m2)            |         | 0.67    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.10     | Top Width (m)        |         | 4.10    |          |
| Vel Total (m/s)    | 3.48     | Avg. Vel. (m/s)      |         | 3.48    |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.16    |          |
| Conv. Total (m3/s) | 5.0      | Conv. (m3/s)         |         | 5.0     |          |
| Length Wtd. (m)    | 6.16     | Wetted Per. (m)      |         | 4.15    |          |
| Min Ch EI (m)      | 675.00   | Shear (N/m2)         |         | 347.98  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1210.28 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.01    | 0.22    | 0.01     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.02    | 0.59    | 0.03     |

Plan: Plan 05 Marchese 2 RS: 35.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 674.68   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 674.67   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 674.21   | Flow Area (m2)       | 0.43    | 4.77    | 1.18     |
| E.G. Slope (m/m)   | 0.000468 | Area (m2)            | 0.43    | 4.77    | 1.18     |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          | 0.09    | 1.97    | 0.27     |
| Top Width (m)      | 11.79    | Top Width (m)        | 1.25    | 7.15    | 3.40     |
| Vel Total (m/s)    | 0.37     | Avg. Vel. (m/s)      | 0.22    | 0.41    | 0.23     |
| Max Chl Dpth (m)   | 0.67     | Hydr. Depth (m)      | 0.34    | 0.67    | 0.35     |
| Conv. Total (m3/s) | 108.2    | Conv. (m3/s)         | 4.3     | 91.1    | 12.7     |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 1.42    | 7.15    | 3.46     |
| Min Ch EI (m)      | 674.00   | Shear (N/m2)         | 1.39    | 3.06    | 1.56     |
| Alpha              | 1.13     | Stream Power (N/m s) | 0.30    | 1.27    | 0.36     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.21    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.55    | 0.02     |

Plan: Plan 05 Marchese 2 RS: 35 Profile: PF 1

| E.G. Elev (m)      | 672.98   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.19     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 672.79   | Reach Len. (m)       | 18.07   | 18.07   | 18.07    |
| Crit W.S. (m)      | 672.79   | Flow Area (m2)       |         | 1.20    |          |
| E.G. Slope (m/m)   | 0.026405 | Area (m2)            |         | 1.20    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.20     | Top Width (m)        |         | 3.20    |          |
| Vel Total (m/s)    | 1.94     | Avg. Vel. (m/s)      |         | 1.94    |          |
| Max Chl Dpth (m)   | 0.79     | Hydr. Depth (m)      |         | 0.38    |          |
| Conv. Total (m3/s) | 14.4     | Conv. (m3/s)         |         | 14.4    |          |
| Length Wtd. (m)    | 18.07    | Wetted Per. (m)      |         | 3.63    |          |
| Min Ch El (m)      | 672.00   | Shear (N/m2)         |         | 85.74   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 166.71  |          |
| Frctn Loss (m)     | 1.59     | Cum Volume (1000 m3) | 0.00    | 0.20    | 0.00     |
| C & E Loss (m)     | 0.37     | Cum SA (1000 m2)     | 0.01    | 0.54    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 34 Profile: PF 1

| E.G. Elev (m)      | 671.02   | Element              | Left OB | Channel  | Right OB |
|--------------------|----------|----------------------|---------|----------|----------|
| Vel Head (m)       | 3.91     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 667.10   | Reach Len. (m)       | 18.07   | 18.07    | 18.07    |
| Crit W.S. (m)      | 667.41   | Flow Area (m2)       |         | 0.27     |          |
| E.G. Slope (m/m)   | 2.914860 | Area (m2)            |         | 0.27     |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34     |          |
| Top Width (m)      | 2.82     | Top Width (m)        |         | 2.82     |          |
| Vel Total (m/s)    | 8.76     | Avg. Vel. (m/s)      |         | 8.76     |          |
| Max Chl Dpth (m)   | 0.10     | Hydr. Depth (m)      |         | 0.09     |          |
| Conv. Total (m3/s) | 1.4      | Conv. (m3/s)         |         | 1.4      |          |
| Length Wtd. (m)    | 18.07    | Wetted Per. (m)      |         | 2.87     |          |
| Min Ch El (m)      | 667.00   | Shear (N/m2)         |         | 2658.94  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 23299.26 |          |
| Frctn Loss (m)     | 8.76     | Cum Volume (1000 m3) | 0.00    | 0.19     | 0.00     |
| C & E Loss (m)     | 1.00     | Cum SA (1000 m2)     | 0.01    | 0.49     | 0.01     |

Plan: Plan 05 Marchese 2 RS: 33 Profile: PF 1

| E.G. Elev (m)      | 661.26   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.57     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 660.69   | Reach Len. (m)       | 5.80    | 5.80    | 5.80     |
| Crit W.S. (m)      | 660.84   | Flow Area (m2)       |         | 0.70    |          |
| E.G. Slope (m/m)   | 0.191134 | Area (m2)            |         | 0.70    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.00     | Top Width (m)        |         | 4.00    |          |
| Vel Total (m/s)    | 3.34     | Avg. Vel. (m/s)      |         | 3.34    |          |
| Max Chl Dpth (m)   | 0.19     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 5.4      | Conv. (m3/s)         |         | 5.4     |          |
| Length Wtd. (m)    | 5.80     | Wetted Per. (m)      |         | 4.14    |          |
| Min Ch El (m)      | 660.50   | Shear (N/m2)         |         | 317.13  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1060.30 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.18    | 0.00     |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     | 0.01    | 0.43    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 32.5 Profile: PF 1

| E.G. Elev (m)    | 659.68   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.01     | Wt. n-Val.     | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)    | 659.66   | Reach Len. (m) | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)    | 659.22   | Flow Area (m2) | 0.19    | 4.71    | 0.26     |
| E.G. Slope (m/m) | 0.000639 | Area (m2)      | 0.19    | 4.71    | 0.26     |
| Q Total (m3/s)   | 2.34     | Flow (m3/s)    | 0.04    | 2.25    | 0.06     |

Plan: Plan 05 Marchese 2 RS: 32.5 Profile: PF 1 (Continued)

|                    |        |                      |      |      |      |
|--------------------|--------|----------------------|------|------|------|
| Top Width (m)      | 8.73   | Top Width (m)        | 0.68 | 7.11 | 0.94 |
| Vel Total (m/s)    | 0.45   | Avg. Vel. (m/s)      | 0.20 | 0.48 | 0.21 |
| Max Chl Dpth (m)   | 0.66   | Hydr. Depth (m)      | 0.28 | 0.66 | 0.28 |
| Conv. Total (m3/s) | 92.6   | Conv. (m3/s)         | 1.6  | 88.8 | 2.2  |
| Length Wtd. (m)    | 1.20   | Wetted Per. (m)      | 0.88 | 7.17 | 1.09 |
| Min Ch El (m)      | 659.00 | Shear (N/m2)         | 1.37 | 4.11 | 1.48 |
| Alpha              | 1.07   | Stream Power (N/m s) | 0.28 | 1.96 | 0.32 |
| Frctn Loss (m)     |        | Cum Volume (1000 m3) | 0.00 | 0.17 | 0.00 |
| C & E Loss (m)     |        | Cum SA (1000 m2)     | 0.01 | 0.40 | 0.01 |

Plan: Plan 05 Marchese 2 RS: 32 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 657.62   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.17     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 657.46   | Reach Len. (m)       | 8.28    | 8.28    | 8.28     |
| Crit W.S. (m)      | 657.46   | Flow Area (m2)       |         | 1.30    |          |
| E.G. Slope (m/m)   | 0.024594 | Area (m2)            |         | 1.30    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.98     | Top Width (m)        |         | 3.98    |          |
| Vel Total (m/s)    | 1.80     | Avg. Vel. (m/s)      |         | 1.80    |          |
| Max Chl Dpth (m)   | 0.46     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 14.9     | Conv. (m3/s)         |         | 14.9    |          |
| Length Wtd. (m)    | 8.28     | Wetted Per. (m)      |         | 4.16    |          |
| Min Ch El (m)      | 657.00   | Shear (N/m2)         |         | 75.19   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 135.54  |          |
| Frctn Loss (m)     | 0.62     | Cum Volume (1000 m3) | 0.00    | 0.16    | 0.00     |
| C & E Loss (m)     | 0.32     | Cum SA (1000 m2)     | 0.01    | 0.39    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 31 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 656.69   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.36     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 653.33   | Reach Len. (m)       | 6.00    | 6.00     | 6.00     |
| Crit W.S. (m)      | 653.69   | Flow Area (m2)       |         | 0.29     |          |
| E.G. Slope (m/m)   | 1.218907 | Area (m2)            |         | 0.29     |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34     |          |
| Top Width (m)      | 1.68     | Top Width (m)        |         | 1.68     |          |
| Vel Total (m/s)    | 8.12     | Avg. Vel. (m/s)      |         | 8.12     |          |
| Max Chl Dpth (m)   | 0.33     | Hydr. Depth (m)      |         | 0.17     |          |
| Conv. Total (m3/s) | 2.1      | Conv. (m3/s)         |         | 2.1      |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 1.81     |          |
| Min Ch El (m)      | 653.00   | Shear (N/m2)         |         | 1907.34  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 15487.63 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.16     | 0.00     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.01    | 0.37     | 0.01     |

Plan: Plan 05 Marchese 2 RS: 30.5 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 652.67   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.      | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 652.66   | Reach Len. (m)  | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 652.25   | Flow Area (m2)  | 0.30    | 3.93    | 0.33     |
| E.G. Slope (m/m)   | 0.000850 | Area (m2)       | 0.30    | 3.93    | 0.33     |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     | 0.08    | 2.17    | 0.09     |
| Top Width (m)      | 7.86     | Top Width (m)   | 0.91    | 5.96    | 0.99     |
| Vel Total (m/s)    | 0.51     | Avg. Vel. (m/s) | 0.27    | 0.55    | 0.27     |
| Max Chl Dpth (m)   | 0.66     | Hydr. Depth (m) | 0.33    | 0.66    | 0.33     |
| Conv. Total (m3/s) | 80.3     | Conv. (m3/s)    | 2.7     | 74.5    | 3.1      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m) | 1.12    | 5.96    | 1.19     |
| Min Ch El (m)      | 652.00   | Shear (N/m2)    | 2.20    | 5.50    | 2.28     |

Plan: Plan 05 Marchese 2 RS: 30.5 Profile: PF 1 (Continued)

|                |      |                      |      |      |      |
|----------------|------|----------------------|------|------|------|
| Alpha          | 1.09 | Stream Power (N/m s) | 0.59 | 3.04 | 0.62 |
| Frctn Loss (m) |      | Cum Volume (1000 m3) | 0.00 | 0.14 | 0.00 |
| C & E Loss (m) |      | Cum SA (1000 m2)     | 0.01 | 0.34 | 0.01 |

Plan: Plan 05 Marchese 2 RS: 30 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 650.77   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.18     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 650.58   | Reach Len. (m)       | 7.92    | 7.92    | 7.92     |
| Crit W.S. (m)      | 650.58   | Flow Area (m2)       |         | 1.24    |          |
| E.G. Slope (m/m)   | 0.024123 | Area (m2)            |         | 1.24    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.40     | Top Width (m)        |         | 3.40    |          |
| Vel Total (m/s)    | 1.89     | Avg. Vel. (m/s)      |         | 1.89    |          |
| Max Chl Dpth (m)   | 0.58     | Hydr. Depth (m)      |         | 0.36    |          |
| Conv. Total (m3/s) | 15.1     | Conv. (m3/s)         |         | 15.1    |          |
| Length Wtd. (m)    | 7.92     | Wetted Per. (m)      |         | 3.66    |          |
| Min Ch EI (m)      | 650.00   | Shear (N/m2)         |         | 80.20   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 151.40  |          |
| Frctn Loss (m)     | 0.59     | Cum Volume (1000 m3) | 0.00    | 0.14    | 0.00     |
| C & E Loss (m)     | 0.34     | Cum SA (1000 m2)     | 0.01    | 0.34    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 29 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 649.83   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 3.60     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 646.23   | Reach Len. (m)       | 6.30    | 6.30     | 6.30     |
| Crit W.S. (m)      | 646.61   | Flow Area (m2)       |         | 0.28     |          |
| E.G. Slope (m/m)   | 1.354058 | Area (m2)            |         | 0.28     |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34     |          |
| Top Width (m)      | 1.68     | Top Width (m)        |         | 1.68     |          |
| Vel Total (m/s)    | 8.40     | Avg. Vel. (m/s)      |         | 8.40     |          |
| Max Chl Dpth (m)   | 0.23     | Hydr. Depth (m)      |         | 0.17     |          |
| Conv. Total (m3/s) | 2.0      | Conv. (m3/s)         |         | 2.0      |          |
| Length Wtd. (m)    | 6.30     | Wetted Per. (m)      |         | 1.79     |          |
| Min Ch EI (m)      | 646.00   | Shear (N/m2)         |         | 2061.77  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 17327.10 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.14     | 0.00     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.01    | 0.32     | 0.01     |

Plan: Plan 05 Marchese 2 RS: 28.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 644.67   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.           | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 644.67   | Reach Len. (m)       | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 644.20   | Flow Area (m2)       | 0.23    | 5.67    | 0.13     |
| E.G. Slope (m/m)   | 0.000455 | Area (m2)            | 0.23    | 5.67    | 0.13     |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          | 0.04    | 2.28    | 0.02     |
| Top Width (m)      | 9.92     | Top Width (m)        | 0.89    | 8.54    | 0.50     |
| Vel Total (m/s)    | 0.39     | Avg. Vel. (m/s)      | 0.18    | 0.40    | 0.15     |
| Max Chl Dpth (m)   | 0.67     | Hydr. Depth (m)      | 0.26    | 0.66    | 0.26     |
| Conv. Total (m3/s) | 109.7    | Conv. (m3/s)         | 1.9     | 106.9   | 0.9      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m)      | 1.03    | 8.65    | 0.73     |
| Min Ch EI (m)      | 644.00   | Shear (N/m2)         | 1.01    | 2.92    | 0.78     |
| Alpha              | 1.05     | Stream Power (N/m s) | 0.18    | 1.18    | 0.12     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) | 0.00    | 0.12    | 0.00     |
| C & E Loss (m)     |          | Cum SA (1000 m2)     | 0.01    | 0.29    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 28 Profile: PF 1

| E.G. Elev (m)      | 642.52   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.14     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 642.38   | Reach Len. (m)       | 9.82    | 9.82    | 9.82     |
| Crit W.S. (m)      | 642.38   | Flow Area (m2)       |         | 1.40    |          |
| E.G. Slope (m/m)   | 0.024862 | Area (m2)            |         | 1.40    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.97     | Top Width (m)        |         | 4.97    |          |
| Vel Total (m/s)    | 1.67     | Avg. Vel. (m/s)      |         | 1.67    |          |
| Max Chl Dpth (m)   | 0.38     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 14.8     | Conv. (m3/s)         |         | 14.8    |          |
| Length Wtd. (m)    | 9.82     | Wetted Per. (m)      |         | 5.08    |          |
| Min Ch El (m)      | 642.00   | Shear (N/m2)         |         | 67.24   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 112.29  |          |
| Frctn Loss (m)     | 0.68     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.09     | Cum SA (1000 m2)     | 0.00    | 0.28    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 27 Profile: PF 1

| E.G. Elev (m)      | 641.74   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 1.09     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 640.65   | Reach Len. (m)       | 9.43    | 9.43    | 9.43     |
| Crit W.S. (m)      | 640.84   | Flow Area (m2)       |         | 0.51    |          |
| E.G. Slope (m/m)   | 0.602247 | Area (m2)            |         | 0.51    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.32     | Top Width (m)        |         | 4.32    |          |
| Vel Total (m/s)    | 4.63     | Avg. Vel. (m/s)      |         | 4.63    |          |
| Max Chl Dpth (m)   | 0.15     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 3.0      | Conv. (m3/s)         |         | 3.0     |          |
| Length Wtd. (m)    | 9.43     | Wetted Per. (m)      |         | 4.34    |          |
| Min Ch El (m)      | 640.50   | Shear (N/m2)         |         | 687.91  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 3183.12 |          |
| Frctn Loss (m)     | 2.68     | Cum Volume (1000 m3) | 0.00    | 0.10    | 0.00     |
| C & E Loss (m)     | 0.17     | Cum SA (1000 m2)     | 0.00    | 0.23    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 26 Profile: PF 1

| E.G. Elev (m)      | 638.90   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 638.36   | Reach Len. (m)       | 5.68    | 5.67    | 5.68     |
| Crit W.S. (m)      | 638.51   | Flow Area (m2)       |         | 0.72    |          |
| E.G. Slope (m/m)   | 0.164493 | Area (m2)            |         | 0.72    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.92     | Top Width (m)        |         | 3.92    |          |
| Vel Total (m/s)    | 3.24     | Avg. Vel. (m/s)      |         | 3.24    |          |
| Max Chl Dpth (m)   | 0.36     | Hydr. Depth (m)      |         | 0.18    |          |
| Conv. Total (m3/s) | 5.8      | Conv. (m3/s)         |         | 5.8     |          |
| Length Wtd. (m)    | 5.67     | Wetted Per. (m)      |         | 3.98    |          |
| Min Ch El (m)      | 638.00   | Shear (N/m2)         |         | 292.00  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 947.45  |          |
| Frctn Loss (m)     | 1.32     | Cum Volume (1000 m3) | 0.00    | 0.10    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.19    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 25 Profile: PF 1

| E.G. Elev (m)    | 637.54   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.87     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 636.66   | Reach Len. (m) | 7.95    | 7.95    | 7.95     |
| Crit W.S. (m)    | 636.86   | Flow Area (m2) |         | 0.57    |          |
| E.G. Slope (m/m) | 0.354800 | Area (m2)      |         | 0.57    |          |
| Q Total (m3/s)   | 2.34     | Flow (m3/s)    |         | 2.34    |          |

Plan: Plan 05 Marchese 2 RS: 25 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 3.78   | Top Width (m)        |      | 3.78    |      |
| Vel Total (m/s)    | 4.14   | Avg. Vel. (m/s)      |      | 4.14    |      |
| Max Chl Dpth (m)   | 0.16   | Hydr. Depth (m)      |      | 0.15    |      |
| Conv. Total (m3/s) | 3.9    | Conv. (m3/s)         |      | 3.9     |      |
| Length Wtd. (m)    | 7.95   | Wetted Per. (m)      |      | 3.86    |      |
| Min Ch El (m)      | 636.50 | Shear (N/m2)         |      | 509.98  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 2111.15 |      |
| Frctn Loss (m)     | 3.08   | Cum Volume (1000 m3) | 0.00 | 0.10    | 0.00 |
| C & E Loss (m)     | 0.02   | Cum SA (1000 m2)     | 0.00 | 0.17    | 0.01 |

Plan: Plan 05 Marchese 2 RS: 24 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 634.44   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.81     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 633.63   | Reach Len. (m)       | 9.78    | 9.78    | 9.78     |
| Crit W.S. (m)      | 633.80   | Flow Area (m2)       |         | 0.59    |          |
| E.G. Slope (m/m)   | 0.423641 | Area (m2)            |         | 0.59    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.82     | Top Width (m)        |         | 4.82    |          |
| Vel Total (m/s)    | 3.98     | Avg. Vel. (m/s)      |         | 3.98    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 3.6      | Conv. (m3/s)         |         | 3.6     |          |
| Length Wtd. (m)    | 9.78     | Wetted Per. (m)      |         | 4.87    |          |
| Min Ch El (m)      | 633.50   | Shear (N/m2)         |         | 501.86  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1995.56 |          |
| Frctn Loss (m)     | 3.17     | Cum Volume (1000 m3) | 0.00    | 0.09    | 0.00     |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     | 0.00    | 0.14    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 23 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 631.19   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.54     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 630.64   | Reach Len. (m)       | 9.40    | 9.40    | 9.40     |
| Crit W.S. (m)      | 630.78   | Flow Area (m2)       |         | 0.72    |          |
| E.G. Slope (m/m)   | 0.256158 | Area (m2)            |         | 0.72    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 5.41     | Top Width (m)        |         | 5.41    |          |
| Vel Total (m/s)    | 3.27     | Avg. Vel. (m/s)      |         | 3.27    |          |
| Max Chl Dpth (m)   | 0.14     | Hydr. Depth (m)      |         | 0.13    |          |
| Conv. Total (m3/s) | 4.6      | Conv. (m3/s)         |         | 4.6     |          |
| Length Wtd. (m)    | 9.40     | Wetted Per. (m)      |         | 5.45    |          |
| Min Ch El (m)      | 630.50   | Shear (N/m2)         |         | 329.77  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 1077.80 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.08    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.09    | 0.01     |

Plan: Plan 05 Marchese 2 RS: 22.5 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 629.68   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.01     | Wt. n-Val.      | 0.045   | 0.040   | 0.045    |
| W.S. Elev (m)      | 629.67   | Reach Len. (m)  | 1.20    | 1.20    | 1.20     |
| Crit W.S. (m)      | 629.20   | Flow Area (m2)  | 0.34    | 5.30    | 0.40     |
| E.G. Slope (m/m)   | 0.000462 | Area (m2)       | 0.34    | 5.30    | 0.40     |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)     | 0.07    | 2.18    | 0.09     |
| Top Width (m)      | 9.84     | Top Width (m)   | 0.89    | 7.94    | 1.01     |
| Vel Total (m/s)    | 0.39     | Avg. Vel. (m/s) | 0.21    | 0.41    | 0.23     |
| Max Chl Dpth (m)   | 0.67     | Hydr. Depth (m) | 0.38    | 0.67    | 0.40     |
| Conv. Total (m3/s) | 108.9    | Conv. (m3/s)    | 3.3     | 101.3   | 4.3      |
| Length Wtd. (m)    | 1.20     | Wetted Per. (m) | 1.14    | 7.94    | 1.24     |
| Min Ch El (m)      | 629.00   | Shear (N/m2)    | 1.34    | 3.03    | 1.48     |

Plan: Plan 05 Marchese 2 RS: 22.5 Profile: PF 1 (Continued)

|                |      |                      |      |      |      |
|----------------|------|----------------------|------|------|------|
| Alpha          | 1.07 | Stream Power (N/m s) | 0.28 | 1.24 | 0.33 |
| Frctn Loss (m) |      | Cum Volume (1000 m3) |      | 0.06 |      |
| C & E Loss (m) |      | Cum SA (1000 m2)     | 0.00 | 0.02 | 0.00 |

Plan: Plan 05 Marchese 2 RS: 22 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 627.56   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.15     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 627.41   | Reach Len. (m)       | 4.31    | 4.32    | 4.31     |
| Crit W.S. (m)      | 627.41   | Flow Area (m2)       |         | 1.36    |          |
| E.G. Slope (m/m)   | 0.024831 | Area (m2)            |         | 1.36    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 1.72     | Avg. Vel. (m/s)      |         | 1.72    |          |
| Max Chl Dpth (m)   | 0.41     | Hydr. Depth (m)      |         | 0.30    |          |
| Conv. Total (m3/s) | 14.8     | Conv. (m3/s)         |         | 14.8    |          |
| Length Wtd. (m)    | 4.32     | Wetted Per. (m)      |         | 4.68    |          |
| Min Ch EI (m)      | 627.00   | Shear (N/m2)         |         | 70.55   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 121.68  |          |
| Frctn Loss (m)     | 0.32     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.18     | Cum SA (1000 m2)     |         | 0.02    |          |

Plan: Plan 05 Marchese 2 RS: 21 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 627.07   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.94     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 625.13   | Reach Len. (m)       | 9.01    | 9.01    | 9.01     |
| Crit W.S. (m)      | 625.39   | Flow Area (m2)       |         | 0.38    |          |
| E.G. Slope (m/m)   | 1.078287 | Area (m2)            |         | 0.38    |          |
| Q Total (m3/s)     | 2.34     | Flow (m3/s)          |         | 2.34    |          |
| Top Width (m)      | 3.22     | Top Width (m)        |         | 3.22    |          |
| Vel Total (m/s)    | 6.16     | Avg. Vel. (m/s)      |         | 6.16    |          |
| Max Chl Dpth (m)   | 0.13     | Hydr. Depth (m)      |         | 0.12    |          |
| Conv. Total (m3/s) | 2.3      | Conv. (m3/s)         |         | 2.3     |          |
| Length Wtd. (m)    | 9.01     | Wetted Per. (m)      |         | 3.28    |          |
| Min Ch EI (m)      | 625.00   | Shear (N/m2)         |         | 1222.99 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7536.66 |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) |         | 0.05    |          |
| C & E Loss (m)     | 0.02     | Cum SA (1000 m2)     |         |         |          |

Plan: Plan 05 Marchese 3 RS: 10 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 623.51   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.08     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 623.43   | Reach Len. (m)       | 3.20    | 3.20    | 3.20     |
| Crit W.S. (m)      | 621.70   | Flow Area (m2)       |         | 5.59    |          |
| E.G. Slope (m/m)   | 0.001050 | Area (m2)            |         | 10.47   |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 5.36     | Top Width (m)        |         | 5.36    |          |
| Vel Total (m/s)    | 1.22     | Avg. Vel. (m/s)      |         | 1.22    |          |
| Max Chl Dpth (m)   | 2.87     | Hydr. Depth (m)      |         | 2.79    |          |
| Conv. Total (m3/s) | 211.1    | Conv. (m3/s)         |         | 211.1   |          |
| Length Wtd. (m)    | 3.20     | Wetted Per. (m)      |         | 3.01    |          |
| Min Ch EI (m)      | 620.56   | Shear (N/m2)         |         | 19.12   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 23.39   |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.33    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.53    |          |

Plan: Plan 05 Marchese 3 RS: 9.5 Profile: PF 1

| E.G. Elev (m)      | 621.68   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.30     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 621.38   | Reach Len. (m)       | 4.03    | 4.03    | 4.03     |
| Crit W.S. (m)      | 621.38   | Flow Area (m2)       |         | 2.81    |          |
| E.G. Slope (m/m)   | 0.021495 | Area (m2)            |         | 2.81    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 4.75     | Top Width (m)        |         | 4.75    |          |
| Vel Total (m/s)    | 2.43     | Avg. Vel. (m/s)      |         | 2.43    |          |
| Max Chl Dpth (m)   | 0.93     | Hydr. Depth (m)      |         | 0.59    |          |
| Conv. Total (m3/s) | 46.7     | Conv. (m3/s)         |         | 46.7    |          |
| Length Wtd. (m)    | 4.03     | Wetted Per. (m)      |         | 5.21    |          |
| Min Ch El (m)      | 620.45   | Shear (N/m2)         |         | 113.85  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 276.74  |          |
| Frctn Loss (m)     | 0.22     | Cum Volume (1000 m3) |         | 0.32    |          |
| C & E Loss (m)     | 0.20     | Cum SA (1000 m2)     |         | 0.52    |          |

Plan: Plan 05 Marchese 3 RS: 9 Profile: PF 1

| E.G. Elev (m)      | 621.26   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.29     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 618.97   | Reach Len. (m)       | 11.24   | 11.24   | 11.24    |
| Crit W.S. (m)      | 619.43   | Flow Area (m2)       |         | 1.02    |          |
| E.G. Slope (m/m)   | 0.347833 | Area (m2)            |         | 1.02    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 3.11     | Top Width (m)        |         | 3.11    |          |
| Vel Total (m/s)    | 6.69     | Avg. Vel. (m/s)      |         | 6.69    |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.33    |          |
| Conv. Total (m3/s) | 11.6     | Conv. (m3/s)         |         | 11.6    |          |
| Length Wtd. (m)    | 11.24    | Wetted Per. (m)      |         | 3.34    |          |
| Min Ch El (m)      | 618.50   | Shear (N/m2)         |         | 1043.67 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6987.25 |          |
| Frctn Loss (m)     | 3.62     | Cum Volume (1000 m3) |         | 0.31    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.50    |          |

Plan: Plan 05 Marchese 3 RS: 8 Profile: PF 1

| E.G. Elev (m)      | 617.60   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 2.17     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 615.43   | Reach Len. (m)       | 14.77   | 14.77   | 14.77    |
| Crit W.S. (m)      | 615.91   | Flow Area (m2)       |         | 1.05    |          |
| E.G. Slope (m/m)   | 0.299423 | Area (m2)            |         | 1.05    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 2.75     | Top Width (m)        |         | 2.75    |          |
| Vel Total (m/s)    | 6.52     | Avg. Vel. (m/s)      |         | 6.52    |          |
| Max Chl Dpth (m)   | 0.43     | Hydr. Depth (m)      |         | 0.38    |          |
| Conv. Total (m3/s) | 12.5     | Conv. (m3/s)         |         | 12.5    |          |
| Length Wtd. (m)    | 14.77    | Wetted Per. (m)      |         | 3.19    |          |
| Min Ch El (m)      | 615.00   | Shear (N/m2)         |         | 966.38  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 6301.76 |          |
| Frctn Loss (m)     | 0.34     | Cum Volume (1000 m3) |         | 0.30    |          |
| C & E Loss (m)     | 0.04     | Cum SA (1000 m2)     |         | 0.47    |          |

Plan: Plan 05 Marchese 3 RS: 7 Profile: PF 1

| E.G. Elev (m)    | 607.80   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.24     | Wt. n-Val.     |         | 0.040   |          |
| W.S. Elev (m)    | 607.55   | Reach Len. (m) | 13.08   | 13.08   | 13.08    |
| Crit W.S. (m)    | 607.56   | Flow Area (m2) |         | 3.14    |          |
| E.G. Slope (m/m) | 0.022052 | Area (m2)      |         | 3.14    |          |
| Q Total (m3/s)   | 6.84     | Flow (m3/s)    |         | 6.84    |          |

Plan: Plan 05 Marchese 3 RS: 7 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 6.57   | Top Width (m)        |  | 6.57   |  |
| Vel Total (m/s)    | 2.18   | Avg. Vel. (m/s)      |  | 2.18   |  |
| Max Chl Dpth (m)   | 0.55   | Hydr. Depth (m)      |  | 0.48   |  |
| Conv. Total (m3/s) | 46.1   | Conv. (m3/s)         |  | 46.1   |  |
| Length Wtd. (m)    | 13.08  | Wetted Per. (m)      |  | 6.99   |  |
| Min Ch EI (m)      | 607.00 | Shear (N/m2)         |  | 97.18  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 211.65 |  |
| Frctn Loss (m)     | 0.88   | Cum Volume (1000 m3) |  | 0.27   |  |
| C & E Loss (m)     | 0.27   | Cum SA (1000 m2)     |  | 0.40   |  |

Plan: Plan 05 Marchese 3 RS: 6 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 606.65   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 2.98     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 603.66   | Reach Len. (m)       | 5.69    | 5.69     | 5.69     |
| Crit W.S. (m)      | 604.02   | Flow Area (m2)       |         | 0.89     |          |
| E.G. Slope (m/m)   | 1.165788 | Area (m2)            |         | 0.89     |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84     |          |
| Top Width (m)      | 5.86     | Top Width (m)        |         | 5.86     |          |
| Vel Total (m/s)    | 7.65     | Avg. Vel. (m/s)      |         | 7.65     |          |
| Max Chl Dpth (m)   | 0.16     | Hydr. Depth (m)      |         | 0.15     |          |
| Conv. Total (m3/s) | 6.3      | Conv. (m3/s)         |         | 6.3      |          |
| Length Wtd. (m)    | 5.69     | Wetted Per. (m)      |         | 5.93     |          |
| Min Ch EI (m)      | 603.50   | Shear (N/m2)         |         | 1724.07  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 13185.15 |          |
| Frctn Loss (m)     | 3.81     | Cum Volume (1000 m3) |         | 0.24     |          |
| C & E Loss (m)     | 0.20     | Cum SA (1000 m2)     |         | 0.32     |          |

Plan: Plan 05 Marchese 3 RS: 5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 602.64   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.32     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 600.32   | Reach Len. (m)       | 9.71    | 9.71    | 9.71     |
| Crit W.S. (m)      | 600.75   | Flow Area (m2)       |         | 1.01    |          |
| E.G. Slope (m/m)   | 0.433498 | Area (m2)            |         | 1.01    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 3.69     | Top Width (m)        |         | 3.69    |          |
| Vel Total (m/s)    | 6.74     | Avg. Vel. (m/s)      |         | 6.74    |          |
| Max Chl Dpth (m)   | 0.32     | Hydr. Depth (m)      |         | 0.28    |          |
| Conv. Total (m3/s) | 10.4     | Conv. (m3/s)         |         | 10.4    |          |
| Length Wtd. (m)    | 9.71     | Wetted Per. (m)      |         | 3.87    |          |
| Min Ch EI (m)      | 600.00   | Shear (N/m2)         |         | 1114.38 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7513.10 |          |
| Frctn Loss (m)     | 3.48     | Cum Volume (1000 m3) |         | 0.24    |          |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     |         | 0.29    |          |

Plan: Plan 05 Marchese 3 RS: 4 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 599.11   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.13     | Wt. n-Val.      |         | 0.040   |          |
| W.S. Elev (m)      | 596.99   | Reach Len. (m)  | 4.87    | 4.88    | 4.87     |
| Crit W.S. (m)      | 597.44   | Flow Area (m2)  |         | 1.06    |          |
| E.G. Slope (m/m)   | 0.300512 | Area (m2)       |         | 1.06    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)     |         | 6.84    |          |
| Top Width (m)      | 3.01     | Top Width (m)   |         | 3.01    |          |
| Vel Total (m/s)    | 6.46     | Avg. Vel. (m/s) |         | 6.46    |          |
| Max Chl Dpth (m)   | 0.49     | Hydr. Depth (m) |         | 0.35    |          |
| Conv. Total (m3/s) | 12.5     | Conv. (m3/s)    |         | 12.5    |          |
| Length Wtd. (m)    | 4.88     | Wetted Per. (m) |         | 3.28    |          |
| Min Ch EI (m)      | 596.50   | Shear (N/m2)    |         | 953.01  |          |

Plan: Plan 05 Marchese 3 RS: 4 Profile: PF 1 (Continued)

|                |      |                      |  |         |  |
|----------------|------|----------------------|--|---------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 6153.40 |  |
| Frctn Loss (m) | 1.46 | Cum Volume (1000 m3) |  | 0.23    |  |
| C & E Loss (m) | 0.16 | Cum SA (1000 m2)     |  | 0.26    |  |

Plan: Plan 05 Marchese 3 RS: 3 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 597.49   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.60     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 595.90   | Reach Len. (m)       | 7.00    | 7.00    | 7.00     |
| Crit W.S. (m)      | 596.23   | Flow Area (m2)       |         | 1.22    |          |
| E.G. Slope (m/m)   | 0.297514 | Area (m2)            |         | 1.22    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 5.59     | Avg. Vel. (m/s)      |         | 5.59    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.27    |          |
| Conv. Total (m3/s) | 12.5     | Conv. (m3/s)         |         | 12.5    |          |
| Length Wtd. (m)    | 7.00     | Wetted Per. (m)      |         | 4.65    |          |
| Min Ch EI (m)      | 595.50   | Shear (N/m2)         |         | 766.50  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4287.43 |          |
| Frctn Loss (m)     | 2.76     | Cum Volume (1000 m3) |         | 0.22    |          |
| C & E Loss (m)     | 0.12     | Cum SA (1000 m2)     |         | 0.24    |          |

Plan: Plan 05 Marchese 3 RS: 2 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 594.62   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.78     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 591.84   | Reach Len. (m)       | 5.25    | 5.25    | 5.25     |
| Crit W.S. (m)      | 592.28   | Flow Area (m2)       |         | 0.93    |          |
| E.G. Slope (m/m)   | 0.548490 | Area (m2)            |         | 0.93    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 3.49     | Top Width (m)        |         | 3.49    |          |
| Vel Total (m/s)    | 7.38     | Avg. Vel. (m/s)      |         | 7.38    |          |
| Max Chl Dpth (m)   | 0.34     | Hydr. Depth (m)      |         | 0.27    |          |
| Conv. Total (m3/s) | 9.2      | Conv. (m3/s)         |         | 9.2     |          |
| Length Wtd. (m)    | 5.25     | Wetted Per. (m)      |         | 3.68    |          |
| Min Ch EI (m)      | 591.50   | Shear (N/m2)         |         | 1354.16 |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 9996.65 |          |
| Frctn Loss (m)     | 0.02     | Cum Volume (1000 m3) |         | 0.21    |          |
| C & E Loss (m)     | 0.08     | Cum SA (1000 m2)     |         | 0.21    |          |

Plan: Plan 05 Marchese 3 RS: 1 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 591.65   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.03     | Wt. n-Val.           |         | 0.040   |          |
| W.S. Elev (m)      | 591.61   | Reach Len. (m)       | 14.95   | 14.95   | 14.95    |
| Crit W.S. (m)      | 591.04   | Flow Area (m2)       |         | 8.47    |          |
| E.G. Slope (m/m)   | 0.001330 | Area (m2)            |         | 8.47    |          |
| Q Total (m3/s)     | 6.84     | Flow (m3/s)          |         | 6.84    |          |
| Top Width (m)      | 9.31     | Top Width (m)        |         | 9.31    |          |
| Vel Total (m/s)    | 0.81     | Avg. Vel. (m/s)      |         | 0.81    |          |
| Max Chl Dpth (m)   | 1.01     | Hydr. Depth (m)      |         | 0.91    |          |
| Conv. Total (m3/s) | 187.6    | Conv. (m3/s)         |         | 187.6   |          |
| Length Wtd. (m)    | 14.95    | Wetted Per. (m)      |         | 10.15   |          |
| Min Ch EI (m)      | 590.60   | Shear (N/m2)         |         | 10.88   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 8.79    |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) |         | 0.19    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.18    |          |

Plan: Plan 05 Marchese 3 RS: 0.9 Profile: PF 1

| E.G. Elev (m)      | 591.64   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.03     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 591.61   | Reach Len. (m)       | 0.60    | 0.60    | 0.60     |
| Crit W.S. (m)      | 590.43   | Flow Area (m2)       |         | 1.74    |          |
| E.G. Slope (m/m)   | 0.000068 | Area (m2)            |         | 8.35    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)          |         | 1.30    |          |
| Top Width (m)      | 5.10     | Top Width (m)        |         | 5.10    |          |
| Vel Total (m/s)    | 0.75     | Avg. Vel. (m/s)      |         | 0.75    |          |
| Max Chl Dpth (m)   | 1.74     | Hydr. Depth (m)      |         | 1.74    |          |
| Conv. Total (m3/s) | 157.2    | Conv. (m3/s)         |         | 157.2   |          |
| Length Wtd. (m)    | 0.60     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch El (m)      | 589.87   | Shear (N/m2)         |         | 1.17    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.87    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Marchese 3 RS: 0.8 Profile: PF 1

| E.G. Elev (m)      | 590.70   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 0.28     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 590.43   | Reach Len. (m)       | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)      | 590.43   | Flow Area (m2)       |         | 0.56    |          |
| E.G. Slope (m/m)   | 0.003043 | Area (m2)            |         | 2.56    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)          |         | 1.30    |          |
| Top Width (m)      | 4.70     | Top Width (m)        |         | 4.70    |          |
| Vel Total (m/s)    | 2.33     | Avg. Vel. (m/s)      |         | 2.33    |          |
| Max Chl Dpth (m)   | 0.56     | Hydr. Depth (m)      |         | 0.56    |          |
| Conv. Total (m3/s) | 23.6     | Conv. (m3/s)         |         | 23.6    |          |
| Length Wtd. (m)    | 0.15     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch El (m)      | 589.87   | Shear (N/m2)         |         | 16.62   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 38.80   |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.35     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Marchese 3 RS: 0.7 Profile: PF 1

| E.G. Elev (m)      | 590.34   | Element              | Left OB | Channel | Right OB |
|--------------------|----------|----------------------|---------|---------|----------|
| Vel Head (m)       | 3.83     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.51   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 586.68   | Flow Area (m2)       |         | 0.15    |          |
| E.G. Slope (m/m)   | 1.832116 | Area (m2)            |         | 0.15    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)          |         | 1.30    |          |
| Top Width (m)      | 4.52     | Top Width (m)        |         | 4.52    |          |
| Vel Total (m/s)    | 8.66     | Avg. Vel. (m/s)      |         | 8.66    |          |
| Max Chl Dpth (m)   | 0.03     | Hydr. Depth (m)      |         | 0.03    |          |
| Conv. Total (m3/s) | 1.0      | Conv. (m3/s)         |         | 1.0     |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 4.58    |          |
| Min Ch El (m)      | 586.48   | Shear (N/m2)         |         | 588.90  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 5102.47 |          |
| Frctn Loss (m)     | 2.07     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.91     | Cum SA (1000 m2)     |         | 0.07    |          |

Plan: Plan 05 Marchese 3 RS: 0.6 Profile: PF 1

| E.G. Elev (m)    | 587.36   | Element        | Left OB | Channel | Right OB |
|------------------|----------|----------------|---------|---------|----------|
| Vel Head (m)     | 0.81     | Wt. n-Val.     |         | 0.016   |          |
| W.S. Elev (m)    | 586.55   | Reach Len. (m) | 0.15    | 0.15    | 0.15     |
| Crit W.S. (m)    | 586.68   | Flow Area (m2) |         | 0.33    |          |
| E.G. Slope (m/m) | 0.140624 | Area (m2)      |         | 0.33    |          |
| Q Total (m3/s)   | 1.30     | Flow (m3/s)    |         | 1.30    |          |

Plan: Plan 05 Marchese 3 RS: 0.6 Profile: PF 1 (Continued)

|                    |        |                      |  |        |  |
|--------------------|--------|----------------------|--|--------|--|
| Top Width (m)      | 4.57   | Top Width (m)        |  | 4.57   |  |
| Vel Total (m/s)    | 3.97   | Avg. Vel. (m/s)      |  | 3.97   |  |
| Max Chl Dpth (m)   | 0.07   | Hydr. Depth (m)      |  | 0.07   |  |
| Conv. Total (m3/s) | 3.5    | Conv. (m3/s)         |  | 3.5    |  |
| Length Wtd. (m)    | 0.15   | Wetted Per. (m)      |  | 4.69   |  |
| Min Ch EI (m)      | 586.48 | Shear (N/m2)         |  | 96.27  |  |
| Alpha              | 1.00   | Stream Power (N/m s) |  | 382.56 |  |
| Frctn Loss (m)     | 0.00   | Cum Volume (1000 m3) |  | 0.06   |  |
| C & E Loss (m)     | 0.03   | Cum SA (1000 m2)     |  | 0.04   |  |

Plan: Plan 05 Marchese 3 RS: 0.5 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.60   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.00     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.60   | Reach Len. (m)       | 6.00    | 6.00    | 6.00     |
| Crit W.S. (m)      | 584.71   | Flow Area (m2)       |         | 8.89    |          |
| E.G. Slope (m/m)   | 0.000005 | Area (m2)            |         | 8.89    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)          |         | 1.30    |          |
| Top Width (m)      | 4.59     | Top Width (m)        |         | 4.59    |          |
| Vel Total (m/s)    | 0.15     | Avg. Vel. (m/s)      |         | 0.15    |          |
| Max Chl Dpth (m)   | 2.12     | Hydr. Depth (m)      |         | 1.94    |          |
| Conv. Total (m3/s) | 590.4    | Conv. (m3/s)         |         | 590.4   |          |
| Length Wtd. (m)    | 6.00     | Wetted Per. (m)      |         | 8.11    |          |
| Min Ch EI (m)      | 584.48   | Shear (N/m2)         |         | 0.05    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.01    |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) |         | 0.06    |          |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     |         | 0.04    |          |

Plan: Plan 05 Marchese 3 RS: 0.4 Profile: PF 1

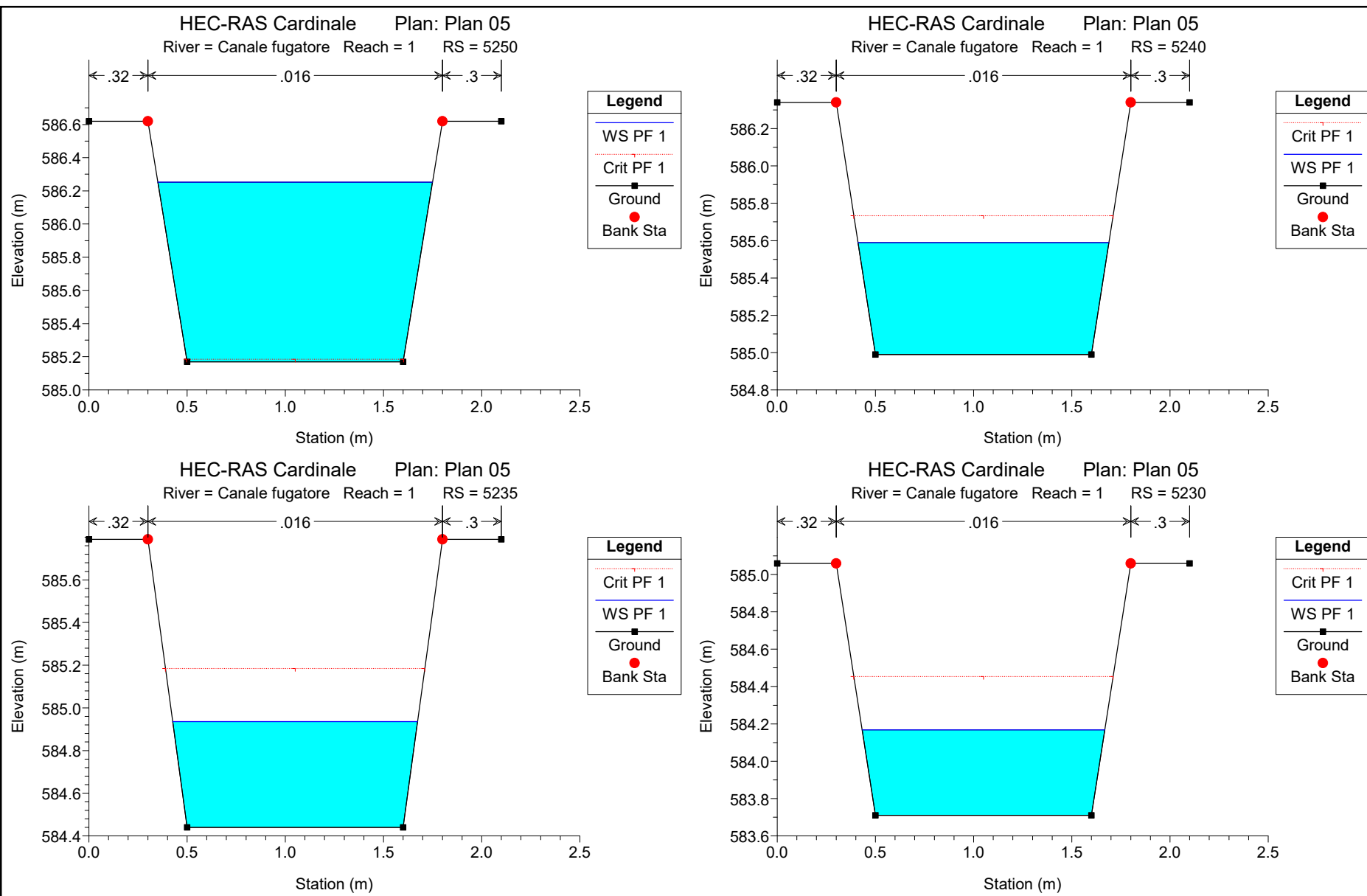
|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 586.60   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.02     | Wt. n-Val.           |         | 0.016   |          |
| W.S. Elev (m)      | 586.58   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 585.04   | Flow Area (m2)       |         | 2.10    |          |
| E.G. Slope (m/m)   | 0.000036 | Area (m2)            |         | 8.96    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)          |         | 1.30    |          |
| Top Width (m)      | 4.71     | Top Width (m)        |         | 4.71    |          |
| Vel Total (m/s)    | 0.62     | Avg. Vel. (m/s)      |         | 0.62    |          |
| Max Chl Dpth (m)   | 2.10     | Hydr. Depth (m)      |         | 2.10    |          |
| Conv. Total (m3/s) | 215.5    | Conv. (m3/s)         |         | 215.5   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 1.00    |          |
| Min Ch EI (m)      | 584.48   | Shear (N/m2)         |         | 0.75    |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 0.46    |          |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         | 0.01    |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         | 0.01    |          |

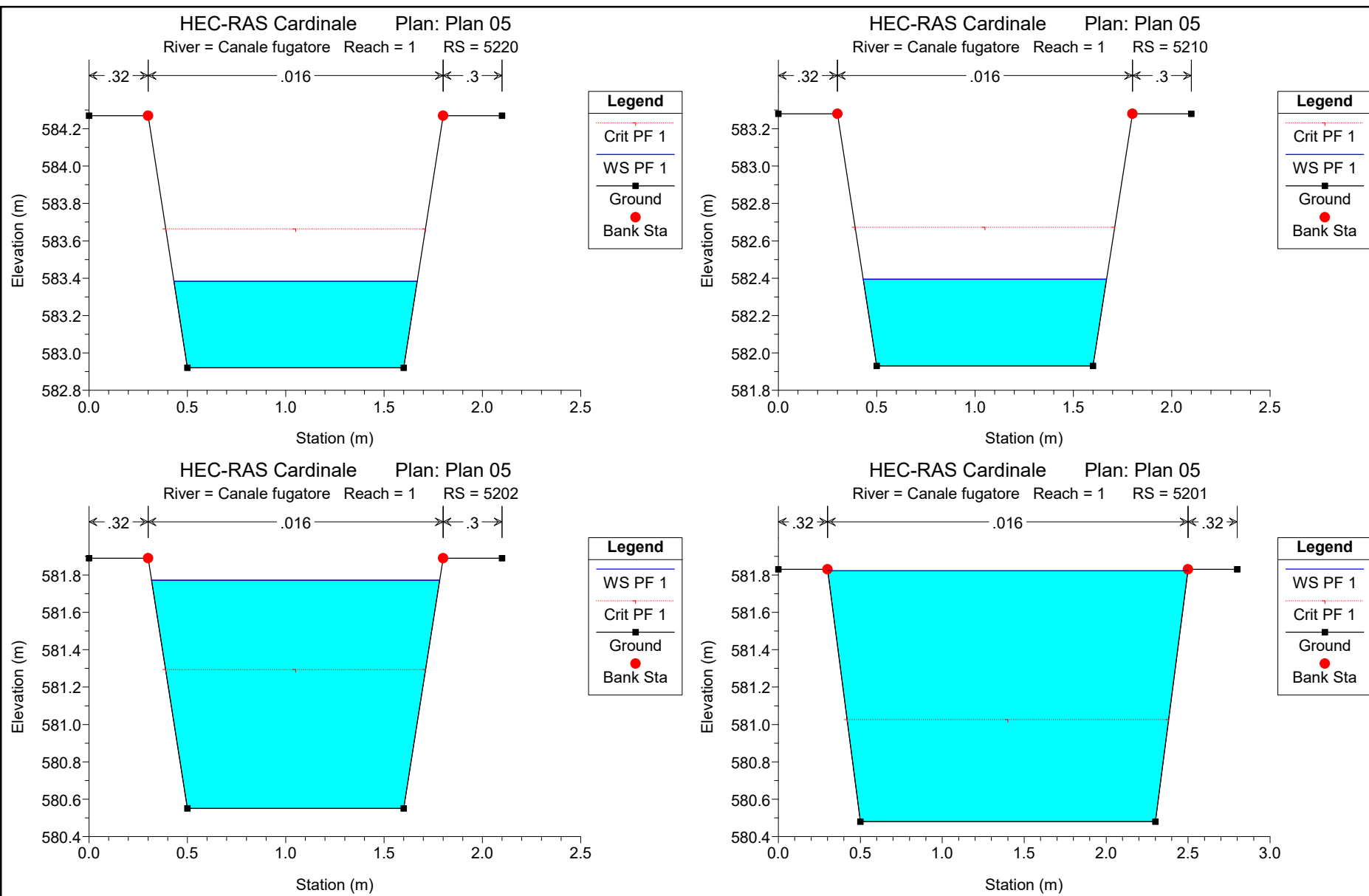
Plan: Plan 05 Marchese 3 RS: 0.3 Profile: PF 1

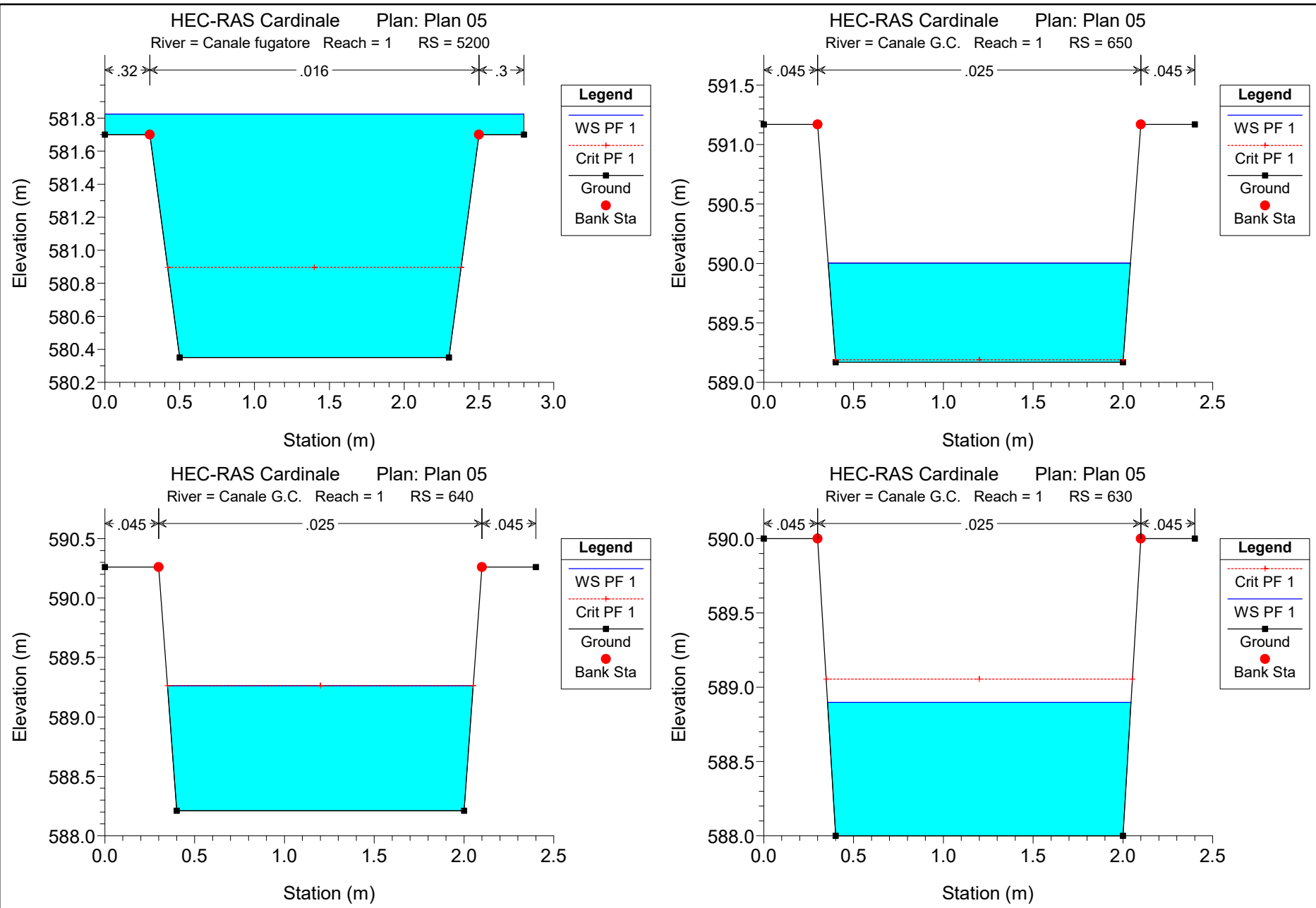
|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 585.13   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.28     | Wt. n-Val.      |         | 0.016   |          |
| W.S. Elev (m)      | 584.86   | Reach Len. (m)  |         |         |          |
| Crit W.S. (m)      | 584.86   | Flow Area (m2)  |         | 0.56    |          |
| E.G. Slope (m/m)   | 0.003014 | Area (m2)       |         | 2.41    |          |
| Q Total (m3/s)     | 1.30     | Flow (m3/s)     |         | 1.30    |          |
| Top Width (m)      | 4.79     | Top Width (m)   |         | 4.79    |          |
| Vel Total (m/s)    | 2.33     | Avg. Vel. (m/s) |         | 2.33    |          |
| Max Chl Dpth (m)   | 0.56     | Hydr. Depth (m) |         | 0.56    |          |
| Conv. Total (m3/s) | 23.7     | Conv. (m3/s)    |         | 23.7    |          |
| Length Wtd. (m)    |          | Wetted Per. (m) |         | 1.00    |          |
| Min Ch EI (m)      | 584.30   | Shear (N/m2)    |         | 16.51   |          |

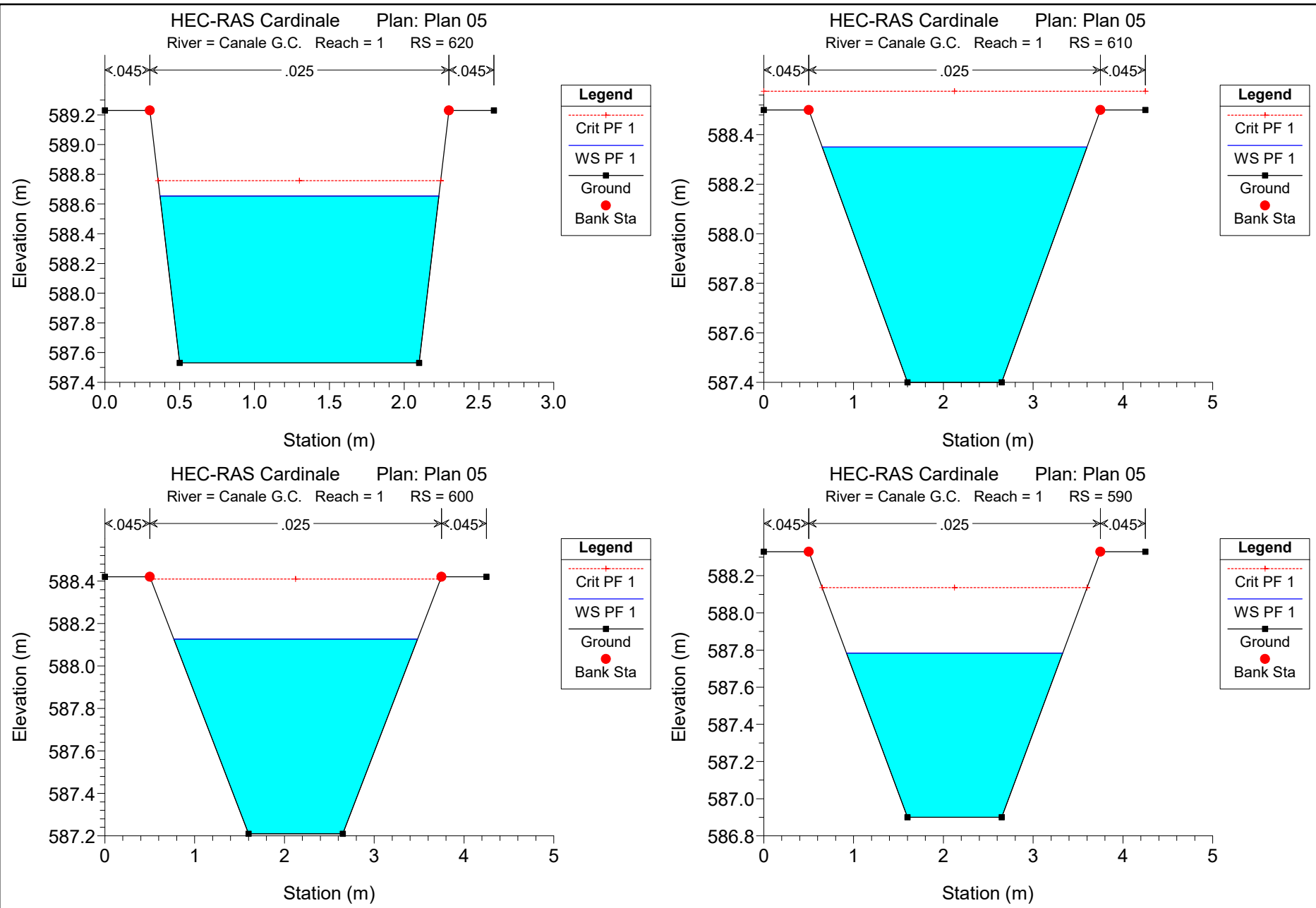
Plan: Plan 05    Marchese    3    RS: 0.3    Profile: PF 1 (Continued)

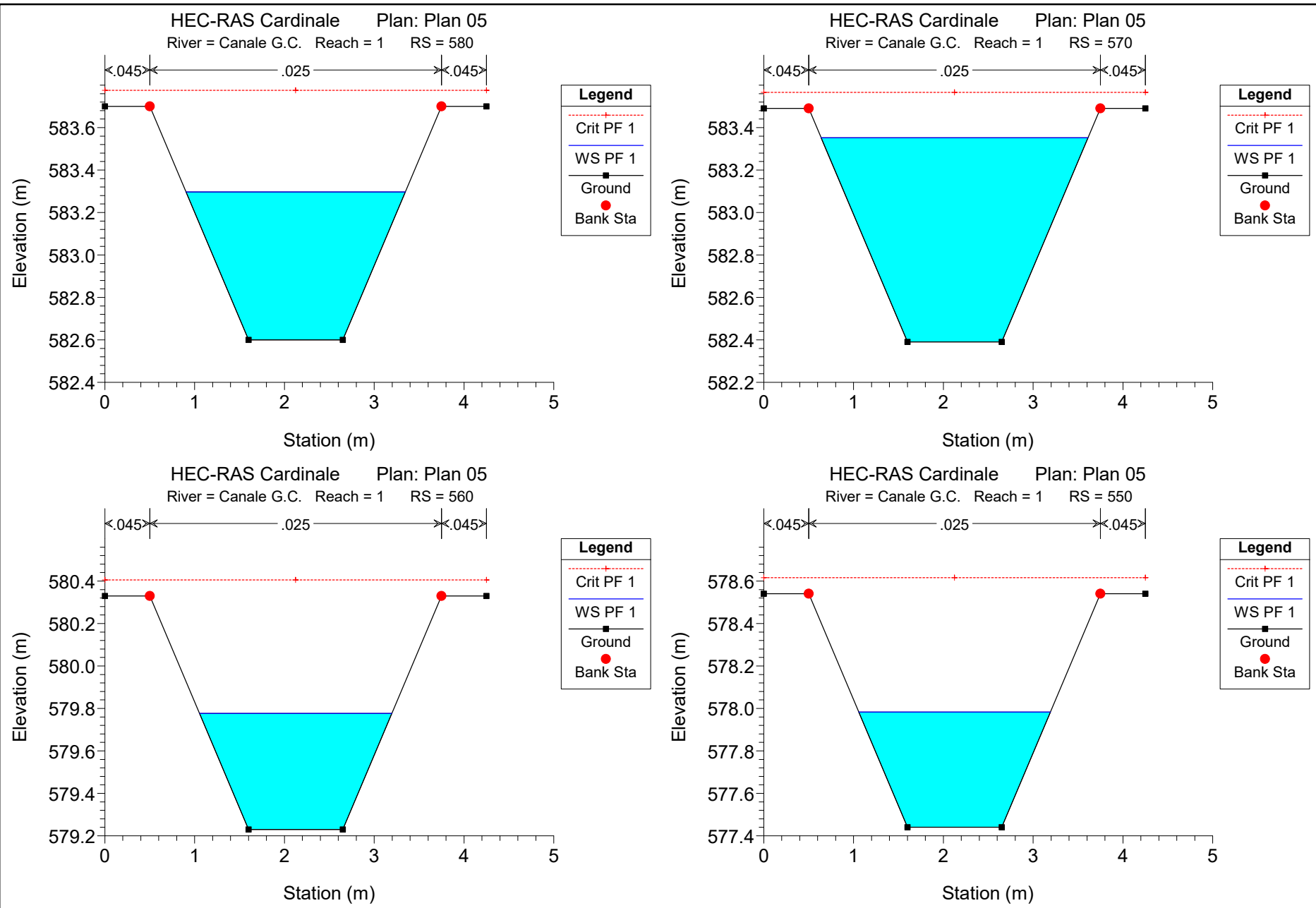
|                |      |                      |  |       |  |
|----------------|------|----------------------|--|-------|--|
| Alpha          | 1.00 | Stream Power (N/m s) |  | 38.42 |  |
| Frctn Loss (m) |      | Cum Volume (1000 m3) |  |       |  |
| C & E Loss (m) |      | Cum SA (1000 m2)     |  |       |  |

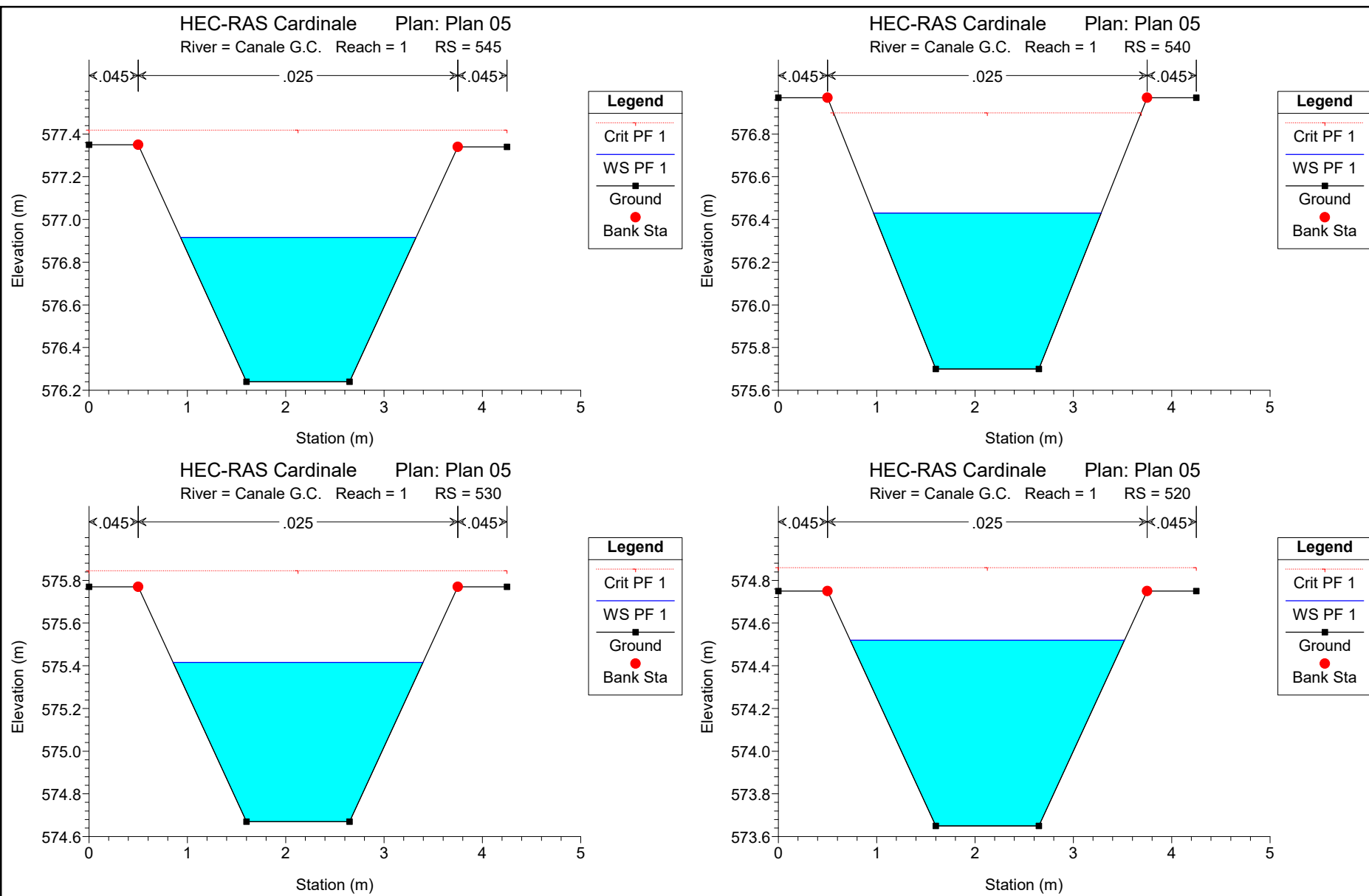


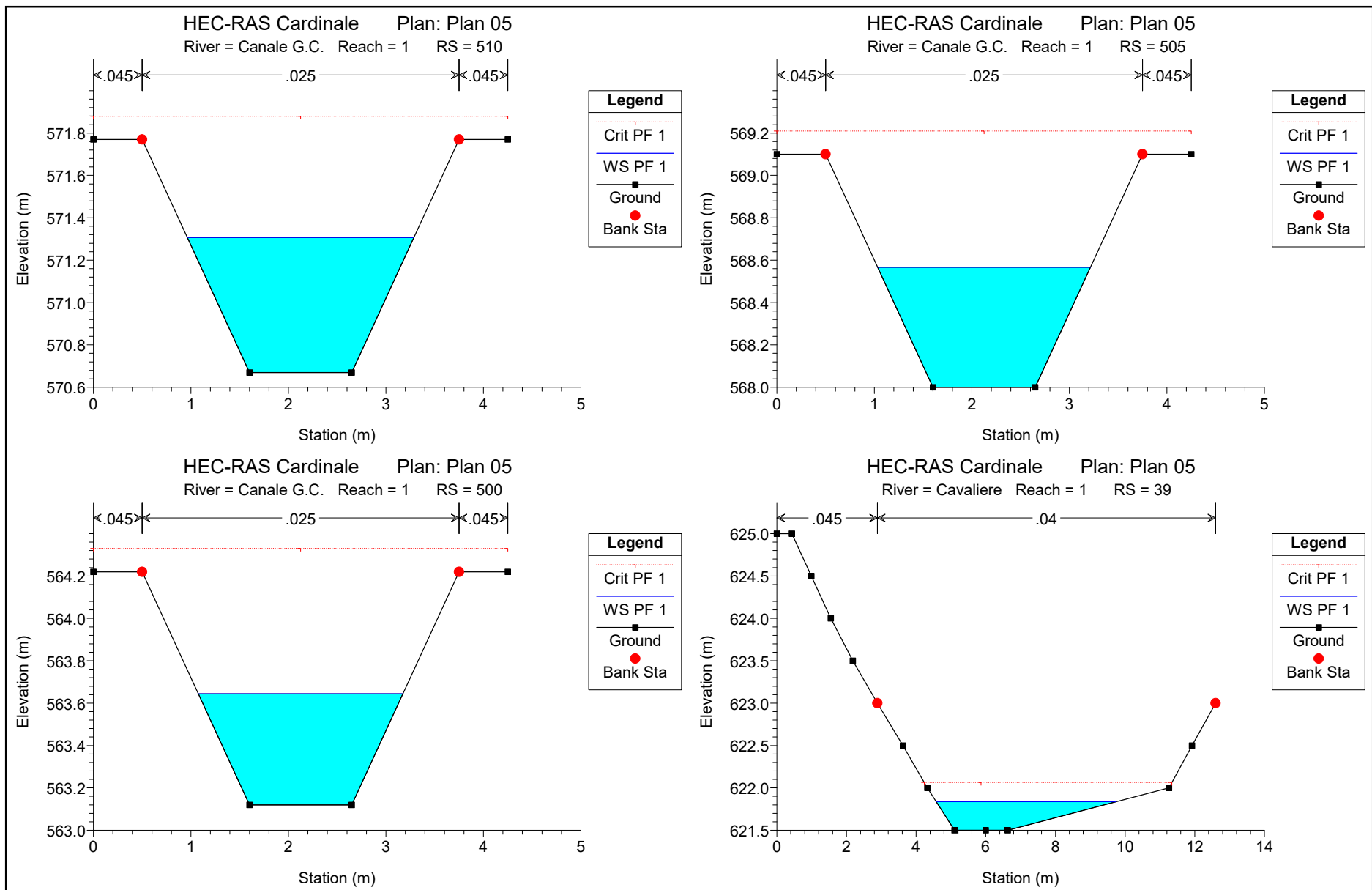


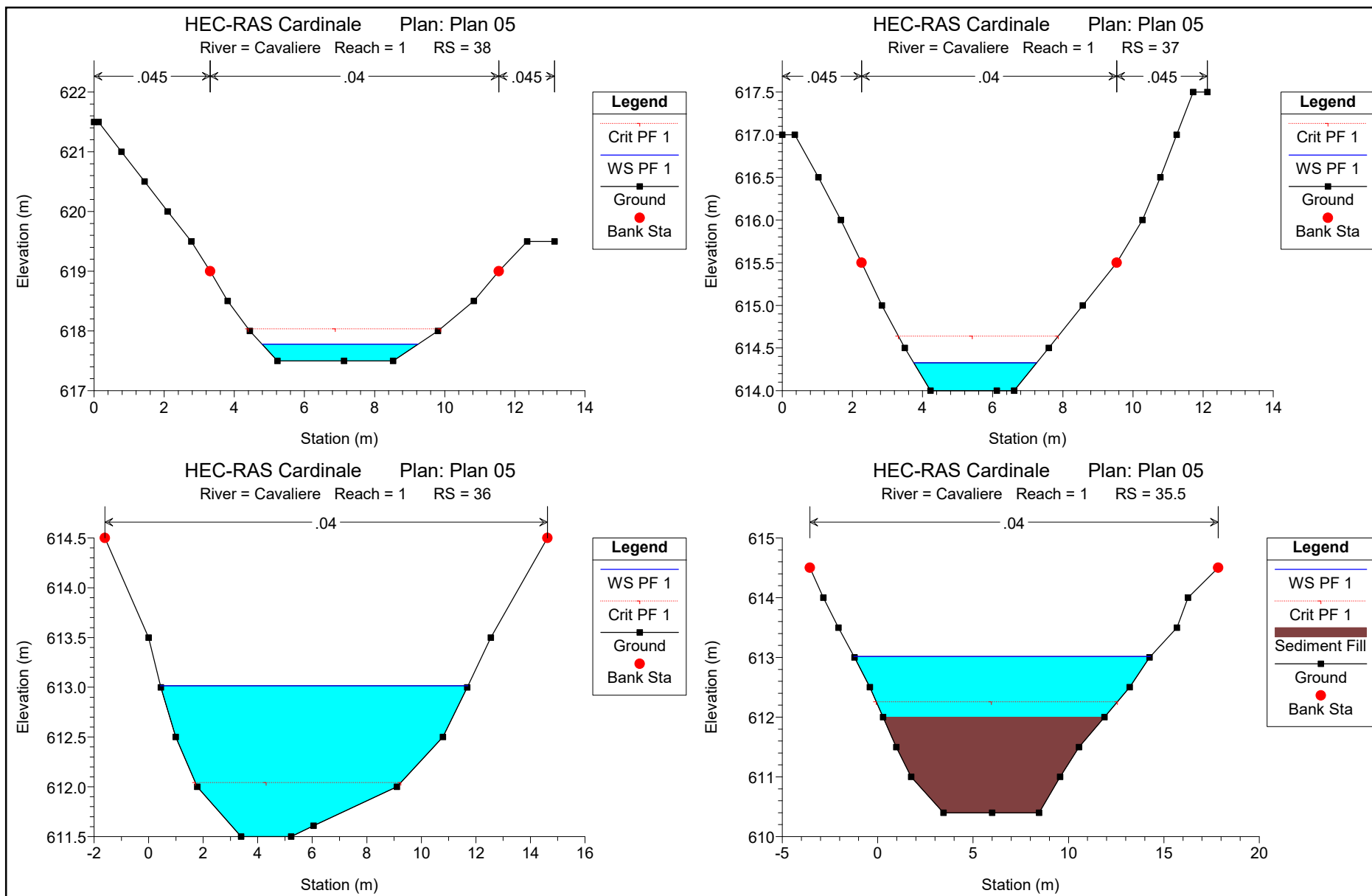


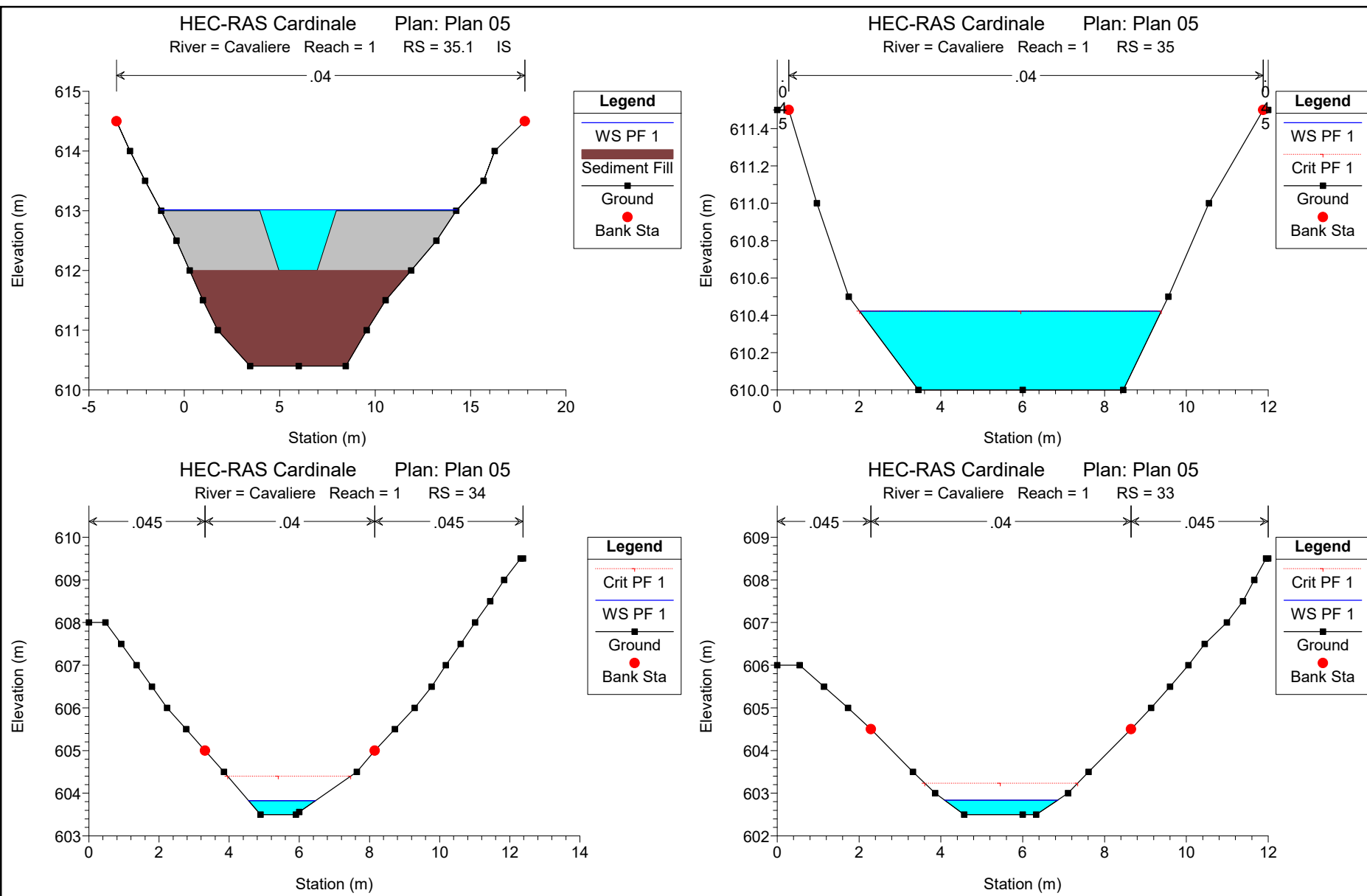


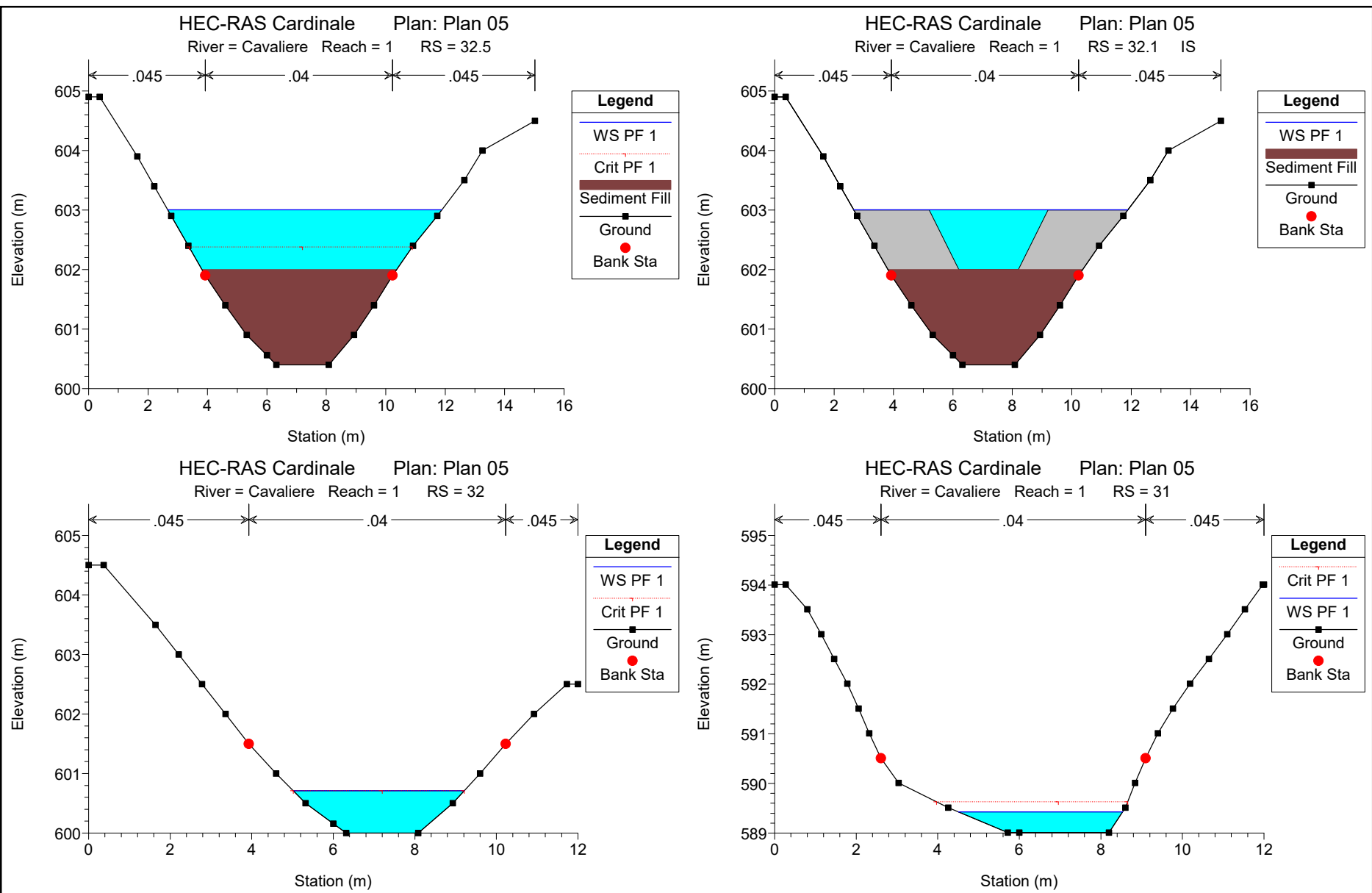


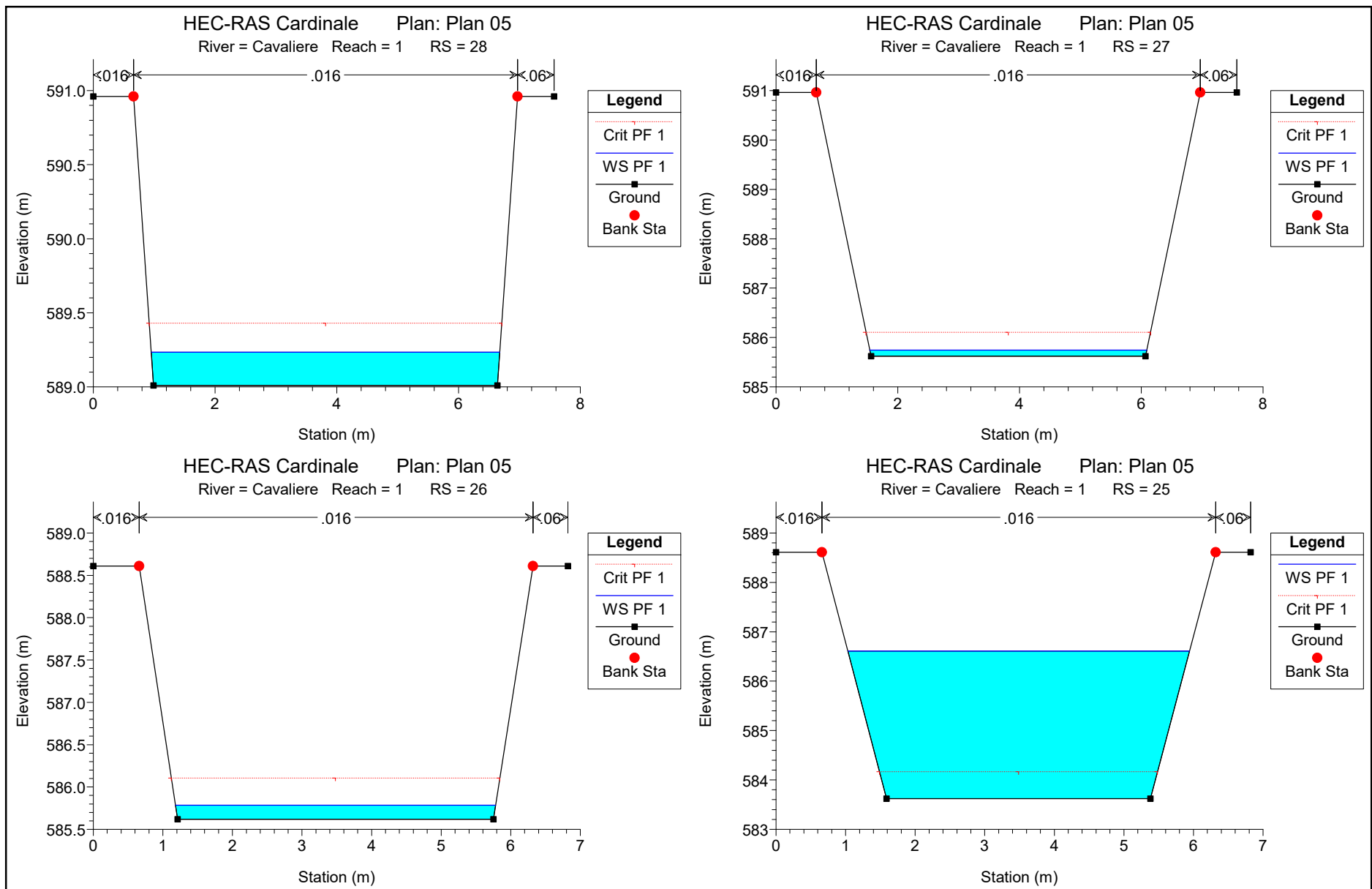


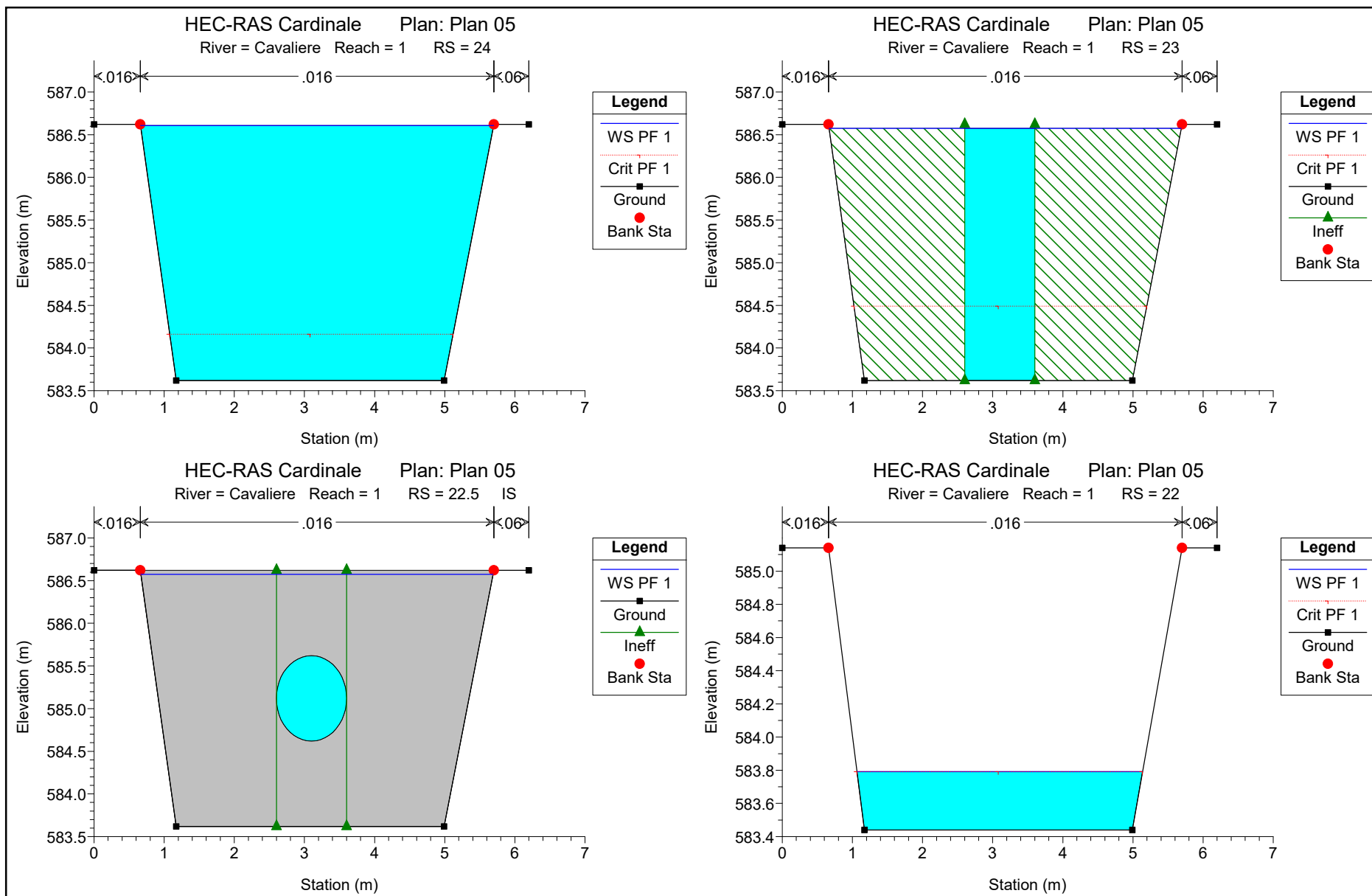


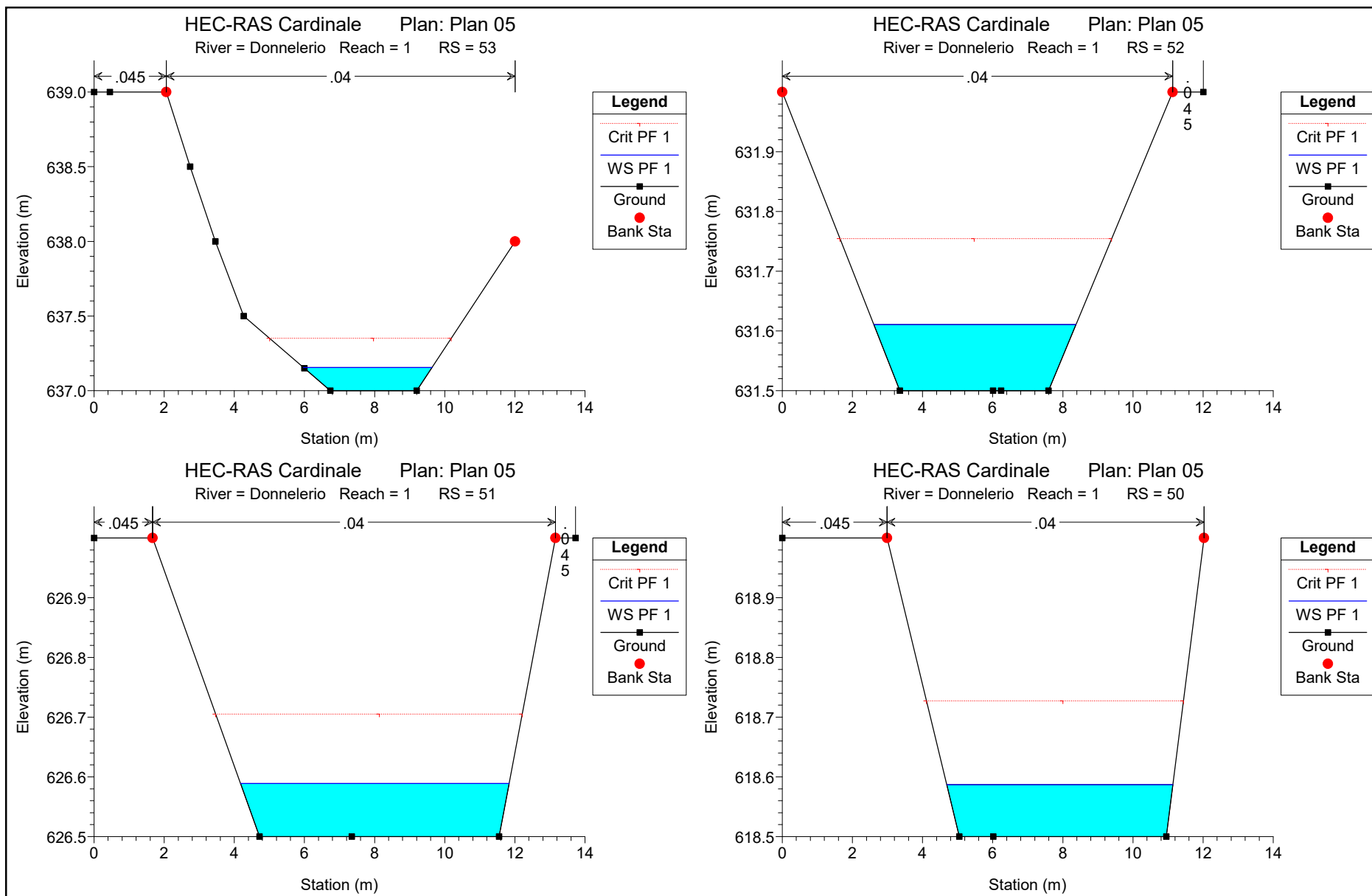


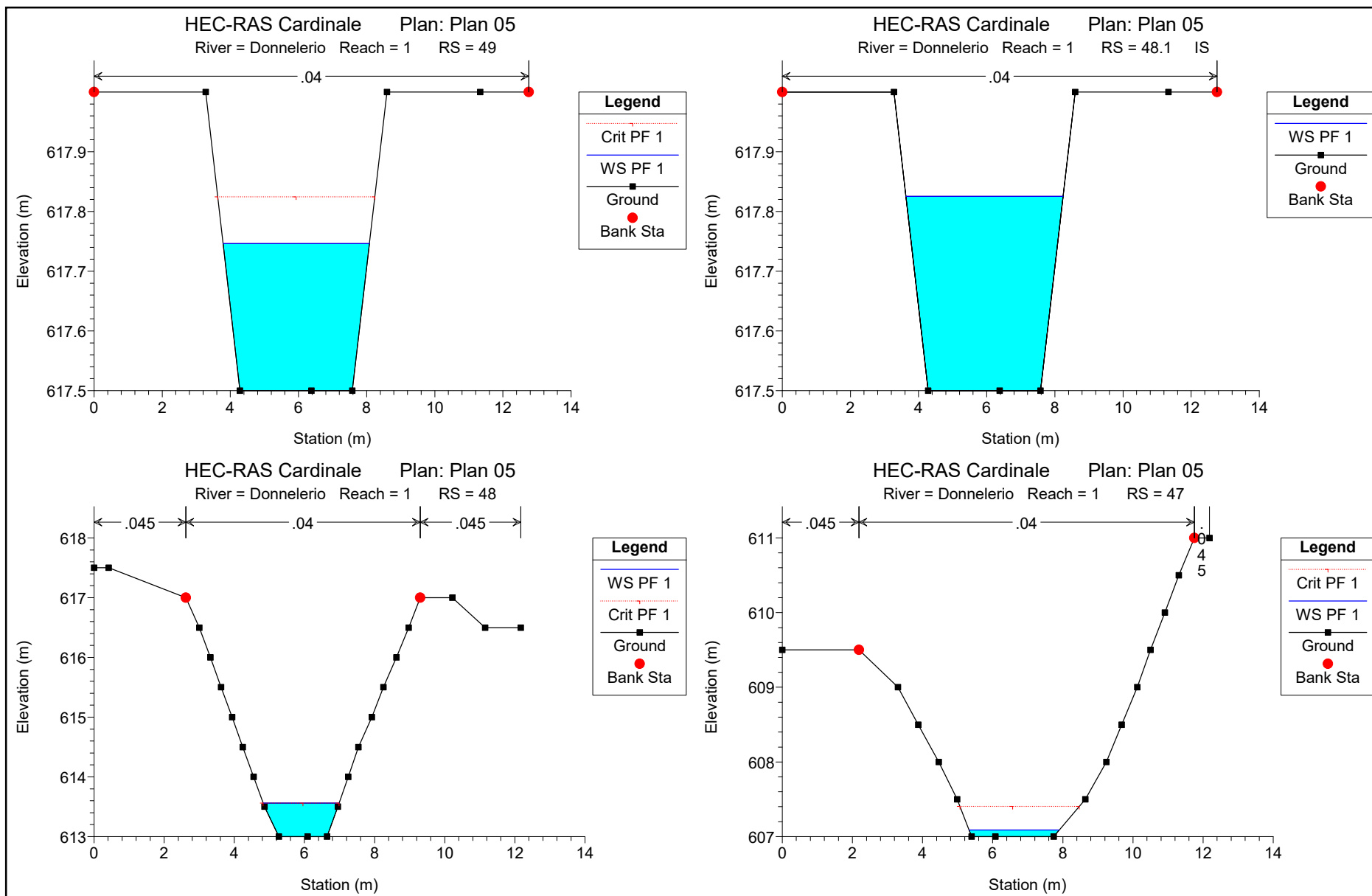


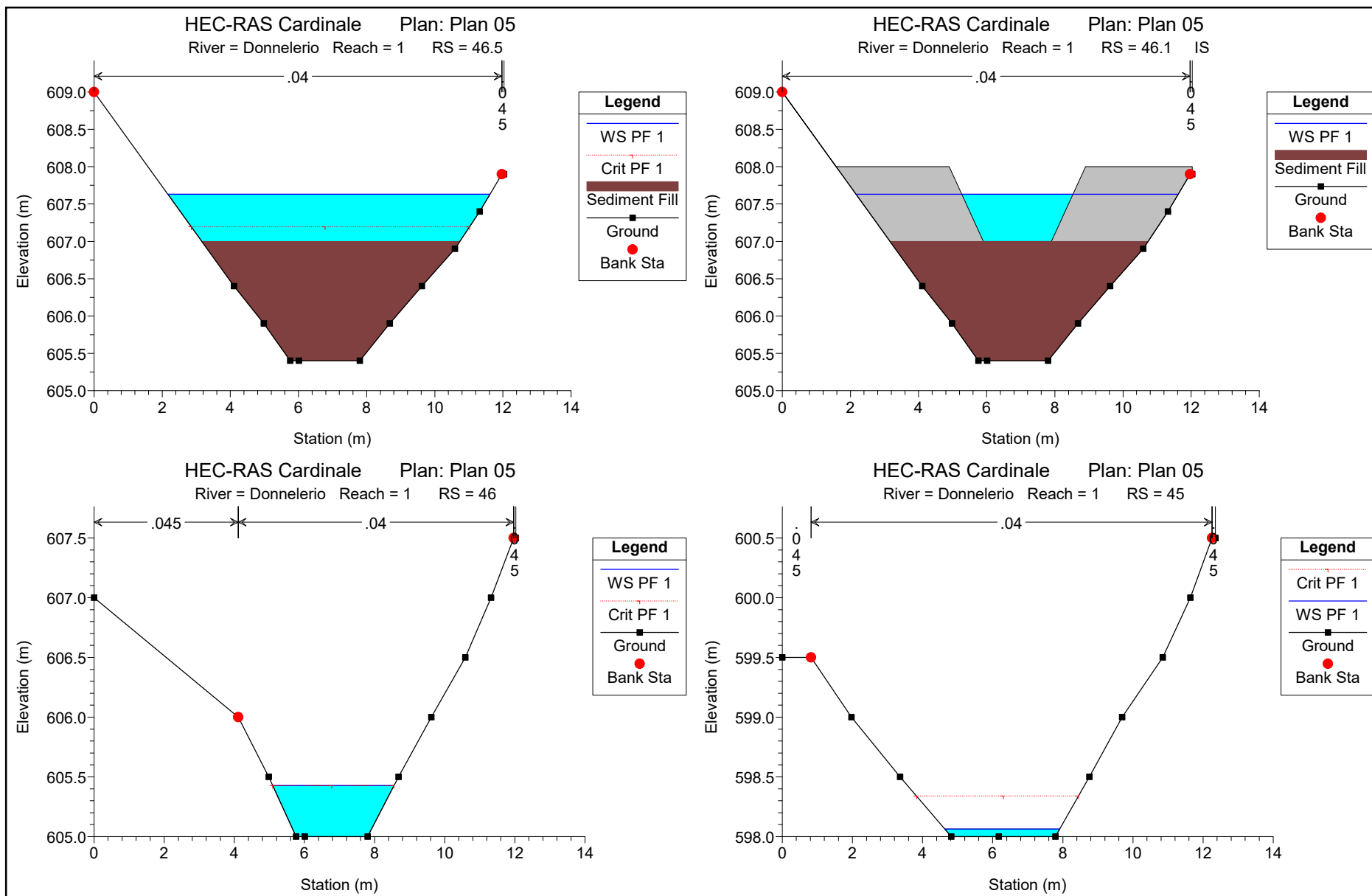


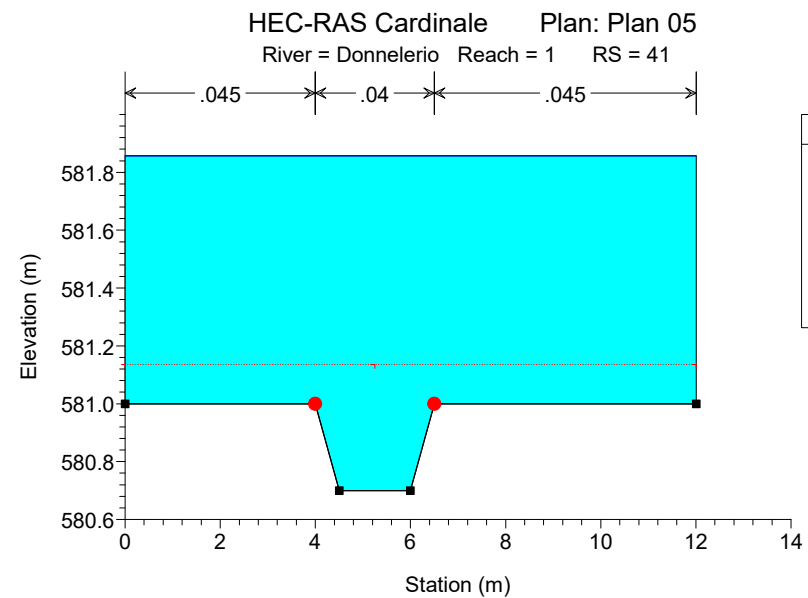
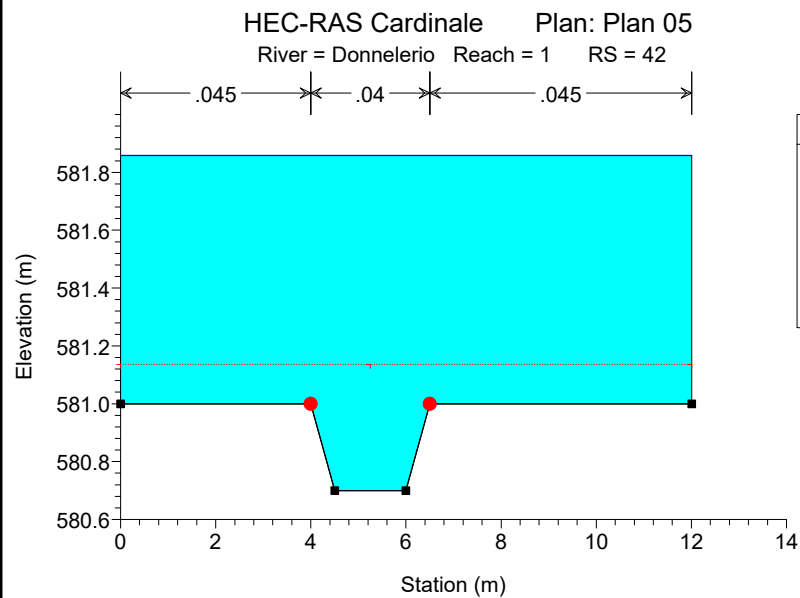
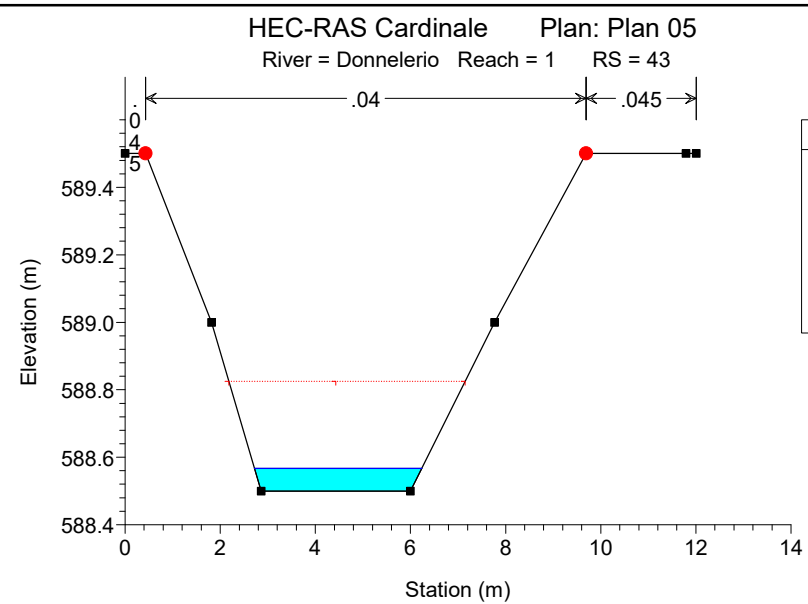
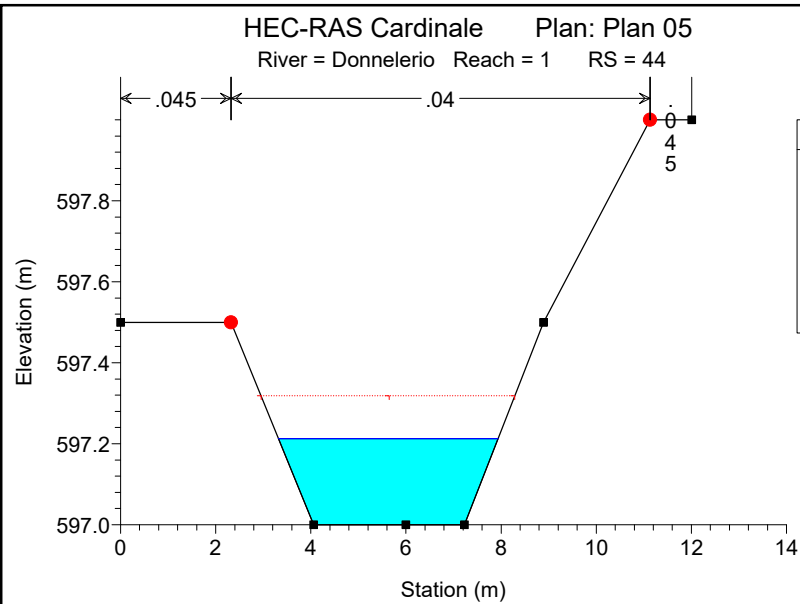


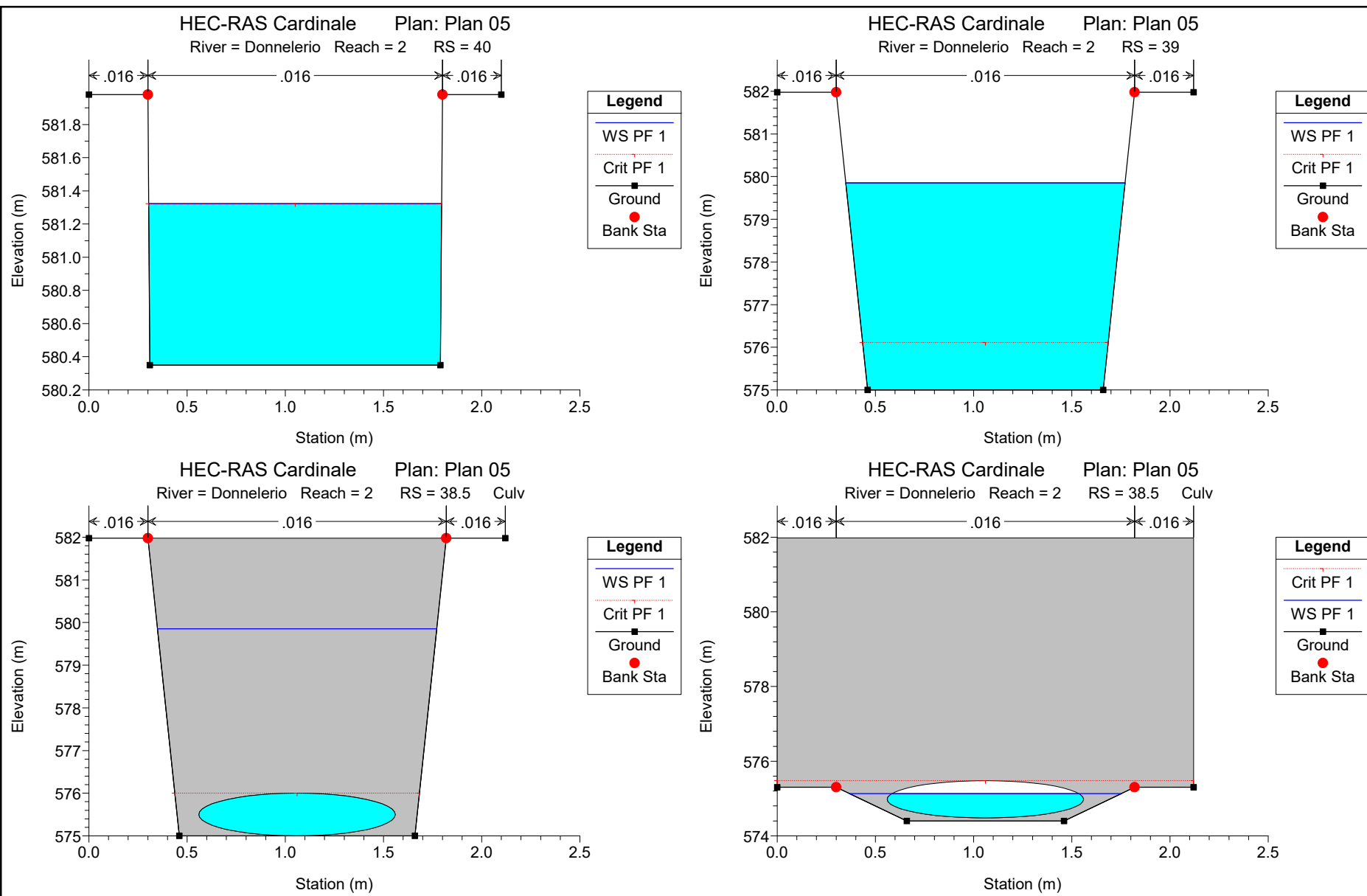


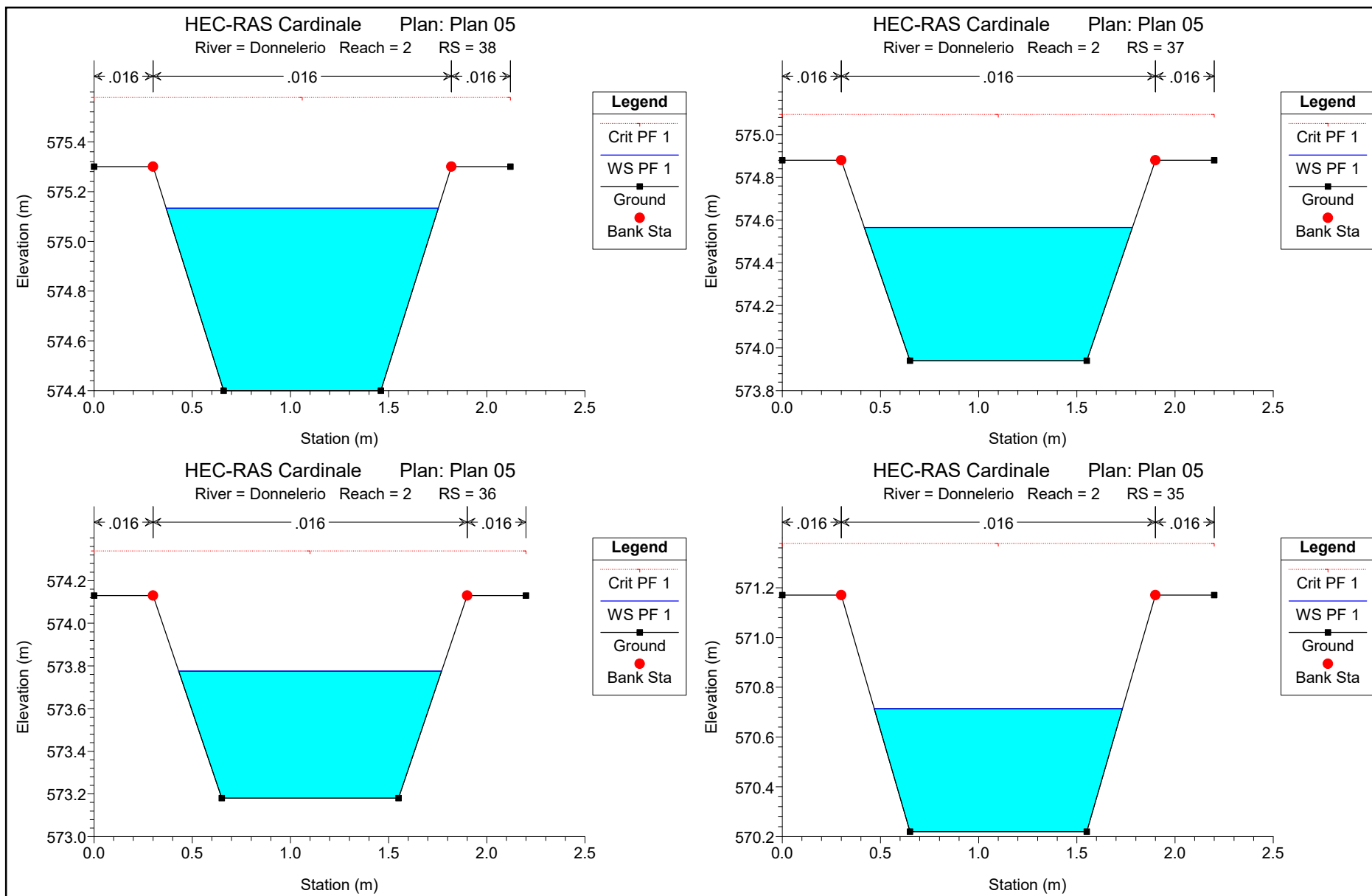


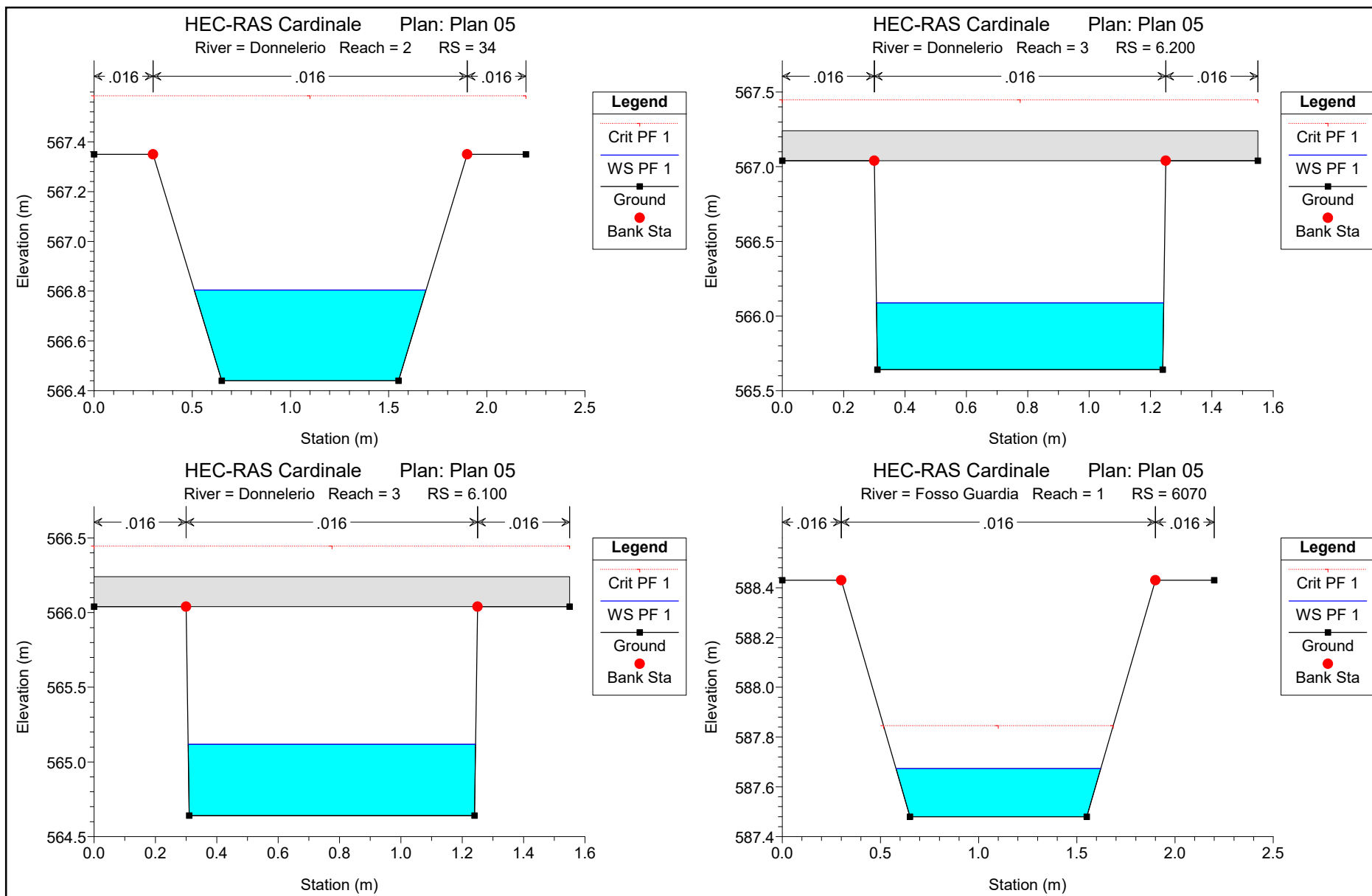


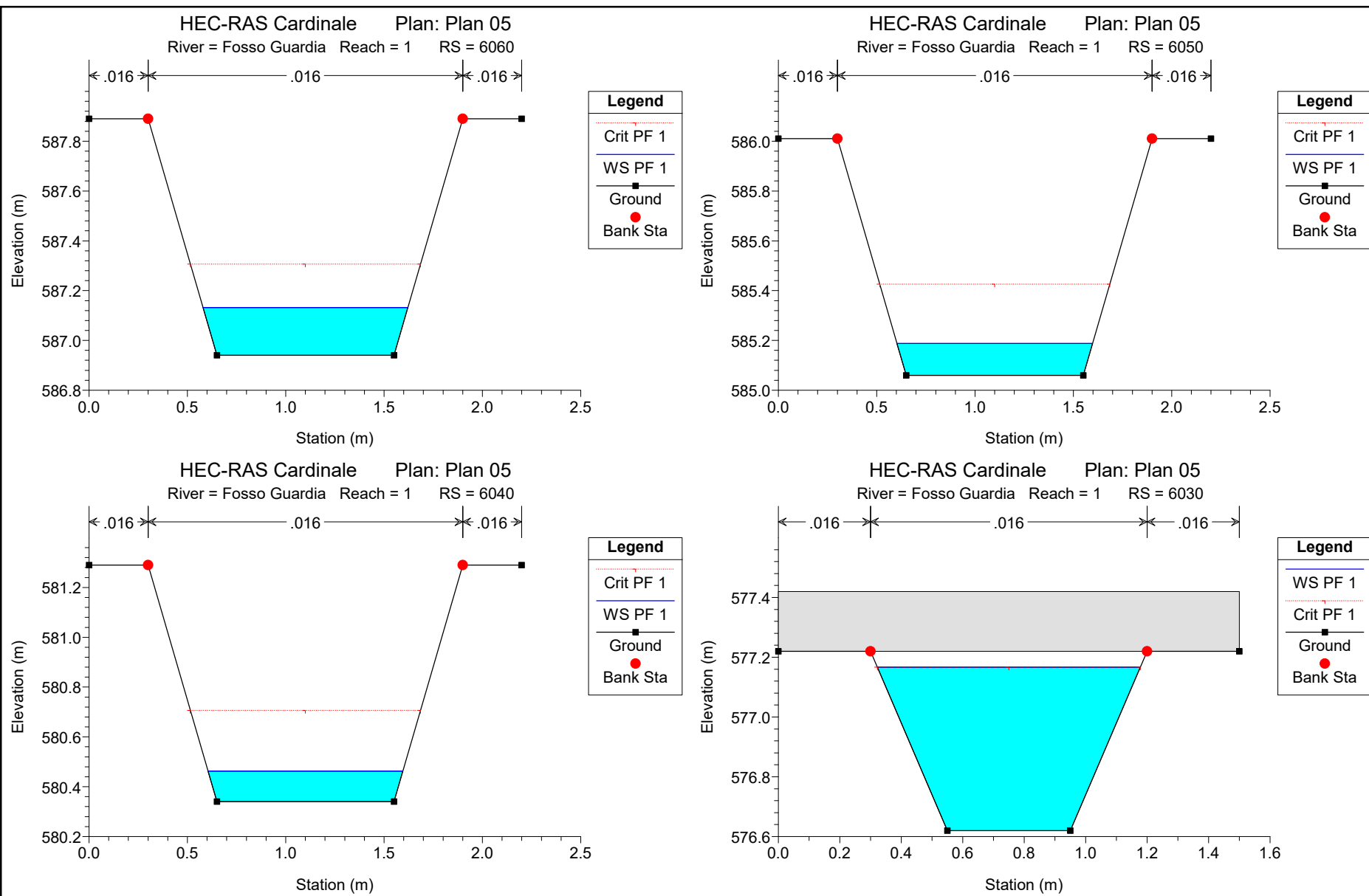


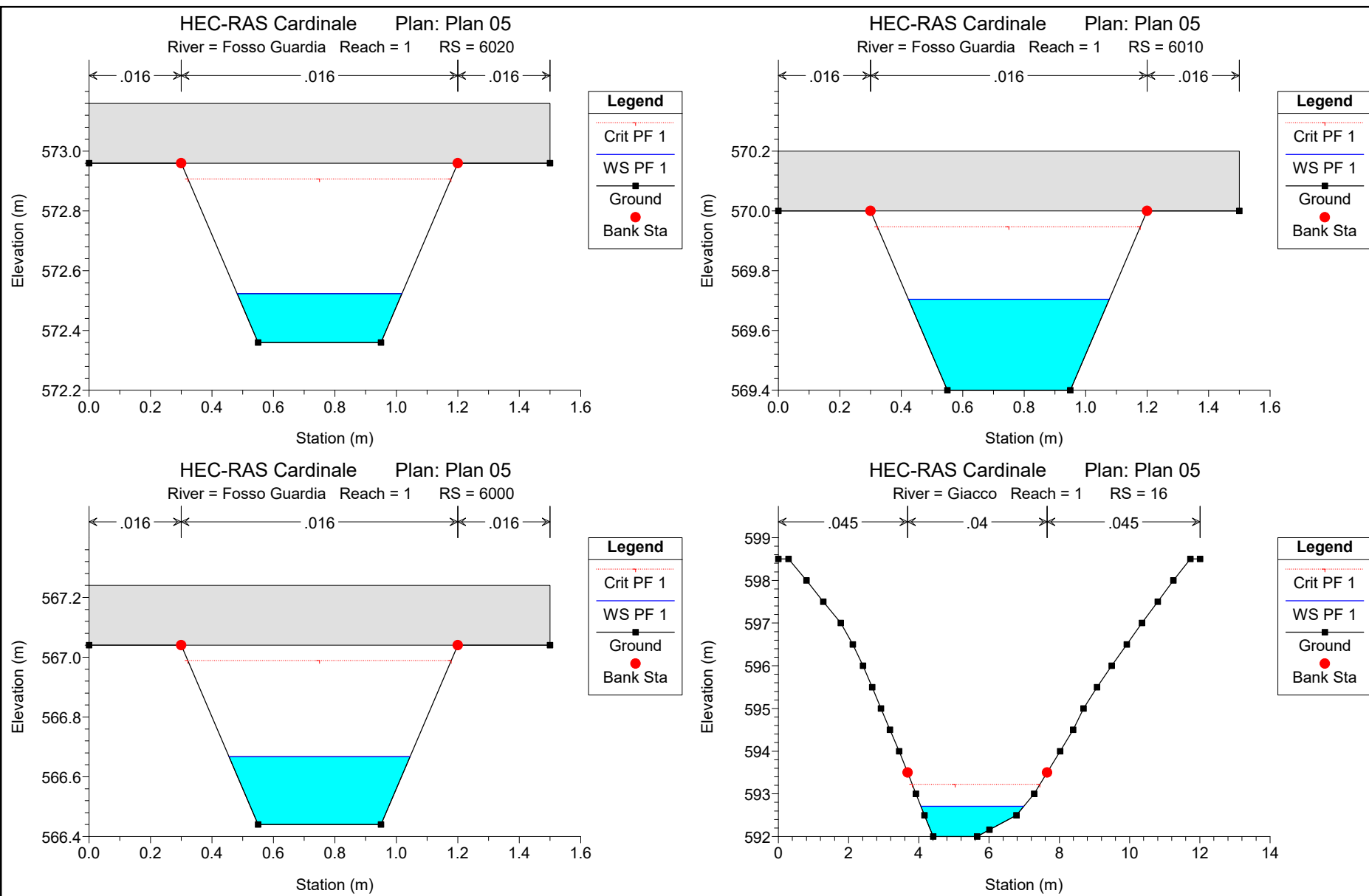


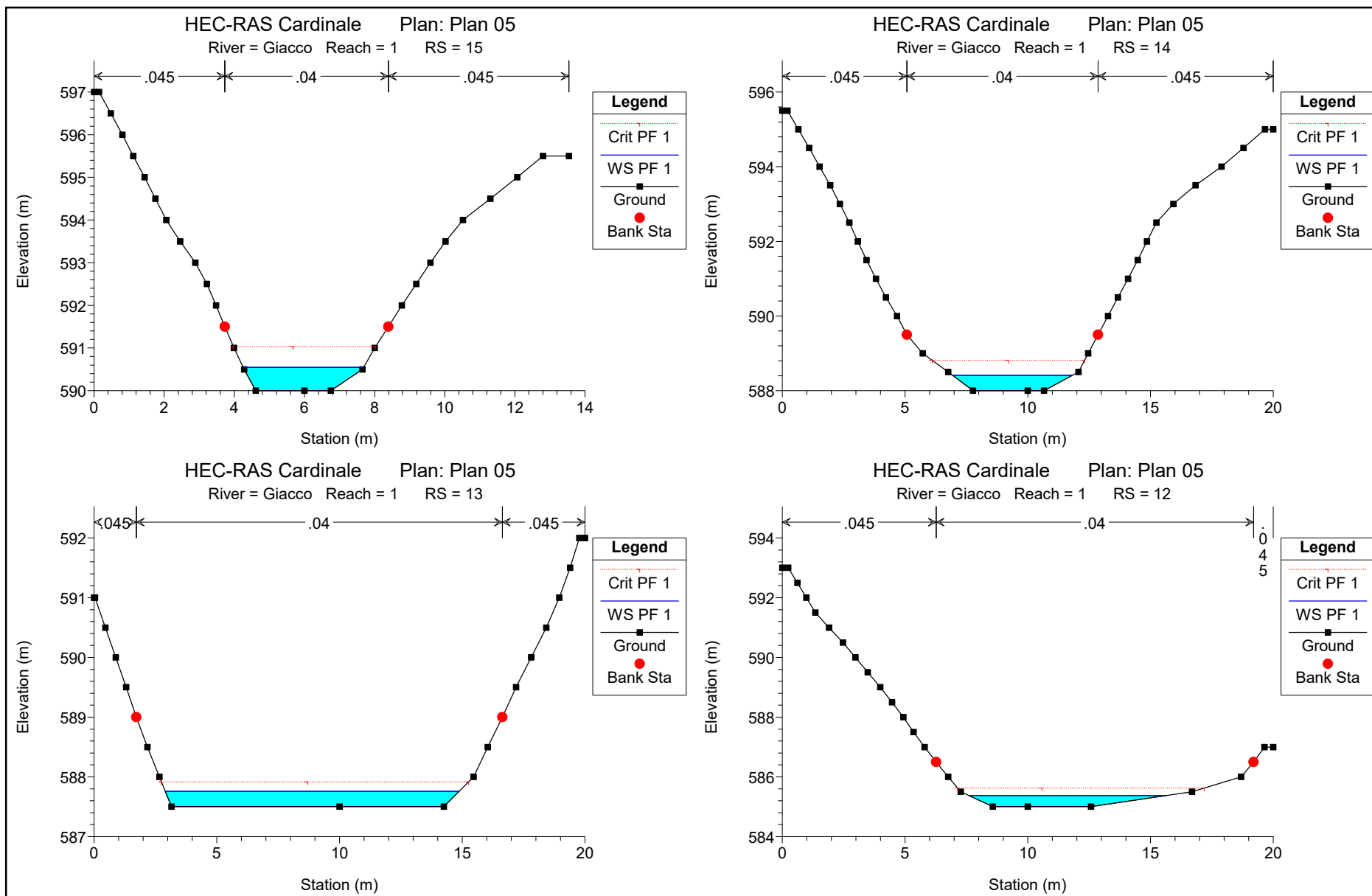


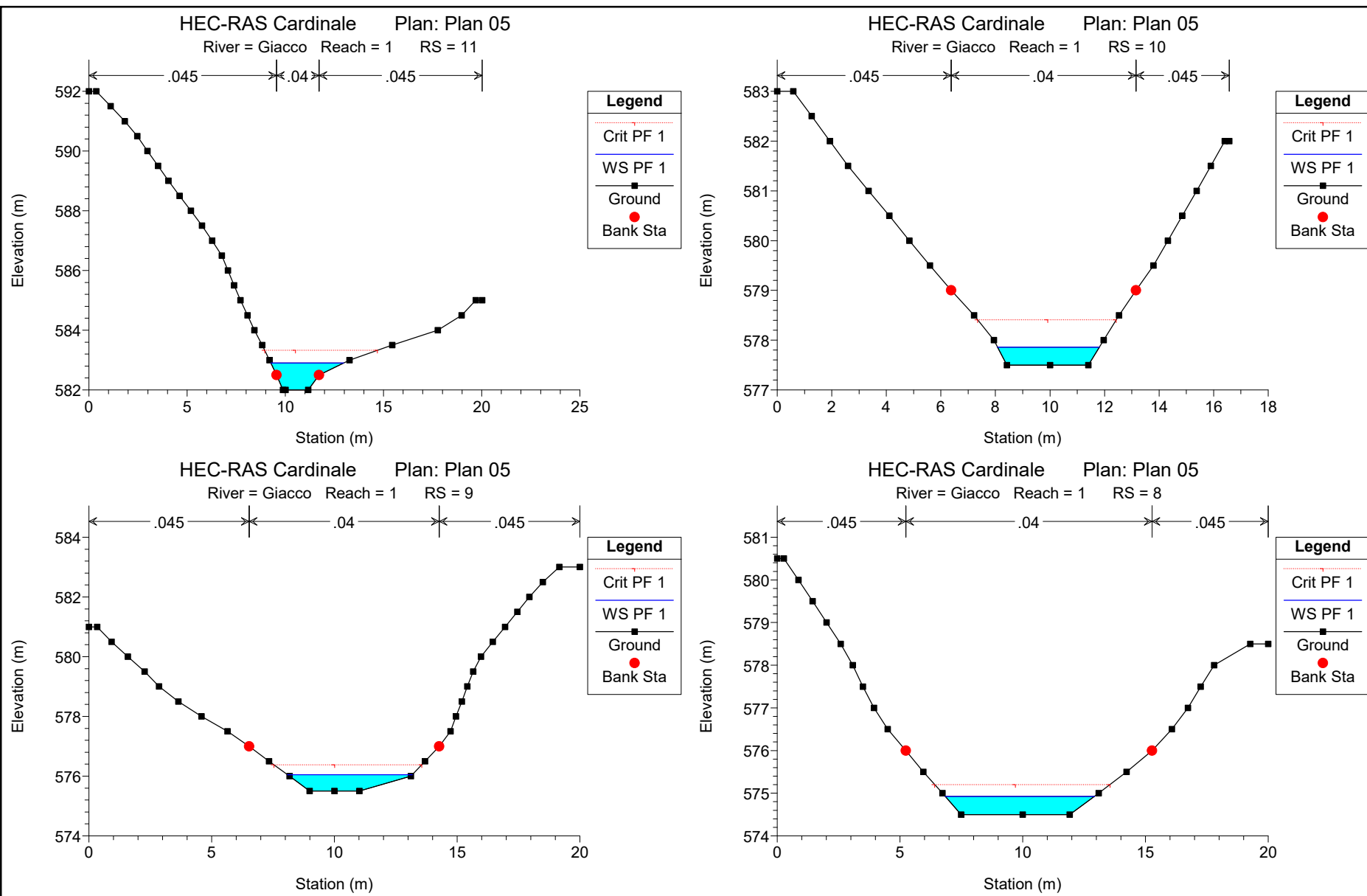


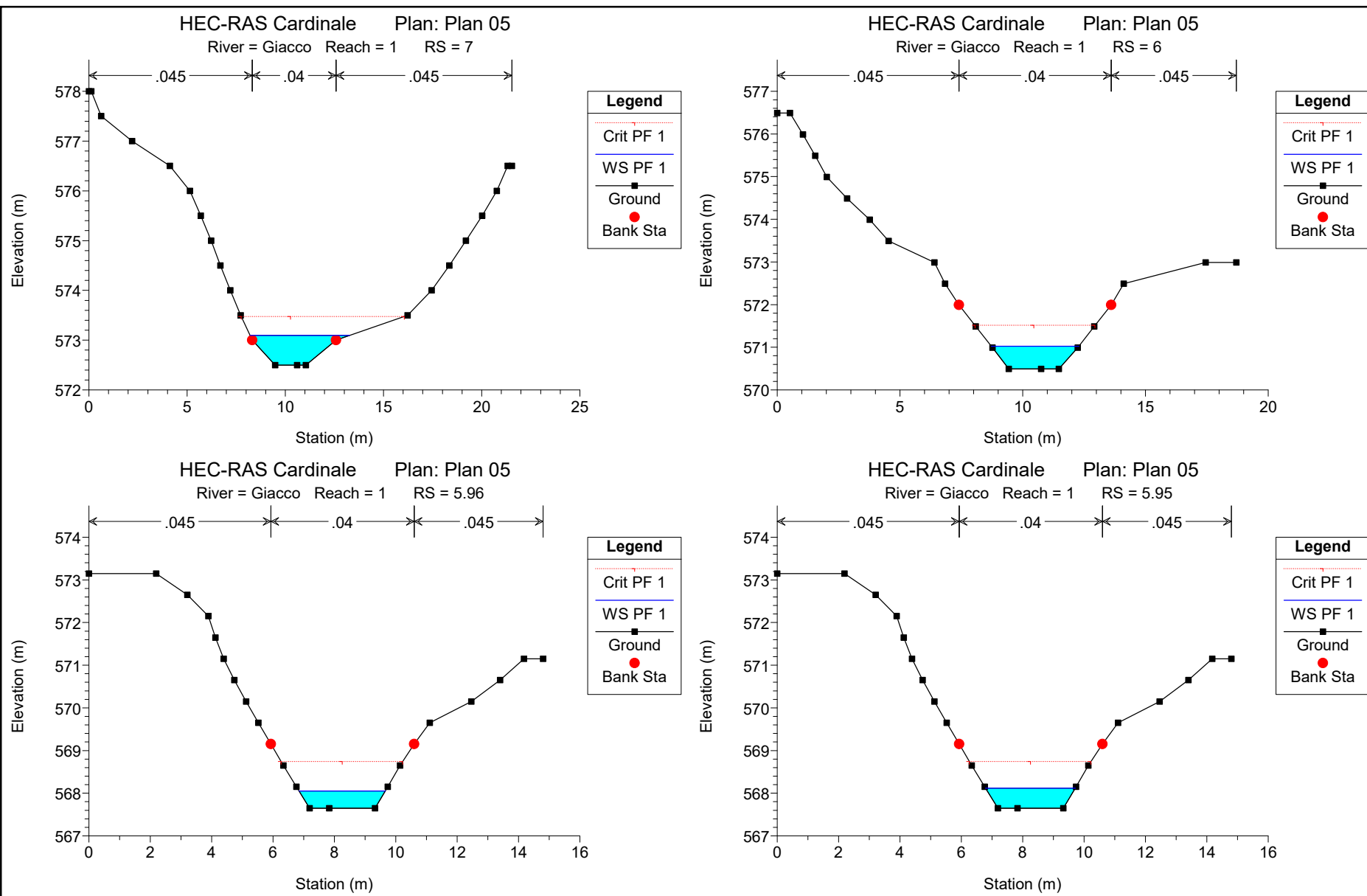


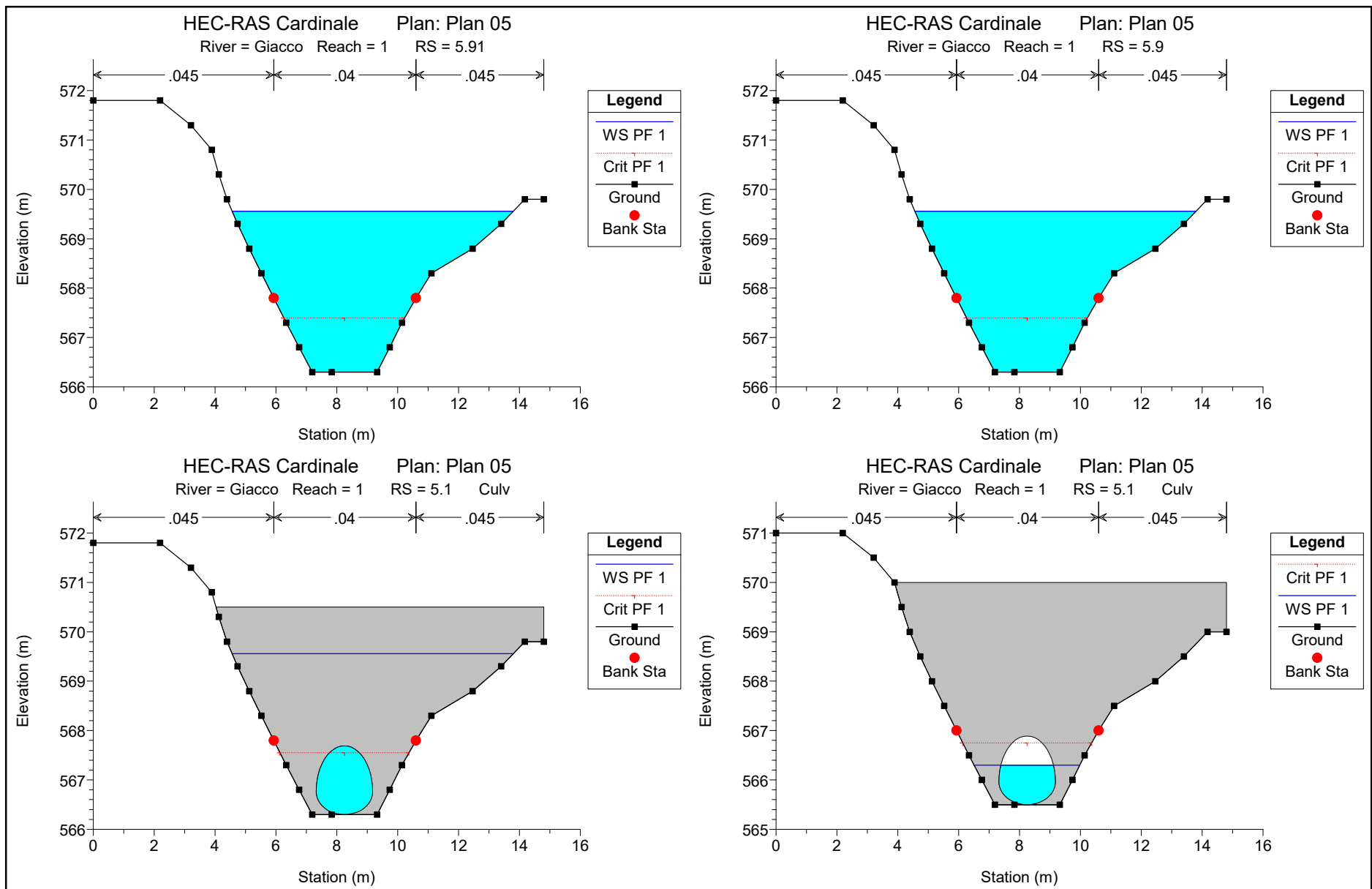


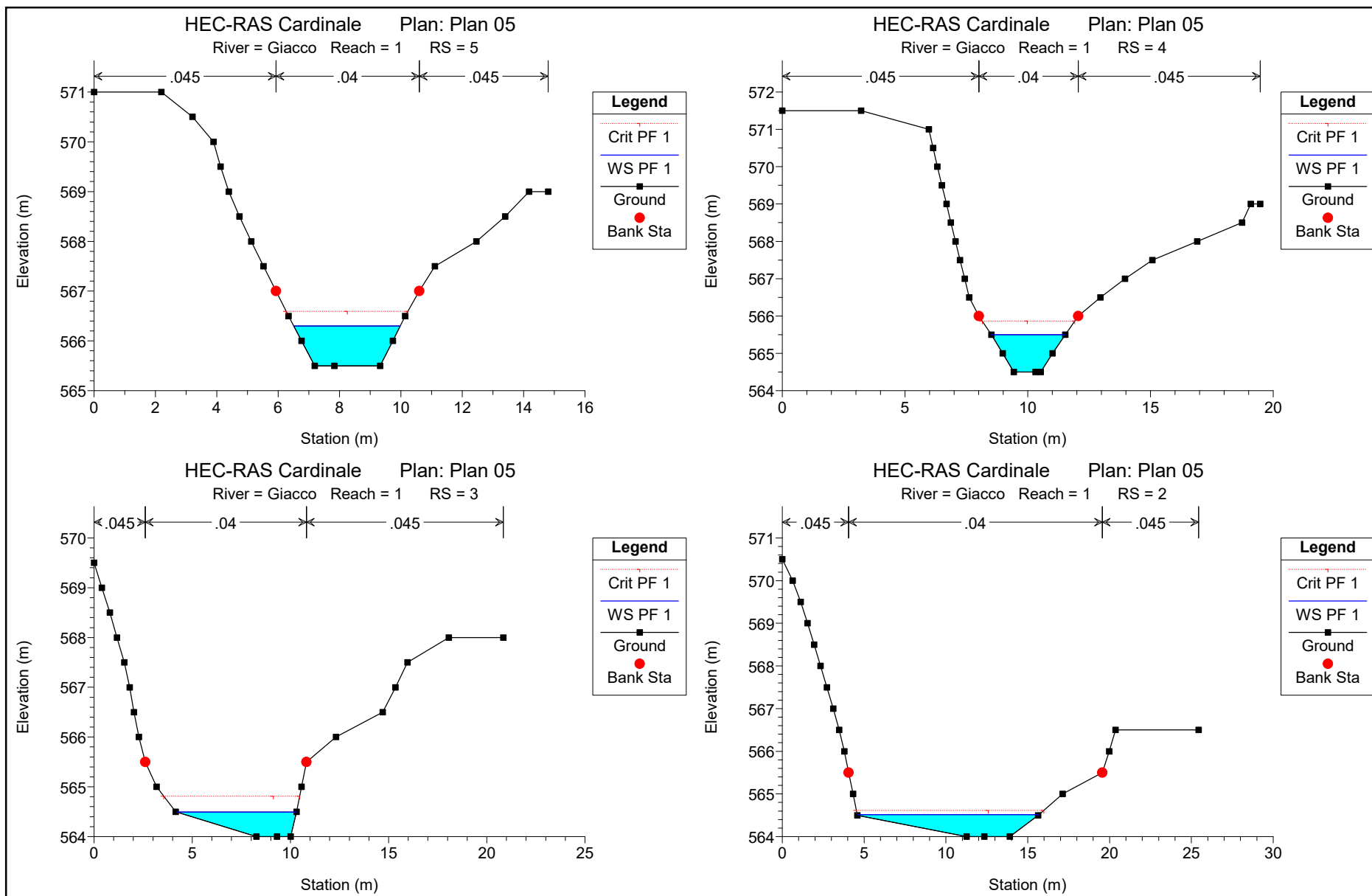


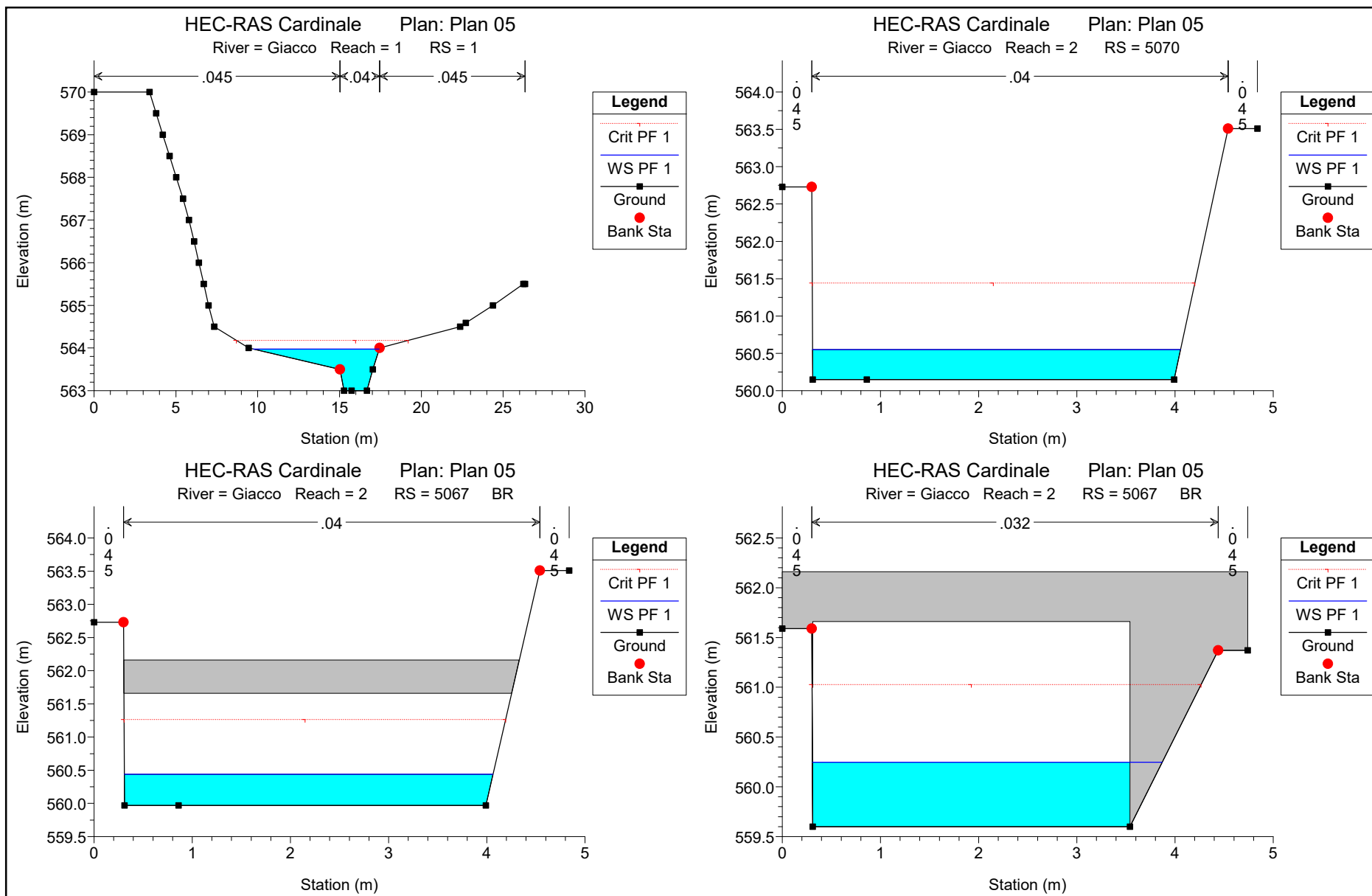




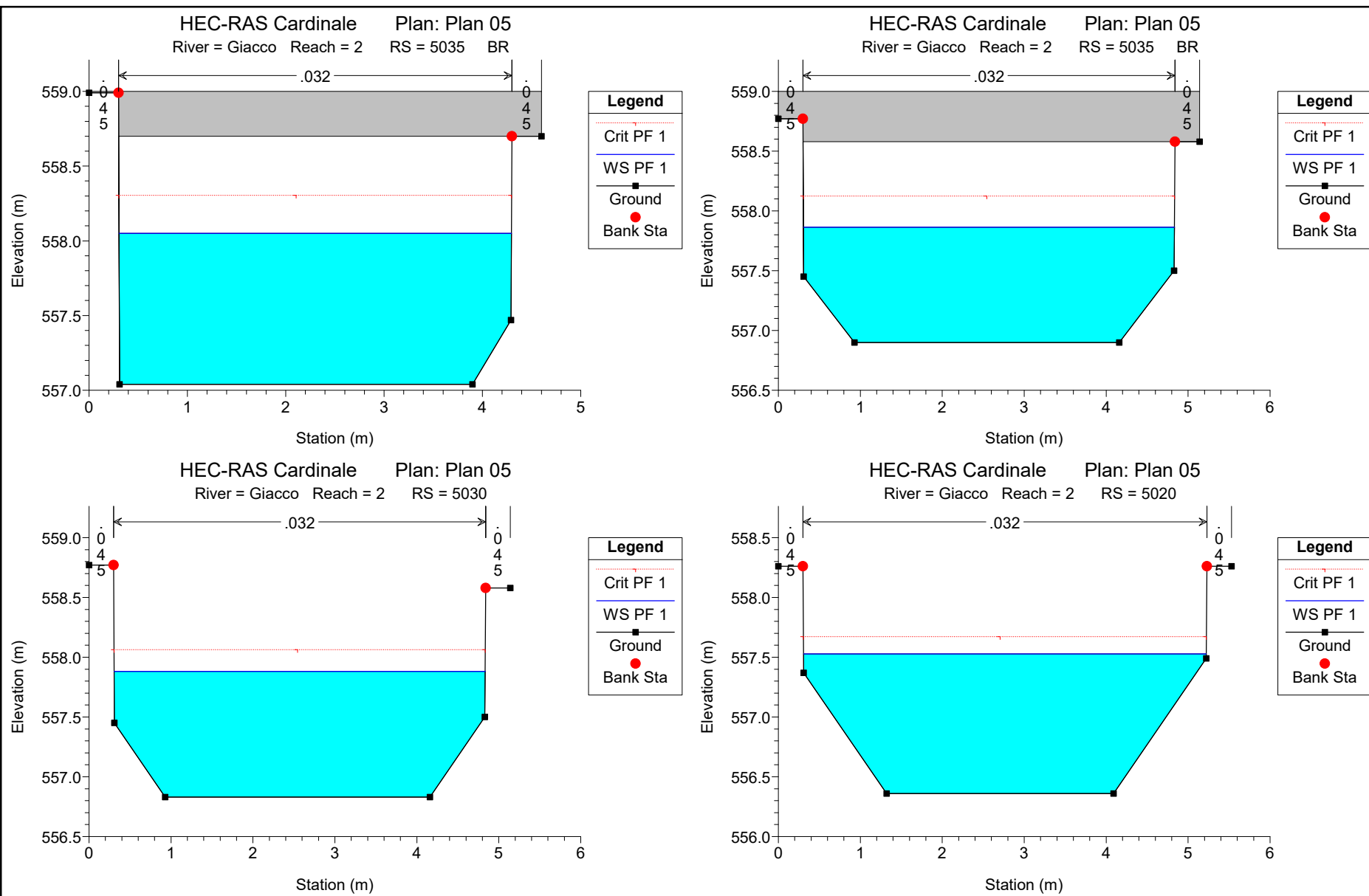


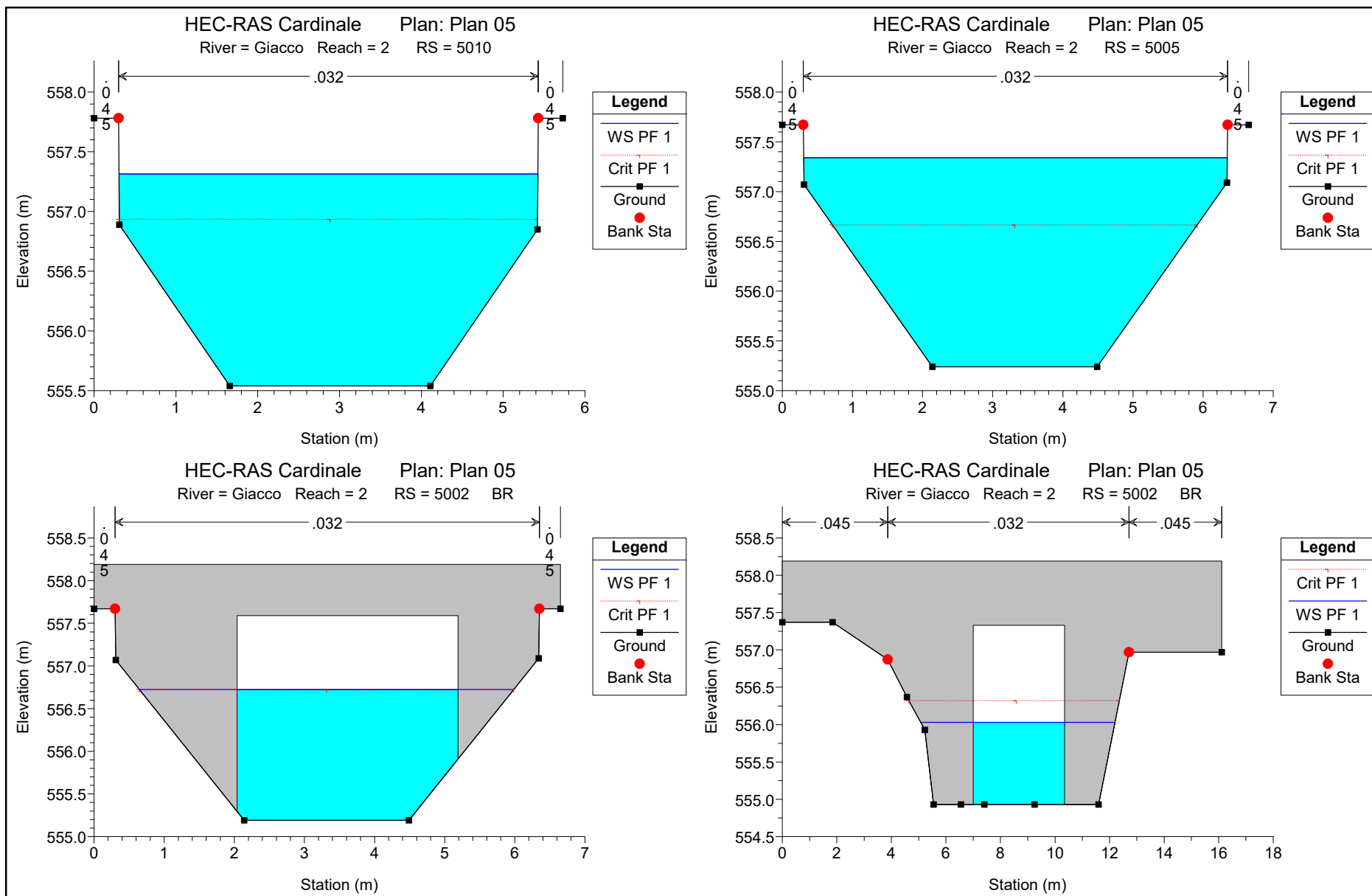


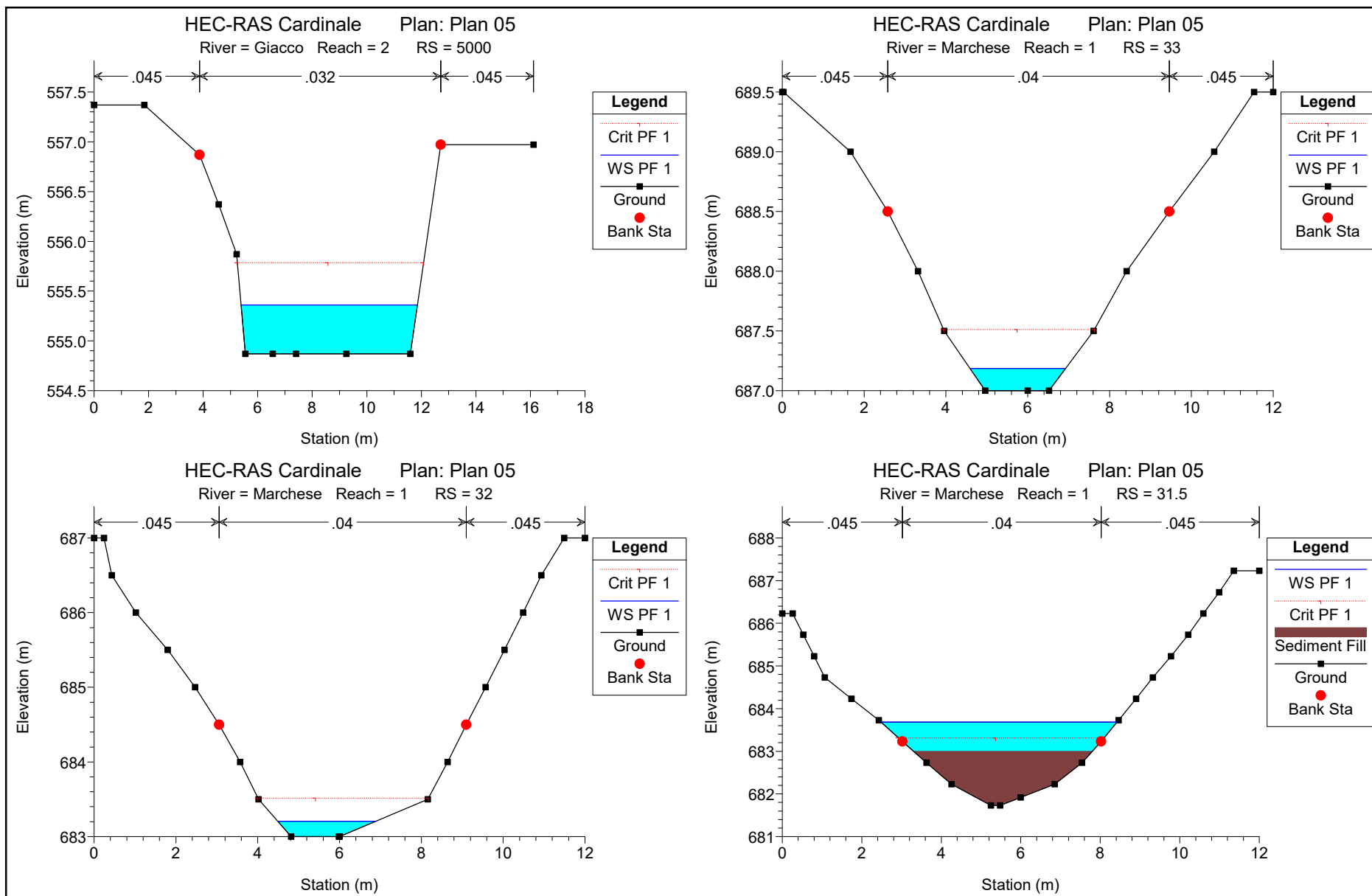


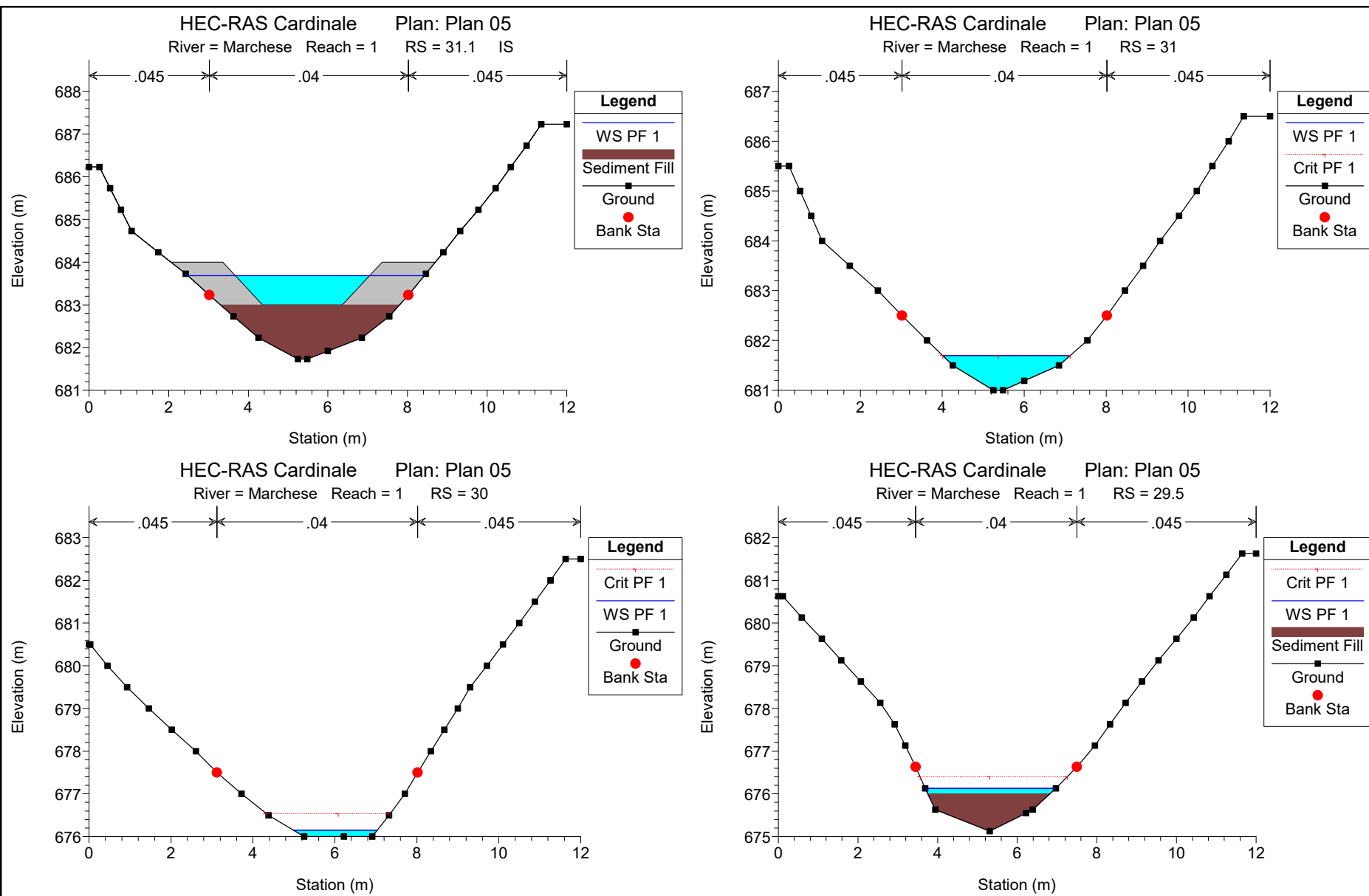


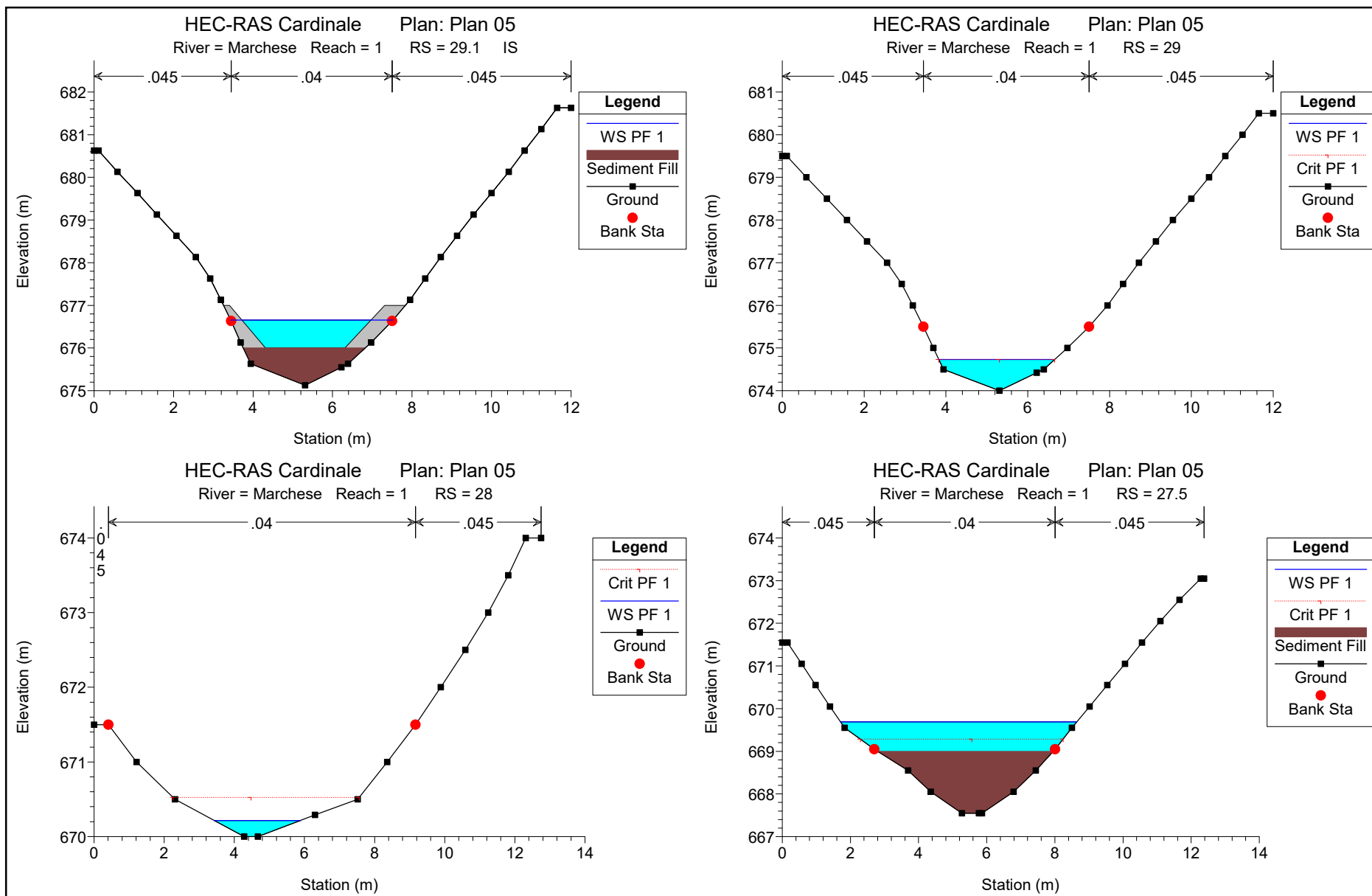


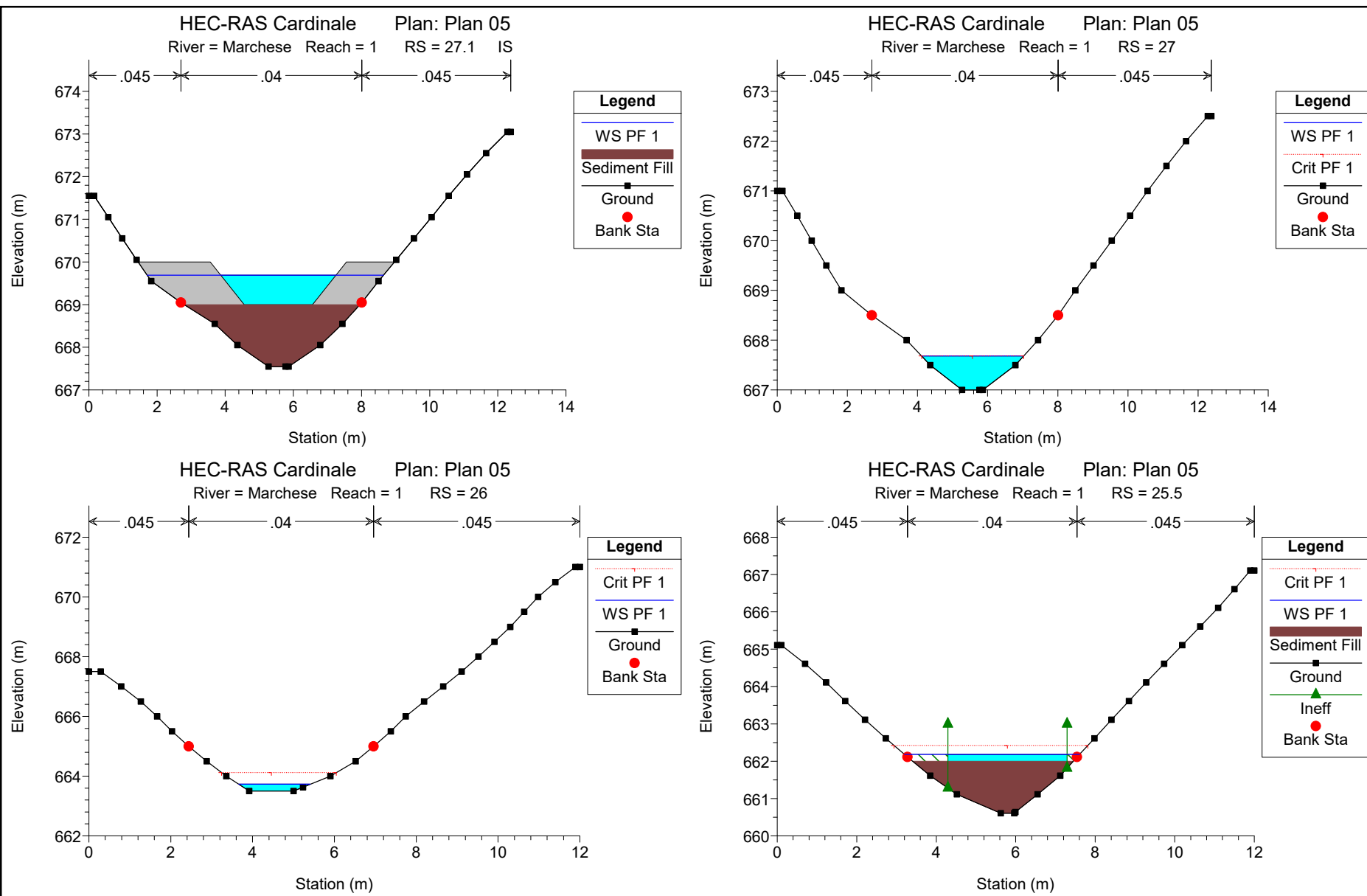


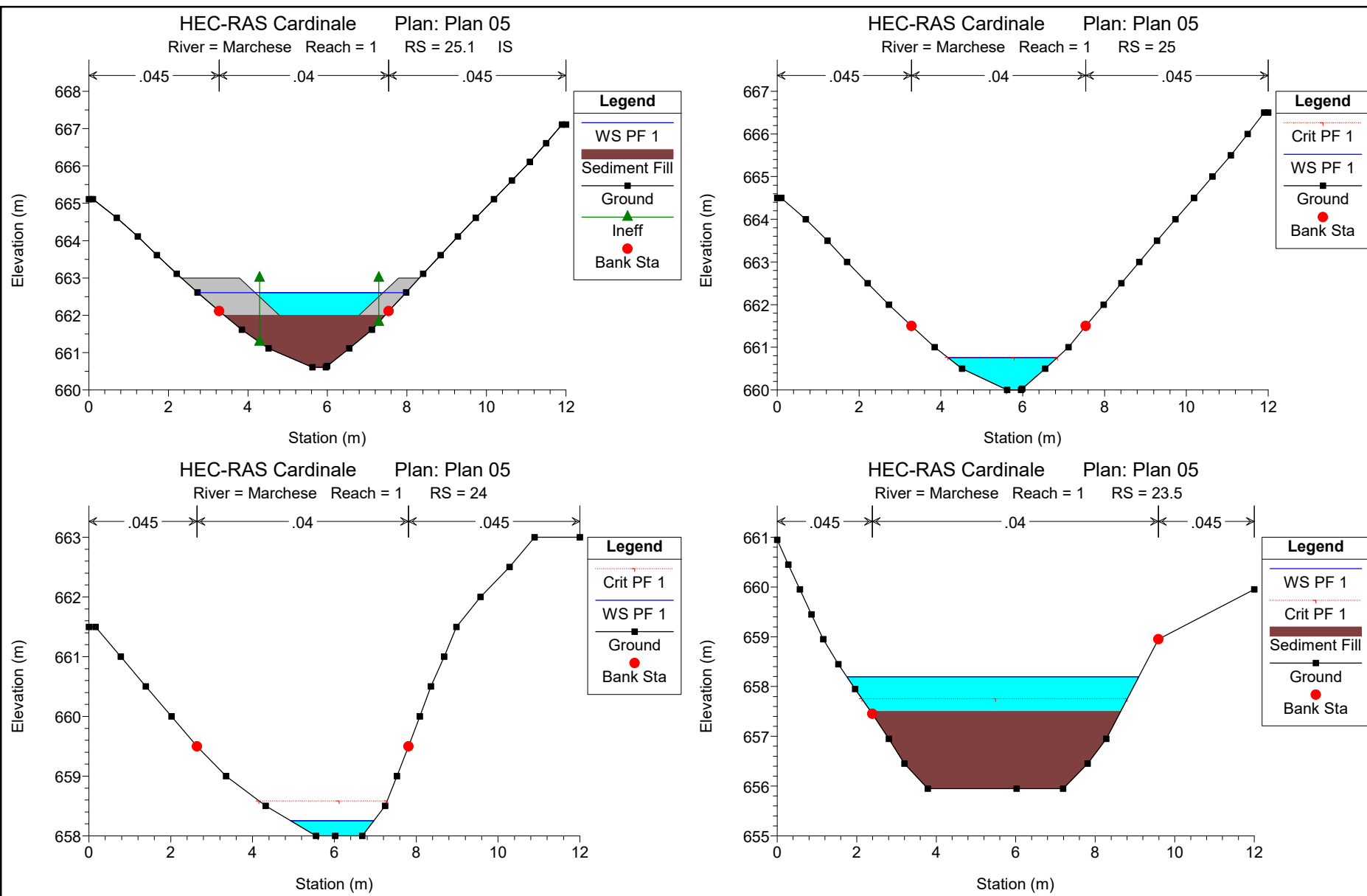


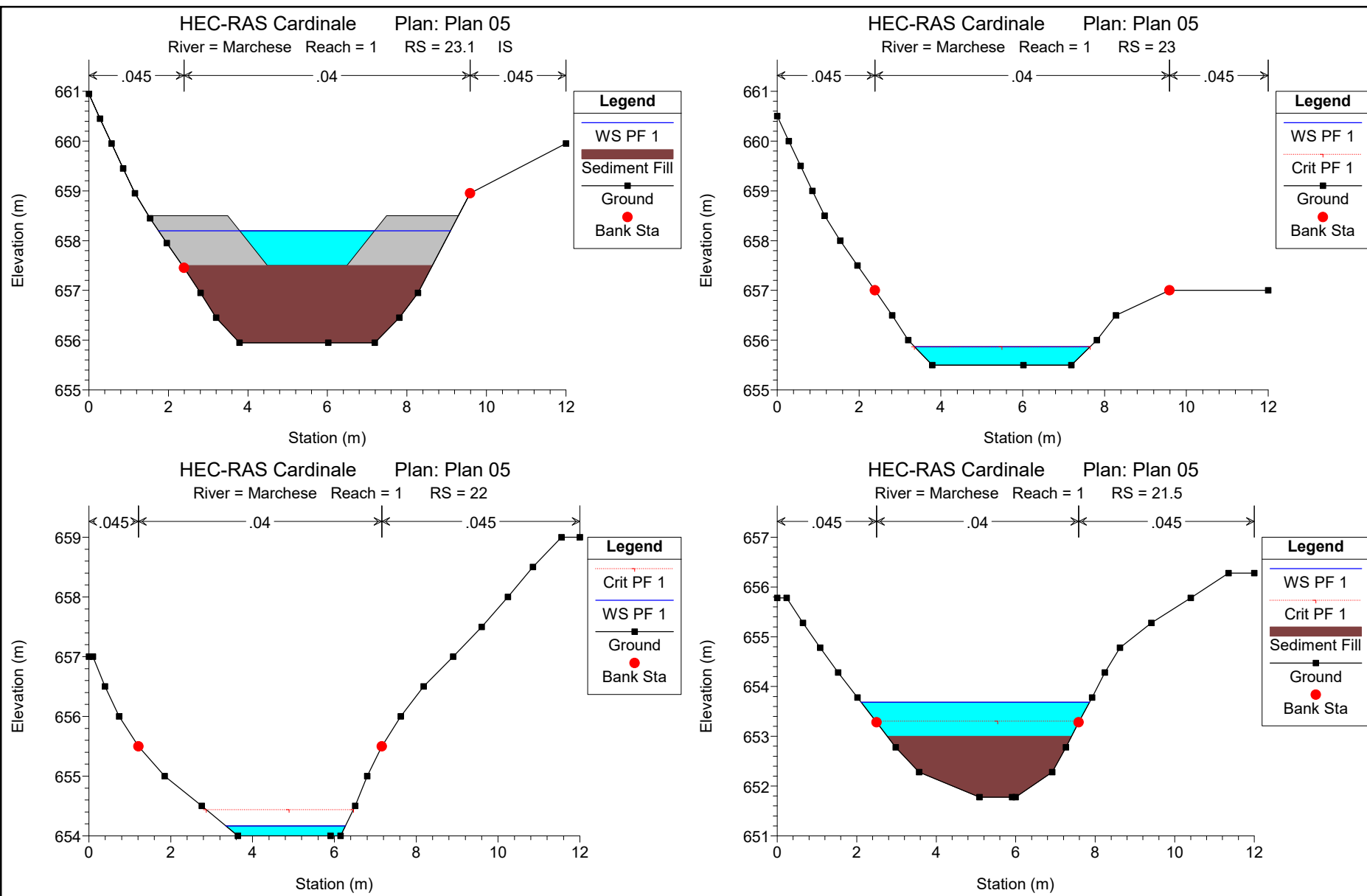


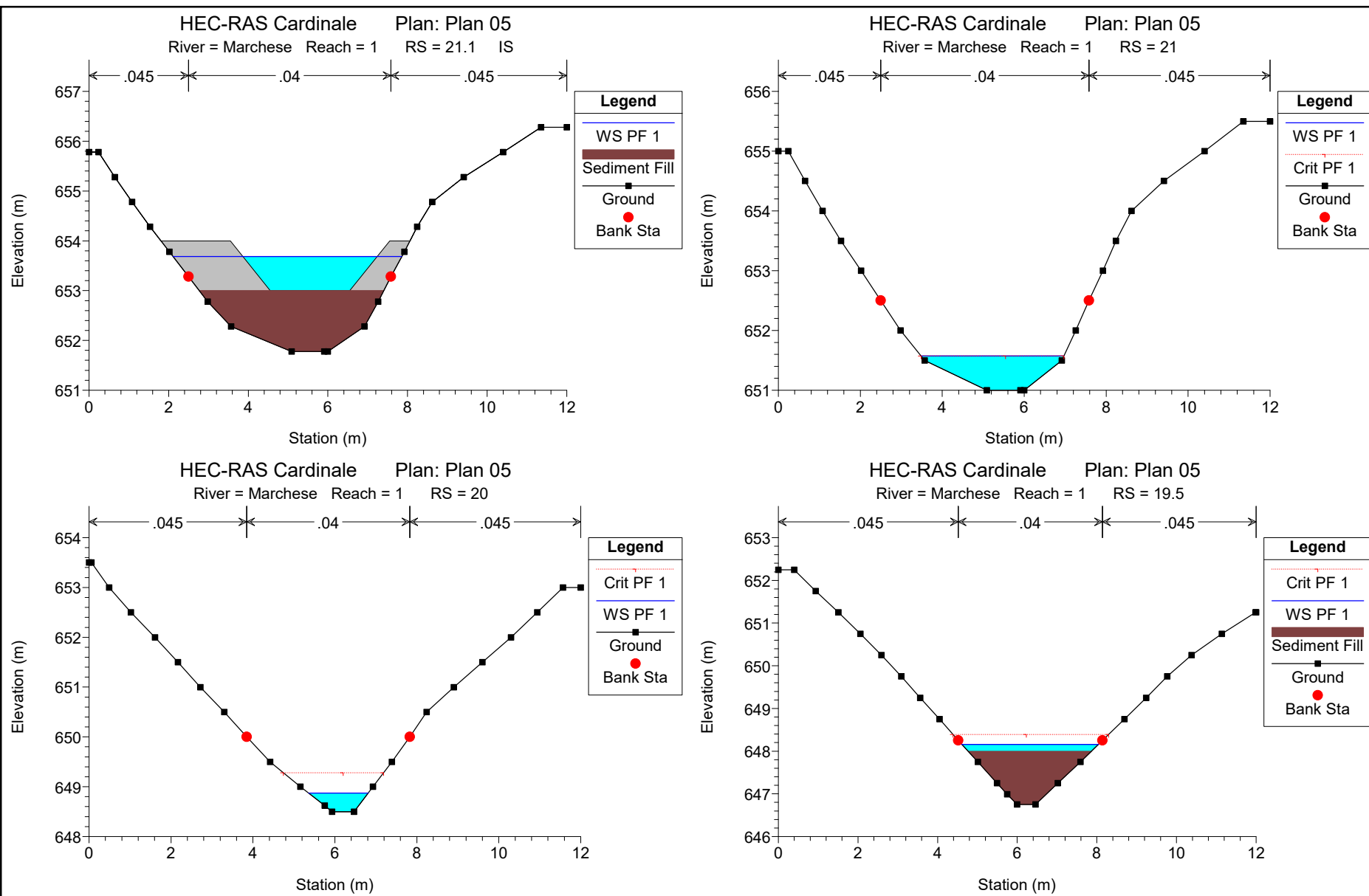


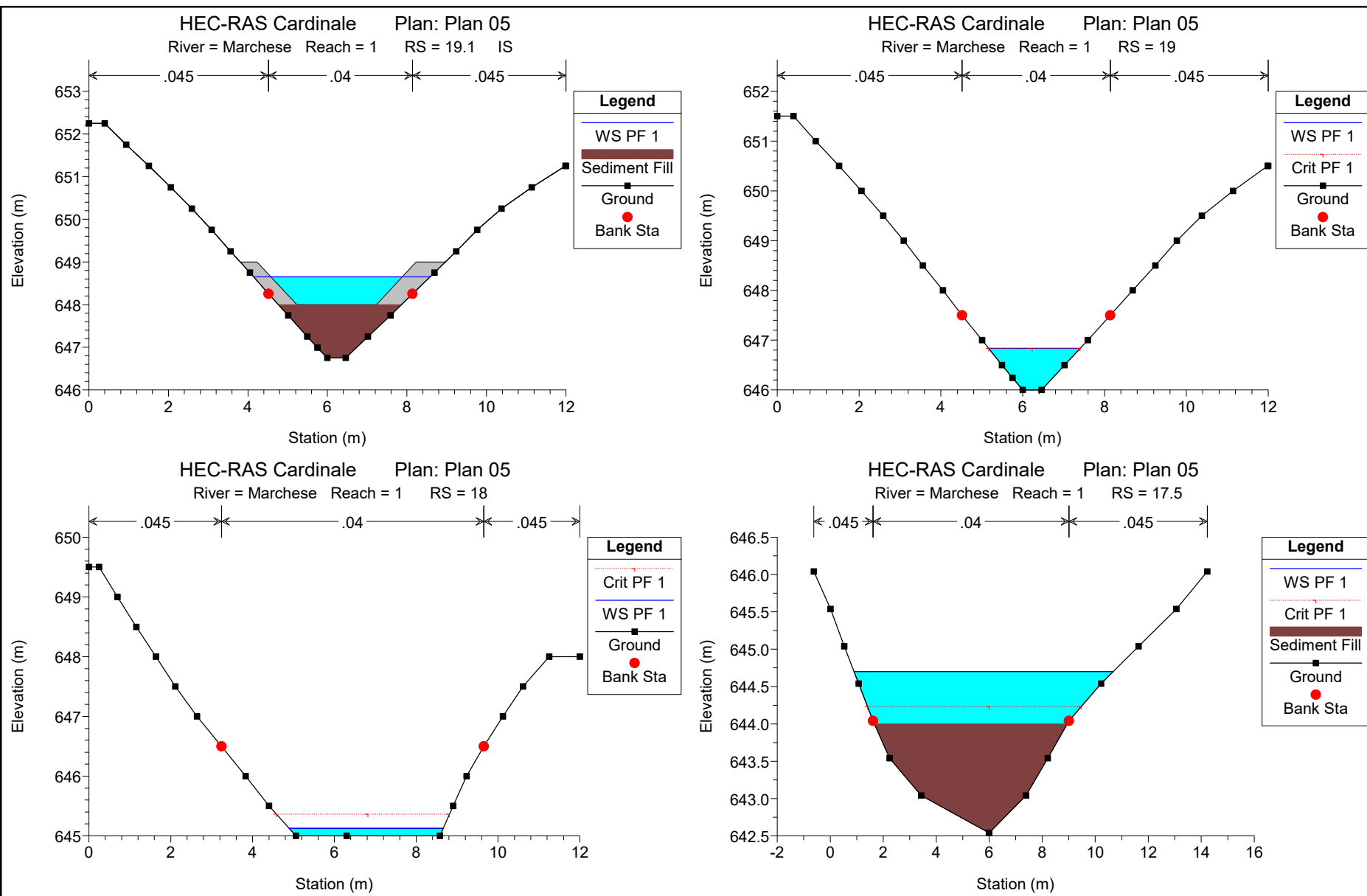


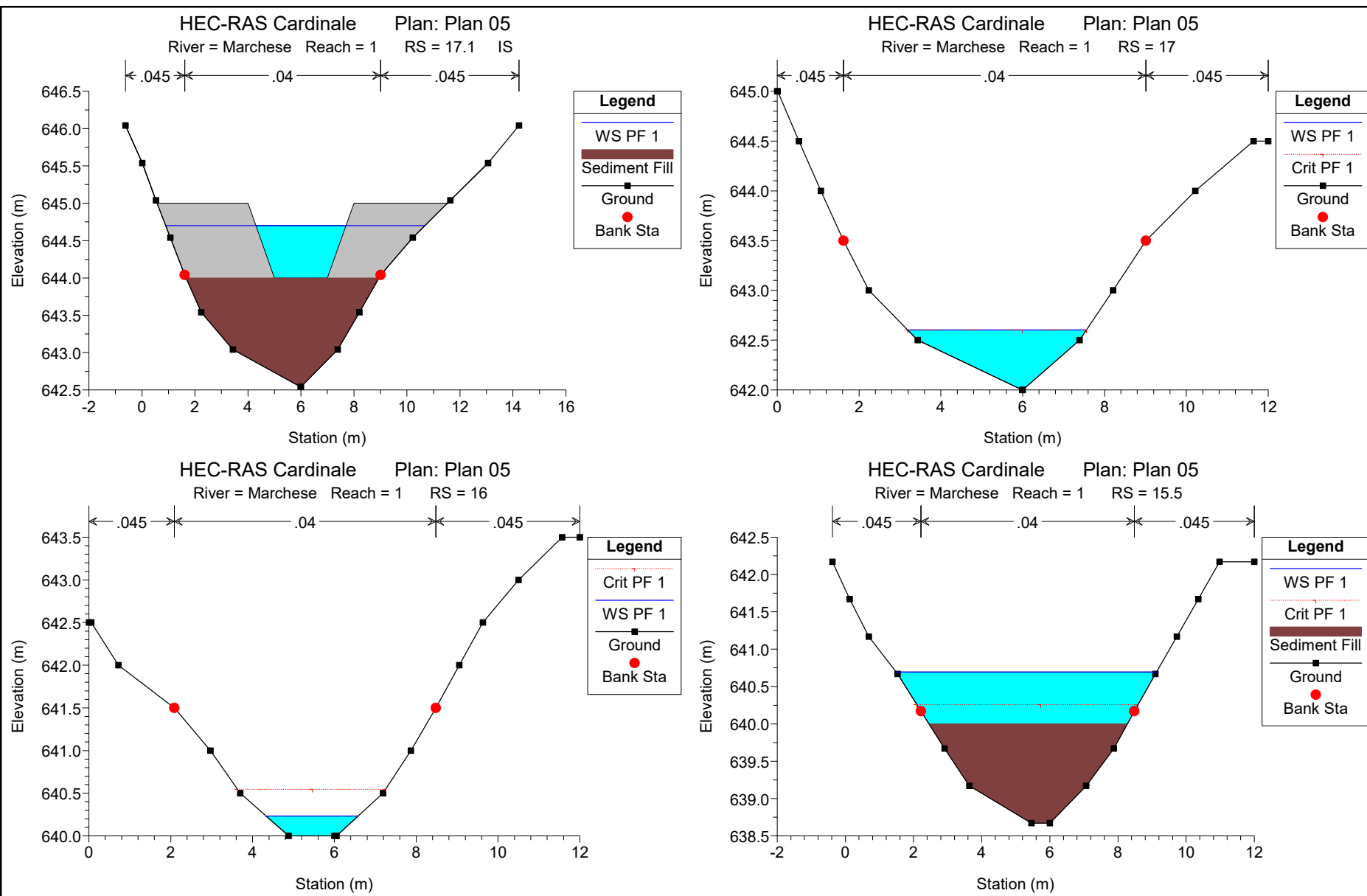


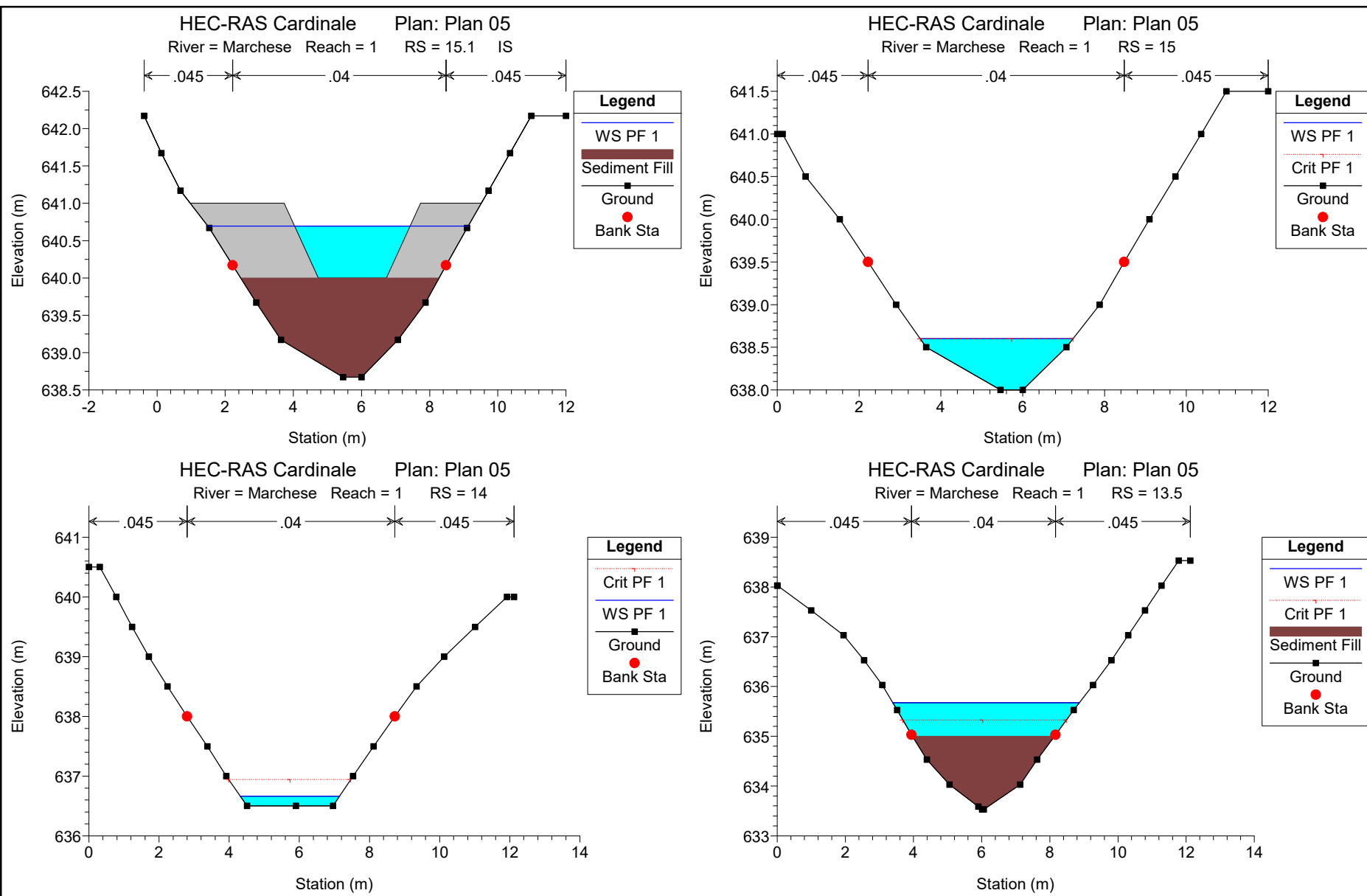


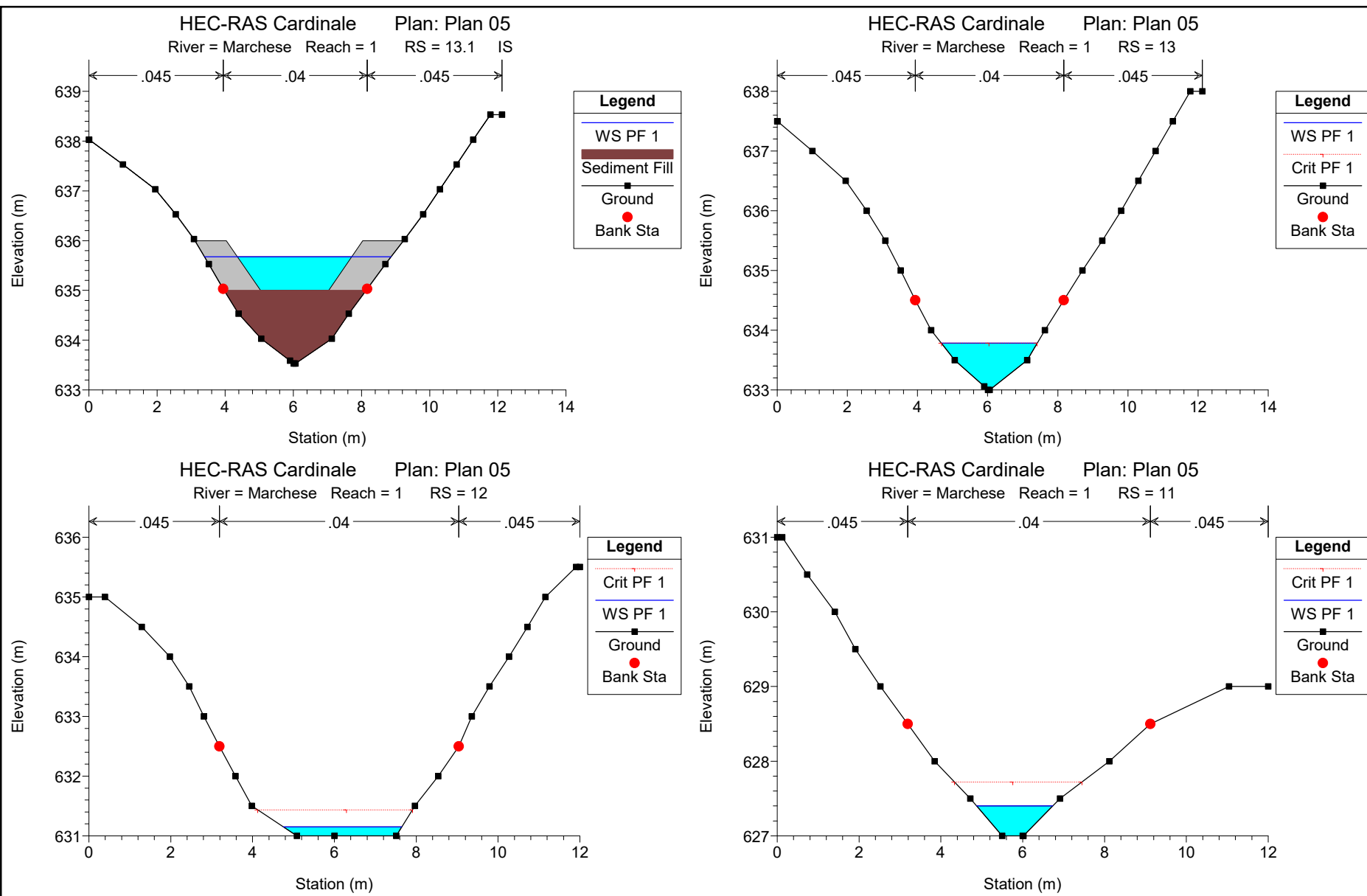


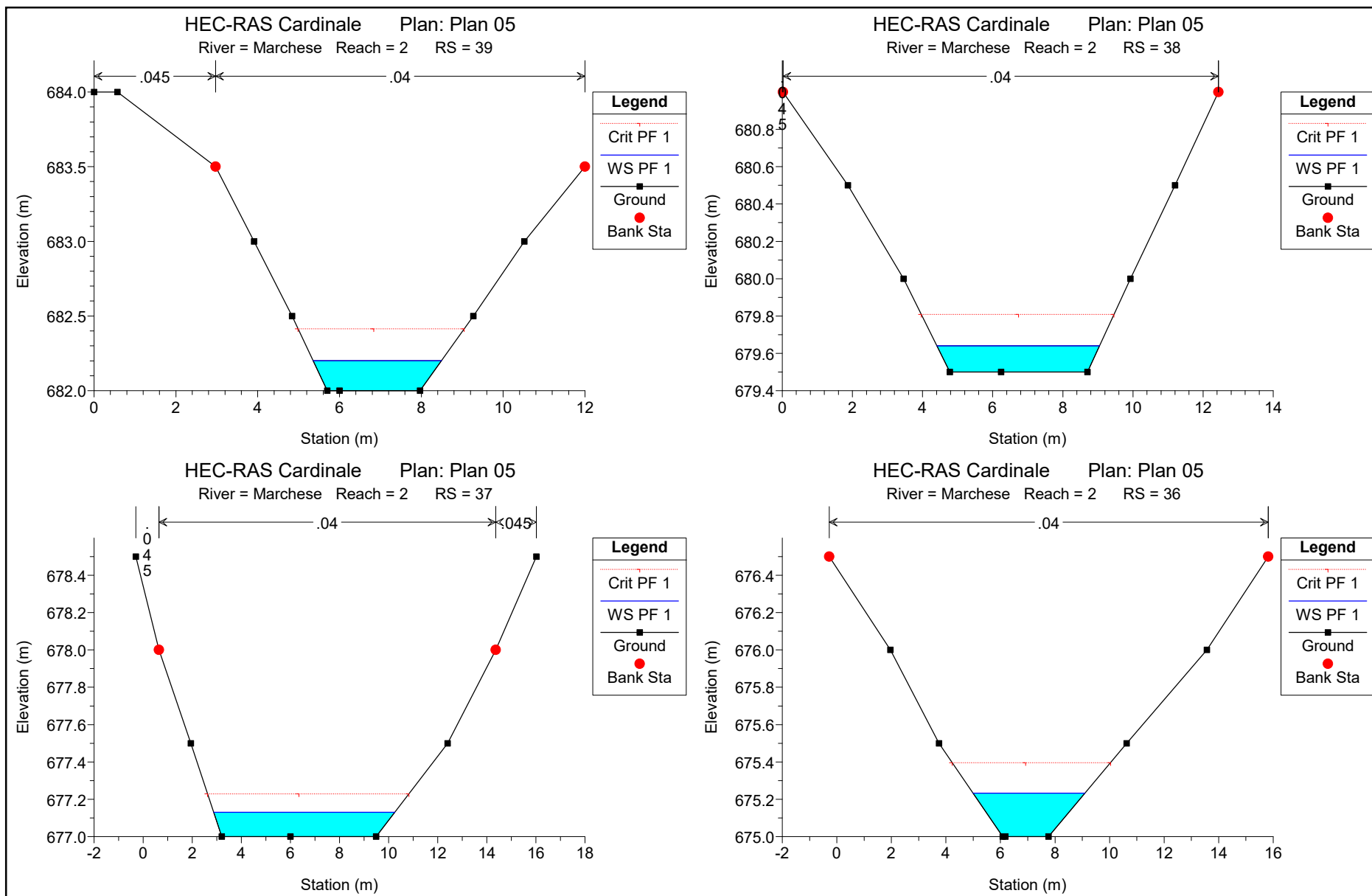


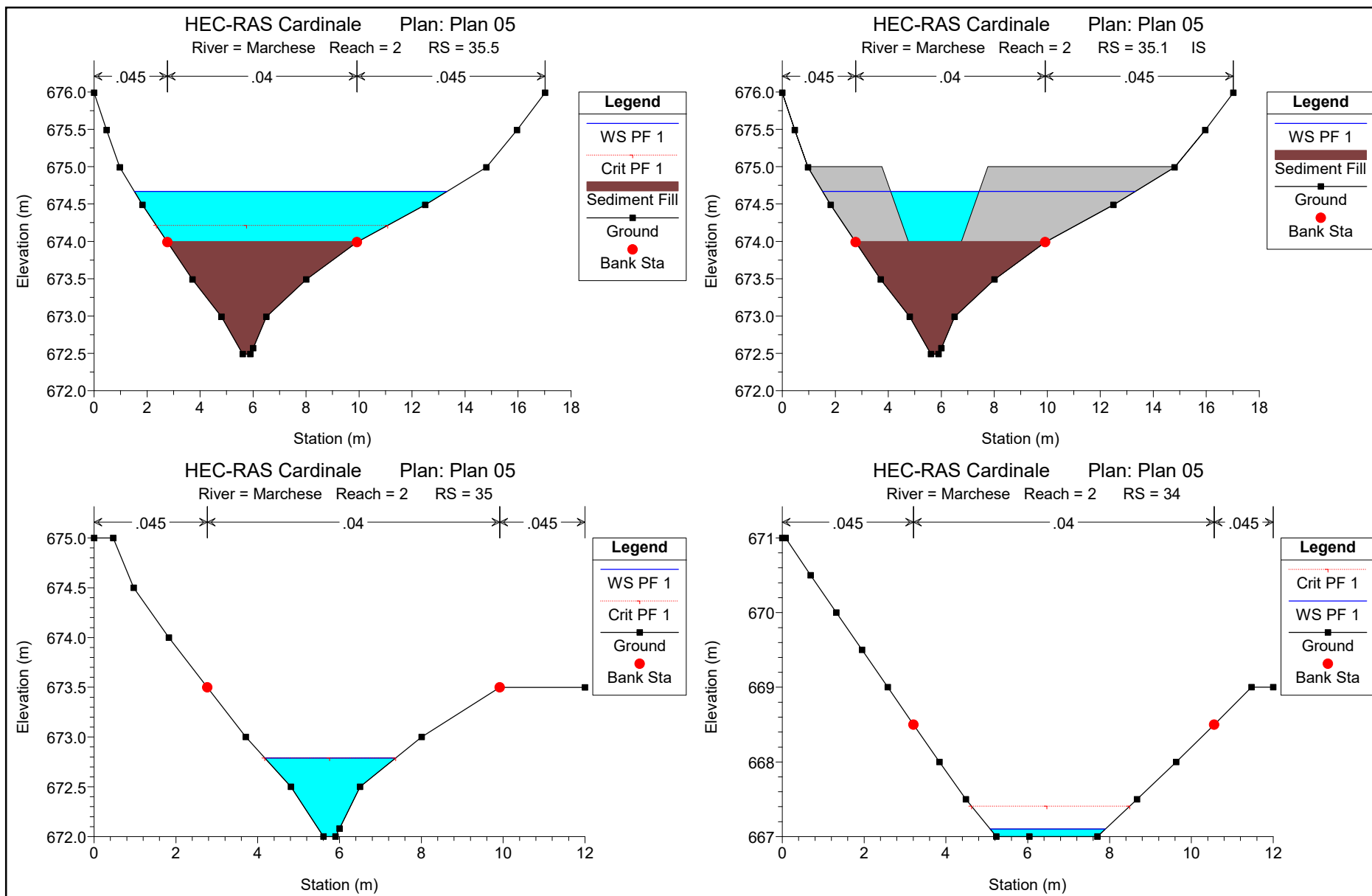


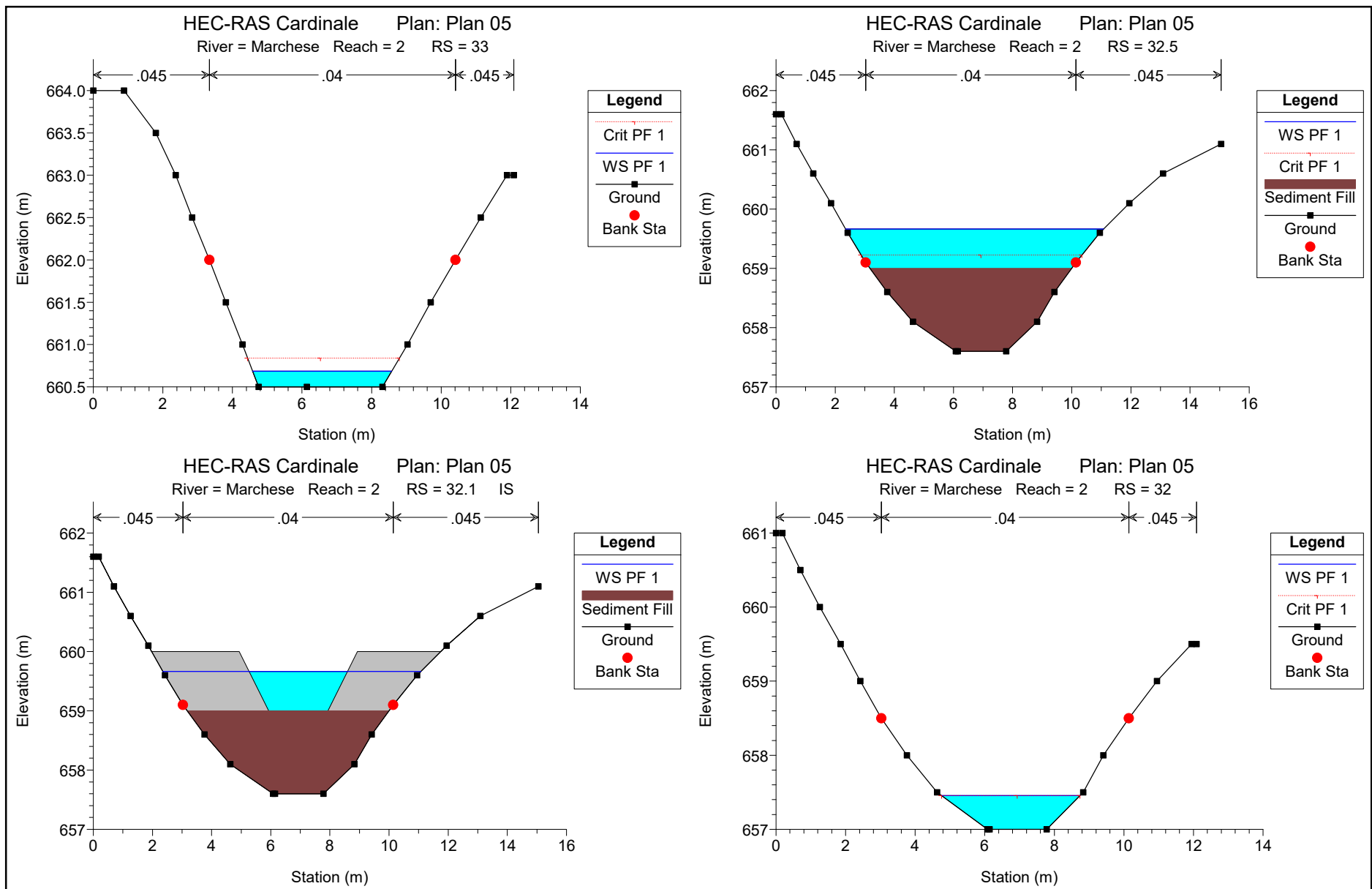


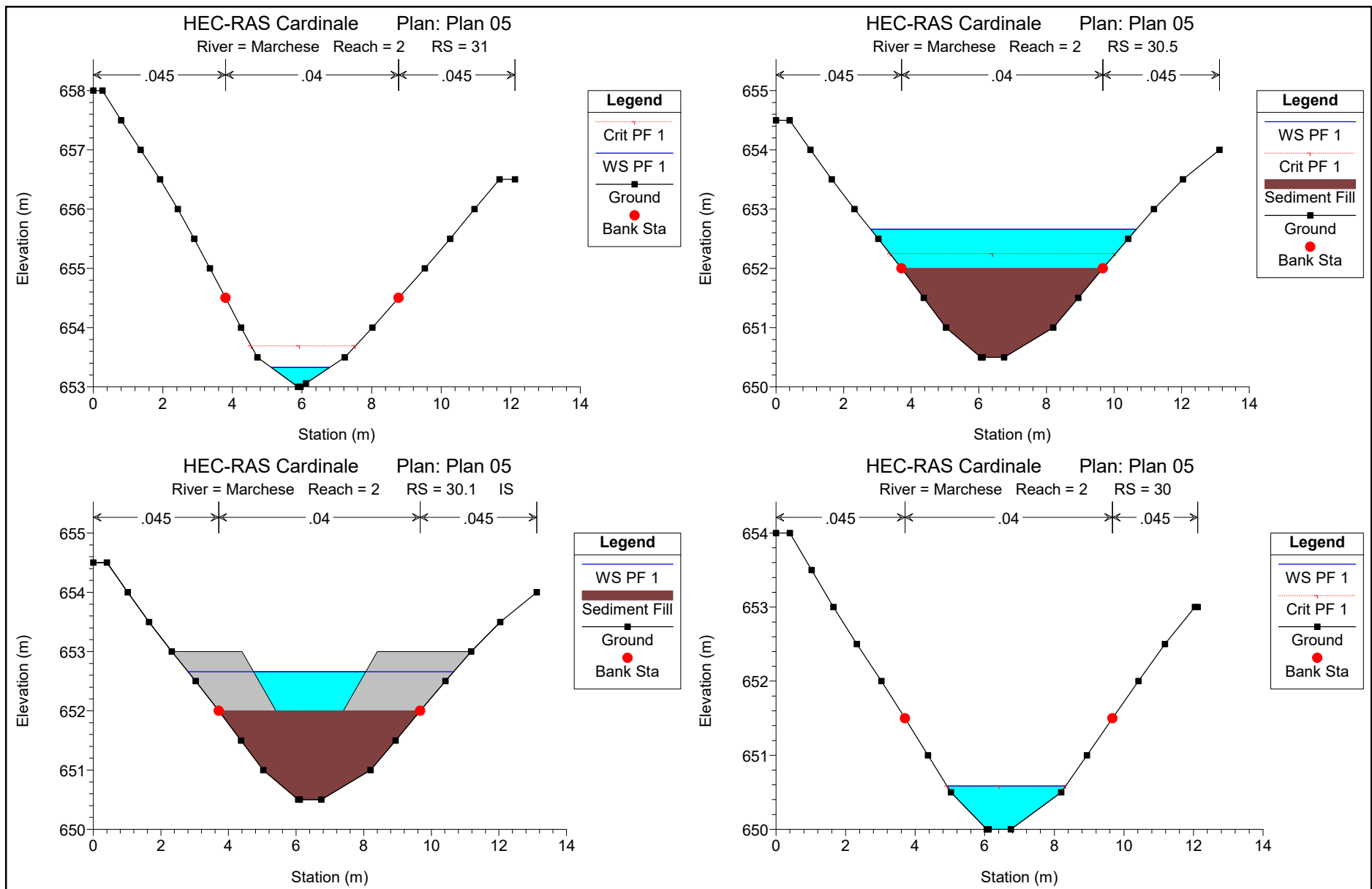


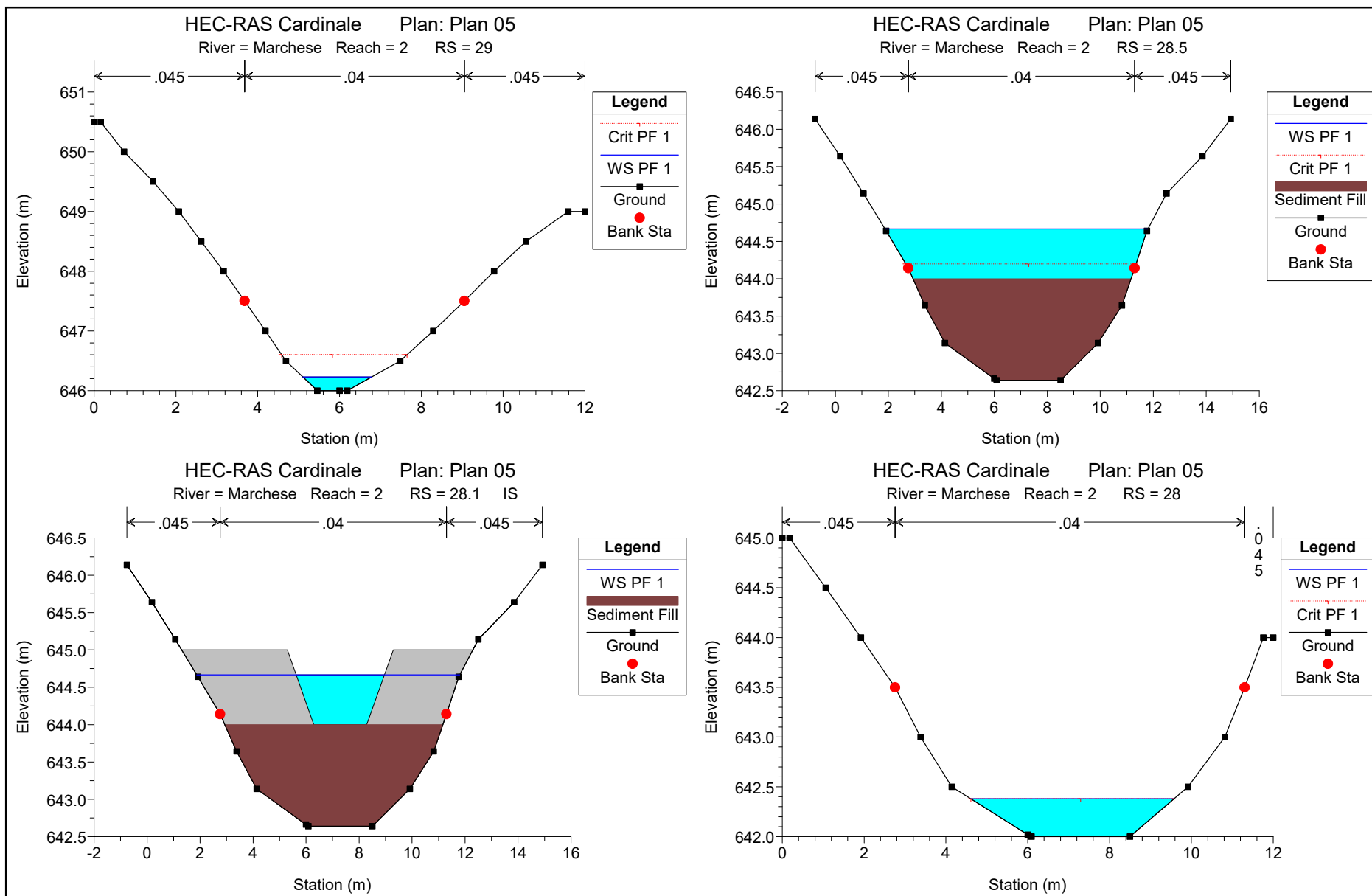


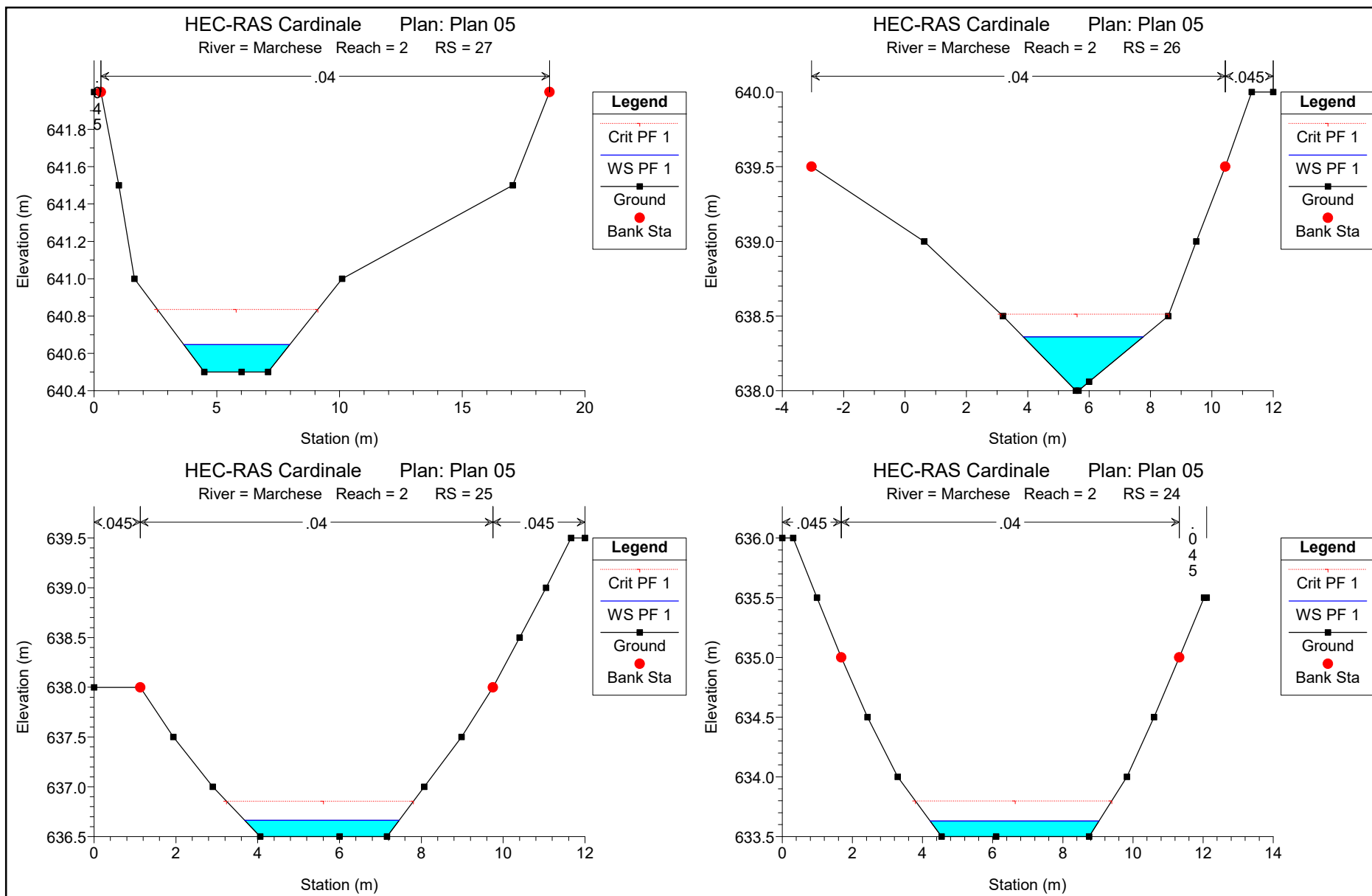


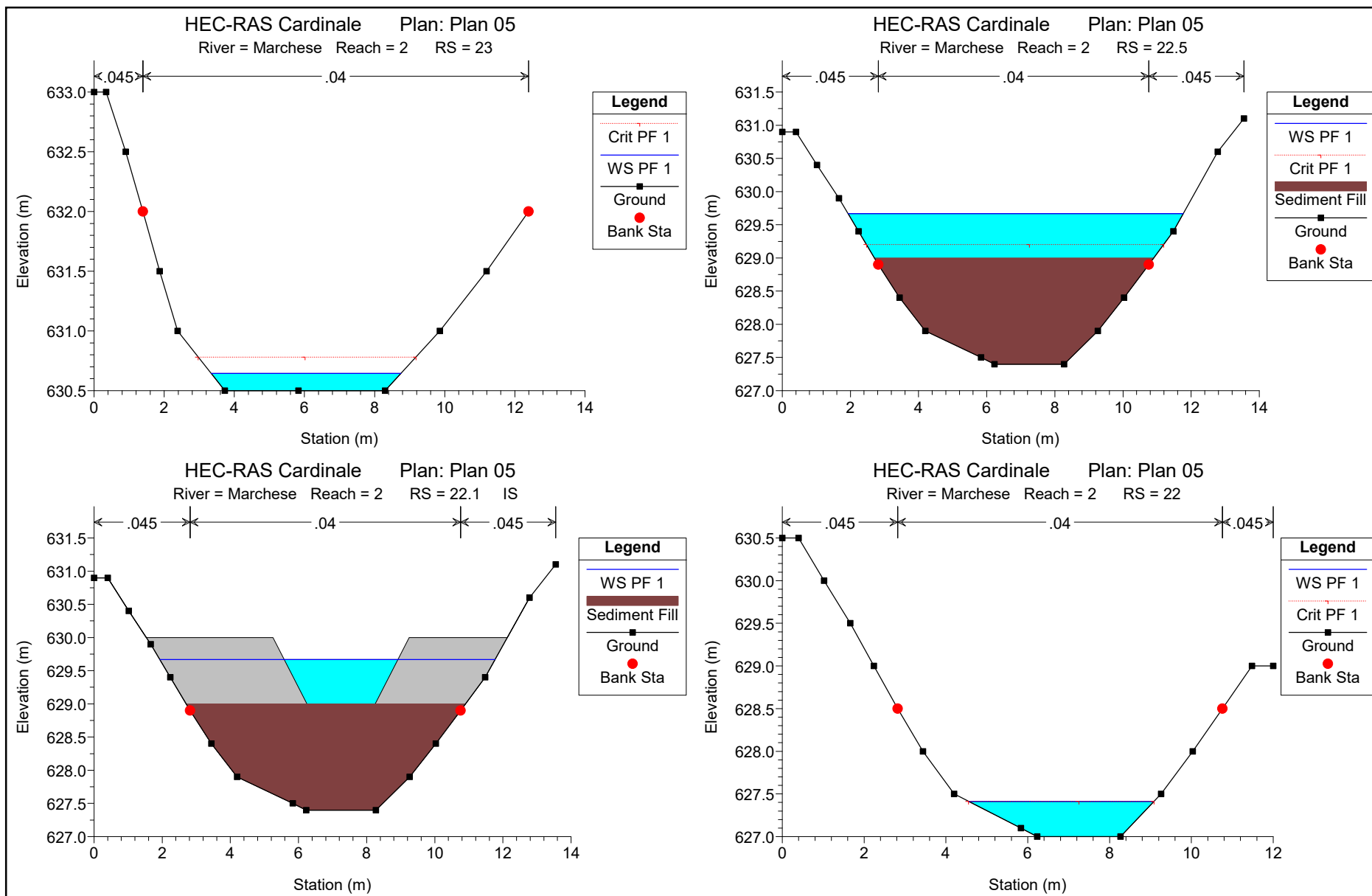


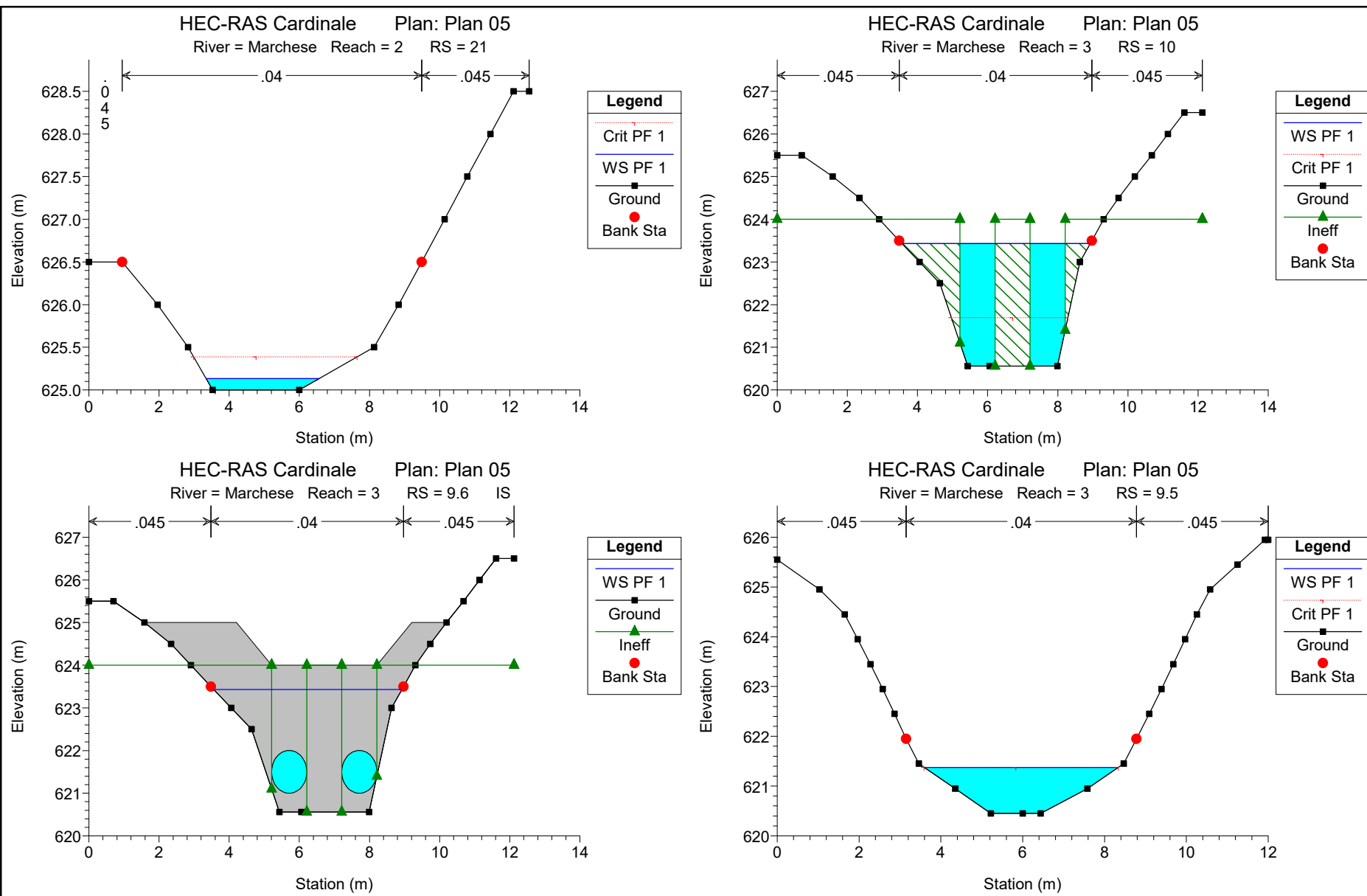


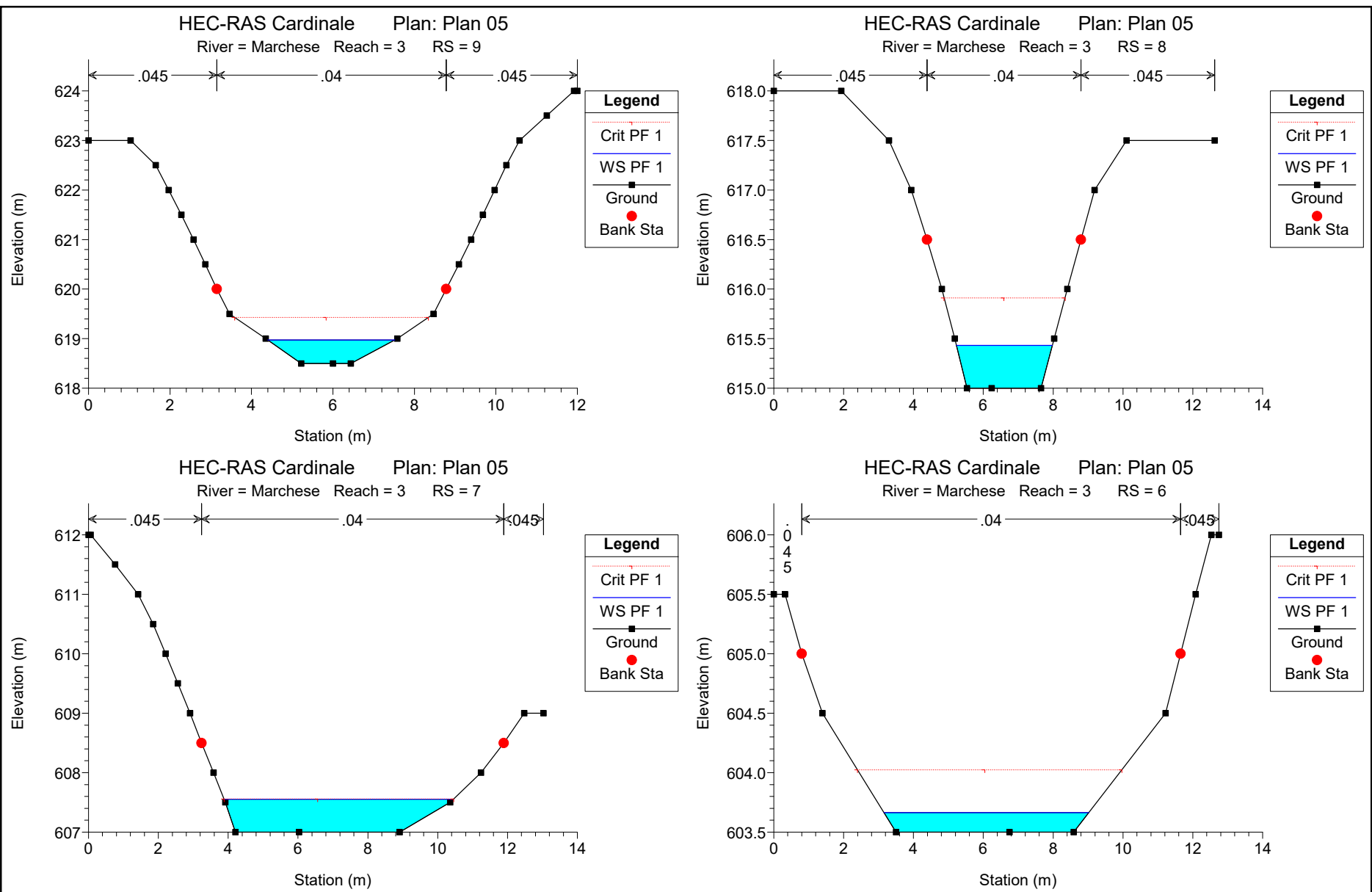


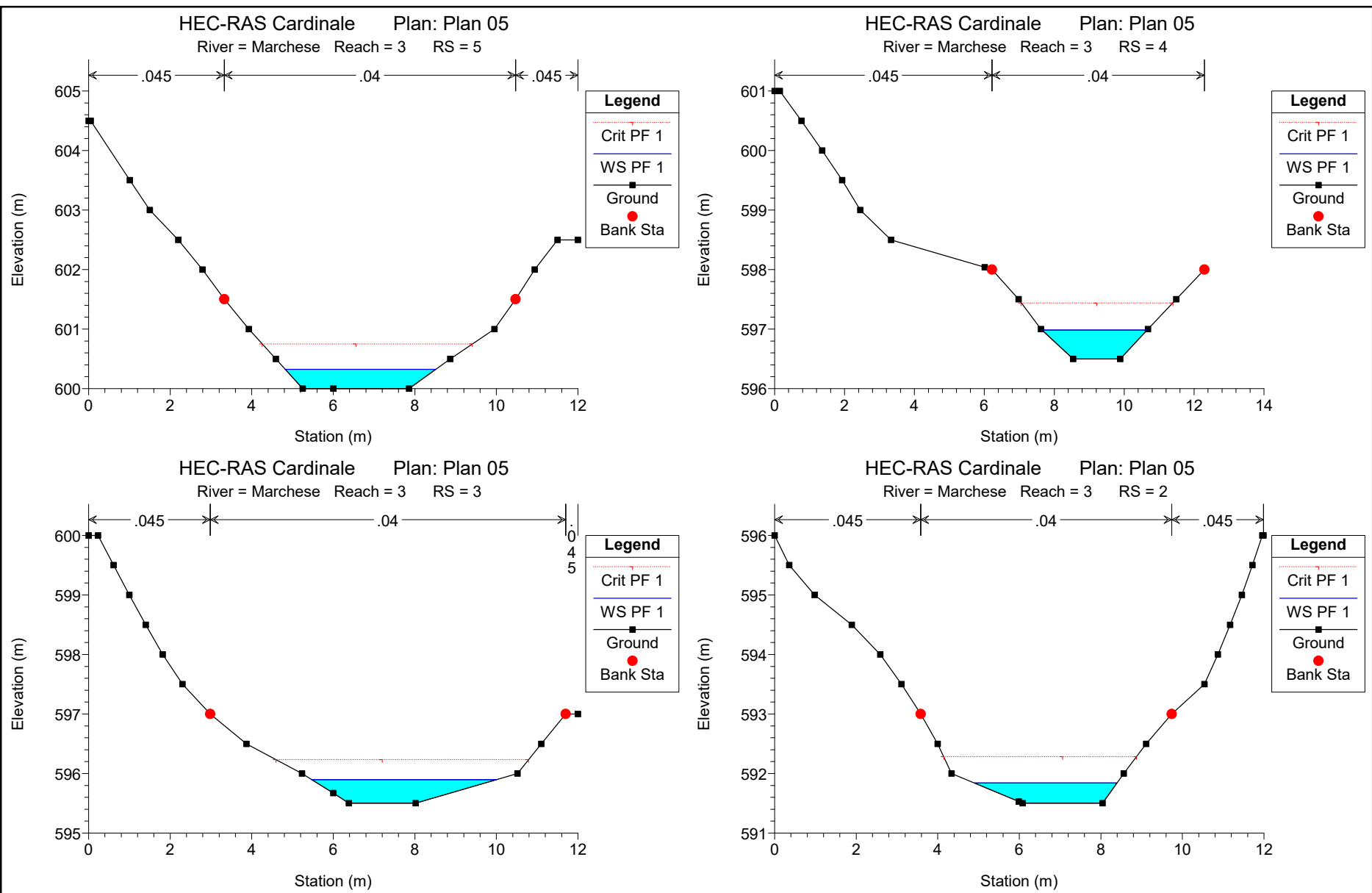


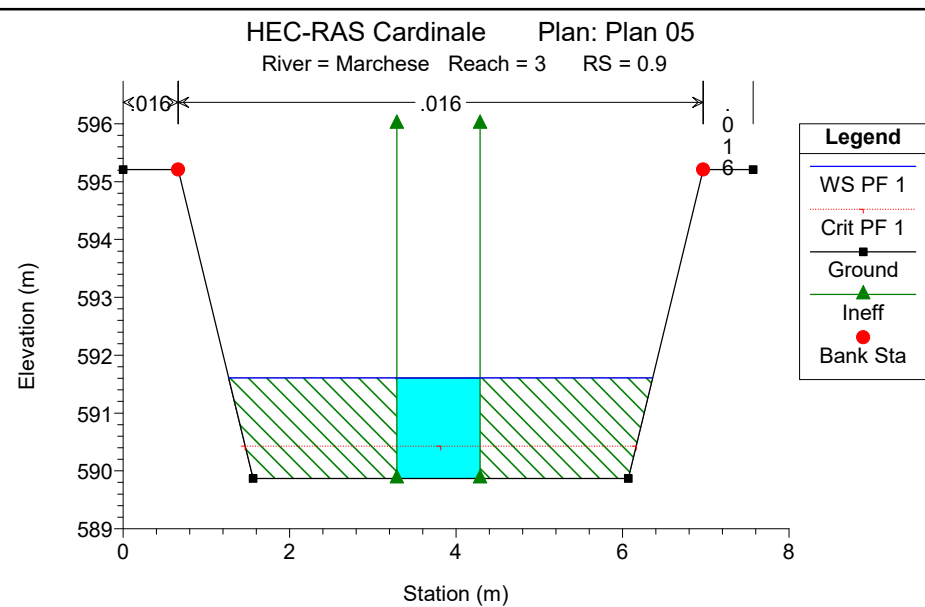
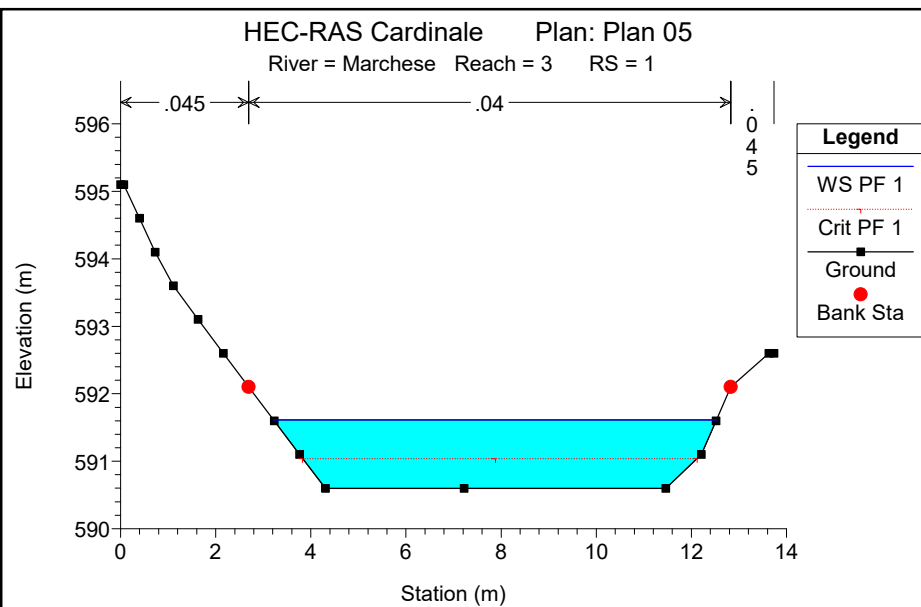


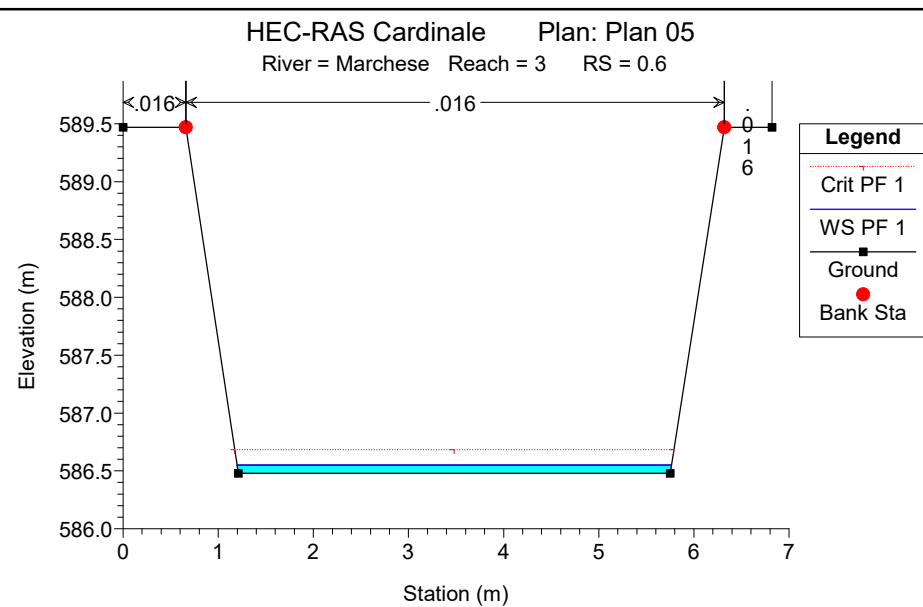
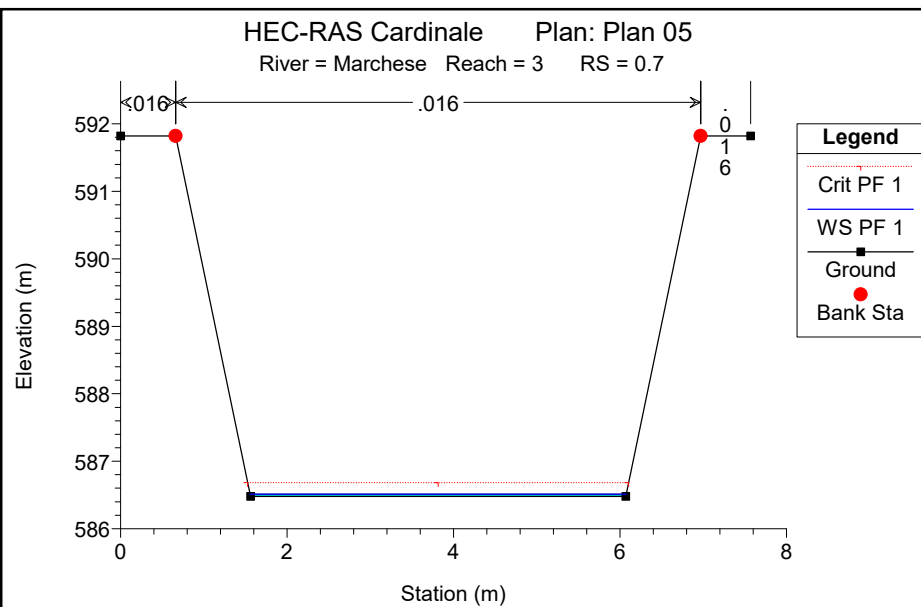


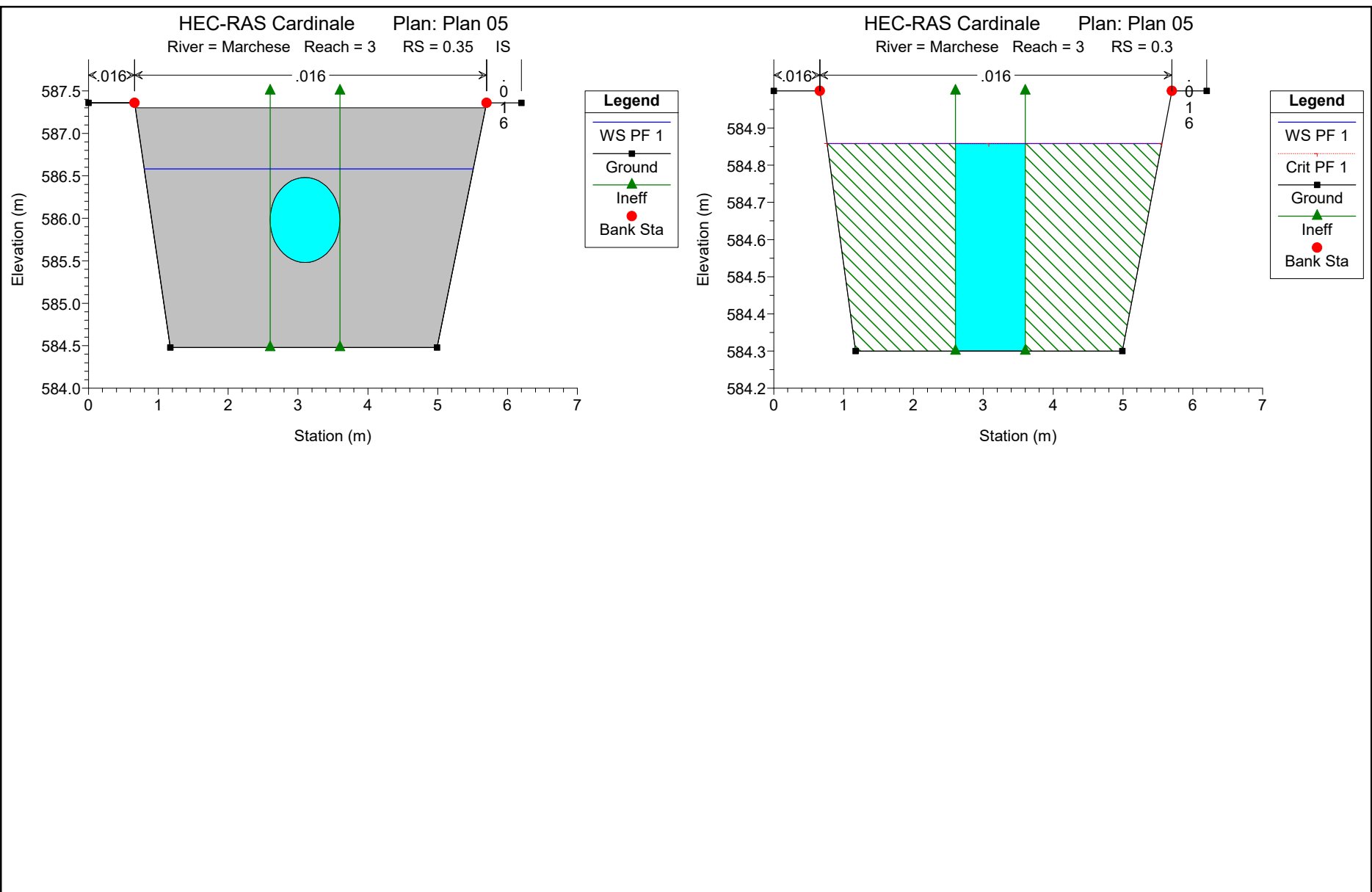










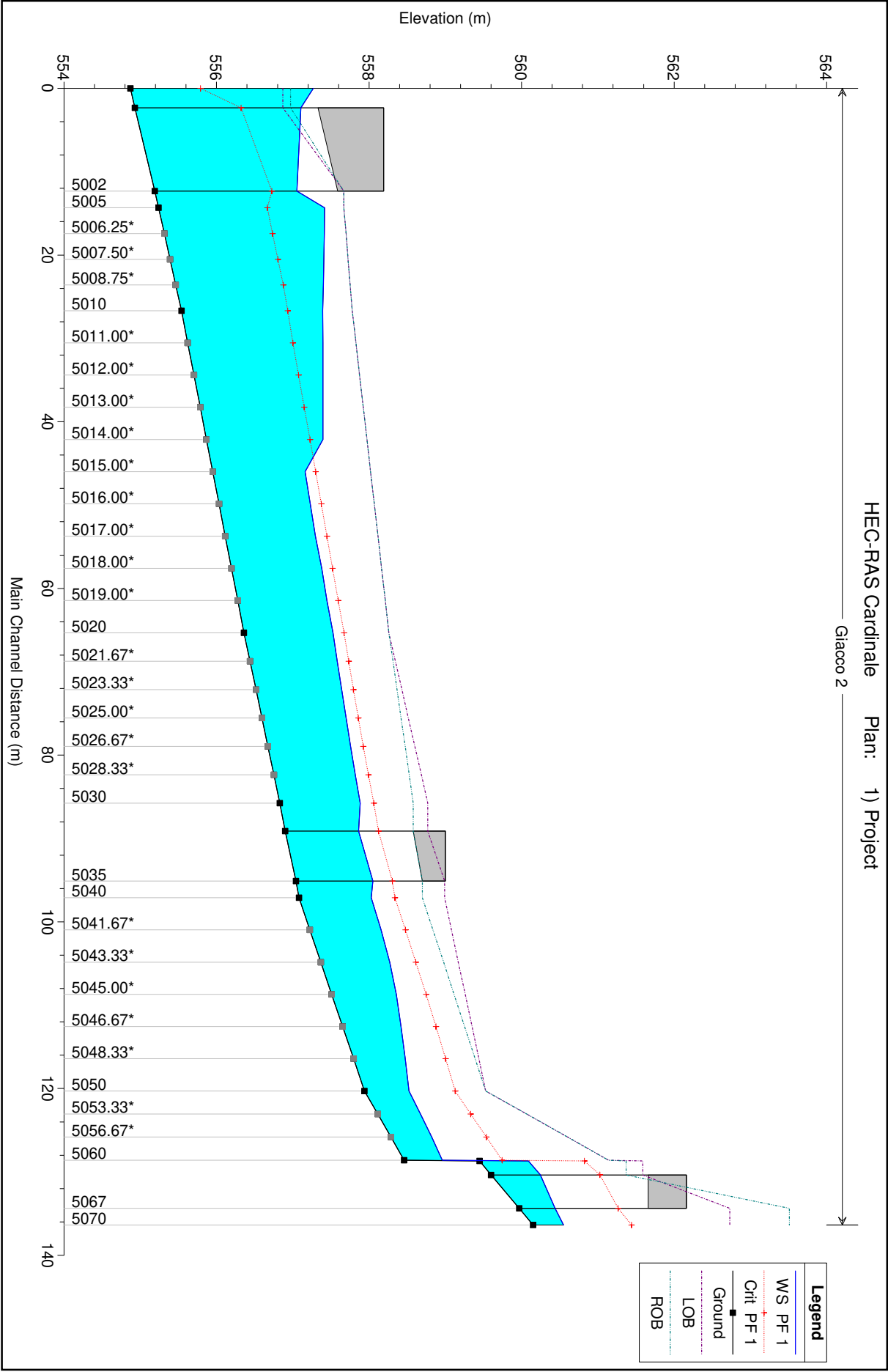


**ALLEGATO 4: SIMULAZIONE HEC RAS – STATO DI PROGETTO  
CANALI A PELO LIBERO ESTERNI AL PAESE CON EFFLUSSO  
RIGURGITATO**

N.B. Viene riportata unicamente l'analisi in moto permanente del fosso Giacco ramo 2 in quanto l'unico influenzato dall'imposizione della quota di efflusso di valle.

HEC-RAS Plan: Project River: Giacco Reach: 2 Profile: PF 1

| 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)       |              |
| 2     | 5070      | PF 1    | 17.26   | 560.15    | 560.55    | 561.44    | 567.44    | 0.944865   | 11.63    | 1.48      | 3.75      | 5.90         |
| 2     | 5067      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5065      | PF 1    | 17.26   | 559.45    | 560.09    | 560.82    | 563.35    | 0.178377   | 8.00     | 2.16      | 3.53      | 3.27         |
| 2     | 5060      | PF 1    | 17.26   | 558.46    | 558.96    | 559.74    | 563.23    | 0.295238   | 9.15     | 1.89      | 3.77      | 4.13         |
| 2     | 5050      | PF 1    | 17.26   | 557.94    | 558.52    | 559.13    | 561.01    | 0.141695   | 6.98     | 2.47      | 4.25      | 2.92         |
| 2     | 5040      | PF 1    | 17.26   | 557.08    | 558.03    | 558.34    | 559.14    | 0.039107   | 4.66     | 3.70      | 3.99      | 1.55         |
| 2     | 5035      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5030      | PF 1    | 17.26   | 556.83    | 557.88    | 558.06    | 558.69    | 0.024203   | 3.98     | 4.34      | 4.53      | 1.30         |
| 2     | 5020      | PF 1    | 17.26   | 556.36    | 557.53    | 557.67    | 558.25    | 0.020712   | 3.76     | 4.59      | 4.91      | 1.24         |
| 2     | 5010      | PF 1    | 17.26   | 555.54    | 557.39    | 556.93    | 557.65    | 0.004750   | 2.24     | 7.70      | 5.12      | 0.58         |
| 2     | 5005      | PF 1    | 17.26   | 555.24    | 557.42    | 556.67    | 557.58    | 0.002566   | 1.77     | 9.74      | 6.04      | 0.45         |
| 2     | 5002      |         | Bridge  |           |           |           |           |            |          |           |           |              |
| 2     | 5000      | PF 1    | 17.26   | 554.87    | 557.27    | 555.79    | 557.32    | 0.000497   | 0.95     | 19.19     | 13.86     | 0.21         |



Plan: Project Giacco 2 RS: 5070 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 567.44   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 6.89     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 560.55   | Reach Len. (m)       | 2.00    | 2.00     | 2.00     |
| Crit W.S. (m)      | 561.44   | Flow Area (m2)       |         | 1.48     |          |
| E.G. Slope (m/m)   | 0.944865 | Area (m2)            |         | 1.48     |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26    |          |
| Top Width (m)      | 3.75     | Top Width (m)        |         | 3.75     |          |
| Vel Total (m/s)    | 11.63    | Avg. Vel. (m/s)      |         | 11.63    |          |
| Max Chl Dpth (m)   | 0.40     | Hydr. Depth (m)      |         | 0.40     |          |
| Conv. Total (m3/s) | 17.8     | Conv. (m3/s)         |         | 17.8     |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 4.48     |          |
| Min Ch EI (m)      | 560.15   | Shear (N/m2)         |         | 3066.76  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 35659.09 |          |
| Frctn Loss (m)     | 1.45     | Cum Volume (1000 m3) | 0.00    | 0.63     | 0.00     |
| C & E Loss (m)     | 0.57     | Cum SA (1000 m2)     | 0.00    | 0.56     | 0.00     |

Plan: Project Giacco 2 RS: 5067 BR U Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 565.42   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 4.98     | Wt. n-Val.           |         | 0.040    |          |
| W.S. Elev (m)      | 560.44   | Reach Len. (m)       |         |          |          |
| Crit W.S. (m)      | 561.27   | Flow Area (m2)       |         | 1.75     |          |
| E.G. Slope (m/m)   | 0.573395 | Area (m2)            |         | 1.75     |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26    |          |
| Top Width (m)      | 3.75     | Top Width (m)        |         | 3.75     |          |
| Vel Total (m/s)    | 9.89     | Avg. Vel. (m/s)      |         | 9.89     |          |
| Max Chl Dpth (m)   | 0.47     | Hydr. Depth (m)      |         | 0.46     |          |
| Conv. Total (m3/s) | 22.8     | Conv. (m3/s)         |         | 22.8     |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.62     |          |
| Min Ch EI (m)      | 559.97   | Shear (N/m2)         |         | 2122.39  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 20984.52 |          |
| Frctn Loss (m)     | 1.25     | Cum Volume (1000 m3) | 0.00    | 0.63     | 0.00     |
| C & E Loss (m)     | 0.45     | Cum SA (1000 m2)     | 0.00    | 0.55     | 0.00     |

Plan: Project Giacco 2 RS: 5067 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 563.73   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 3.48     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 560.25   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 561.03   | Flow Area (m2)       |         | 2.09    |          |
| E.G. Slope (m/m)   | 0.195656 | Area (m2)            |         | 2.09    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.23     | Top Width (m)        |         | 3.23    |          |
| Vel Total (m/s)    | 8.26     | Avg. Vel. (m/s)      |         | 8.26    |          |
| Max Chl Dpth (m)   | 0.65     | Hydr. Depth (m)      |         | 0.65    |          |
| Conv. Total (m3/s) | 39.0     | Conv. (m3/s)         |         | 39.0    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 4.52    |          |
| Min Ch EI (m)      | 559.60   | Shear (N/m2)         |         | 886.36  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 7321.61 |          |
| Frctn Loss (m)     | 0.31     | Cum Volume (1000 m3) | 0.00    | 0.63    | 0.00     |
| C & E Loss (m)     | 0.06     | Cum SA (1000 m2)     | 0.00    | 0.55    | 0.00     |

Plan: Project Giacco 2 RS: 5065 Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 563.35   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 3.26     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 560.09   | Reach Len. (m) | 0.10    | 0.10    | 0.10     |
| Crit W.S. (m)    | 560.82   | Flow Area (m2) |         | 2.16    |          |
| E.G. Slope (m/m) | 0.178377 | Area (m2)      |         | 2.16    |          |
| Q Total (m3/s)   | 17.26    | Flow (m3/s)    |         | 17.26   |          |

Plan: Project Giacco 2 RS: 5065 Profile: PF 1 (Continued)

|                    |        |                      |      |         |      |
|--------------------|--------|----------------------|------|---------|------|
| Top Width (m)      | 3.53   | Top Width (m)        |      | 3.53    |      |
| Vel Total (m/s)    | 8.00   | Avg. Vel. (m/s)      |      | 8.00    |      |
| Max Chl Dpth (m)   | 0.64   | Hydr. Depth (m)      |      | 0.61    |      |
| Conv. Total (m3/s) | 40.9   | Conv. (m3/s)         |      | 40.9    |      |
| Length Wtd. (m)    | 0.10   | Wetted Per. (m)      |      | 4.57    |      |
| Min Ch EI (m)      | 559.45 | Shear (N/m2)         |      | 825.36  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 6602.29 |      |
| Frctn Loss (m)     | 0.02   | Cum Volume (1000 m3) | 0.00 | 0.63    | 0.00 |
| C & E Loss (m)     | 0.10   | Cum SA (1000 m2)     | 0.00 | 0.55    | 0.00 |

Plan: Project Giacco 2 RS: 5060 Profile: PF 1

|                    |          |                      |         |          |          |
|--------------------|----------|----------------------|---------|----------|----------|
| E.G. Elev (m)      | 563.23   | Element              | Left OB | Channel  | Right OB |
| Vel Head (m)       | 4.27     | Wt. n-Val.           |         | 0.032    |          |
| W.S. Elev (m)      | 558.96   | Reach Len. (m)       | 2.77    | 2.77     | 2.77     |
| Crit W.S. (m)      | 559.74   | Flow Area (m2)       |         | 1.89     |          |
| E.G. Slope (m/m)   | 0.295238 | Area (m2)            |         | 1.89     |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26    |          |
| Top Width (m)      | 3.77     | Top Width (m)        |         | 3.77     |          |
| Vel Total (m/s)    | 9.15     | Avg. Vel. (m/s)      |         | 9.15     |          |
| Max Chl Dpth (m)   | 0.50     | Hydr. Depth (m)      |         | 0.50     |          |
| Conv. Total (m3/s) | 31.8     | Conv. (m3/s)         |         | 31.8     |          |
| Length Wtd. (m)    | 2.77     | Wetted Per. (m)      |         | 4.77     |          |
| Min Ch EI (m)      | 558.46   | Shear (N/m2)         |         | 1145.02  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 10475.27 |          |
| Frctn Loss (m)     | 0.70     | Cum Volume (1000 m3) | 0.00    | 0.63     | 0.00     |
| C & E Loss (m)     | 0.24     | Cum SA (1000 m2)     | 0.00    | 0.55     | 0.00     |

Plan: Project Giacco 2 RS: 5050 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 561.01   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 2.49     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.52   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 559.13   | Flow Area (m2)       |         | 2.47    |          |
| E.G. Slope (m/m)   | 0.141695 | Area (m2)            |         | 2.47    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.25     | Top Width (m)        |         | 4.25    |          |
| Vel Total (m/s)    | 6.98     | Avg. Vel. (m/s)      |         | 6.98    |          |
| Max Chl Dpth (m)   | 0.58     | Hydr. Depth (m)      |         | 0.58    |          |
| Conv. Total (m3/s) | 45.9     | Conv. (m3/s)         |         | 45.9    |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.41    |          |
| Min Ch EI (m)      | 557.94   | Shear (N/m2)         |         | 635.47  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 4437.18 |          |
| Frctn Loss (m)     | 0.44     | Cum Volume (1000 m3) | 0.00    | 0.61    | 0.00     |
| C & E Loss (m)     | 0.17     | Cum SA (1000 m2)     | 0.00    | 0.52    | 0.00     |

Plan: Project Giacco 2 RS: 5040 Profile: PF 1

|                    |          |                 |         |         |          |
|--------------------|----------|-----------------|---------|---------|----------|
| E.G. Elev (m)      | 559.14   | Element         | Left OB | Channel | Right OB |
| Vel Head (m)       | 1.11     | Wt. n-Val.      |         | 0.032   |          |
| W.S. Elev (m)      | 558.03   | Reach Len. (m)  | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 558.34   | Flow Area (m2)  |         | 3.70    |          |
| E.G. Slope (m/m)   | 0.039107 | Area (m2)       |         | 3.70    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)     |         | 17.26   |          |
| Top Width (m)      | 3.99     | Top Width (m)   |         | 3.99    |          |
| Vel Total (m/s)    | 4.66     | Avg. Vel. (m/s) |         | 4.66    |          |
| Max Chl Dpth (m)   | 0.95     | Hydr. Depth (m) |         | 0.93    |          |
| Conv. Total (m3/s) | 87.3     | Conv. (m3/s)    |         | 87.3    |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m) |         | 5.65    |          |
| Min Ch EI (m)      | 557.08   | Shear (N/m2)    |         | 251.34  |          |

Plan: Project Giacco 2 RS: 5040 Profile: PF 1 (Continued)

|                |      |                      |      |         |      |
|----------------|------|----------------------|------|---------|------|
| Alpha          | 1.00 | Stream Power (N/m s) |      | 1171.95 |      |
| Frctn Loss (m) | 0.07 | Cum Volume (1000 m3) | 0.00 | 0.53    | 0.00 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2)     | 0.00 | 0.42    | 0.00 |

Plan: Project Giacco 2 RS: 5035 BR U Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 559.03   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.98     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 558.05   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 558.30   | Flow Area (m2)       |         | 3.94    |          |
| E.G. Slope (m/m)   | 0.032601 | Area (m2)            |         | 3.94    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.99     | Top Width (m)        |         | 3.99    |          |
| Vel Total (m/s)    | 4.38     | Avg. Vel. (m/s)      |         | 4.38    |          |
| Max Chl Dpth (m)   | 1.01     | Hydr. Depth (m)      |         | 0.99    |          |
| Conv. Total (m3/s) | 95.6     | Conv. (m3/s)         |         | 95.6    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.76    |          |
| Min Ch El (m)      | 557.04   | Shear (N/m2)         |         | 218.68  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 957.86  |          |
| Frctn Loss (m)     | 0.19     | Cum Volume (1000 m3) | 0.00    | 0.52    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Project Giacco 2 RS: 5035 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.82   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.96     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.86   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 558.12   | Flow Area (m2)       |         | 3.98    |          |
| E.G. Slope (m/m)   | 0.031315 | Area (m2)            |         | 3.98    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 4.34     | Avg. Vel. (m/s)      |         | 4.34    |          |
| Max Chl Dpth (m)   | 0.96     | Hydr. Depth (m)      |         | 0.88    |          |
| Conv. Total (m3/s) | 97.5     | Conv. (m3/s)         |         | 97.5    |          |
| Length Wtd. (m)    |          | Wetted Per. (m)      |         | 5.73    |          |
| Min Ch El (m)      | 556.90   | Shear (N/m2)         |         | 213.21  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 924.48  |          |
| Frctn Loss (m)     | 0.09     | Cum Volume (1000 m3) | 0.00    | 0.52    | 0.00     |
| C & E Loss (m)     | 0.05     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Project Giacco 2 RS: 5030 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.69   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.81     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.88   | Reach Len. (m)       | 3.41    | 3.41    | 3.41     |
| Crit W.S. (m)      | 558.06   | Flow Area (m2)       |         | 4.34    |          |
| E.G. Slope (m/m)   | 0.024203 | Area (m2)            |         | 4.34    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.53     | Top Width (m)        |         | 4.53    |          |
| Vel Total (m/s)    | 3.98     | Avg. Vel. (m/s)      |         | 3.98    |          |
| Max Chl Dpth (m)   | 1.05     | Hydr. Depth (m)      |         | 0.96    |          |
| Conv. Total (m3/s) | 110.9    | Conv. (m3/s)         |         | 110.9   |          |
| Length Wtd. (m)    | 3.41     | Wetted Per. (m)      |         | 5.87    |          |
| Min Ch El (m)      | 556.83   | Shear (N/m2)         |         | 175.55  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 698.02  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) | 0.00    | 0.52    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.41    | 0.00     |

Plan: Project Giacco 2 RS: 5020 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 558.25   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.72     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.53   | Reach Len. (m)       | 3.86    | 3.86    | 3.86     |
| Crit W.S. (m)      | 557.67   | Flow Area (m2)       |         | 4.59    |          |
| E.G. Slope (m/m)   | 0.020712 | Area (m2)            |         | 4.59    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 4.91     | Top Width (m)        |         | 4.91    |          |
| Vel Total (m/s)    | 3.76     | Avg. Vel. (m/s)      |         | 3.76    |          |
| Max Chl Dpth (m)   | 1.17     | Hydr. Depth (m)      |         | 0.93    |          |
| Conv. Total (m3/s) | 119.9    | Conv. (m3/s)         |         | 119.9   |          |
| Length Wtd. (m)    | 3.86     | Wetted Per. (m)      |         | 5.99    |          |
| Min Ch EI (m)      | 556.36   | Shear (N/m2)         |         | 155.46  |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 585.02  |          |
| Frctn Loss (m)     | 0.08     | Cum Volume (1000 m3) | 0.00    | 0.43    | 0.00     |
| C & E Loss (m)     | 0.00     | Cum SA (1000 m2)     | 0.00    | 0.32    | 0.00     |

Plan: Project Giacco 2 RS: 5010 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.65   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.26     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.39   | Reach Len. (m)       | 3.08    | 3.08    | 3.08     |
| Crit W.S. (m)      | 556.93   | Flow Area (m2)       |         | 7.70    |          |
| E.G. Slope (m/m)   | 0.004750 | Area (m2)            |         | 7.70    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 5.12     | Top Width (m)        |         | 5.12    |          |
| Vel Total (m/s)    | 2.24     | Avg. Vel. (m/s)      |         | 2.24    |          |
| Max Chl Dpth (m)   | 1.85     | Hydr. Depth (m)      |         | 1.50    |          |
| Conv. Total (m3/s) | 250.4    | Conv. (m3/s)         |         | 250.4   |          |
| Length Wtd. (m)    | 3.08     | Wetted Per. (m)      |         | 7.26    |          |
| Min Ch EI (m)      | 555.54   | Shear (N/m2)         |         | 49.43   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 110.77  |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.22    | 0.00     |
| C & E Loss (m)     | 0.01     | Cum SA (1000 m2)     | 0.00    | 0.12    | 0.00     |

Plan: Project Giacco 2 RS: 5005 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.58   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.16     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.42   | Reach Len. (m)       | 2.00    | 2.00    | 2.00     |
| Crit W.S. (m)      | 556.67   | Flow Area (m2)       |         | 9.74    |          |
| E.G. Slope (m/m)   | 0.002566 | Area (m2)            |         | 9.74    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 6.04     | Top Width (m)        |         | 6.04    |          |
| Vel Total (m/s)    | 1.77     | Avg. Vel. (m/s)      |         | 1.77    |          |
| Max Chl Dpth (m)   | 2.18     | Hydr. Depth (m)      |         | 1.61    |          |
| Conv. Total (m3/s) | 340.7    | Conv. (m3/s)         |         | 340.7   |          |
| Length Wtd. (m)    | 2.00     | Wetted Per. (m)      |         | 8.23    |          |
| Min Ch EI (m)      | 555.24   | Shear (N/m2)         |         | 29.79   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 52.78   |          |
| Frctn Loss (m)     | 0.01     | Cum Volume (1000 m3) | 0.00    | 0.11    | 0.00     |
| C & E Loss (m)     | 0.03     | Cum SA (1000 m2)     | 0.00    | 0.06    | 0.00     |

Plan: Project Giacco 2 RS: 5002 BR U Profile: PF 1

|                  |          |                |         |         |          |
|------------------|----------|----------------|---------|---------|----------|
| E.G. Elev (m)    | 557.54   | Element        | Left OB | Channel | Right OB |
| Vel Head (m)     | 0.48     | Wt. n-Val.     |         | 0.032   |          |
| W.S. Elev (m)    | 557.05   | Reach Len. (m) | 10.00   | 10.00   | 10.00    |
| Crit W.S. (m)    | 556.72   | Flow Area (m2) |         | 5.61    |          |
| E.G. Slope (m/m) | 0.011549 | Area (m2)      |         | 5.61    |          |
| Q Total (m3/s)   | 17.26    | Flow (m3/s)    |         | 17.26   |          |

Plan: Project Giacco 2 RS: 5002 BR U Profile: PF 1 (Continued)

|                    |        |                      |      |        |      |
|--------------------|--------|----------------------|------|--------|------|
| Top Width (m)      | 3.15   | Top Width (m)        |      | 3.15   |      |
| Vel Total (m/s)    | 3.08   | Avg. Vel. (m/s)      |      | 3.08   |      |
| Max Chl Dpth (m)   | 1.86   | Hydr. Depth (m)      |      | 1.78   |      |
| Conv. Total (m3/s) | 160.6  | Conv. (m3/s)         |      | 160.6  |      |
| Length Wtd. (m)    | 10.00  | Wetted Per. (m)      |      | 6.40   |      |
| Min Ch El (m)      | 555.19 | Shear (N/m2)         |      | 99.28  |      |
| Alpha              | 1.00   | Stream Power (N/m s) |      | 305.41 |      |
| Frctn Loss (m)     | 0.08   | Cum Volume (1000 m3) | 0.00 | 0.09   | 0.00 |
| C & E Loss (m)     | 0.06   | Cum SA (1000 m2)     | 0.00 | 0.05   | 0.00 |

Plan: Project Giacco 2 RS: 5002 BR D Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.39   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.29     | Wt. n-Val.           |         | 0.032   |          |
| W.S. Elev (m)      | 557.10   | Reach Len. (m)       | 2.34    | 2.34    | 2.34     |
| Crit W.S. (m)      | 556.32   | Flow Area (m2)       |         | 7.29    |          |
| E.G. Slope (m/m)   | 0.006184 | Area (m2)            |         | 7.29    |          |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          |         | 17.26   |          |
| Top Width (m)      | 3.35     | Top Width (m)        |         | 3.35    |          |
| Vel Total (m/s)    | 2.37     | Avg. Vel. (m/s)      |         | 2.37    |          |
| Max Chl Dpth (m)   | 2.18     | Hydr. Depth (m)      |         | 2.18    |          |
| Conv. Total (m3/s) | 219.5    | Conv. (m3/s)         |         | 219.5   |          |
| Length Wtd. (m)    | 2.34     | Wetted Per. (m)      |         | 7.70    |          |
| Min Ch El (m)      | 554.93   | Shear (N/m2)         |         | 57.39   |          |
| Alpha              | 1.00     | Stream Power (N/m s) |         | 135.94  |          |
| Frctn Loss (m)     | 0.00     | Cum Volume (1000 m3) | 0.00    | 0.03    | 0.00     |
| C & E Loss (m)     | 0.07     | Cum SA (1000 m2)     | 0.00    | 0.01    | 0.00     |

Plan: Project Giacco 2 RS: 5000 Profile: PF 1

|                    |          |                      |         |         |          |
|--------------------|----------|----------------------|---------|---------|----------|
| E.G. Elev (m)      | 557.32   | Element              | Left OB | Channel | Right OB |
| Vel Head (m)       | 0.05     | Wt. n-Val.           | 0.045   | 0.032   | 0.045    |
| W.S. Elev (m)      | 557.27   | Reach Len. (m)       |         |         |          |
| Crit W.S. (m)      | 555.79   | Flow Area (m2)       | 0.33    | 17.84   | 1.02     |
| E.G. Slope (m/m)   | 0.000497 | Area (m2)            | 0.33    | 17.84   | 1.02     |
| Q Total (m3/s)     | 17.26    | Flow (m3/s)          | 0.05    | 16.99   | 0.21     |
| Top Width (m)      | 13.86    | Top Width (m)        | 1.62    | 8.84    | 3.40     |
| Vel Total (m/s)    | 0.90     | Avg. Vel. (m/s)      | 0.17    | 0.95    | 0.21     |
| Max Chl Dpth (m)   | 2.40     | Hydr. Depth (m)      | 0.20    | 2.02    | 0.30     |
| Conv. Total (m3/s) | 774.1    | Conv. (m3/s)         | 2.4     | 762.1   | 9.6      |
| Length Wtd. (m)    |          | Wetted Per. (m)      | 1.67    | 11.16   | 3.70     |
| Min Ch El (m)      | 554.87   | Shear (N/m2)         | 0.95    | 7.79    | 1.34     |
| Alpha              | 1.10     | Stream Power (N/m s) | 0.16    | 7.42    | 0.28     |
| Frctn Loss (m)     |          | Cum Volume (1000 m3) |         |         |          |
| C & E Loss (m)     |          | Cum SA (1000 m2)     |         |         |          |

