



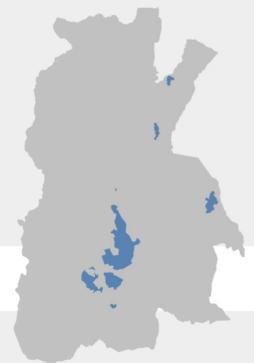
Comune di Barberino di Mugello

Città Metropolitana di Firenze

PO PIANO OPERATIVO

Legge regionale 10 novembre 2014, n. 65

IDR.01 RELAZIONE IDROLOGICA IDRAULICA



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- **Appendice 1** - Outputs grafici e numerici delle simulazioni effettuate in regime di moto vario con il software Hec-Ras;

- **Appendice 2** (SU DVD-ROM) - Outputs in formato raster relativi ai battenti, ai livelli, alle velocità e alla magnitudo. Elaborazioni in formato .shp file relative alla pericolosità idraulica, alle aree presidiate dai sistemi arginali e alle aree di fondovalle fluviale.

1 Introduzione

La presente relazione documenta ed illustra lo studio idrologico – idraulico redatto per conto Comune di Barberino di Mugello a supporto del Piano Operativo comunale.

In particolare, nell’ambito dell’indagine svolta, sono state condotte analisi e verifiche di sussistenza del rischio idraulico di allagamento dei seguenti corsi d'acqua:

- Fiume Sieve
- Fosso Scopicci
- Fosso Visano
- Fosso della Mulinaccia
- Fosso MV16963
- Fosso MV15739
- Fosso MV15122
- Fosso MV12865
- Fosso MV15982
- Fosso Ornellaio

Per gli altri corsi d’acqua ricadenti nel Comune di Barberino del Mugello si è fatto riferimento ai risultati delle analisi idrologico idrauliche condotte a supporto di studi¹ recentemente approvati dal Settore Genio Civile Valdarno Superiore.

1.1 Criteri operativi e obiettivi dello studio

Il presente studio idrologico-idraulico, conformemente a quanto prescritto dal quadro normativo di riferimento, dettagliatamente descritto nei paragrafi seguenti, si è posto l’obiettivo di valutare l’effettivo livello di rischio idraulico sussistente allo stato attuale nelle aree interessate da previsioni urbanistiche in relazione ai potenziali fronti di esondazione del reticolo idrografico circostante per eventi di piena con tempo di ritorno pari a 30 e 200 anni.

Per poter redigere le carte della pericolosità da alluvioni, è stato necessario valutare preliminarmente gli idrogrammi di piena attesi nelle sezioni di interesse dei tratti dei corsi

¹ - Piano Strutturale Intercomunale del Mugello.

- Integrazione del Piano Strutturale Intercomunale del Mugello ai fini dell’adozione del secondo stralcio - parco Cafaggiolo.

d'acqua esaminati corrispondenti ad eventi meteorici estremi (rispettivamente con tempo di ritorno trentennale e duecentennale) per varie durate di precipitazione.

In base alle diverse configurazioni morfologiche dei singoli corsi d'acqua, per effettuare le simulazioni numeriche inerenti agli eventi di piena considerati sono stati allestiti più modelli matematici in regime di moto vario, diversificati al fine di mantenere il più possibile un livello di significatività omogeneo dei risultati. A tale scopo è stato utilizzato il software HEC-RAS vers. 6.4.1, nella opzione relativa al regime di moto vario, con schematizzazione accoppiata 1-D in alveo e puramente 2-D extra-alveo, in modo da poter valutare opportunamente gli effetti di laminazione e propagazione delle portate di piena nelle aree di naturale esondazione del corso d'acqua.

La perimetrazione delle “*aree a pericolosità per alluvioni frequenti*”, delle “*aree a pericolosità per alluvioni poco frequenti*”, nonché delle aree a diversa “*magnitudo idraulica*” (combinazione del battente e della velocità della corrente associata allo scenario relativo alle alluvioni poco frequenti), definite ai sensi della L.R. 41/2018, è stata infine condotta con strumenti CAD/GIS sulla base dei risultati raster forniti direttamente dal modulo “*RAS Mapper*” del software HEC-RAS.

Giova comunque precisare che la procedura adottata ha assunto alcune irrinunciabili ipotesi di lavoro circa la non trattazione di fenomeni collaterali che possono aver luogo contestualmente agli eventi di piena, ma aventi carattere di ulteriore eccezionalità rispetto al mero evento idrologico estremo.

In sostanza si assumono ipotesi di regolare operatività e comportamento della rete drenante, forzate dall'imponderabilità spaziale e temporale dei casi di anomalo funzionamento delle difese o delle altre infrastrutture idrauliche coinvolte, o addirittura di totale perdita di funzionalità (distruzione) delle stesse. Eventi, questi, che peraltro, non essendo in generale obbligatoriamente causati dal mero accadimento dell'evento meteorologico estremo, se considerati avvenire contestualmente ad esso determinerebbero una sicura diminuzione della probabilità congiunta dell'evento combinato² portando a risultati, in termini di allagabilità e di tiranti idraulici, corrispondenti in realtà ad eventi più rari di quelli di riferimento imposti dalla normativa. In ragione delle suddette considerazioni si assume dunque che:

² Ad esempio: piena e collasso arginale; piena e occlusione della luce di un ponte; piena e frana che limita una sezione di deflusso; ecc.

- a) le strutture idrauliche di contenimento (argini, muri di sponda, ecc.) siano considerate tracimabili ma senza collasso della struttura. Analogamente non si considerano fenomeni di collasso dovuti a processi di mobilità dell'alveo o a moti di filtrazione;
- b) per altre strutture di contenimento non idrauliche (rilevati stradali e ferroviari), non è previsto il collasso anche in caso di tracimazione, valutandone nel contempo il grado di permeabilità macroscopico dovuto agli attraversamenti;
- c) si esclude la possibilità di ostruzione delle opere d'arte interferenti per trasporto in flottazione;
- d) non si considera l'influenza di allagamenti o ristagni dal reticolo scolante minore o da altri sistemi di drenaggio.

2 Quadro normativo di riferimento

L'attività conoscitiva, di verifica e prescrittiva, sviluppata nel seguente lavoro è stata uniformata al quadro normativo di riferimento vigente a livello nazionale e regionale ed in particolare alle seguenti norme:

- Piano di Gestione del Rischio Alluvioni (PGRA) del Distretto Idrografico dell'Appennino Settentrionale di cui alla Direttiva 2007/60/CE, D.Lgs. 152/2006 e D.Lgs. 49/2010, approvato con delibera del Comitato Istituzionale n. 235 del 3 marzo 2016;
- L.R. 41 del 24/07/2018 "Disposizioni in materia di rischio di alluvioni e di tutela dei corsi d'acqua in attuazione del decreto legislativo 23 febbraio 2010, n. 49 (Attuazione della direttiva 2007/60/CE relativa alla valutazione e alla gestione dei rischi di alluvioni). Modifiche alla l.r. 80/2015 e alla l.r. 65/2014".
- D.P.G.R. del 30 gennaio 2020, n. 5/R Regolamento di attuazione dell'articolo 104 della legge regionale 10 novembre 2014, n. 65 (Norme per il governo del territorio) contenente disposizioni in materia di indagini geologiche, idrauliche e sismiche.

2.1 Adempimenti rispetto la L.R. 41 del 24.07.2018. Disposizioni in materia di rischio di alluvioni e di tutela dei corsi d'acqua in attuazione del decreto legislativo 23 febbraio 2010, n. 49 (Attuazione della direttiva 2007/60/CE relativa alla valutazione e alla gestione dei rischi di alluvioni).

Con la L.R. 41/2018 la Regione disciplina la gestione del rischio alluvione in relazione alle trasformazioni del territorio e la tutela dei corsi d'acqua.

In particolare, detta normativa regola gli interventi edilizi ammessi nelle aree a pericolosità idraulica e le eventuali opere di gestione del rischio alluvioni che devono essere realizzate prima o contestualmente all'attuazione delle trasformazioni urbanistico-edilizie.

L'inviluppo dei risultati ottenuti per ciascun tempo di ritorno (in particolare in termini di livelli idrometrici massimi raggiunti in alveo e nelle aree di potenziale esondazione) ha costituito la base numerica per il tracciamento delle aree a pericolosità per alluvioni con riferimento al DTM Lidar, liberamente scaricabile dal portale cartografico regionale.

Pertanto, sono state individuate:

- le aree a pericolosità per alluvioni frequenti ($Tr \leq 30$ anni);
- le aree a pericolosità alluvioni poco frequenti ($30 < Tr \leq 200$ anni);

Altresì, come richiesto dalla normativa vigente, si è determinata la "magnitudo idraulica" che, con riferimento allo scenario duecentennale, è definita attraverso la combinazione del battente e della velocità della corrente, così come di seguito indicato:

- “*magnitudo idraulica moderata*”: valori di battente inferiore o uguale a 0,5 metri e velocità inferiore o uguale a 1 m/s. Nei casi in cui la velocità non sia determinata, battente uguale o inferiori a 0,3 m;
- “*magnitudo idraulica severa*”: valori di battente inferiore o uguale a 0,5 metri e velocità superiore a 1 m/s oppure battente superiore a 0,5 m e inferiore o uguale a 1 m e velocità inferiore o uguale a 1 m/s. Nei casi in cui la velocità non sia determinata, battente superiore a 0,3 m e inferiore o uguale a 0,5 m;
- “*magnitudo idraulica molto severa*”: battente superiore a 0,5 m e inferiore o uguale a 1 m e velocità superiore a 1 m/s oppure battente superiore a 1 m. Nei casi in cui la velocità non sia determinata, battenti superiori a 0,5 metri.

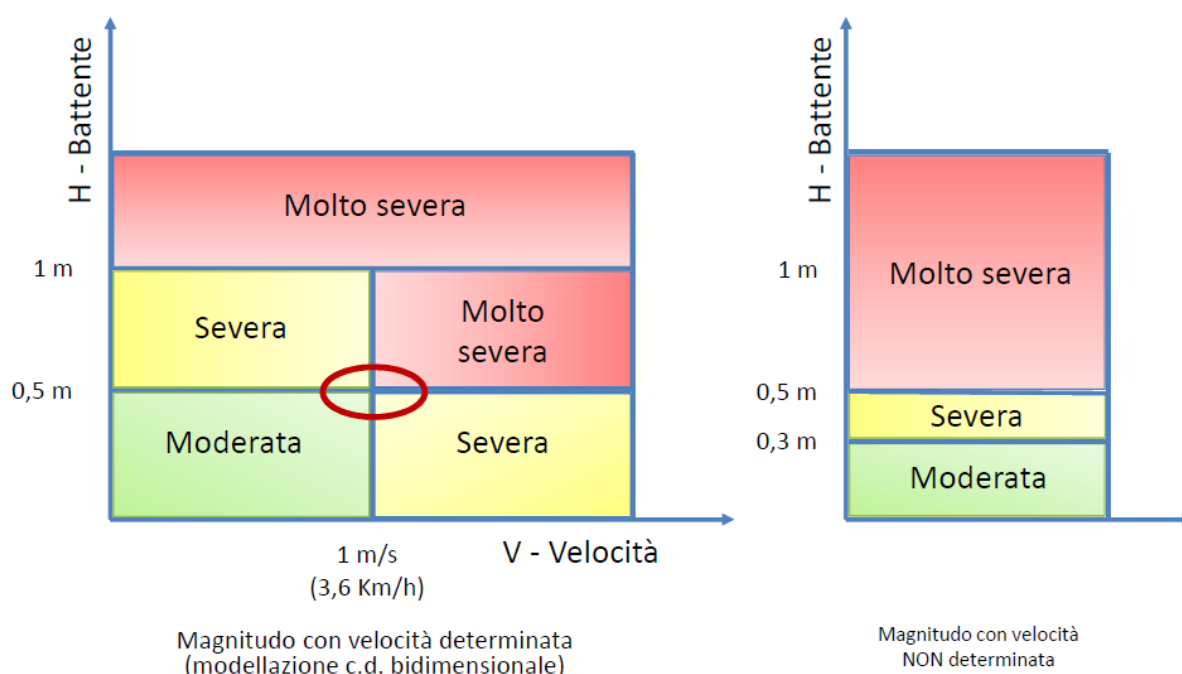


Figura 2-1: magnitudo idraulica: la combinazione del battente e della velocità della corrente in una determinata area, associata allo scenario relativo alle alluvioni poco frequenti (art. 2 L.R. 41/2018)

2.2 Adempimenti rispetto al D.P.G.R. del 30 gennaio 2020, n. 5/R Regolamento di attuazione dell'articolo 104 della legge regionale 10 novembre 2014, n. 65 (Norme per il governo del territorio) contenente disposizioni in materia di indagini geologiche, idrauliche e sismiche.

Il regolamento 5/R del 30 gennaio 2020 disciplina, in sede di formazione degli strumenti di pianificazione territoriale e urbanistica, i seguenti aspetti:

- a) le direttive per la predisposizione delle indagini che verificano la pericolosità del territorio sotto il profilo geologico, idraulico e sismico, le aree esposte a rischio e la

fattibilità degli interventi di trasformazione in relazione all'obiettivo della mitigazione dei rischi;

- b) le procedure per il deposito delle indagini presso le strutture regionali competenti;
- c) le procedure per lo svolgimento del controllo delle indagini da parte della struttura regionale competente;
- d) i criteri per l'individuazione delle classi di pericolosità o di rischio, sotto il profilo geologico e sismico.

Al punto 2.2 e al punto 3.1 dell'Allegato A - *Direttive tecniche per lo svolgimento delle indagini geologiche, idrauliche e sismiche*, vengono indicati gli elaborati cartografici da redigere relativamente alle indagini idrauliche:

- Carta della pericolosità da alluvioni;
- Carta della magnitudo idraulica;
- Carta dei battenti;
- Carta della velocità della corrente;
- Carta delle aree presidiate da sistemi arginali, comprensiva delle aree di fondovalle fluviale;
- Aree ed elementi esposti a fenomeni alluvionali.

3 Analisi idrologica

3.1 Considerazioni generali circa la stima degli idrogrammi di piena

Per individuare la pericolosità idraulica è stato necessario preliminarmente valutare gli idrogrammi di piena di riferimento per i corsi d'acqua elencati in premessa (analisi "idrologica").

Come meglio specificato nei paragrafi seguenti, gli idrogrammi stimati con riferimento ai tempi di ritorno 30 e 200 anni sono stati utilizzati come input idrologico nei successivi modelli di simulazione numerica delle correnti di piena.

Per la stima degli idrogrammi di progetto associati ai diversi tempi di ritorno per i bacini idrografici in esame, che risultano essere non strumentati, si è fatto riferimento all'analisi idrologica sviluppata a supporto del piano Strutturale Intercomunale del Mugello, recentemente validata dal Settore Genio Civile Valdarno Superiore.

Per i corsi d'acqua non presi in esame nel predetto studio, la stima degli idrogrammi di piena è stata eseguita mediante una modellistica idrologica afflussi-deflussi del tutto analoga, di tipo semidistribuito, considerando valida l'ipotesi che la portata defluente associata ad uno specifico tempo di ritorno sia determinata da una sollecitazione meteorica di pari probabilità di accadimento. In particolare, la trasformazione afflussi-deflussi, a meno del deflusso di base ritenuto trascurabile, viene descritta da un approccio idrologico costituito da due componenti in serie: un modello di infiltrazione basato sul metodo SCS-CN, due modelli di formazione della piena basati sull'idrogramma unitario istantaneo (IUH) adimensionale e sul metodo cinematico.

I passi per determinare l'idrogramma di piena di progetto per ogni assegnato tempo di ritorno sono:

- stima delle linee segnalatrici di possibilità pluviometrica (LSPP)³;
- determinazione dello idrogramma di progetto: scelta della durata critica dell'evento e della distribuzione temporale delle precipitazioni;
- stima della pioggia effettiva;

³ All'aumentare dell'area interessata dalla precipitazione la probabilità di ottenere un'intensità media dell'evento estremo pari a quella puntuale diminuisce sensibilmente, soprattutto per eventi brevi che sono tendenzialmente più localizzati. Pertanto, solitamente, viene introdotto un coefficiente riduttivo da applicare alle altezze di pioggia che prende il nome di coefficiente di ragguglio areale. Tuttavia, nel presente studio si è cautelativamente assunto di non introdurre detto coefficiente.

- stima della portata di progetto.

Di seguito verranno analizzati i seguenti elementi:

- a) **Definizione degli afflussi meteorici:** determinazione della relazione tra altezze e durata di pioggia di assegnato tempo di ritorno per i bacini idrografici in esame (LSPP);
- b) **Determinazione dello ietogramma di progetto:** scelta della durata critica dell'evento e della distribuzione temporale delle precipitazioni;
- c) **Stima delle perdite idrologiche:** determinazione della quantità di precipitazione trattenuta dal terreno (perdite), con la conseguente determinazione della pioggia effettiva (o pioggia netta) che rappresenta il volume d'acqua che raggiunge per ruscellamento superficiale la rete di drenaggio fino alla sezione di chiusura, determinando l'evento di piena;
- d) **Trasformazione afflussi-deflussi:** schematizzazione della risposta del singolo bacino idrografico alle sollecitazioni meteoriche, in funzione delle proprie caratteristiche fisiografiche e combinazione di tale risposta con la pioggia netta per stimare gli idrogrammi di piena.
- e) **Propagazione delle onde di piena:** modellazione del fenomeno di trasferimento dell'onda di piena lungo il corso d'acqua.

3.2 Definizione degli afflussi meteorici

La forzante data dall'evento meteorico è schematizzata attraverso uno ietogramma sintetico ad intensità costante nel tempo e nello spazio, la cui frequenza viene stimata a partire dalle curve di possibilità pluviometrica ricavate con l'adattamento delle serie storiche reali alla distribuzione TCEV ("Two Components Extreme Value").

Dette curve sono espresse, per ciascun tempo di ritorno, nella classica equazione di forma monomia nella quale l'altezza di pioggia totale h [mm] è espressa in funzione della durata d [ore] dell'evento:

$$h = a \cdot d^n$$

dove i parametri a e n sono desunti dallo studio promosso dalla Regione Toscana con DGRT 1133/2012 al fine di procedere ad un'implementazione e un aggiornamento del quadro conoscitivo idrologico del territorio toscano, con il quale si è provveduto ad aggiornare l'analisi di frequenza regionale delle precipitazioni estreme fino all'anno 2012 compreso (Referente: Prof. Enrica Caporali, Dipartimento di Ingegneria Civile e

Ambientale dell'Università degli Studi di Firenze). I dati pluviometrici sono liberamente consultabili nel sito della Regione Toscana nella sezione dedicata alla Difesa del Suolo (Figura 3-1). Ad oggi le nuove LSPP sono state ricavate per durate di precipitazione $d \geq 1$ ora ma, secondo le indicazioni fornite dagli estensori dello studio, sono estrapolabili con buona attendibilità fino a $d \geq 0.5$ ore.



The screenshot shows the website of the Regione Toscana. At the top left is the logo of the region, a white horse on a red background. The main navigation bar includes 'Home', 'Regione', 'Cittadini', 'Imprese', 'Enti e associazioni', and 'Uffici'. A 'ServiziOnline' button is on the right. Below the navigation bar, the breadcrumb trail reads 'Sei in: Regione Toscana | Cittadini | Ambiente | Difesa del suolo'. The main content area is titled 'Cittadini | Ambiente' and features a sidebar menu with categories like 'Alimentazione', 'Ambiente', 'Bandi', 'Cultura', etc. The 'Ambiente' category is expanded, showing sub-items like 'Acqua', 'Boschi', and 'Difesa del suolo'. The main content area is titled 'Difesa del suolo' and contains a section 'Nuovi dati sulla regionalizzazione delle precipitazioni'. This section includes a map of Tuscany with contour lines representing precipitation regionalization. The text explains that the data is based on an analysis of extreme precipitation frequencies and provides information on how to access the data in a 1kmx1km grid format.

Figura 3-1: Sezione del sito della Regione Toscana dedicato ai nuovi dati di regionalizzazione delle precipitazioni.

Dal sito della Regione Toscana è possibile scaricare l'andamento spaziale dei parametri a e n con griglia di 1 km x 1 km per ciascuno dei tempi di ritorno 2, 5, 10, 20, 30, 50, 100, 150, 200 e 500 anni, desunto a partire dall'analisi TCEV delle altezze di pioggia osservate. I risultati resi disponibili in formato ASCII Grid. La Figura 3-2 mostra, a titolo di esempio, le griglie dei parametri a e n per il tempo di ritorno di 200 anni nell'intera regione.

I valori delle altezze di pioggia così calcolati sono validi, a rigore, solo per precipitazioni estreme puntuali, essendo stati calibrati a partire dai dati puntuali di pioggia (le LSPP sono tarate sulla base dei massimi annui misurati puntualmente in una determinata stazione pluviometrica).

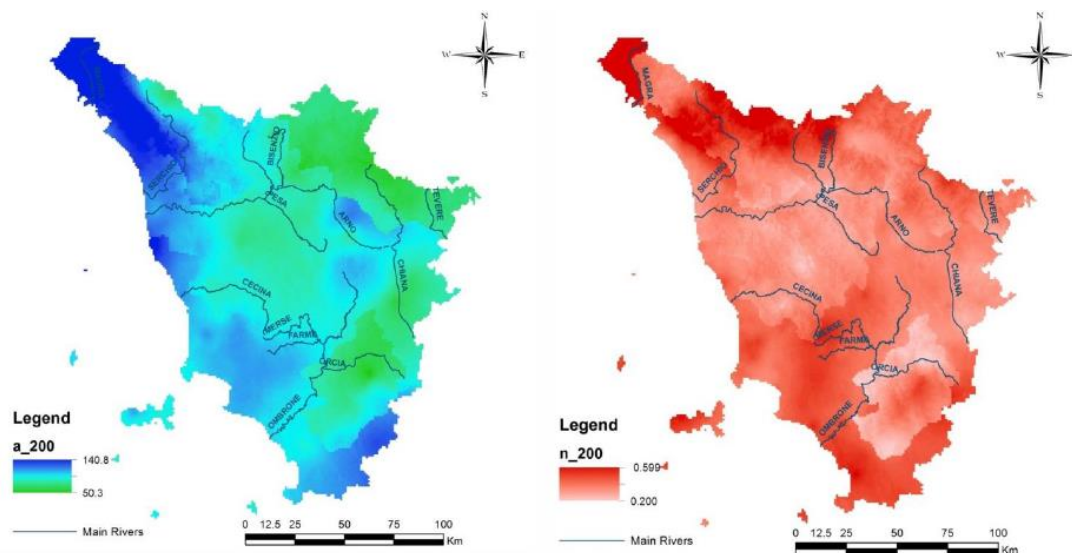


Figura 3-2: Spazializzazione sull'intera regione dei parametri "a" (a sinistra) e "n" (a destra) della Linea Segnalatrice di Possibilità Pluviometrica LSPP per il Tempo di ritorno 200 anni.

Per poter stimare gli afflussi meteorici sono stati innanzi tutto individuati i bacini idrografici (in particolare i sottobacini e gli interbacini del modello idrologico semidistribuito che sarà descritto in seguito) separati dalle linee di spartiacque desunte dal modello digitale del terreno.

In occasione delle analisi idrologiche idrauliche supporto del Piano Strutturale Intercomunale del Mugello (a cui si rinvia per maggiori dettagli), l'analisi dei dati pluviometrici regionali precedentemente descritti ha portato gli scriventi a individuare porzioni di territorio omogenee, rappresentate graficamente in Figura 3-3. Sono stati quindi calcolati, per ciascuna area omogenea e per i tempi di ritorno investigati (30 e 200 anni), i valori dei parametri a e n delle LSPP.

Nella tabella seguente si riportano i parametri delle curve di possibilità pluviometrica caratteristici del macro-bacini di interesse in cui ricade il Comune di Barberino di Mugello.

Tabella 3-1: parametri delle curve di possibilità pluviometrica impiegate nel modello idrologico

Zona omogenea	TR 30 anni ($d > 0.5$ ore)		TR 200 anni ($d > 0.5$ ore)	
	<i>a</i>	<i>n</i>	<i>a</i>	<i>n</i>
<i>Sieve</i>	47.0862	0.27642	59.3565	0.30777

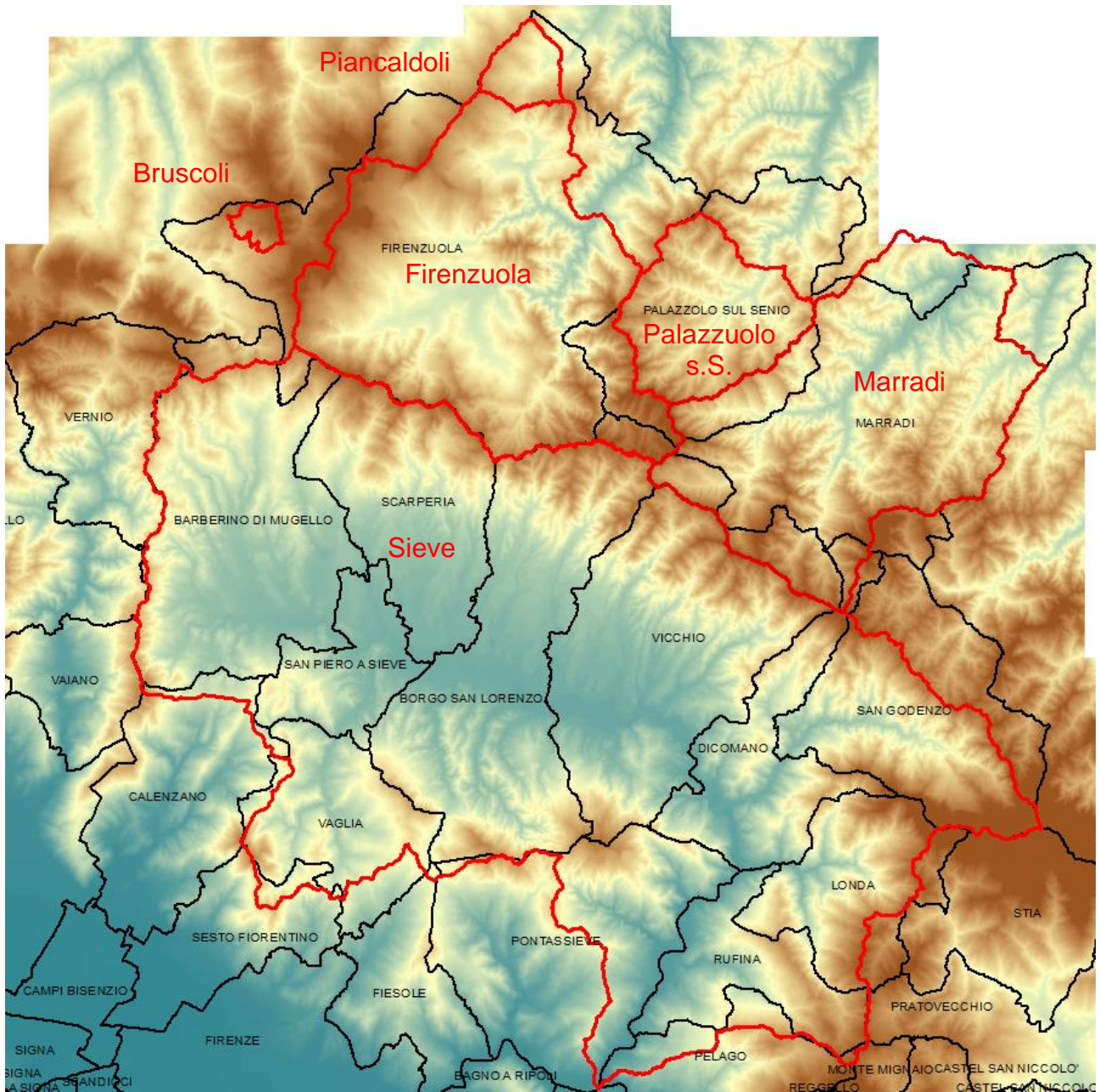


Figura 3-3: Ambito idrologico analizzato (in rosso i macro-bacini idrografici individuati).

3.3 Determinazione dello ietogramma di progetto

La determinazione dello ietogramma di progetto per un prefissato tempo di ritorno richiede l'individuazione della durata dello ietogramma (durata critica) nonché della distribuzione temporale degli spessori di pioggia stimati dalla corrispondente linea segnalatrice di possibilità pluviometrica areale.

La durata della pioggia viene determinata assumendo che la portata al colmo con assegnato tempo di ritorno, T_r , sia la maggiore tra le portate al colmo determinate da tutti gli eventi di pioggia a intensità costante ricavati dalla linea di possibilità pluviometrica areale. È possibile determinare la durata critica utilizzando diverse metodologie in funzione della modellistica afflussi-deflussi impiegata. In particolare, nel caso dei metodi empirici tradizionali che si basano sul metodo razionale tale durata è data dal tempo di corrivazione del bacino, mentre nel caso di uso di modelli idrologici in grado di descrivere la trasformazione afflussi-deflussi, essa può essere stimata mediante un insieme di simulazioni. Nel presente studio è stato seguito il secondo approccio, utilizzando il primo, per una prima stima attorno alla quale determinare il corretto valore di durata critica.

In particolare, sulla base del concetto di evento critico, la determinazione della durata critica mediante simulazione idrologica consiste nell'effettuare un insieme di simulazioni con un modello afflussi-deflussi avente come dati di ingresso una serie di ietogrammi di pioggia di durata crescente, ottenuti distribuendo in modo uniforme nel tempo lo spessore di pioggia ricavato dalla LSPP areale relativa ad un determinato tempo di ritorno. All'aumentare della durata dell'evento, si ottengono idrogrammi di piena il cui picco assume valori crescenti fino ad un valore massimo, per poi decrescere. La durata dell'evento che corrisponde all'idrogramma con il massimo valore della portata di picco viene assunta come durata critica.

A titolo di esempio, vengono di seguito riportati i risultati delle simulazioni effettuate per un generico bacino idrografico, considerando, a parità di tempo di ritorno, ietogrammi di pioggia uniforme di differenti durate. Come si può vedere dalla Figura 3-4, la durata che massimizza la portata al colmo è quella pari a 1 ora che pertanto è assunta come durata critica del bacino.

Nota la pioggia areale, per la determinazione del deflusso diretto è necessario valutare la pioggia effettiva e, quindi, la quantità di pioggia che viene assorbita dal suolo e quella intercettata dalla vegetazione, mentre la quantità di pioggia persa per

evapotraspirazione è trascurabile per eventi meteorici particolarmente intensi (Maione, 1977). Per effettuare tale stima, è stato applicato il metodo del Curve Number proposto dal Soil Conservation Service (1972).

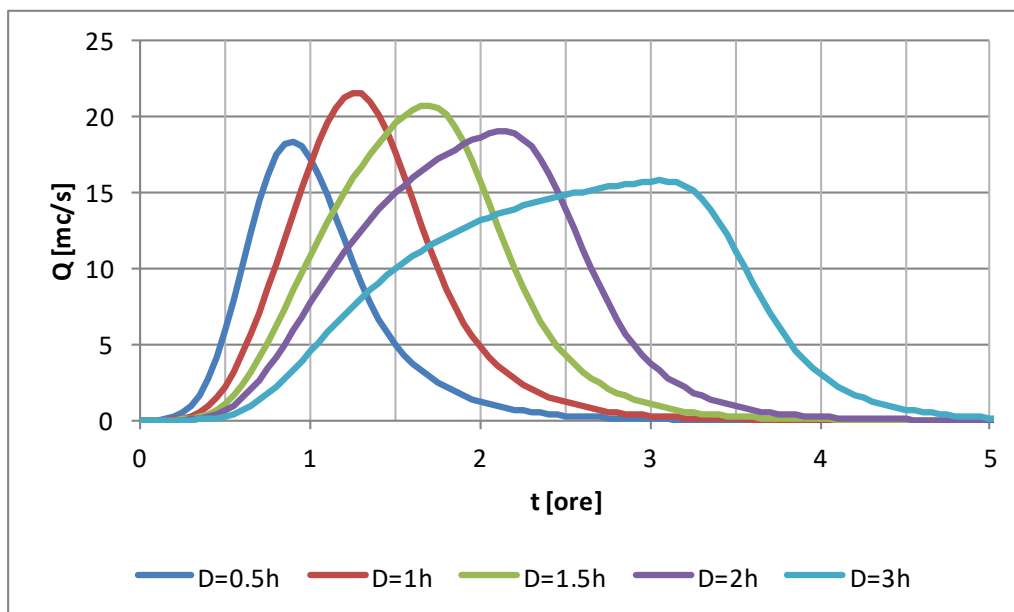


Figura 3-4: Simulazioni con ietogramma costante e diverse durate per la scelta della durata critica di un generico bacino idrografico

3.4 Stima delle perdite idrologiche mediante il metodo del Curve Number

La stima delle perdite idrologiche è stata effettuata con il metodo del Curve Number del SCS (*Soil Conservation Service*).

Questo metodo considera il deflusso superficiale come differenza fra le precipitazioni e le perdite, dove in queste ultime si inglobano, oltre alle perdite per infiltrazione, anche quelle per intercettazione da parte delle piante, quelle per accumulo sulle depressioni superficiali e quelle per l'imbibizione iniziale del terreno. L'ipotesi di base del metodo è che il rapporto fra il volume defluito ed il volume di pioggia depurato delle perdite iniziali rimanga, in ogni istante, uguale al rapporto fra il volume infiltrato ed il volume massimo teorico delle perdite:

$$\frac{P_e}{P - I} = \frac{F_a}{S}$$

dove P_e è la precipitazione efficace per il deflusso, P la precipitazione lorda, I_a le perdite iniziali, F_a il volume specifico infiltrato ed S il volume specifico di saturazione del terreno. L'equazione di continuità si può riscrivere per questo modello come segue:

$$P = P_e + I_a + F_a$$

nella quale le perdite iniziali (o *Initial Abstraction*) è possibile stimarle in funzione del volume specifico di saturazione tramite la relazione:

$$I_a = \beta \cdot S$$

dove si pone normalmente $\beta = 0.2$. Dalla combinazione delle due equazioni di continuità precedentemente scritte si ottiene l'espressione della precipitazione efficace:

$$P_e = \frac{(P - I_a)^2}{P - I_a + S}$$

nella quale il volume specifico di saturazione S dipende dalla natura geologica del terreno e dall'uso del suolo, caratteristiche esprimibili in funzione del coefficiente Curve Number CN secondo la relazione:

$$S = 254 \cdot \left(\frac{100}{CN} - 1 \right)$$

Il coefficiente CN può assumere valori compresi tra 0 (suolo completamente permeabile) e 100 (suolo completamente impermeabile) ed è stimabile tramite delle tabelle elaborate dalla US Soil Conservation Service a partire dalle caratteristiche geologiche, di uso del suolo e del livello di umidità antecedente l'inizio delle precipitazioni. Quest'ultimo fattore è schematizzabile in tre condizioni: terreno ben asciutto ($CN I$), terreno mediamente umido ($CN II$) e terreno molto umido ($CN III$).

Nel presente studio, si è fatto cautelativamente riferimento alle condizioni di terreno molto umido ($CN III$), con il parametro $CN II$ ottenuto, per i bacini di interesse, mediante la procedura descritta al paragrafo seguente e $CN III$ determinato con la seguente formula:

$$CN_{III} = \frac{23 CN_{II}}{(10 + 0.13 CN_{II})}$$

3.4.1 Caratterizzazione del parametro di assorbimento CN per i bacini idrografici in esame

La determinazione del parametro di assorbimento CN (U.S. Dept. Agric., Soil Conservation Service, 1972) è stata raggiunta attraverso l'analisi degli aspetti litologici, pedologici, vegetazionali e di uso del suolo del bacino.

Per la determinazione del CN si è utilizzato lo shape file predisposto per l'intero territorio regionale dal Dipartimento di Ingegneria Civile e Ambientale dell'Università degli studi di Firenze (DICEA, referente Prof. Fabio Castelli), liberamente consultabile all'indirizzo <http://www.regione.toscana.it/-/implementazione-di-modello-idrologico-distribuito-per-il-territorio-toscano>.

Nel caso in cui nel bacino siano presenti differenti tipi di terreno o questo sia utilizzato in differenti modi, si ricorre ad un valore medio di CN. Come suggerito da Mancini e Rosso (1989), si utilizza il valore medio a scala di bacino del parametro S, mediante un'integrazione spaziale dei valori puntuali, anziché un'integrazione dei valori di CN a causa della non linearità dell'equazione che lega i due parametri.

Quindi si ha:

$$\bar{S} = \frac{S_1 A_1 + S_2 A_2 + \dots + S_i A_i}{A_1 + A_2 + \dots + A_i} \quad (3.6)$$

dove S_i rappresenta il valore di S per l'area omogenea A_i

Tabella 3-2: valori del parametro CN III per i sottobacini e gli interbacini di interesse.

Elemento	Area (km2)	CN
MV16963_I2	0.36	92.21
MV12865	0.24	86.4
MV16963_I1	0.14	92.35
MV15982	0.11	91.7
MV15122	0.67	88.4
MV15739	0.1	89.97
MV15123	0.1	88
MV18795	0.36	88.1

3.5 La trasformazione afflussi – deflussi

3.5.1 Il metodo dell'idrogramma unitario istantaneo (IUH)

Nel vasto panorama dei modelli di formazione dei deflussi, che si propongono di rappresentare matematicamente i processi idrologici che si manifestano in un bacino idrografico descrivendone il comportamento con un operatore che lega la funzione di distribuzione temporale delle piogge effettive (ingresso al sistema) ed il corrispondente idrogramma dei deflussi diretti (risposta del sistema), è stata scelta la metodologia basata sull'idrogramma unitario istantaneo (IUH). Il metodo si basa sulle ipotesi di linearità e stazionarietà del bacino ed effettua la combinazione tra pioggia in ingresso e IUH per il calcolo della portata diretta. In altre parole, la risposta $Q(t)$ ad una sollecitazione meteorica di intensità $p(t)$ variabile nel tempo, ma supposta costante su tutti i punti del bacino, è data dall'integrale di convoluzione:

$$Q(t) = \int_0^t p(\tau)h(t - \tau)d\tau$$

dove $p(t)=A i(t)$ è la portata di afflusso meteorico al generico tempo t e la funzione $h(t)$, che prende il nome di IUH, è definita come l'idrogramma dei deflussi generato da un'ipotetica pioggia efficace di altezza unitaria ed intensità costante, distribuita uniformemente sul bacino, e caduta in un intervallo di tempo unitario (immissione di tipo impulsivo).

La funzione $h(t)$ può essere stimata mediante numerosi approcci, tra cui il metodo dell'invaso lineare, il metodo di Nash, il metodo geomorfologico oppure facendo ricorso all'idrogramma unitario del SCS.

3.5.1.1 L'idrogramma unitario del Soil Conservation Service (IUH-SCS)

L'idrogramma SCS è un idrogramma adimensionale definito dal SCS in base all'analisi di idrogrammi di piena in uscita dalla sezione di chiusura di numerosi bacini idrografici strumentati, di dimensioni grandi e piccole. Esso ha un vasto campo di applicazioni pratiche nel campo delle trasformazioni afflussi deflussi per la sua semplicità d'uso e per la sua generalità. Questo IUH presenta il 37.5% del suo volume prima dell'istante di picco; inoltre, i valori della portata di picco e dell'istante T_p sono stati ricavati adottando un modello semplificato di idrogramma triangolare di base $2.67 T_p$ (Figura 3-5).

Per la definizione dell'idrogramma unitario adimensionale del SCS per è necessario specificare il tempo di ritardo T_l del bacino idrografico, che può essere valutato separatamente mediante relazioni empiriche valide per l'area in esame oppure, in assenza di esse, a partire dal tempo di corrivazione secondo la relazione:

$$T_l = \frac{3}{5} T_c$$

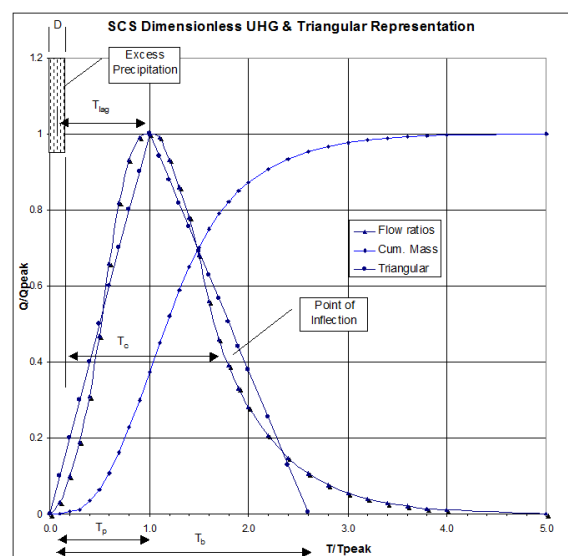


Figura 3-5: IUH-SCS

3.5.2 Il Metodo Cinematico (Kinematic Wave)

Il metodo cinematico utilizza l'equazione di continuità e l'approssimazione cinematica delle equazioni complete di De Saint Venant per trasformare la precipitazione efficace in deflusso superficiale. Il bacino viene rappresentato tramite un modello concettuale in cui possono essere definiti due piani rettangolari, percorsi dal deflusso superficiale (*overland flow planes*) e canali che raccolgono il deflusso proveniente dai piani rettangolari (Figura 3-6).

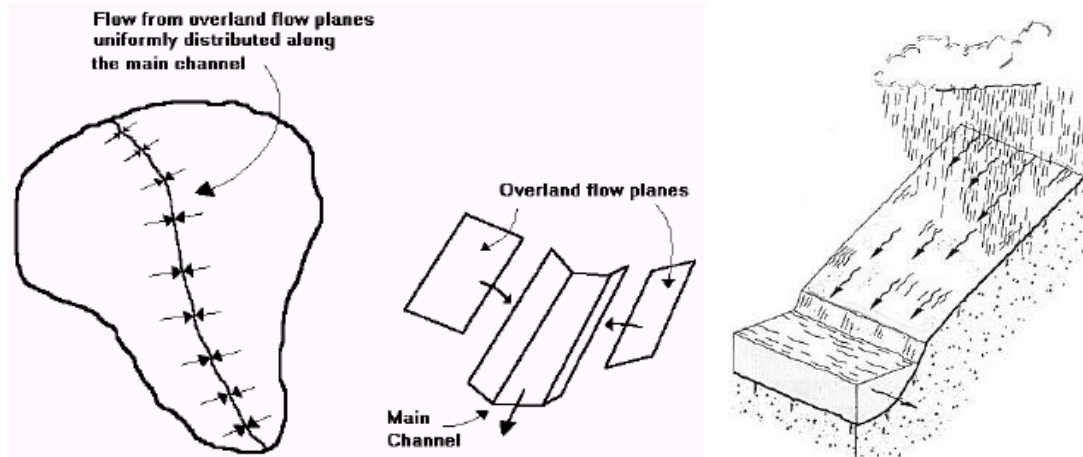


Figura 3-6: schematizzazione cinematica di un interbacino in canali e aree di drenaggio

L'equazione che modella il fenomeno di trasferimento della massa liquida sia sui versanti che nell'alveo del corso d'acqua è l'equazione dell'onda cinematica:

$$\frac{\partial A}{\partial t} + \alpha m A^{(m-1)} \frac{\partial A}{\partial x} = q$$

dove A è l'area liquida della sezione di deflusso, q la portata continua in ingresso lungo l'ascissa x del corso d'acqua, a ed m due parametri univocamente determinati dalla geometria e dalla scabrezza della sezione di deflusso, essendo per ipotesi, nel metodo cinematico, $Q = aA^m$.

Il coefficiente di scabrezza di Manning relativo al moto sui versanti è maggiore rispetto quello utilizzato negli alvei naturali e può essere ricavato da specifiche tabelle disponibili in letteratura.

3.6 Stima della portata di progetto, analisi preliminari e scelta del modello idrologico

La scelta del tipo di schematizzazione per rappresentare la risposta di un bacino idrografico sollecitato da un evento meteorico è condizionata sia dall'obiettivo dell'analisi che si vuole effettuare sia dalla disponibilità dei dati. Le metodologie comunemente

utilizzate per rappresentare la trasformazione afflussi-deflussi possono essere distinte in relazioni matematiche e modelli matematici. Le relazioni matematiche, nelle quali il tempo non compare come variabile, sono comunemente usate quando non è necessario descrivere l'andamento temporale delle grandezze. I modelli matematici, viceversa, si usano quando le quantità in gioco sono funzioni del tempo e non è possibile trascurare l'influenza esercitata sui valori di una grandezza da quelli che la stessa ha assunto in precedenza.

3.6.1 Relazioni matematiche

Le relazioni matematiche forniscono solo alcune caratteristiche dell'idrogramma di progetto quali l'istante della portata al colmo, la portata al colmo o la durata. I vari metodi utilizzati nella pratica idrologica per la schematizzazione della trasformazione afflussi-deflussi si basano su alcune ipotesi semplificative che sono quelle su cui si fonda il metodo razionale e, in particolare, sono:

- per un fissato tempo di ritorno il massimo della portata al colmo di piena è prodotto dall'evento di pioggia, uniforme nello spazio e nel tempo, ricavato dalla corrispondente curva di possibilità pluviometrica ed avente una durata uguale al tempo di corrivazione del bacino;
- il picco dell'idrogramma di piena si osserva all'istante in cui cessa la pioggia;
- il picco di piena ha il medesimo tempo di ritorno della precipitazione che lo ha generato;
- la formazione della piena nel bacino ed il suo trasferimento lungo il reticolo idrografico avviene senza la formazione di significativi invasi.

Tra le varie relazioni matematiche, si ricorda quella di Ghirardelli che assume l'idrogramma di piena di forma triangolare, con tempo di risalita e di discesa pari al tempo di corrivazione. Il valore della portata al colmo è quindi dato da:

$$Q_c = \frac{1}{3.6} \frac{EA}{T_c}$$

dove E è la pioggia areale netta, denominata anche eccesso di pioggia, espressa in mm; T_c è il tempo di corrivazione, espresso in ore; e A è la superficie del bacino espressa in km².

Nel caso di bacini idrografici strumentati, se si dispone delle osservazioni relative ad alcuni idrogrammi di piena salienti, il calcolo del tempo di corrivazione, T_c , può essere

effettuato mediante lo ietogramma di pioggia effettiva e l'idrogramma di deflusso diretto. In particolare, i metodi di stima più ricorrenti per T_c sono (Singh, 1988):

- il tempo che intercorre tra il centroide della pioggia effettiva e il punto di inflessione del ramo decrescente dell'idrogramma di portata diretta;
- il tempo tra la fine della pioggia effettiva e il punto di inflessione del ramo decrescente dell'idrogramma di portata diretta.

Per bacini idrografici non strumentati, invece, la stima del tempo di corrivazione dipende da relazioni empiriche che esprimono il legame tra T_c ed alcune grandezze caratteristiche del bacino di facile determinazione. Tra le relazioni empiriche maggiormente utilizzate, ricordiamo la formula di Giandotti (1934), ricavata attraverso dati relativi a diversi bacini italiani (Dora Baltea, Trebbia, Taro, Panaro, Reno Tevere, Arno, Po), che stima T_c in ore come:

$$T_c = \frac{4A^{0.5} + 1.5L}{0.8H^{0.5}}$$

con A area del bacino in km², L lunghezza dell'asta fluviale principale in km e H altezza media del bacino rispetto alla sezione di chiusura espressa in metri. L'altezza media del bacino può essere stimata mediante un modello digitale del terreno.

Altre formule disponibili per la stima del tempo di corrivazione e ottenute su bacini aventi diverse caratteristiche fisiografiche sono quelle di Kirpich, Viparelli, Pezzoli, Aronica e Paltrinieri, Watt & Chow, Chow, NCRS-Lag method, Tournon, Puglisi e Zanframundo, Fattorelli e Marchi:

- **Kirpich**, analizzando sei piccoli bacini americani di area compresa tra 0.0051 e 0.433 Km², ha ricavato la seguente relazione, successivamente corretta da Rowe e Thomas:

$$t_c = 0.000325 \left(\frac{L}{\sqrt{i_a}} \right)^{0.77}$$

in cui t_c è espresso in ore, e L è la lunghezza dell'asta principale, a partire dallo spartiacque, espressa in metri e i_a è la sua pendenza.

- **Viparelli** calcola il tempo di corrivazione t_c come il rapporto tra la lunghezza del percorso idraulicamente più lungo che deve seguire la particella d'acqua per

raggiungere la sezione di chiusura e stabilire una velocità media di trasferimento V della particella nel suddetto percorso:

$$t_c = \frac{L}{V}$$

e suggerisce di utilizzare valori della velocità V caratteristica per correnti di piena variabili tra 1 e 1.3 m/s, specie per corsi d'acqua pedemontani.

- **Pezzoli** propone invece la seguente espressione del tempo di corrivazione, dedotta da misure su piccoli bacini piemontesi:

$$t_c = 0.055 \frac{L}{\sqrt{i_a}}$$

in cui t_c è espresso in ore, L è la lunghezza dell'asta principale espressa in Km e i_a è la pendenza media (m/m) dell'asta principale.

- Una formula analoga è quella di **Watt e Chow**, ottenuta utilizzando dati relativi a 44 bacini canadesi di area compresa tra 0.01 e 5840 Km² e caratterizzati da valori della pendenza i_a variabili tra 0.00121 e 0.0978:

$$t_L = a \left(\frac{L}{\sqrt{i_a}} \right)^b$$

in cui t_L (tempo di ritardo o Lag) è espresso in ore, L è la lunghezza dell'asta principale espressa in m, e le costanti a e b assumono rispettivamente il valore 0.000326 e 0.79.

- **Chow** ha proposto anche la stessa formula con i coefficienti $a=0.00116$ e $b=0.64$, studiando venti piccoli bacini americani di superficie variabile tra 0.0051 e 18.5 Km².
- la formula del **NCRS – Lag method** propone, per bacini con superficie compresa tra 0.004 e 8.1 km²:

$$t_c = \frac{l^{0.8} (S+1)^{0.7}}{0.6 \cdot 1900 \sqrt{i_v}}$$

in cui t_c è espresso in ore, l è la lunghezza idraulica del bacino espressa in piedi, S è la ritenzione potenziale espressa in mm e i_v è la pendenza media dei versanti espressa in percentuale.

3.6.2 Modelli matematici

La modellistica idrologica si prefigge di creare modelli matematici di tipo afflussi-deflussi capaci di riprodurre l'andamento della portata in una o più sezioni del reticolo idrografico di un bacino in funzione della distribuzione sia spaziale che temporale delle piogge. In letteratura sono descritti differenti tipi di modelli idrologici, che possono essere classificati in funzione della complessità della trattazione del problema (Maione, 1977). Tra questi, i più appropriati per gli scopi del presente studio sono i cosiddetti modelli di piena di tipo concettuale, che utilizzano rappresentazioni semplificate dei processi fisici in gioco, che vengono comunque esplicitamente presi in considerazione. Inoltre, tali modelli incorporano parametri che sono fisicamente basati riducendo così l'arbitrarietà in fase di calibrazione del modello stesso. In particolare, essi rappresentano con semplicità le perdite, mentre cercano di descrivere in modo più dettagliato la trasformazione della pioggia netta in portata diretta. Quest'ultima viene assunta pari alla portata totale, poiché in eventi salienti di piena il deflusso di base è tipicamente trascurabile.

Possono essere sviluppati modelli aventi diversi gradi di complessità, da particolarmente semplici a molto dettagliati; tuttavia, per scopi di tipo ingegneristico, è consigliabile l'uso di modelli che rispondano ad alcune particolari esigenze, quali:

- la dipendenza da un numero limitato di parametri, che ne consenta il controllo in fase di calibrazione;
- la semplicità di schematizzazione dei processi fisici, che permetta un'agevole implementazione;
- la sensibilità sufficientemente limitata alla variabilità dei parametri stessi.

I **modelli semi-distribuiti** consentono di soddisfare l'esigenza di impiegare un numero limitato di parametri che ne permetta il controllo in fase di calibrazione e nello stesso tempo utilizzano l'informazione geomorfologica distribuita, la variabilità spaziale delle piogge e delle caratteristiche del suolo, che costituiscono gli aspetti fondamentali nell'analisi della risposta idrologica a scala di bacino. I modelli semi-distribuiti si possono, quindi, considerare come una valida alternativa sia ai modelli a parametri concentrati che incorporano un numero ridotto di parametri a scapito della descrizione dei processi fisici, sia ai modelli distribuiti che, pur effettuando una schematizzazione dettagliata dei fenomeni, restano vincolati a troppi parametri. La scelta è stata quindi dettata dalla necessità di utilizzare un numero limitato di parametri, da stimare attraverso pochi eventi

di piena deducibili da bacini “simili” appartenenti alla stessa area geografica, e che sia in grado di fornire gli idrogrammi di piena in qualsiasi sezione del tratto fluviale investigato.

Nel presente studio, per i corsi d’acqua non analizzati negli studi idrologici idraulici a supporto del Piano Strutturale Intercomunale del Mugello e della integrazione relativa a Cafaggiolo (vedasi §1), è stato allestito un modello idrologico di tipo concettuale e semidistribuito, implementato mediante il software americano HEC-HMS ver. 4.10, che copre una superficie complessiva pari a circa 2.08 km²:

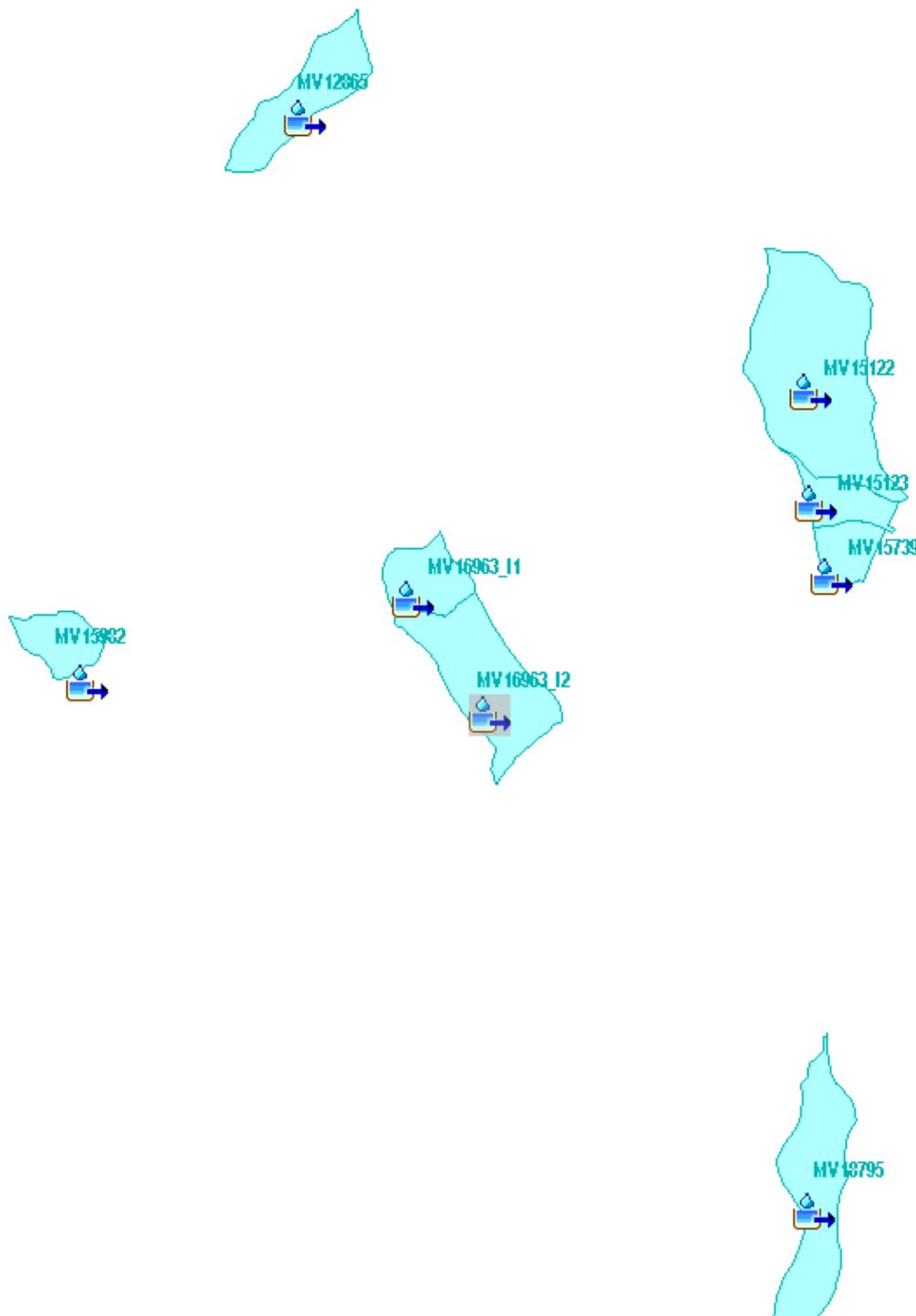


Figura 3-7: Modello idrologico semidistribuito implementato mediante il software HEC-HMS.

La Figura 3-8 illustra in maniera schematica e concettuale gli elementi del modello e le loro connessioni per il j-esimo segmento fluviale.

Il modello idrologico scelto è in sintesi un **modello di simulazione dell'evento critico** avente le seguenti caratteristiche:

- dati di pioggia da LSPP Regione Toscana (agg. dati 2012);
- durata critica assunta in prima istanza pari al tempo di corrivazione e infine determinata con procedimento iterativo in modo da massimizzare il valore della portata al colmo;
- ietogramma costante;
- stima dell'infiltrazione mediante metodo SCS-CN (adottando il CN-III);
- trasformazione afflussi deflussi basata sull'IUH del SCS per i sottobacini (con tempo di ritardo valutato a partire dal tempo di corrivazione) e sul metodo dell'onda cinematica per gli interbacini.

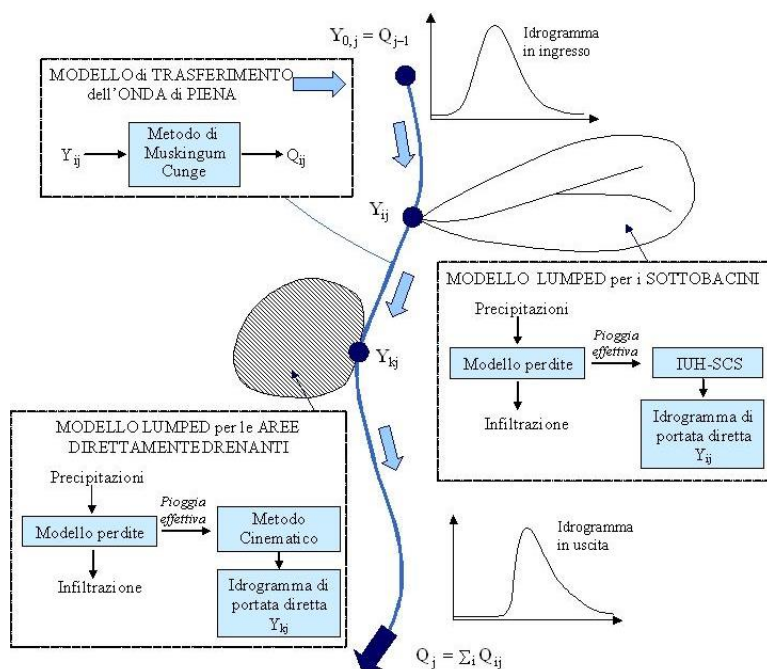


Figura 3-8: Diagramma schematico degli elementi del modello idrologico e delle loro connessioni.

Le caratteristiche morfometriche e di permeabilità dei singoli sottobacini e interbacini necessarie per le analisi idrologiche sono rappresentate in Figura 3-9, Figura 3-10 e Figura 3-11.

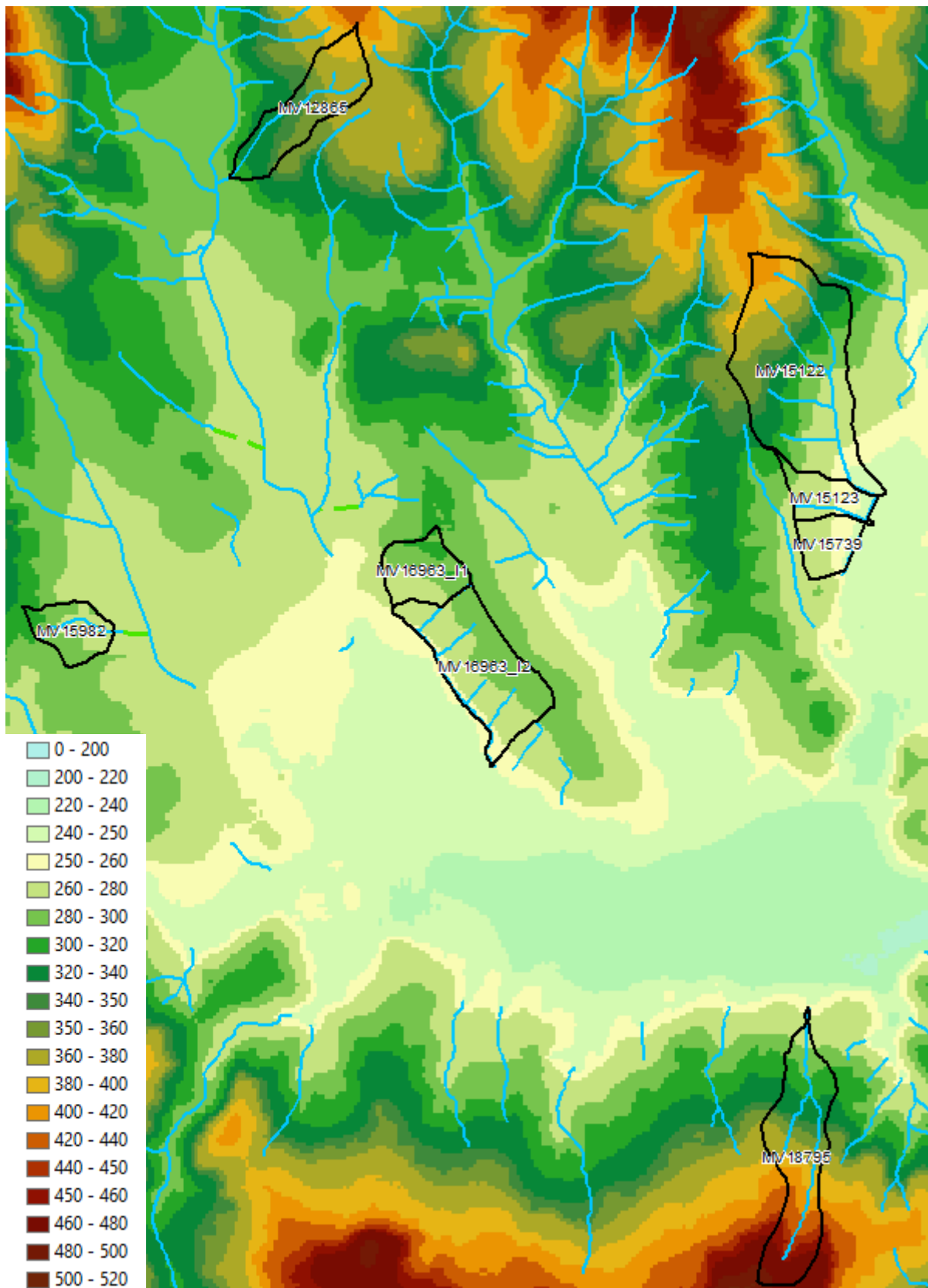


Figura 3-9: Morfologia dell'area di indagine e suddivisione in sottobacini/interbacini.

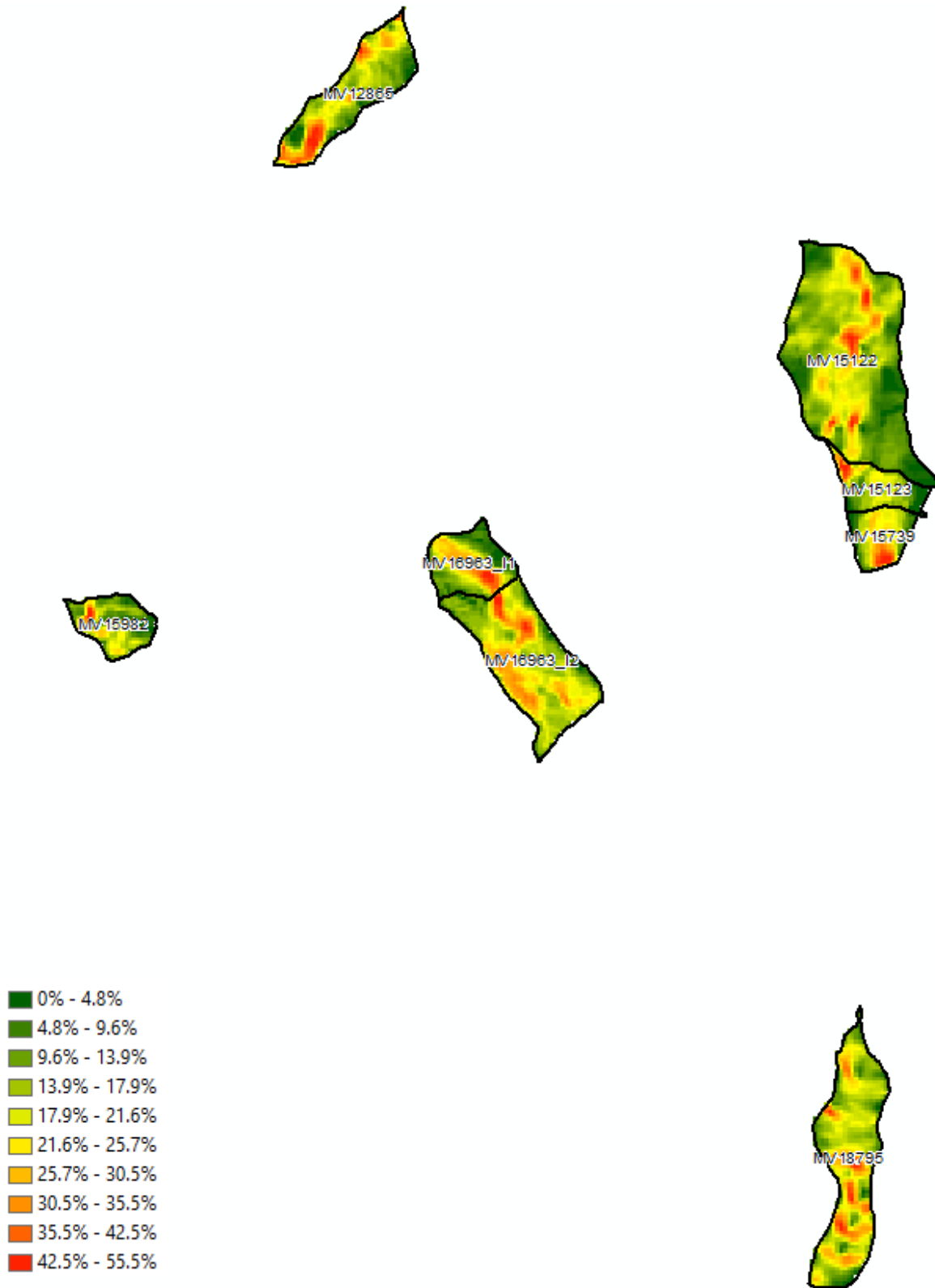


Figura 3-10: Mappa delle pendenze dell'area di indagine e suddivisione in sottobacini/interbacini.

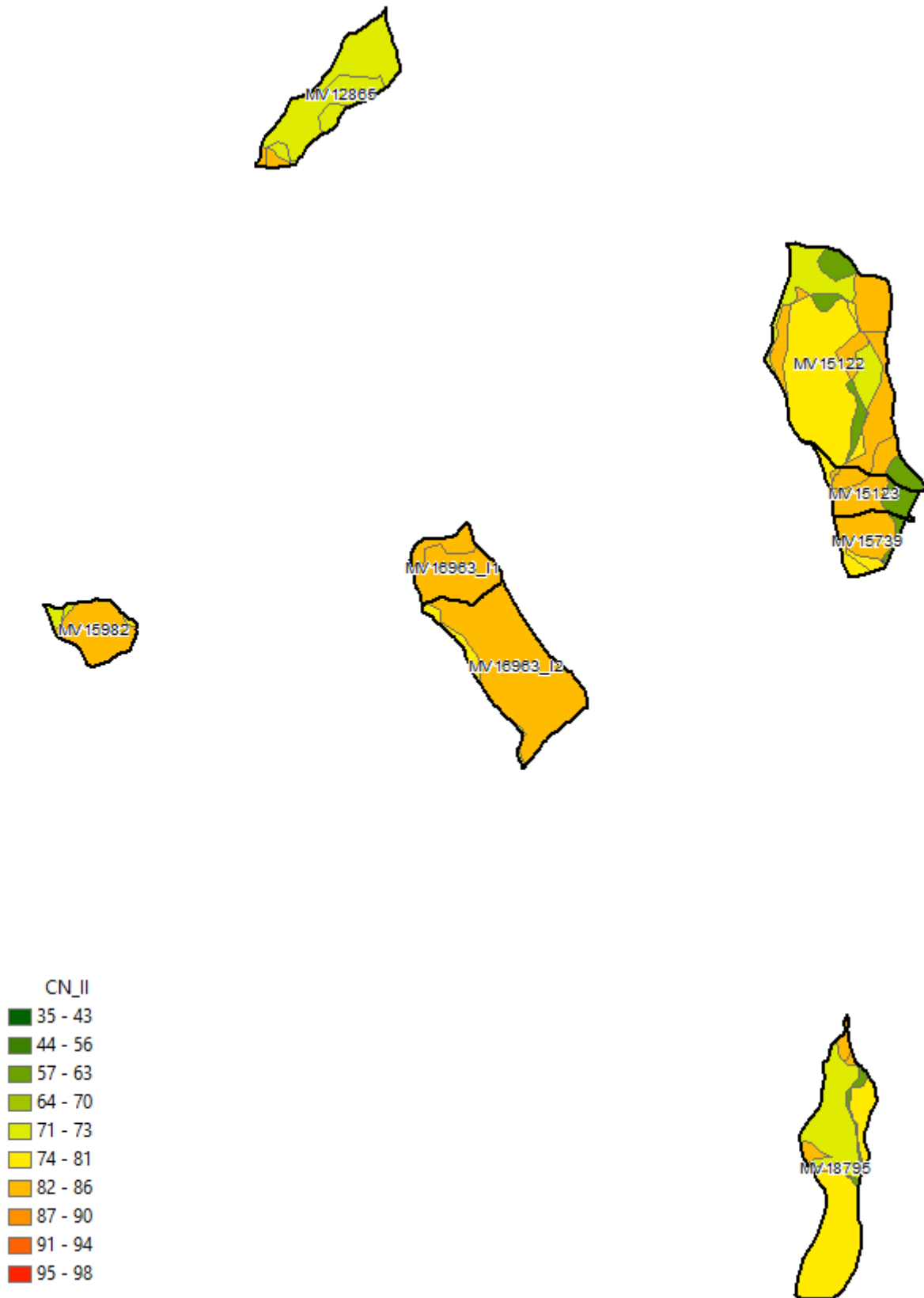


Figura 3-11: Andamento spaziale del parametro CN-II nell'area di interesse: la gradazione cromatica da verde a rosso indica aree rispettivamente da molto permeabili a sostanzialmente impermeabili. Le linee di colore nero indicano la suddivisione in sottobacini/interbacini.

Per ciascun sottobacino, in Tabella 3-3 sono riportati i valori dei parametri caratteristici per il calcolo del tempo di corrivazione t_c : area del bacino S , lunghezza dell'asta principale L , L_b lunghezza idraulica del bacino, h_m altezza media su sezione di chiusura del bacino, H_{max} quota massima del bacino, H_{min} quota minima del bacino, $CN(III)$, i_v pendenza media dei versanti, i pendenza media⁴ dell'asta principale, ritenzione potenziale. Tabella 3-4, per ciascun sottobacino è indicato il valore del tempo di corrivazione t_c stimato con varie formulazioni disponibili in letteratura e precedentemente descritte, il valore medio e il tempo di ritardo Tr (il cosiddetto "Lag").

Tabella 3-3: parametri caratteristici per il calcolo del tempo di corrivazione

bacino	S	L	L_b	h_m	H_{max}	H_{min}	CN (III)	i_v	i	S	Trag
	[Km ²]	[Km]	[Km]	[m]	[ms.l.m.]	[ms.l.m.]	[-]	[%]	[%]	[mm]	[min]
MV12865	0.24	0.88	1.19	64.47	424.00	290.00	86.4	0.113	0.072	3.61	12
MV15123	0.10	0.45	0.45	15.91	322.00	250.50	88.0	0.072	0.052	3.14	7
MV15122	0.67	1.57	1.75	73.13	406.00	250.00	88.4	0.160	0.040	3.03	20
MV15982	0.11	0.45	0.47	18.76	308.00	265.90	91.7	0.106	0.044	2.08	6
MV18795	0.36	1.60	1.79	125.00	498.00	255.00	88.1	0.179	0.112	3.10	15

Tabella 3-4: indicazione per ciascun sottobacino del tempo di corrivazione calcolato con le predette formule, di quello medio nonché del tempo di ritardo Tr

bacino	t_c [ore]								Trag [min]
	Kirpich	Viparelli	Pezzoli	Watt&Chow	Chow	NCRS	t_{cmed}		
MV12865	0.21	0.33	0.18	0.33	0.34	0.057	0.33	12	
MV15123	0.11	0.13	0.11	0.22	0.25	0.30	0.19	7	
MV15122	-	0.49	0.43	0.65	0.60	0.59	0.55	20	
MV15982	0.12	0.13	0.12	0.23	0.26	0.21	0.18	6	
MV18795	0.24	0.50	0.26	0.44	0.44	0.58	0.41	15	

Per ciascun interbacino, in Tabella 3-5 sono riportati i valori dei parametri caratteristici per l'applicazione del modello Kinematic Wave (onda cinematica): la superficie ideale rettangolare inclinata è definita dai parametri Area (A), lunghezza (L), scabrezza (R) e pendenza (i); il deflusso nel canale (channel flow) da lunghezza (l) e pendenza (i_c) del corso d'acqua, larghezza al fondo (b) e pendenza delle sponde (i_s) della sezione trasversale, scabrezza di Manning (n).

⁴ Calcolata come media armonica delle radici delle pendenze medie dei sottotratti che la compongono, pesate per la lunghezza dei rispettivi sottotratti. (vedi Da Deppo, Datei, Salandin *Sistemazione dei corsi d'acqua Quarta edizione*, Libreria Internazionale Cortina, Padova, 2002, pag 178) La media armonica è l'inverso della media aritmetica degli inversi:

$$i^{0.5} = \frac{\sum_j L_j}{\sum_j L_j \cdot i_j^{-0.5}}$$

Tabella 3-5: grandezze per la caratterizzazione del modello Kinematic Wave

Interbacino	L	i	R	A	A	l	ic	shape	n	d	b	is
	[m]	[m/m]	$m^{-1/3s}$	[%]	[Km ²]	[m]	[-]	[-]	$m^{-1/3s}$	[m]	[m]	[m/m]
MV16963_I1	155	0.11	0.10	100	0.14	148.97	0.0534	trapezia	0.035	-	1.0	3.0
MV16963_I2	190	0.10	0.10	100	0.36	1199.94	0.0044	trapezia	0.035	-	1.0	3.0
Mv15739	140	0.09	0.10	100	0.10	150.53	0.0023	trapezia	0.035	-	1.5	5.0

4 Risultati dell'analisi idrologica

La procedura descritta ha permesso di ricavare, per ogni corso d'acqua analizzato, nelle sezioni di chiusura di interesse ed al variare del tempo di ritorno, le portate di progetto, con evidenziazione delle portate di picco corrispondenti alla durata critica (vedi tabelle seguenti).

Tabella 4-1: portate di picco di progetto per tempo di ritorno TR = 30 anni ricavate dall'analisi idrologica

Nome	Sezione chiusura HMS	S (kmq)	Q picco (mc/s) - TR30								
			0.5h	0.75h	1h	2h	3h	4h	5h	6h	8h
Fosso MV16963	MV16963_I1	0.14	2.42	1.91	1.59	1.01	0.77	0.63	0.54	0.47	0.39
Fosso MV16963	MV16963_I2	0.36	4.75	4.50	3.91	2.55	1.95	1.60	1.38	1.21	0.99
Fosso MV12865	MV12865	0.24	2.33	2.22	2.02	1.44	1.14	0.95	0.83	0.74	0.61
Fosso MV15982	MV15982	0.11	1.79	1.45	1.22	0.78	0.60	0.49	0.42	0.37	0.30
Fosso MV15122	MV15122	0.67	5.55	5.70	5.46	4.14	3.29	2.75	2.39	2.12	1.75
Fosso MV15739	MV15739	0.10	1.47	1.23	1.05	0.68	0.52	0.43	0.37	0.33	0.27
Fosso MV15123	MV15123	0.10	1.30	1.11	0.96	0.64	0.50	0.41	0.36	0.32	0.26
Fosso MV18795	MV18795	0.36	3.50	3.40	3.14	2.26	1.77	1.48	1.28	1.14	0.94

Tabella 4-2: portate di picco di progetto per tempo di ritorno TR = 200 anni ricavate dall'analisi idrologica

Nome	Sezione chiusura HMS	S (kmq)	Q picco (mc/s) - TR200								
			0.5h	0.75h	1h	2h	3h	4h	5h	6h	8h
Fosso MV16963	MV16963_I1	0.14	3.19	2.51	2.10	1.34	1.03	0.85	0.73	0.65	0.53
Fosso MV16963	MV16963_I2	0.36	6.87	6.13	5.25	3.42	2.63	2.17	1.87	1.66	1.37
Fosso MV12865	MV12865	0.24	3.34	3.14	2.85	2.02	1.60	1.34	1.16	1.04	0.86
Fosso MV15982	MV15982	0.11	2.37	1.91	1.62	1.04	0.80	0.66	0.57	0.51	0.42
Fosso MV15122	MV15122	0.67	7.88	8.03	7.66	5.75	4.56	3.82	3.32	2.96	2.45
Fosso MV15739	MV15739	0.10	2.06	1.67	1.41	0.92	0.71	0.59	0.51	0.45	0.37
Fosso MV15123	MV15123	0.10	1.80	1.53	1.32	0.89	0.69	0.57	0.50	0.44	0.37
Fosso MV18795	MV18795	0.36	4.94	4.76	4.37	3.12	2.46	2.06	1.78	1.59	1.32

5 Analisi idraulica

5.1 Il modello numerico di simulazione idraulica

Come già anticipato, il presente studio idrologico - idraulico persegue l'obiettivo di individuare allo stato attuale i potenziali fronti di esondazione che potrebbero interessare le previsioni urbanistiche.

Le modalità di allagamento delle aree golenali di un corso d'acqua possono risultare molto differenti da caso a caso. Un allagamento può, infatti, verificarsi per libera espansione nelle golene non protette da difese spondali o per tracimazione degli argini o dei muri di sponda. Il volume esondato può, a sua volta, accumularsi in una determinata area oppure può trasferirsi più a valle, allagando, magari, un territorio non interessato da un fronte di esondazione diretto.

Per descrivere compiutamente il fenomeno di propagazione delle onde di piena sono stati allestiti dei modelli matematici accoppiati 1D per gli alvei incisi e puramente 2D per le aree golenali extra-alveo implementati mediante il software Hec-Ras⁵ (rel. 6.4.1).

Il collegamento tra alveo inciso e aree golenali è stato realizzato attraverso “*lateral structure*” assumendo un valore del “*weir coefficient*” dipendente dall'altezza della sponda rispetto al piano campagna, così come suggerito dal manuale utente di Hec Ras da cui è estratta l'immagine seguente.

What is being modeled with the Lateral Structure	Description	Range of Weir Coefficients
Levee/Roadway – 3ft or higher above natural ground	Broad crested weir shape, flow over levee/road acts like weir flow	1.5 to 2.6 (2.0 default) SI Units: 0.83 to 1.43
Levee/Roadway – 1 to 3 ft elevated above ground	Broad crested weir shape, flow over levee/road acts like weir flow, but becomes submerged easily.	1.0 to 2.0 SI Units: 0.55 to 1.1
Natural high ground barrier – 1 to 3 ft high	Does not really act like a weir, but water must flow over high ground to get into 2D flow area.	0.5 to 1.0 SI Units: 0.28 to 0.55
Non elevated overbank terrain. Lat Structure not elevated above ground	Overland flow escaping the main river.	0.2 to 0.5 SI Units: 0.11 to 0.28

Figura 5-1: lateral weir coefficients

⁵ Hydrologic Engineering Center – River Analysis System – US Army Corps of Engineers, Davis CA.

5.2 Principi teorici della modellazione numerica

Rimandando all'indirizzo internet <http://www.hec.usace.army.mil> per l'esautiva trattazione dei principi teorici sui quali si basa la soluzione numerica delle equazioni di moto e di continuità che regolano il processo di moto (in particolare alle pubblicazioni "*Hydraulic Reference Manual*", "*User's Manual*" e "*Two-Dimensional Modeling User's Manual*"), si riportano di seguito alcuni brevi cenni di come viene effettuata la modellazione numerica 2D dal software Hec-Ras v.5.

Il programma risolve sia le equazioni 2D di diffusione dell'onda o quelle complete di Saint Venant. Questa opzione è selezionabile dall'utente in base al tipo di problema da analizzare: le equazioni 2D in forma completa (Full Momentum) sono tuttavia applicabili alla più ampia gamma di applicazioni e sono state adottate nel presente studio.

Il risolutore delle equazioni di moto bidimensionale utilizza un algoritmo implicito ai volumi finiti. Tale algoritmo di soluzione, oltre a consentire passi temporali di calcolo maggiori rispetto ai metodi espliciti, presenta miglioramenti in termini di stabilità e robustezza rispetto alle tradizionali tecniche differenziali di soluzione basate su metodi a elementi finiti.

Il software è stato progettato per utilizzare mesh computazionali strutturate o non strutturate. Ciò significa che le celle computazionali possono essere variabili e presentare forme triangolari, quadrate, rettangolari, pentagonali, esagonali, ettagonali oppure ottagonali.

Ogni cella e ogni faccia della cella, per tutta la maglia di calcolo, è pre-processata al fine di calcolare le tabelle di proprietà idrauliche basate sul DTM di base, che mantiene la propria risoluzione spaziale generalmente, come in questo caso, superiore a quella della mesh (Figura 5-2).

Nella Figura 5-2 è illustrato uno schema della maglia di calcolo sovrapposta ad un DTM avente maggior risoluzione spaziale della mesh. Le celle computazionali sono rappresentate dalle linee nere spesse. Il centro delle celle di calcolo è rappresentato dai nodi neri e sono i punti in cui vengono calcolati per ogni cella il livello idrico e la portata. La curva altezza/volume viene calcolata nella fase di pre-processing per ogni cella sulla base del DTM sottostante. Ogni faccia della cella è una sezione trasversale dettagliata basata anch'essa sul terreno sottostante. Questo metodo di rappresentazione delle celle permette all'acqua di spostarsi tra celle contigue in base ai dati morfologici sottostanti. Pertanto, un

piccolo canale che attraversa le celle e le cui dimensioni sono molto più piccole della dimensione della mesh viene comunque rappresentato tramite le curve altezza/volume oltreché dalle proprietà idrauliche delle facce. Ciò significa che l'acqua scorre tra le celle più grandi ma comunque il deflusso si concentra inizialmente nelle zone più depresse.

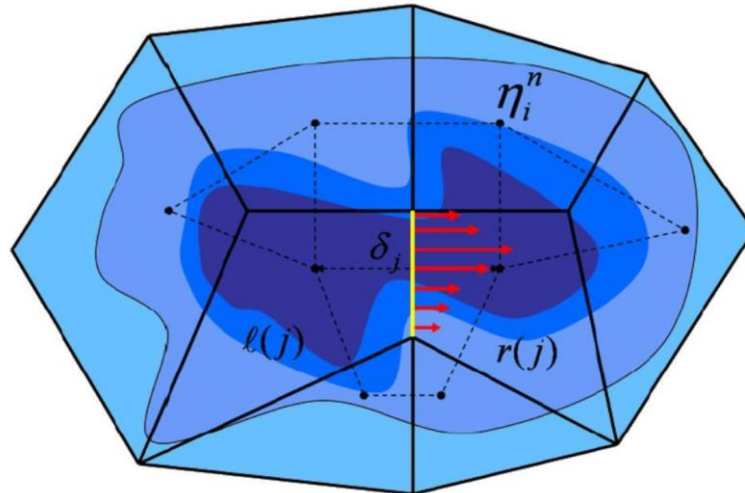


Figura 5-2: schema concettuale dell'algoritmo a volumi finiti adottato dal software Hec-Ras v.5.

Nell'ambiente RAS Mapper, il software Hec-Ras consente di effettuare la perimetrazione delle aree allagabili, la mappatura delle varie grandezze idrauliche (tra cui velocità, sforzi tangenziali, ecc...) l'animazione della propagazione della piena nel tempo. La mappatura delle aree allagate si basa sul DTM e ne mantiene la risoluzione: ciò significa che la reale superficie bagnata sarà basata sui dettagli morfologici del terreno sottostante e non sulla dimensione della cella di calcolo. Le celle quindi possono anche essere parzialmente bagnate/asciutte.

5.2.1 Assegnazione dei parametri di scabrezza

Per quanto riguarda le scabrezze medie attribuibili ai singoli corsi d'acqua analizzati si rimanda ai successivi paragrafi relativi a ciascun modello numerico implementato, con riferimento ai valori medi del coefficiente n di Manning rappresentativi della regolarità dei corsi d'acqua e della presenza di vegetazione, coerentemente ai normali valori proposti in letteratura⁶:

- $0.025 \text{ m}^{-1/3}\text{s}$ corrisponde a: *"terra con erba sul fondo. Corsi d'acqua naturali regolari"*.
- $0.030 \text{ m}^{-1/3}\text{s}$ corrisponde a: *"terra in cattive condizioni. Corsi d'acqua naturali con ciottoli e ghiaia"*.
- $0.035 \text{ m}^{-1/3}\text{s}$ corrisponde a: *"Canali in abbandono con grande vegetazione"*

⁶ Manuale di Ingegneria Civile - Volume I .Ed.Zanichelli/Esac.

Analogamente, per quanto riguarda le scabrezze extra-alveo da utilizzare per la modellazione idraulica bidimensionale del cosiddetto "overland flow", facendo riferimento alla tabella seguente tratta dalla letteratura di settore, si è assunto un valore di scabrezza pari a $0.1 \text{ m}^{-1/3}\text{s}$.

Tabella 5-1: valori di scabrezza al variare del tipo di copertura per "overland flow"

Table 1. Overland Flow Manning's n Roughness Values¹	
Surface	n-value
Dense turf	0.17 - 0.80
Bermuda and dense grass, dense vegetation	0.17 - 0.48
Shrubs and forest litter, pasture	0.30 - 0.40
Average grass cover	0.20 - 0.40
Poor grass cover on rough surface	0.20 - 0.30
Short prairie grass	0.10 - 0.20
Sparse vegetation	0.05 - 0.13
Sparse rangeland with debris	
0% cover	0.09 - 0.34
20 % cover	0.05 - 0.25
Plowed or tilled fields	
Fallow - no residue	0.008 - 0.012
Conventional tillage	0.06 - 0.22
Chisel plow	0.06 - 0.16
Fall disking	0.30 - 0.50
No till - no residue	0.04 - 0.10
No till (20 - 40% residue cover)	0.07 - 0.17
No till (60 - 100% residue cover)	0.17 - 0.47
Open ground with debris	0.10 - 0.20
Shallow glow on asphalt or concrete (0.25" to 1.0")	0.10 - 0.15
Fallow fields	0.08 - 0.12
Open ground, no debris	0.04 - 0.10
Asphalt or concrete	0.02 - 0.05

¹Adapted from COE, HEC-1 Manual, 1990 and the COE, Technical Engineering and Design Guide, No. 19, 1997 with modifications.

5.2.2 Condizioni al contorno

Per svolgere la simulazione e calcolare il livello del pelo libero in una data sezione, è necessario conoscere la medesima grandezza in una sezione prossima a questa, a monte o a valle a seconda del regime di corrente.

Il programma provvede automaticamente al riconoscimento per tratti del regime di corrente che si può effettivamente instaurare per la portata assegnata e, se in un tratto la corrente ad esempio è veloce, esso adotterà quale altezza di riferimento quella fornita in input per l'estremo di monte; viceversa, se la corrente del tratto è lenta, quale altezza di controllo sarà adottata quella fornita in input per la sezione terminale di valle. Nei tratti

intermedi il programma adotta analoghi criteri ed è in grado di processare situazioni in cui i due regimi si susseguono in qualsiasi ordine.

Per effettuare la simulazione è quindi necessario imporre delle condizioni al contorno a monte e a valle dei tratti in esame. Com'è noto questa condizione può essere imposta in vari modi: livello idrico noto, altezza critica, altezza di moto uniforme, scala di deflusso.

A questo proposito va tuttavia osservato che il metodo d'integrazione numerica adottato dal software ("Standard step method") è intrinsecamente autoregolante, ovvero, dopo pochi step spaziali (sezioni), l'altezza della corrente risulta invariante rispetto alla condizione al contorno adottata. Per questo motivo, eventuali imprecisioni nella valutazione delle altezze di controllo diventano inessenziali se si dispone di un numero di sezioni in eccesso rispetto a quelle strettamente occorrenti per l'estensione del tratto da indagare.

Trattandosi di analisi in regime di moto vario, quali condizioni al contorno di monte sono stati assunti gli idrogrammi di piena; per la condizione di valle, invece, rimandando ai successivi paragrafi relativi a ciascun modello numerico implementato per ulteriori dettagli, si è generalmente optato per l'altezza di moto uniforme.

6 Risultati della modellazione idraulica

Le simulazioni numeriche delle correnti di piena condotte per eventi meteorici duecentennali e trentennali, implementati con il programma Hec-Ras, hanno consentito di individuare, per i corsi d'acqua oggetto di studio, i tratti dove si verificano le esondazioni, gli idrogrammi corrispondenti ai volumi esondati da ciascun fronte di esondazione e la relativa propagazione extra-alveo di detti volumi idrici.

Nelle tavole grafiche allegate sono indicate le relative aree a pericolosità per alluvioni frequenti e poco frequenti da cui si evincono le criticità idrauliche presenti nel territorio.

Per ulteriori dettagli si rimanda alle Appendici 1 e 2 contenenti gli outputs delle simulazioni numeriche 1D+2D effettuate in regime di moto vario.

I modelli implementati nel presente studio sono descritti in dettaglio nei successivi paragrafi.

6.1 Barberino di Mugello

6.1.1 Modello “Sieve – Mulinaccia – Scopicci - Visano”

6.1.1.1 Tratti dei corsi d'acqua modellati

- **Fiume Sieve:** dalla sez. 21, posta circa 35 m a monte dell'Autostrada del Sole A1 nell'intorno del km 261, alla sez. 1 posta circa 293 m a valle della S.P.8 in località Cavallina (Barberino di Mugello), per una lunghezza complessiva di circa 1.78 km ed un numero di sezioni pari a 74. Le sezioni comprendono 13 strutture di attraversamento.
- **Fosso Scopicci:** dalla sez. 20, posta poco a valle dell'Autostrada del Sole A1 nell'intorno del km 261.9, alla sez. 1.1 posta circa 14 m a monte della confluenza con il Fosso della Mulinaccia, per una lunghezza complessiva di circa 0.97 km ed un numero di sezioni pari a 40. Le sezioni comprendono 3 strutture di attraversamento.
- **Fosso della Mulinaccia:** dalla sez. 19, posta 300 m a valle dell'Autostrada del Sole A1 nell'intorno del km 262.5, alla sez. 0.4 posta 40 m a monte della confluenza con il Fiume Sieve, per una lunghezza complessiva di circa 0.99 km ed un numero di sezioni pari a 59. Le sezioni comprendono 10 strutture di attraversamento.
- **Fosso di Visano:** dalla sez. 29, posta circa 44 m a valle dell'Autostrada del Sole A1 nell'intorno del km 260.6, alla sez. 0.9 posta circa 18 m a monte della

confluenza con il Fiume Sieve, per una lunghezza complessiva di circa 1.57 km ed un numero di sezioni pari a 51. Le sezioni comprendono 10 strutture di attraversamento.

6.1.1.2 Scabrezze

- **Fiume Sieve:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.
- **Fosso Scopicci:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.
- **Fosso della Mulinaccia:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.
- **Fosso di Visano:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.

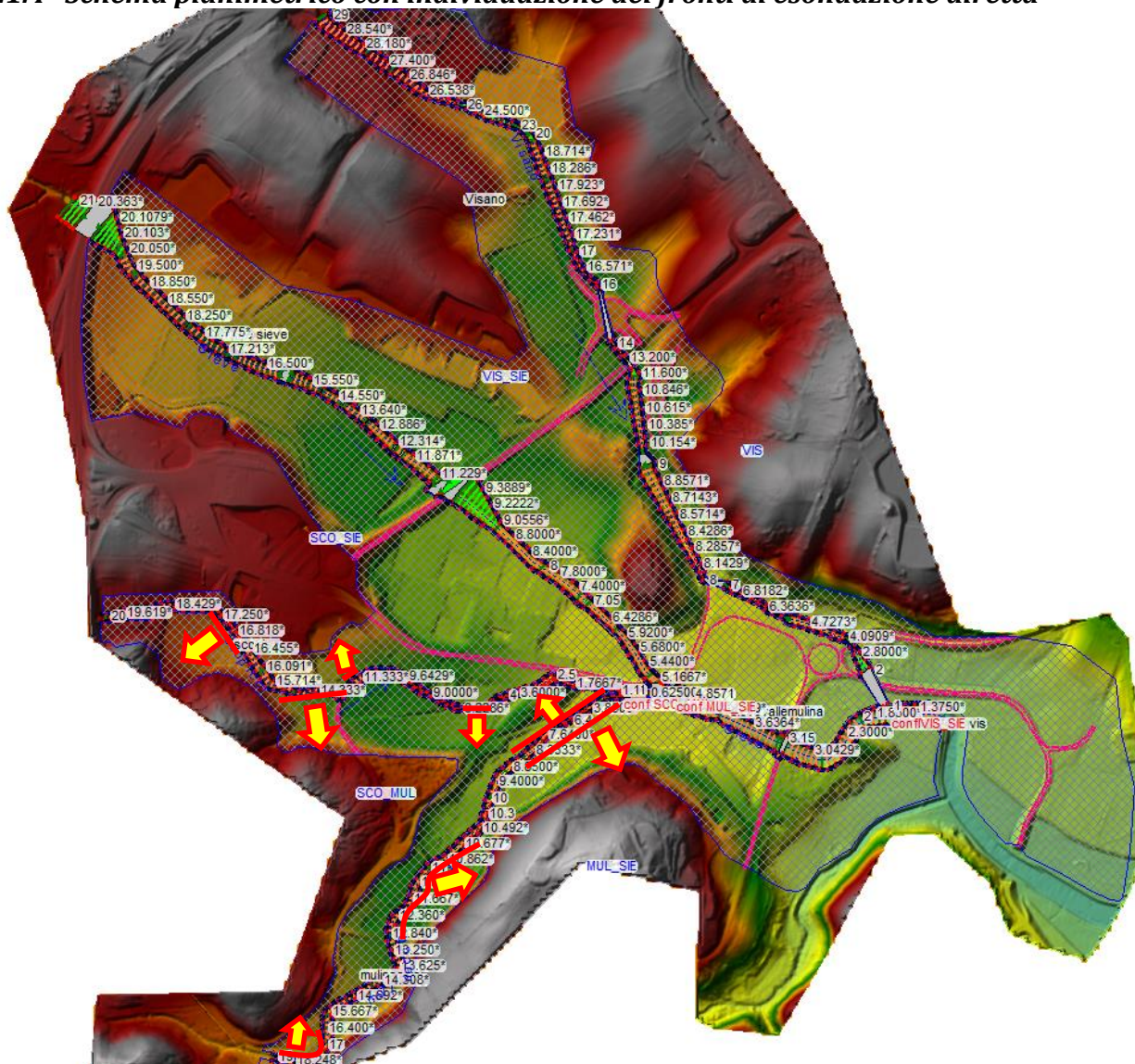
6.1.1.3 Durate critiche e durate simulate

Le analisi sono state effettuate considerando che i corsi d'acqua presenti nel modello siano simultaneamente interessati da eventi meteorici aventi lo stesso tempo di ritorno e la stessa durata di pioggia, in quanto costituiscono un sistema interconnesso.

Pertanto, sono stati esaminati i seguenti scenari meteorici:

- evento meteorico 200ennale di durata critica pari a 1, 2 ore;
- evento meteorico 30ennale di durata critica pari a 1, 2 ore.

6.1.1.4 Schema planimetrico con individuazione dei fronti di esondazione diretta

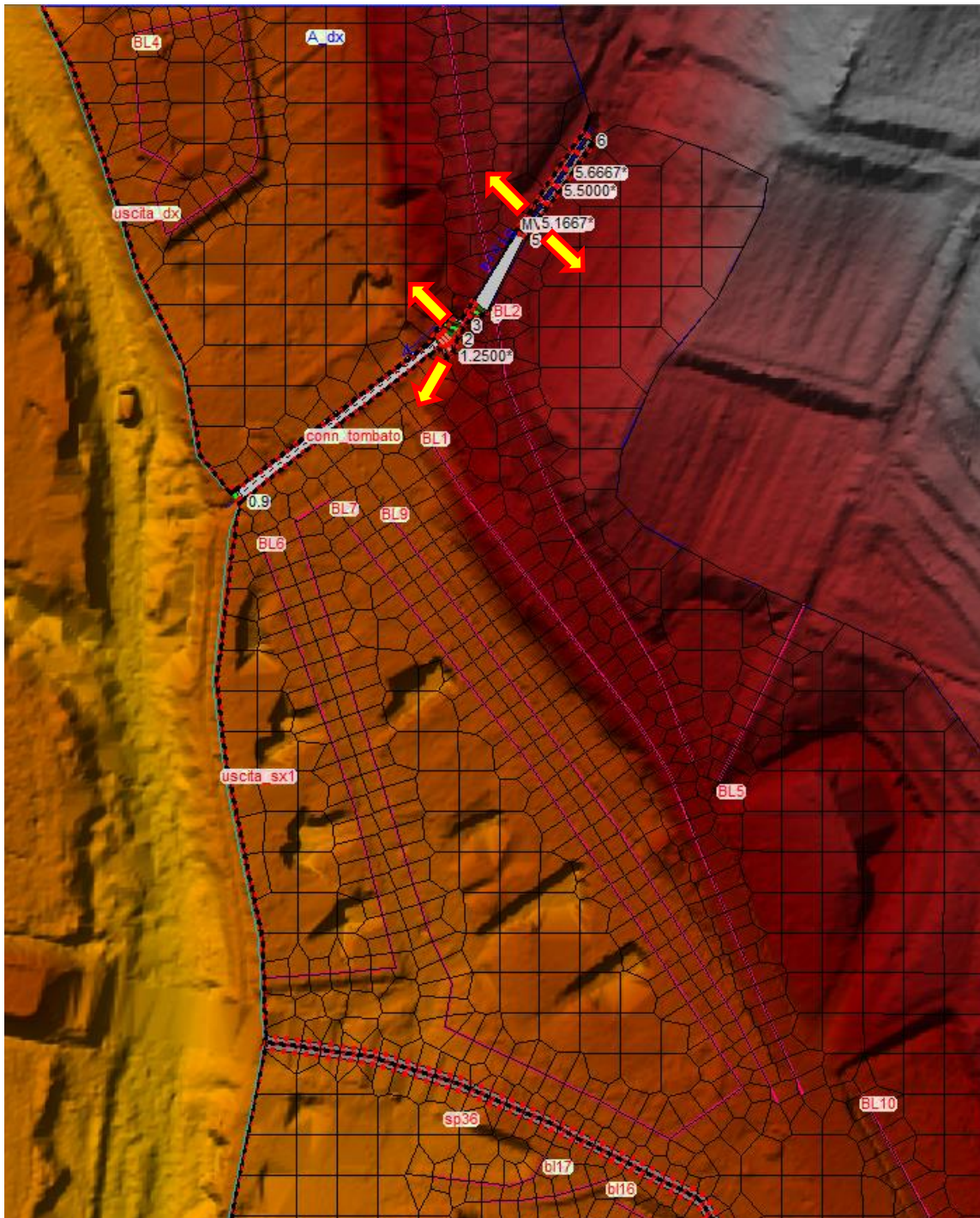


6.1.2 Modello "MV12865_Stura"

6.1.2.1 Tratti dei corsi d'acqua modellati

Fosso MV12865: dalla sez. 6, posta circa 30 m a monte dell'attraversamento della SP8 in località Casino, alla sezione 0.9 posta in corrispondenza della confluenza con il T. Stura per una lunghezza complessiva di circa 0.13 km ed un numero di sezioni pari a 9. Le sezioni comprendono 2 strutture di attraversamento e una briglia.

6.1.2.2 Schema planimetrico con individuazione dei fronti di esondazione diretta





6.1.2.3 Scabrezze

Per il fosso MV12865 sono stati assunti coefficienti di scabrezza di Manning n 0.03 $m^{-1/3}s$ in alveo ed extra alveo.

6.1.2.4 Durate critiche e durate simulate

Le analisi idrauliche sono state condotte esaminando i seguenti scenari meteorici:

- evento meteorico 200ennale di durata critica pari a 30 minuti, 1 ora e 2 ore;
- evento meteorico 30ennale di durata critica pari a 30 minuti, 1 ora e 2 ore.

6.1.3 Modello “MV15982_Lora”

6.1.3.1 Tratti dei corsi d'acqua modellati

Fosso MV15982: dalla sez. 4, posta circa 105 m a monte dell'attraversamento dell'area industriale di Via Pian della Fonda, alla sezione 0.9 posta in corrispondenza della confluenza con il T. Lora per una lunghezza complessiva di circa 0.29 km ed un numero di sezioni pari a 12. Le sezioni comprendono 2 strutture di attraversamento e due salti di fondo.

6.1.3.2 Scabrezze

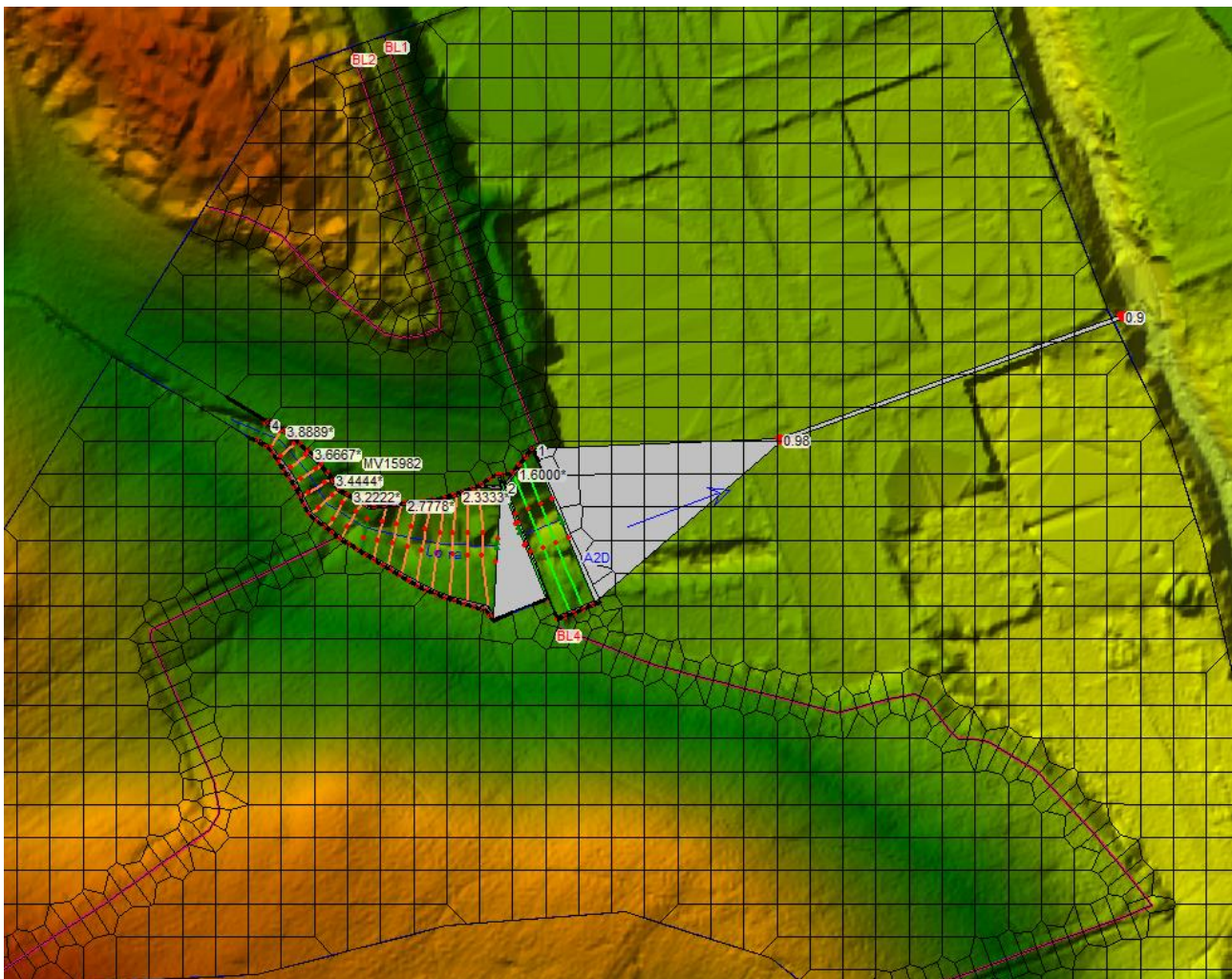
Per il fosso MV12865 sono stati assunti coefficienti di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.

6.1.3.3 Durate critiche e durate simulate

Le analisi idrauliche sono state condotte esaminando i seguenti scenari meteorici:

- evento meteorico 200ennale di durata critica pari a 30 minuti, 1 ora e 2 ore;
- evento meteorico 30ennale di durata critica pari a 30 minuti, 1 ora e 2 ore.

6.1.3.4 Schema planimetrico con individuazione dei fronti di esondazione diretta



6.1.4 Modello "Bellavista"

6.1.4.1 Tratti dei corsi d'acqua modellati

- **Fosso MV16963:** dalla sez. 100, posta poco a monte della S.P.131, alla sezione 80.9 posta allo sbocco nel Lago di Bilancino per una lunghezza complessiva di circa 1.1 km ed un numero di sezioni pari a 22. Le sezioni comprendono 4 strutture di attraversamento.
- **Fosso Ornellaio:** dalla sez. 5.1, posta poco a monte della S.P.131, alla sezione 80.9 posta allo sbocco nel Lago di Bilancino per una lunghezza complessiva di circa 0.20 km ed un numero di sezioni pari a 14. Le sezioni comprendono 3 strutture di attraversamento.

6.1.4.2 Scabrezze

- **Fosso MV16963:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3\text{s}}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3\text{s}}$.

- **Fosso Ornellaio**: coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.

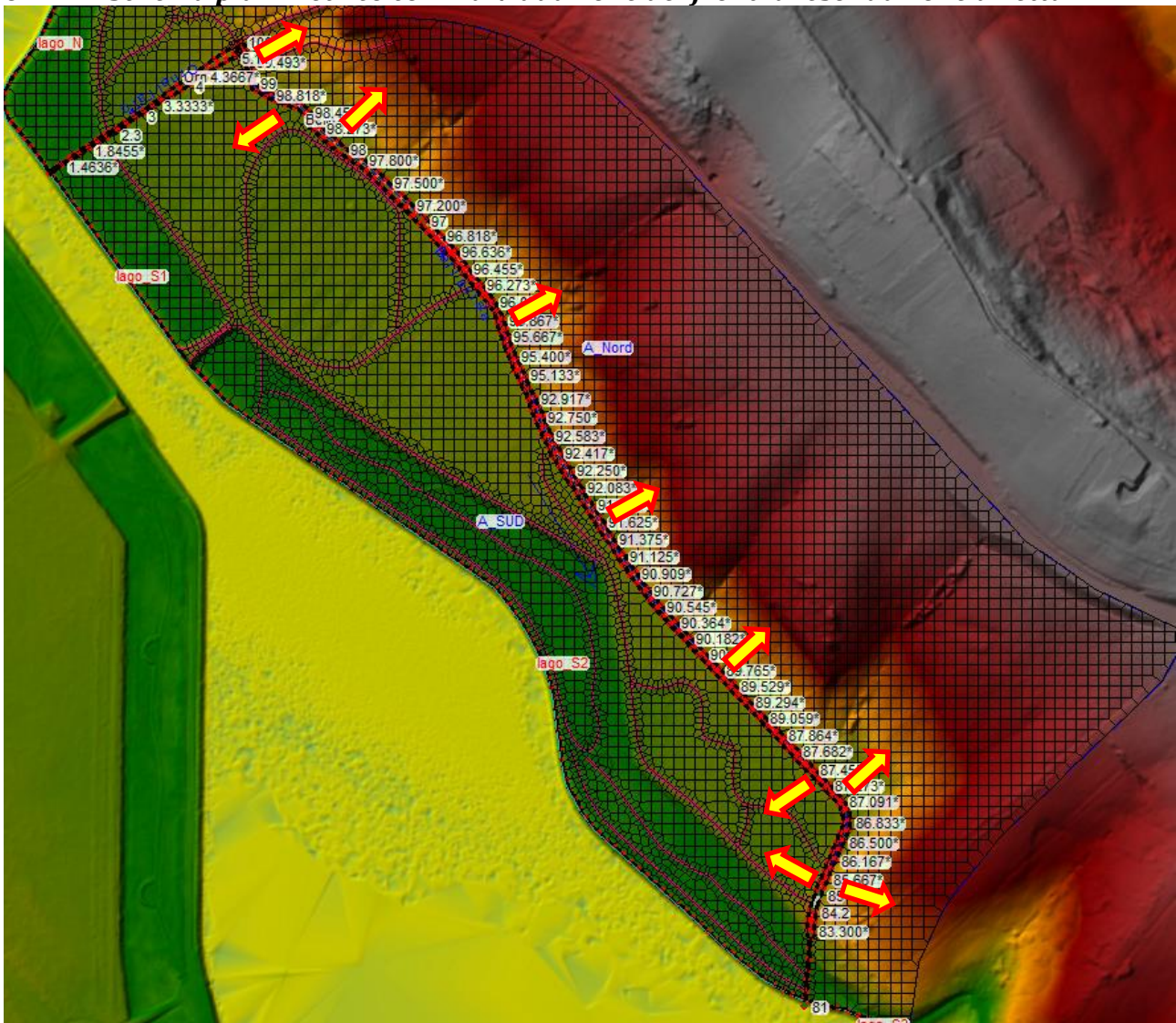
6.1.4.3 *Durate critiche e durate simulate*

Le analisi sono state effettuate considerando che entrambi i corsi d'acqua siano simultaneamente interessati da eventi meteorici aventi lo stesso tempo di ritorno e la stessa durata di pioggia, in quanto costituiscono un sistema interconnesso.

Pertanto, sono stati esaminati i seguenti scenari meteorici:

- evento meteorico 200ennale di durata critica pari a 30 minuti, 45 minuti, 1 ora, 2 ore e 3 ore;
- evento meteorico 30ennale di durata critica pari a 30 minuti, 45 minuti, 1 ora, 2 ore e 3 ore.

6.1.4.4 *Schema planimetrico con individuazione dei fronti di esondazione diretta*



6.1.5 Modello "Gabbianello"

6.1.5.1 Tratti dei corsi d'acqua modellati

- **Fosso MV15122:** dalla sez. 15, posta in località Galliano, alla sezione 0.9 posta allo sbocco nel Lago di Bilancino per una lunghezza complessiva di circa 0.42 km ed un numero di sezioni pari a 21. Le sezioni comprendono 4 strutture di attraversamento.
- **Fosso MV15739:** dalla sez. 11, posta in località Galliano, alla sezione 0.9 posta allo sbocco nel Lago di Bilancino per una lunghezza complessiva di circa 0.47 km ed un numero di sezioni pari a 18. Le sezioni comprendono 3 strutture di attraversamento.
- **Fosso MV15123:** dalla sez. 9, posta in località Galliano, alla sezione 3.72 posta alla confluenza con il fosso MV15739, per una lunghezza complessiva di circa 0.11 km ed un numero di sezioni pari a 10. Le sezioni comprendono 2 strutture di attraversamento.
- **Fosso MV15123_bis:** dalla sez. 3, posta in località Galliano, alla sezione 0.9 posta allo sbocco nel Lago di Bilancino per una lunghezza complessiva di circa 0.06 km ed un numero di sezioni pari a 7. Le sezioni comprendono 2 strutture di attraversamento.

6.1.5.2 Scabrezze

- **Fosso MV15122:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$;
- **Fosso MV15739:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$;
- **Fossi MV15123 e MV15123_bis:** coefficiente di scabrezza di Manning n in alveo pari a $0.035 \text{ m}^{-1/3}\text{s}$ ed extra alveo pari a $0.04 \text{ m}^{-1/3}\text{s}$.

6.1.5.3 Durate critiche e durate simulate

Le analisi sono state effettuate considerando che entrambi i corsi d'acqua siano simultaneamente interessati da eventi meteorici aventi lo stesso tempo di ritorno e la stessa durata di pioggia, in quanto costituiscono un sistema interconnesso.

Pertanto, sono stati esaminati i seguenti scenari meteorici:

- evento meteorico 200ennale di durata critica pari a 30 minuti, 45 minuti, 1 ora e 2 ore;
- evento meteorico 30ennale di durata critica pari a 30 minuti, 45 minuti, 1 ora e 2 ore.

6.1.5.4 Schema planimetrico con individuazione dei fronti di esondazione diretta



7 Perimetrazione delle aree a pericolosità da alluvioni e a diversa "magnitudo"

L'involuppo dei risultati ottenuti per ciascun tempo di ritorno (in particolare in termini di livelli idrometrici massimi raggiunti in alveo e nelle aree di esondazione) ha costituito la base numerica per il tracciamento delle aree allagabili, con riferimento al DTM Lidar.

In ambiente Ras Mapper, il software ha fornito direttamente l'involuppo delle aree allagabili per ogni scenario analizzato, cioè relativamente ad un tempo di ritorno e a una durata di precipitazione. Successivamente, gli scriventi hanno creato, in ambiente GIS, per ciascun tempo di ritorno investigato, l'involuppo delle aree allagabili relative a più durate di precipitazione.

Pertanto, il territorio comunale investigato è stato classificato, in funzione del tempo di ritorno, secondo le seguenti fasce:

- Aree inondabili da eventi con tempo di ritorno $TR = 30$ anni (aree a pericolosità per **alluvioni frequenti**);
- Aree inondabili da eventi con tempo di ritorno $TR = 200$ anni (aree a pericolosità per **alluvioni poco frequenti**);

Inoltre, per l'area di studio, è stata determinata la "magnitudo idraulica", definita dalla L.R. 41/2018 per lo scenario per **alluvioni poco frequenti** attraverso la combinazione del battente e della velocità della corrente, così come di seguito indicato:

- "*magnitudo idraulica moderata*": valori di battente inferiore o uguale a 0,5 metri e velocità inferiore o uguale a 1 m/s. Nei casi in cui la velocità non sia determinata, battente uguale o inferiori a 0,3 m;
- "*magnitudo idraulica severa*": valori di battente inferiore o uguale a 0,5 metri e velocità superiore a 1 m/s oppure battente superiore a 0,5 m e inferiore o uguale a 1 m e velocità inferiore o uguale a 1 m/s. Nei casi in cui la velocità non sia determinata, battente superiore a 0,3 m e inferiore o uguale a 0,5 m;
- "*magnitudo idraulica molto severa*": battente superiore a 0,5 m e inferiore o uguale a 1 m e velocità superiore a 1 m/s oppure battente superiore a 1 m. Nei casi in cui la velocità non sia determinata, battenti superiori a 0,5 metri.

8 Elaborati cartografici

Ai sensi delle Direttive tecniche per lo svolgimento delle indagini geologiche, idrauliche e sismiche (Allegato A - D.P.G.R Toscana del 30/01/2020, n.5/R) il presente studio è stato corredato anche dai seguenti elaborati cartografici:

- Carta della pericolosità da alluvioni;
- Carta della magnitudo idraulica;
- Carta dei battenti;
- Carta delle velocità della corrente;
- Carta delle aree presidiate da sistemi arginali, comprensiva delle aree di fondovalle fluviale;
- Carta delle aree presidiate da sistemi arginali, comprensiva delle aree di fondovalle fluviale;
- Aree ed elementi esposti a fenomeni alluvionali.

Come già descritto al § 7, a cui si rinvia per maggiori dettagli, l'involuppo dei risultati ottenuti per ciascun tempo di ritorno (in particolare in termini di livelli idrometrici massimi, battenti e velocità raggiunti in alveo e nelle aree di esondazione) ha costituito la base numerica per il tracciamento della Carte di pericolosità da alluvioni, della Carta della magnitudo idraulica, della Carta dei battenti e della Carta della velocità della corrente.

È però opportuno precisare, come anticipato al §1, che per la redazione dei predetti elaborati cartografici, oltre alle analisi numeriche descritte nella presente relazione, si è fatto riferimento anche agli studi idrologici idraulici redatti a supporto:

- del Piano strutturale Intercomunale del Mugello;
- dell'Integrazione del Piano Strutturale Intercomunale del Mugello ai fini dell'adozione del secondo stralcio - parco Cafaggiolo;
- P.G.R.A dell'Autorità di Bacino Distrettuale dell'Appennino Settentrionale.

Si evidenzia infine che nelle aree a pericolosità per alluvioni poco frequenti desunte dal P.G.R.A. per le quali non erano determinati né il battente né la velocità della corrente, nella Carta della magnitudo idraulica la stessa è stata assunta cautelativamente

come *molto severa*⁷, mentre nella Carta dei battenti e nella Carte della velocità della corrente non sono stati indicati valori di battente e di velocità.

⁷ Ai sensi della let. b) comma 2 dell'art. 18 si è assunto un battente pari a 2 m, da cui deriva una magnitudo idraulica molto severa.

9 Considerazioni conclusive

È opportuno precisare che i risultati ottenuti con le presenti verifiche idrologiche ed idrauliche sono naturalmente basati sulle conoscenze attuali del sistema idrografico e dei dati idrologici disponibili, nonché sull'ipotesi fondamentale che le sezioni idrauliche dei corsi d'acqua oggetto di verifica siano mantenute in futuro almeno nelle medesime condizioni di officiosità idraulica.

Infatti, i risultati illustrati nel presente studio sono vincolati alla sussistenza delle attuali condizioni e assetti del reticolo idrografico idraulicamente rilevante: eventuali future modifiche di tali assetti, ovvero la modifica del quadro conoscitivo indotto da futuri eventi meteorologici estremi, imporranno adeguate revisioni dei risultati qui ottenuti ed esposti.

Inoltre, in relazione anche alla futura evoluzione del processo di espansione edilizia, a variazioni significative dell'assetto dell'uso del suolo o delle reti idrauliche naturali o artificiali interferenti con le aree investigate, le analisi qui svolte dovranno essere aggiornate.

I tecnici incaricati

Ing. Remo Chiarini

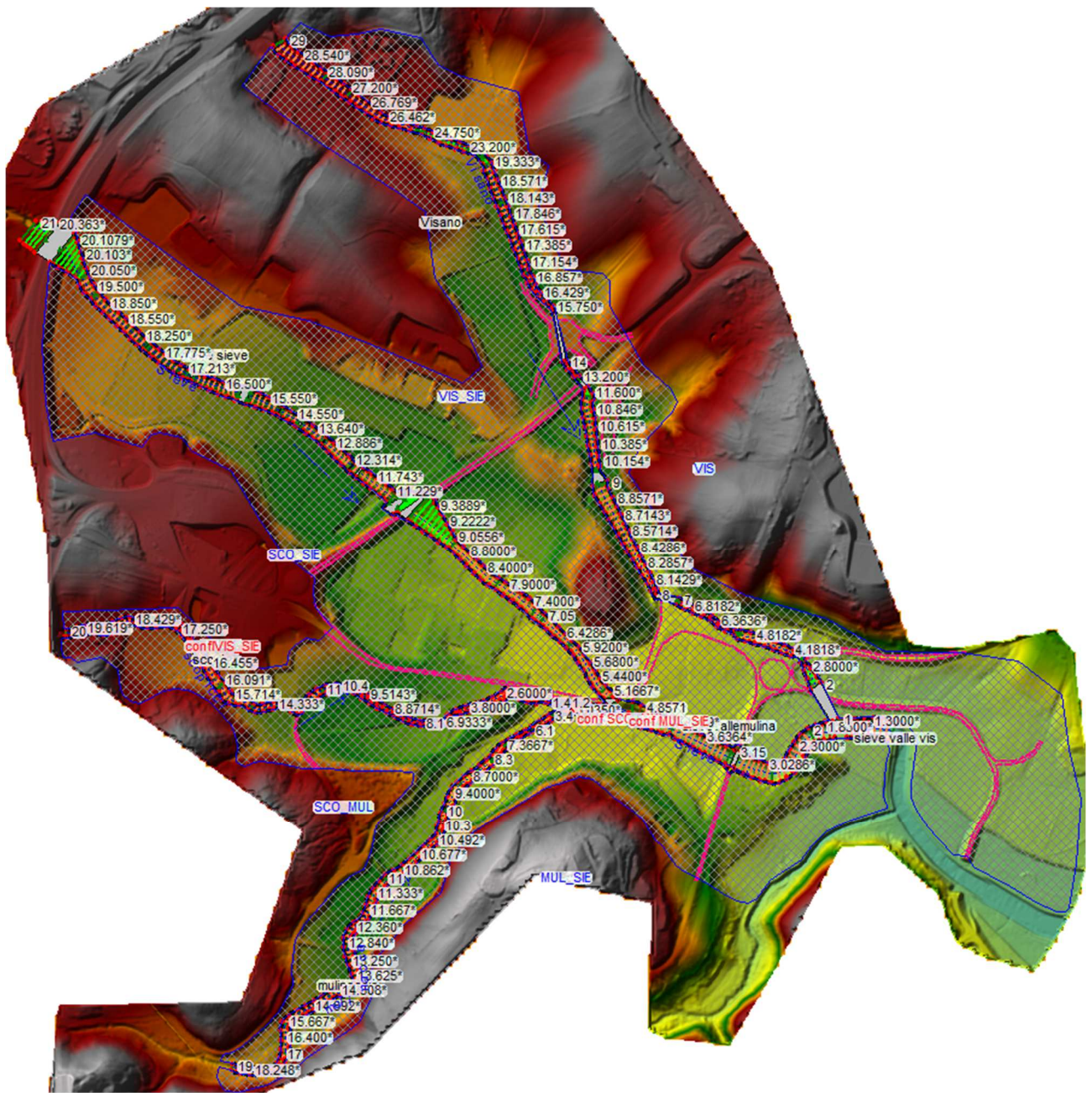
Ing. Alessandro Berni

Ing. Luigi Bigazzi

APPENDICE 1

Outputs grafici e numerici delle
simulazioni effettuate in regime di moto
vario con il software Hec-Ras

FIUME SIEVE
FOSSO SCOPICCI
FOSSO DELLA MULINACCIA
FOSSO DI VISANO

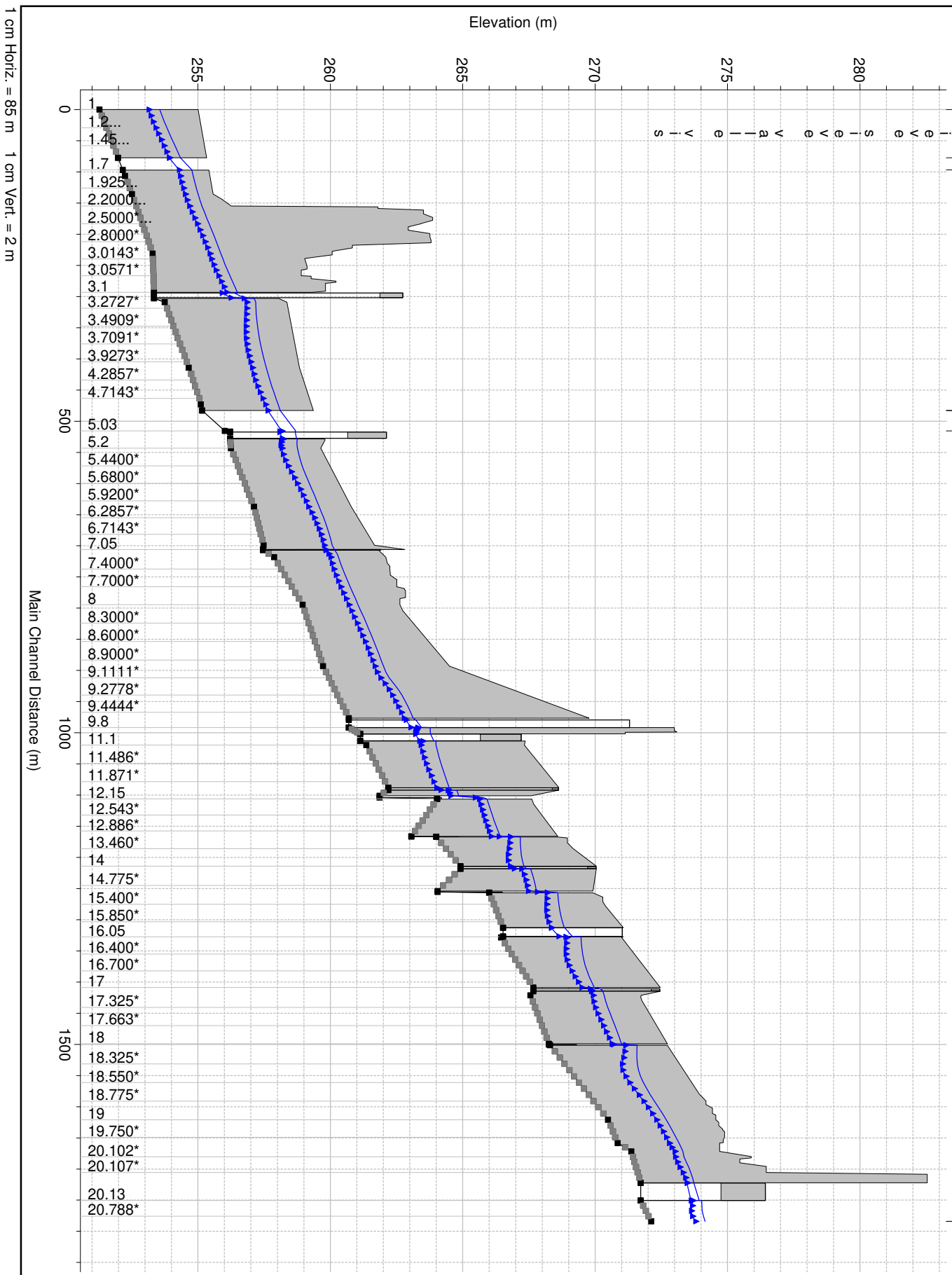
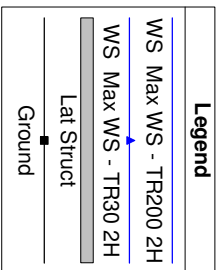


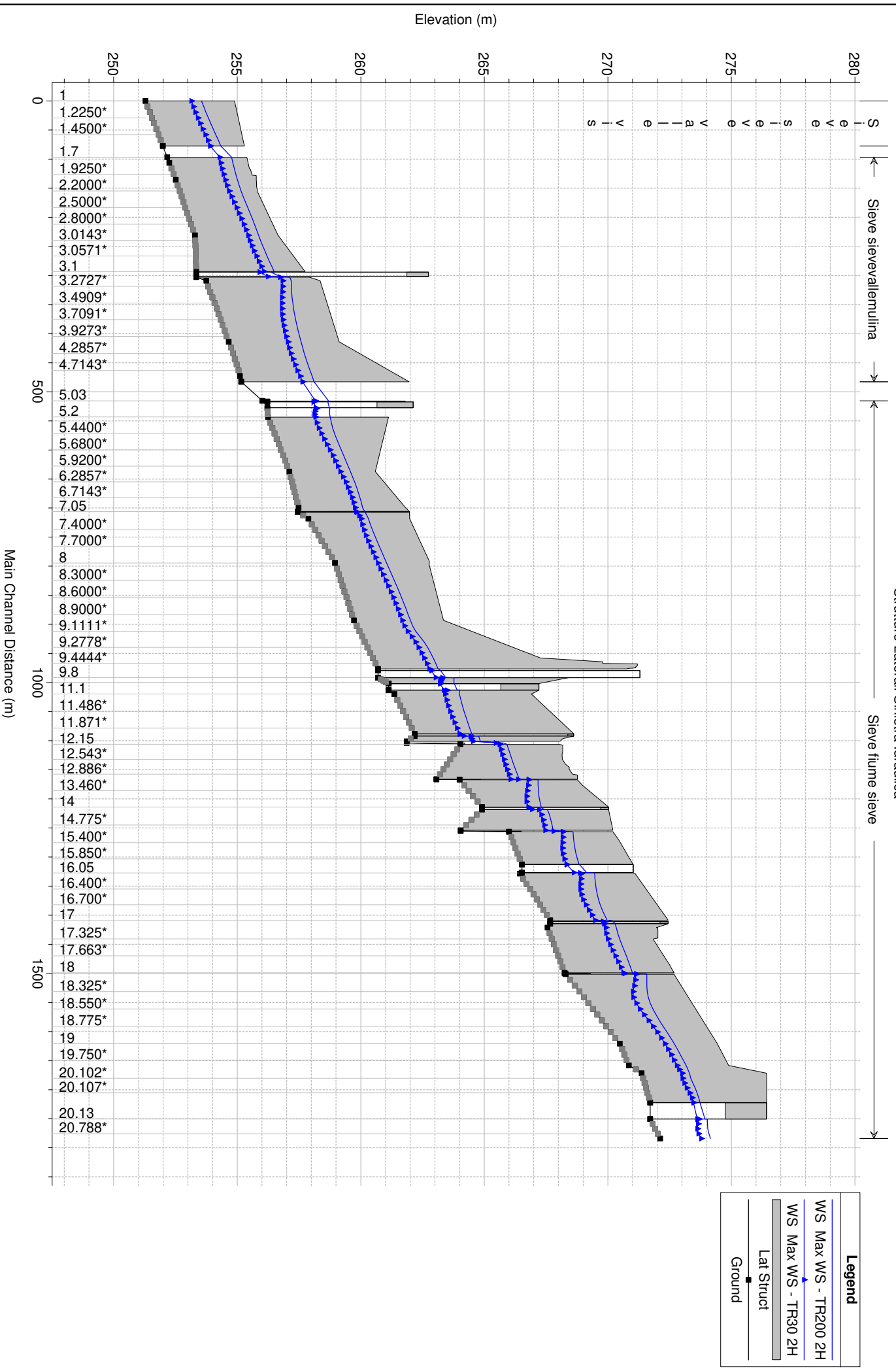
**FIUME
SIEVE**

VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 Struttura Laterali Destra Idraulica

Sieve sievevallemulina

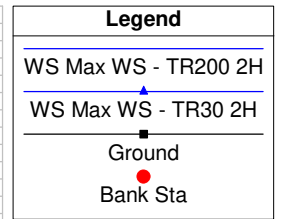
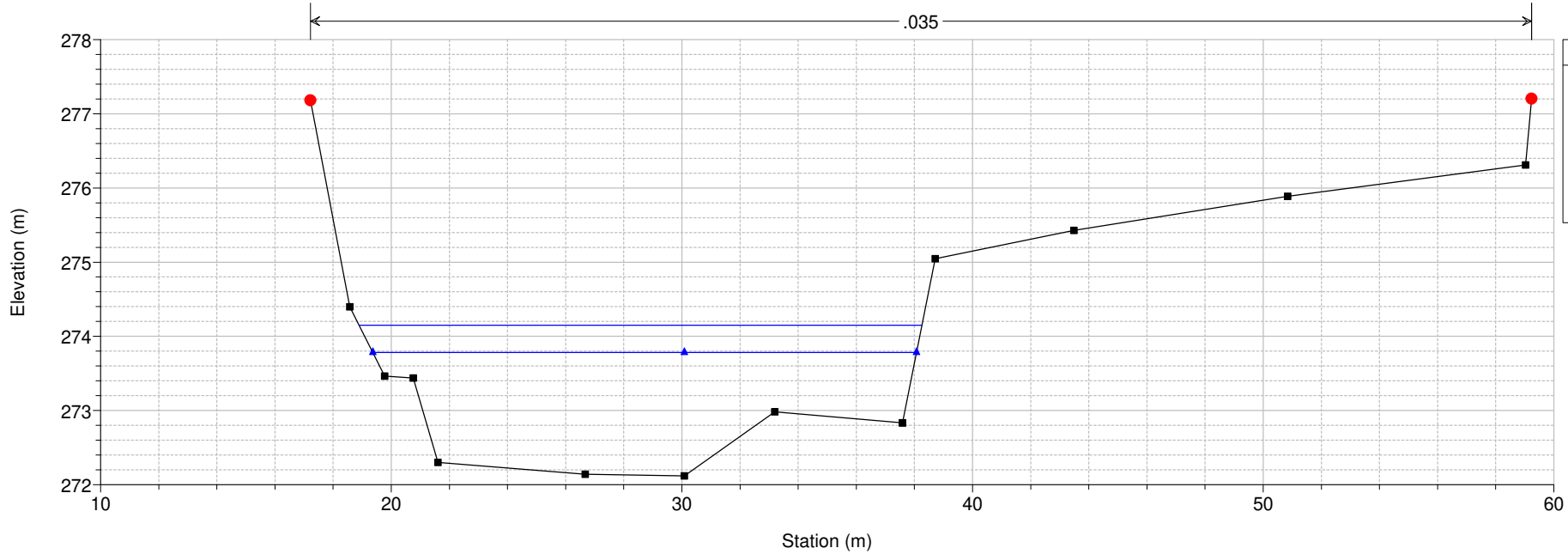
Sieve fiume sieve





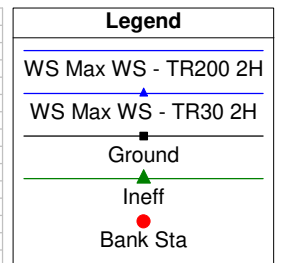
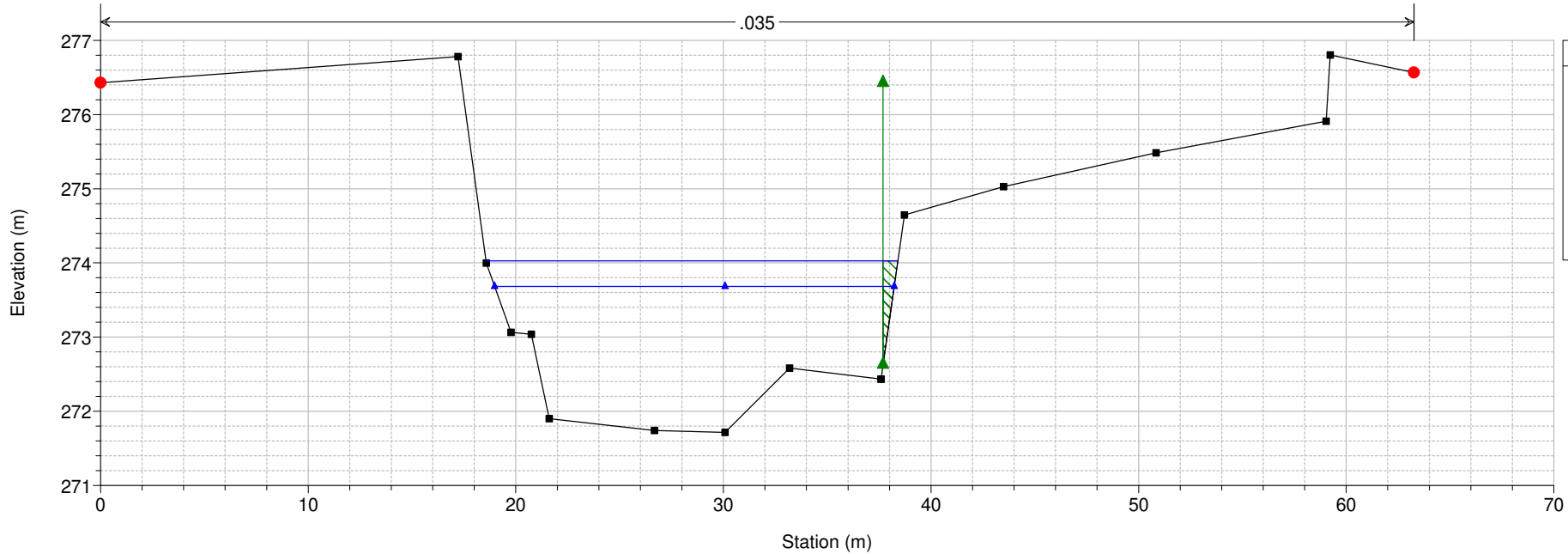
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River = Sieve Reach = fiume sieve RS = 21 SIE020_B



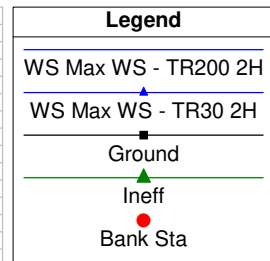
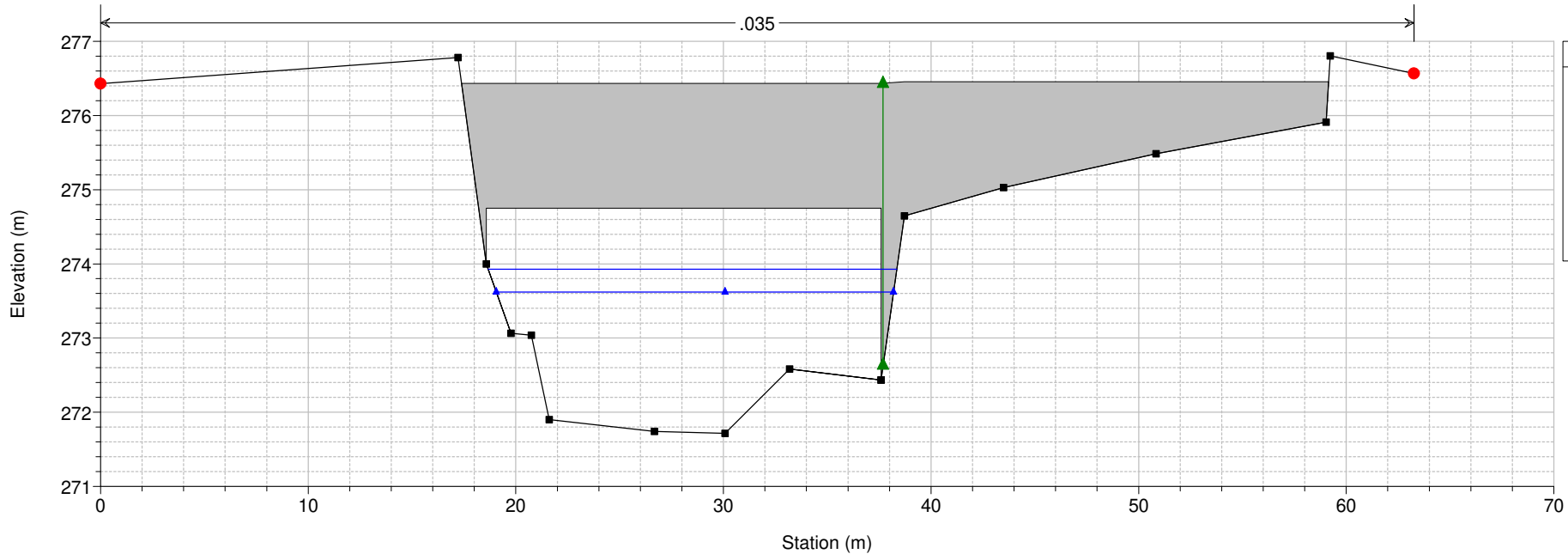
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

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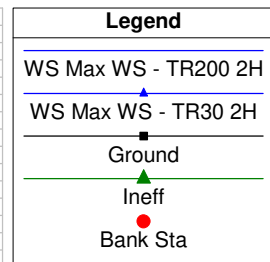
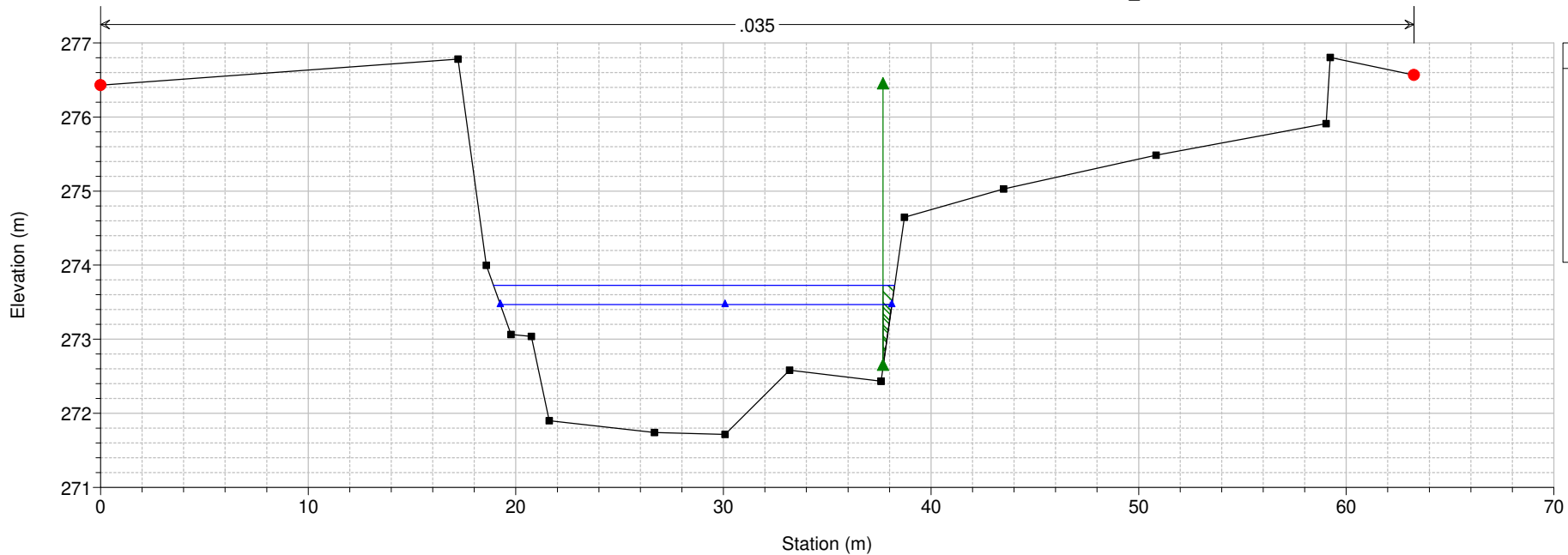
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

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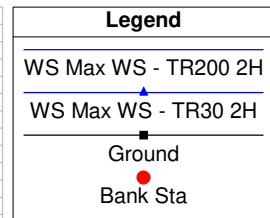
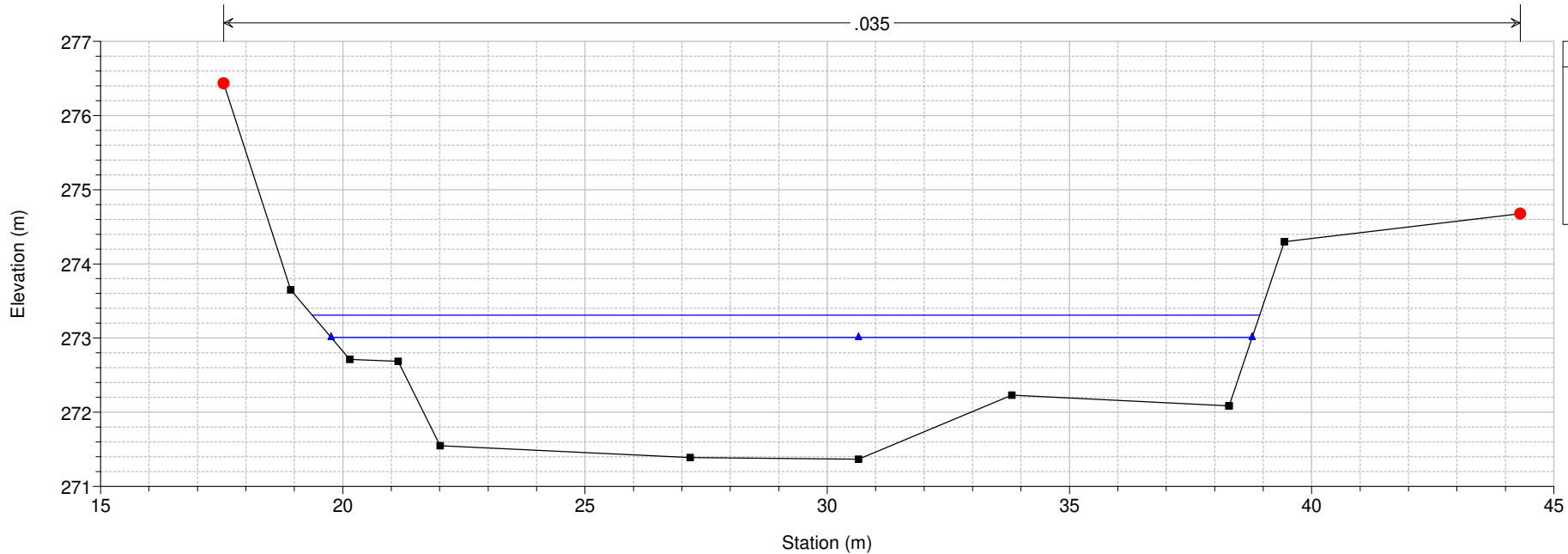
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 20.11 SIE020_B



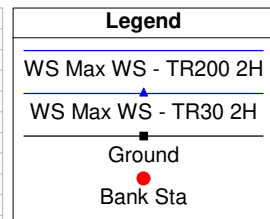
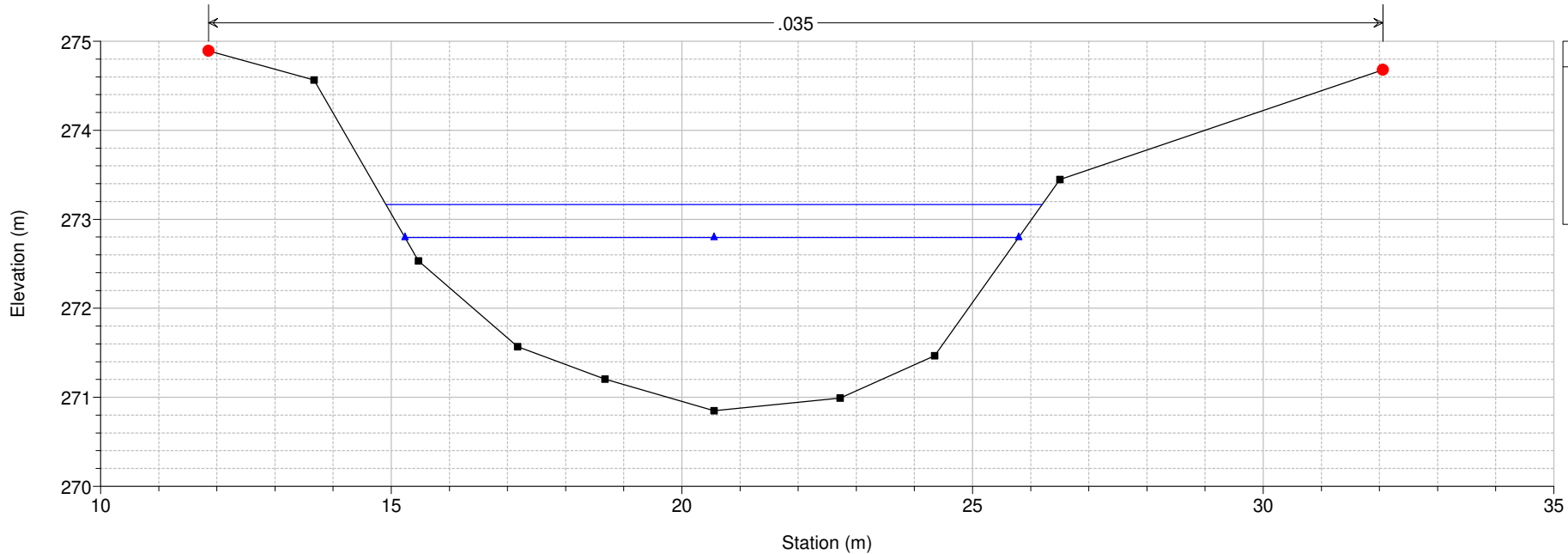
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 20.1 SIE020_B



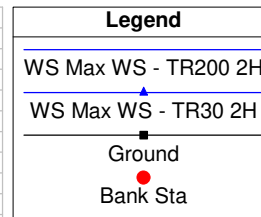
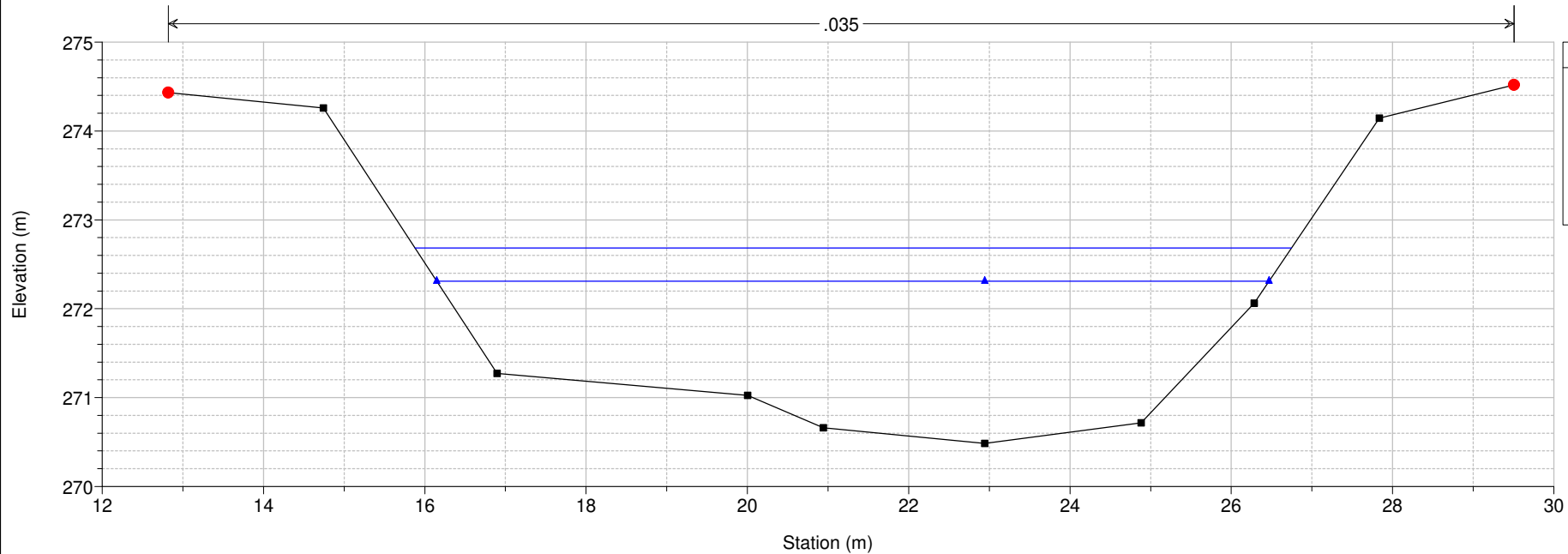
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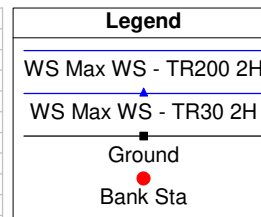
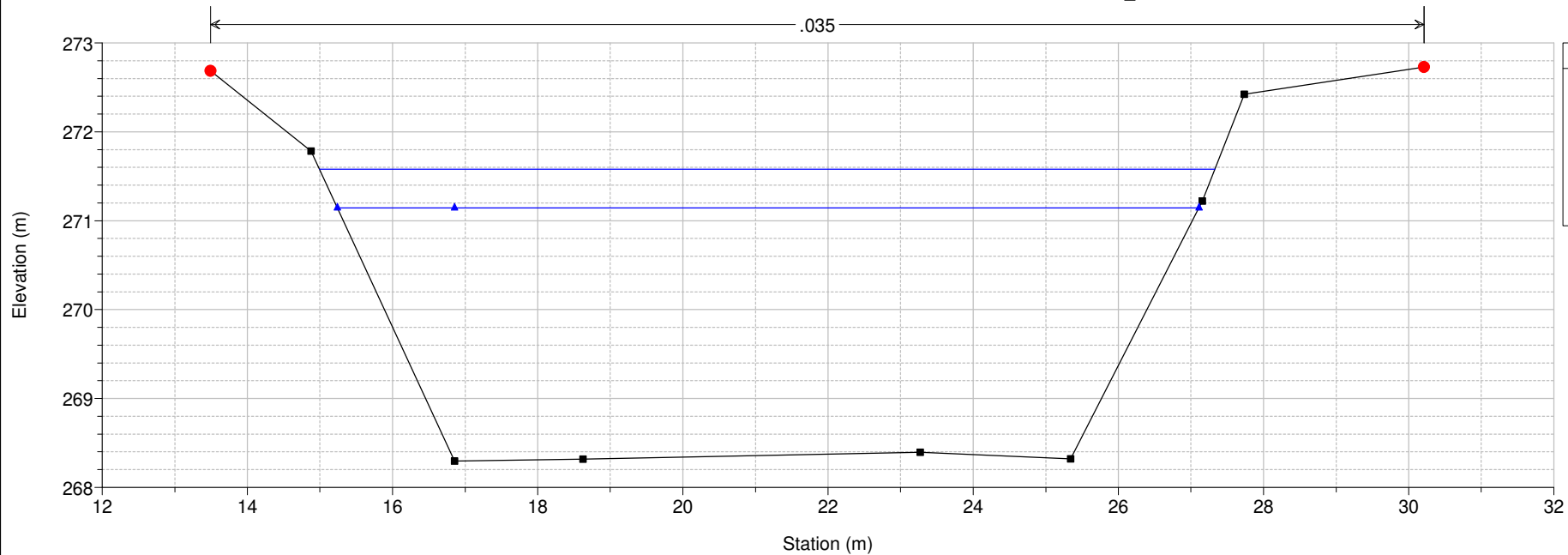
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River = Sieve Reach = fiume sieve RS = 19 SIE019



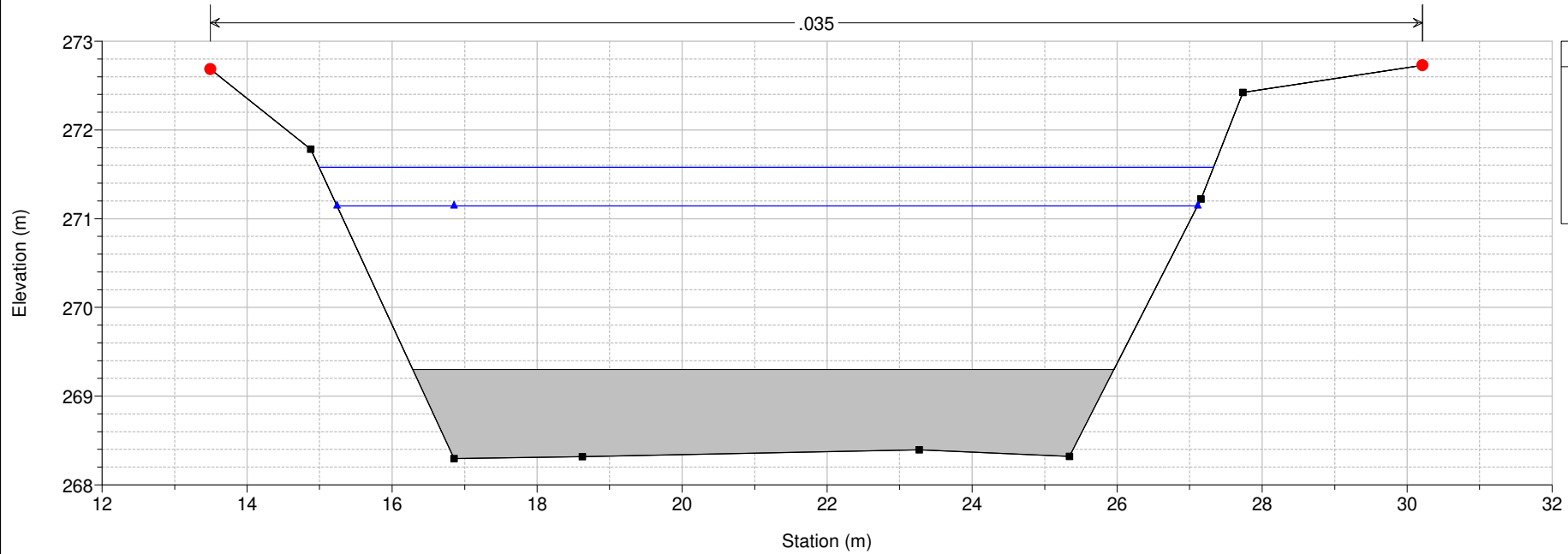
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 18.1 SIE018_B



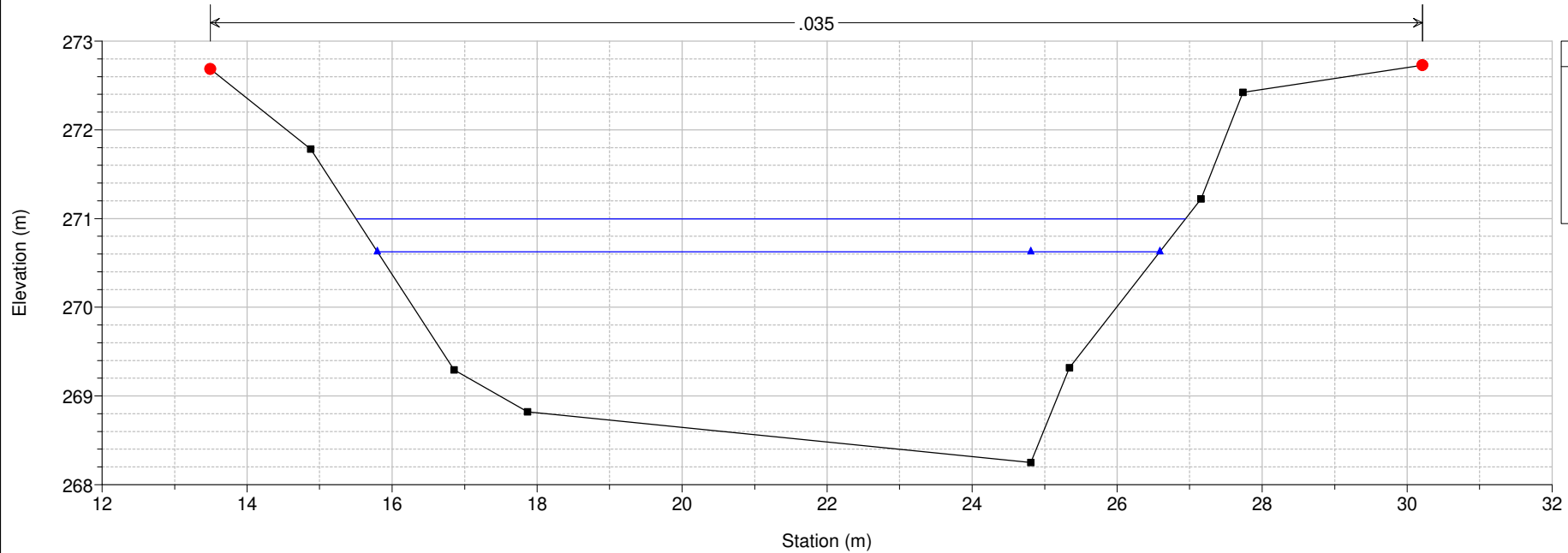
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 18.05 IS briglia 18



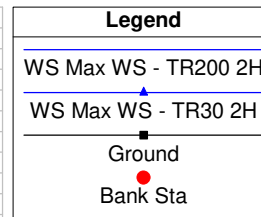
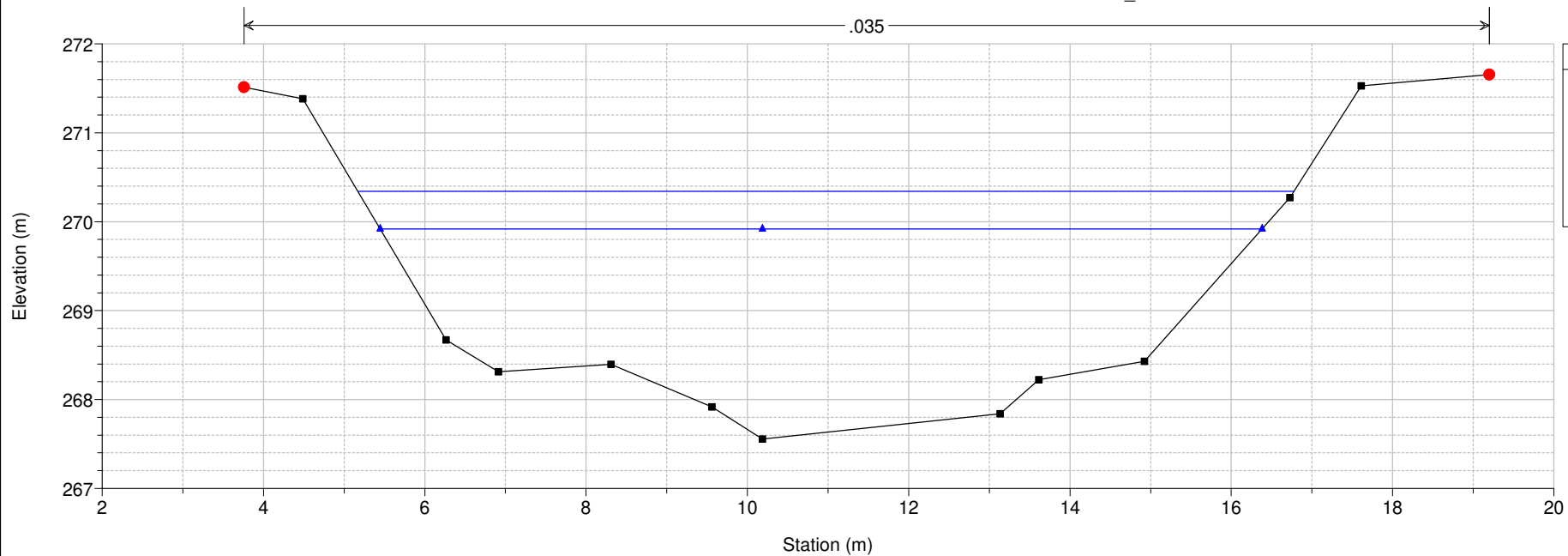
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 18 SIE018_A



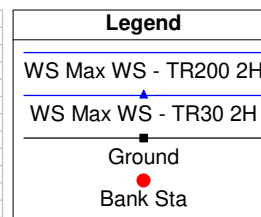
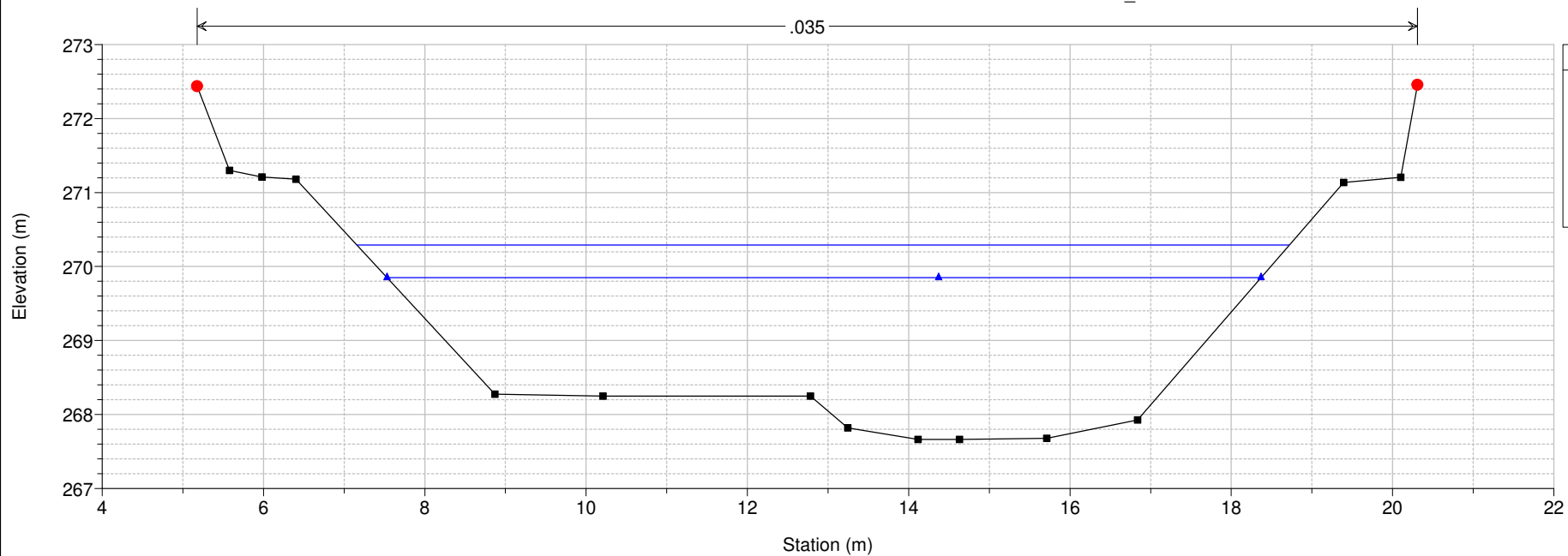
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 17.1 SIE017_B

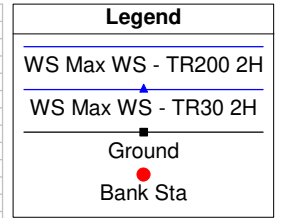
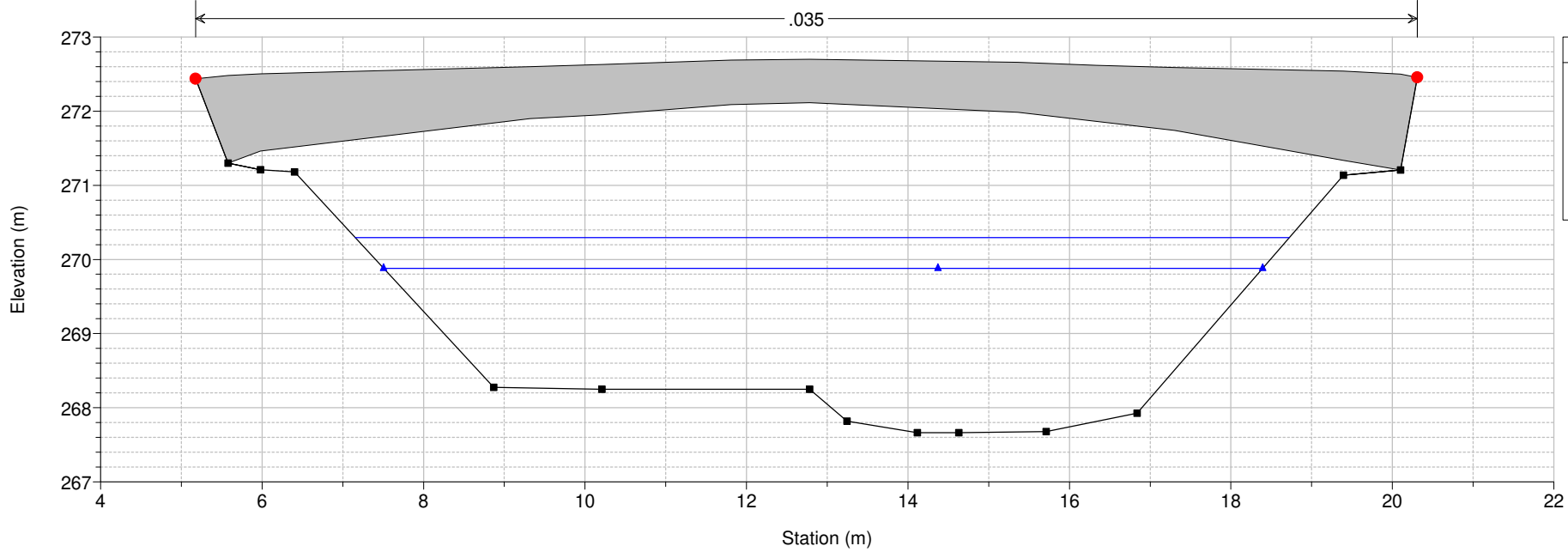


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

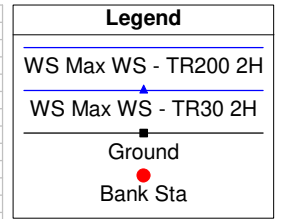
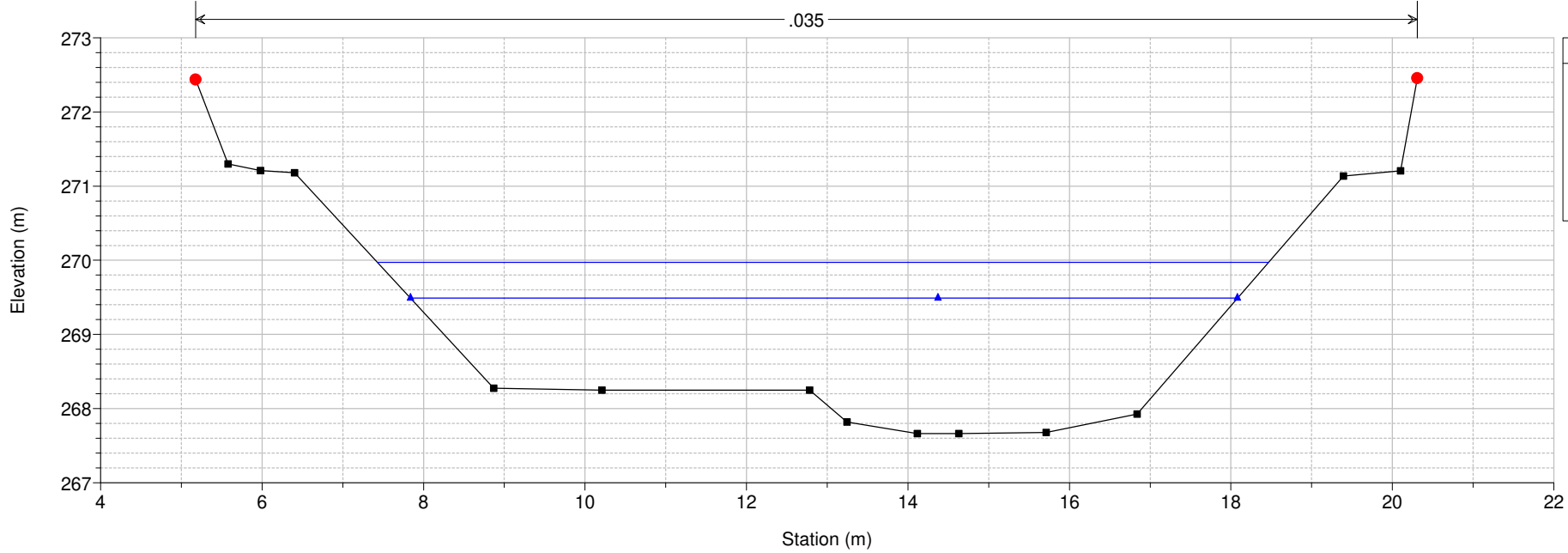
River = Sieve Reach = fiume sieve RS = 17.05 SIE017_A1



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
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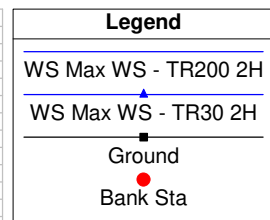
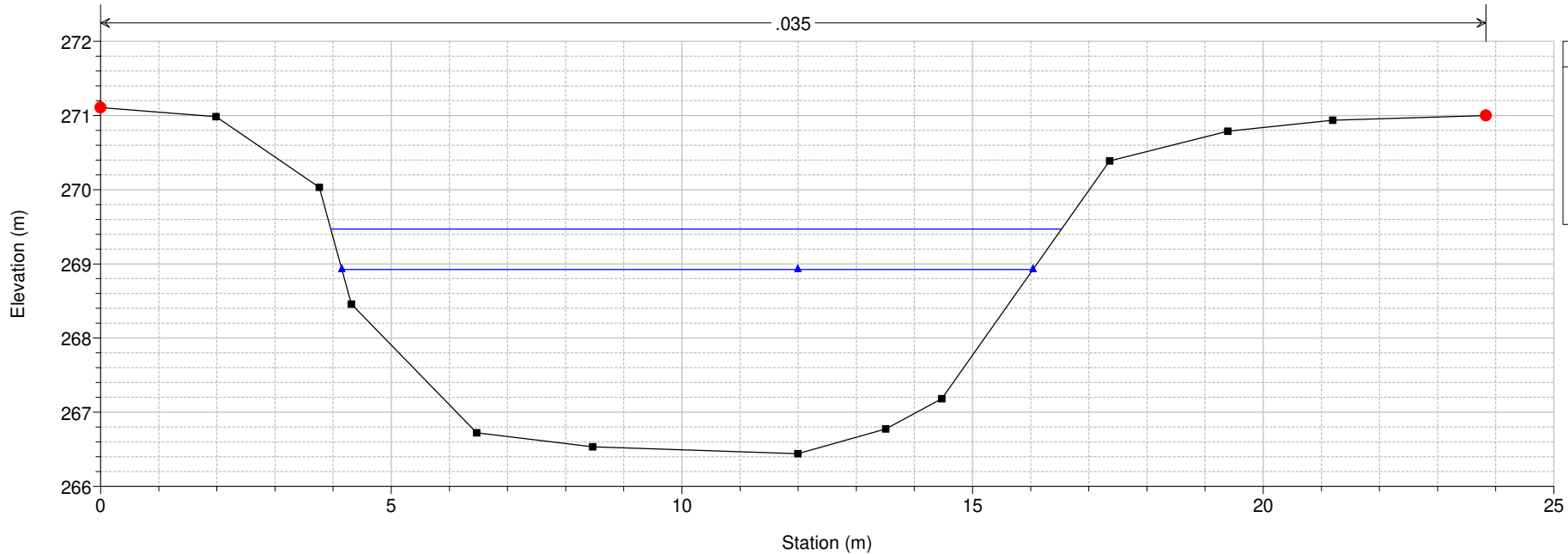


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 River = Sieve Reach = fiume sieve RS = 17 SIE017_A



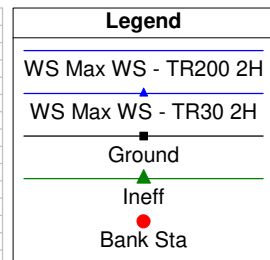
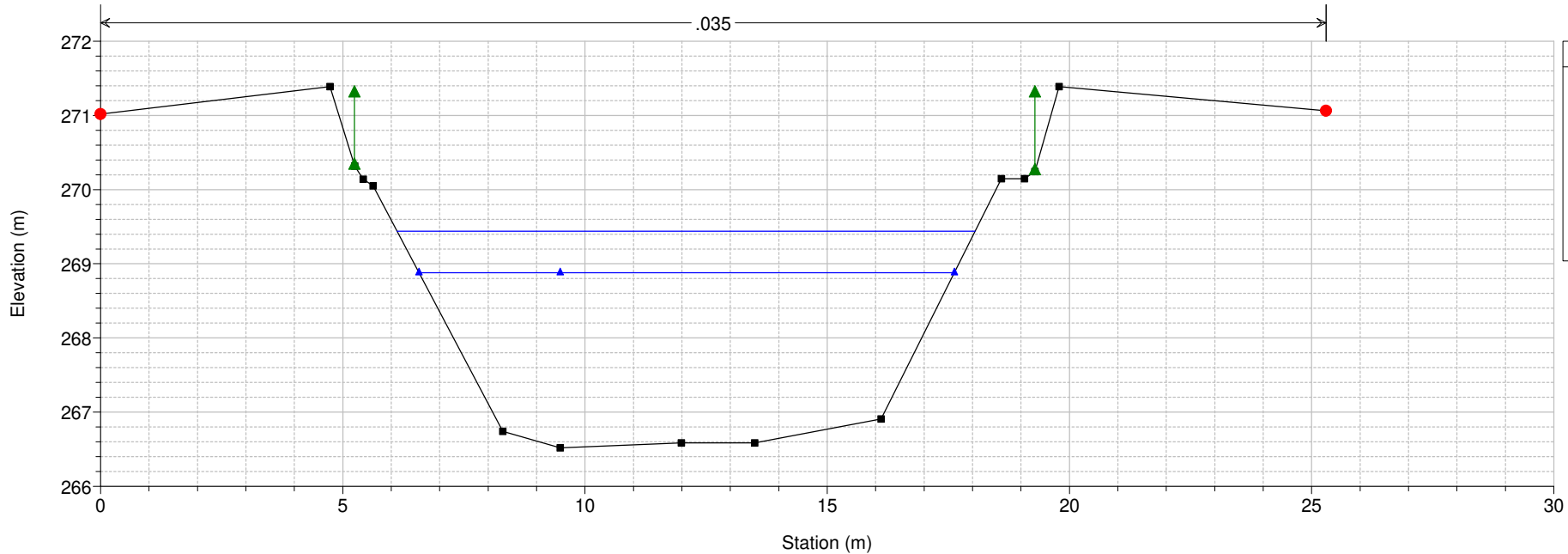
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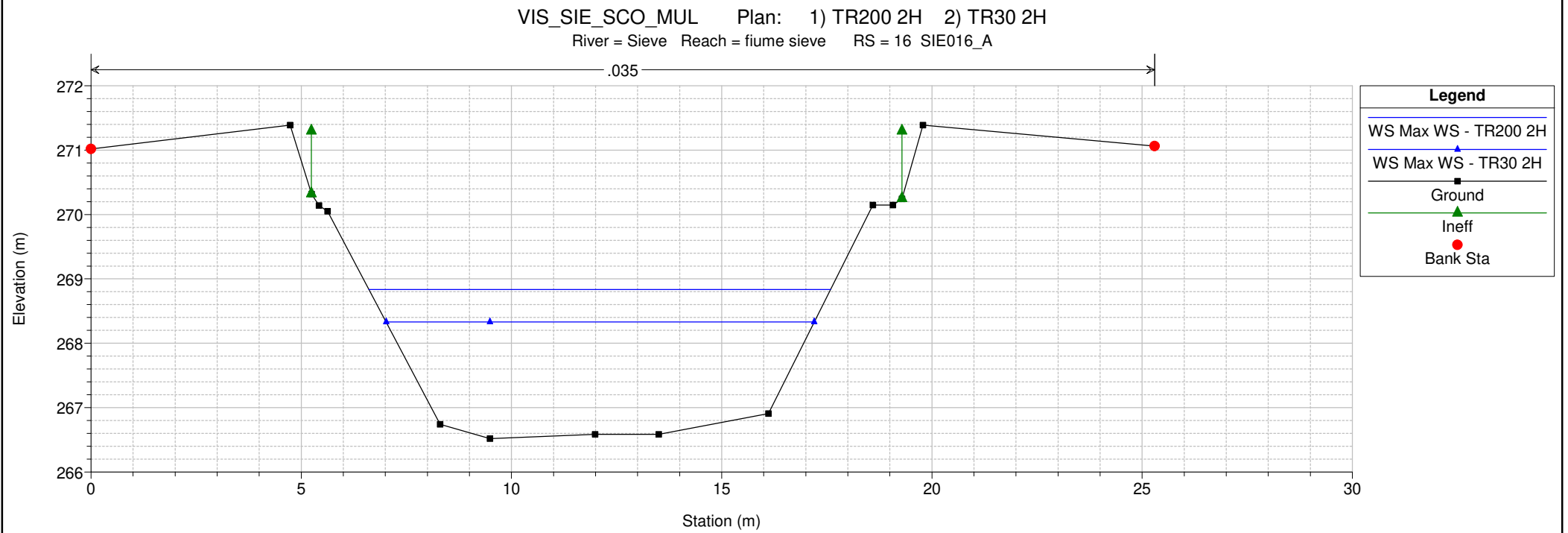
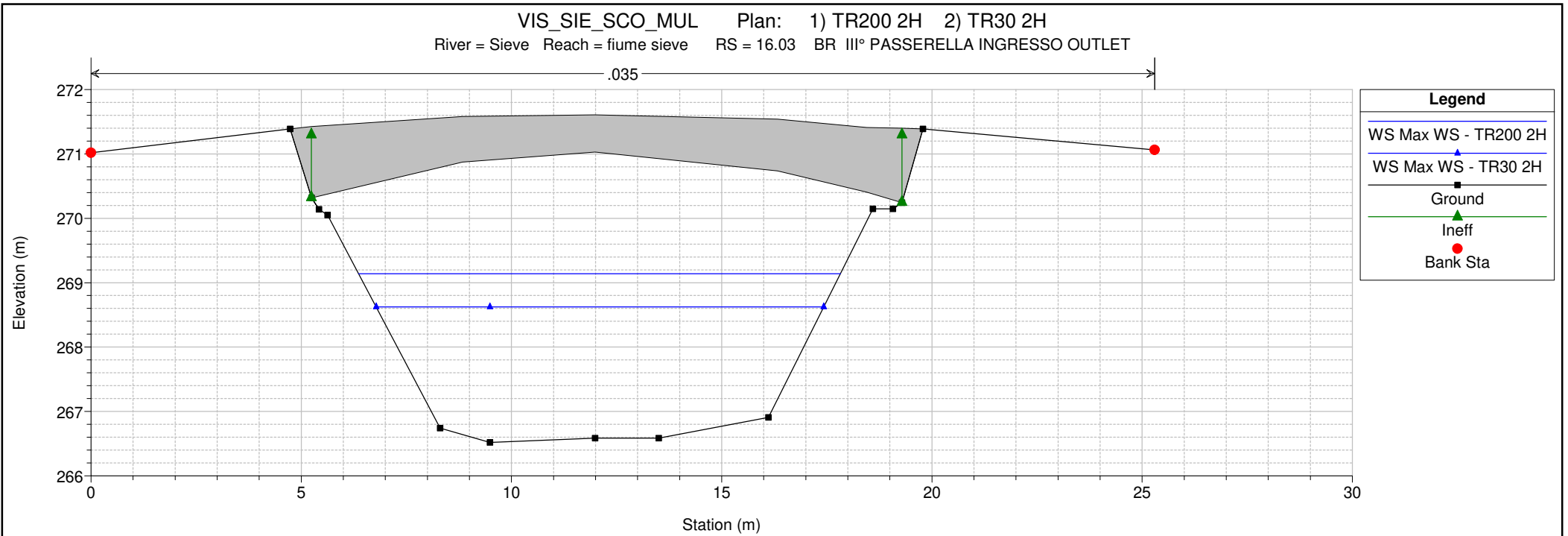
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VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

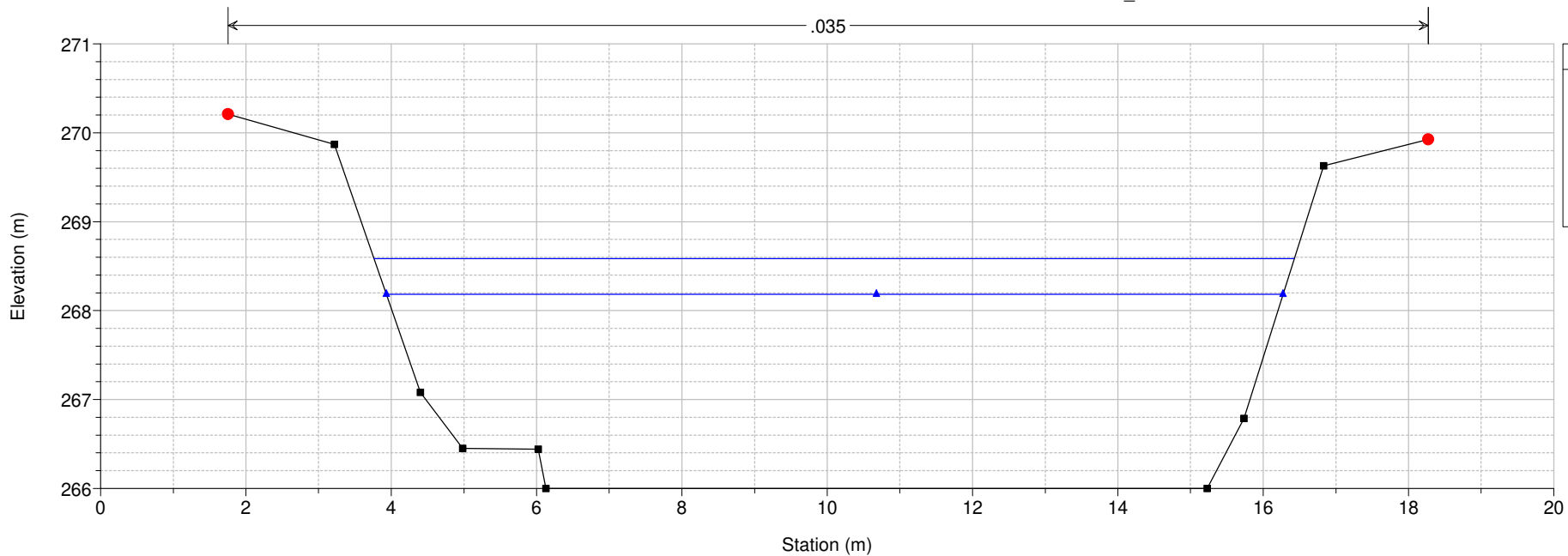
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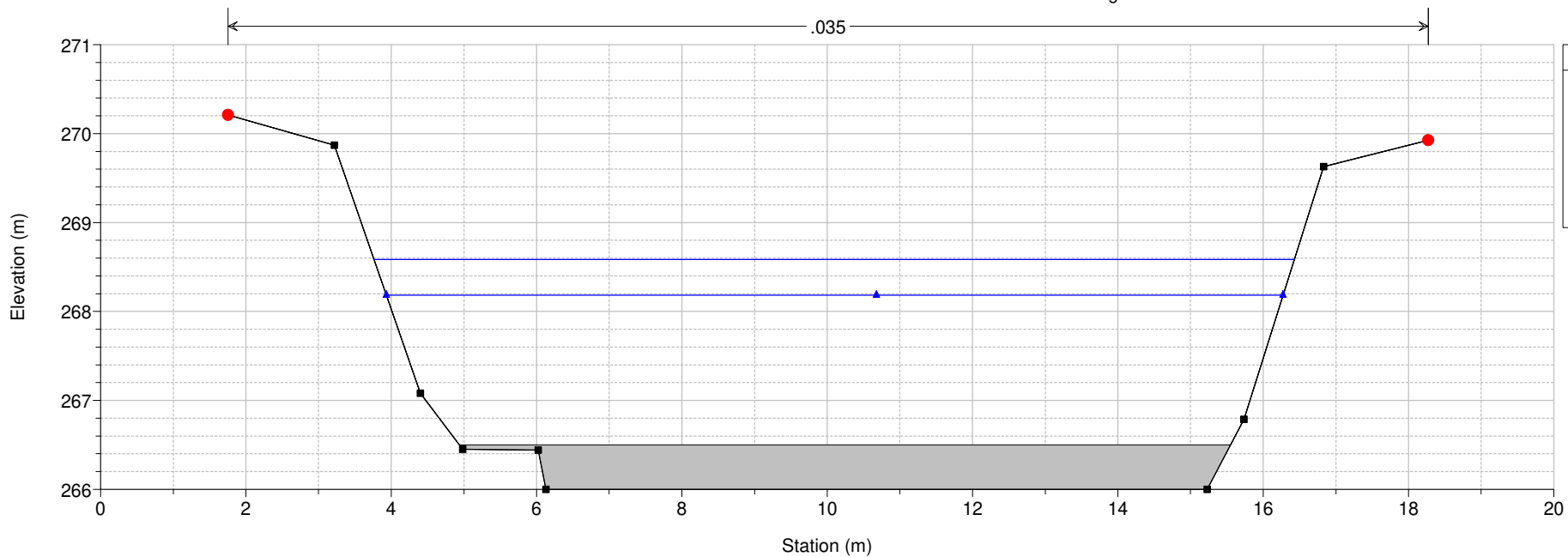
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 15.1 SIE015_B



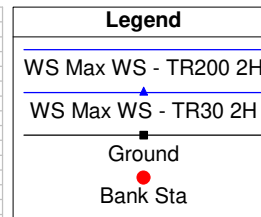
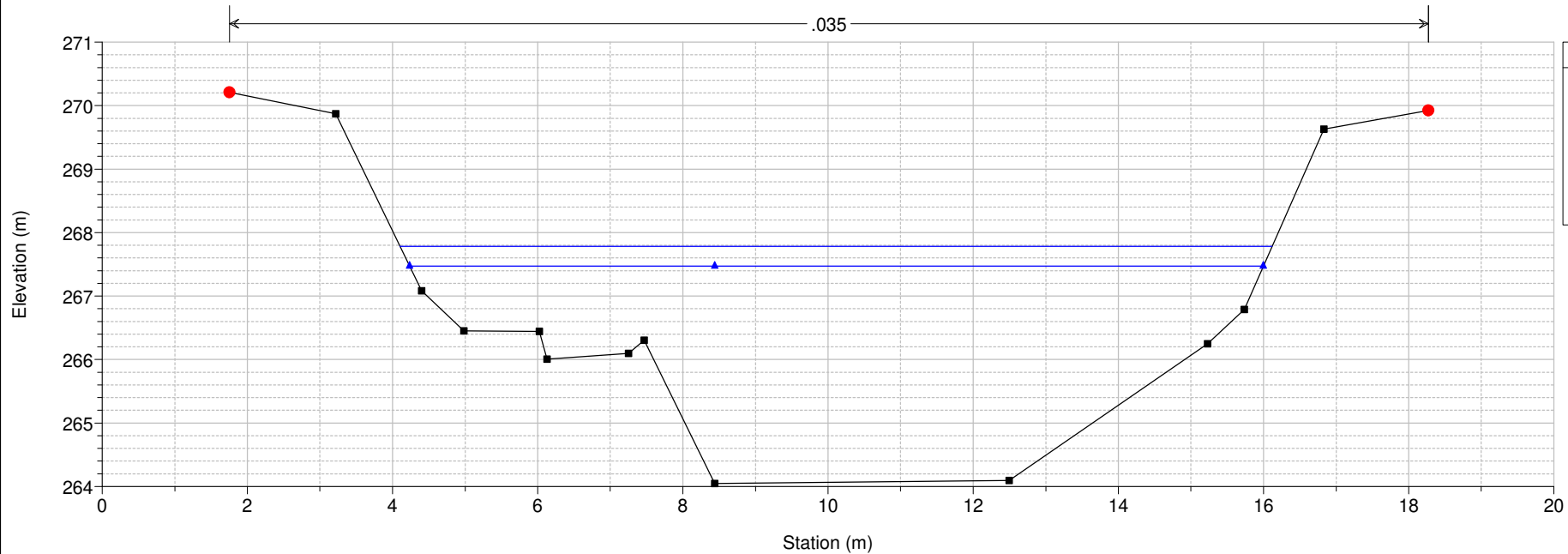
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River = Sieve Reach = fiume sieve RS = 15.05 IS briglias 15



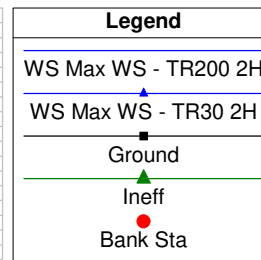
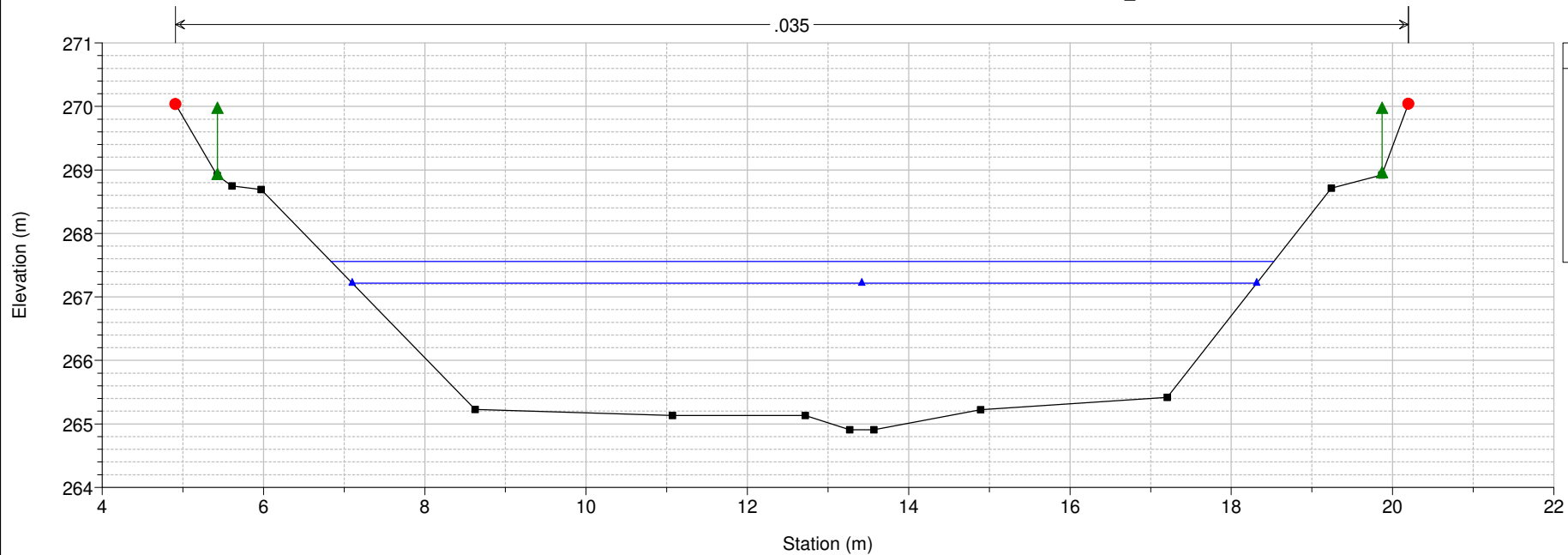
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 15 SIE015_A

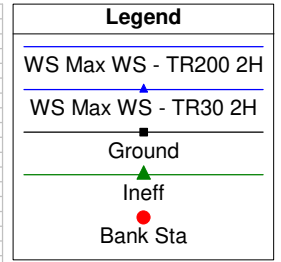
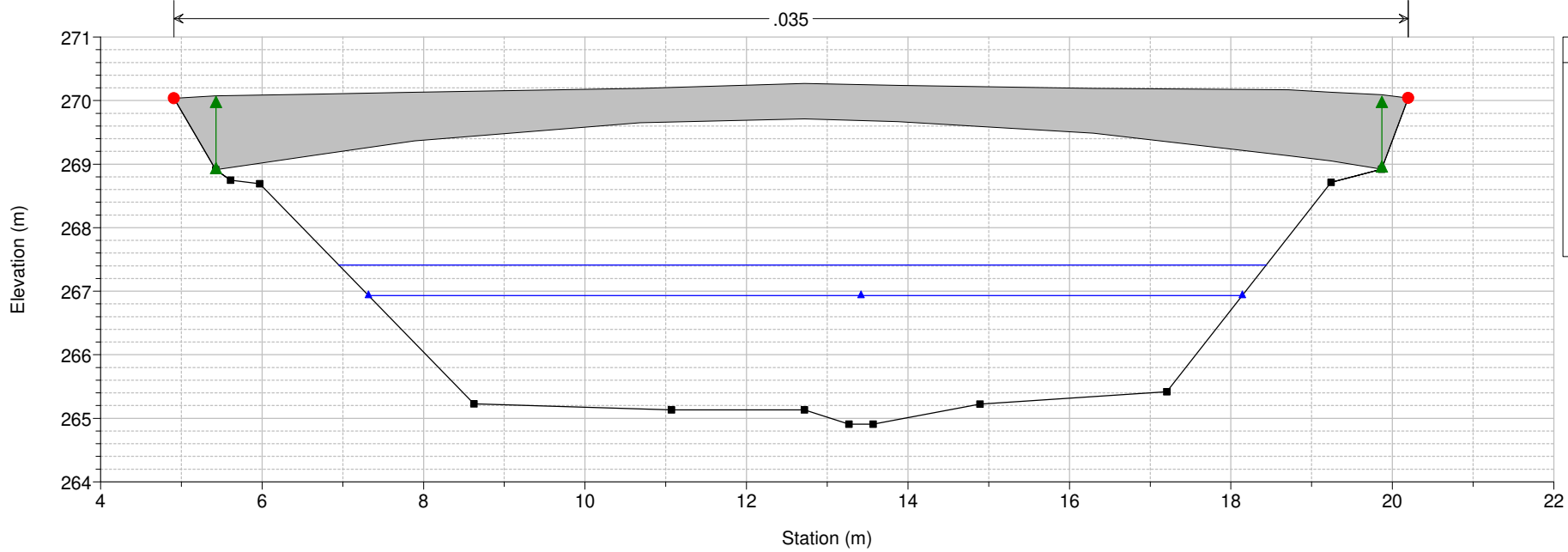


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

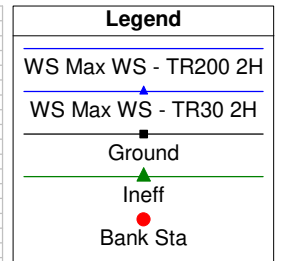
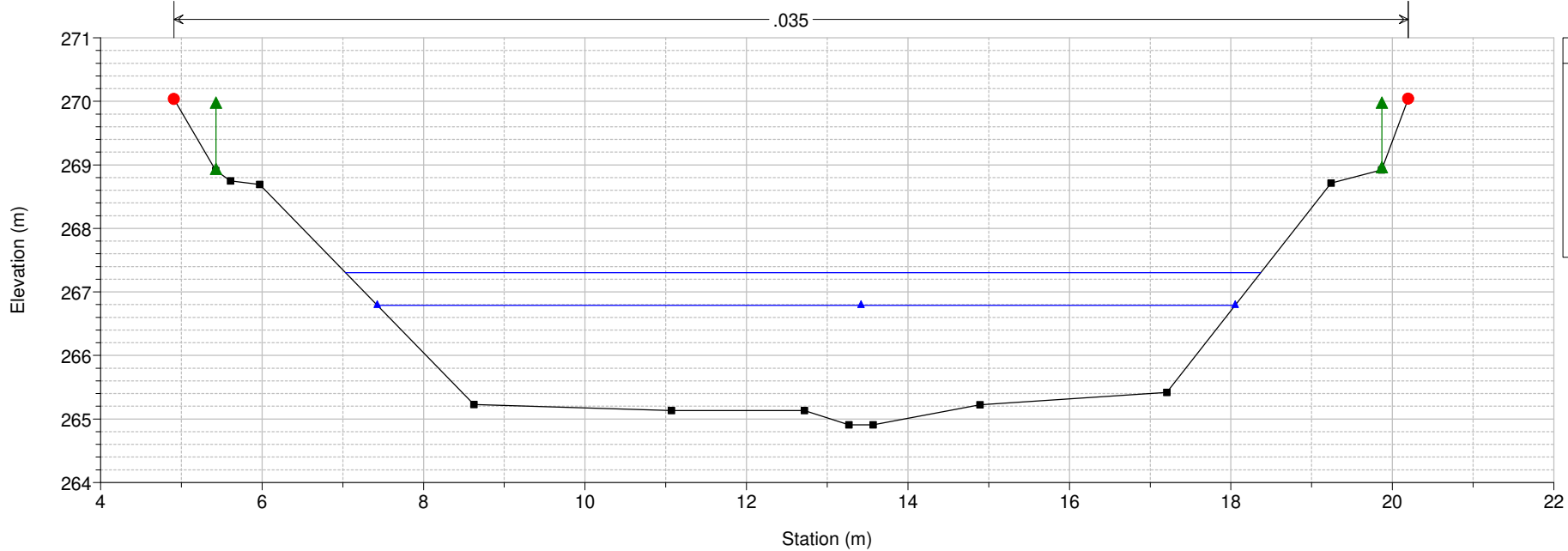
River = Sieve Reach = fiume sieve RS = 14.1 SIE014_A



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = Sieve Reach = fiume sieve RS = 14.05 BR II° PASSERELLA INGRESSO OUTLET

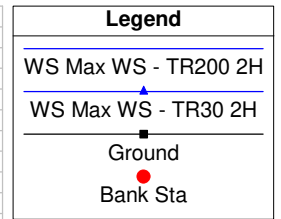
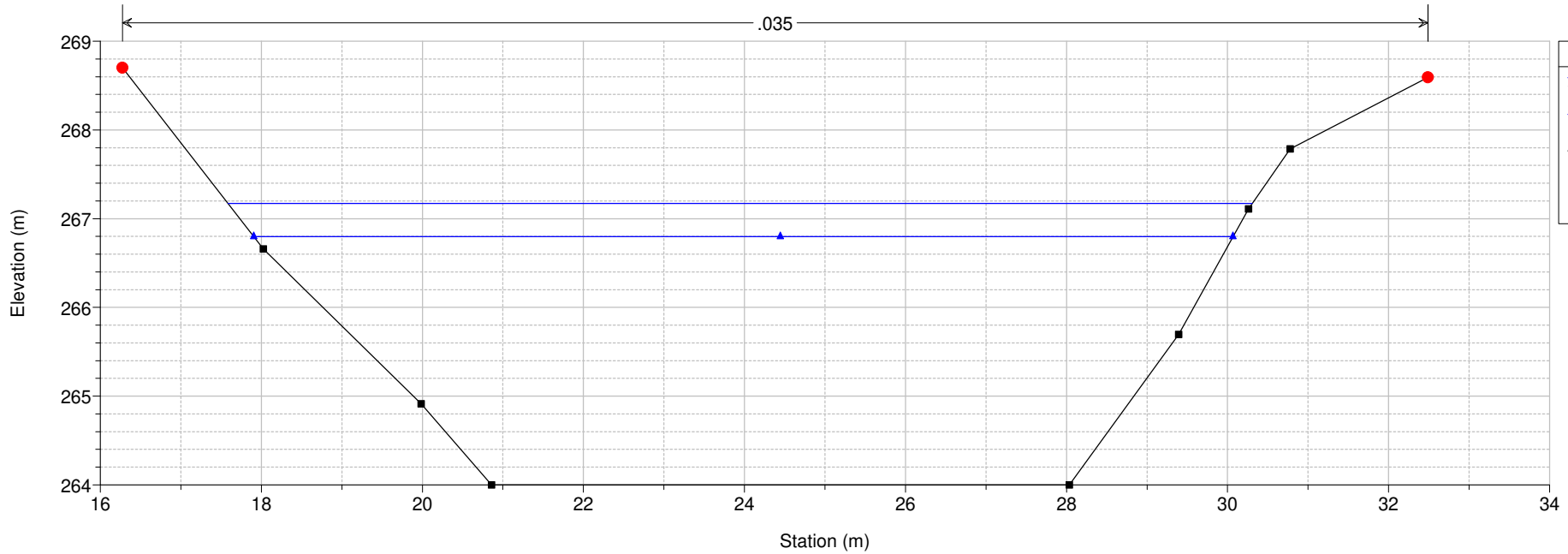


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = Sieve Reach = fiume sieve RS = 14 SIE014_A



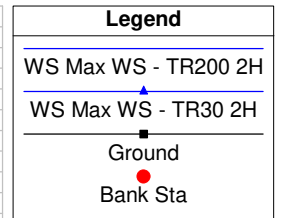
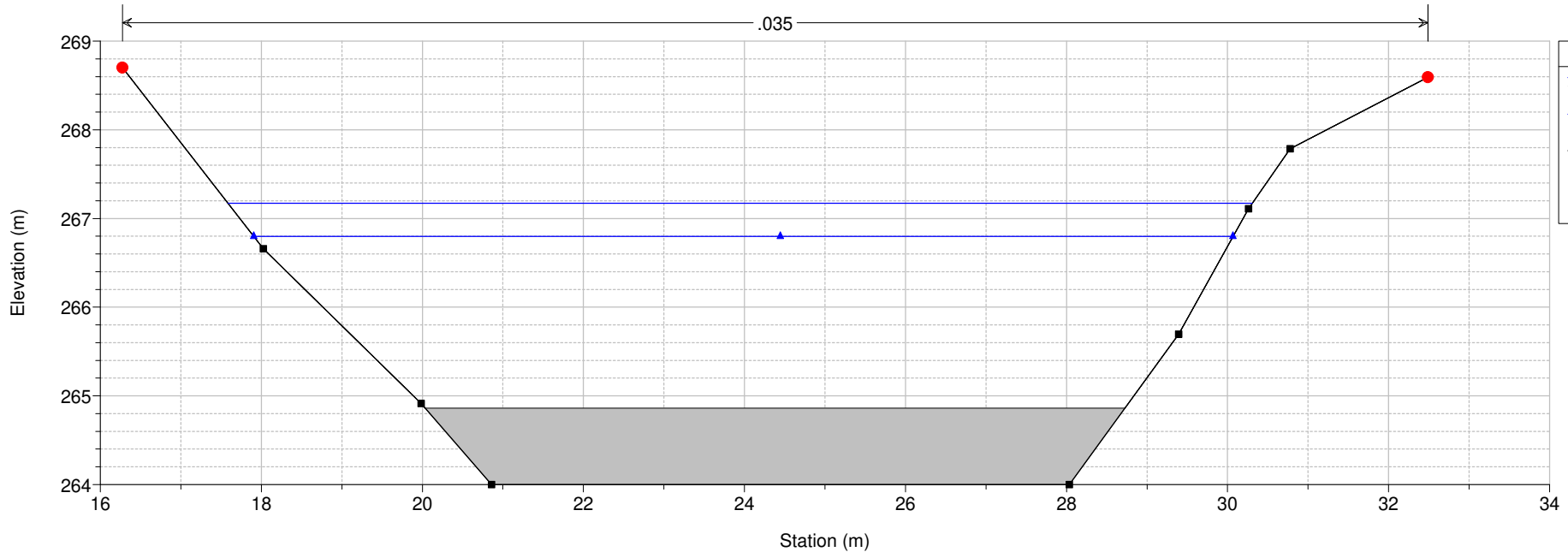
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 13.1 SIE013_B



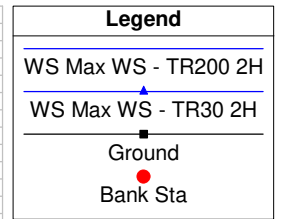
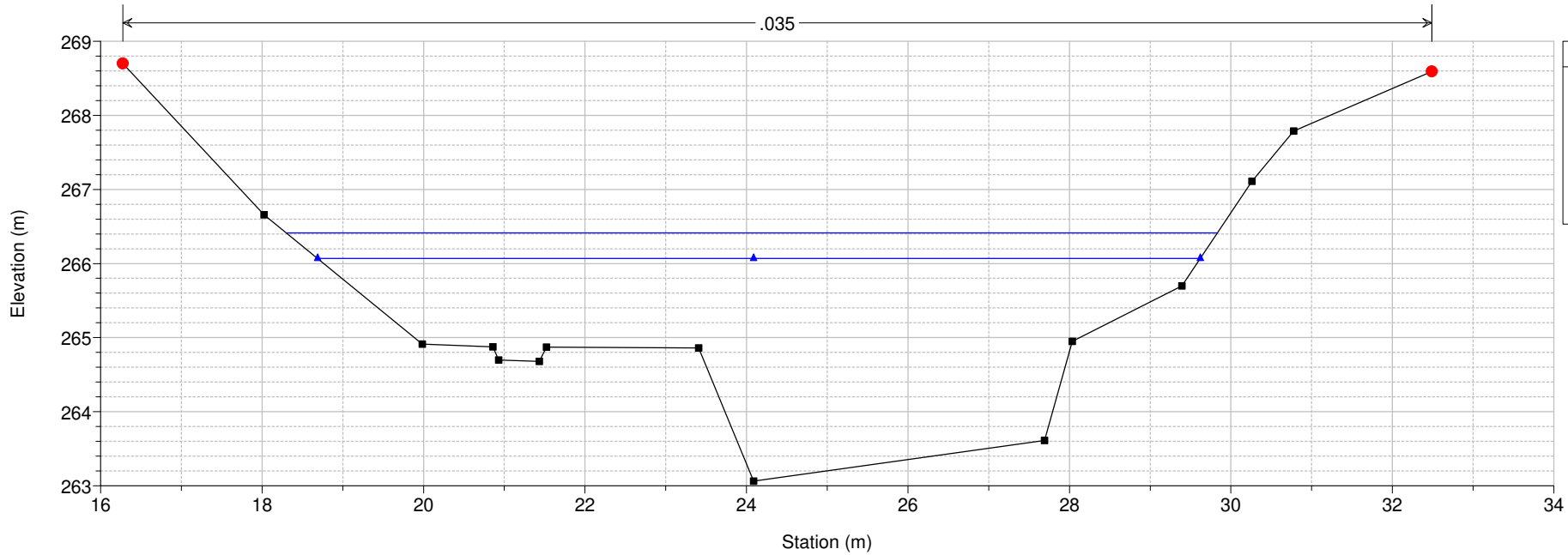
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 13.05 IS briglia 13



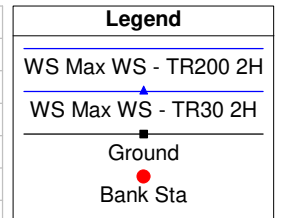
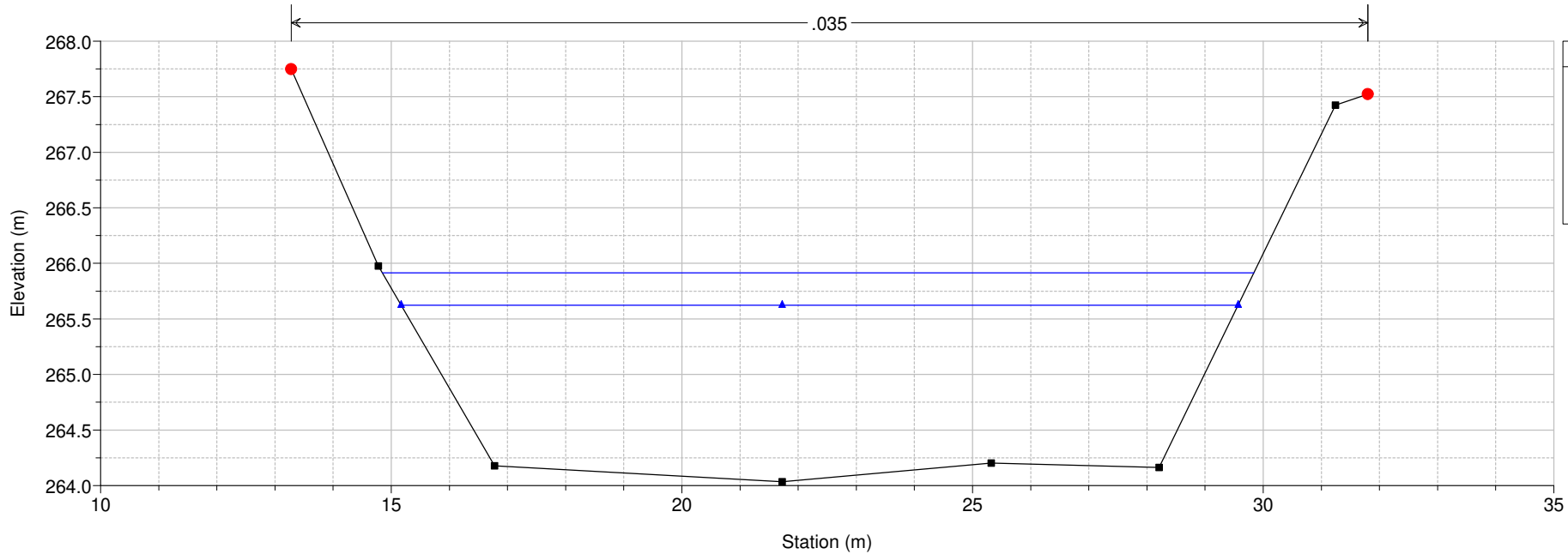
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 13 SIE013_A



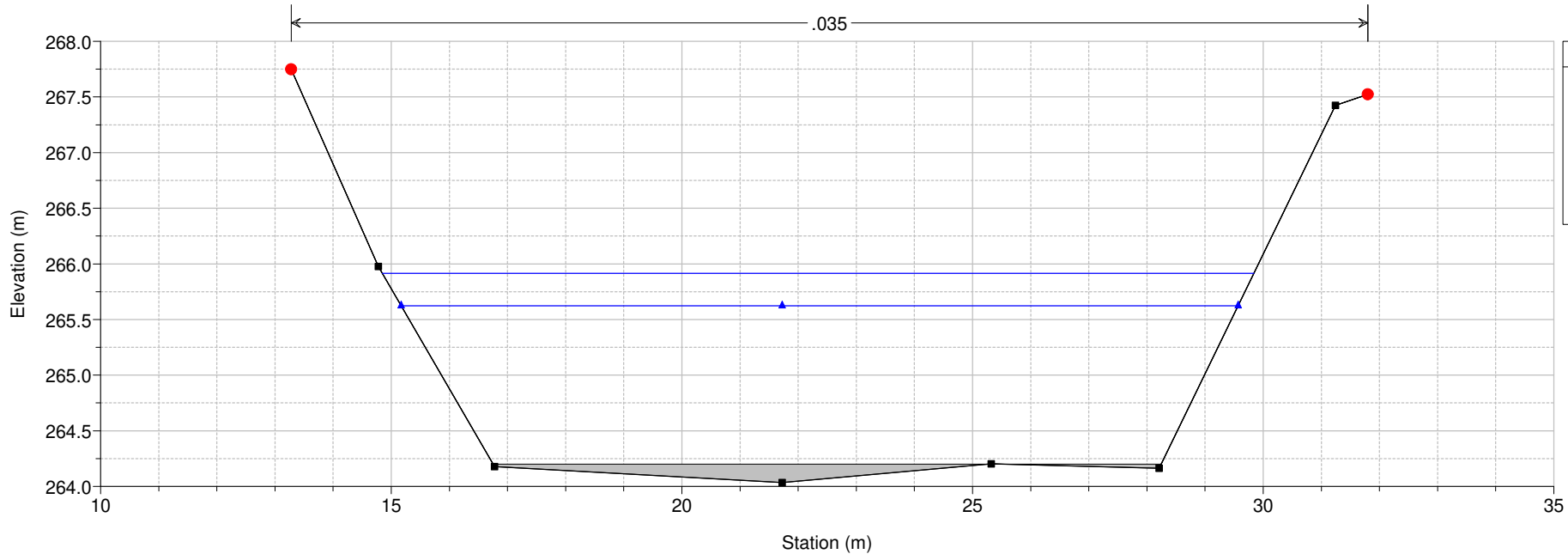
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 12.2 SIE012_C



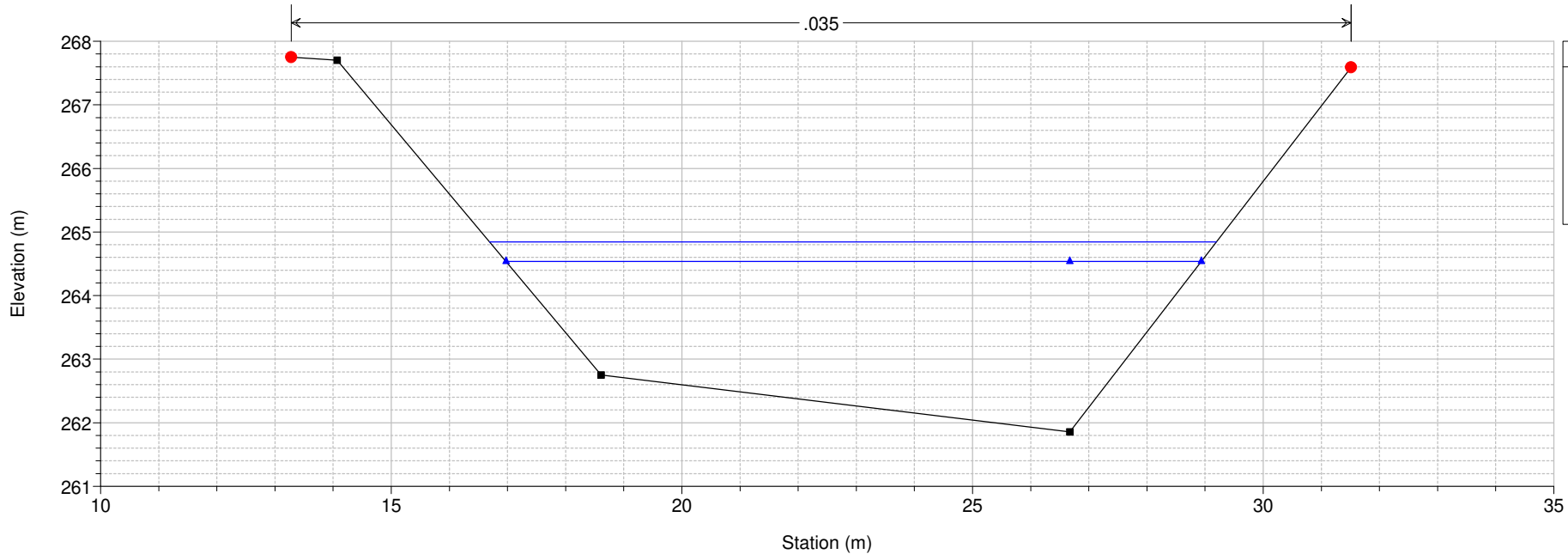
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 12.15 IS



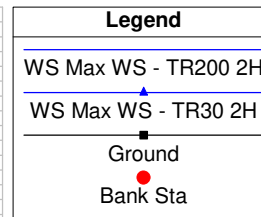
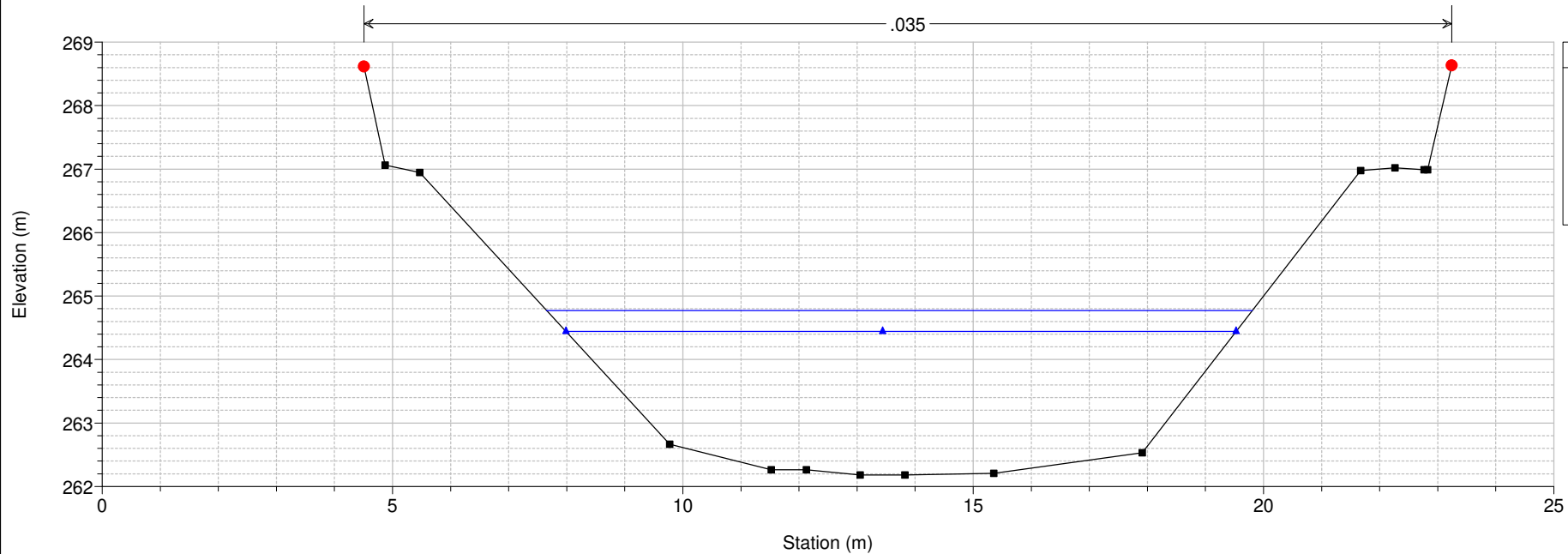
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 12.1 SIE012_B

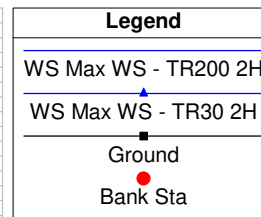
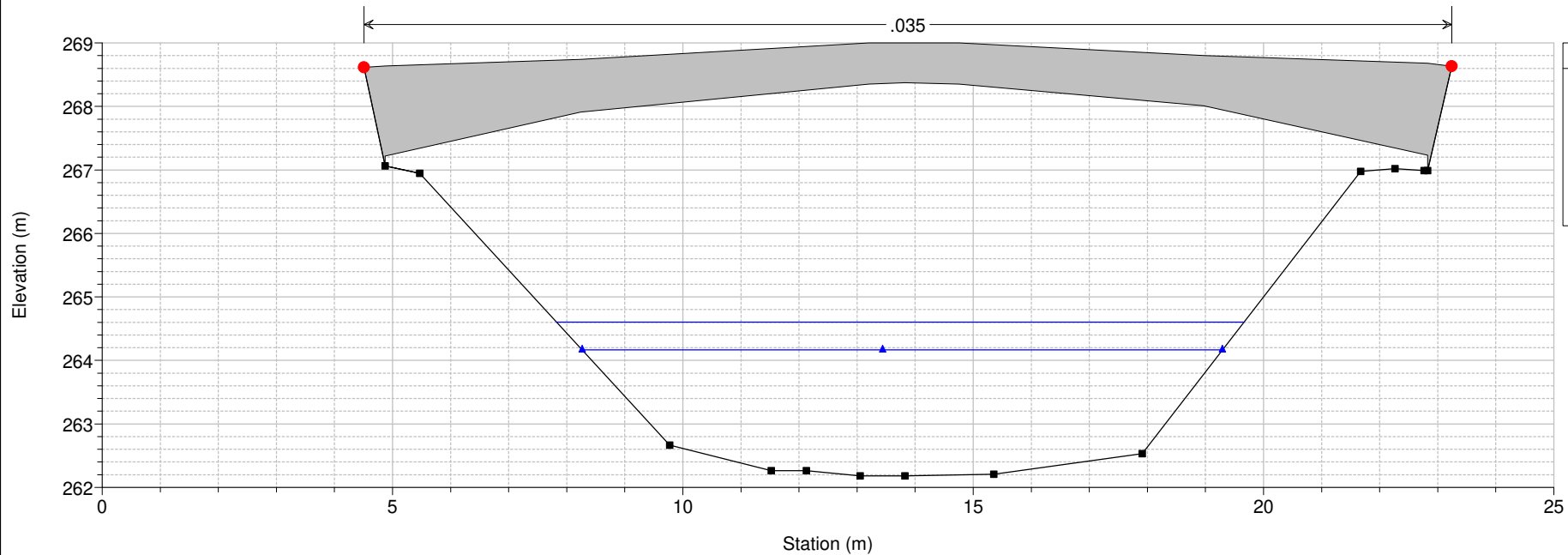


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 12.05 SIE012_A1

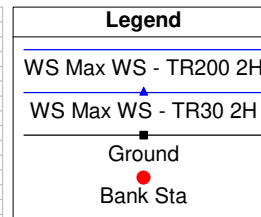
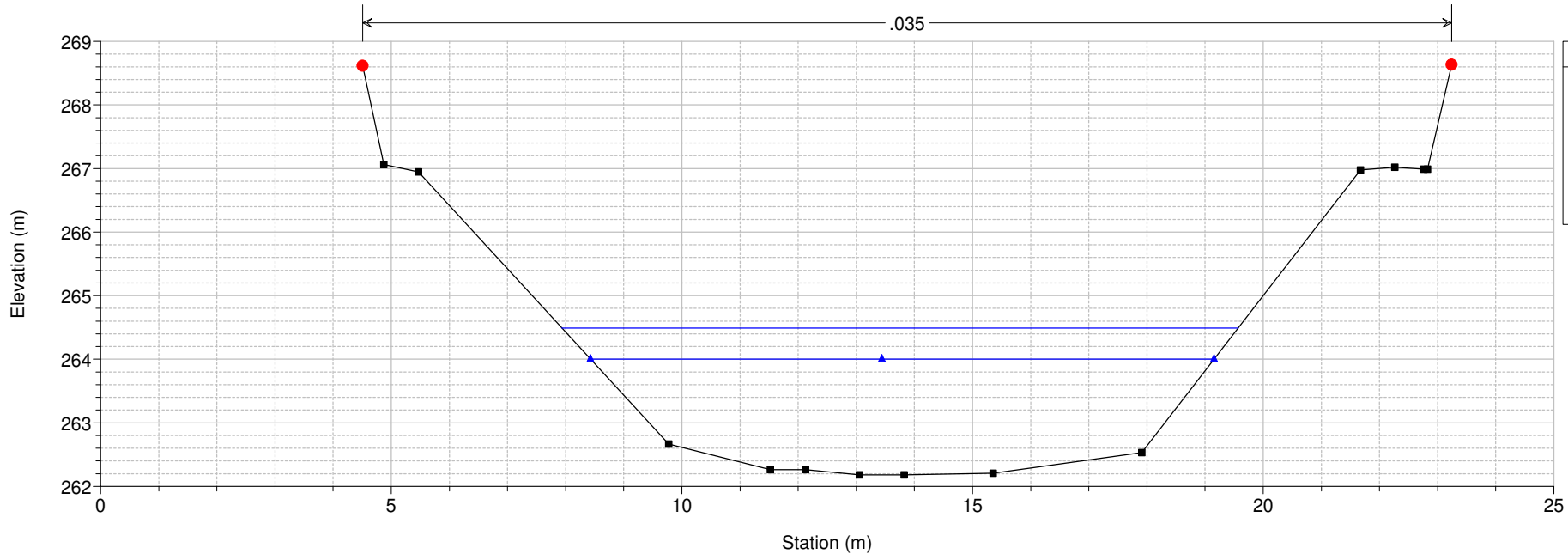


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
River = Sieve Reach = fiume sieve RS = 12.03 BR 1° PASSERELLA INGRESSO OUTLET



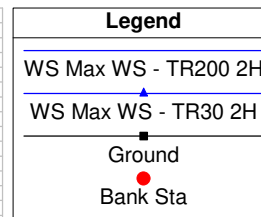
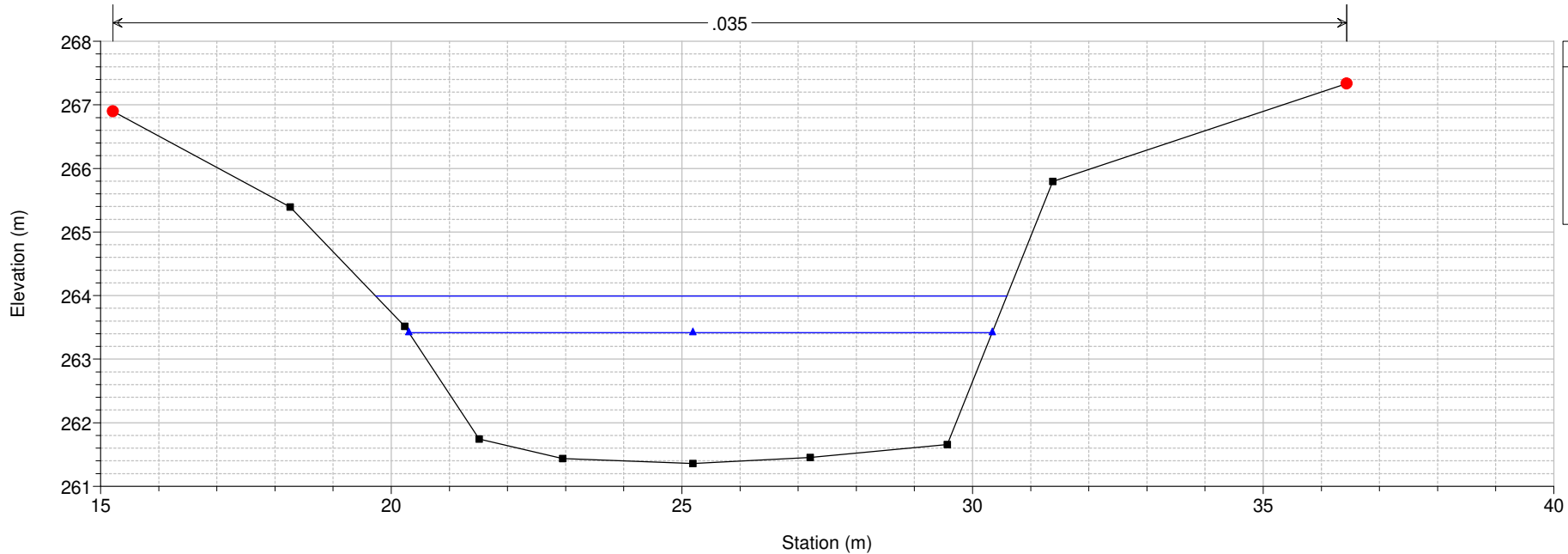
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 12 SIE012_A



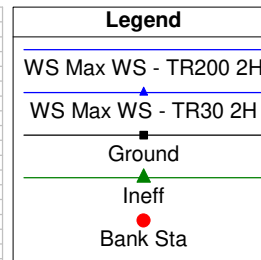
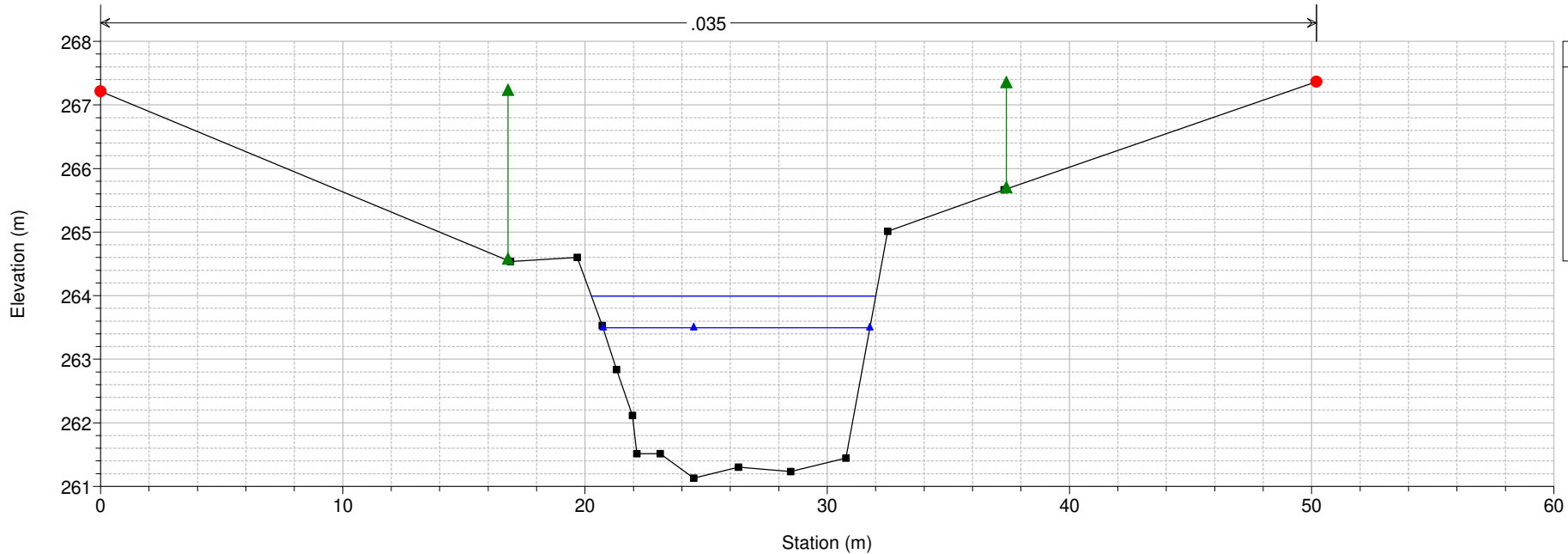
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 11.1 SIE011_B



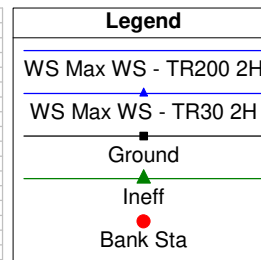
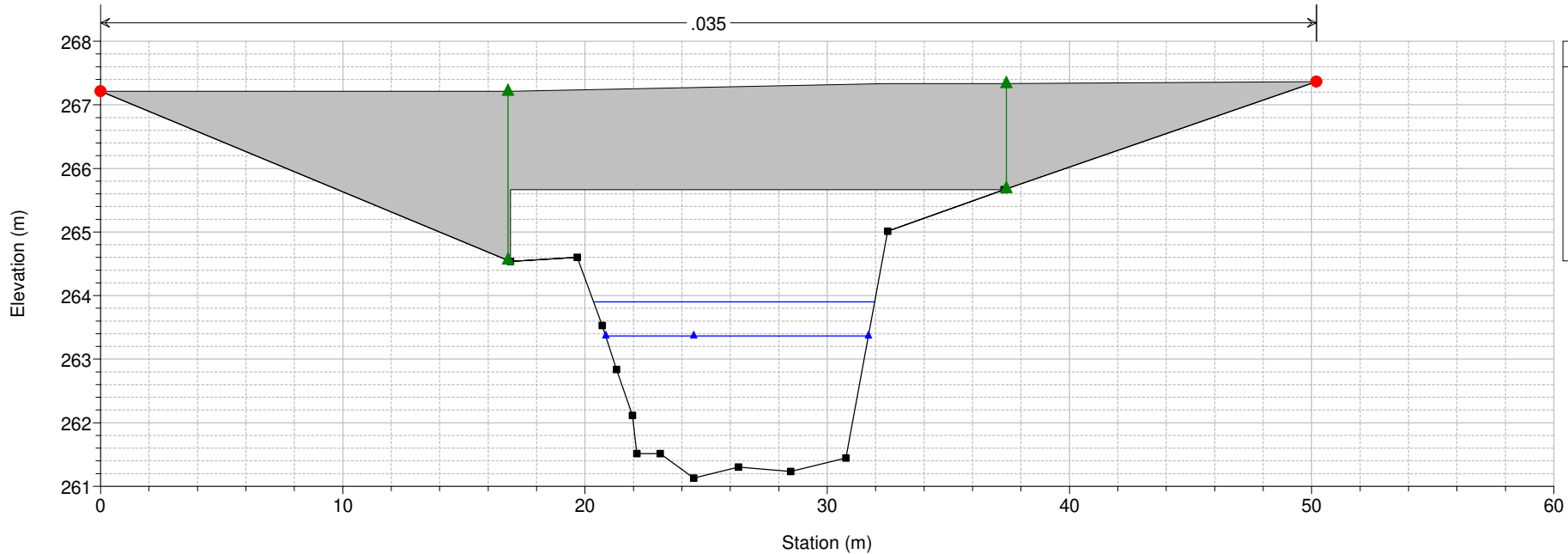
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 11 SIE011_A



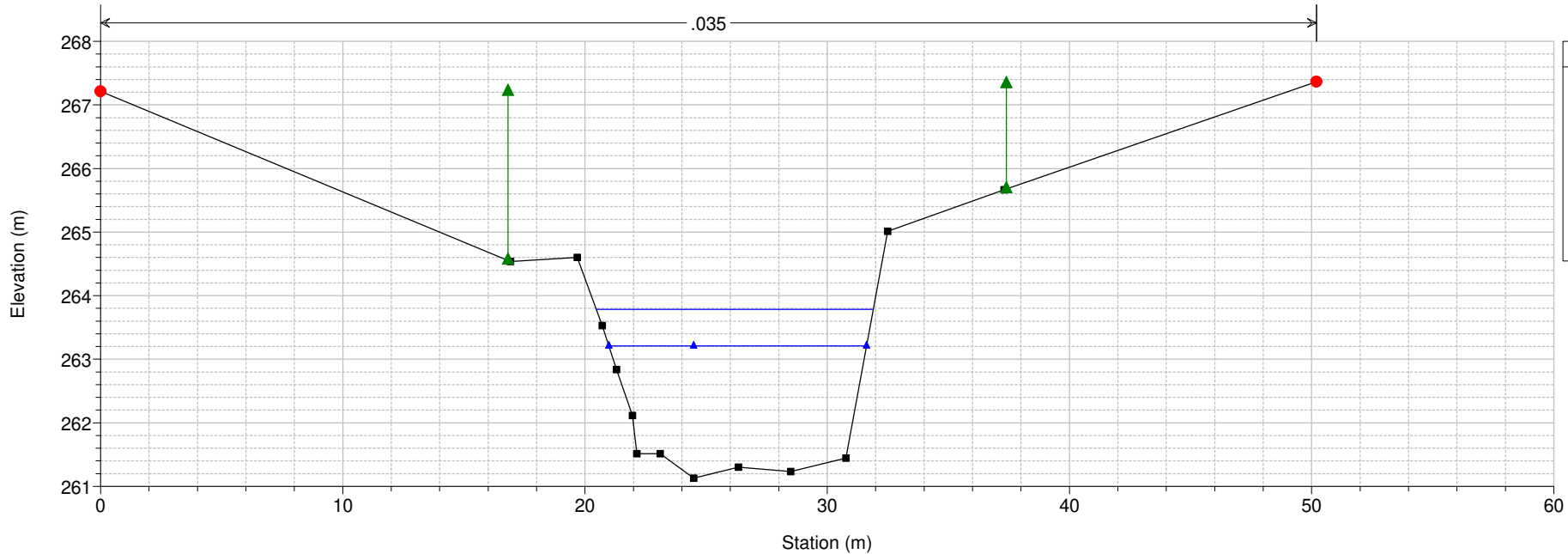
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 10.8 BR ponte parcheggio Outlet



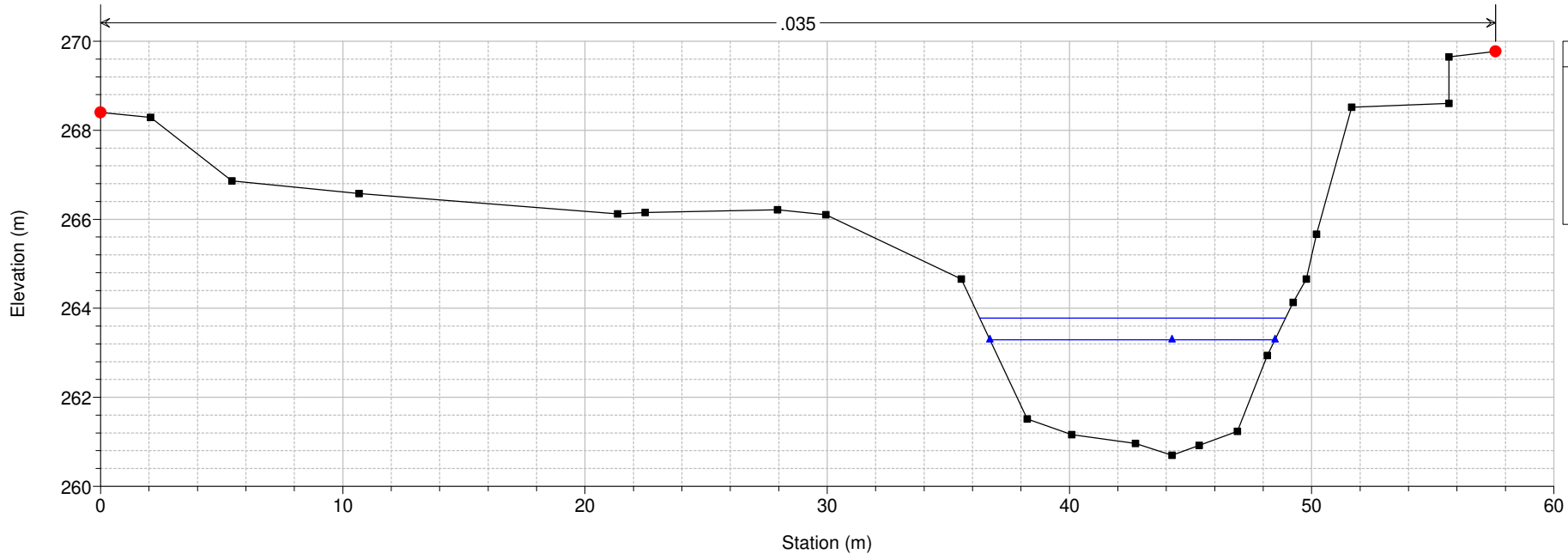
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 10.5 SIE011_A1



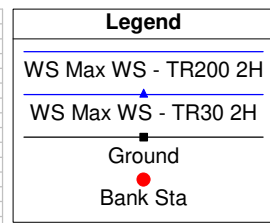
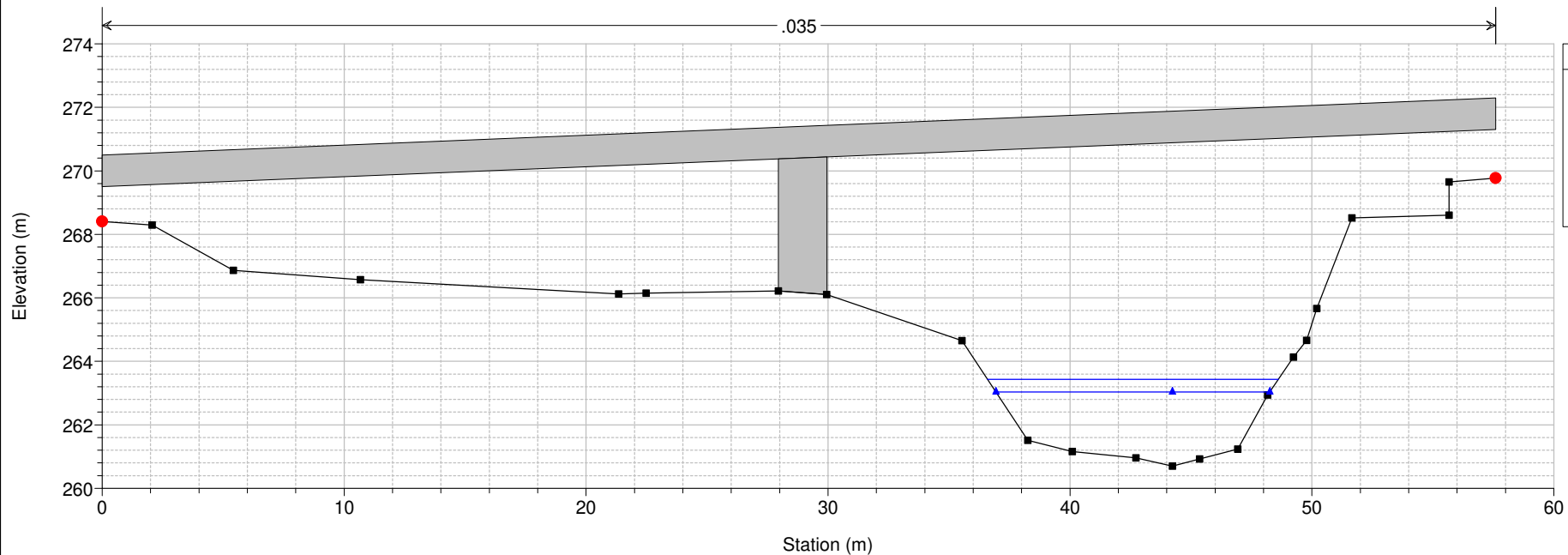
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 10 SIE010_A



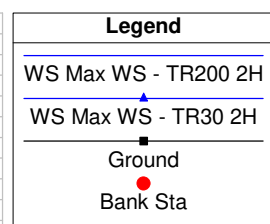
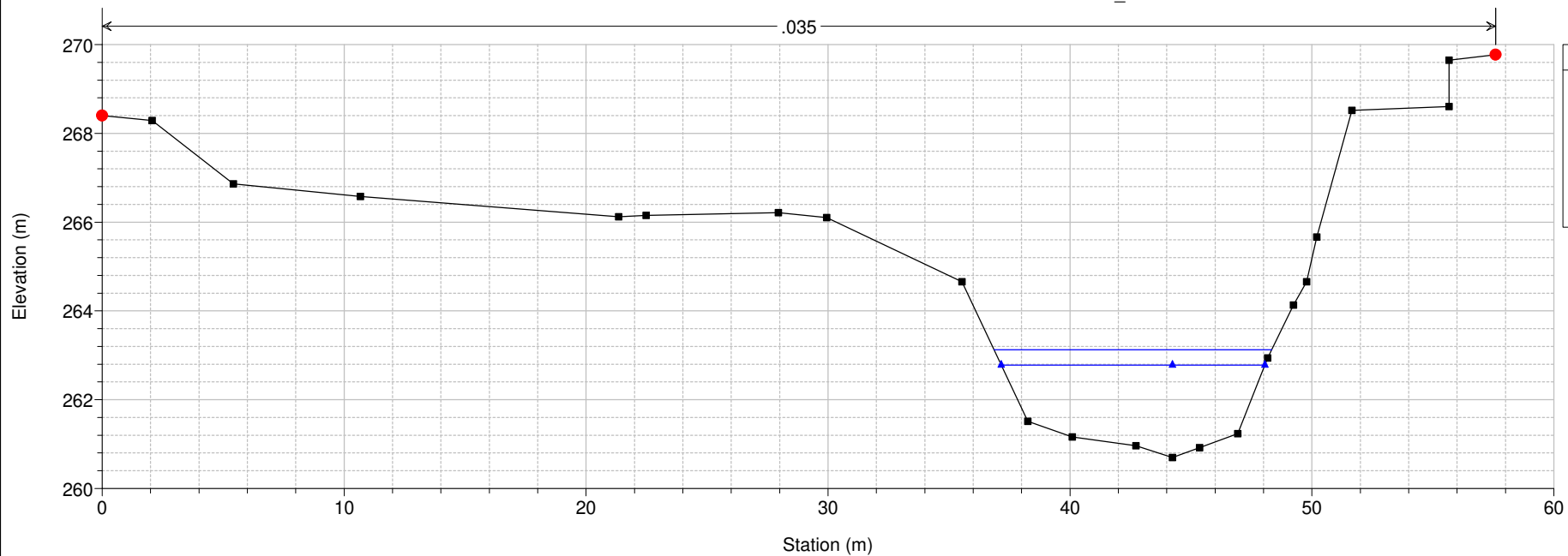
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 9.8 BR



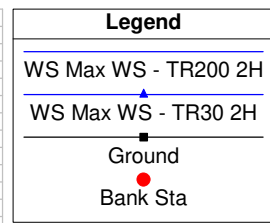
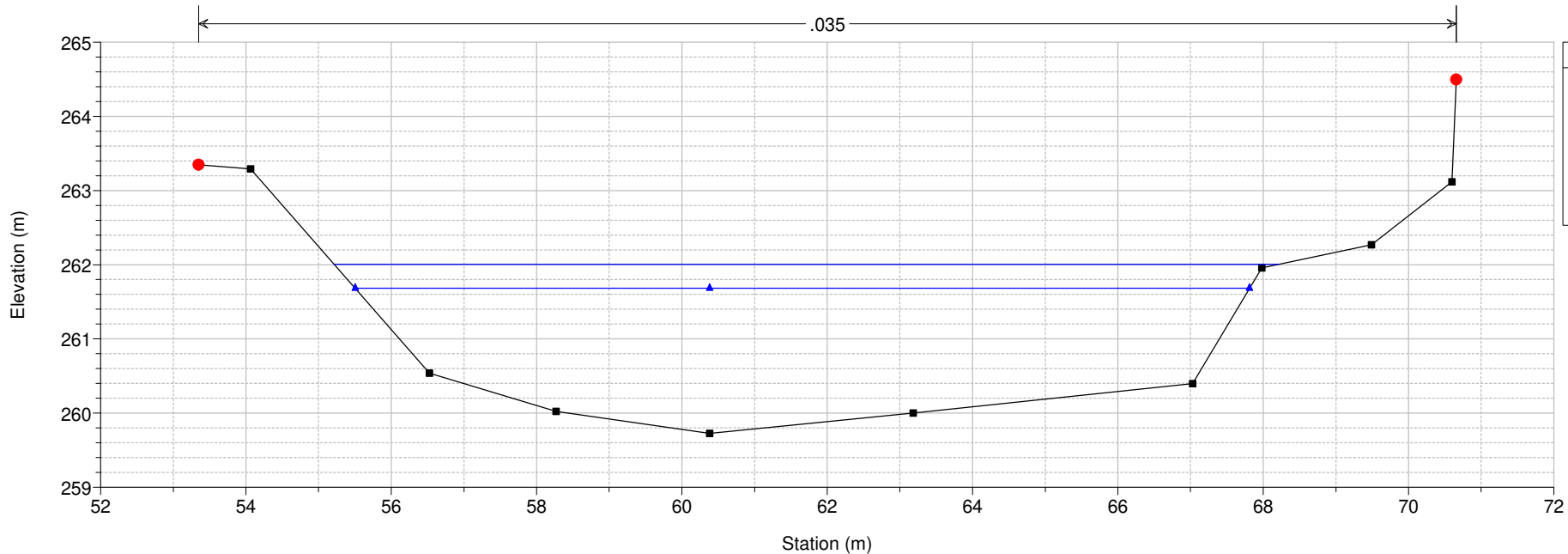
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 9.5 SIE010_A1



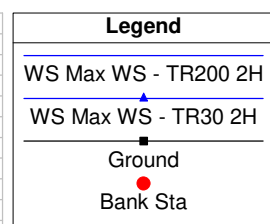
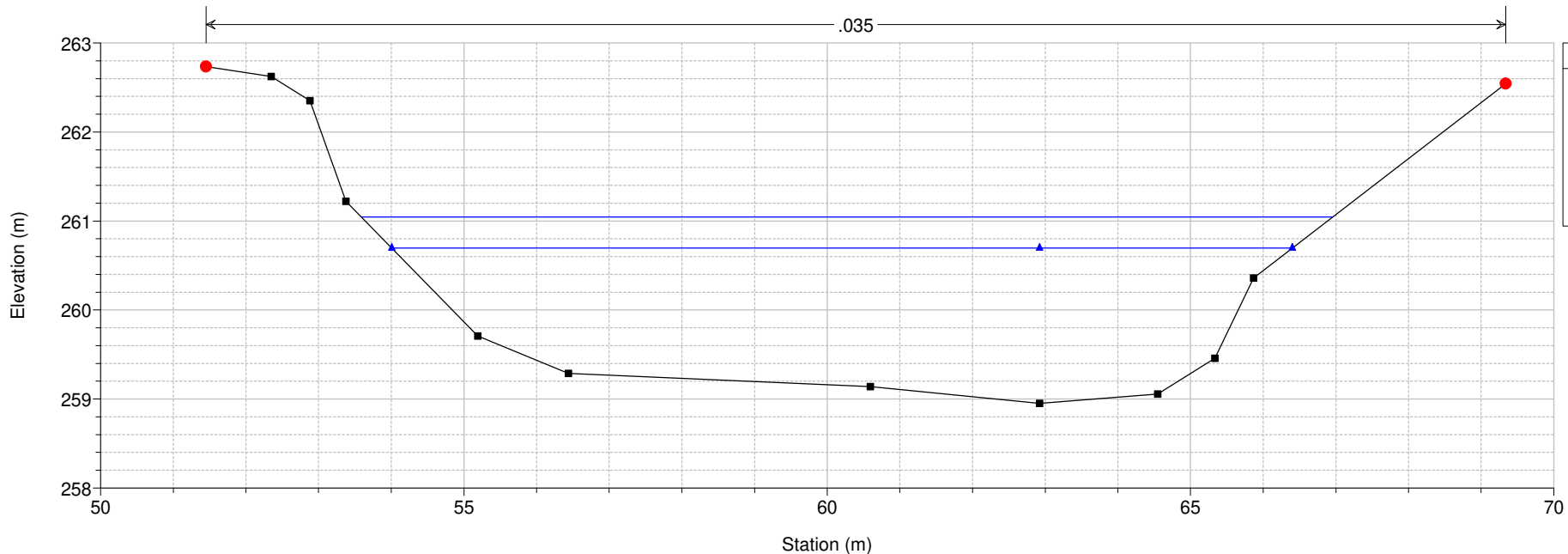
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 9 SIE009



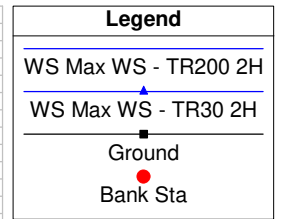
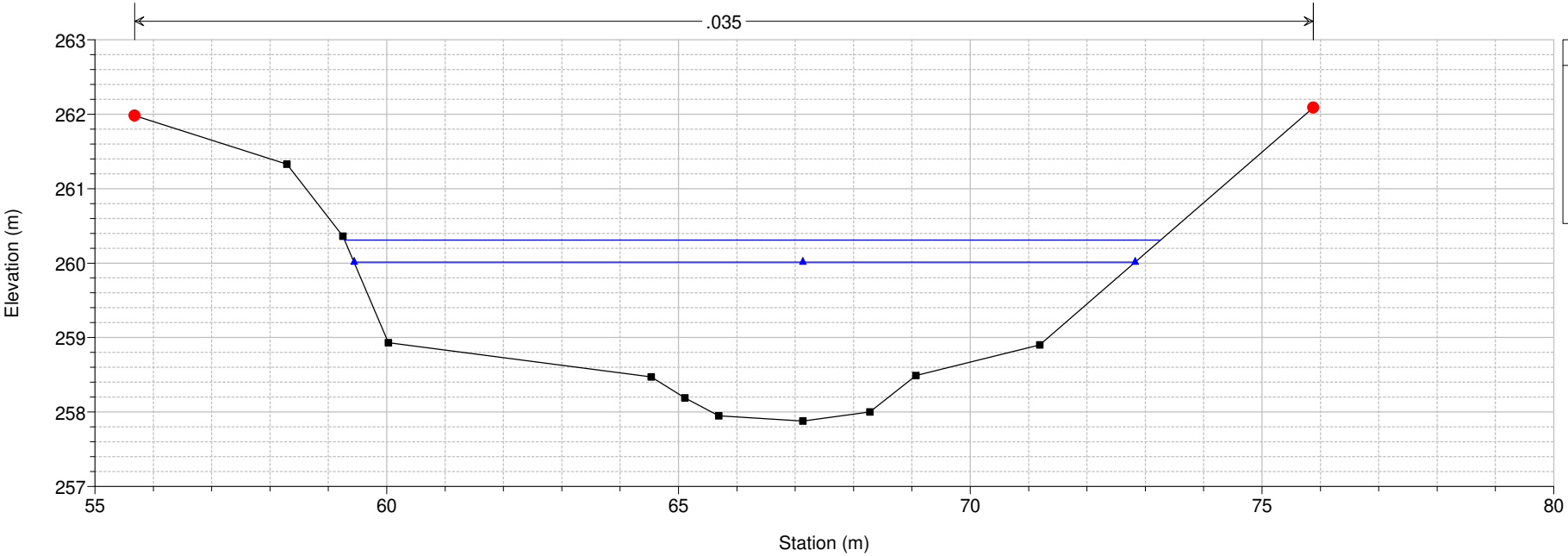
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 8 SIE008



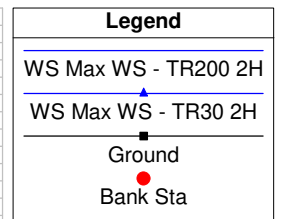
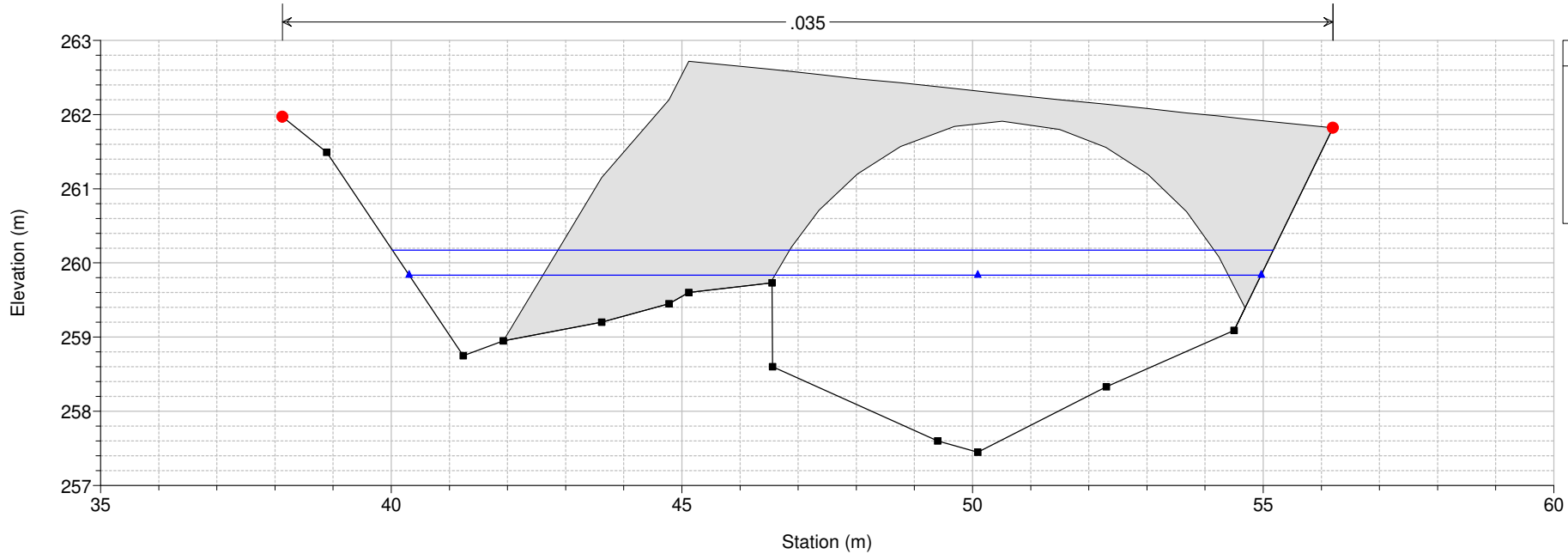
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 7.2 SIE007_C



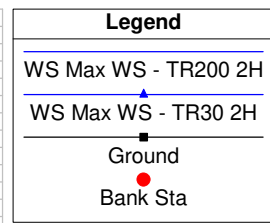
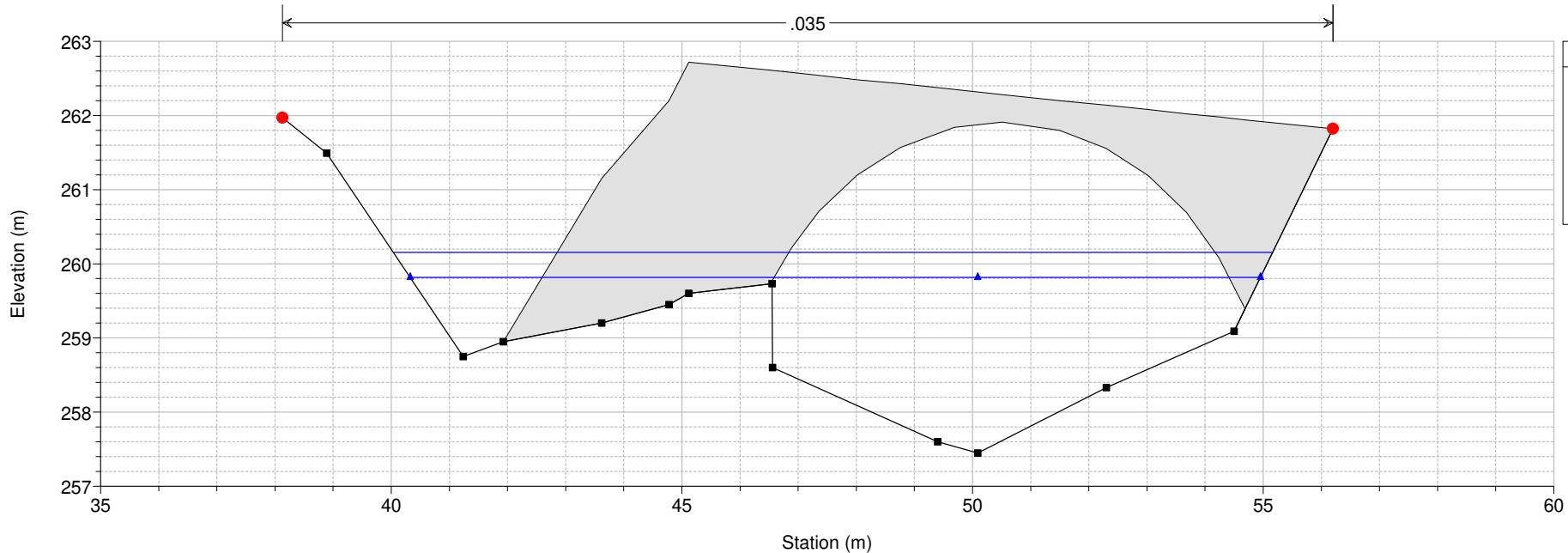
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 7.1 SIE007_B



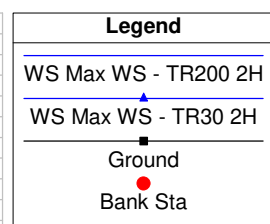
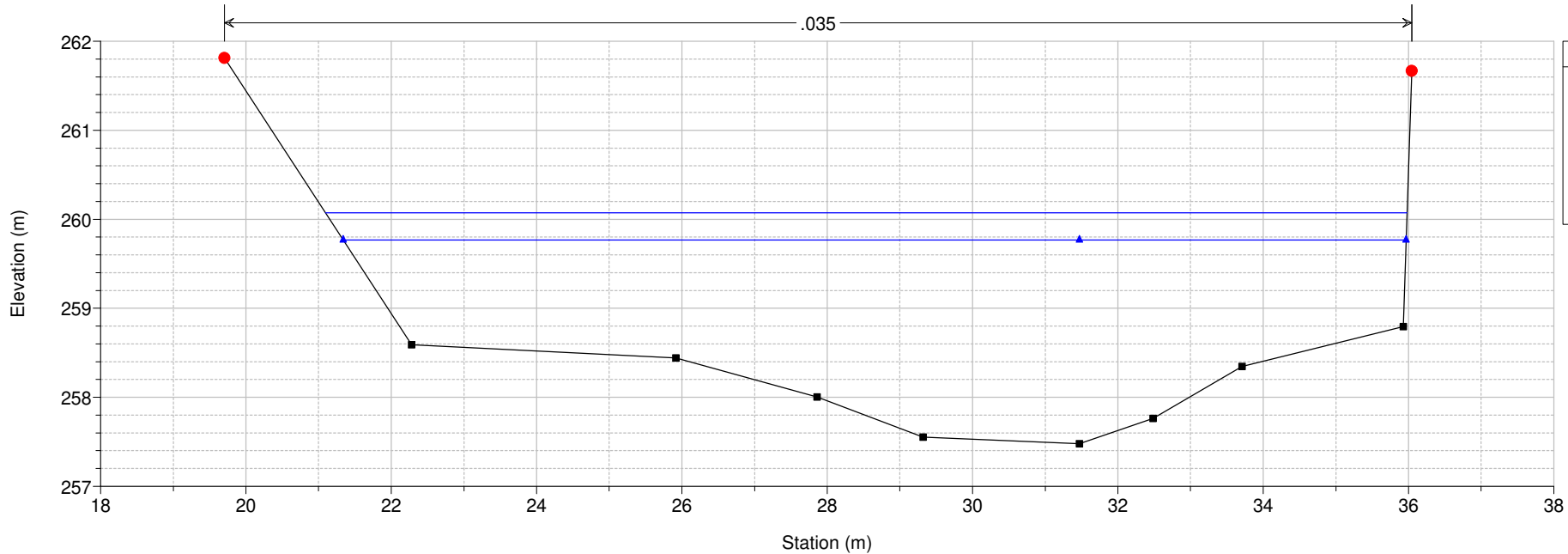
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 7.05 SIE007_B



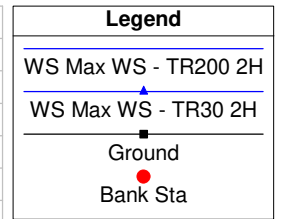
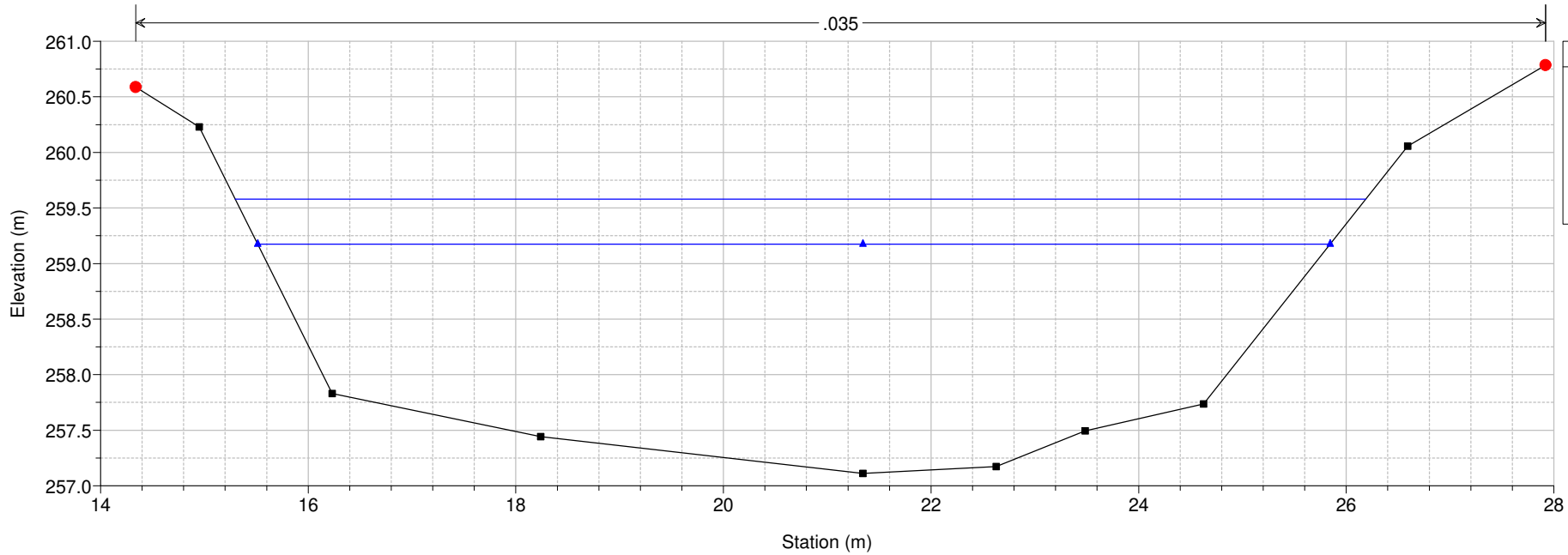
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 7 SIE007_A



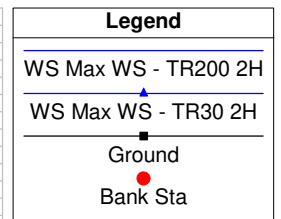
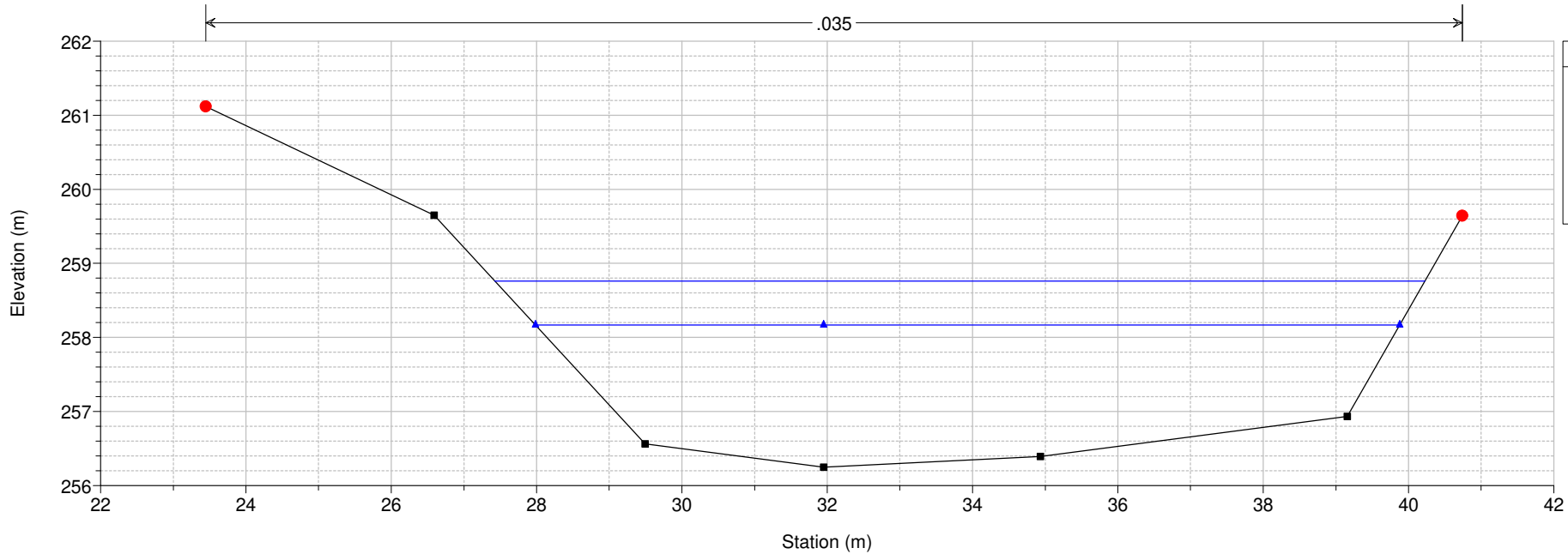
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 6 SIE006



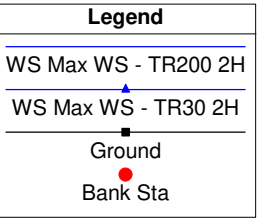
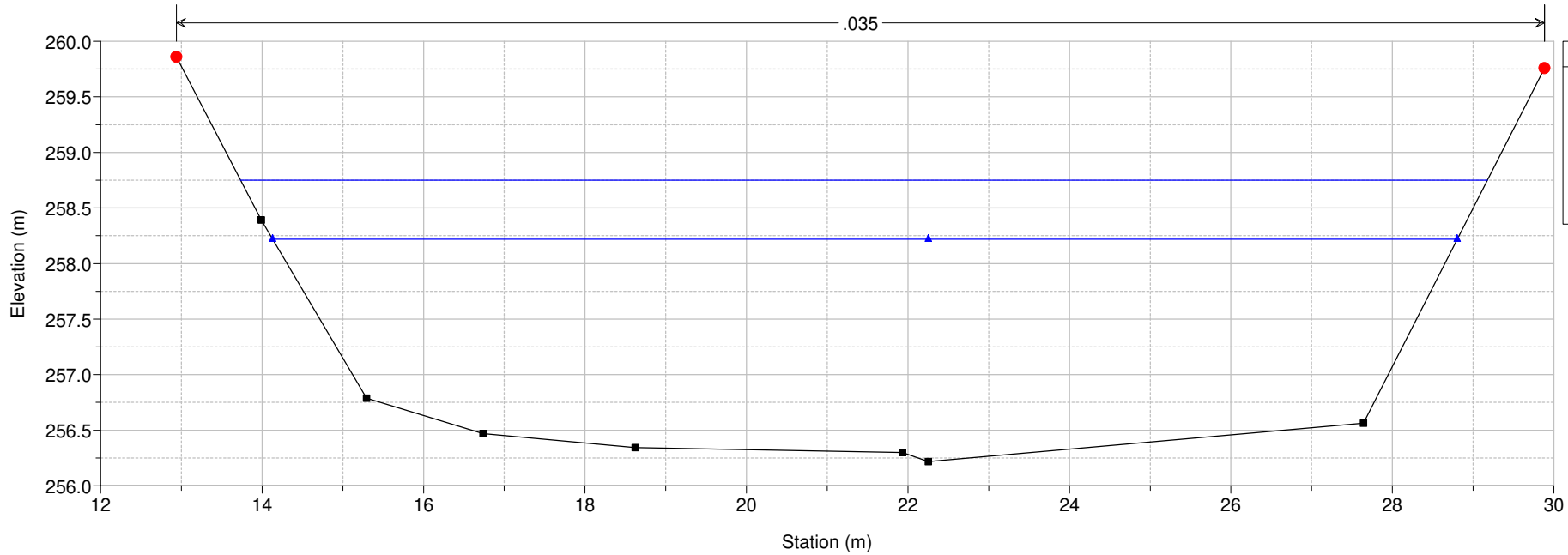
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 5.2 SIE005_C



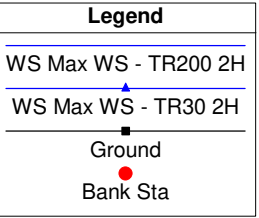
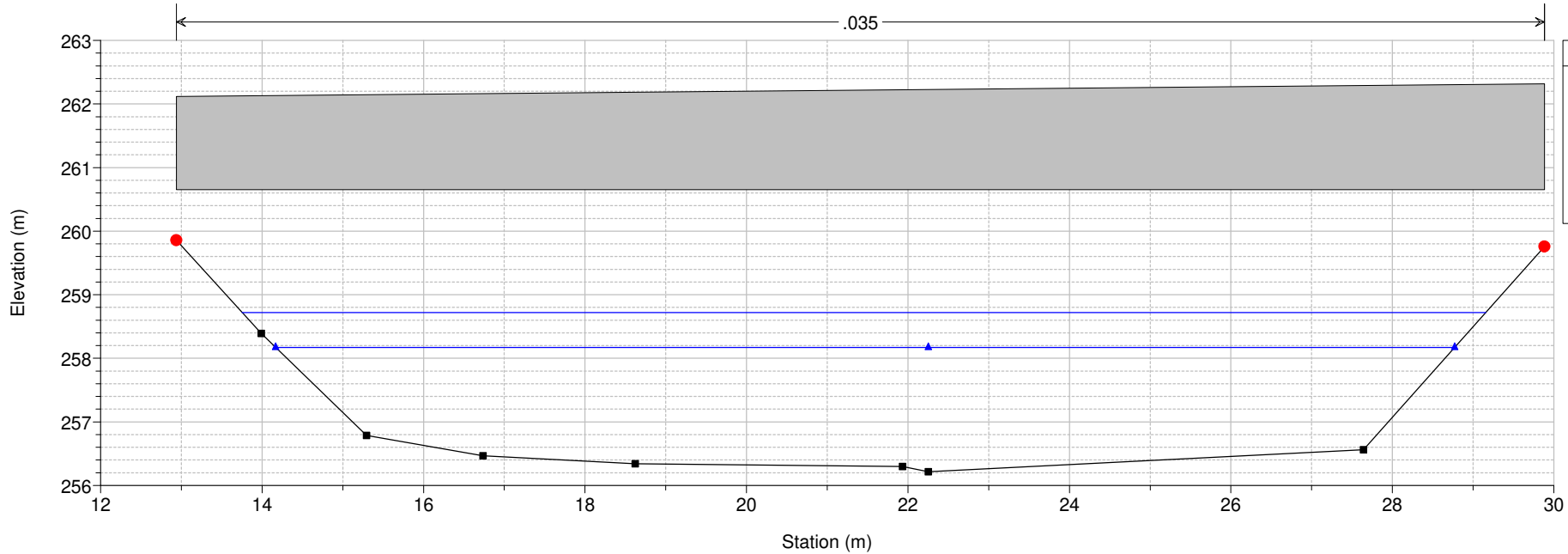
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 5.1 SIE005_B



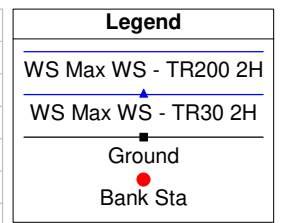
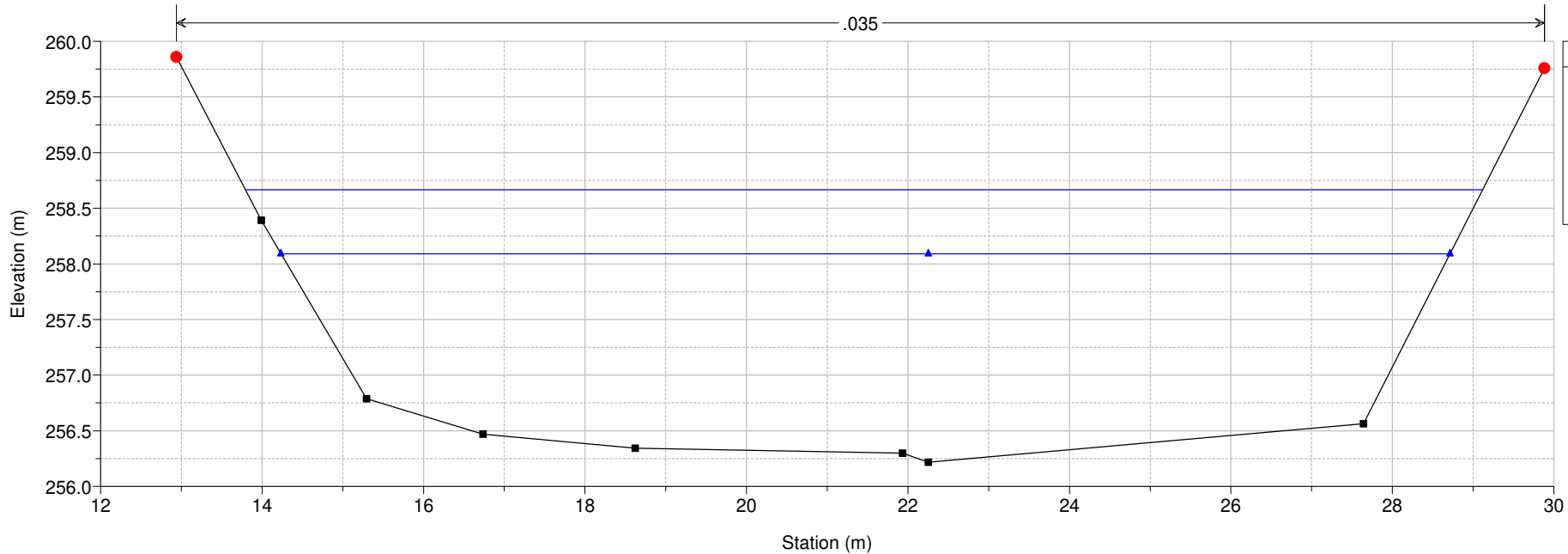
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 5.08 BR Ponte al Sasso



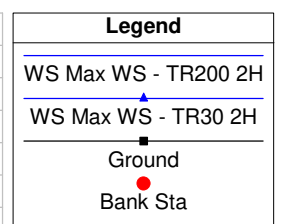
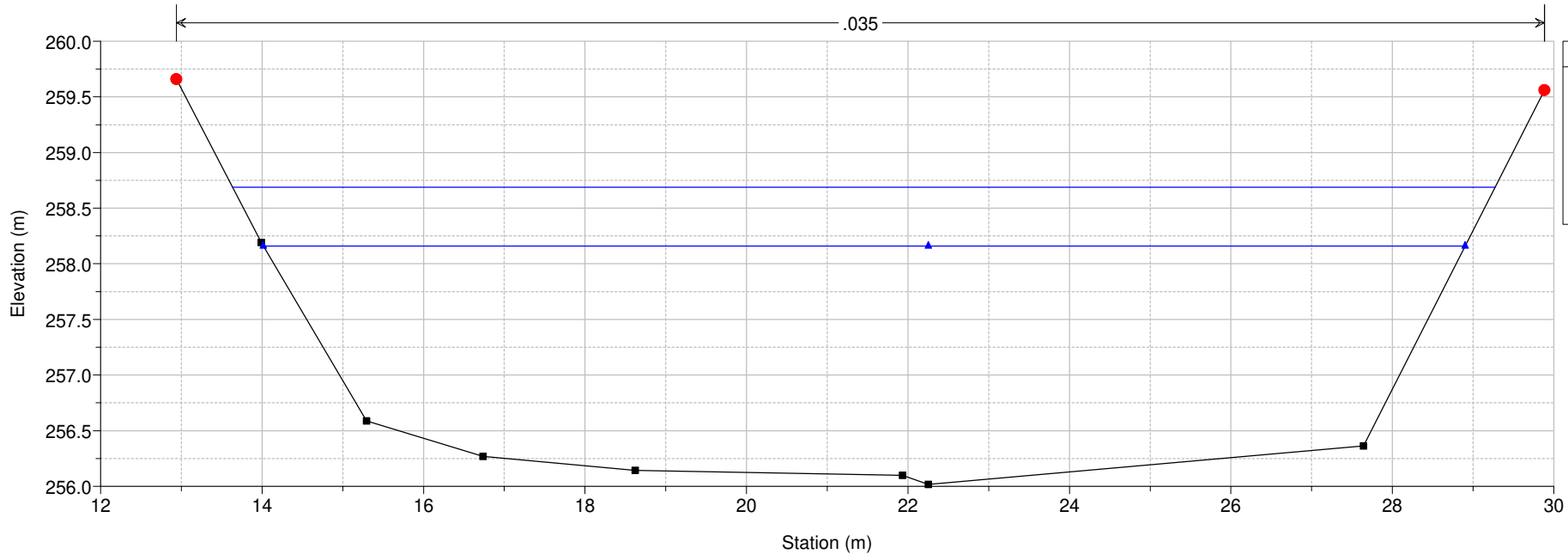
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 5.05 SIE005_B



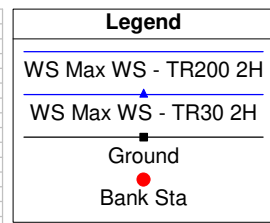
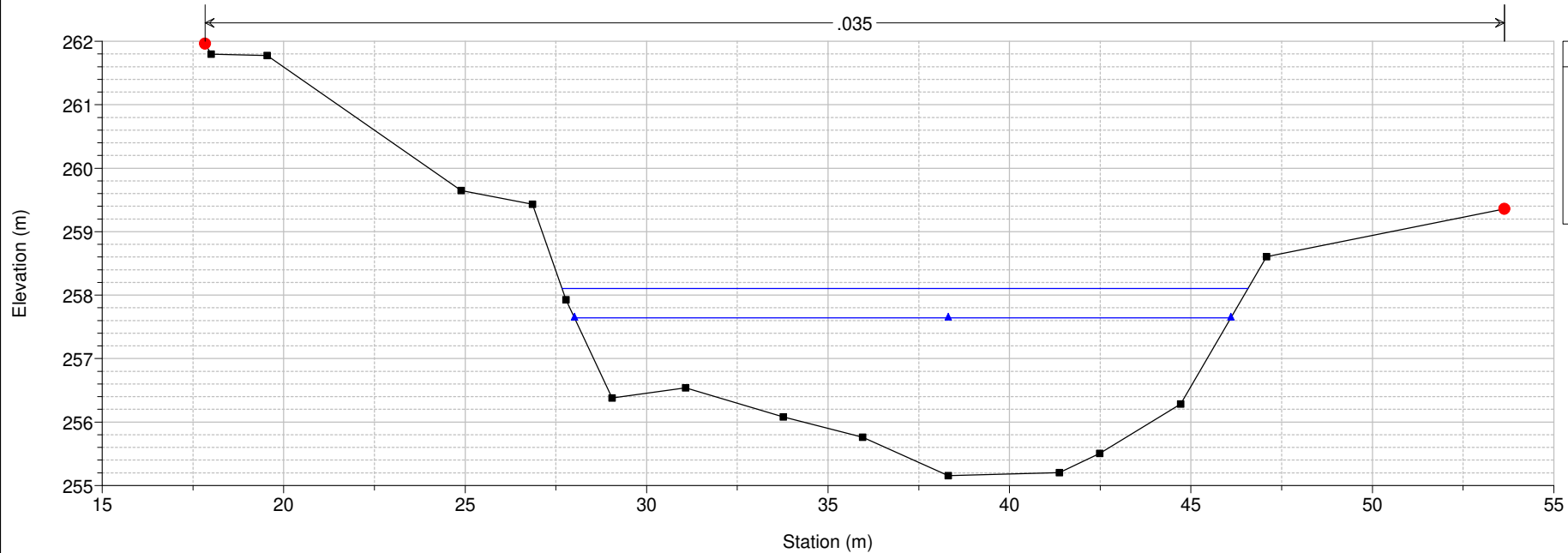
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = fiume sieve RS = 5.03 SIE005_B



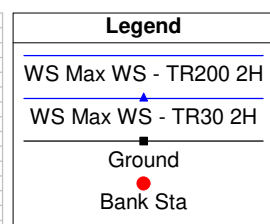
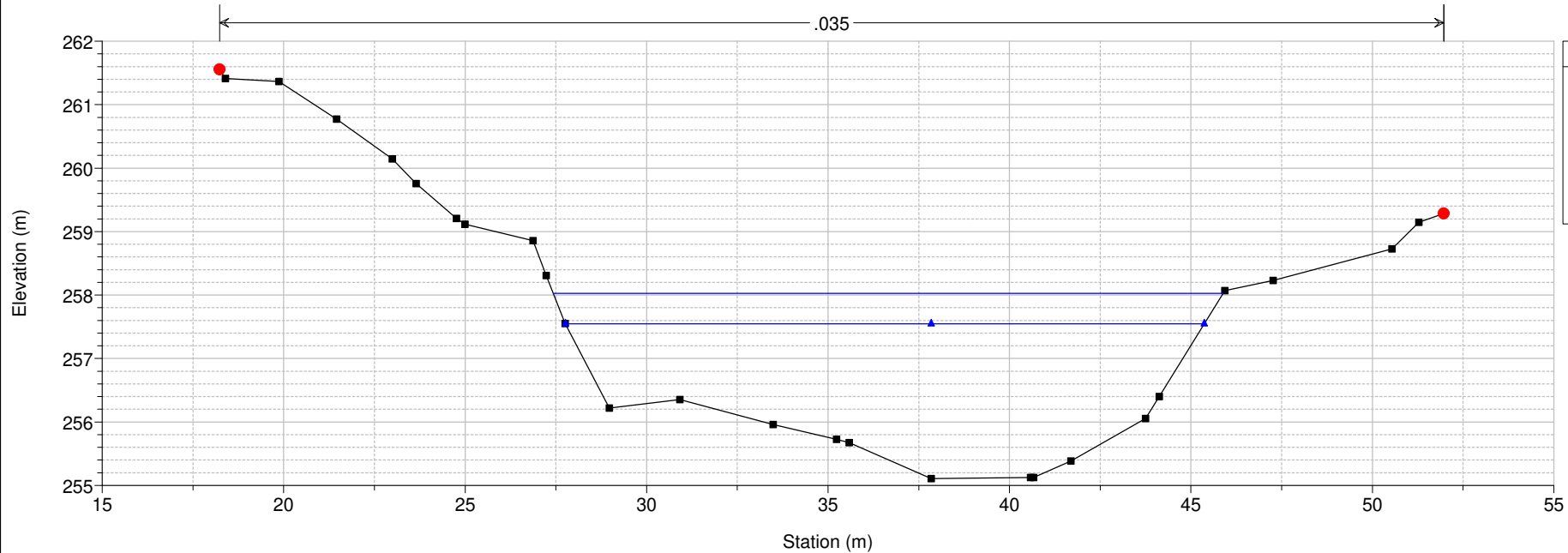
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 5 SIE005_A



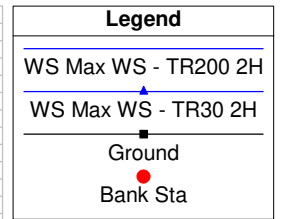
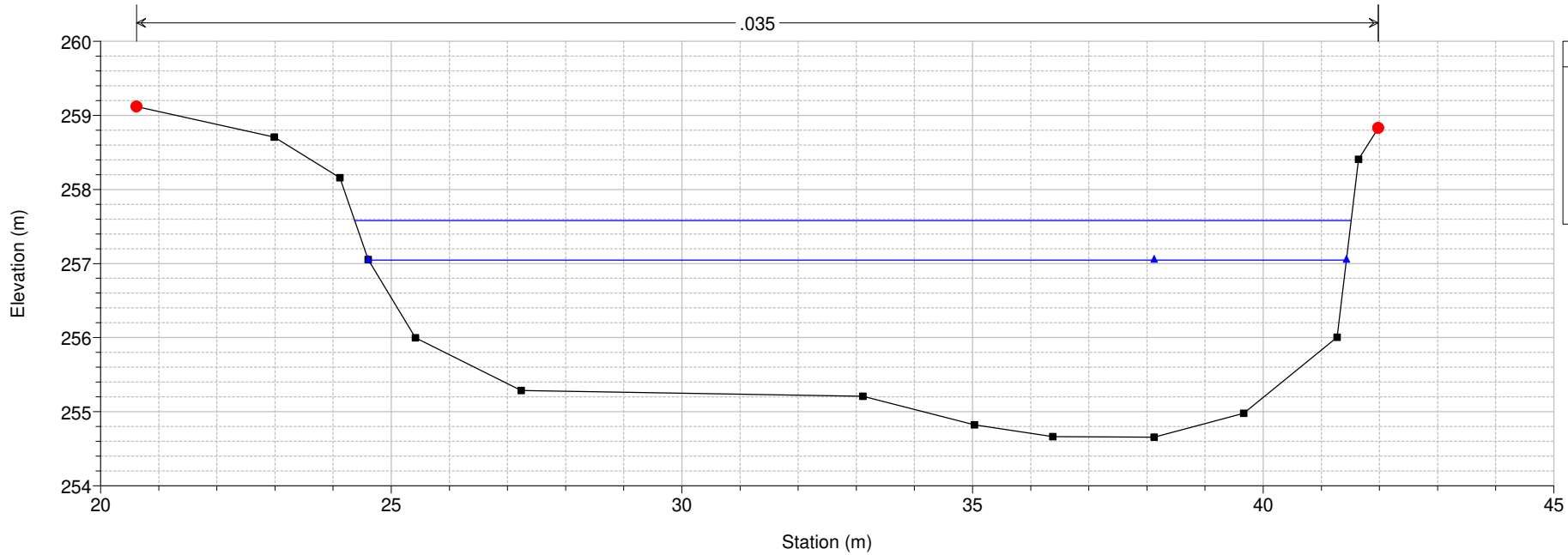
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 4.8571



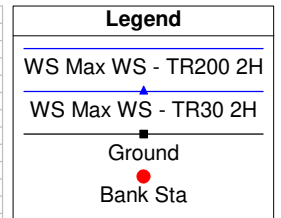
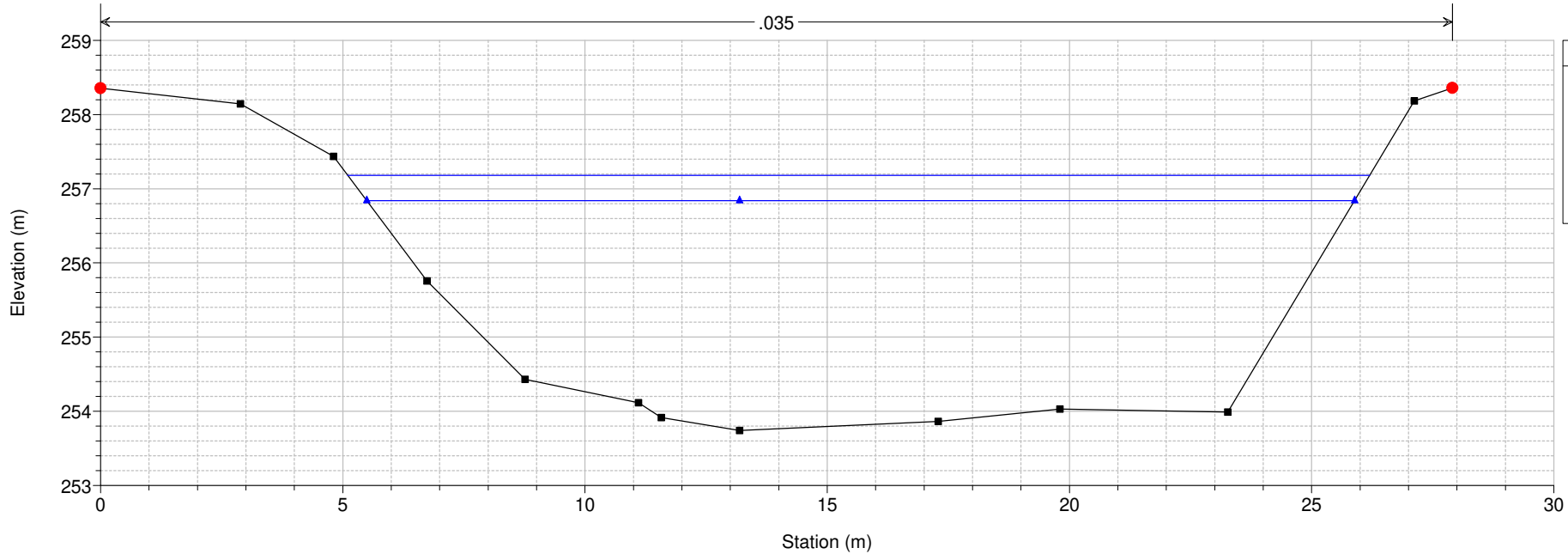
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 4 SIE004



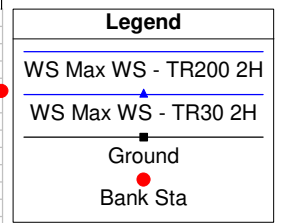
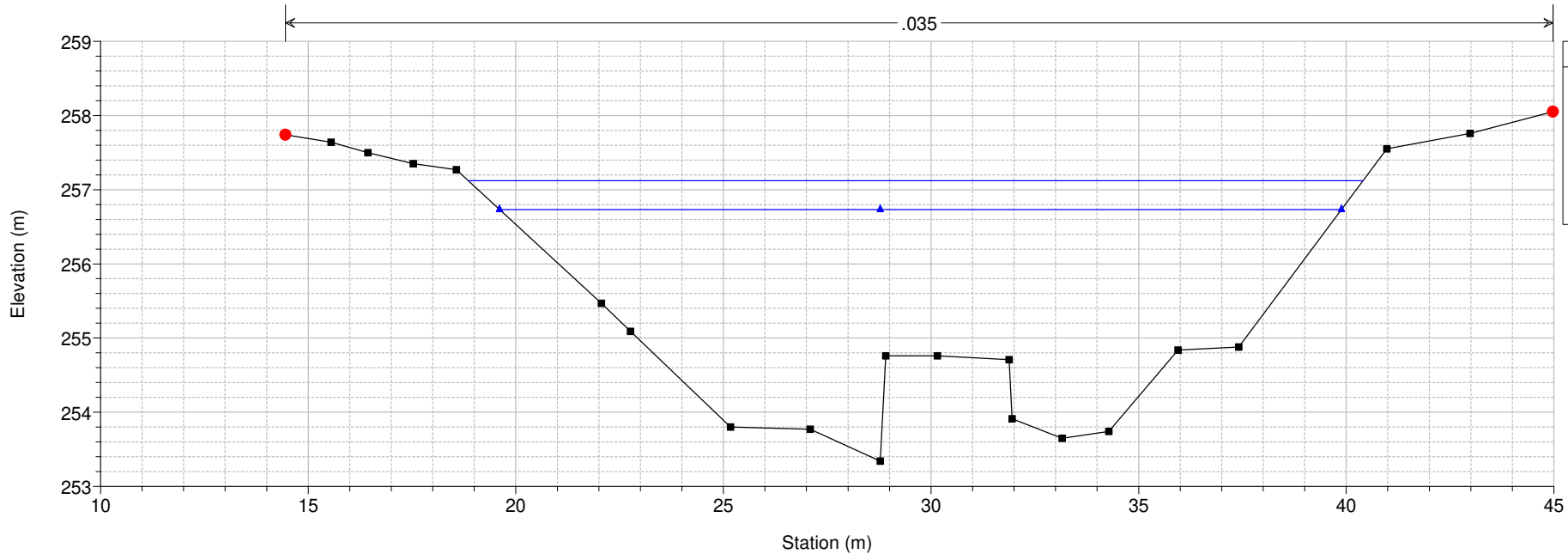
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 3.2 SIE003_C



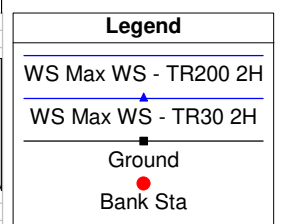
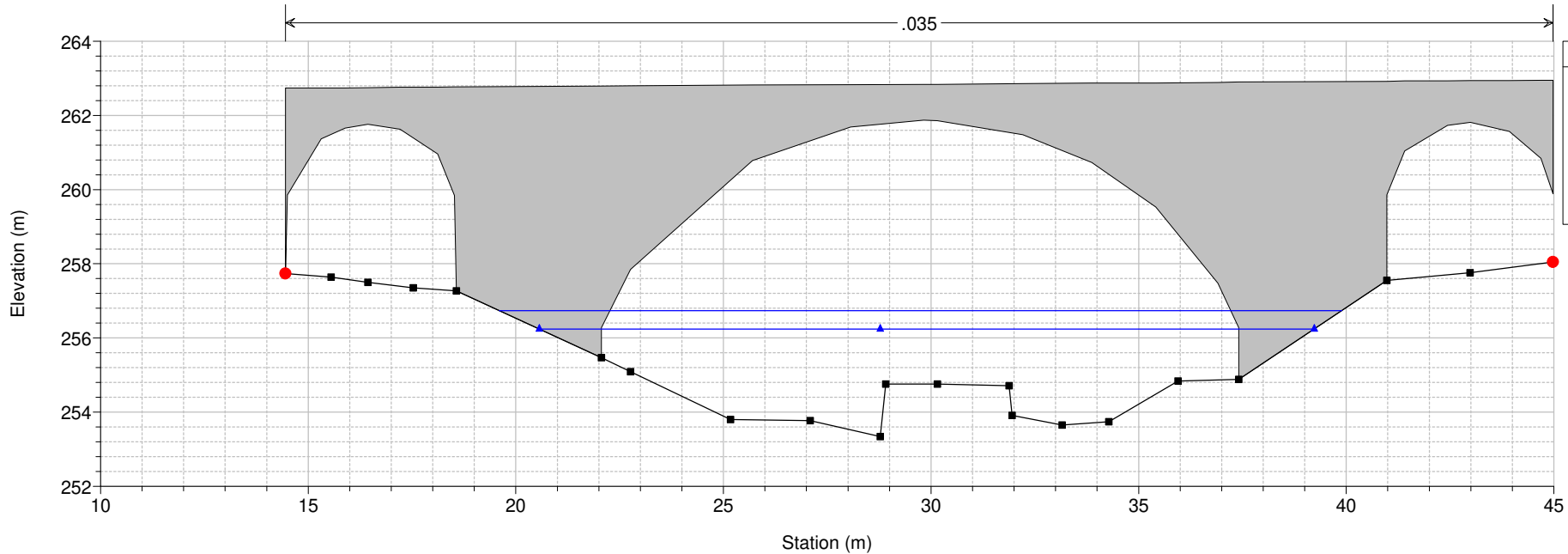
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 3.15 SIE003_B



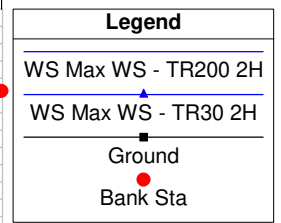
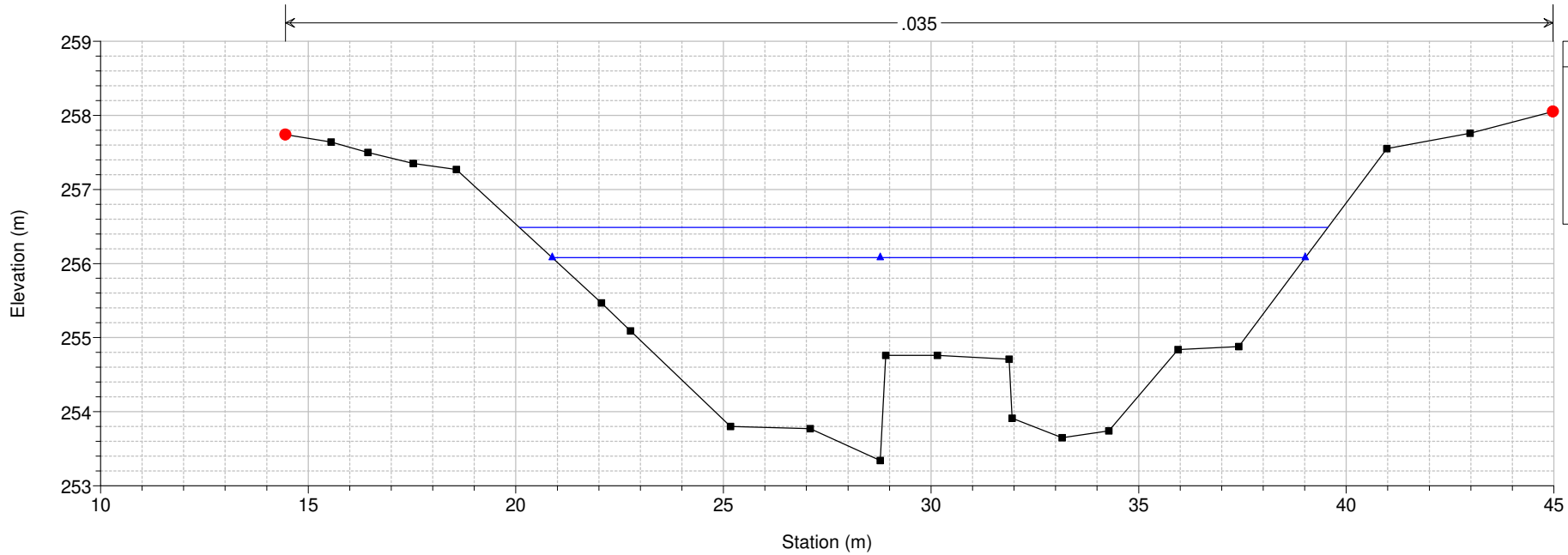
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 3.13 BR ponte militare



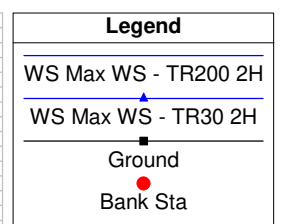
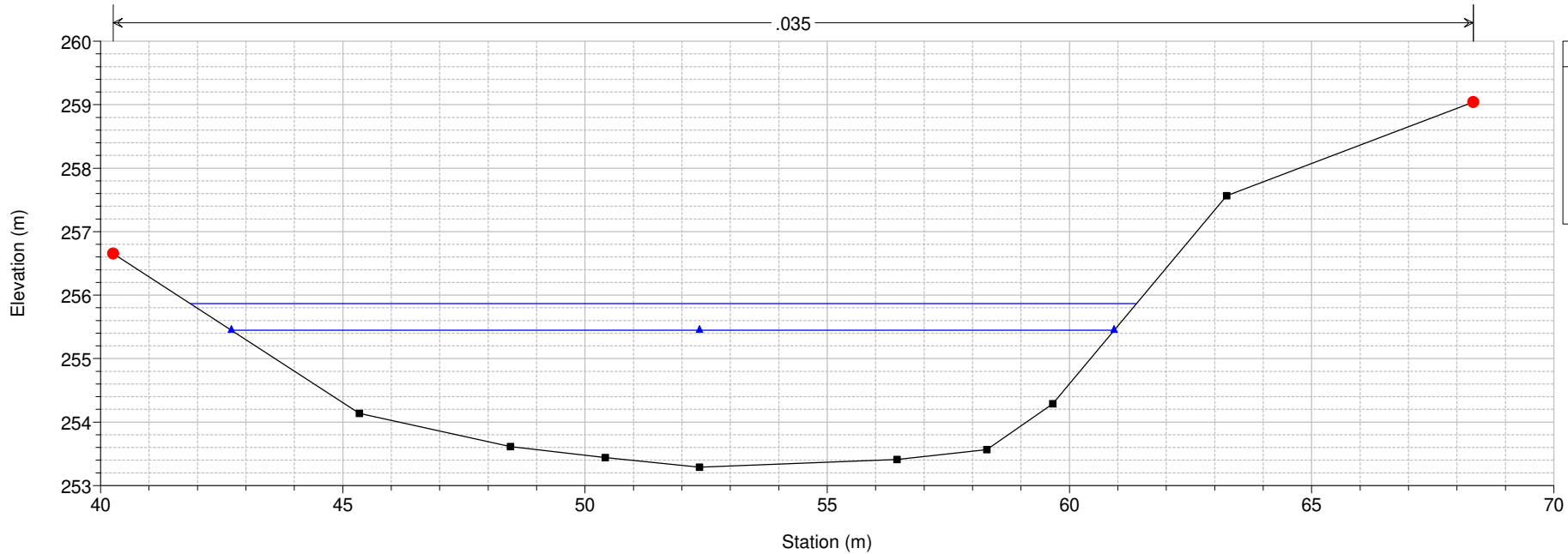
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 3.1 SIE003_B



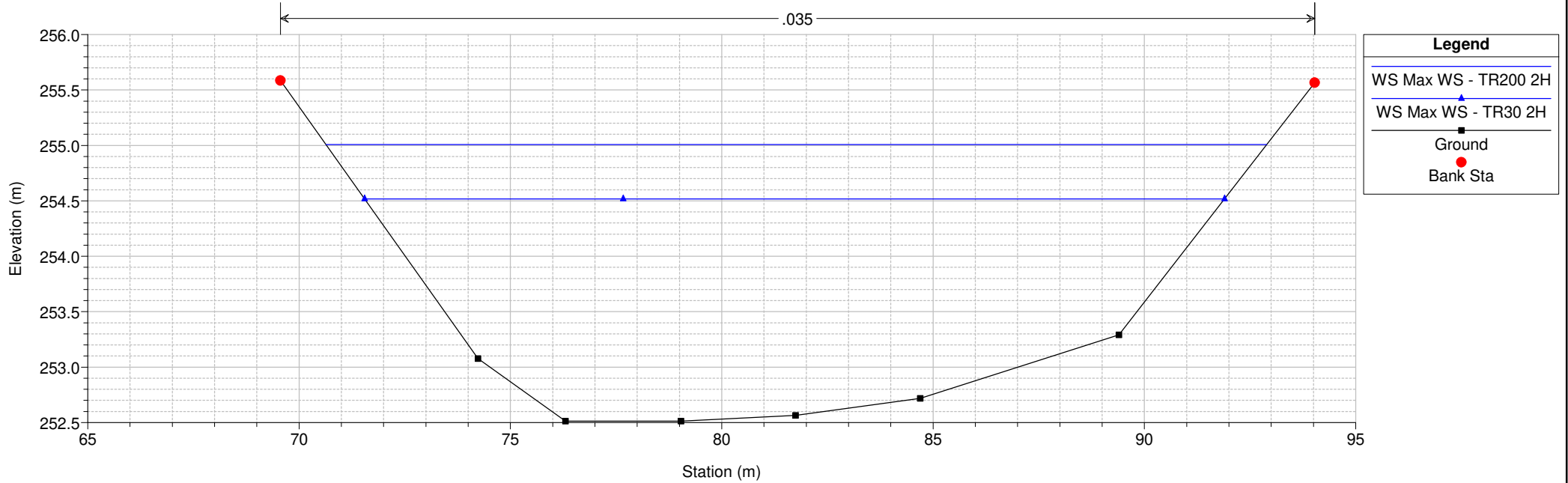
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 3 SIE003_A



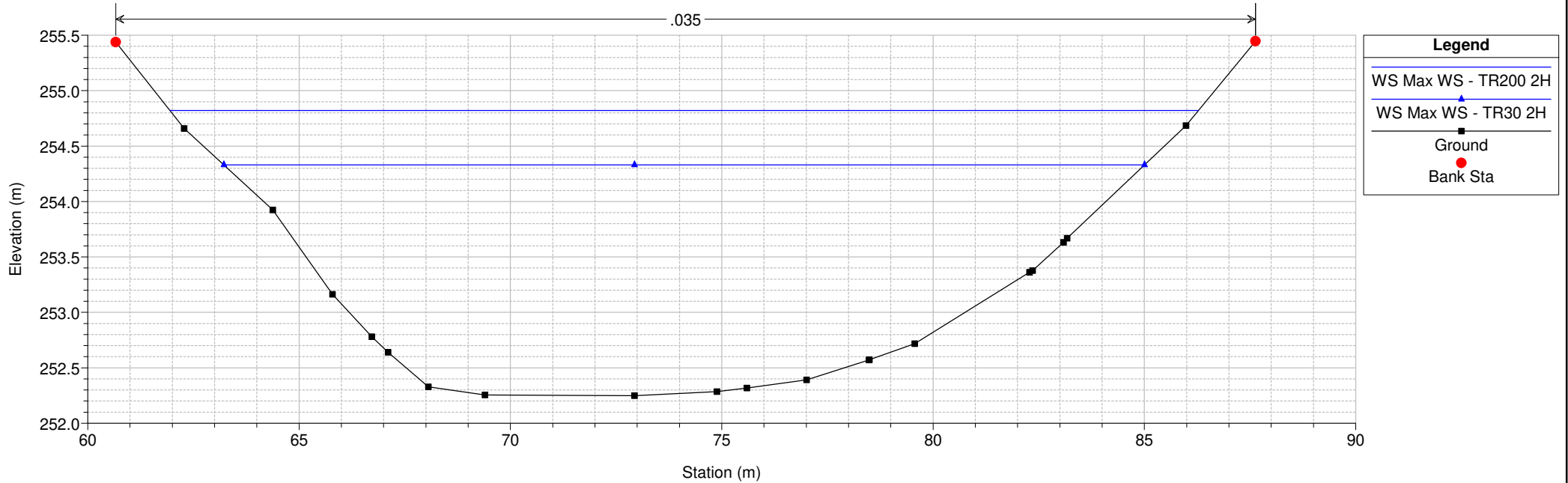
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 2 SIE002



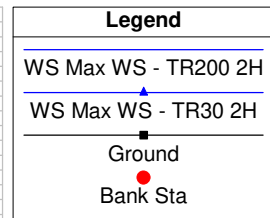
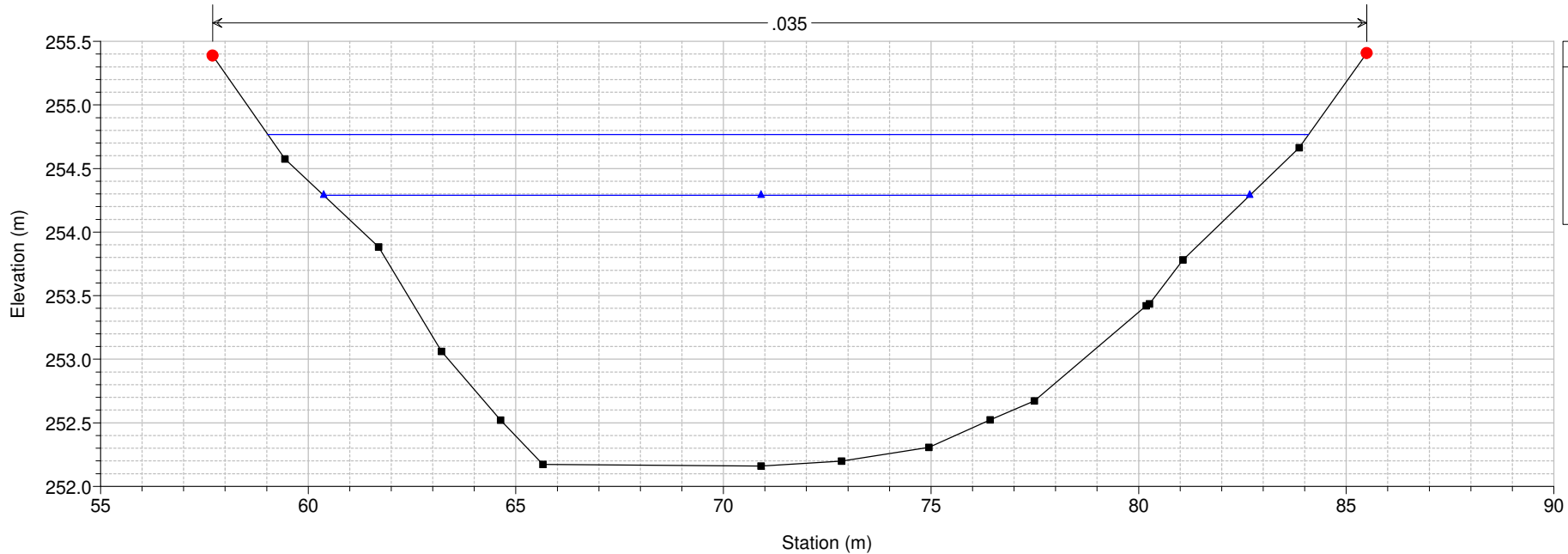
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 1.7750



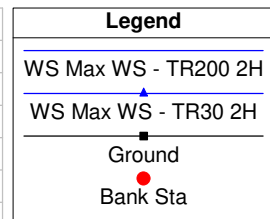
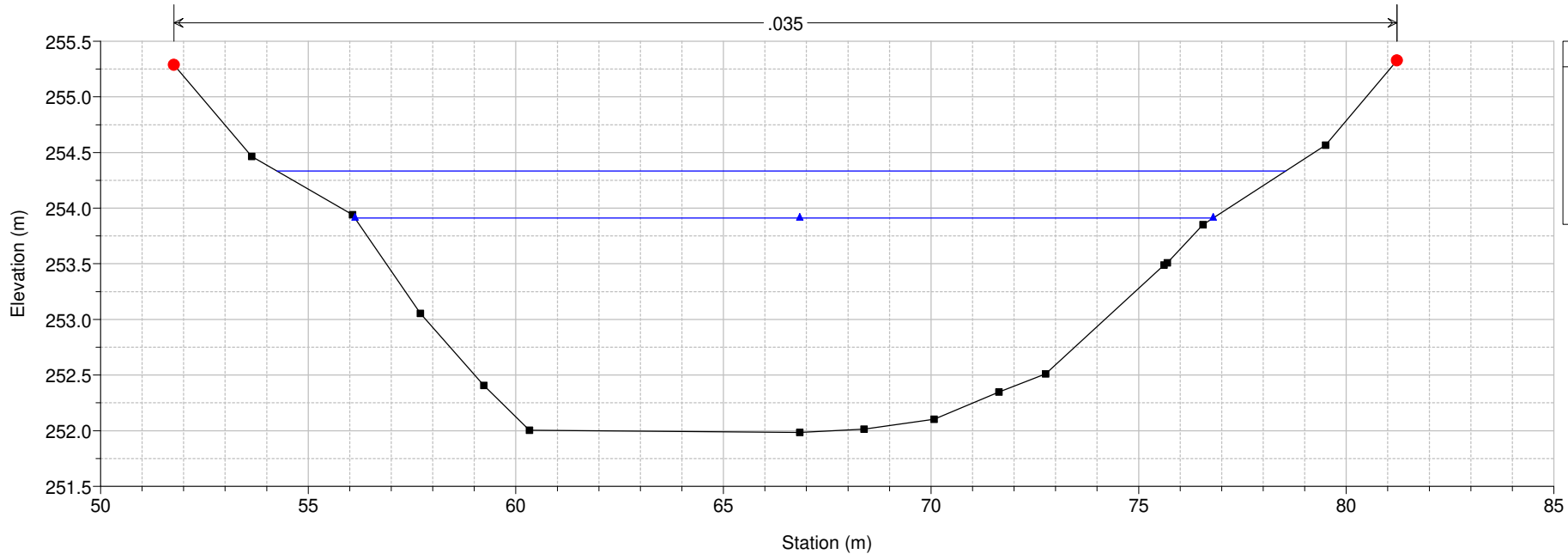
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sievevallemulina RS = 1.7



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

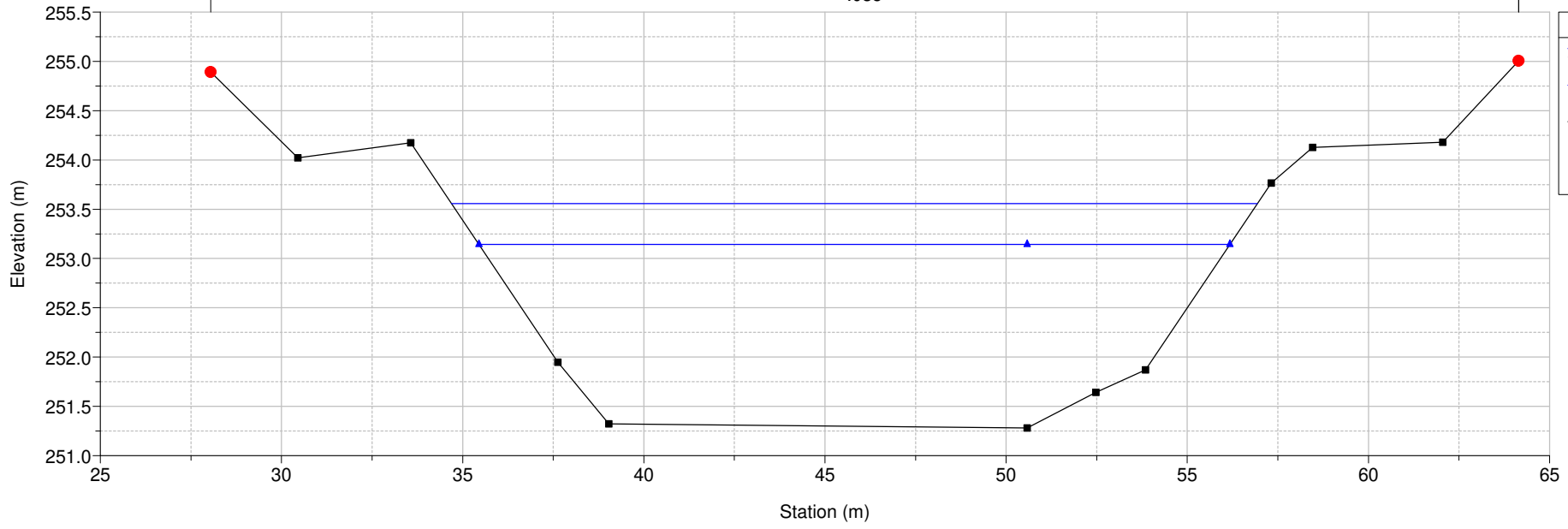
River = Sieve Reach = sieve valle vis RS = 1.6



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = Sieve Reach = sieve valle vis RS = 1 SIE001

.035



Legend

- WS Max WS - TR200 2H
- WS Max WS - TR30 2H
- Ground
- Bank Sta

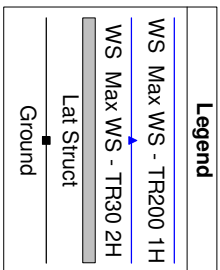
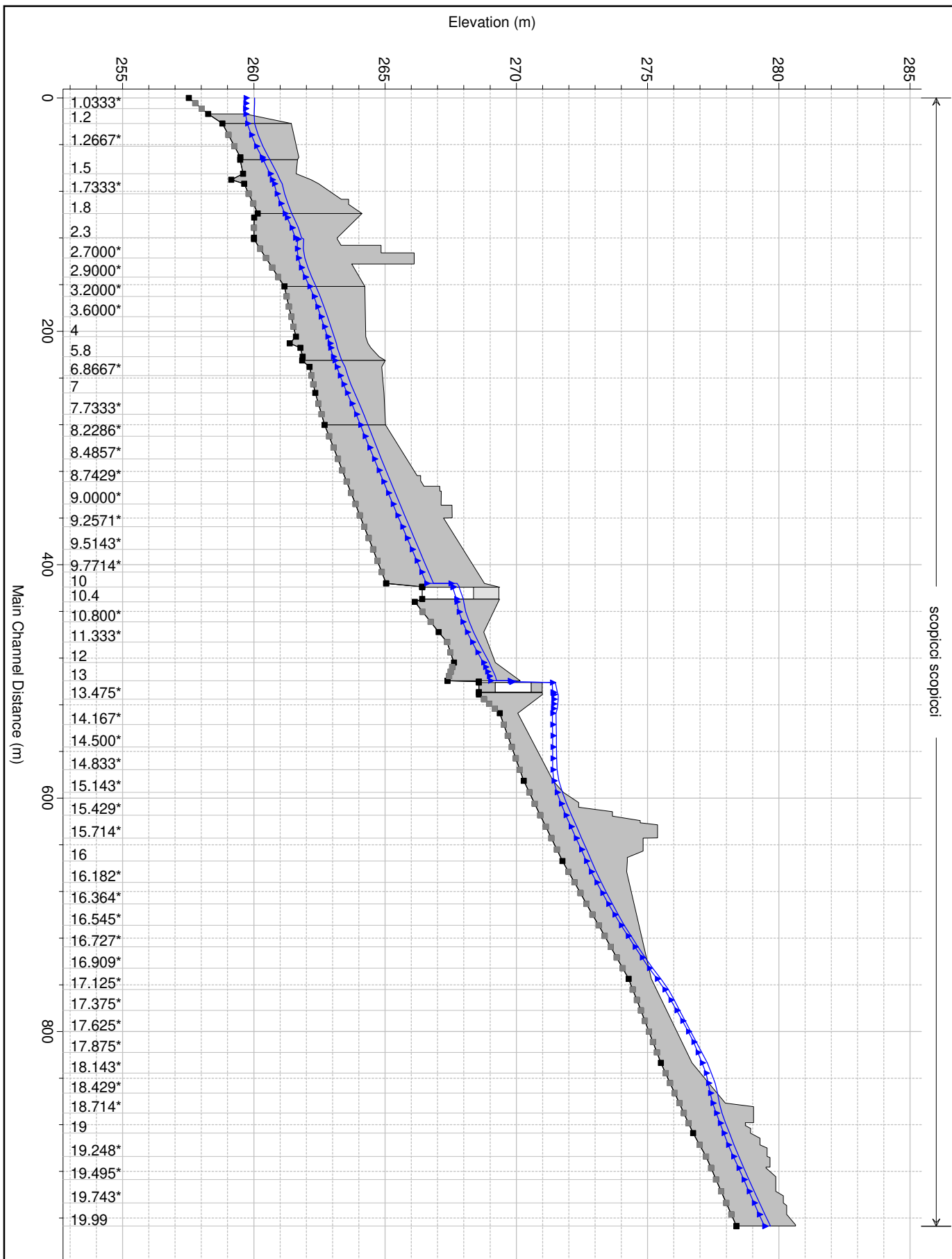
Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
sievevallemulina	5	Max WS	TR30 2H	99.09	255.16	257.64	257.40	258.18	0.007170	3.25	30.47	18.09	0.80
sievevallemulina	5	Max WS	TR30 1H	85.94	255.16	257.47	257.26	257.97	0.007413	3.13	27.43	17.77	0.81
sievevallemulina	4.9			Lat Struct									
sievevallemulina	4.89			Lat Struct									
sievevallemulina	4.8571	Max WS	TR200 2H	141.52	255.11	258.03	257.76	258.73	0.007270	3.71	38.17	18.46	0.82
sievevallemulina	4.8571	Max WS	TR200 1H	130.94	255.11	257.87	257.66	258.57	0.007921	3.72	35.20	18.17	0.85
sievevallemulina	4.8571	Max WS	TR30 2H	99.23	255.11	257.55	257.33	258.12	0.007755	3.37	29.47	17.60	0.83
sievevallemulina	4.8571	Max WS	TR30 1H	85.91	255.11	257.38	257.19	257.91	0.007966	3.24	26.54	17.27	0.83
sievevallemulina	4	Max WS	TR200 2H	144.88	254.65	257.58	257.19	258.26	0.006433	3.64	39.80	17.15	0.76
sievevallemulina	4	Max WS	TR200 1H	131.26	254.65	257.36	257.06	258.04	0.007095	3.64	36.08	17.02	0.80
sievevallemulina	4	Max WS	TR30 2H	99.75	254.65	257.05	256.74	257.58	0.006660	3.24	30.76	16.83	0.77
sievevallemulina	4	Max WS	TR30 1H	85.92	254.65	256.87	256.59	257.36	0.006714	3.09	27.81	16.66	0.76
sievevallemulina	3.2	Max WS	TR200 2H	145.49	253.74	257.18	256.06	257.52	0.002485	2.56	56.76	21.10	0.50
sievevallemulina	3.2	Max WS	TR200 1H	124.08	253.74	257.25	255.86	257.49	0.001673	2.13	58.30	21.25	0.41
sievevallemulina	3.2	Max WS	TR30 2H	100.00	253.74	256.84	255.62	257.05	0.001728	2.01	49.69	20.40	0.41
sievevallemulina	3.2	Max WS	TR30 1H	86.25	253.74	256.63	255.46	256.81	0.001674	1.90	45.41	19.96	0.40
sievevallemulina	3.15	Max WS	TR200 2H	145.53	253.34	257.12	256.38	257.56	0.004314	2.93	49.75	21.55	0.61
sievevallemulina	3.15	Max WS	TR200 1H	123.70	253.34	257.18	256.16	257.48	0.002912	2.43	50.94	21.73	0.51
sievevallemulina	3.15	Max WS	TR30 2H	100.02	253.34	256.73	255.92	257.03	0.003406	2.40	41.63	20.28	0.54
sievevallemulina	3.15	Max WS	TR30 1H	86.28	253.34	256.53	255.77	256.80	0.003398	2.29	37.63	19.62	0.53
sievevallemulina	3.13			Bridge									
sievevallemulina	3.1	Max WS	TR200 2H	145.53	253.34	256.49	256.38	257.29	0.010374	3.96	36.73	19.47	0.92
sievevallemulina	3.1	Max WS	TR200 1H	134.08	253.34	256.38	256.27	257.14	0.010396	3.86	34.70	19.13	0.92
sievevallemulina	3.1	Max WS	TR30 2H	102.83	253.34	256.08	255.95	256.72	0.010271	3.54	29.08	18.14	0.89
sievevallemulina	3.1	Max WS	TR30 1H	86.28	253.34	255.90	255.77	256.47	0.010145	3.33	25.94	17.56	0.87
sievevallemulina	3.09			Lat Struct									
sievevallemulina	3.089			Lat Struct									
sievevallemulina	3	Max WS	TR200 2H	145.90	253.29	255.87	255.72	256.64	0.008577	3.91	37.33	19.53	0.90
sievevallemulina	3	Max WS	TR200 1H	133.83	253.29	255.76	255.61	256.49	0.008547	3.80	35.20	19.19	0.90
sievevallemulina	3	Max WS	TR30 2H	101.89	253.29	255.45	255.29	256.06	0.008350	3.47	29.40	18.22	0.87
sievevallemulina	3	Max WS	TR30 1H	86.48	253.29	255.28	255.11	255.83	0.008167	3.27	26.48	17.72	0.85
sievevallemulina	2	Max WS	TR200 2H	146.43	252.51	255.01	254.78	255.66	0.007372	3.58	40.94	22.25	0.84
sievevallemulina	2	Max WS	TR200 1H	134.13	252.51	254.86	254.68	255.51	0.007822	3.55	37.73	21.68	0.86
sievevallemulina	2	Max WS	TR30 2H	101.73	252.51	254.52	254.37	255.08	0.008315	3.33	30.53	20.35	0.87
sievevallemulina	2	Max WS	TR30 1H	86.68	252.51	254.37	254.21	254.88	0.008106	3.14	27.61	19.78	0.85
sievevallemulina	1.7750	Max WS	TR200 2H	146.52	252.25	254.82	254.52	255.38	0.006428	3.32	44.07	24.34	0.79
sievevallemulina	1.7750	Max WS	TR200 1H	134.22	252.25	254.72	254.41	255.25	0.006346	3.22	41.66	23.91	0.78
sievevallemulina	1.7750	Max WS	TR30 2H	101.81	252.25	254.33	254.10	254.82	0.007188	3.11	32.71	21.78	0.81
sievevallemulina	1.7750	Max WS	TR30 1H	86.73	252.25	254.20	253.94	254.63	0.006730	2.90	29.87	21.04	0.78
sievevallemulina	1.7	Max WS	TR200 2H	146.50	252.16	254.77	254.41	255.30	0.006022	3.22	45.46	25.07	0.76
sievevallemulina	1.7	Max WS	TR200 1H	134.20	252.16	254.70	254.31	255.18	0.005665	3.07	43.70	24.76	0.74
sievevallemulina	1.7	Max WS	TR30 2H	101.78	252.16	254.29	254.00	254.74	0.006485	2.99	34.06	22.30	0.77
sievevallemulina	1.7	Max WS	TR30 1H	86.66	252.16	254.16	253.83	254.55	0.005910	2.77	31.33	21.50	0.73
sieve valle vis	1.6	Max WS	TR200 2H	154.72	251.98	254.33	254.30	255.11	0.010226	3.91	39.54	24.30	0.98
sieve valle vis	1.6	Max WS	TR200 1H	143.48	251.98	254.23	254.21	254.99	0.010291	3.86	37.18	23.43	0.98
sieve valle vis	1.6	Max WS	TR30 2H	107.52	251.98	253.91	253.85	254.56	0.009960	3.58	30.04	20.67	0.95
sieve valle vis	1.6	Max WS	TR30 1H	93.97	251.98	253.78	253.72	254.38	0.009889	3.43	27.39	20.00	0.94
sieve valle vis	1.599			Lat Struct									
sieve valle vis	1.598			Lat Struct									
sieve valle vis	1	Max WS	TR200 2H	154.72	251.28	253.56	253.45	254.31	0.008801	3.86	40.13	22.24	0.92
sieve valle vis	1	Max WS	TR200 1H	143.41	251.28	253.46	253.35	254.19	0.008803	3.77	38.09	21.90	0.91
sieve valle vis	1	Max WS	TR30 2H	107.40	251.28	253.14	253.02	253.75	0.008800	3.44	31.27	20.73	0.89
sieve valle vis	1	Max WS	TR30 1H	93.96	251.28	253.01	252.89	253.56	0.008803	3.29	28.56	20.25	0.88

HEC-RAS Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wt Top Wdth (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)	
fiume sieve	7.048	Max WS	TR200 2H	77.65	0.00	77.80	0.00						260.59	261.10	260.15	259.25	258.76
fiume sieve	7.048	Max WS	TR200 1H	75.75	0.00	75.28	0.00						260.59	261.05	260.20	259.11	258.51
fiume sieve	7.048	Max WS	TR30 2H	54.87	0.00	55.24	0.00						260.59	260.53	259.82	258.66	258.17
fiume sieve	7.048	Max WS	TR30 1H	52.66	0.00	51.97	0.00						260.59	260.47	259.79	258.59	258.14
fiume sieve	5.044	Max WS	TR200 2H	77.45	0.00	77.45	0.00						261.80	258.98	258.67	258.95	258.69
fiume sieve	5.044	Max WS	TR200 1H	69.06	0.00	69.27	0.00						261.80	258.81	258.51	258.80	258.57
fiume sieve	5.044	Max WS	TR30 2H	52.71	0.00	52.78	0.00						261.80	258.37	258.09	258.36	258.15
fiume sieve	5.044	Max WS	TR30 1H	49.59	0.00	49.59	0.00						261.80	258.19	257.84	258.17	257.91
sievevallemulina	4.9	Max WS	TR200 2H	140.88	-7.03	145.53	-7.03		128.35	0.62	0.30		258.05	258.77	258.10	257.56	257.12
sievevallemulina	4.9	Max WS	TR200 1H	130.70	-5.98	123.70	-5.98		110.15	0.60	0.30		258.05	258.62	257.97	257.48	257.18
sievevallemulina	4.9	Max WS	TR30 2H	99.09	-2.69	100.02	-2.69		54.91	0.46	0.31		258.05	258.18	257.64	257.03	256.74
sievevallemulina	4.9	Max WS	TR30 1H	85.94	-2.08	86.28	-2.08		52.33	0.42	0.27		258.05	257.97	257.47	256.80	256.53
sievevallemulina	4.89	Max WS	TR200 2H	140.88	0.00	145.53	0.00					257.94	258.77	258.10	257.56	257.12	
sievevallemulina	4.89	Max WS	TR200 1H	130.70	0.00	123.70	0.00					257.94	258.62	257.97	257.48	257.18	
sievevallemulina	4.89	Max WS	TR30 2H	99.09	0.00	100.02	0.00					257.94	258.18	257.64	257.03	256.74	
sievevallemulina	4.89	Max WS	TR30 1H	85.94	0.00	86.28	0.00					257.94	257.97	257.47	256.80	256.53	
sievevallemulina	3.09	Max WS	TR200 2H	145.53	-0.25	146.50	-0.25		7.34	0.48	0.23		255.41	257.29	256.49	255.30	254.77
sievevallemulina	3.09	Max WS	TR200 1H	134.08	-0.25	134.20	-0.25		7.34	0.48	0.23		255.41	257.14	256.38	255.18	254.70
sievevallemulina	3.09	Max WS	TR30 2H	102.83	-0.25	101.78	-0.25		7.34	0.48	0.23		255.41	256.72	256.08	254.74	254.29
sievevallemulina	3.09	Max WS	TR30 1H	86.28	-0.25	86.66	-0.25		7.34	0.48	0.23		255.41	256.47	255.90	254.55	254.16
sievevallemulina	3.089	Max WS	TR200 2H	145.53	0.00	146.50	0.00					255.39	257.29	256.49	255.30	254.77	
sievevallemulina	3.089	Max WS	TR200 1H	134.08	0.00	134.20	0.00					255.39	257.14	256.38	255.18	254.70	
sievevallemulina	3.089	Max WS	TR30 2H	102.83	0.00	101.78	0.00					255.39	256.72	256.08	254.74	254.29	
sievevallemulina	3.089	Max WS	TR30 1H	86.28	0.00	86.66	0.00					255.39	256.47	255.90	254.55	254.16	
sieve valle vis	1.599	Max WS	TR200 2H	154.72	0.00	154.72	0.00					255.01	255.11	254.33	254.32	253.56	
sieve valle vis	1.599	Max WS	TR200 1H	143.48	0.00	143.41	0.00					255.01	254.99	254.23	254.19	253.46	
sieve valle vis	1.599	Max WS	TR30 2H	107.52	0.00	107.40	0.00					255.01	254.56	253.91	253.75	253.14	
sieve valle vis	1.599	Max WS	TR30 1H	93.97	0.00	93.96	0.00					255.01	254.38	253.78	253.56	253.01	
sieve valle vis	1.598	Max WS	TR200 2H	154.72	0.00	154.72	0.00					254.89	255.11	254.33	254.31	253.56	
sieve valle vis	1.598	Max WS	TR200 1H	143.48	0.00	143.41	0.00					254.89	254.99	254.23	254.19	253.46	
sieve valle vis	1.598	Max WS	TR30 2H	107.52	0.00	107.40	0.00					254.89	254.56	253.91	253.75	253.14	
sieve valle vis	1.598	Max WS	TR30 1H	93.97	0.00	93.96	0.00					254.89	254.38	253.78	253.56	253.01	

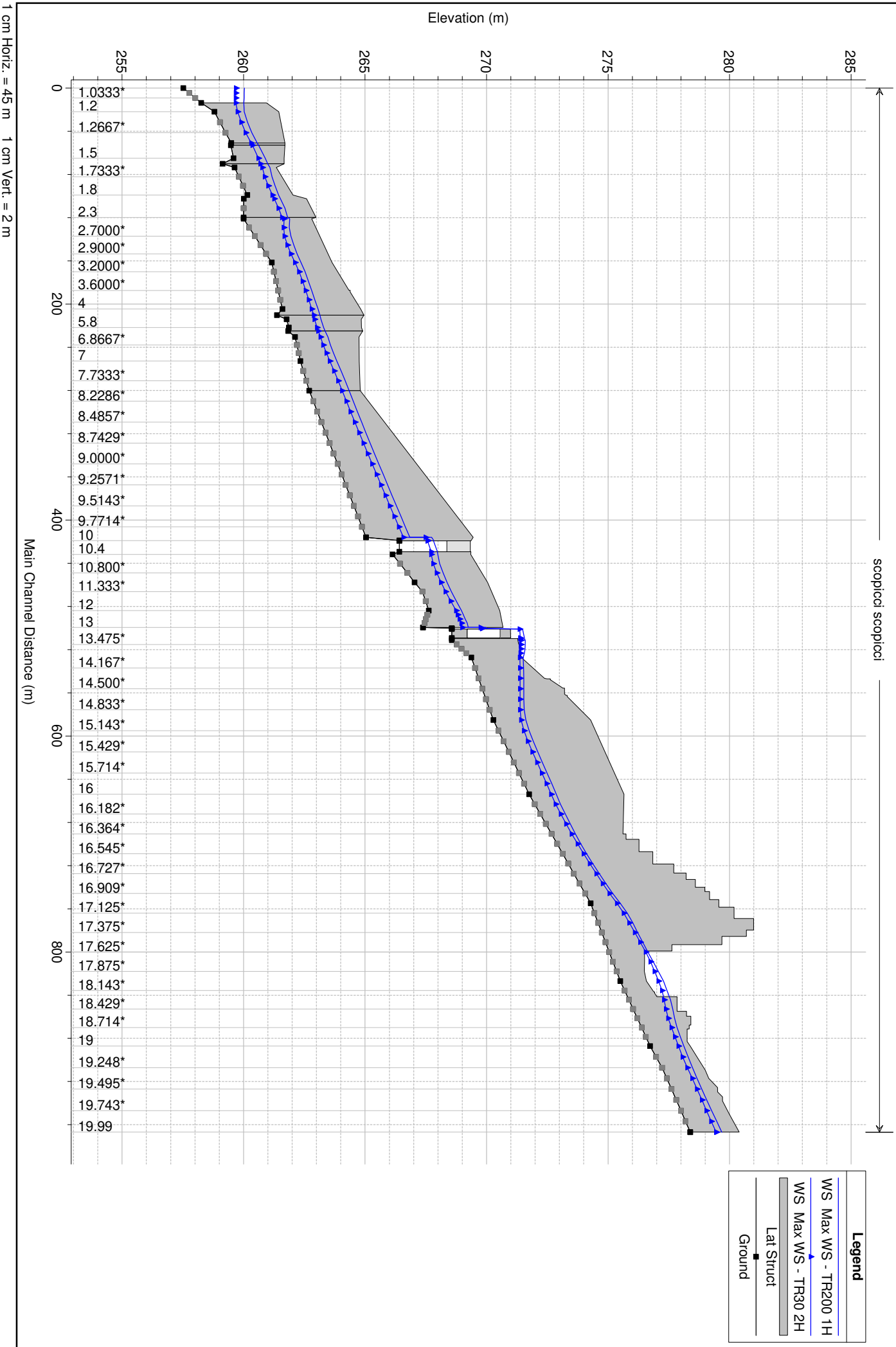
**FOSSO
SCOPICCI**

scopici scopici



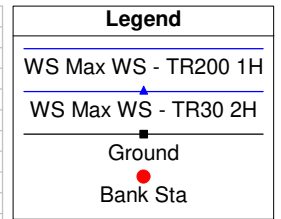
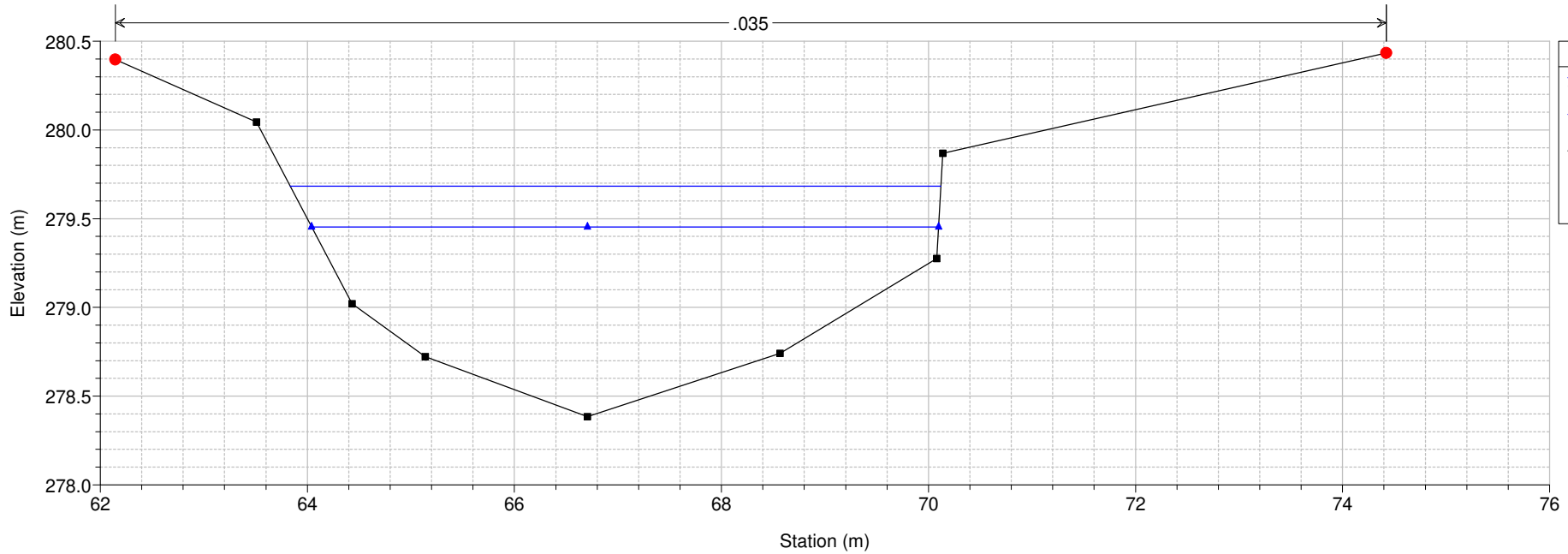
1 cm Horiz. = 45 m 1 cm Vert. = 2 m

scopici scopici



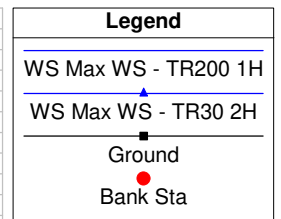
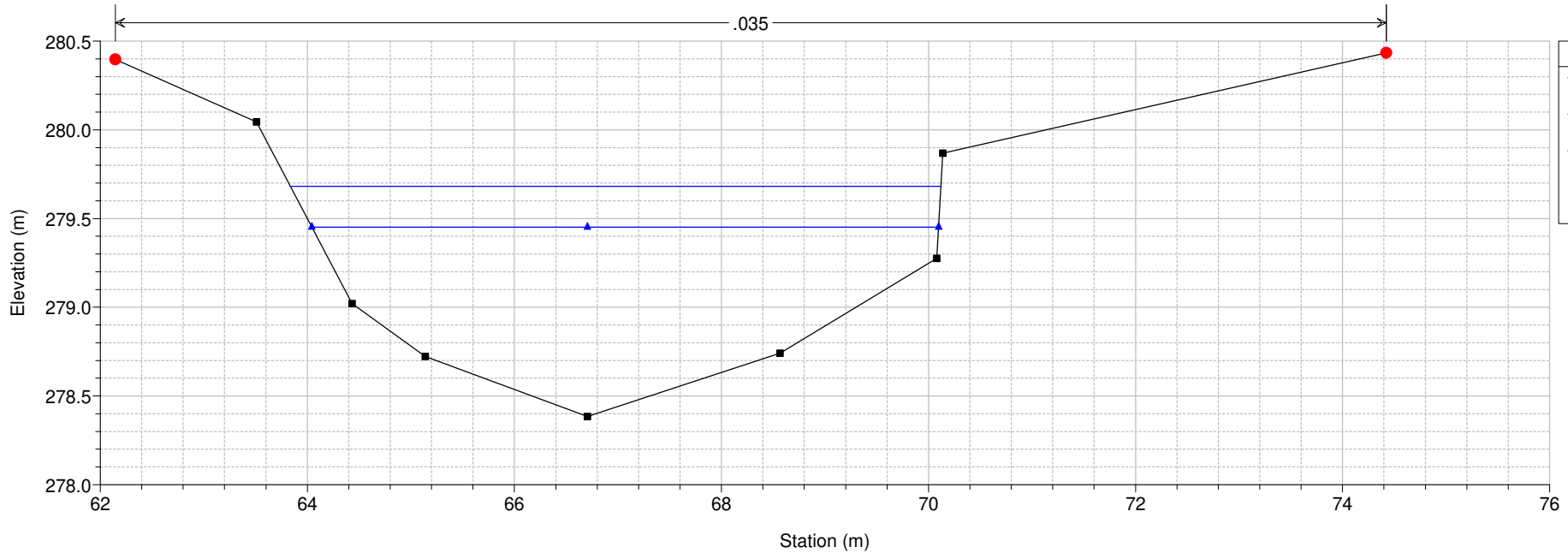
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 20 SCO 020_A



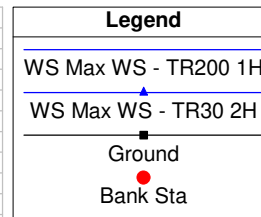
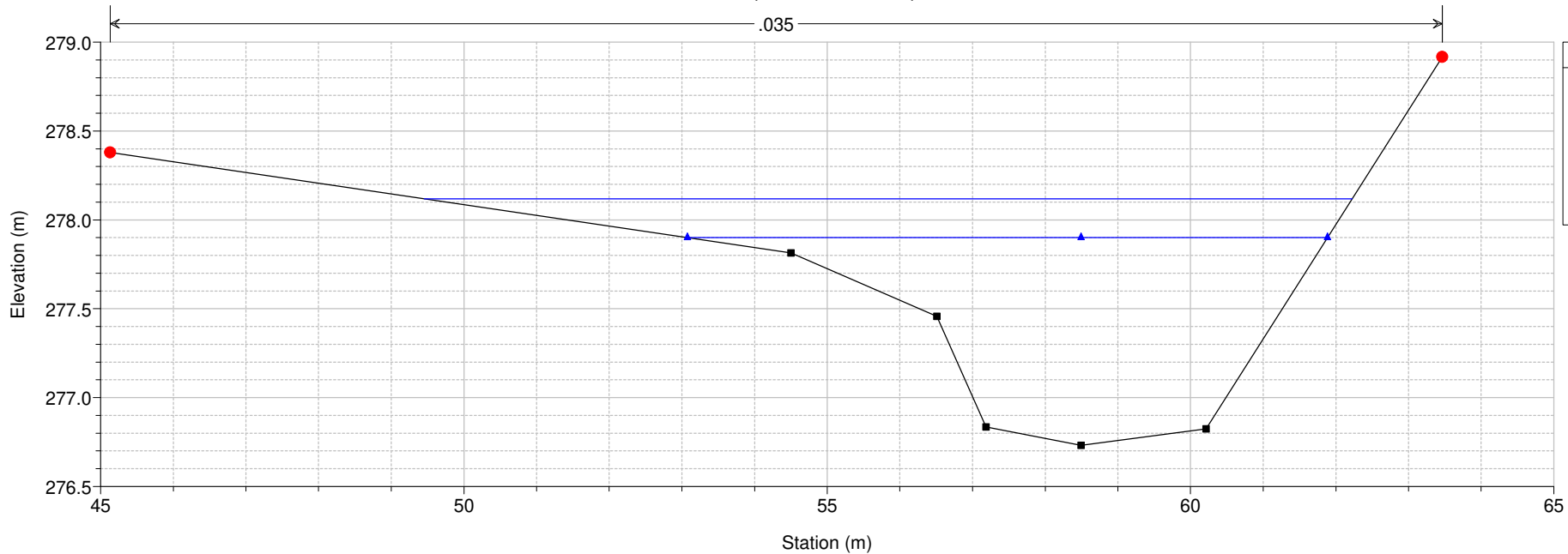
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 19.99 SCO 020_A



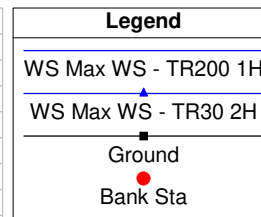
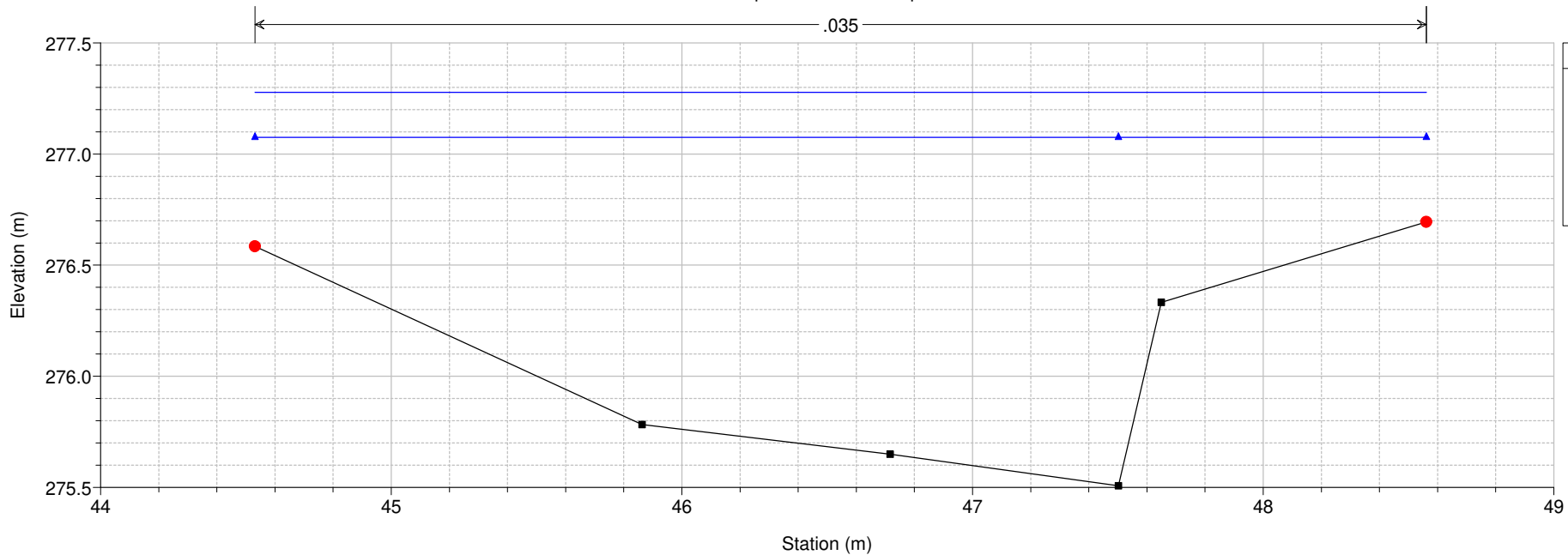
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 19 SCO 019



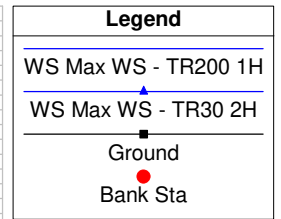
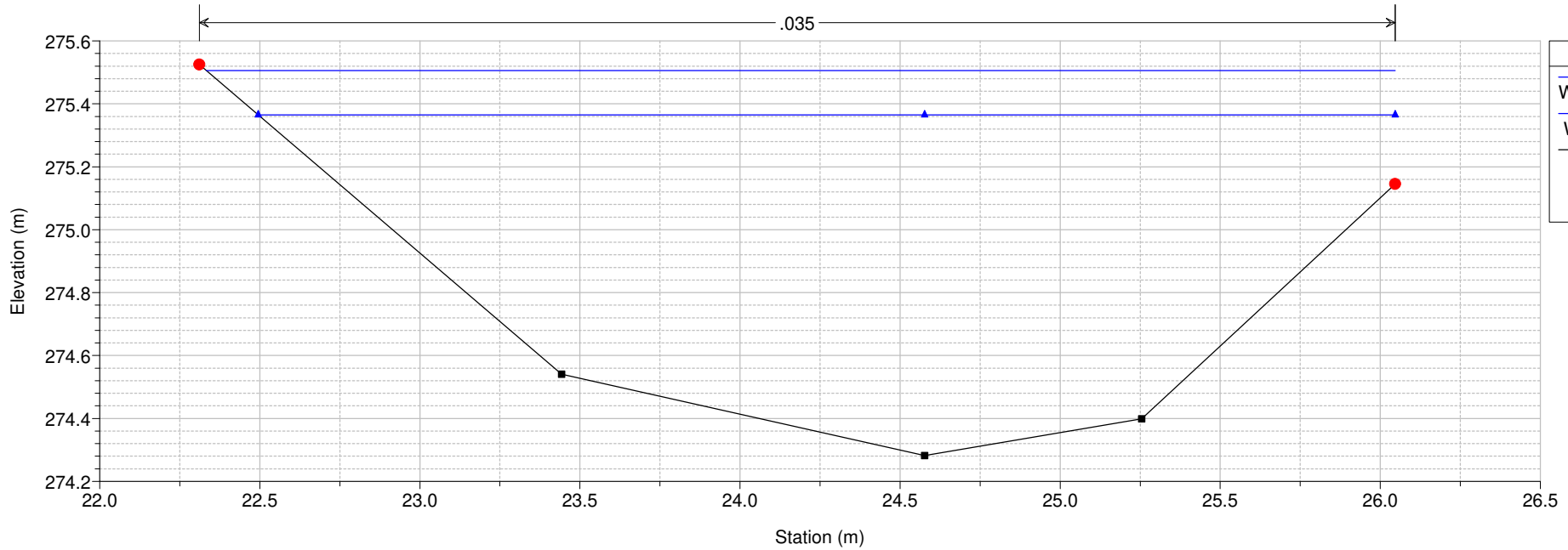
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 18 SCO 018



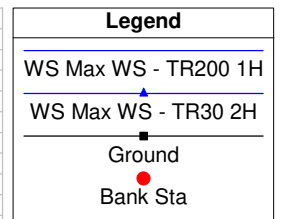
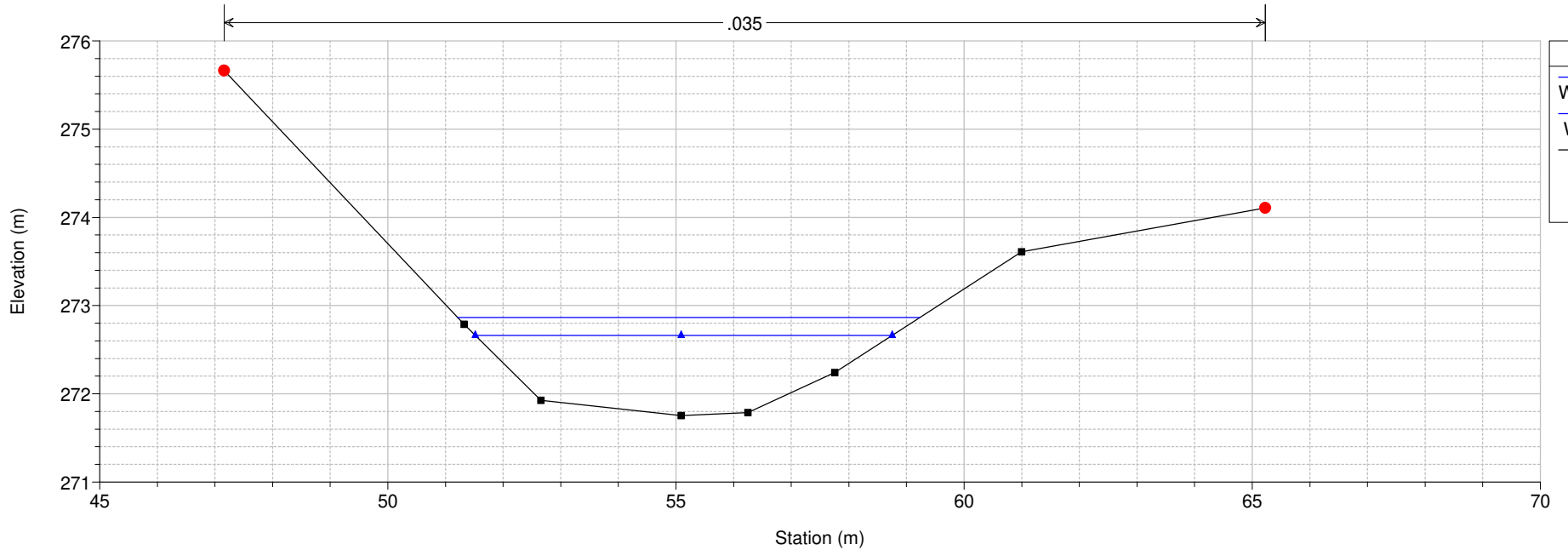
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 17 SCO 017



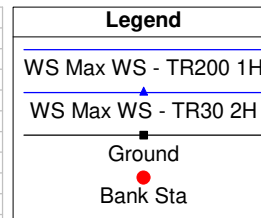
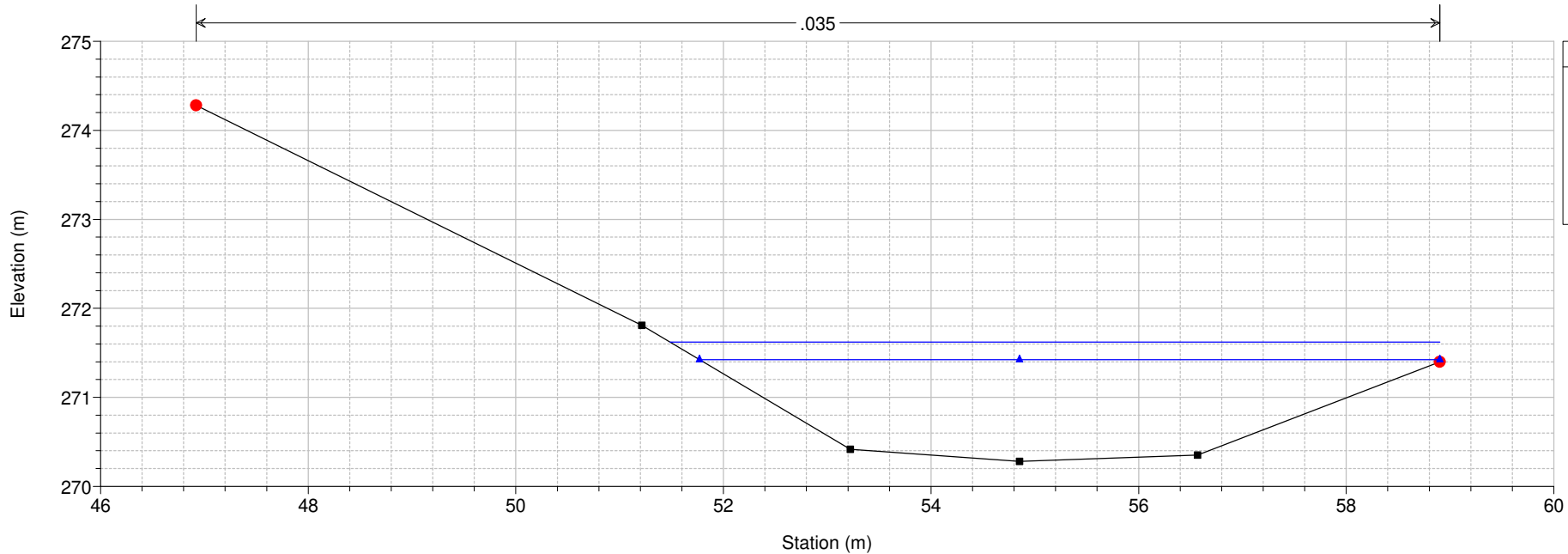
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 16 SCO 016



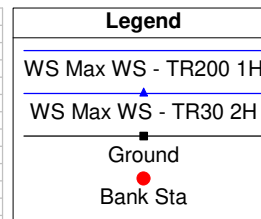
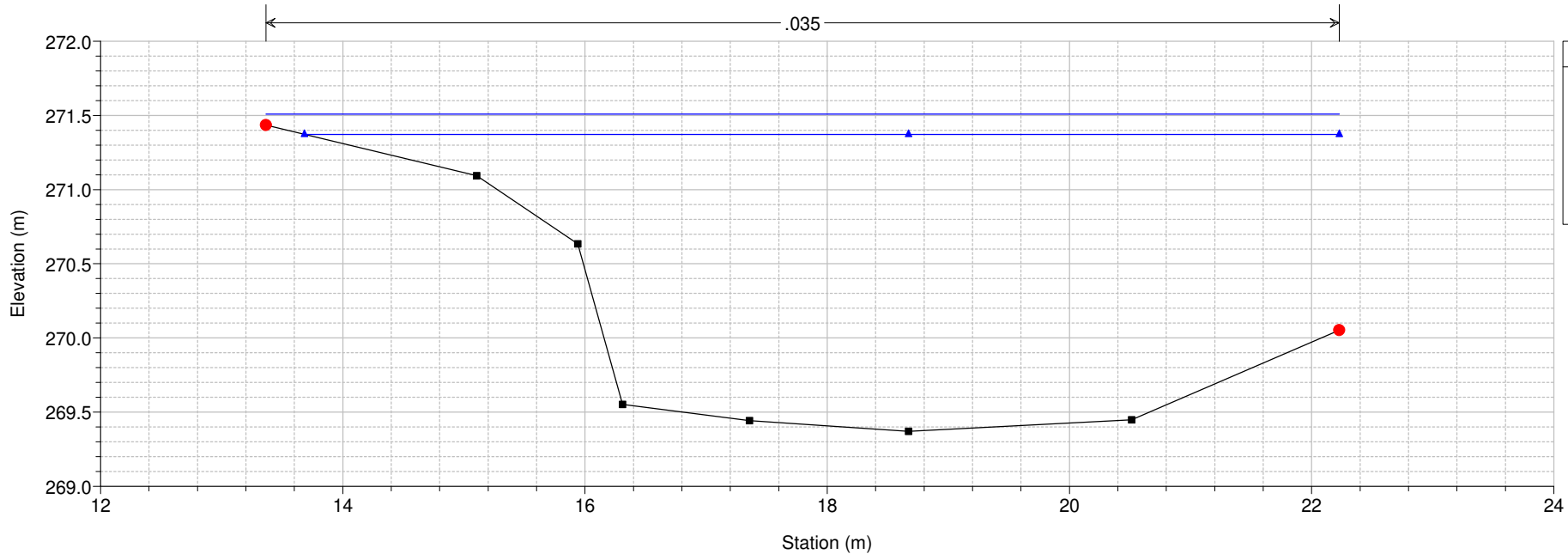
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 15 SCO 015



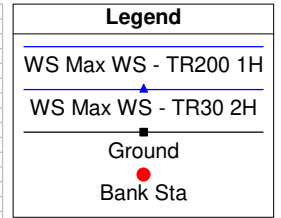
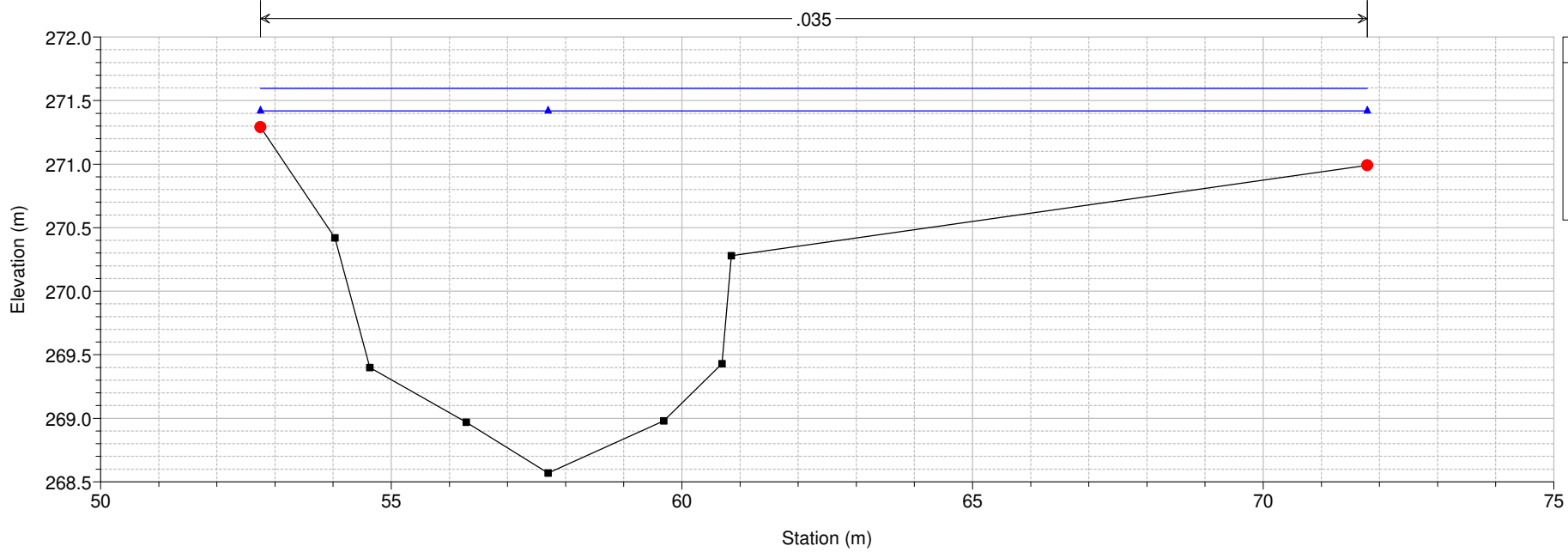
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 14 SCO 014



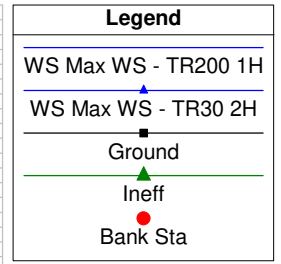
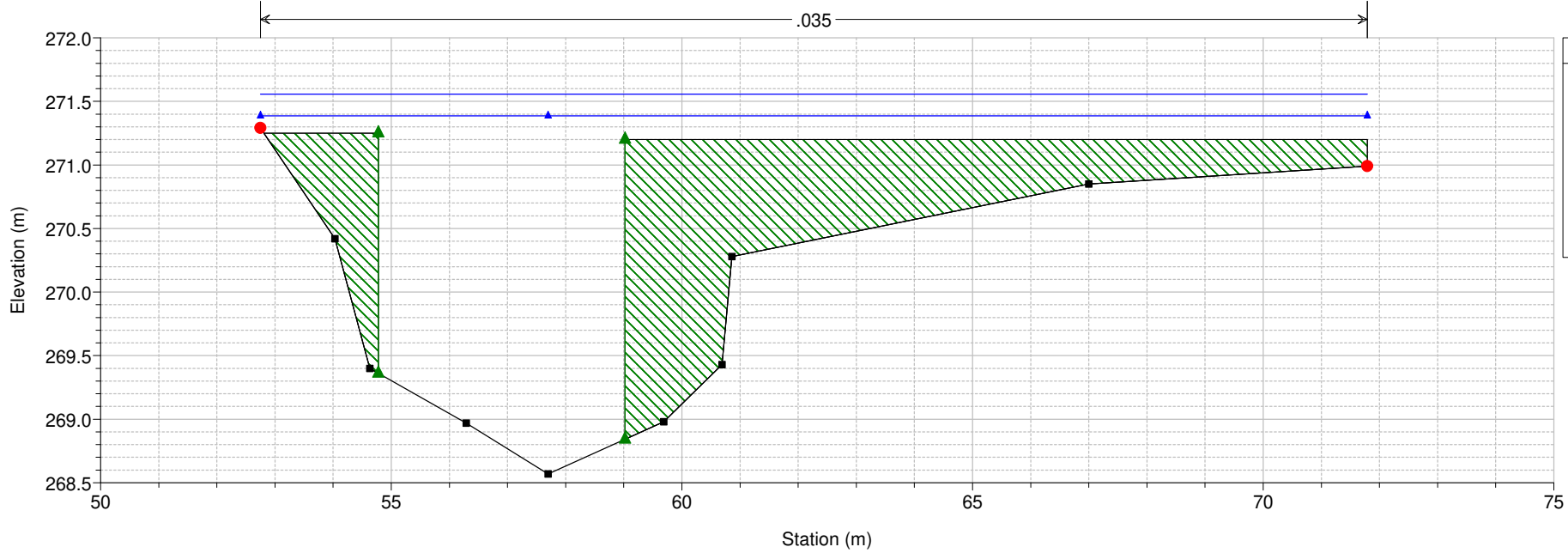
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.3 SCO 013_D



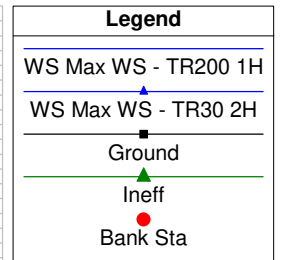
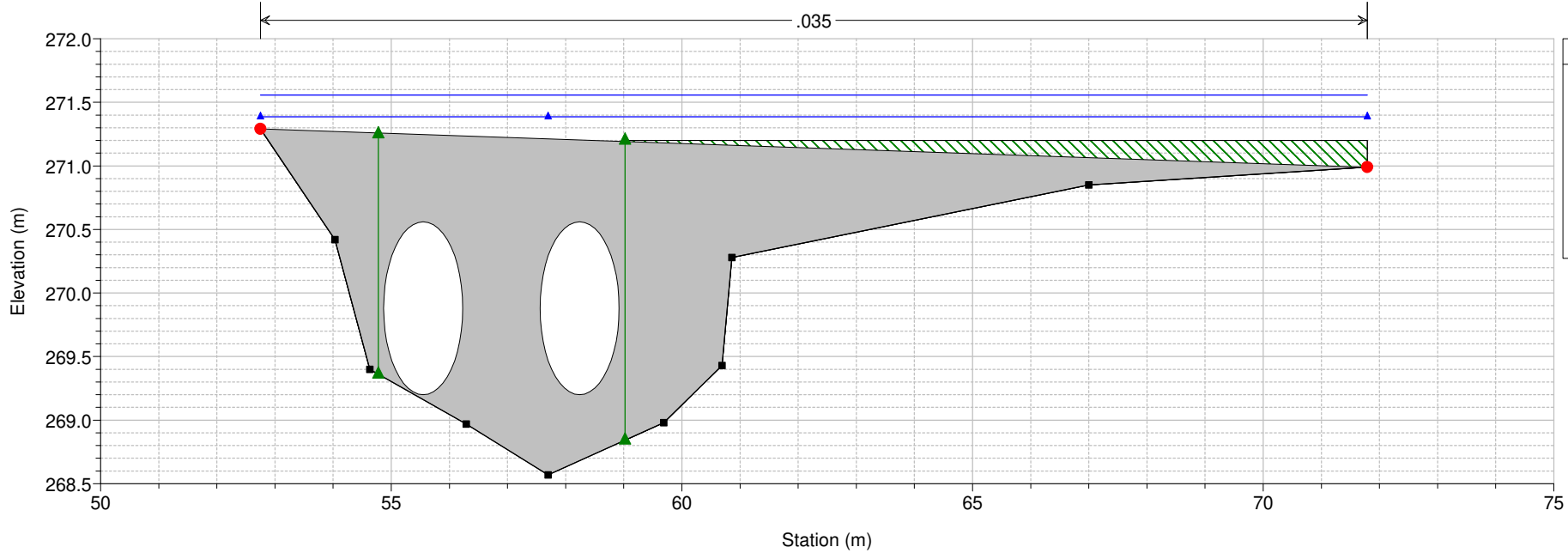
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.25 SCO 13C



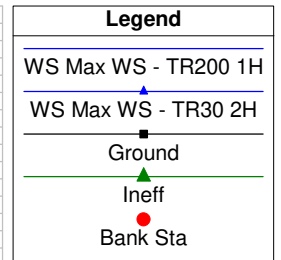
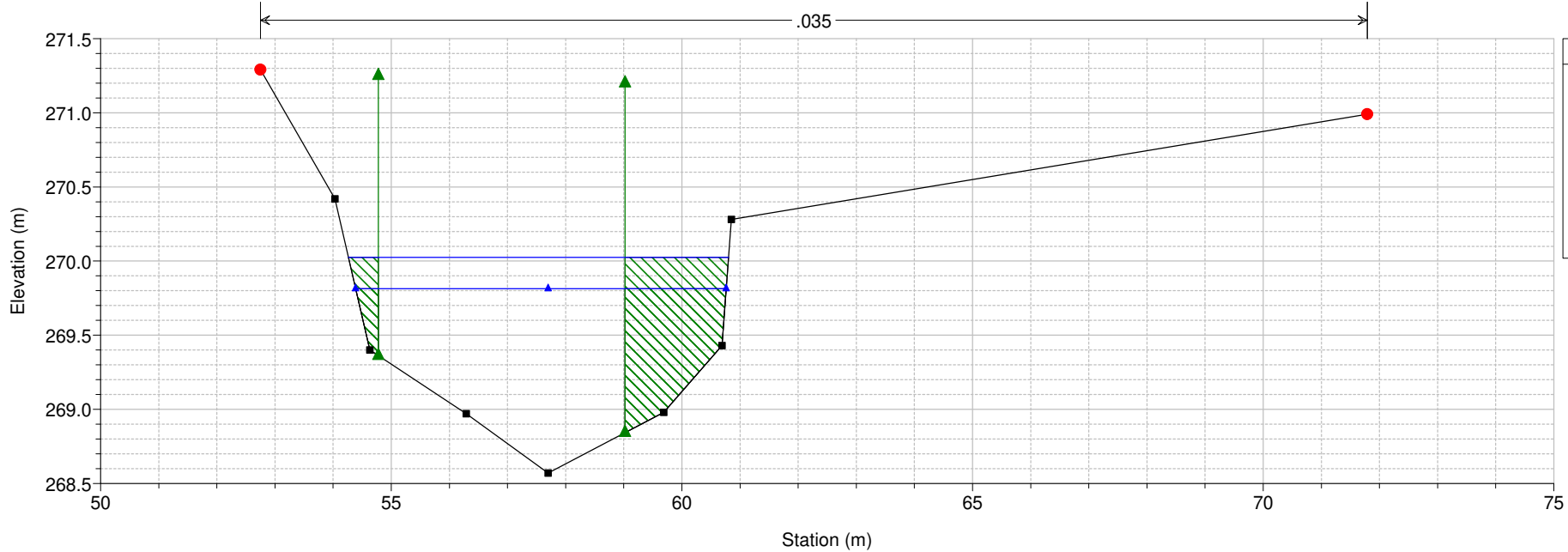
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.2 Culv SCO 13B



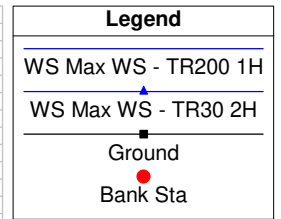
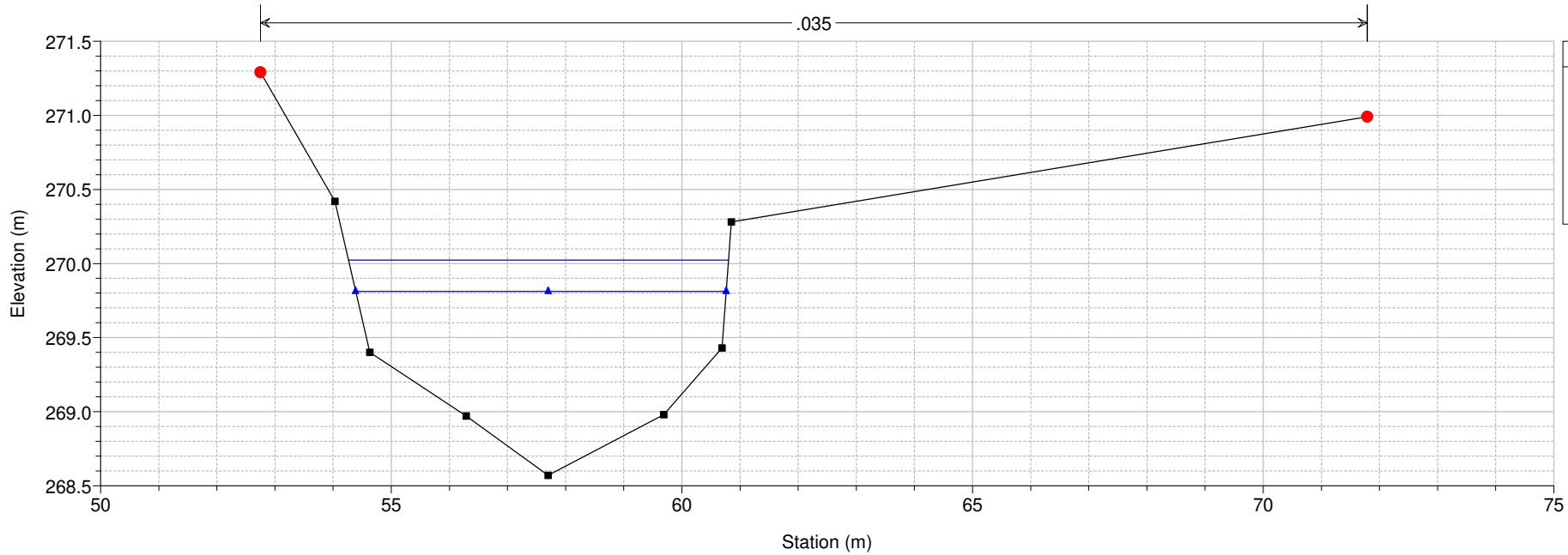
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.1 SCO 13C



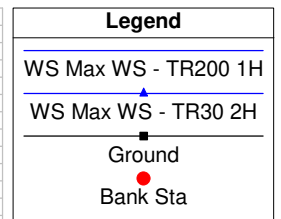
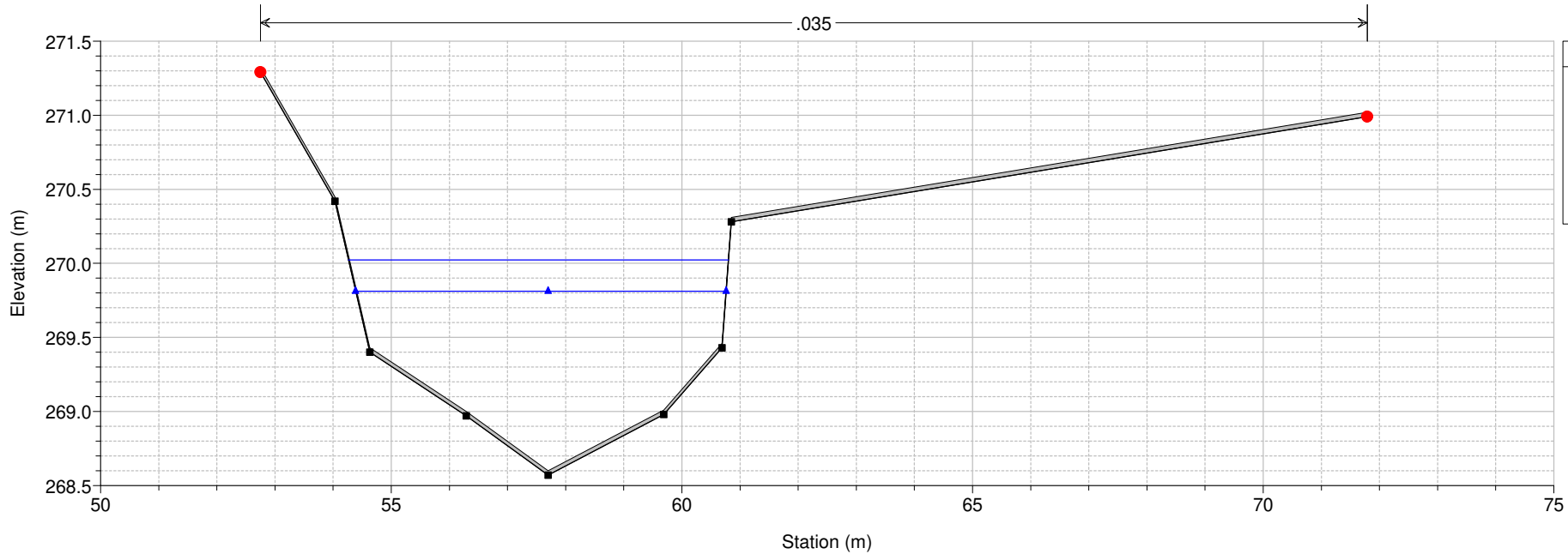
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.09 copia SCO 13C



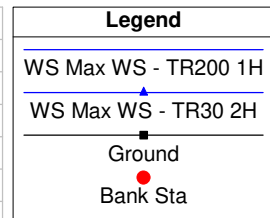
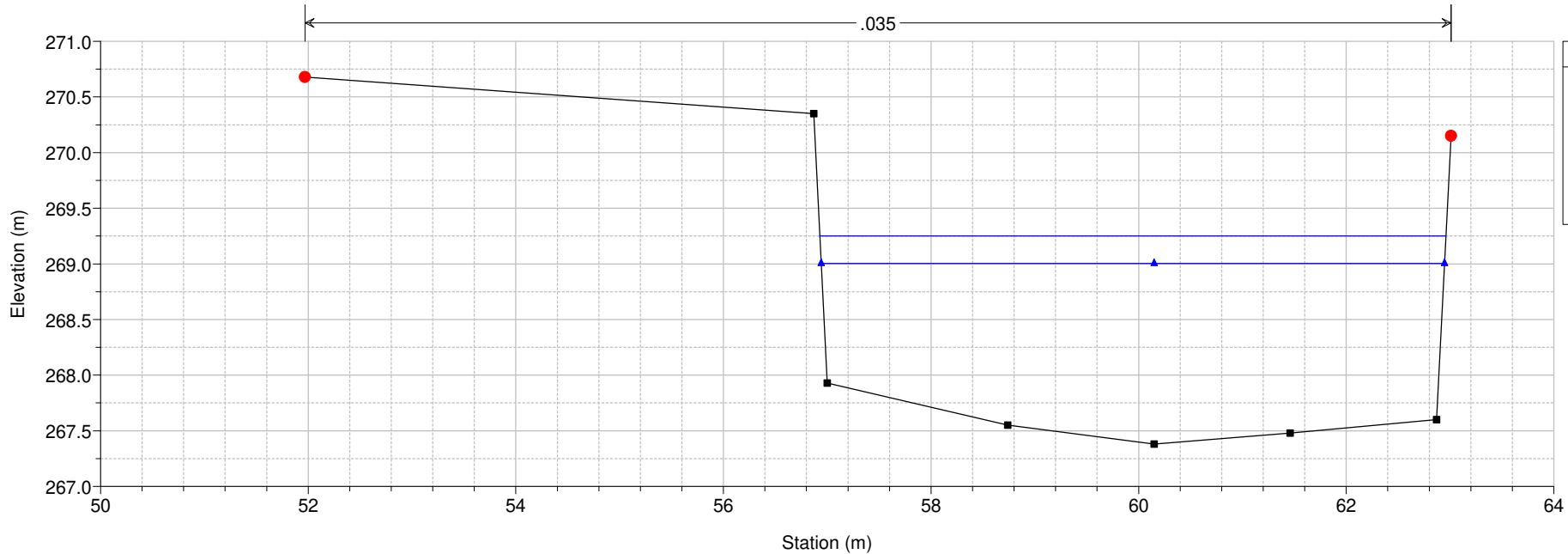
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13.05 IS



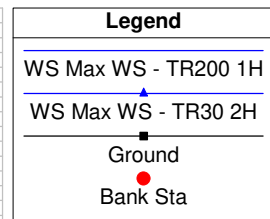
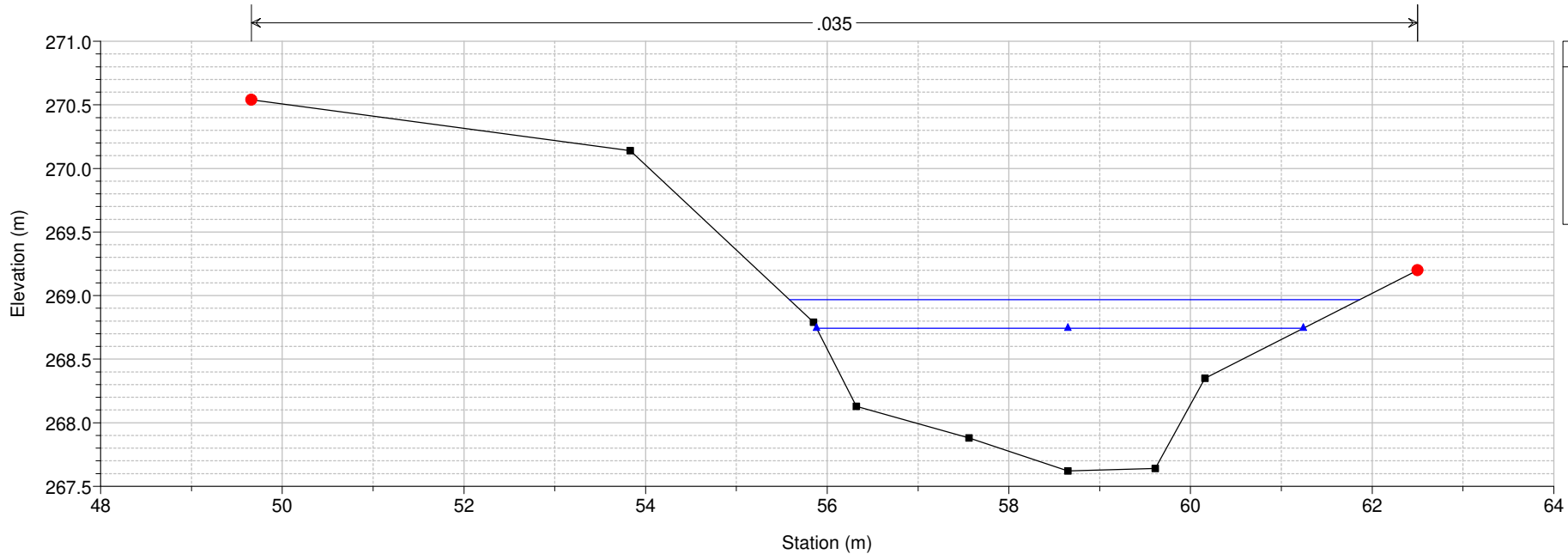
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 13 SCO 013_A



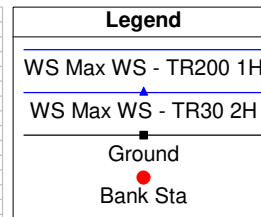
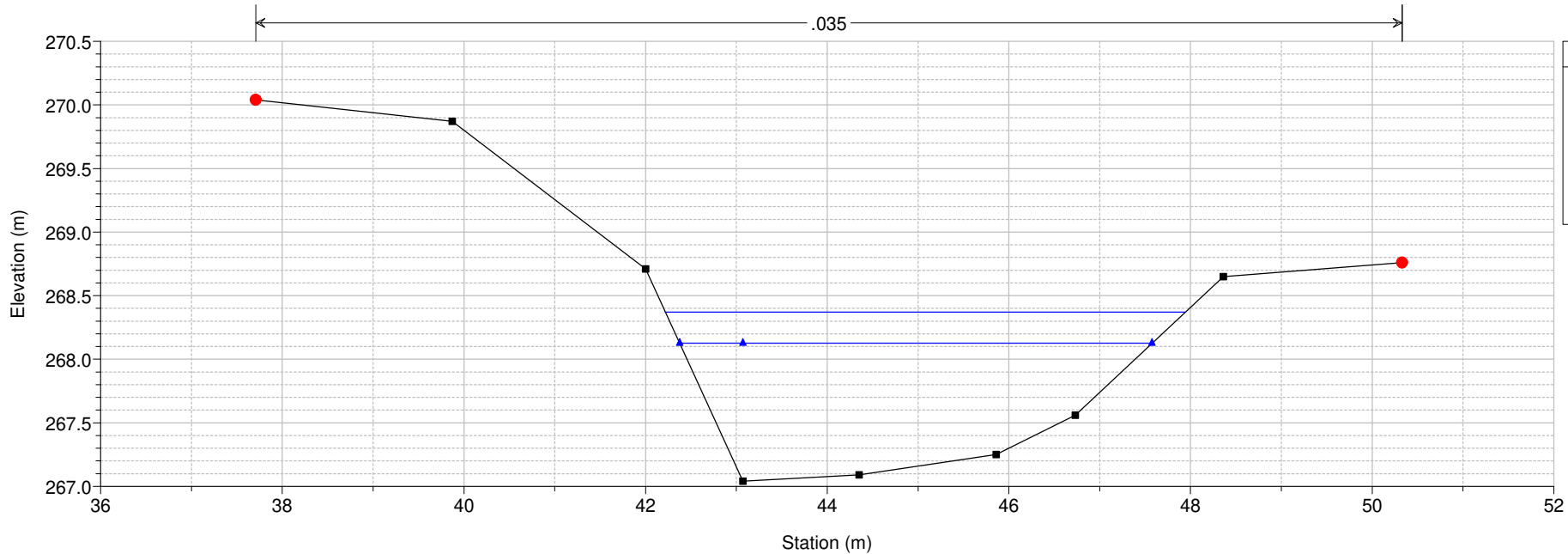
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 12 SCO 012



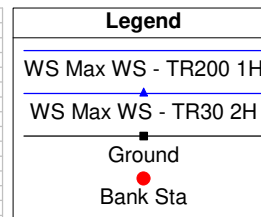
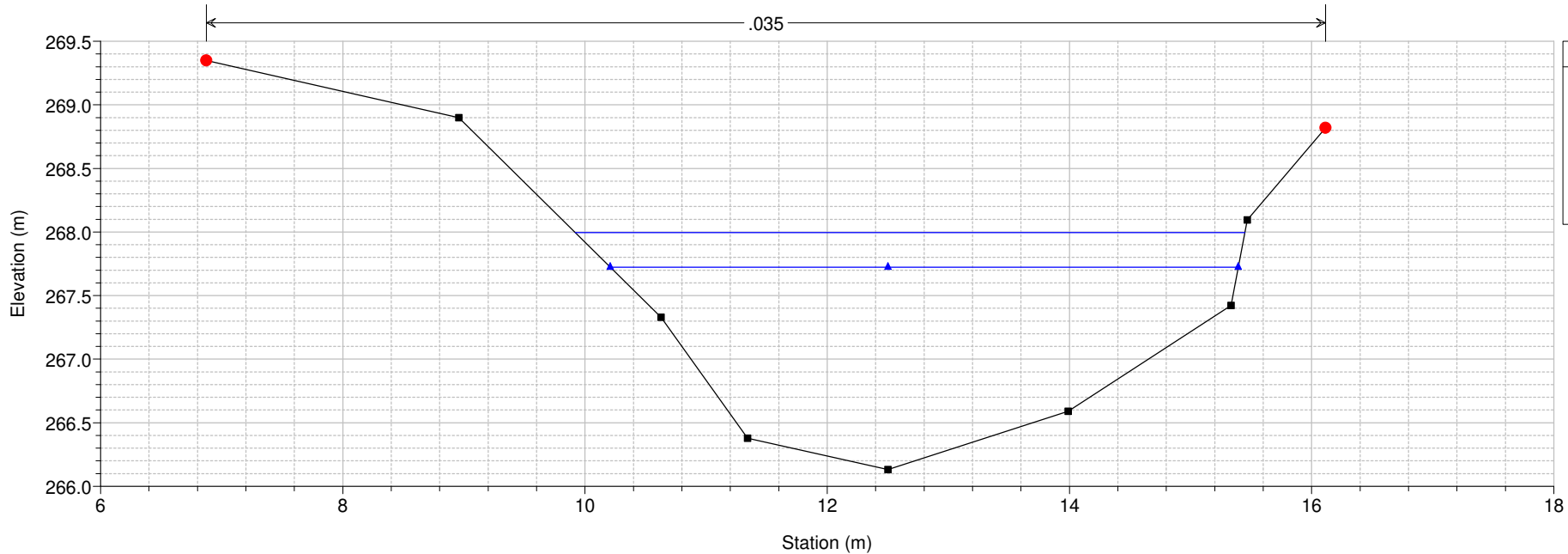
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 11 SCO 011



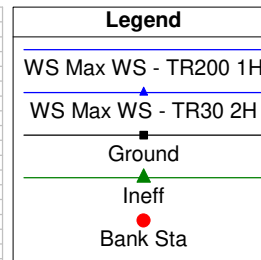
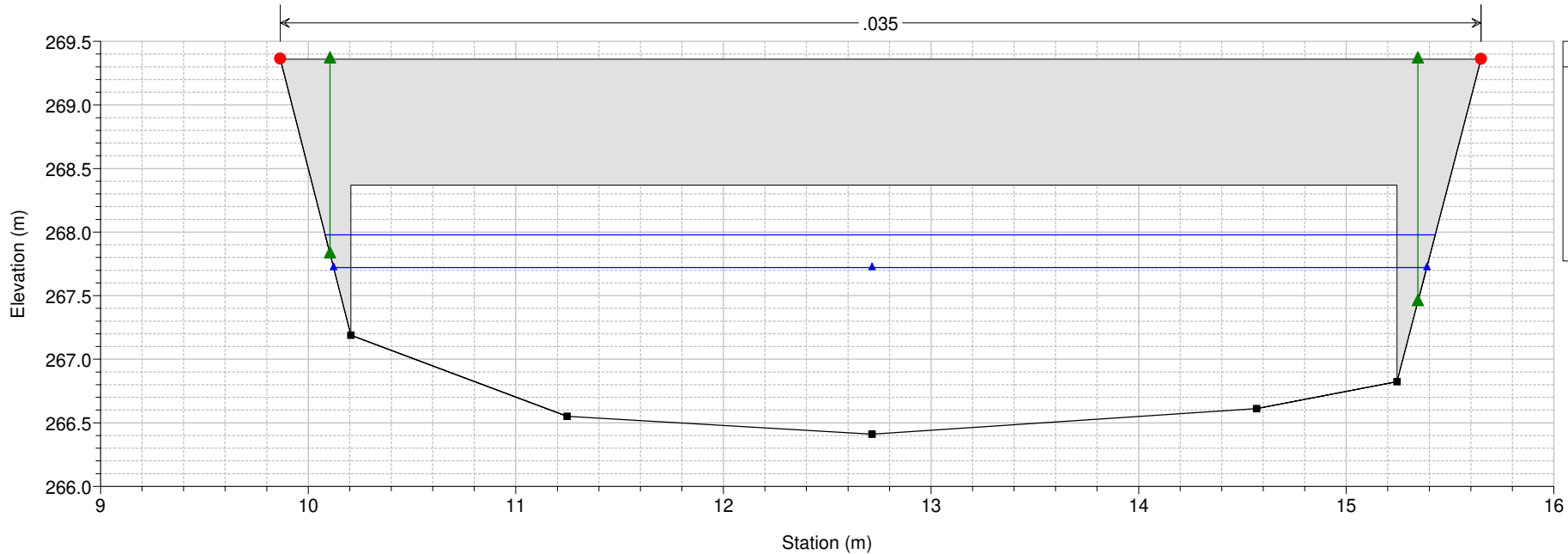
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 10.4 SCO 010_C



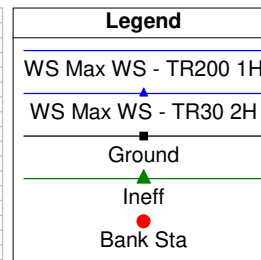
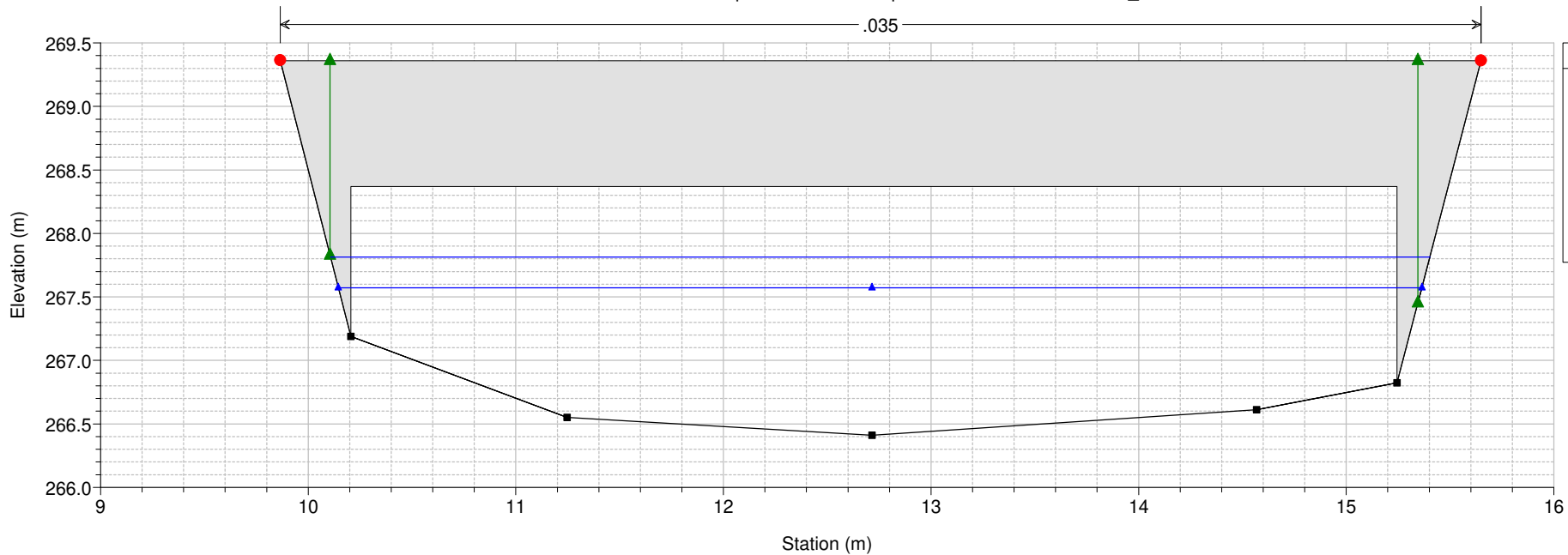
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 10.3 SCO 010_B



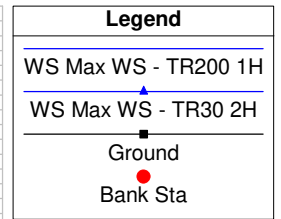
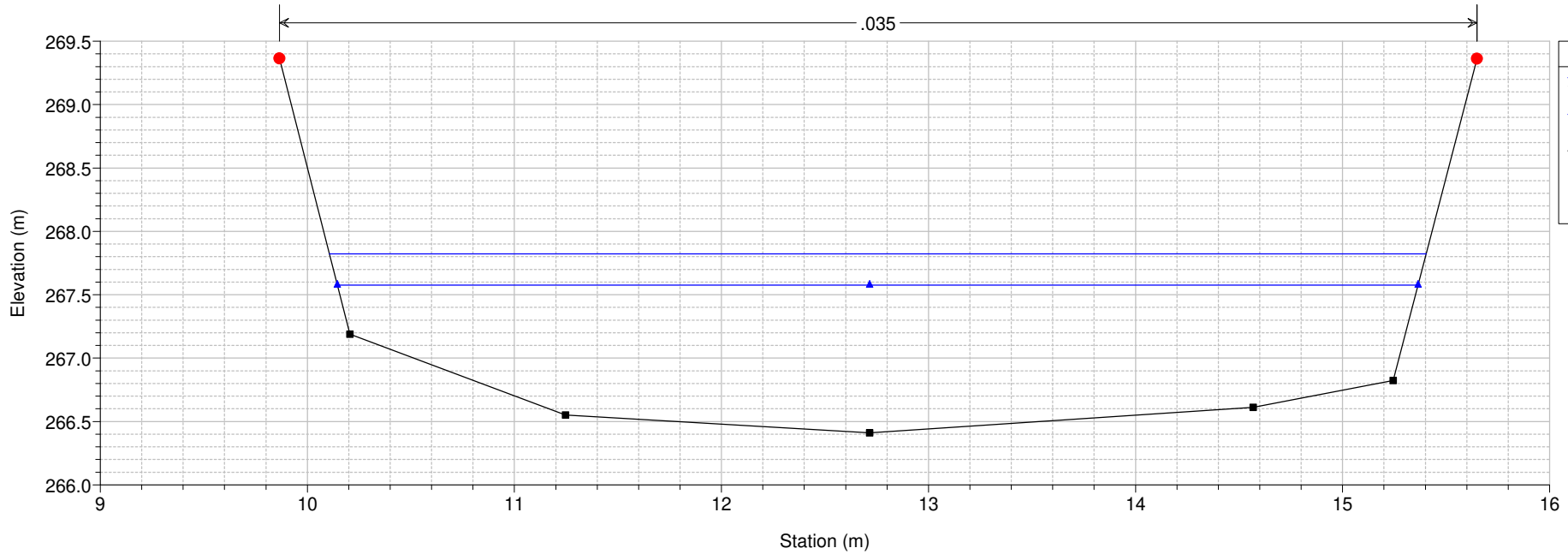
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 10.1 SCO 010_B



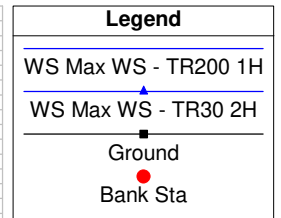
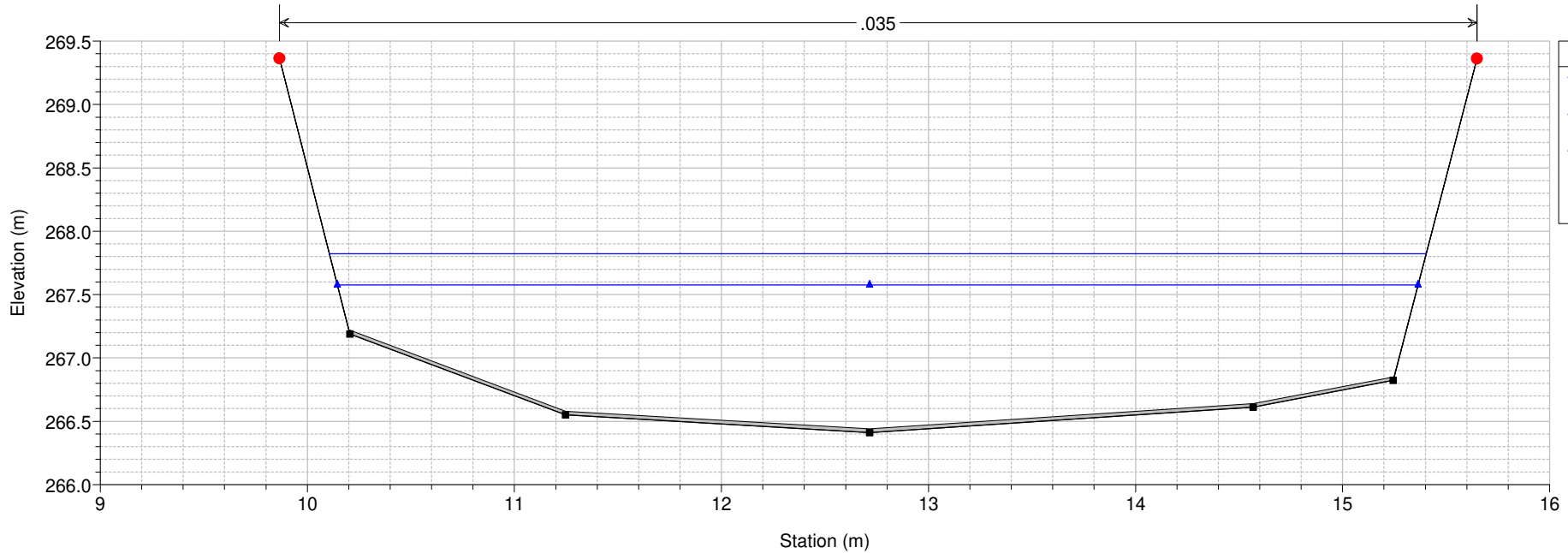
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 10 SCO 010_B



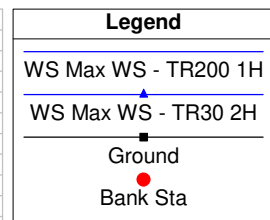
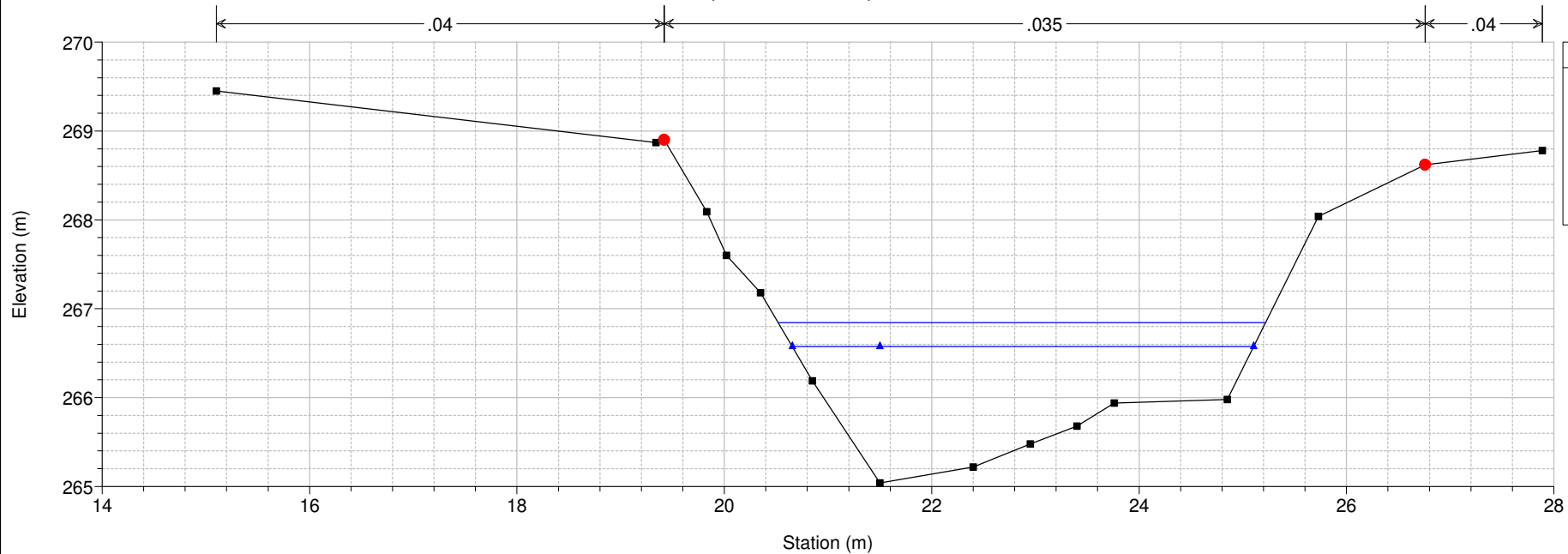
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 9.95 IS



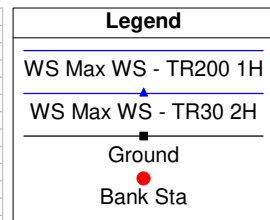
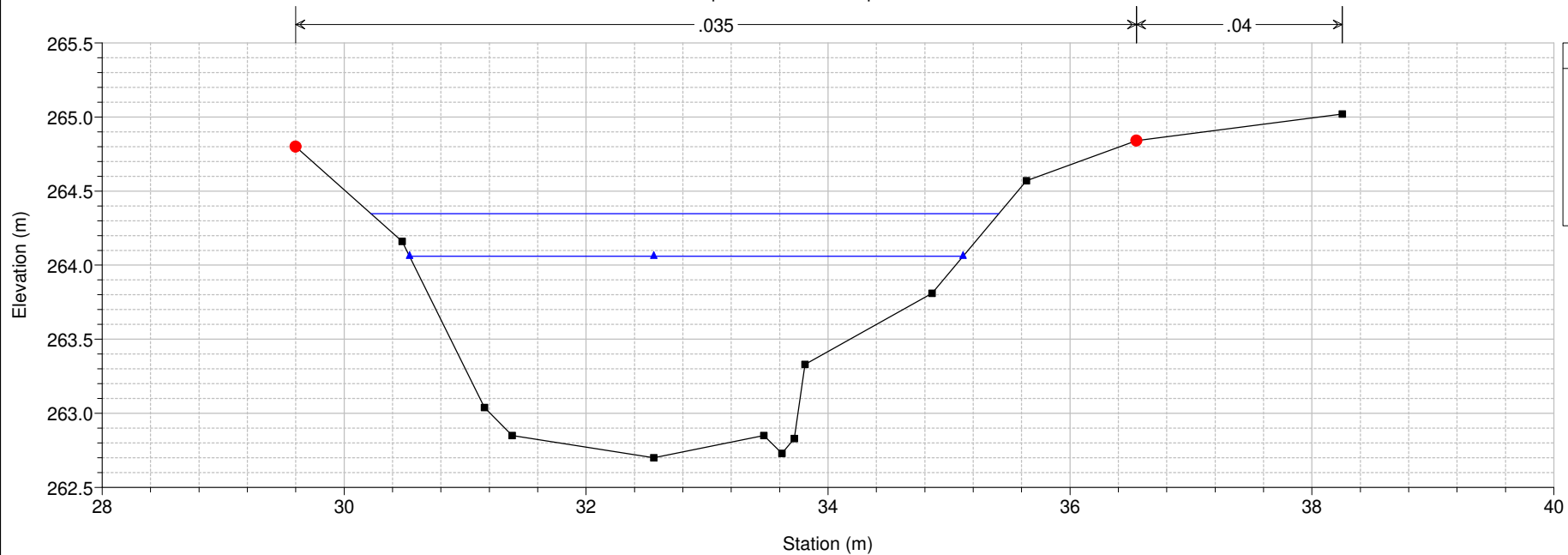
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 9.9 sez. 01 rilievo 2024



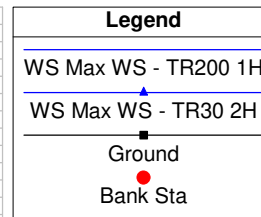
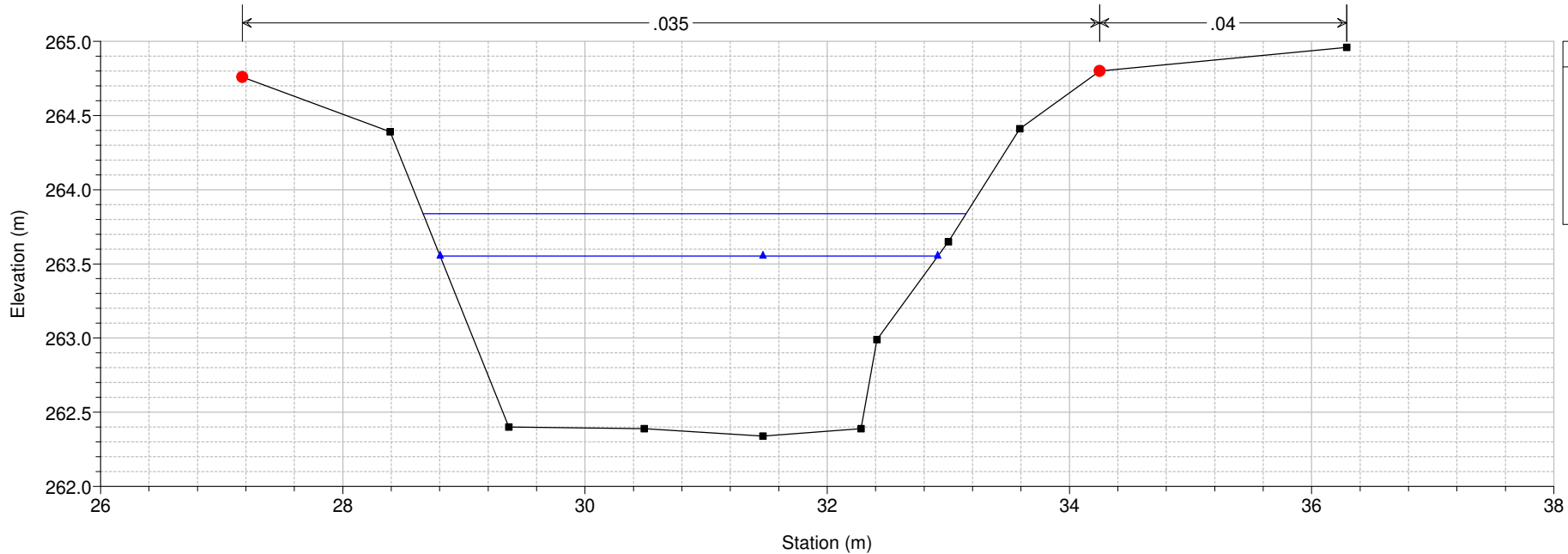
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 8.1 sez. 03 rilievo 2024



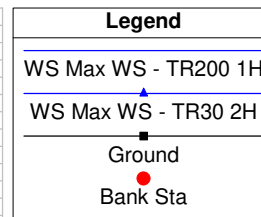
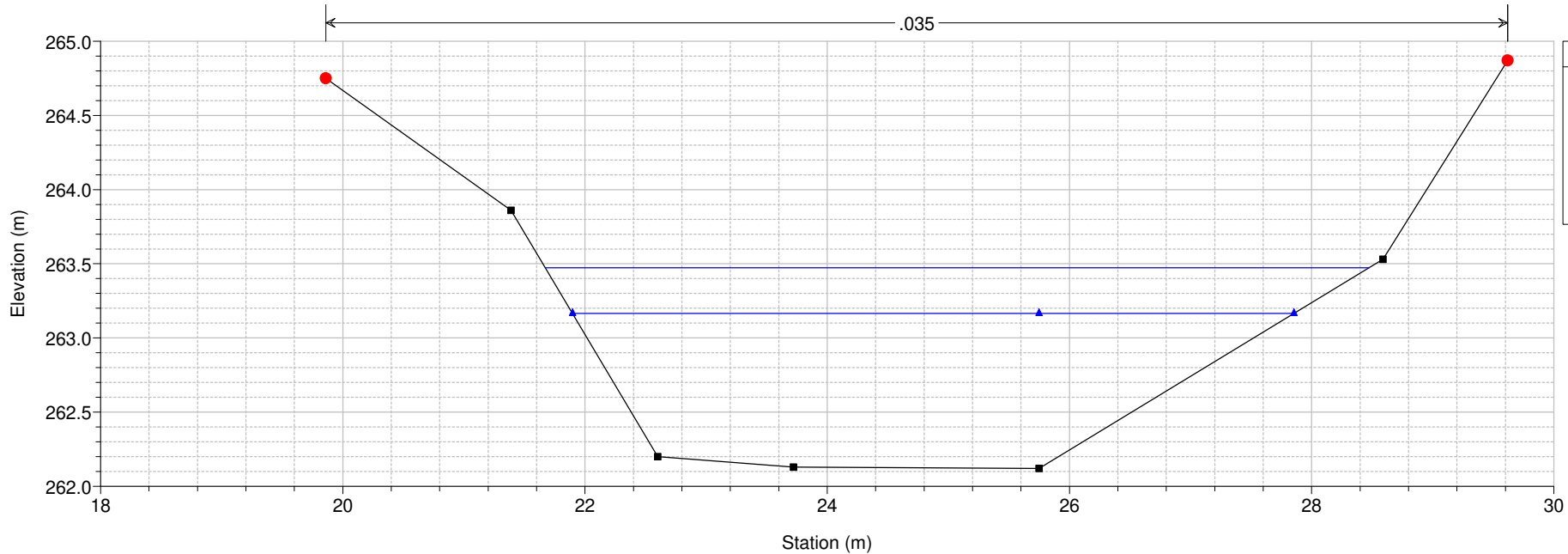
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 7 sez. 04 rilievo 2024



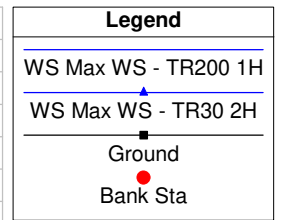
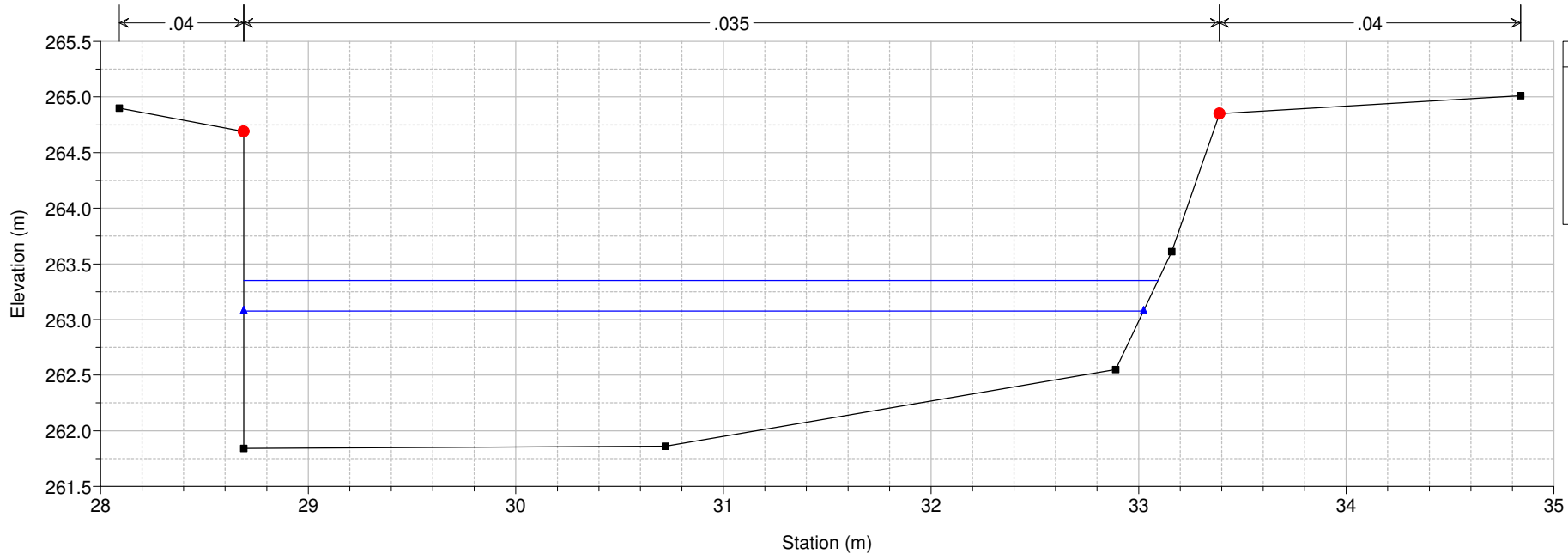
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 6.8 sez. 05 rilievo 2024



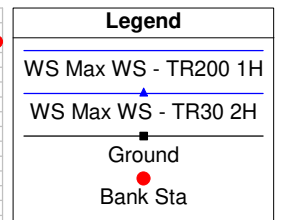
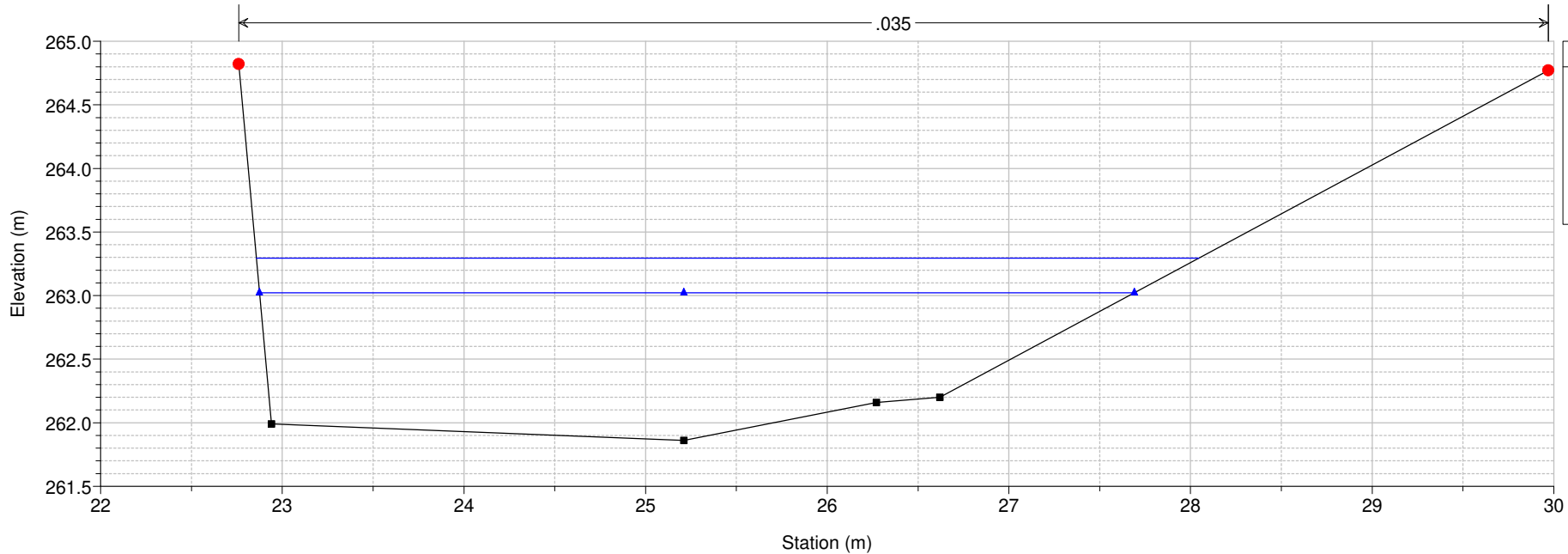
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 6.2 sez. 06 rilievo 2024



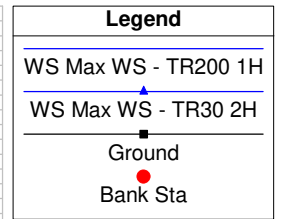
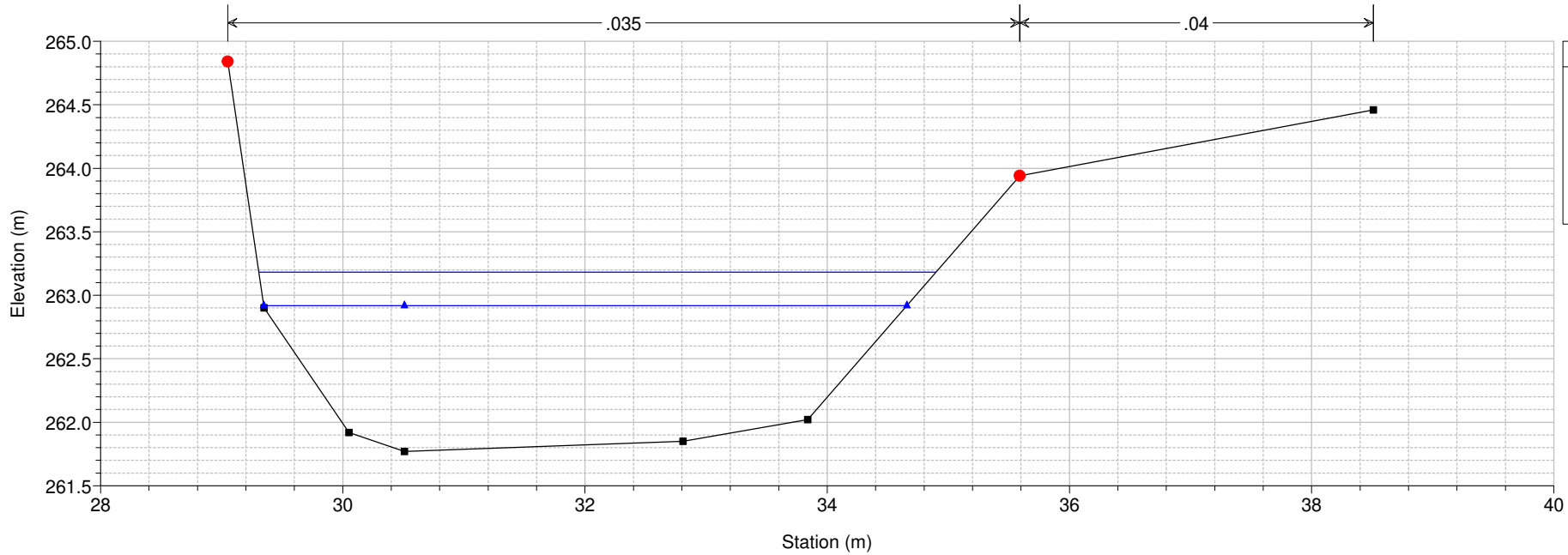
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 5.8 sez. 07 rilievo 2024



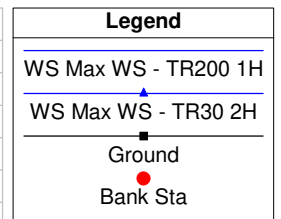
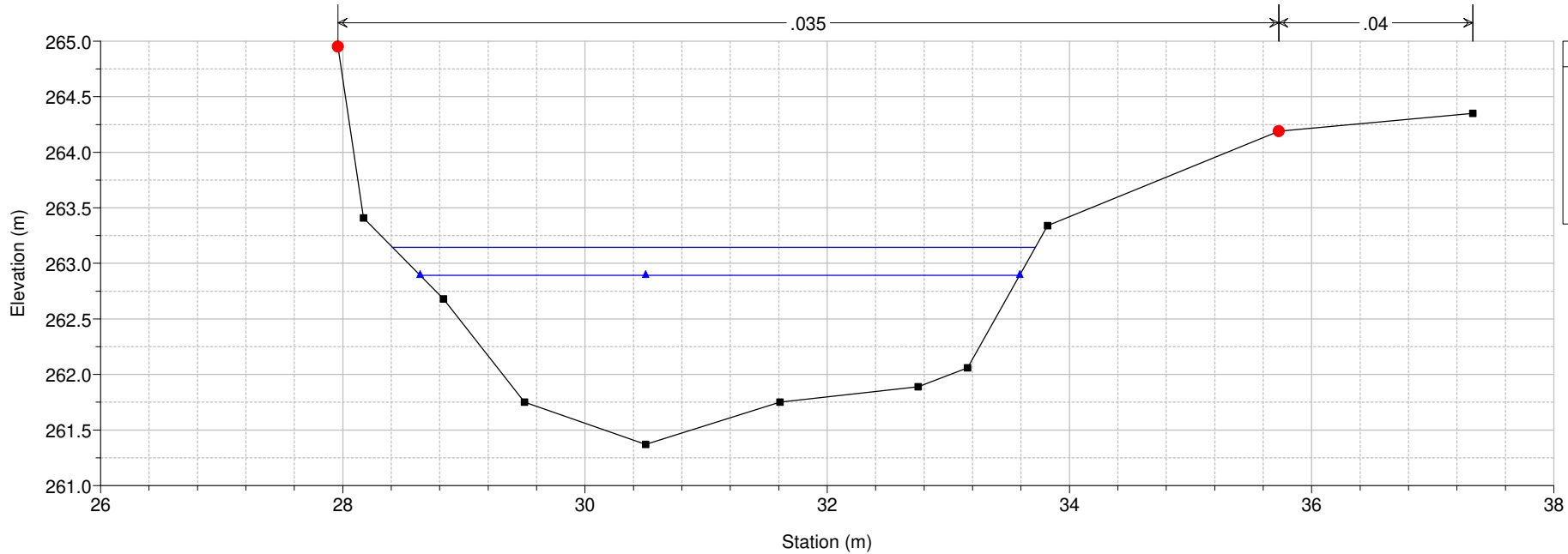
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 5.2 sez. 08 rilievo 2024



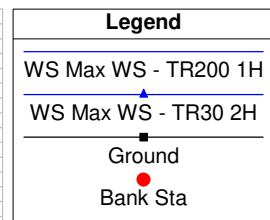
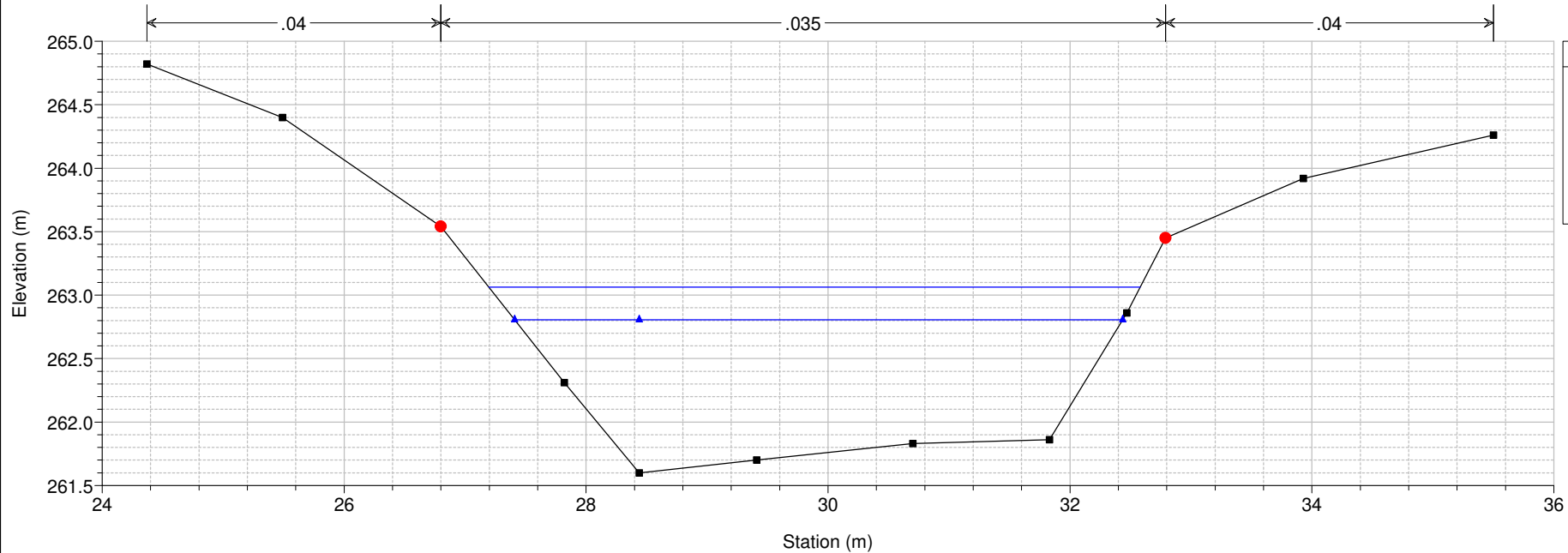
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 4.8 sez. 09 rilievo 2024



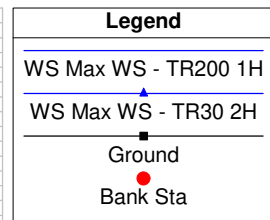
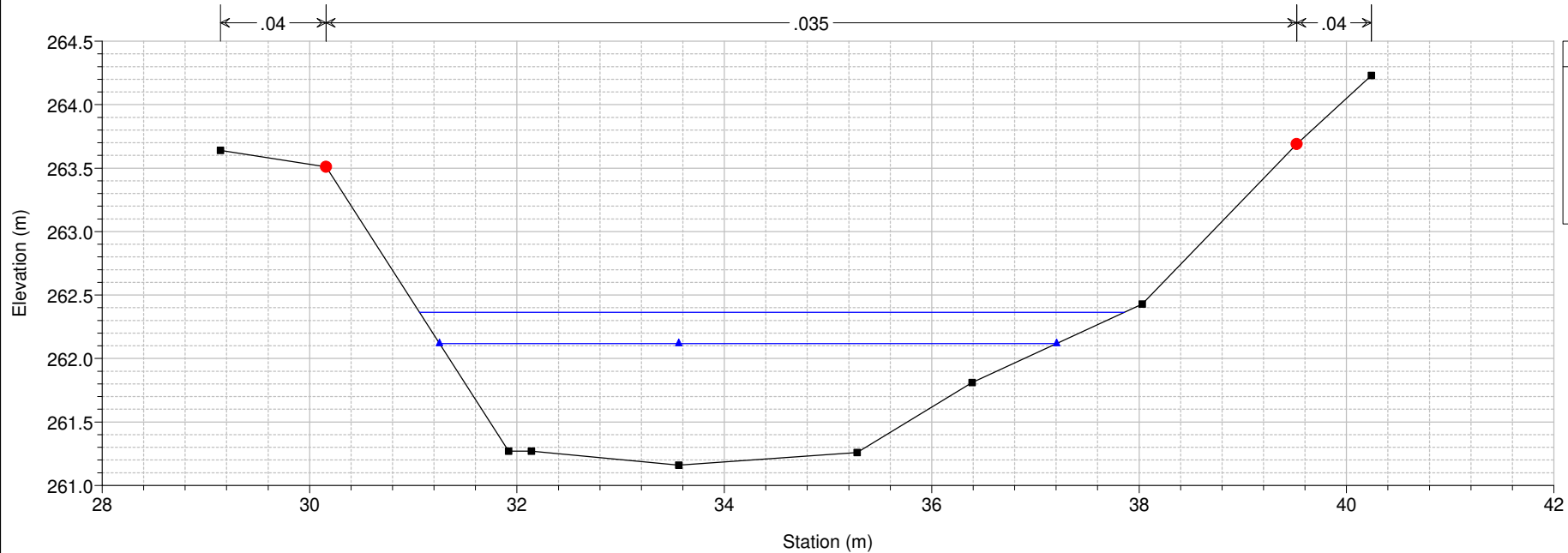
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 4 sez. 10 rilievo 2024



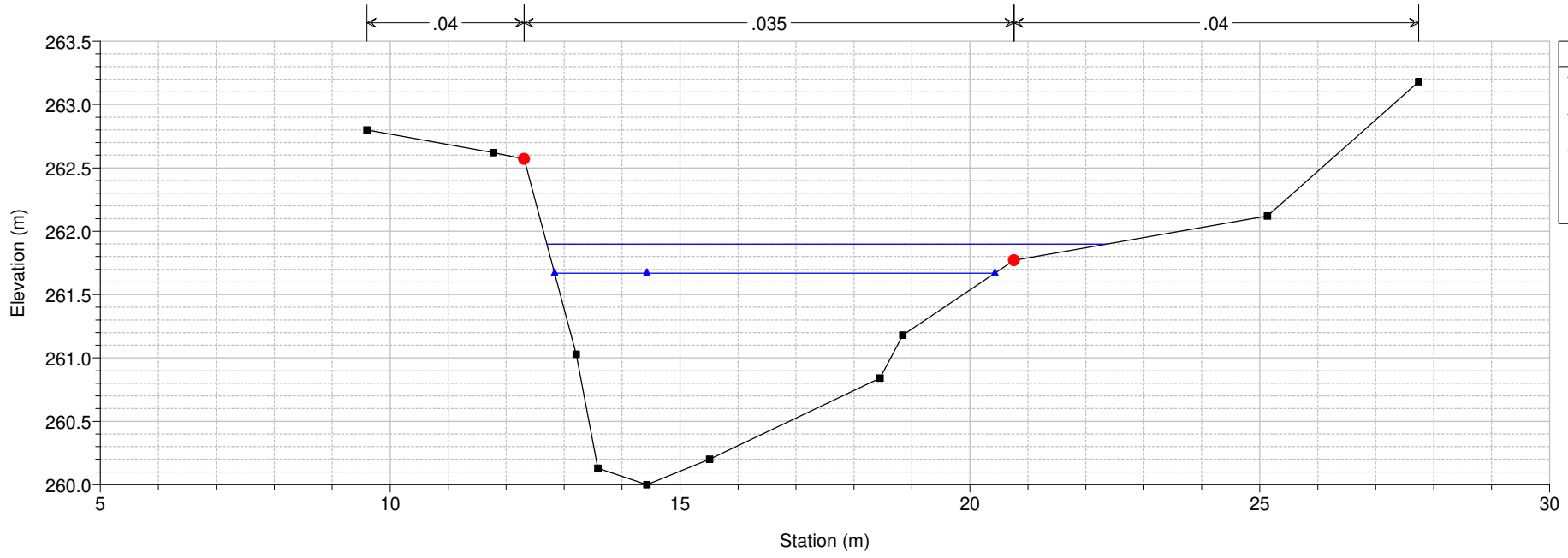
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 3 sez. 11 rilievo 2024



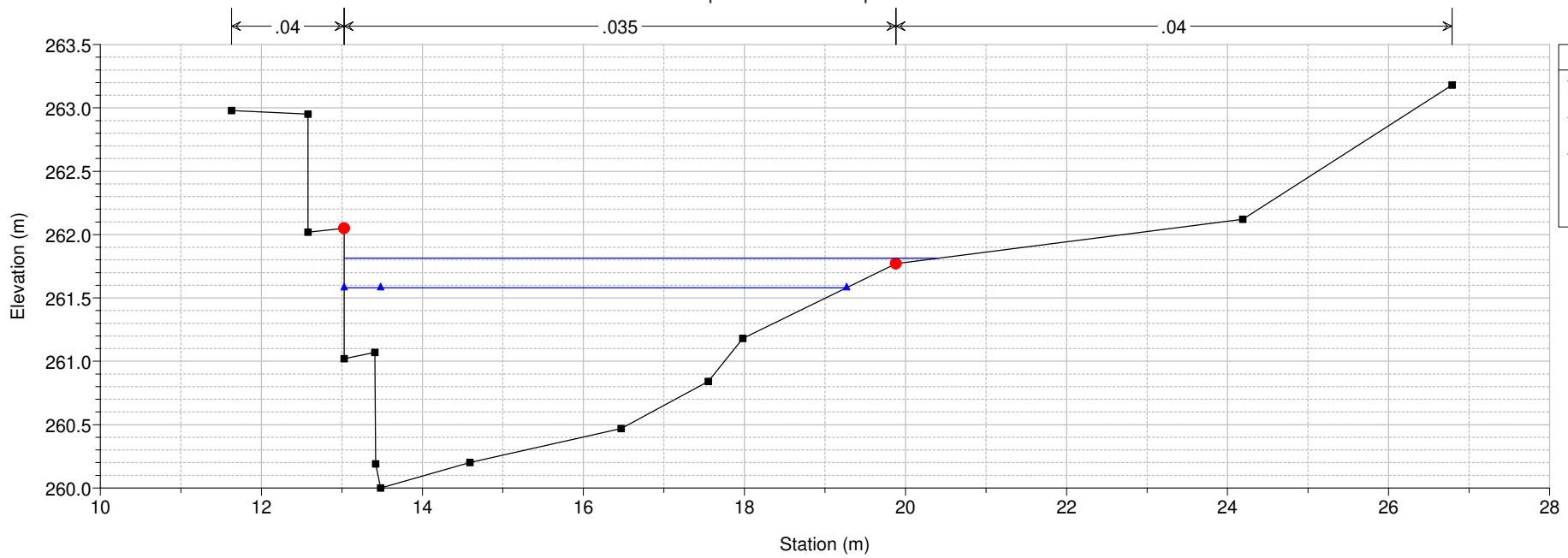
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 2.5 sez. 12 rilievo 2024



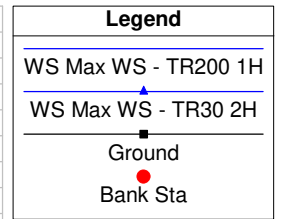
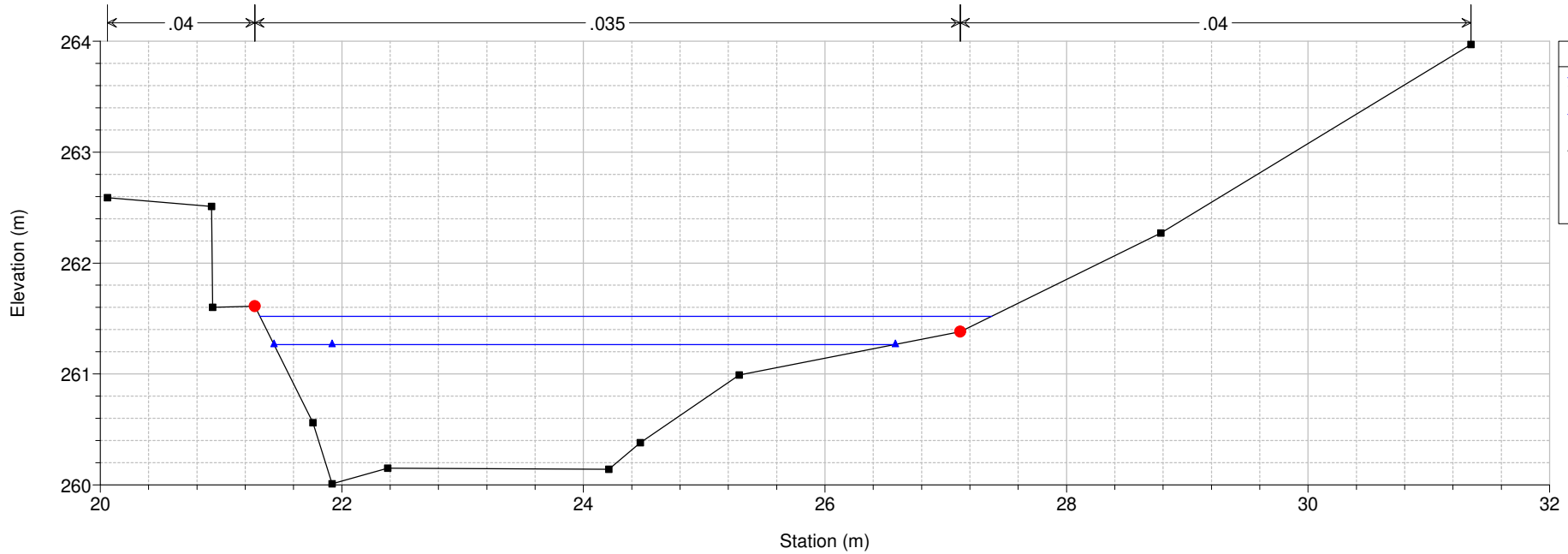
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 2.3 sez. 13 rilievo 2024



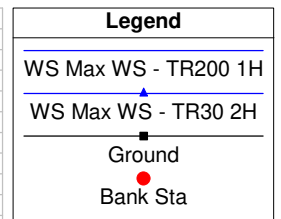
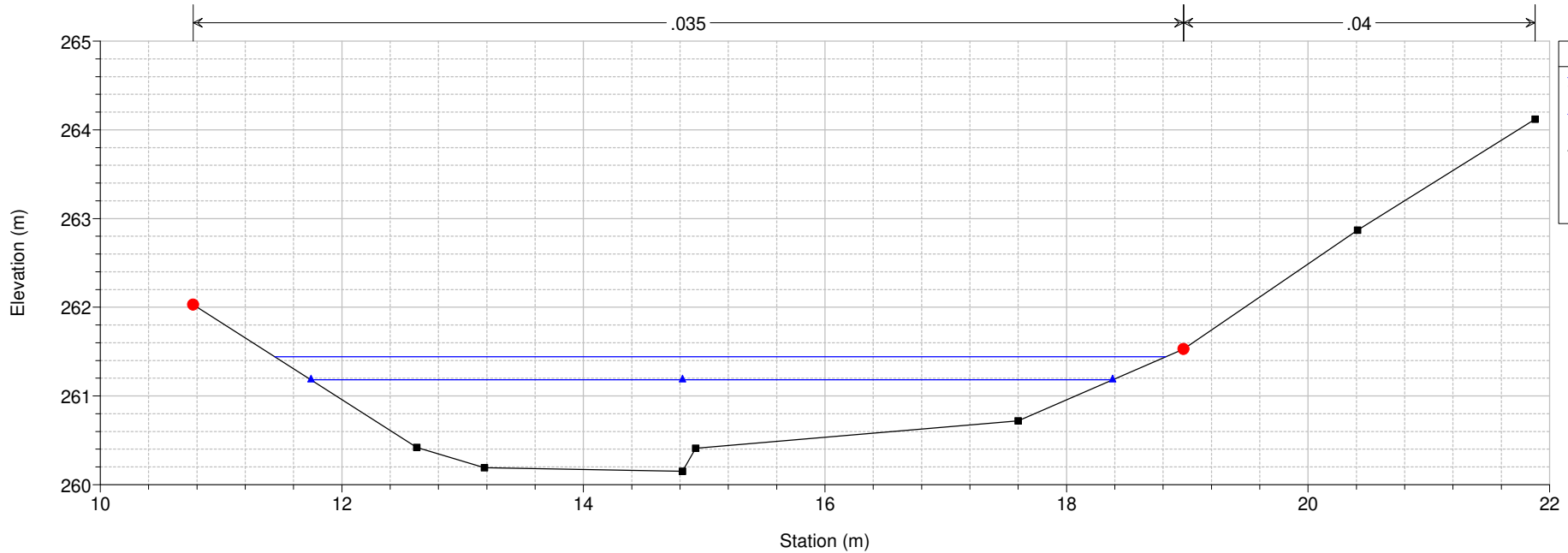
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 1.9 sez. 14 rilievo 2024



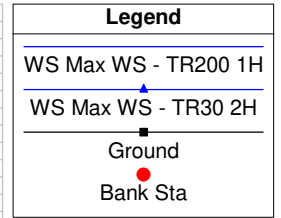
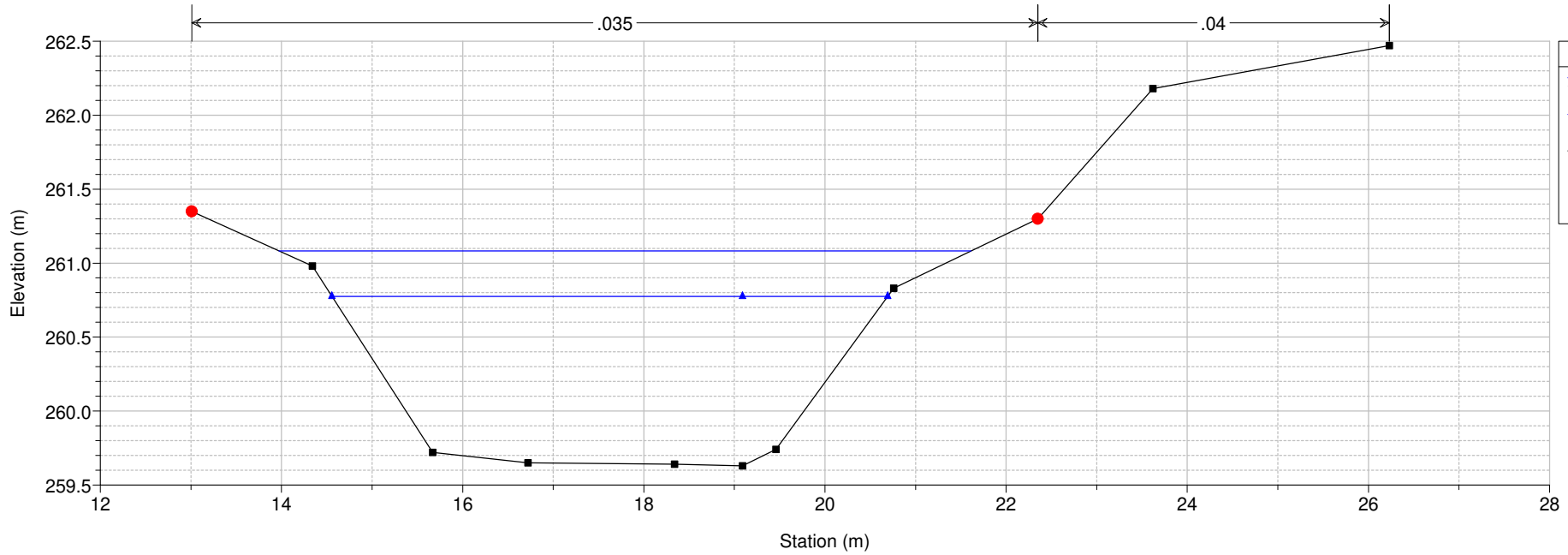
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 1.8 sez. 15 rilievo 2024



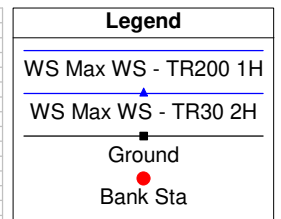
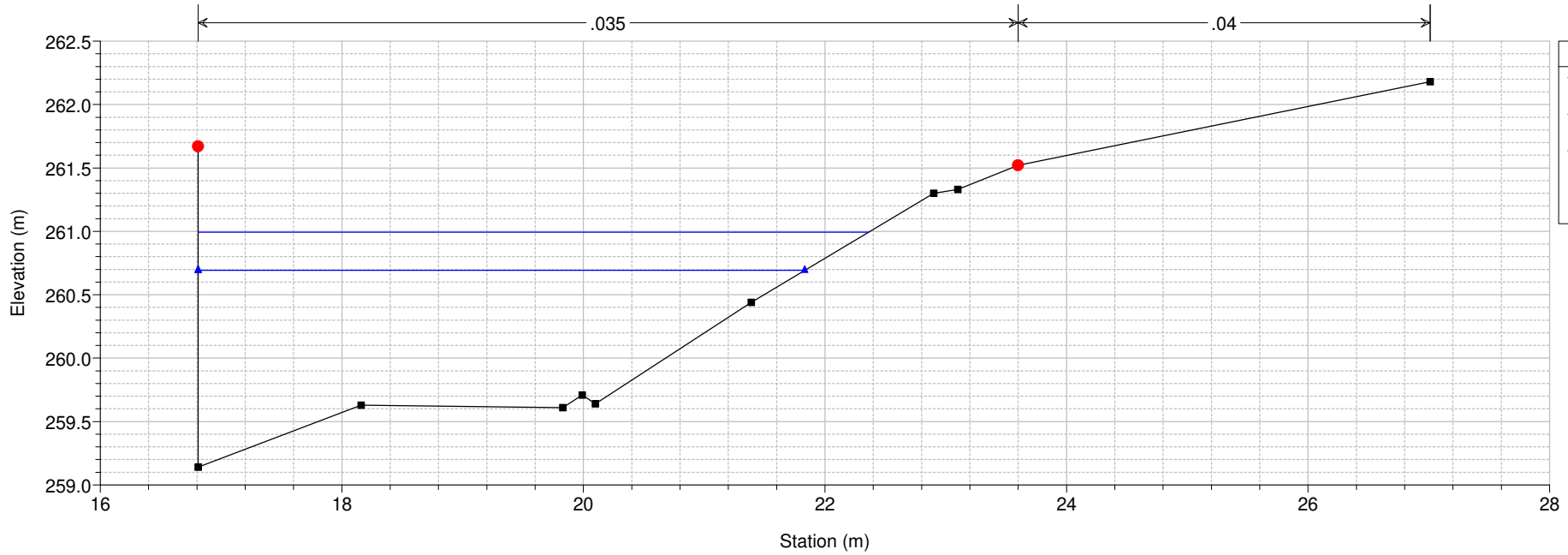
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 1.7 sez. 16 rilievo 2024

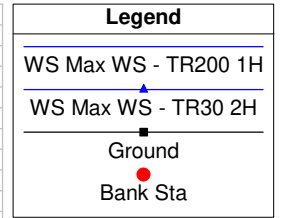
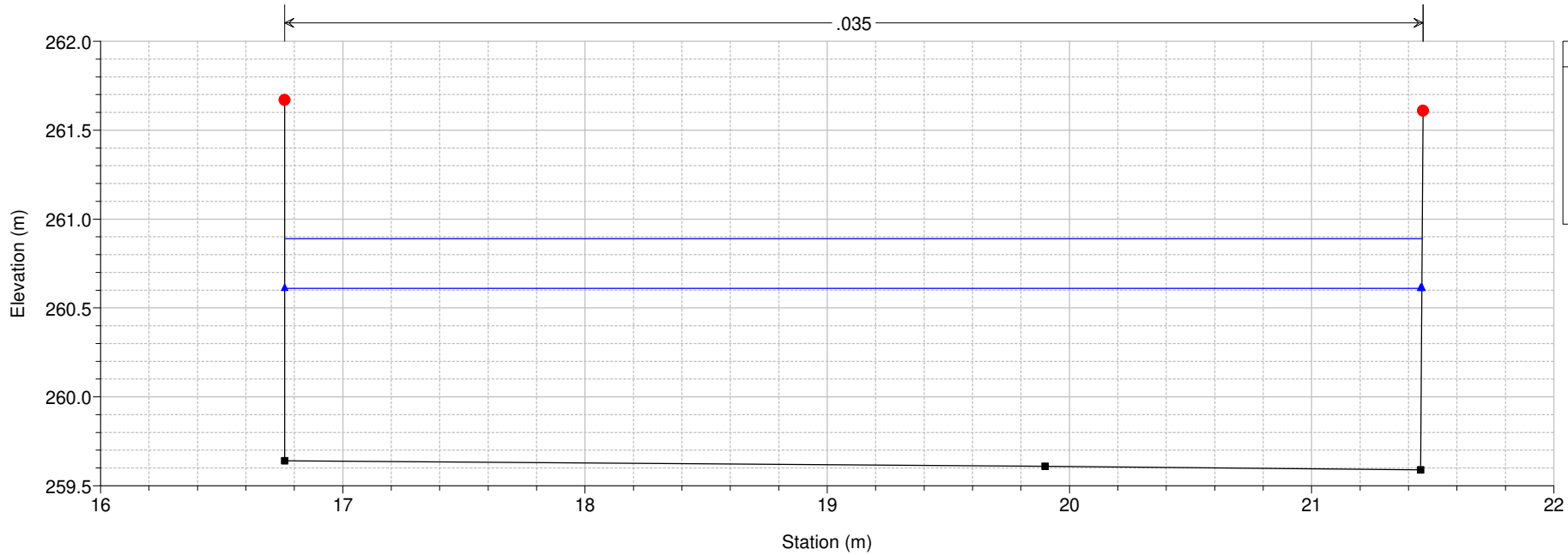


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

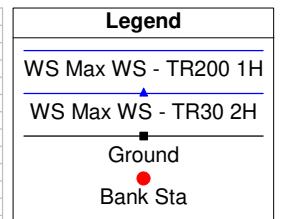
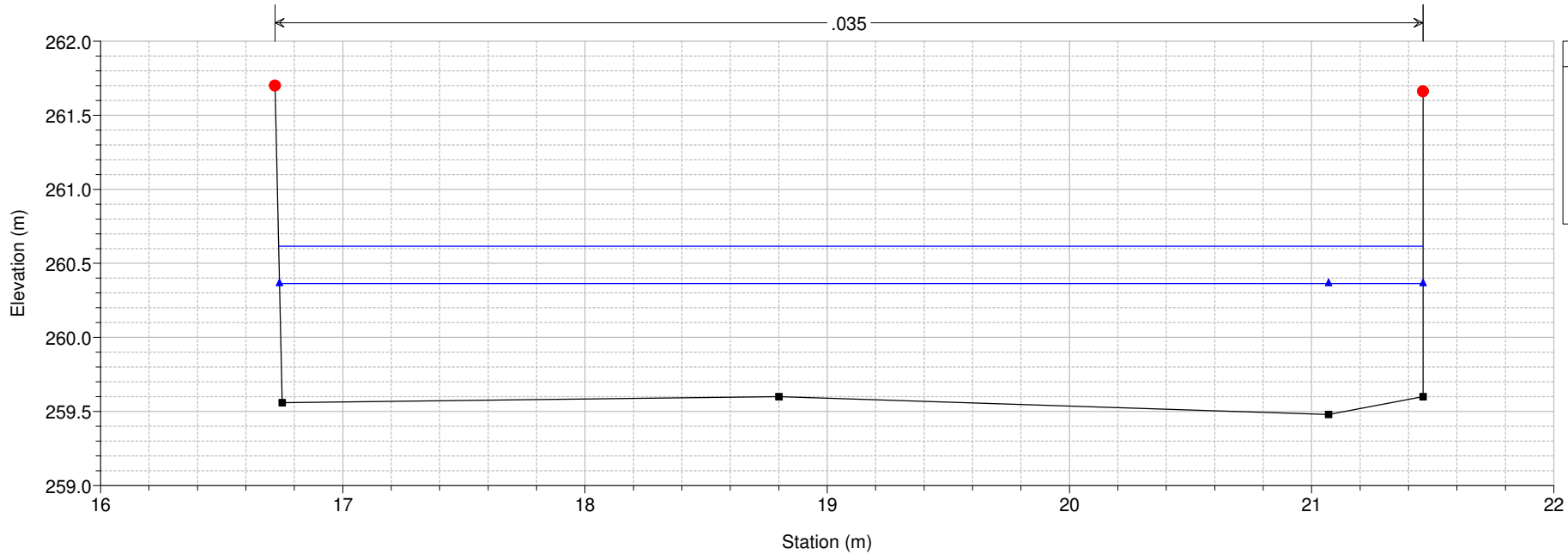
River = scopicci Reach = scopicci RS = 1.6 sez. 17 rilievo 2024



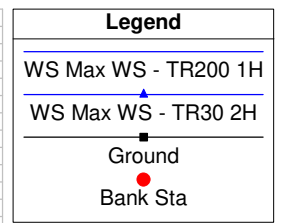
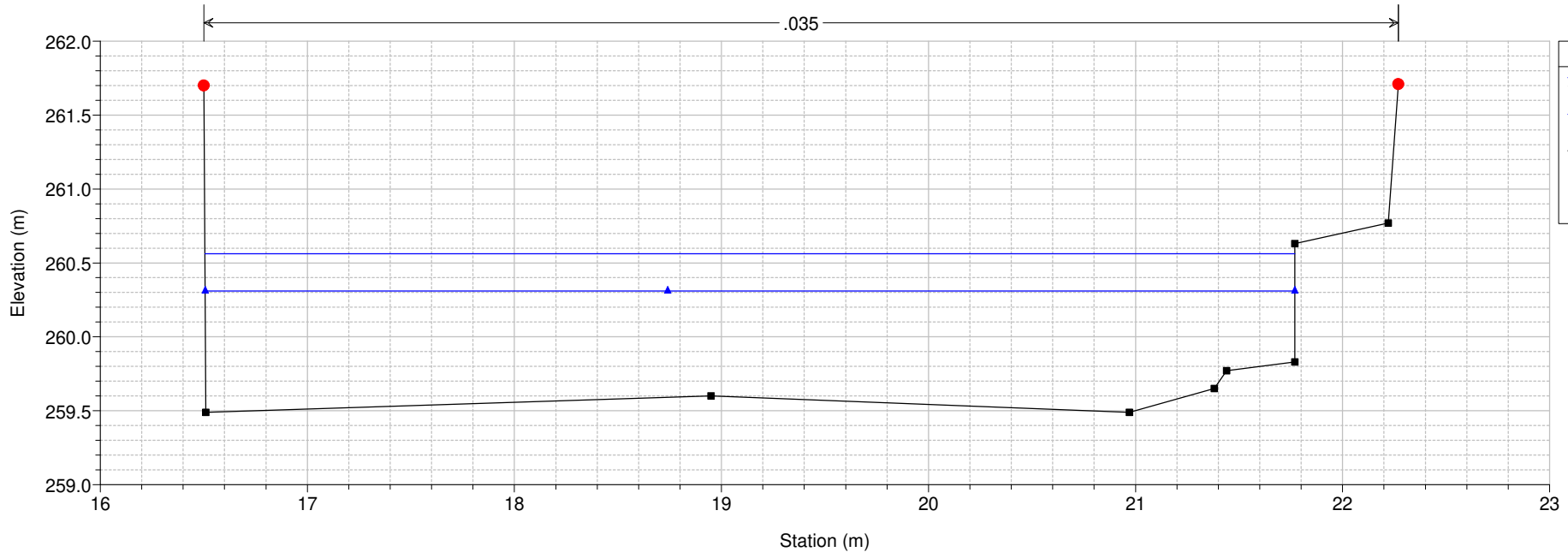
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H
River = scopicci Reach = scopicci RS = 1.5 sez. 18 rilievo 2024



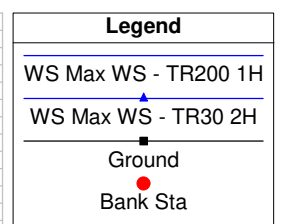
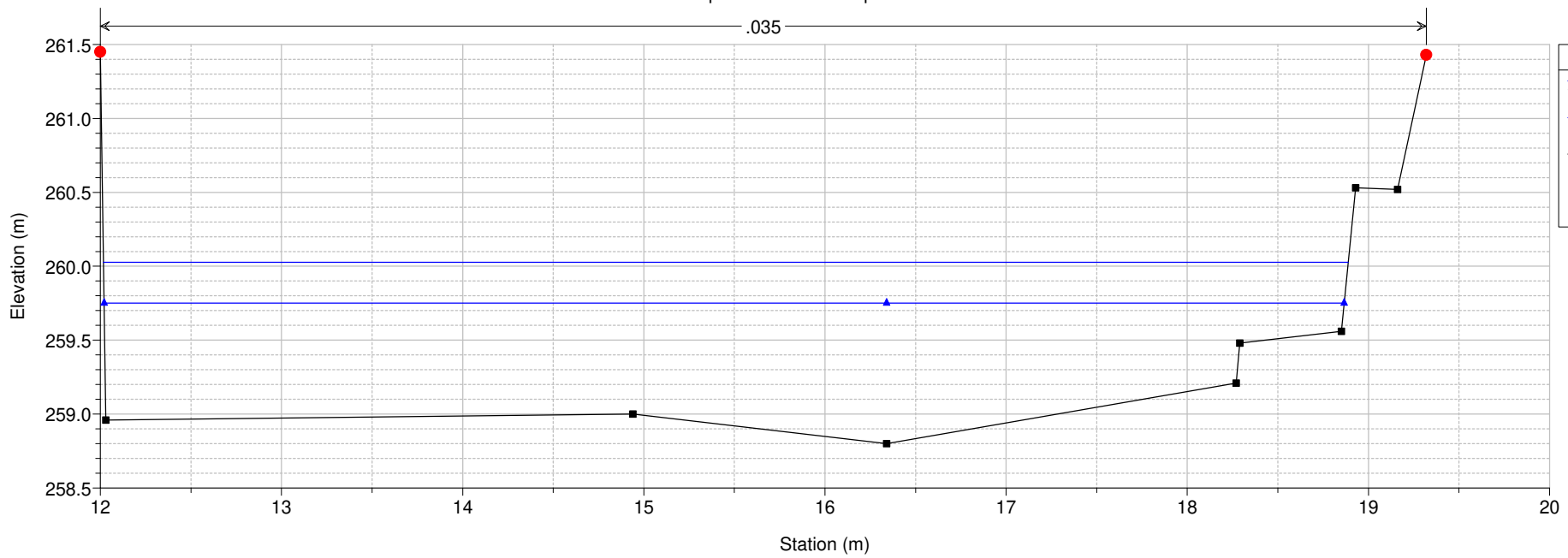
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H
River = scopicci Reach = scopicci RS = 1.4 sez. 19 rilievo 2024



VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H
River = scopicci Reach = scopicci RS = 1.3 sez. 20 rilievo 2024

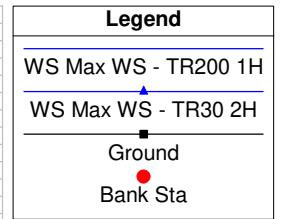
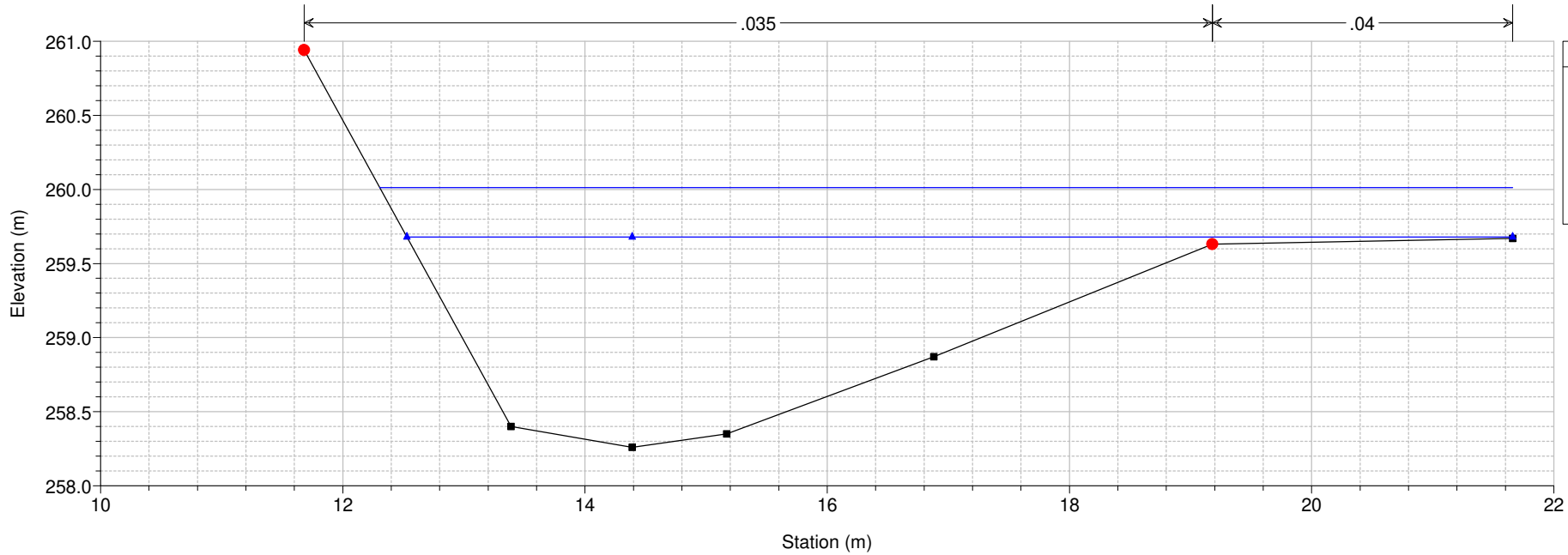


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H
River = scopicci Reach = scopicci RS = 1.2 sez. 21 rilievo 2024

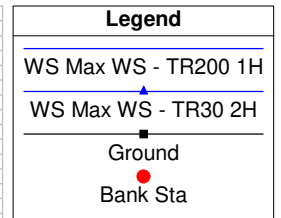
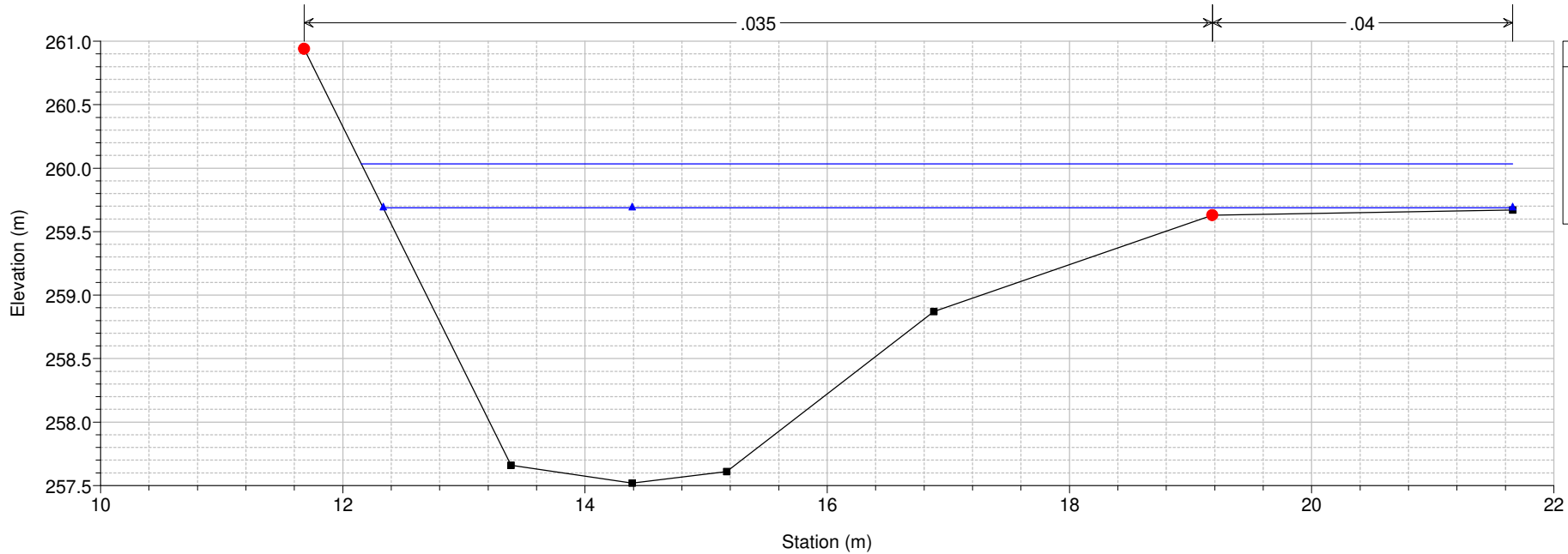


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H

River = scopicci Reach = scopicci RS = 1.1 sez. 22 rilievo 2024

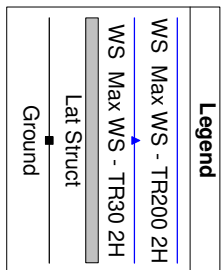
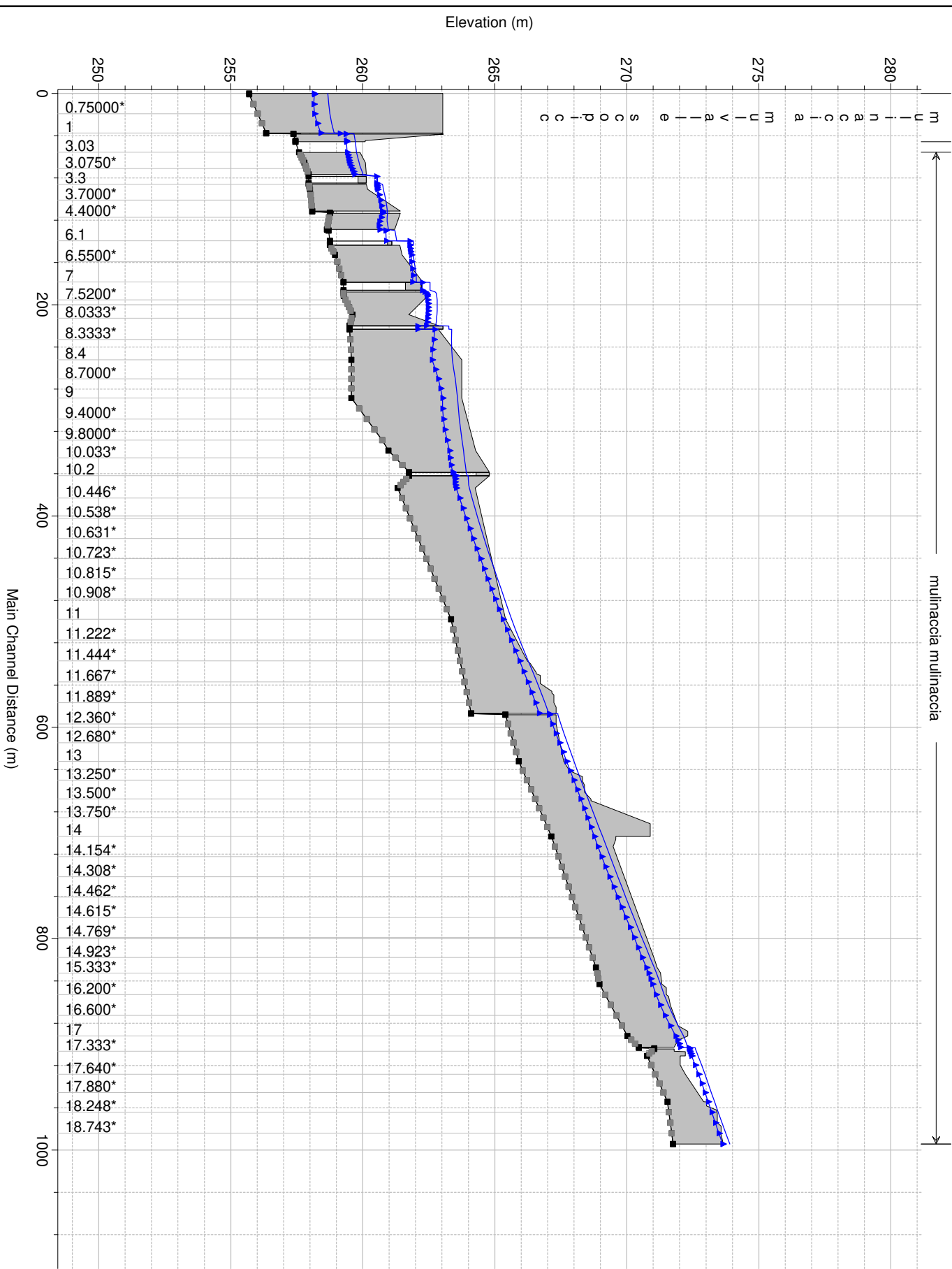


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 2H
River = scopicci Reach = scopicci RS = 0.9 cooia sez. 22 rilievo 2024 monte J



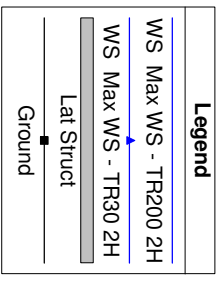
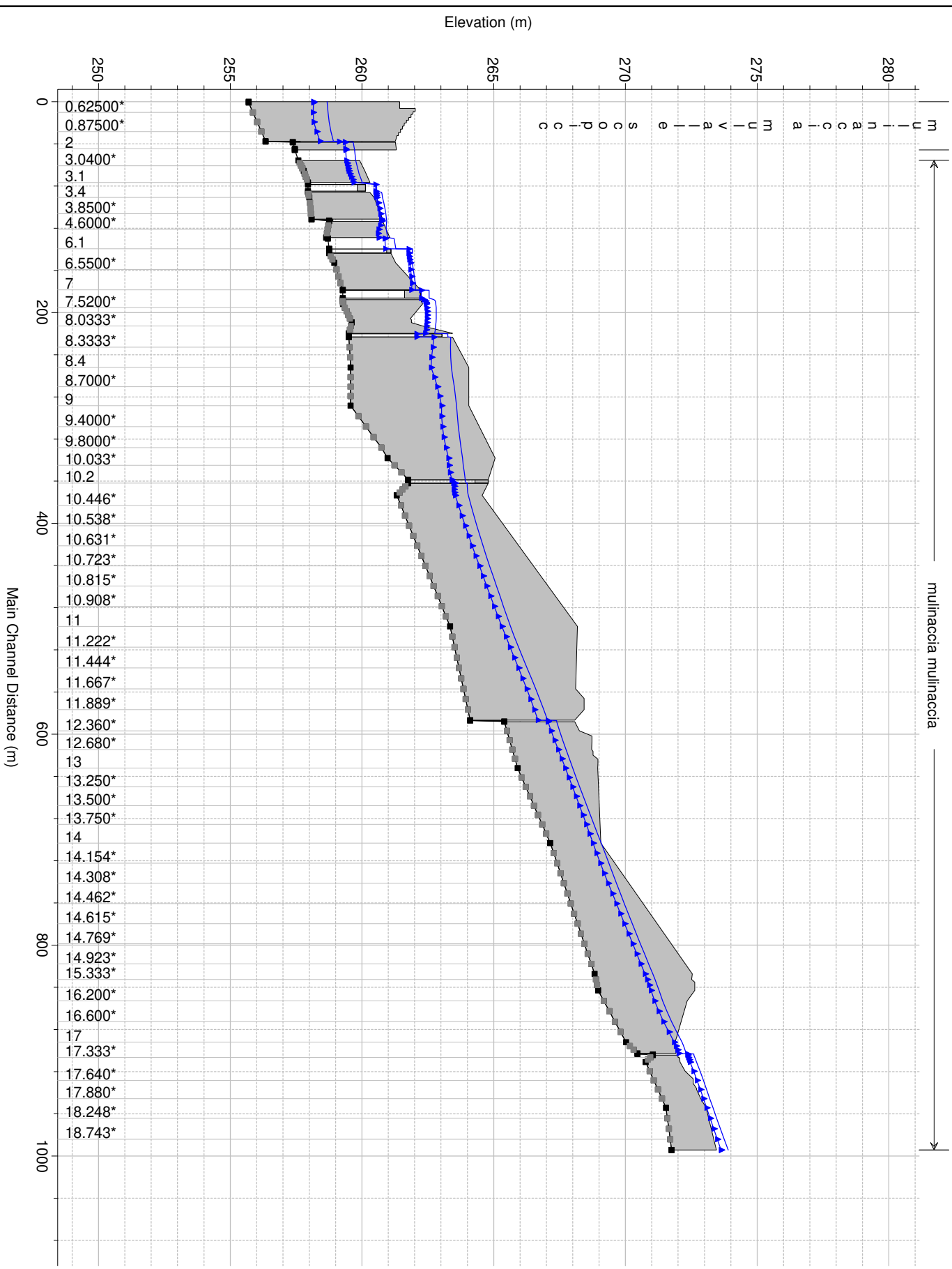
**FOSSO
DELLA MULINACCIA**

mulinaccia mulinaccia



1 cm Horiz. = 50 m 1 cm Vert. = 2 m

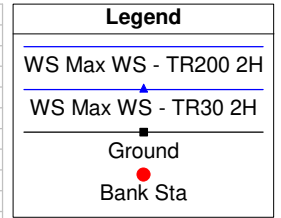
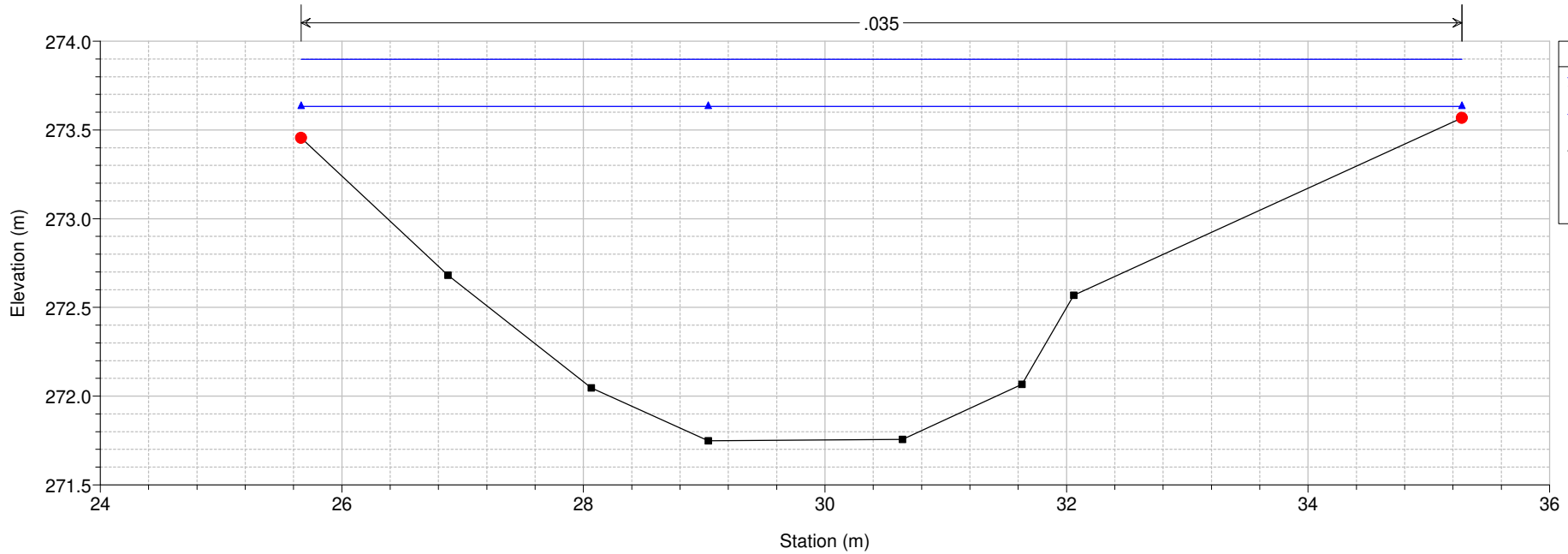
mulnacchia mulnacchia



1 cm Horiz. = 50 m 1 cm Vert. = 2 m

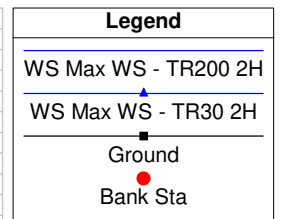
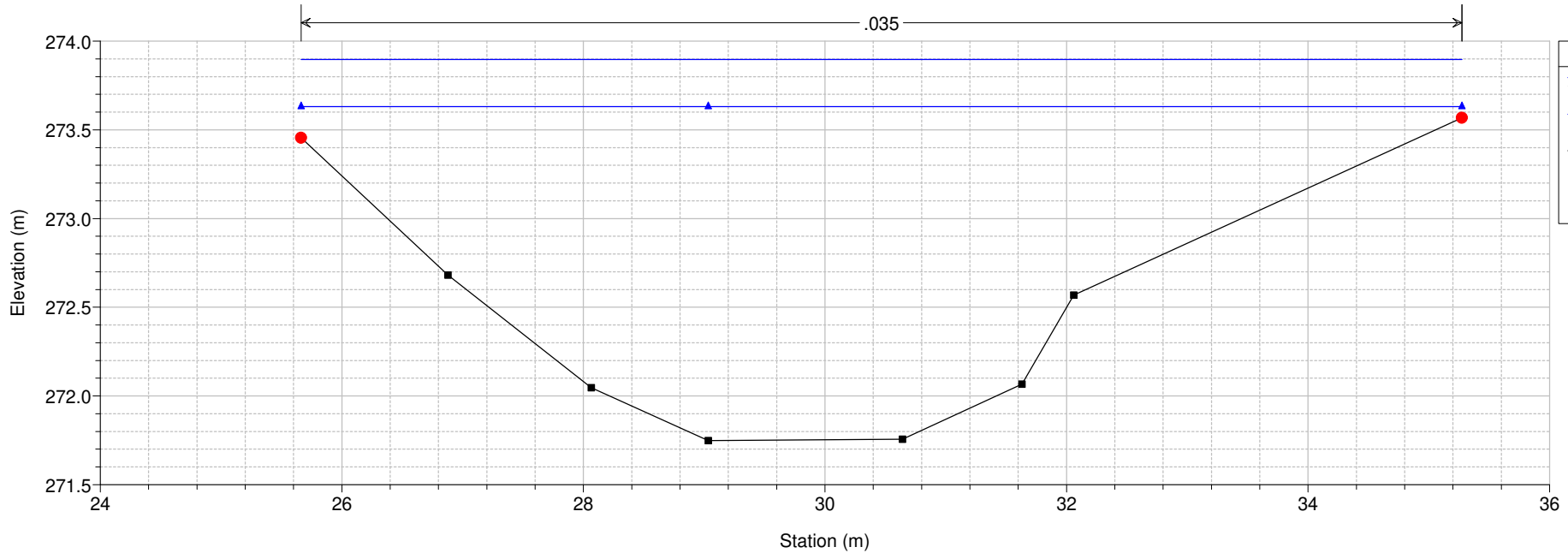
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 19 MUL 19



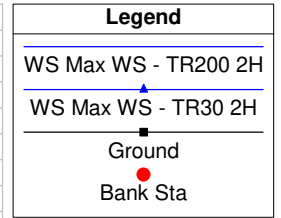
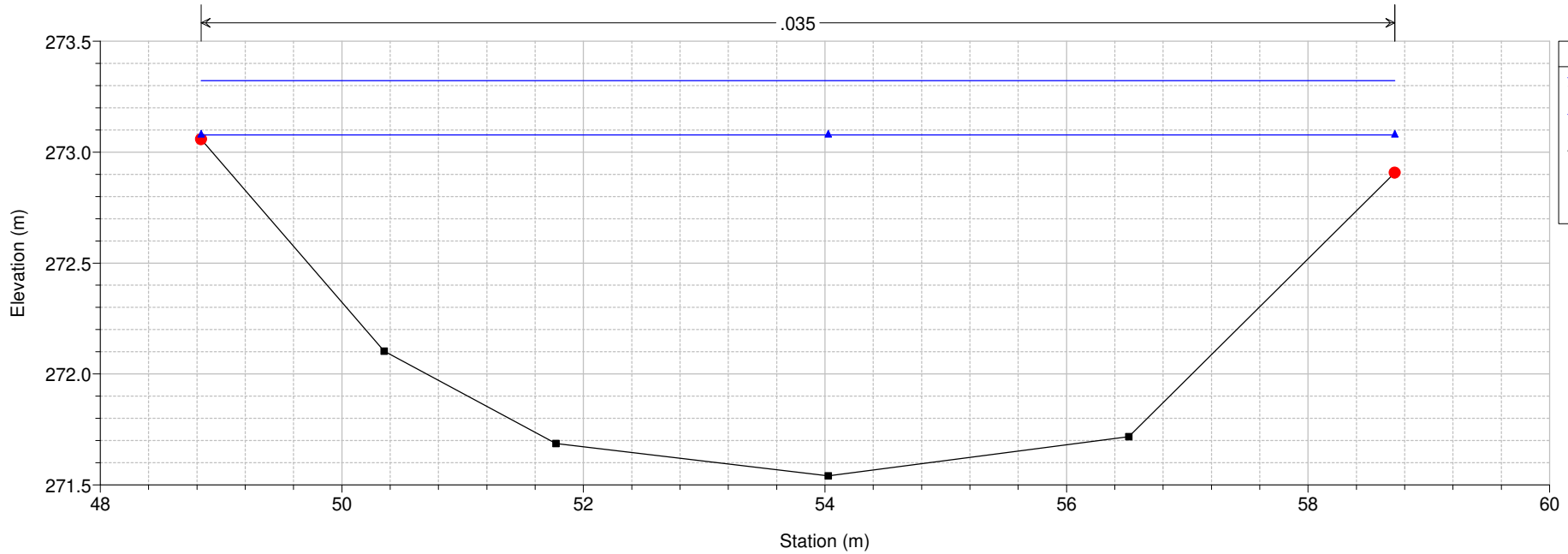
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 18.99 MUL 19



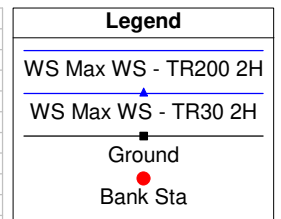
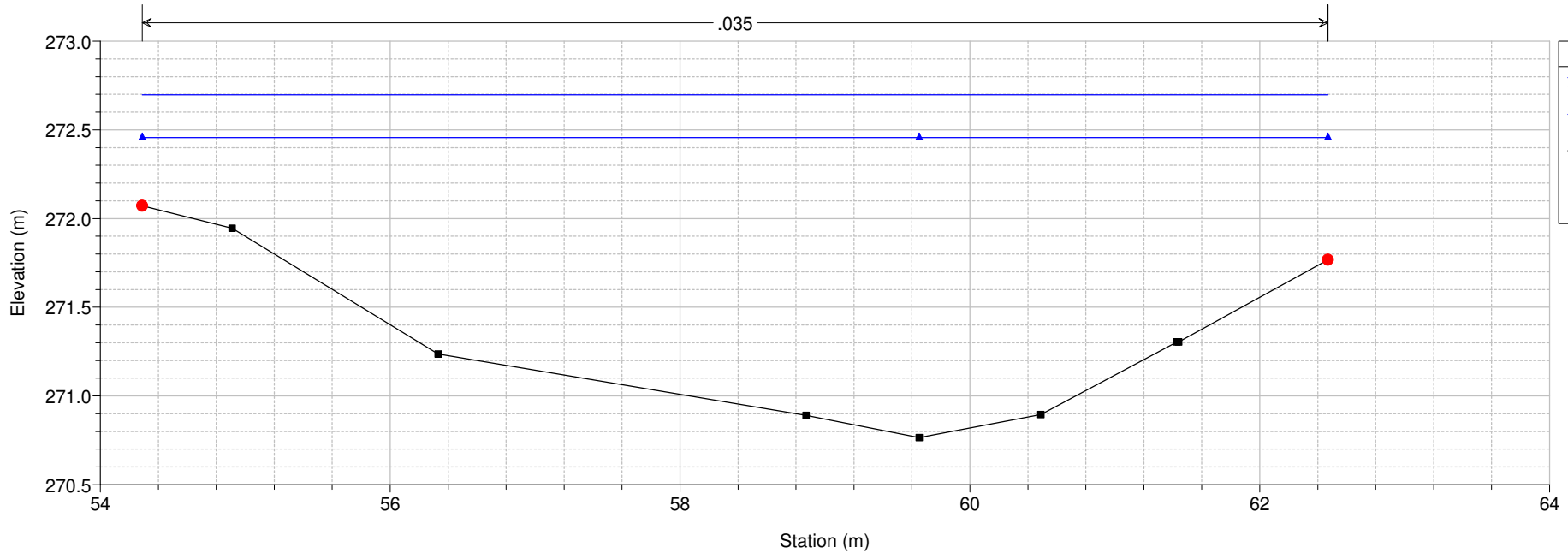
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 18 MUL 18



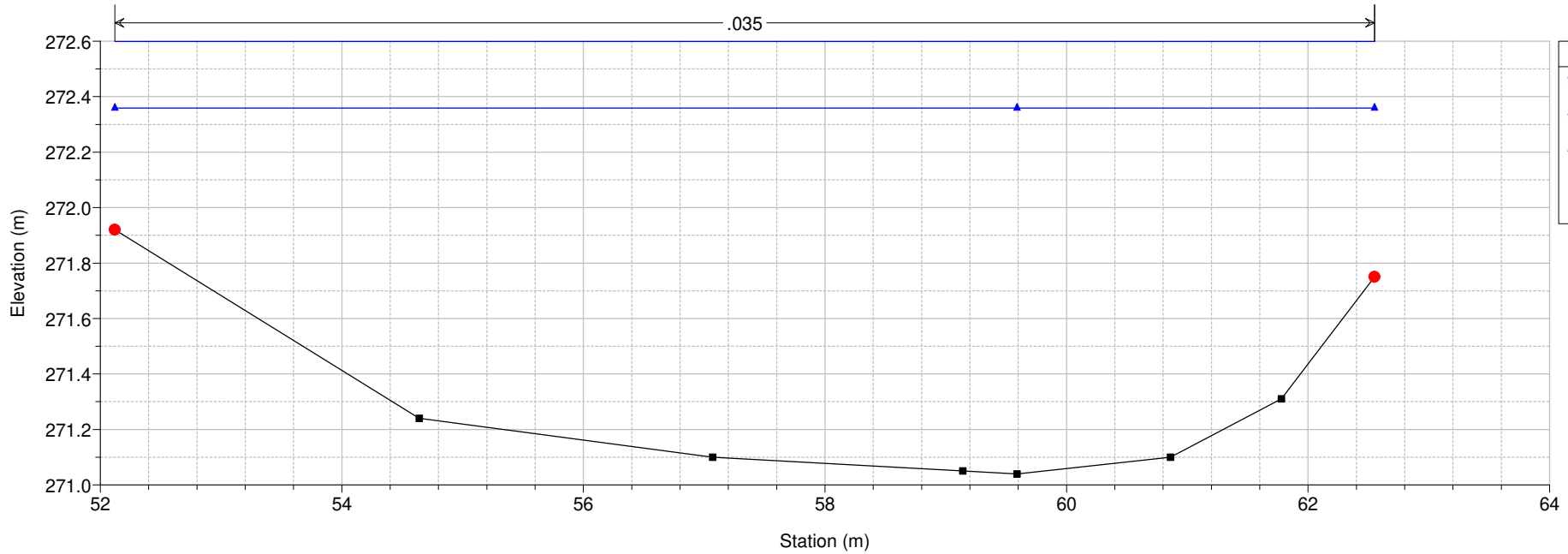
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 17.4 MUL 17D



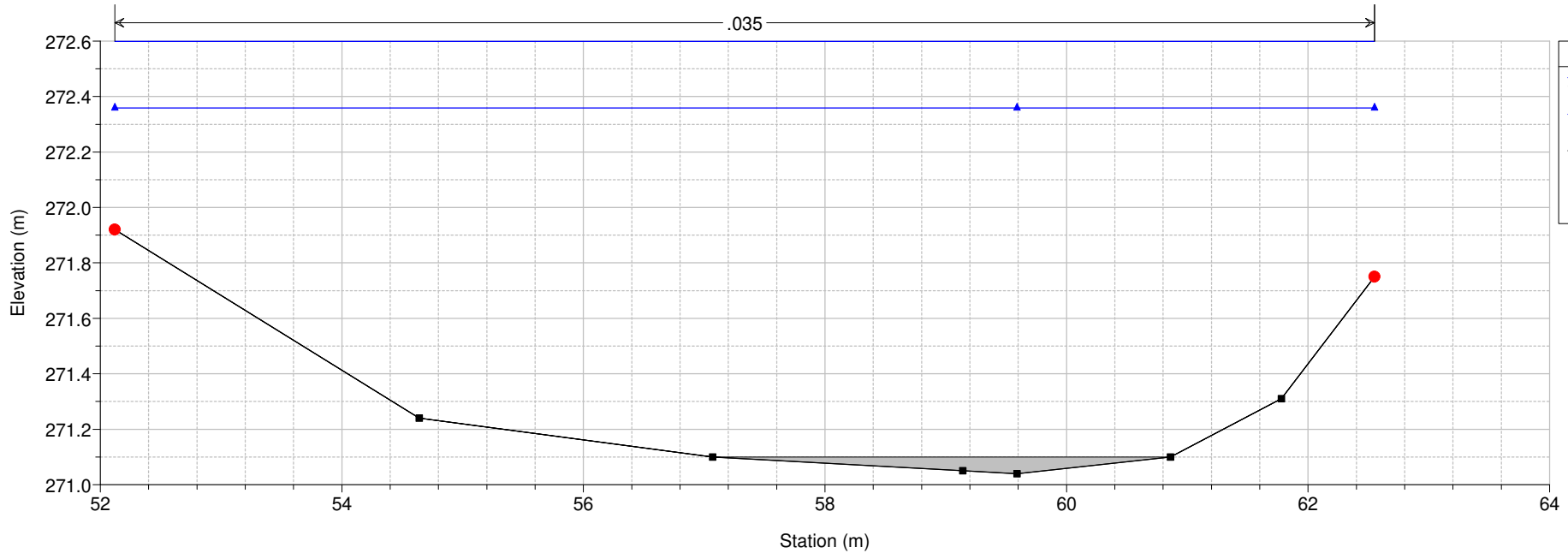
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 17.3 MUL 17C



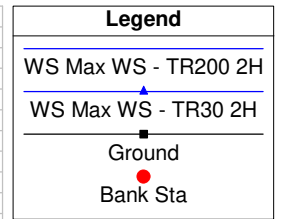
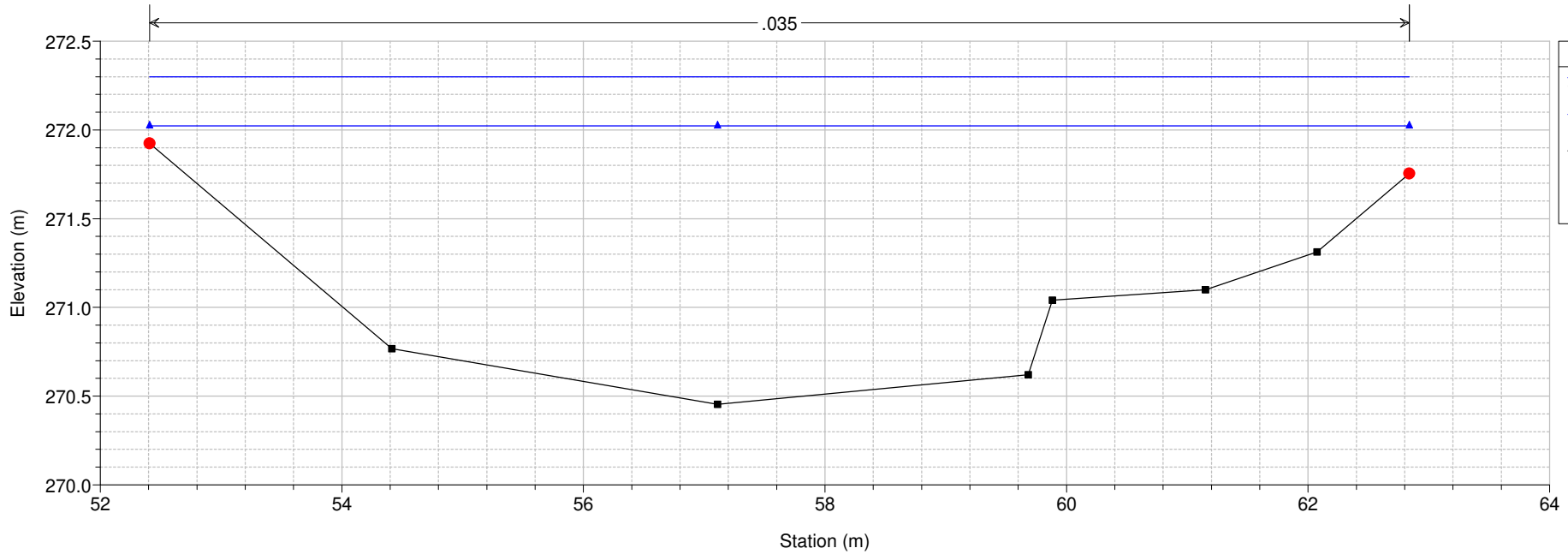
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 17.2 IS MUL 17B



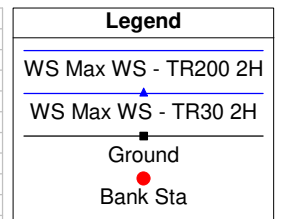
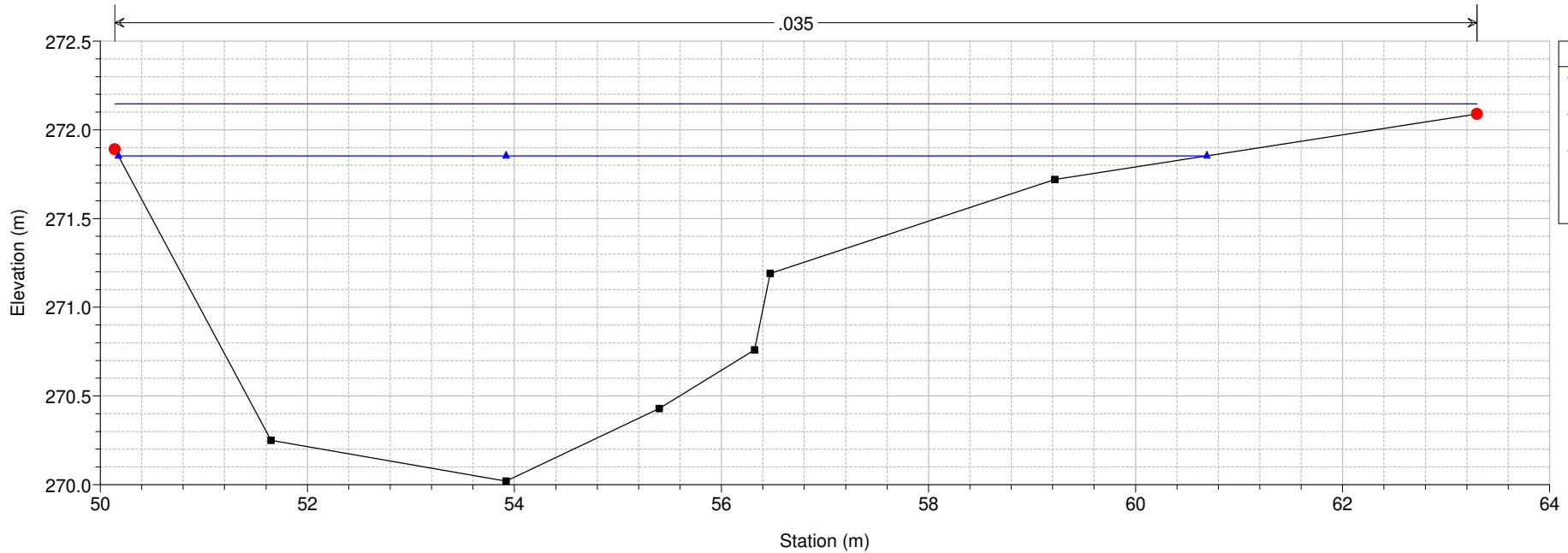
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 17.1 MUL 17B



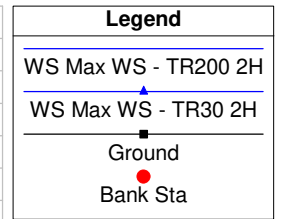
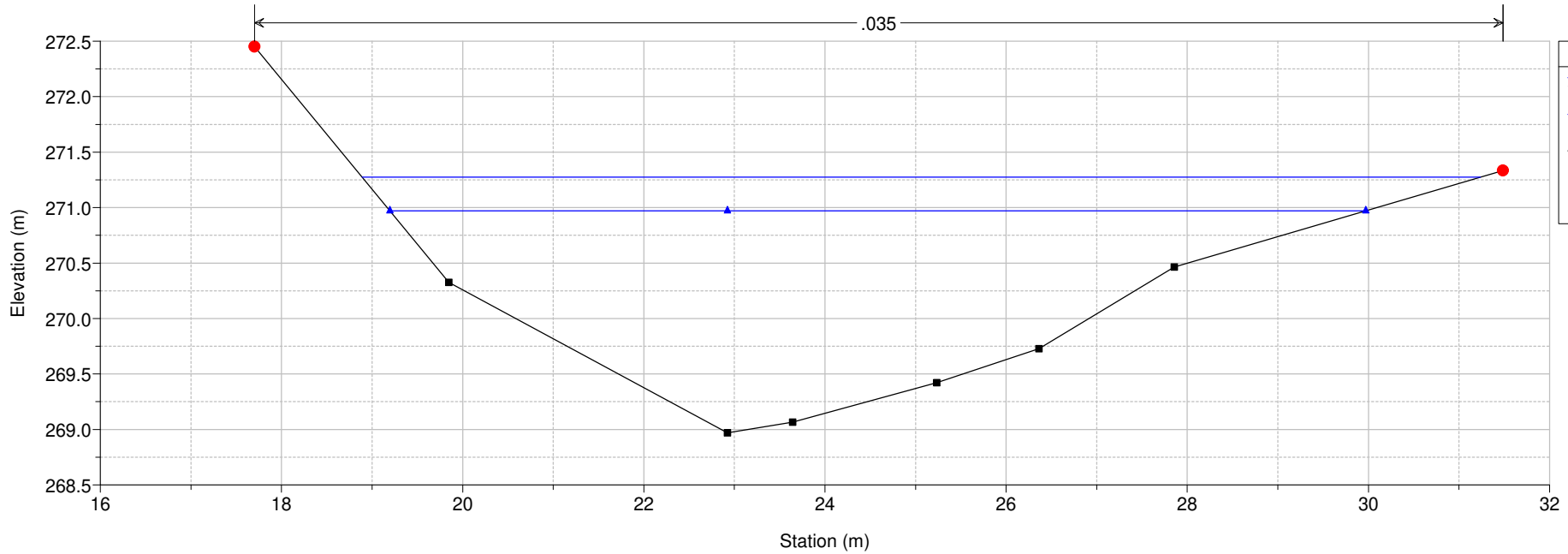
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 17 MUL 17A



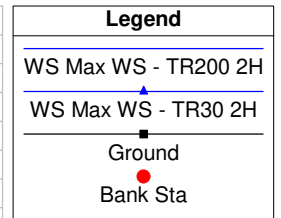
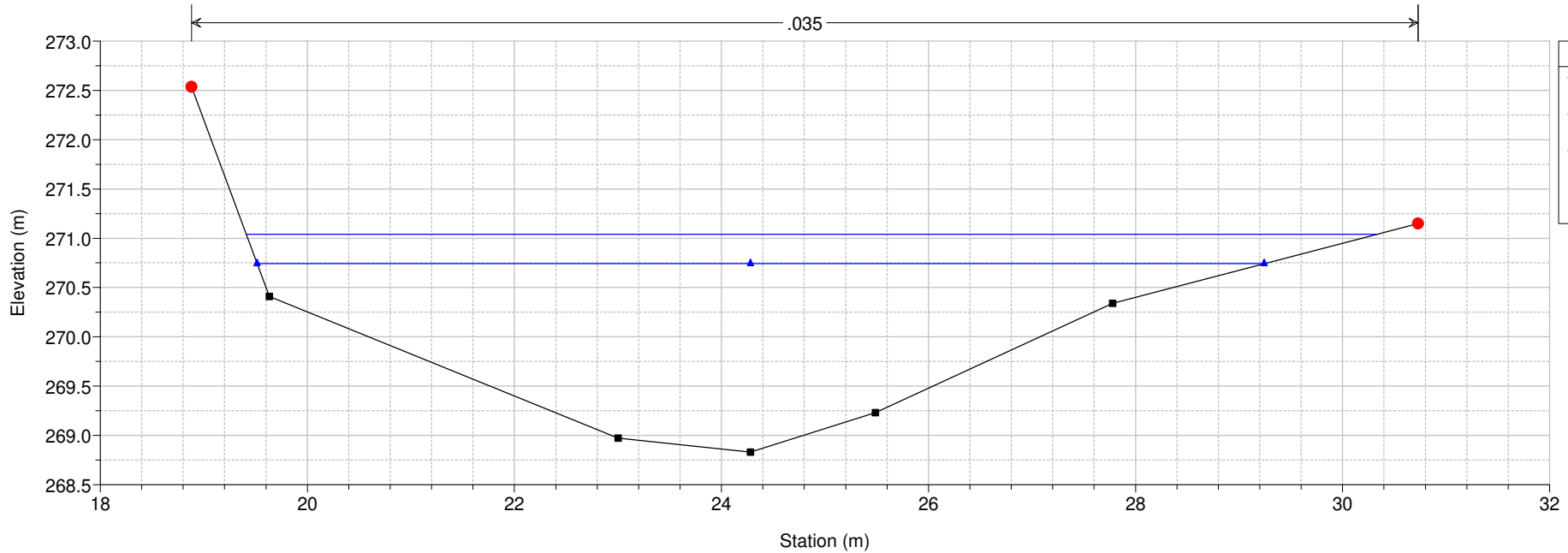
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 16 MUL 16



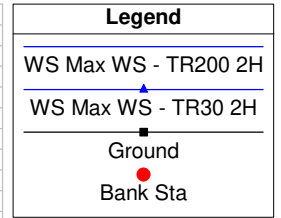
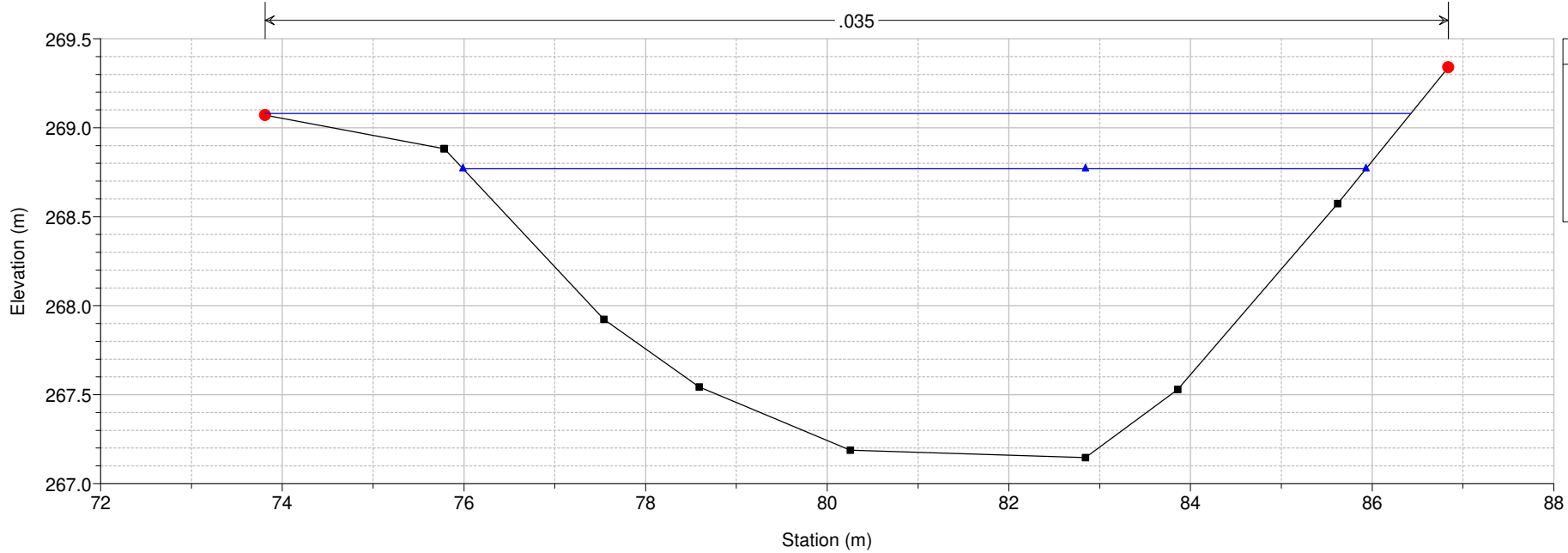
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 15 MUL 15



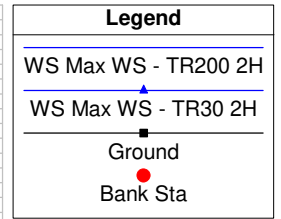
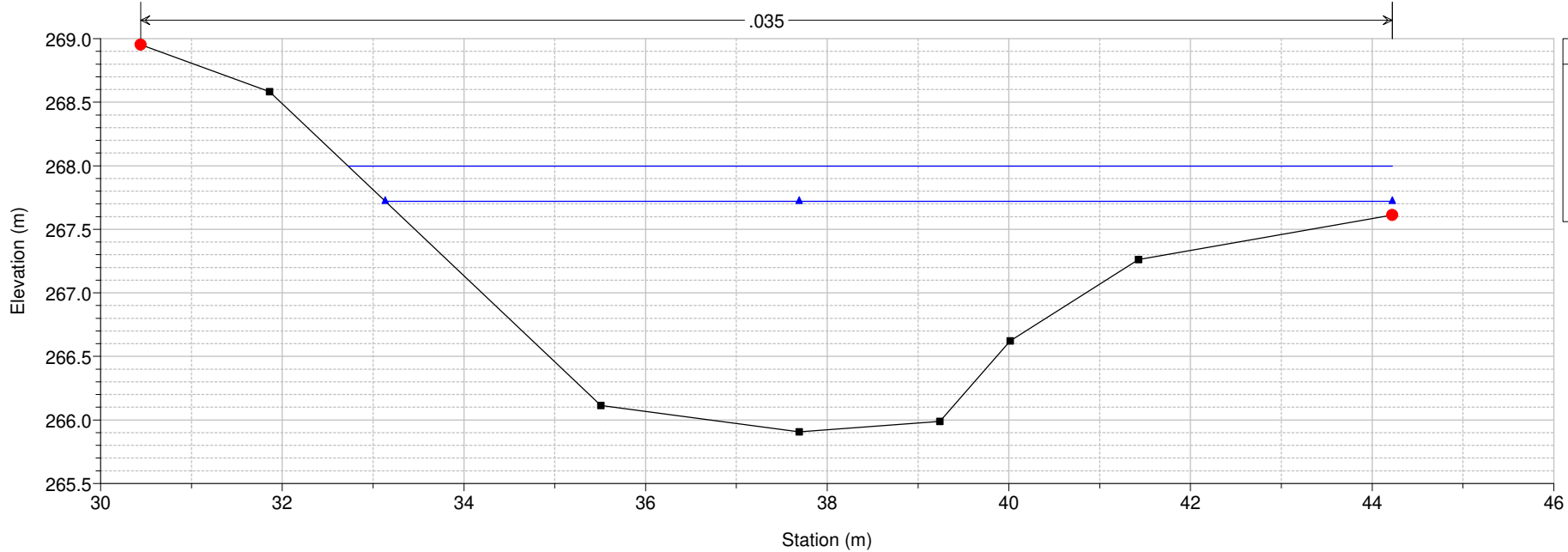
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 14 MUL 14

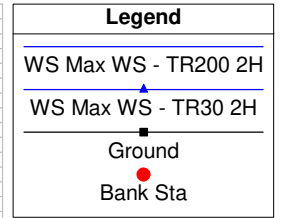
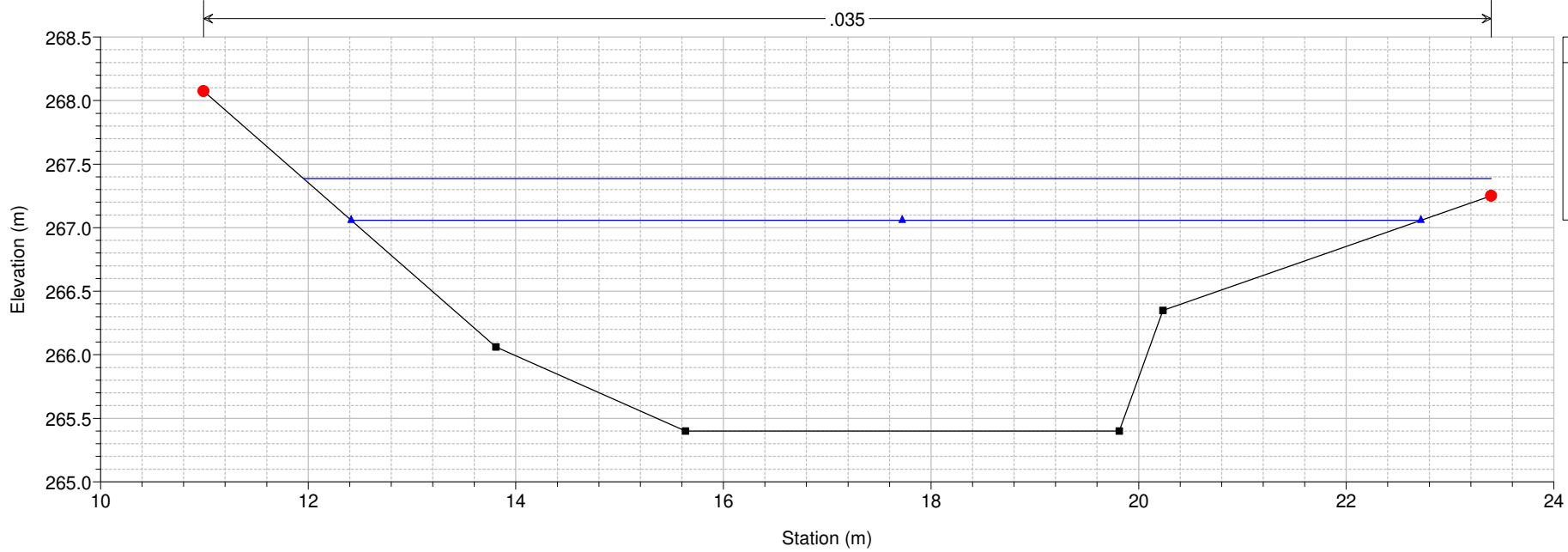


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

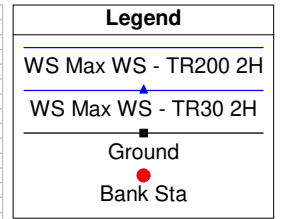
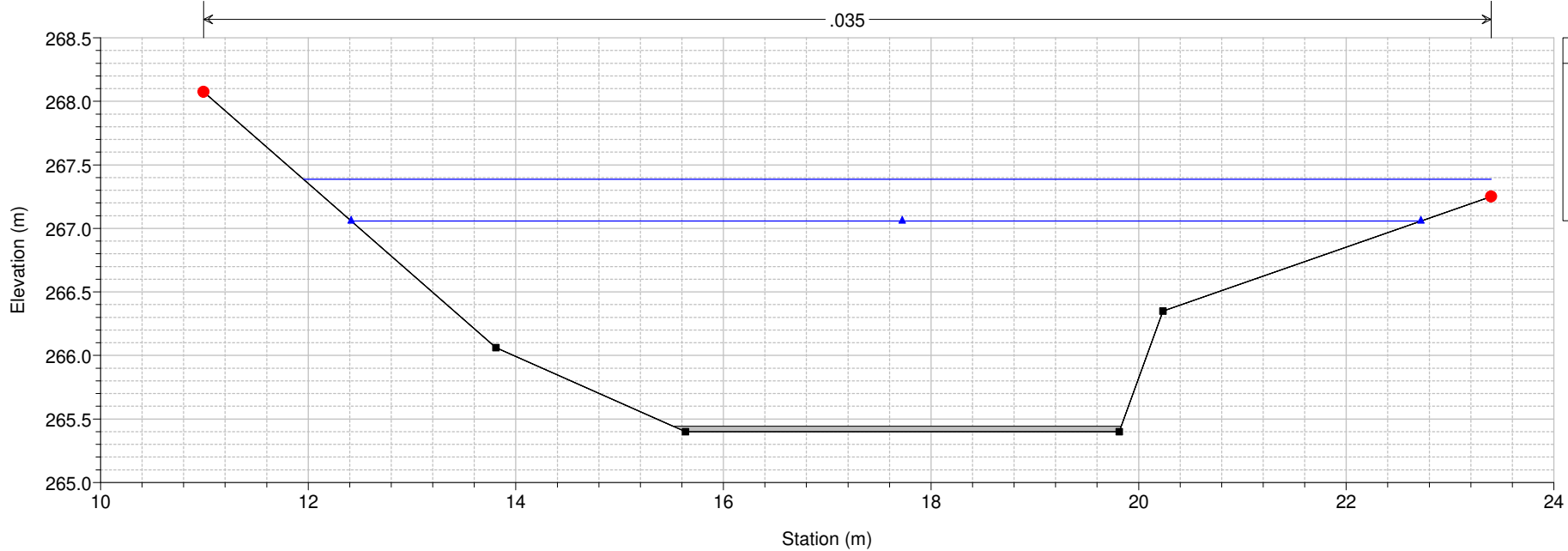
River = mulinaccia Reach = mulinaccia RS = 13 MUL 13



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
River = mulinaccia Reach = mulinaccia RS = 12.2 MUL 12B con fondo 12C

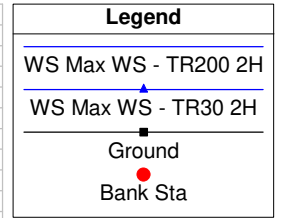
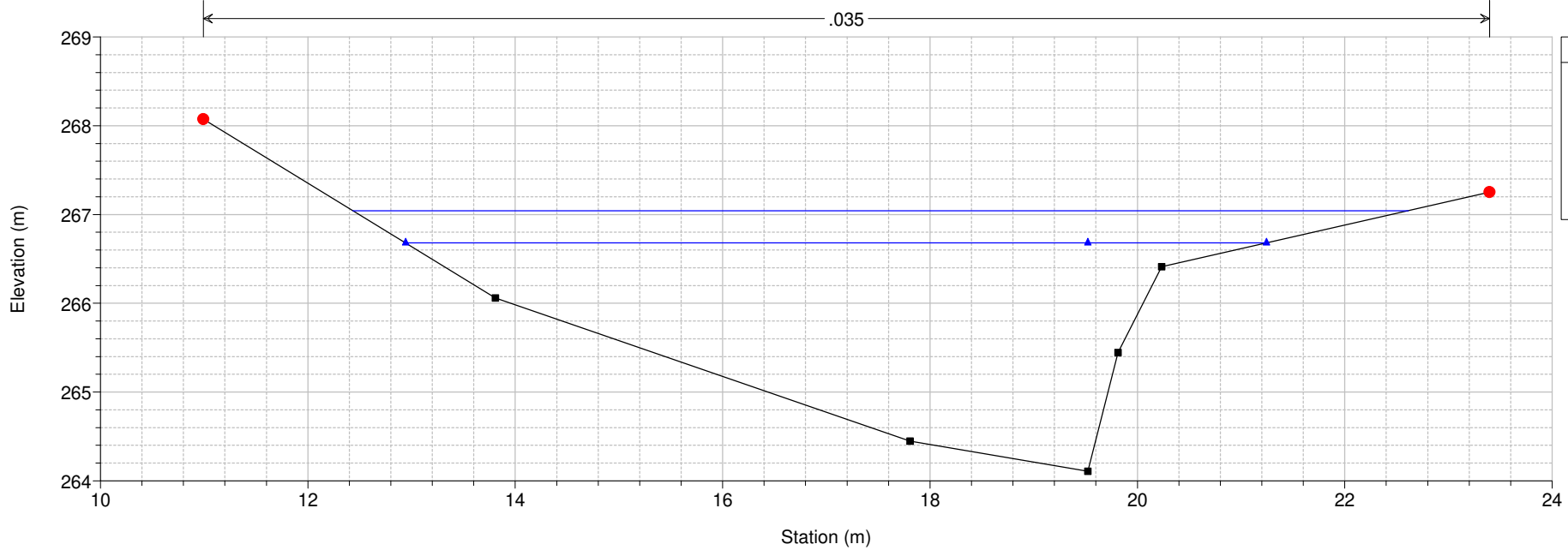


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
River = mulinaccia Reach = mulinaccia RS = 12.1 IS MUL 12B



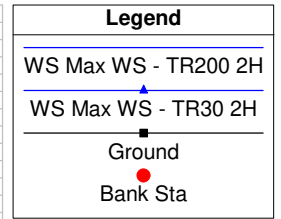
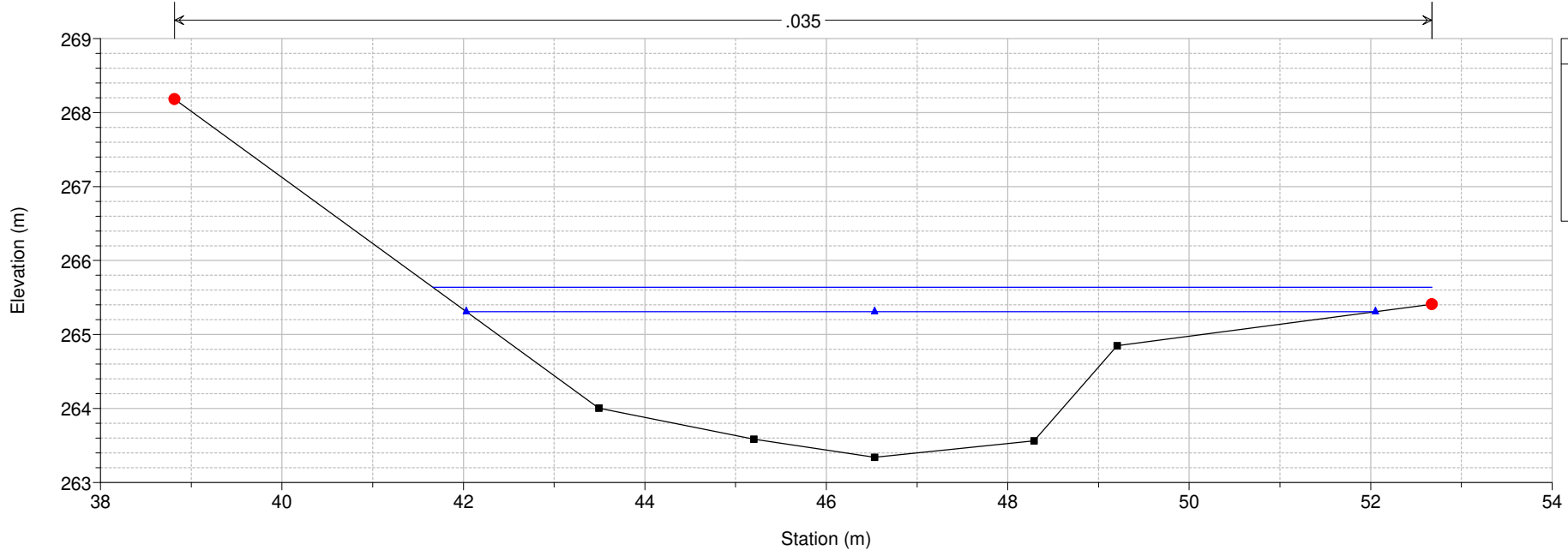
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 12 MUL 12A



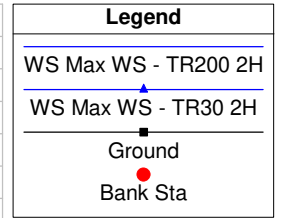
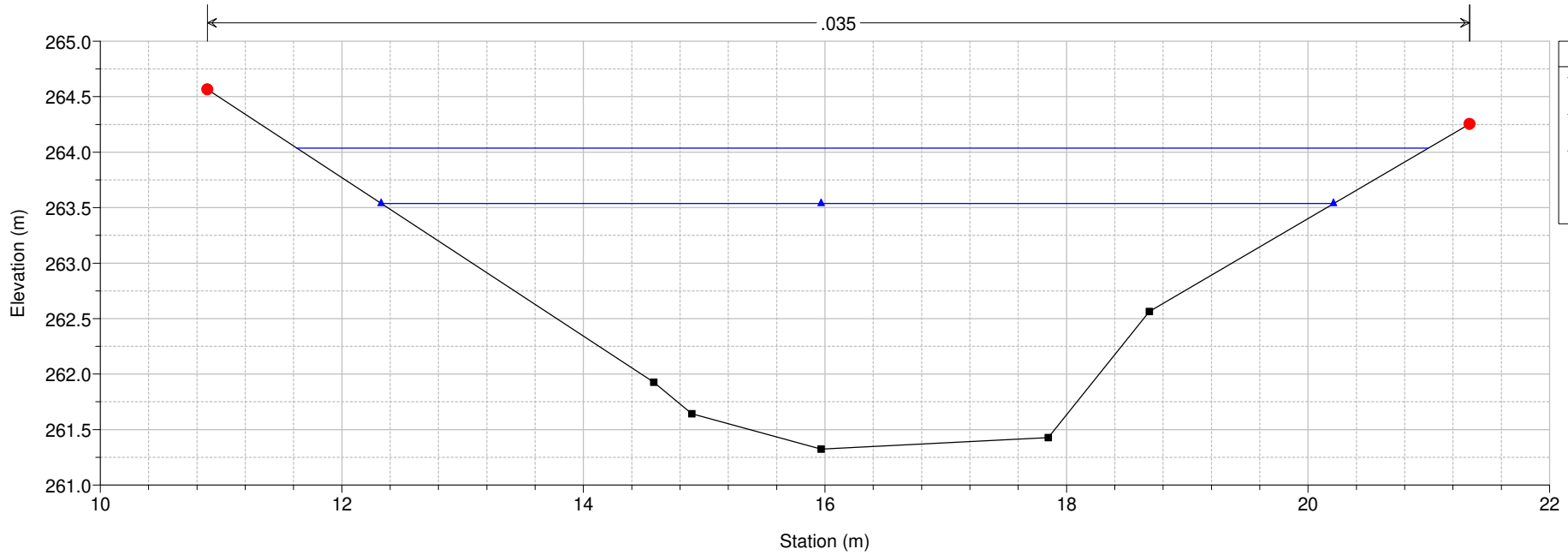
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 11 MUL 11



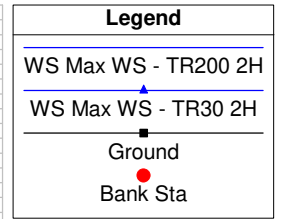
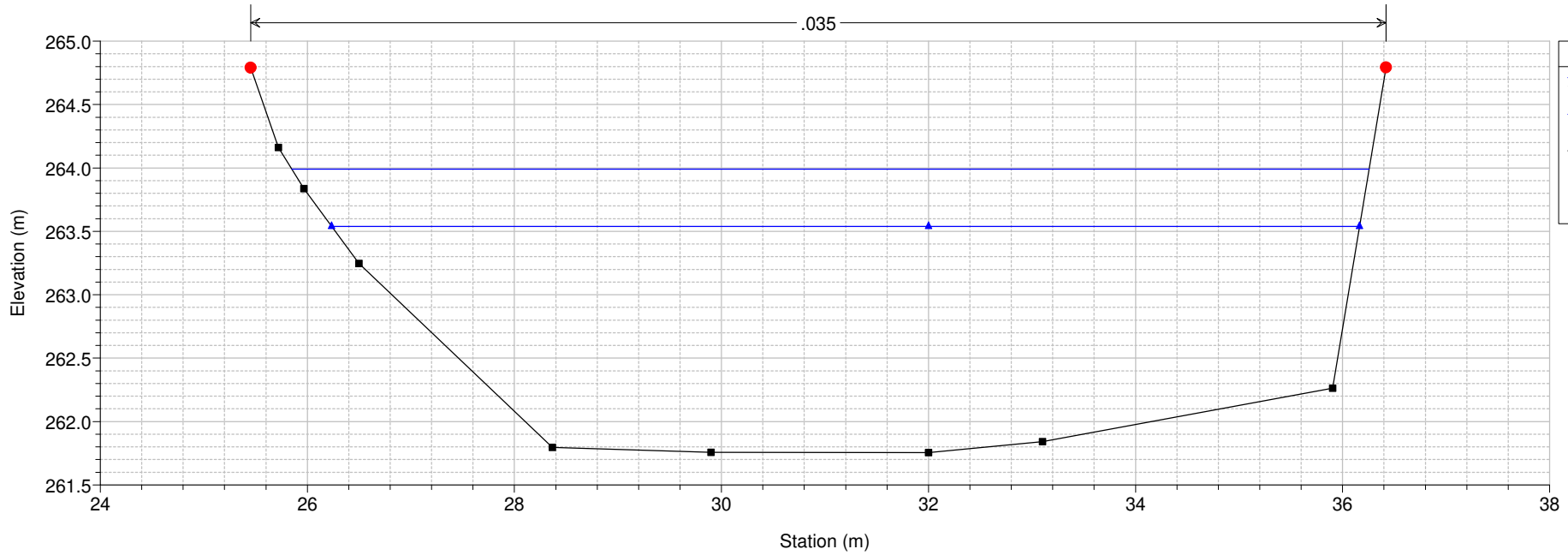
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 10.4 MUL 10C



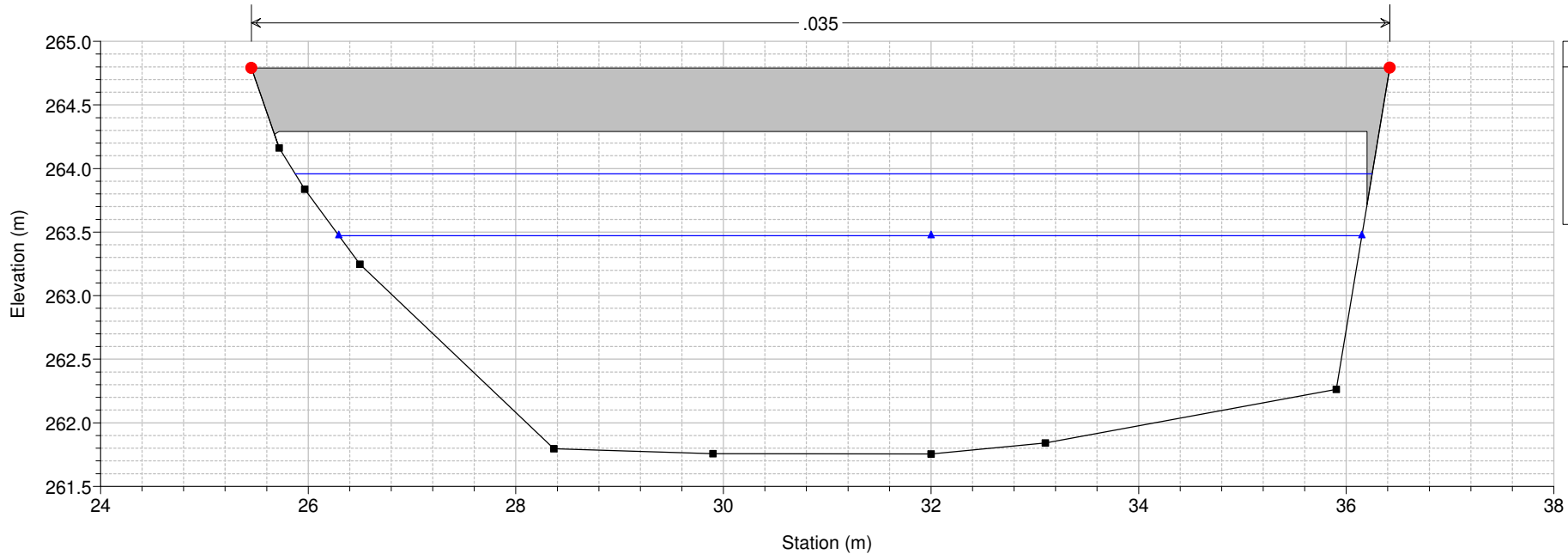
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 10.3 MUL 10B



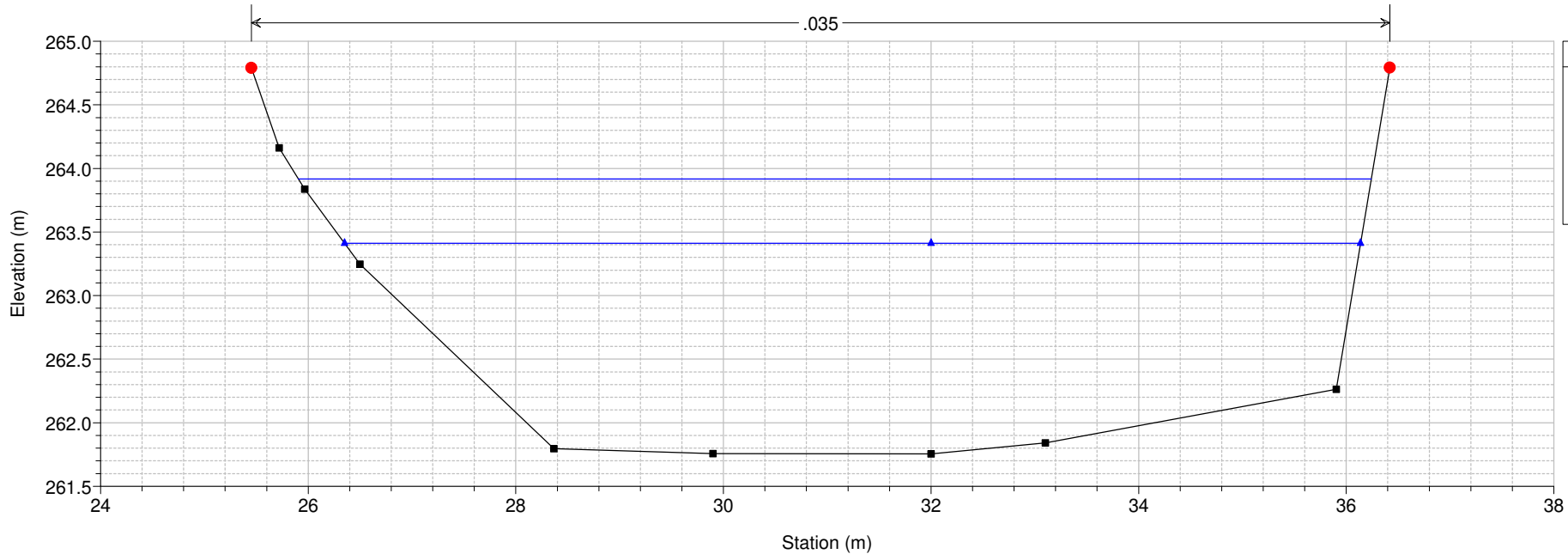
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 10.2 BR MUL 10B



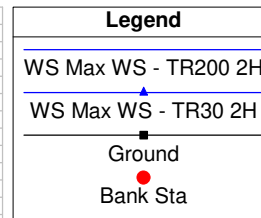
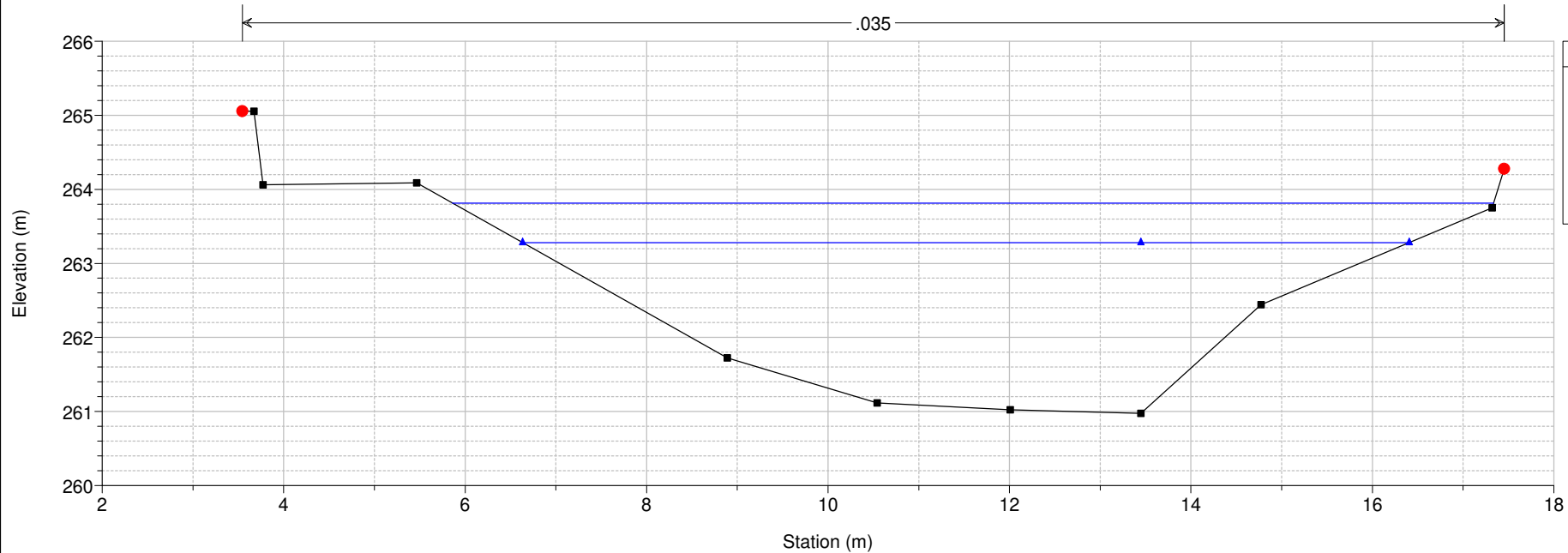
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 10.1 MUL 10B



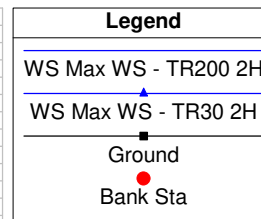
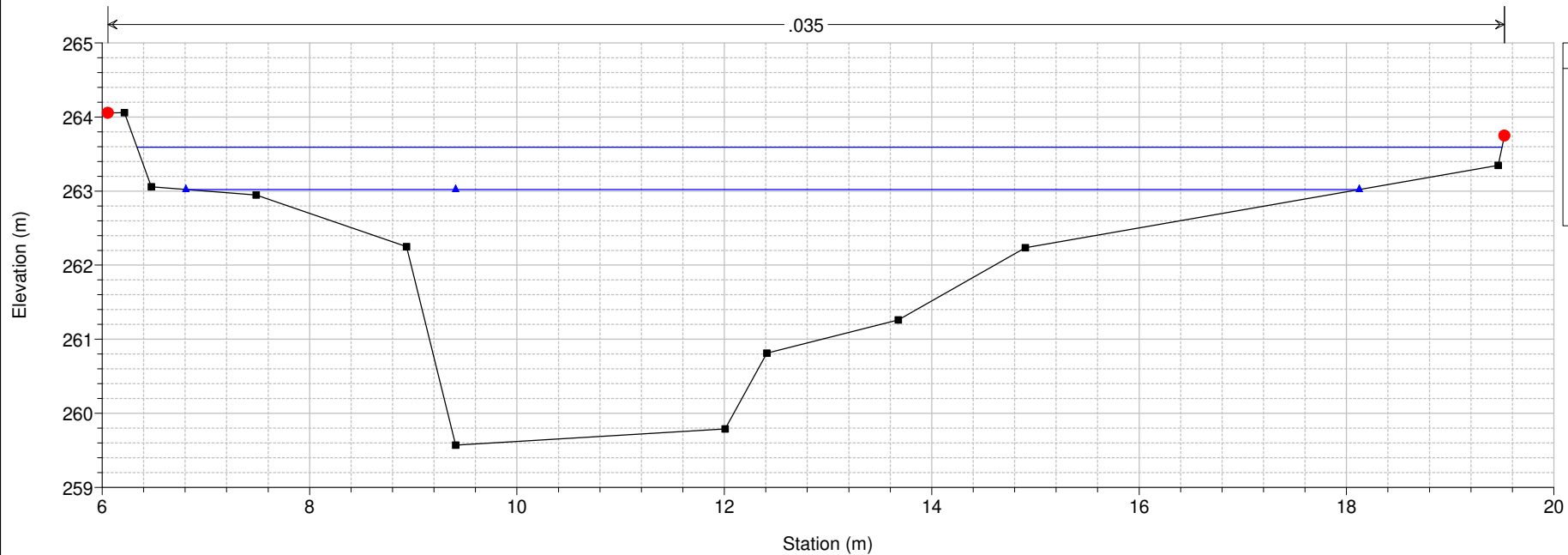
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 10 MUL 10A

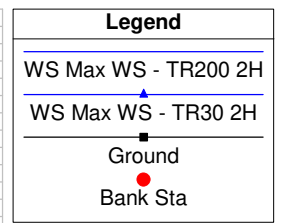
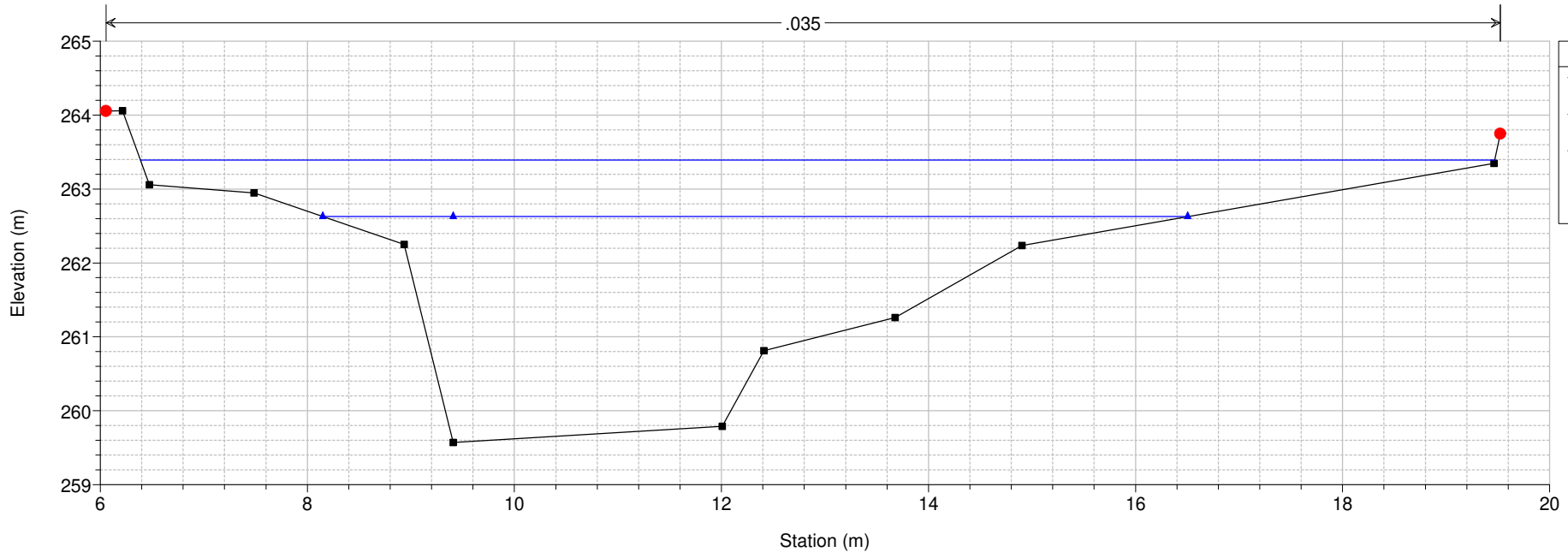


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

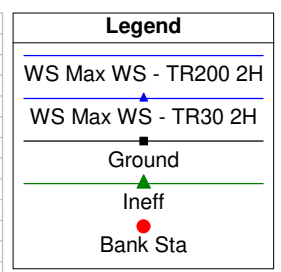
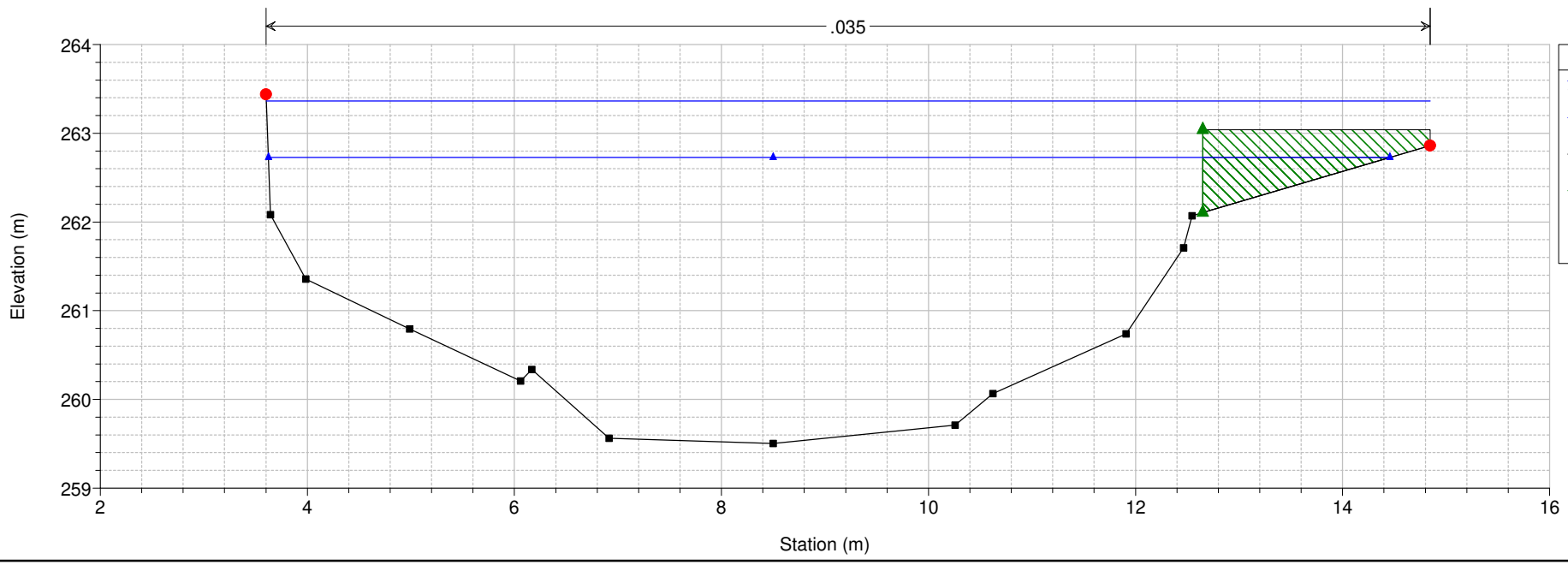
River = mulinaccia Reach = mulinaccia RS = 9 MUL 9



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = mulinaccia Reach = mulinaccia RS = 8.4 MUL 9 come indisturbata

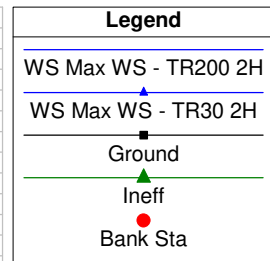
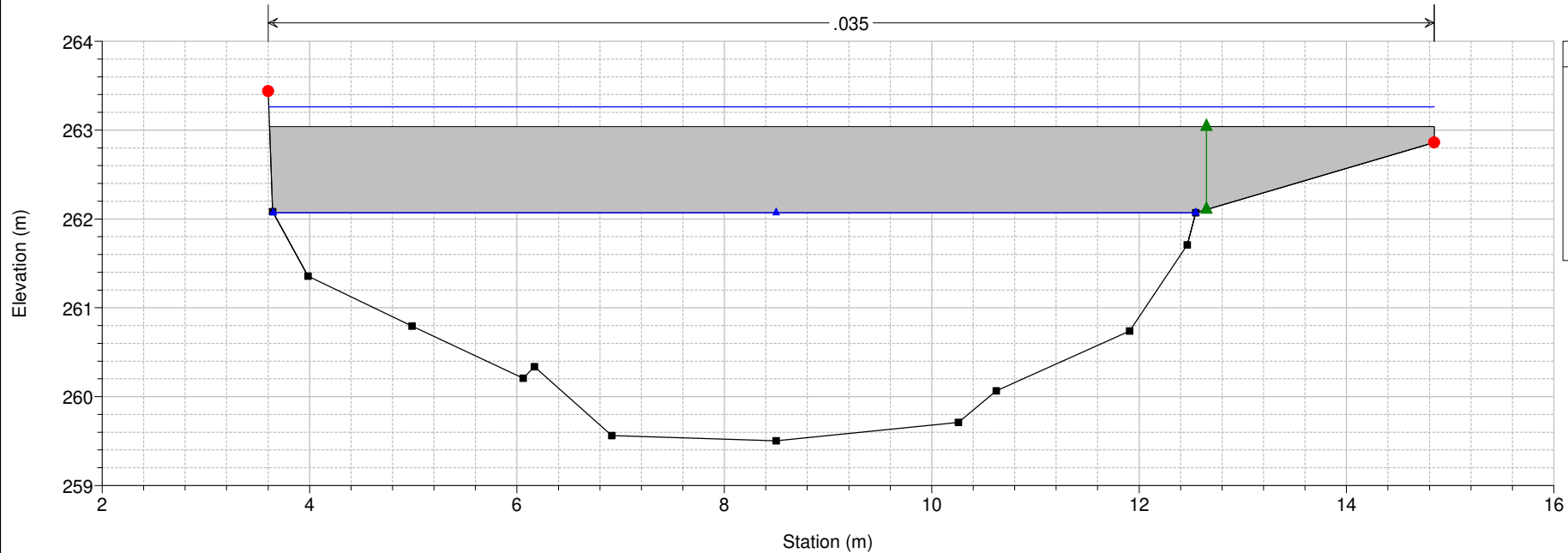


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = mulinaccia Reach = mulinaccia RS = 8.3 MUL 8A



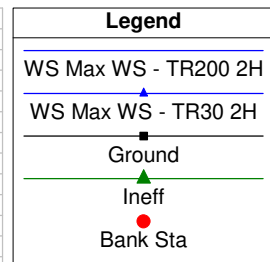
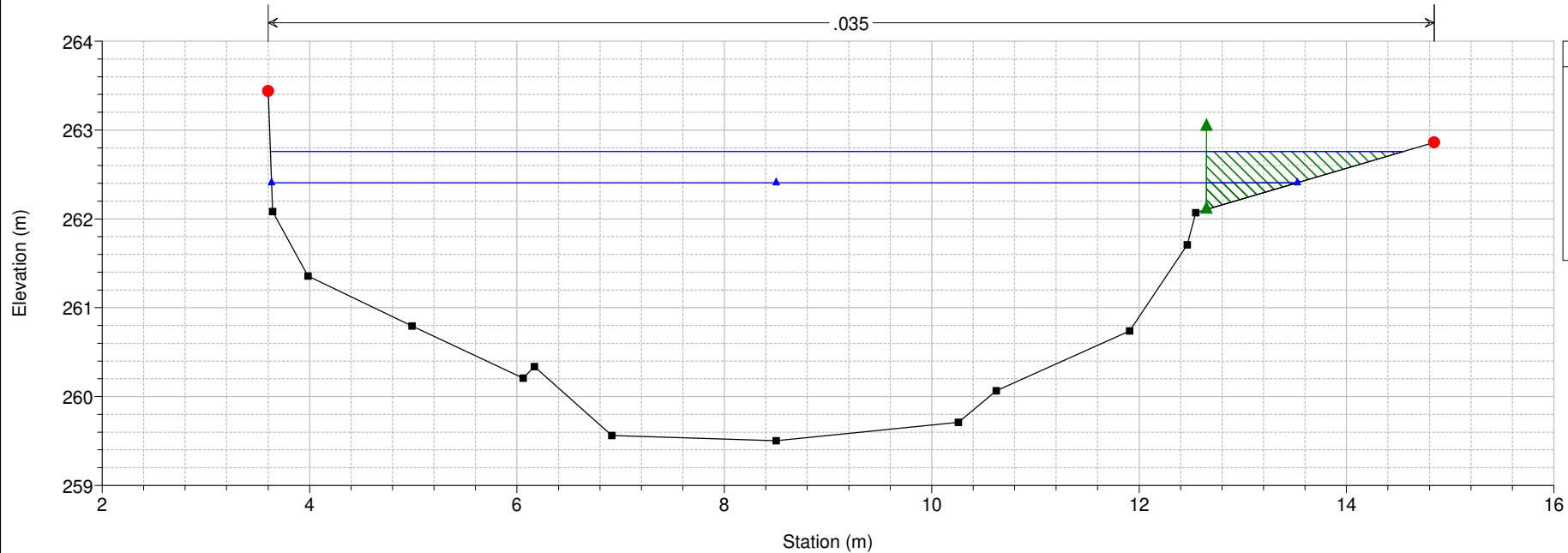
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 8.2 BR MUL 8A



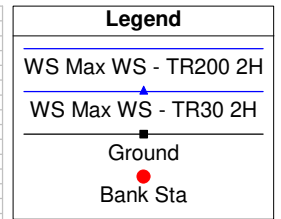
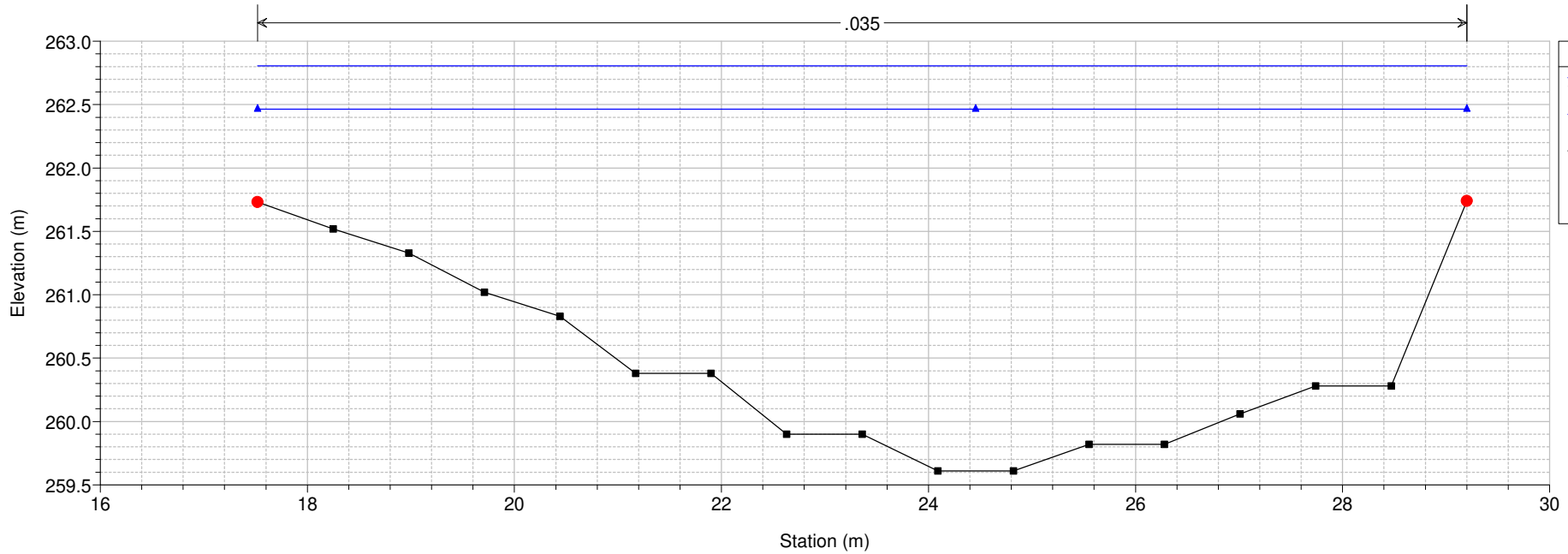
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 8.1 MUL 8A



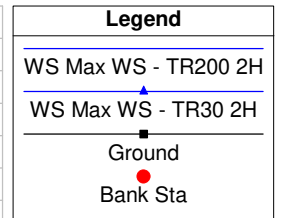
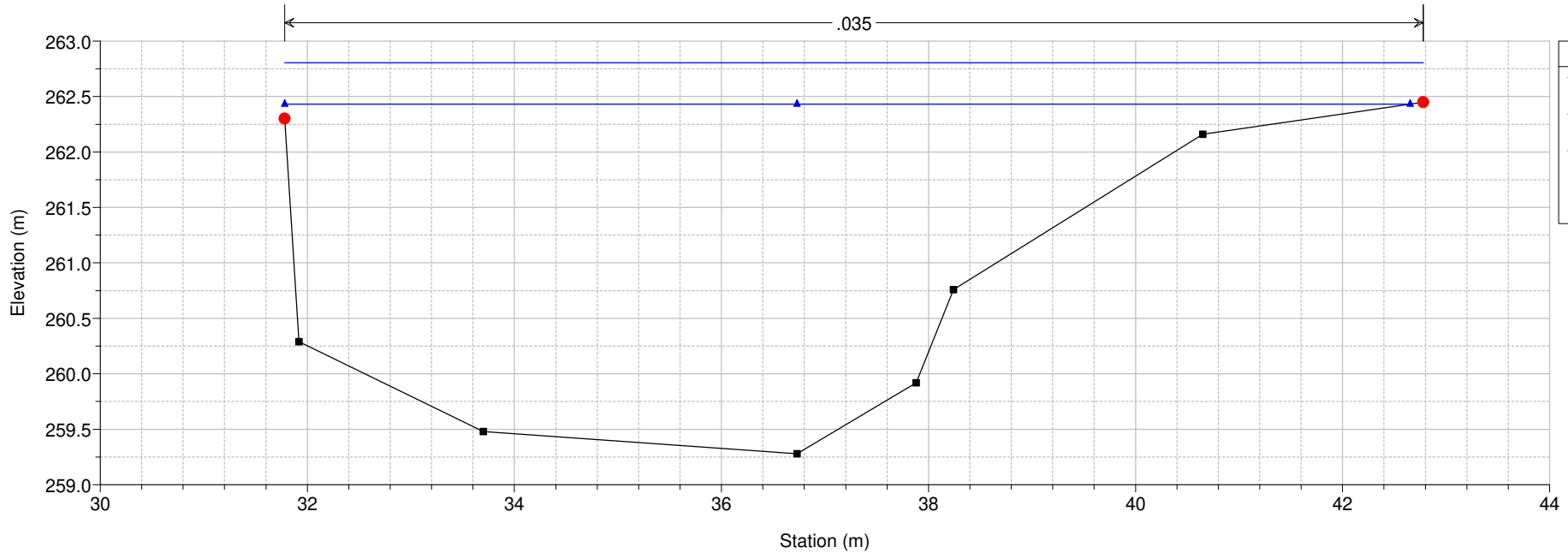
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 8 MUL 7B



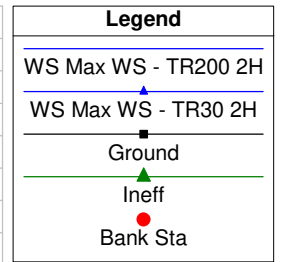
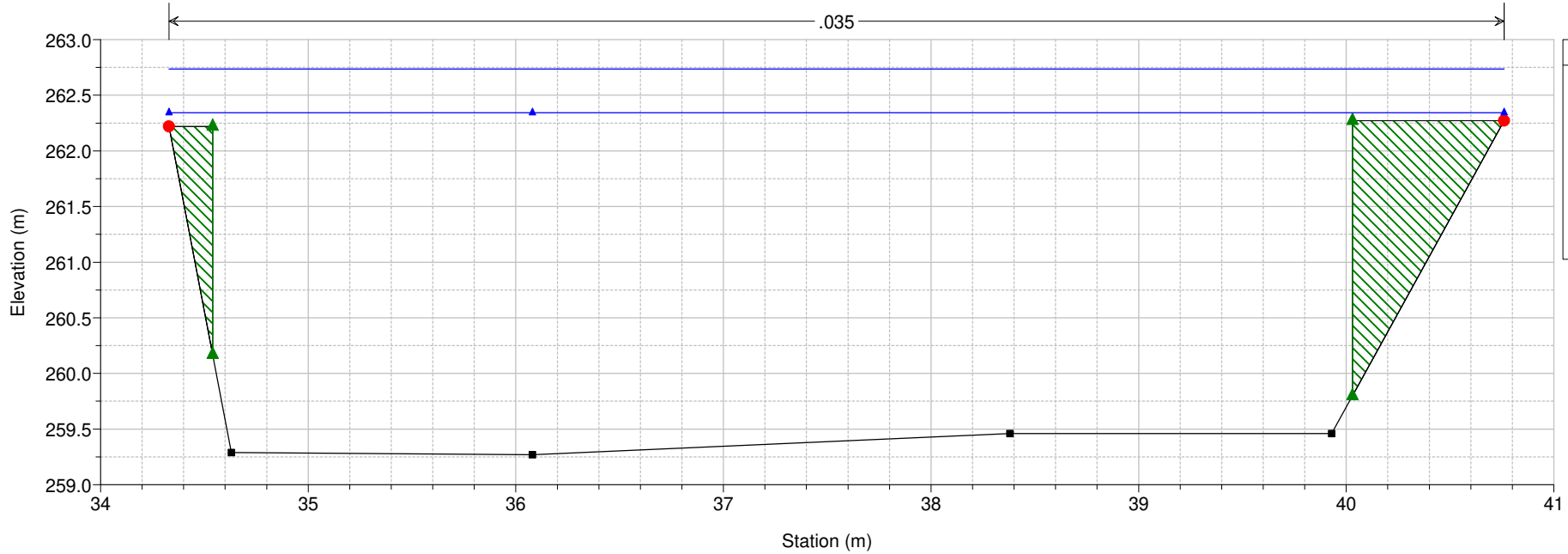
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 7.4 MUL 7B



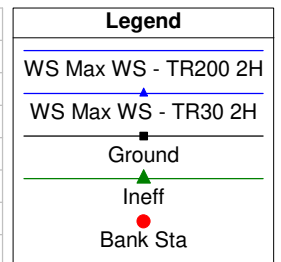
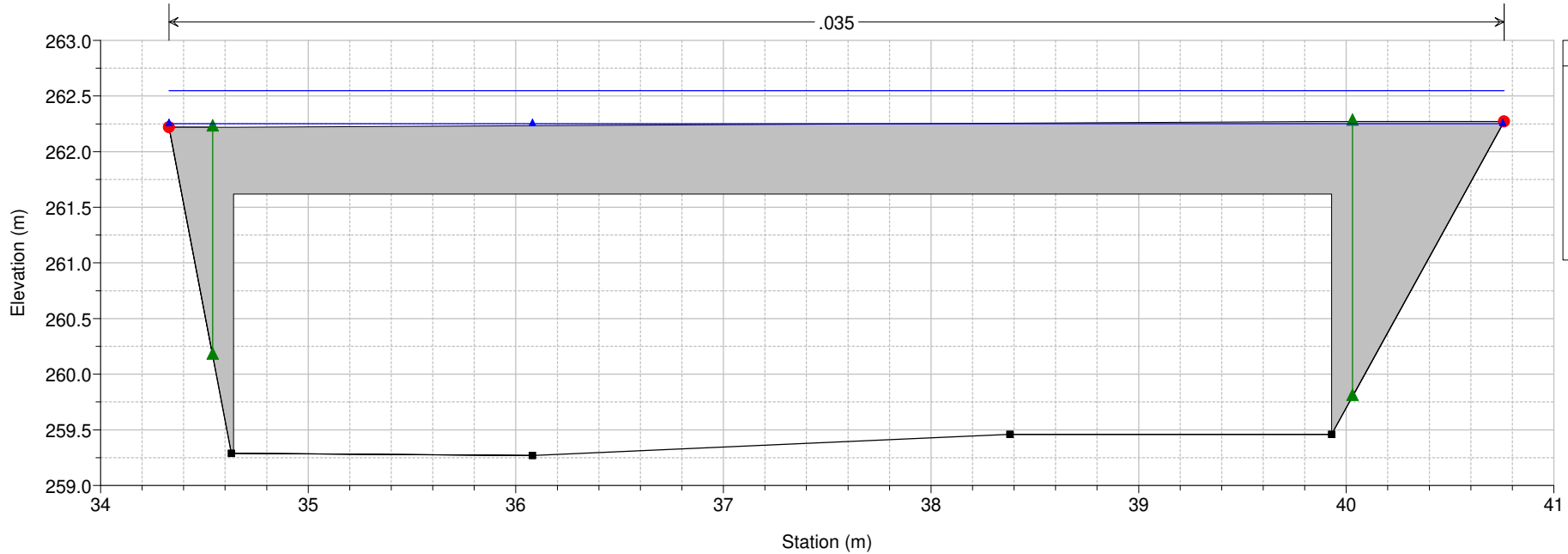
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 7.3 MUL 7A



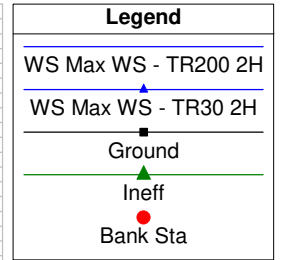
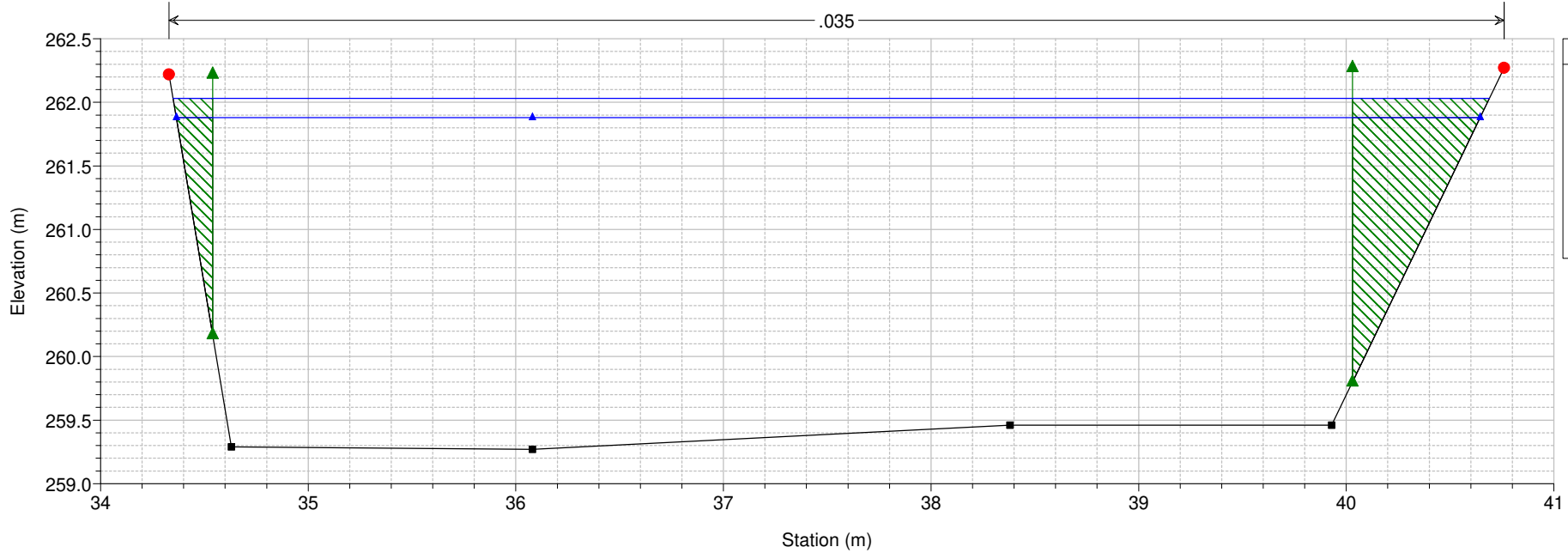
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 7.2 BR MUL 7A



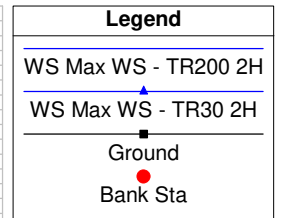
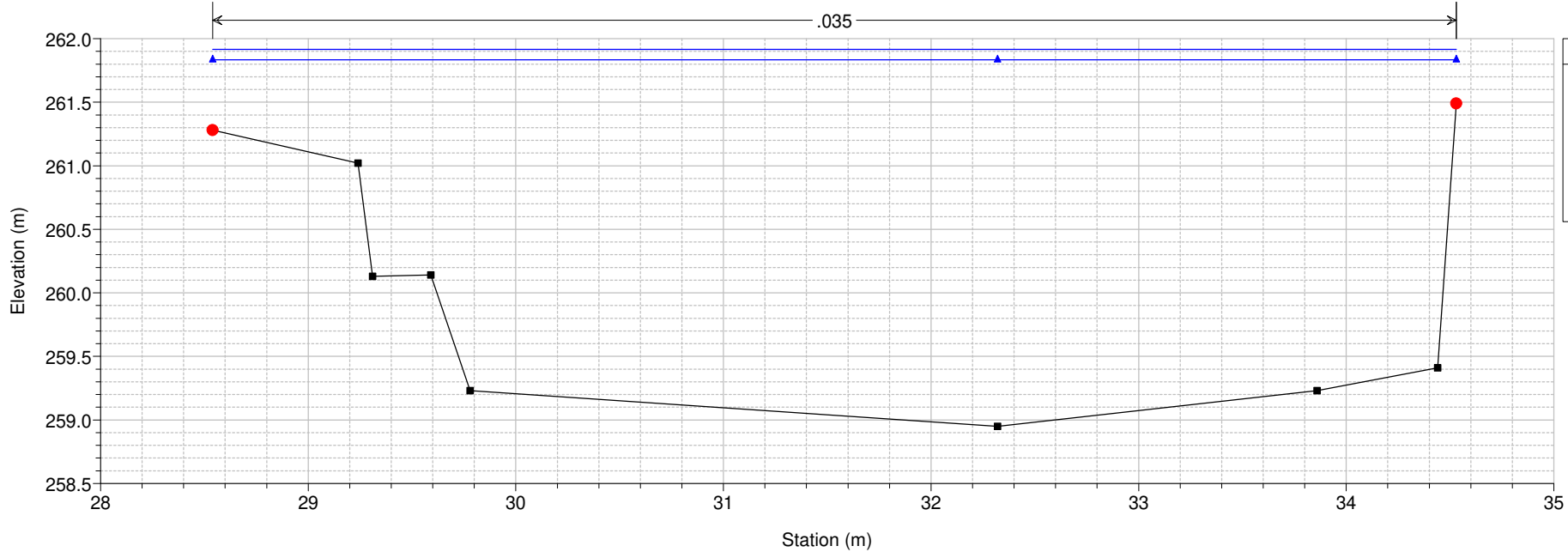
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 7 MUL 7A



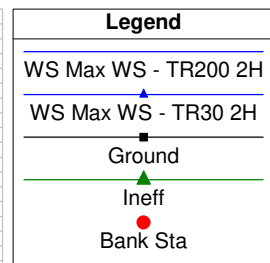
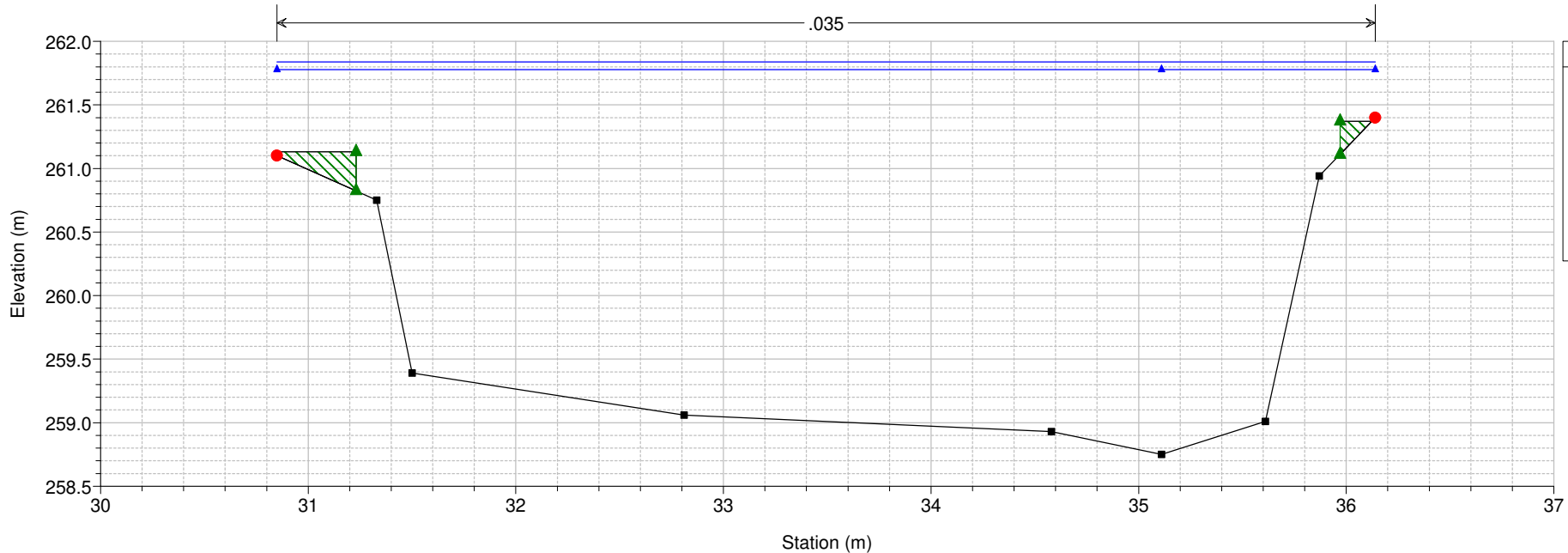
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 6.4 MUL 6B



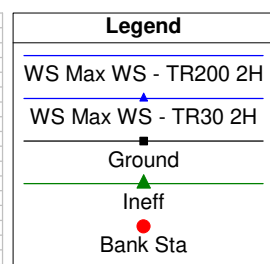
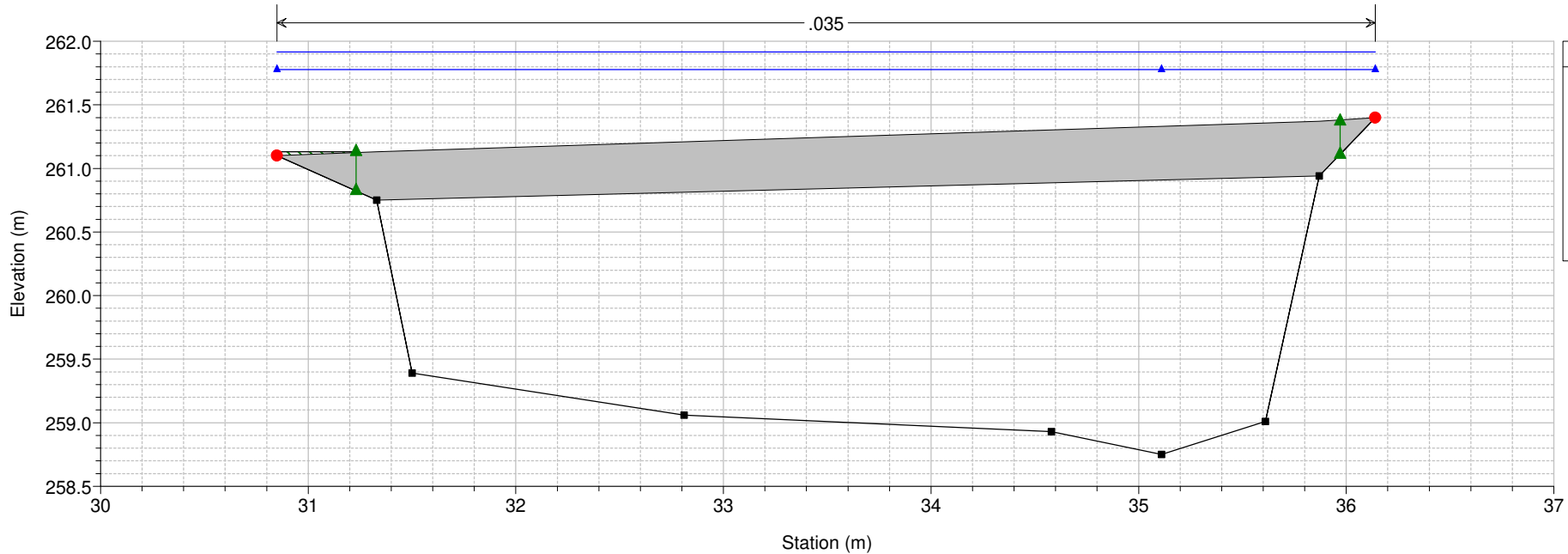
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 6.3 MUL 6A



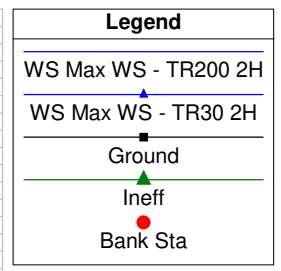
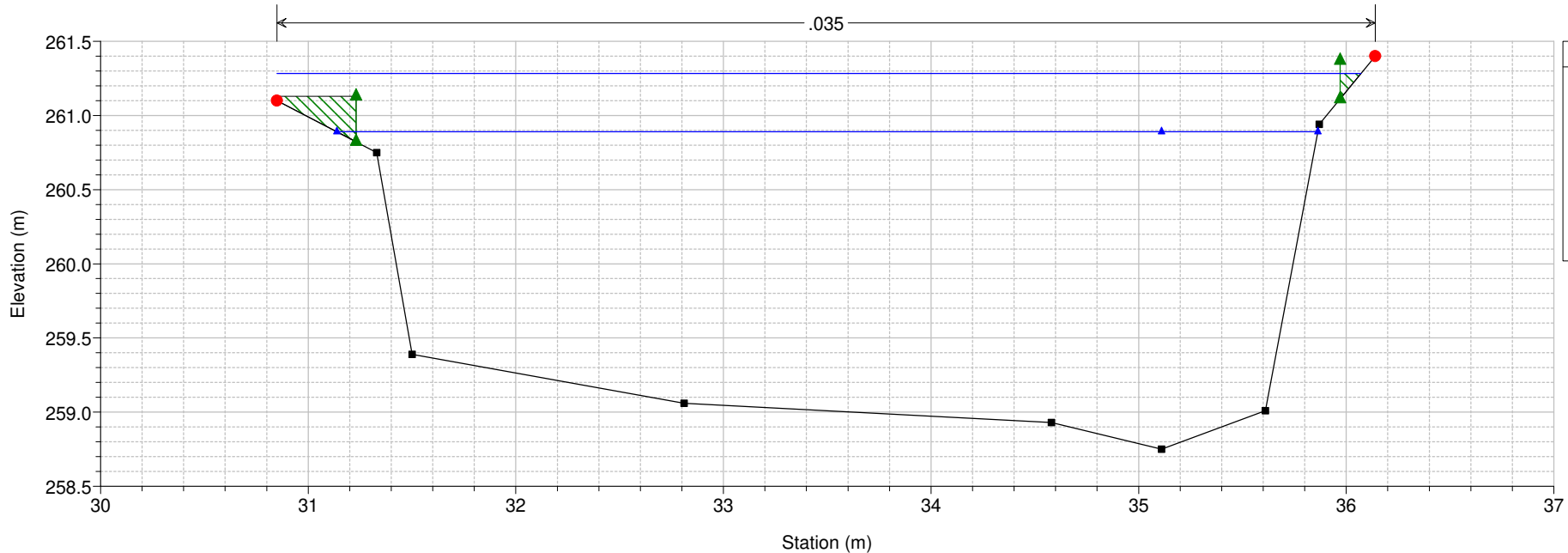
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 6.2 BR MUL 6A



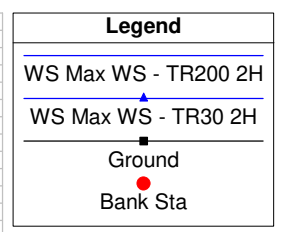
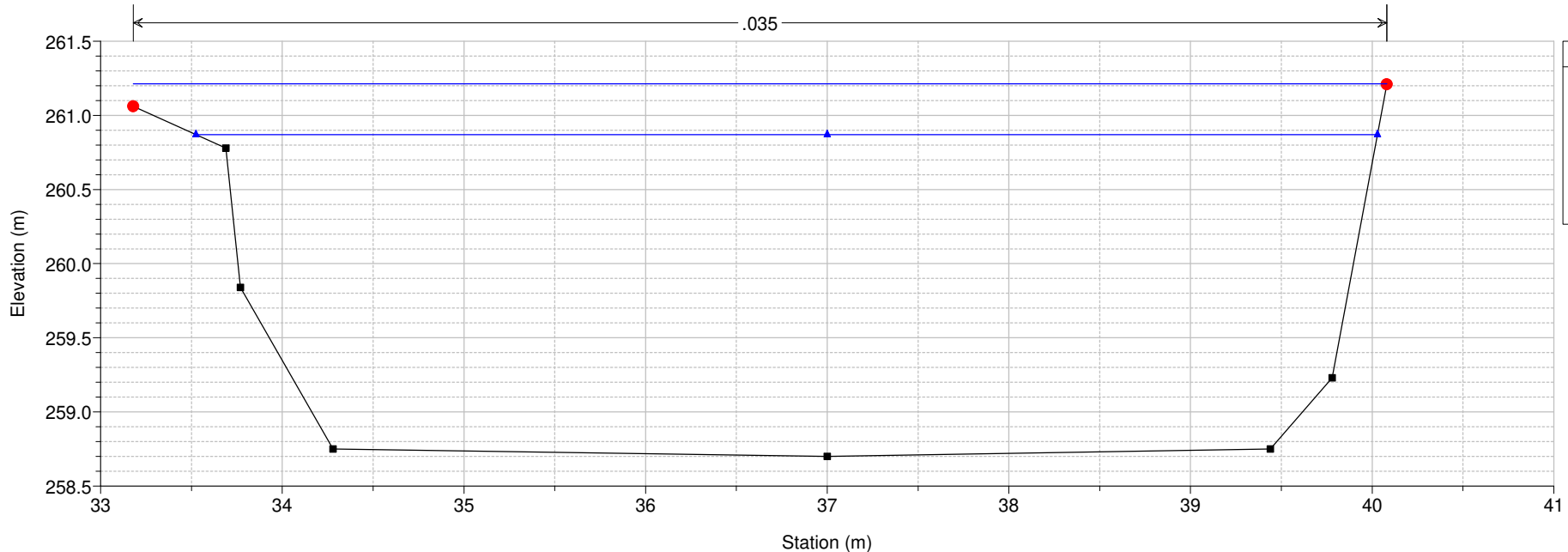
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 6.1 MUL 6A



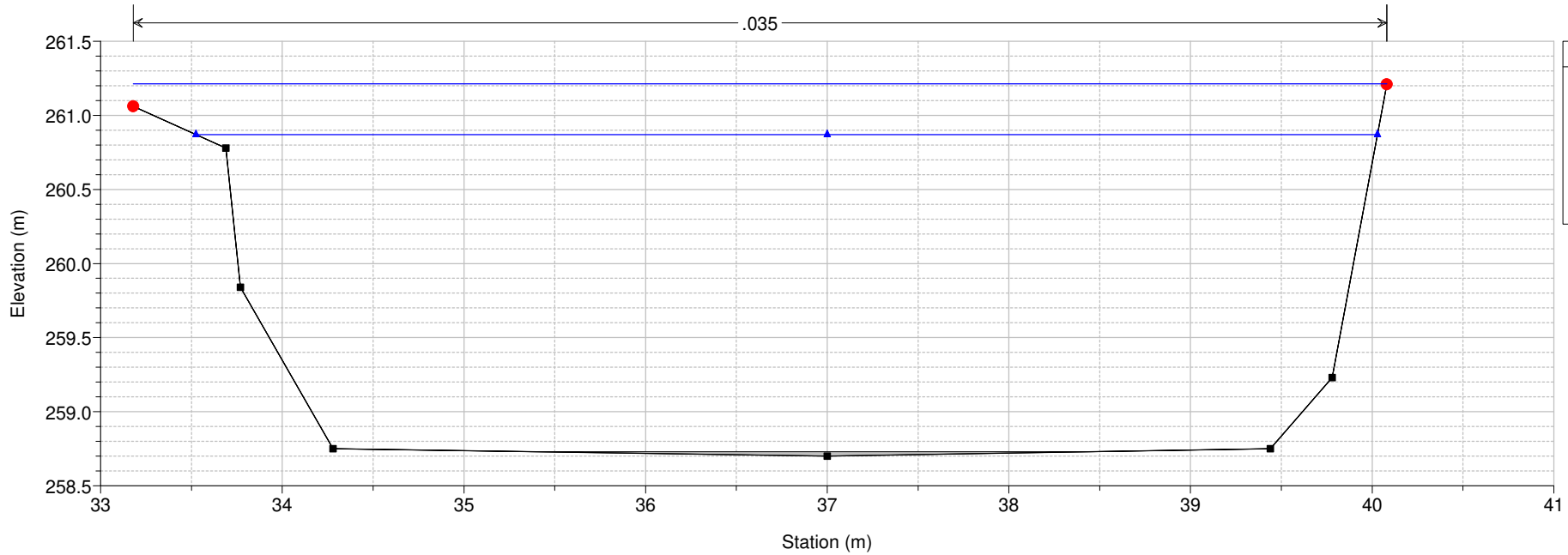
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 5.2 MUL 5B



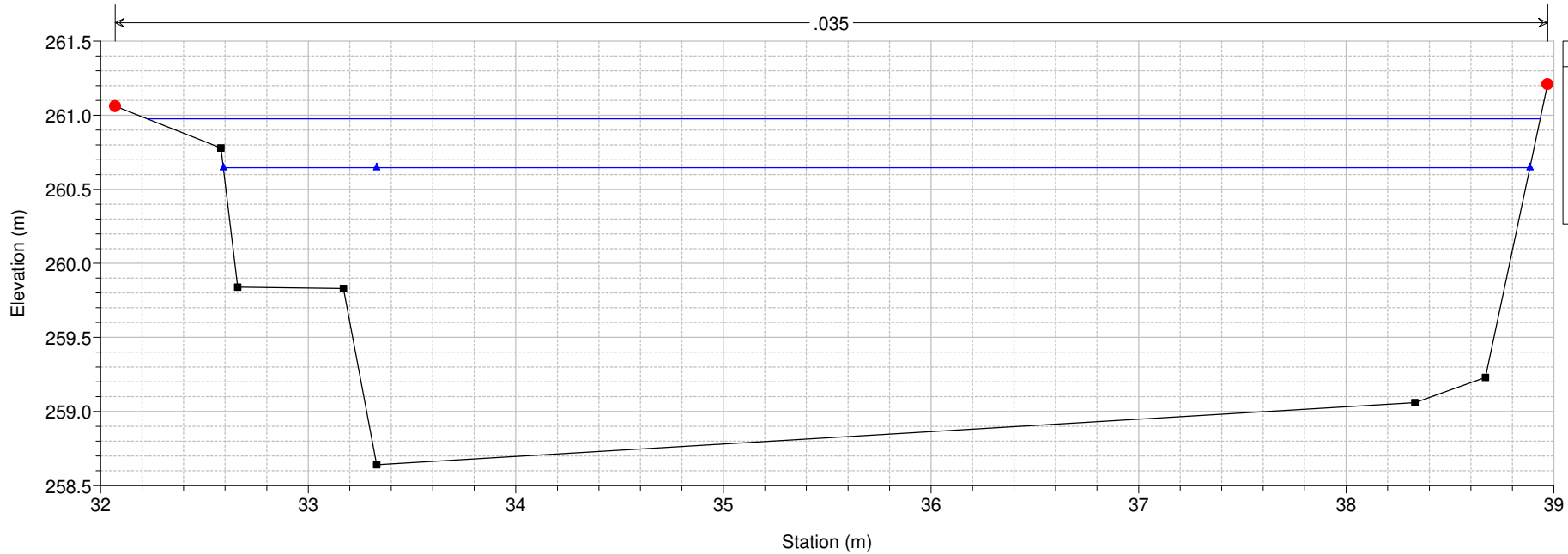
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 5.1 IS MUL 5B



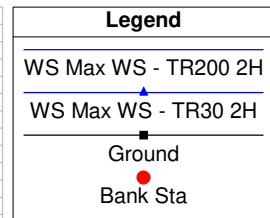
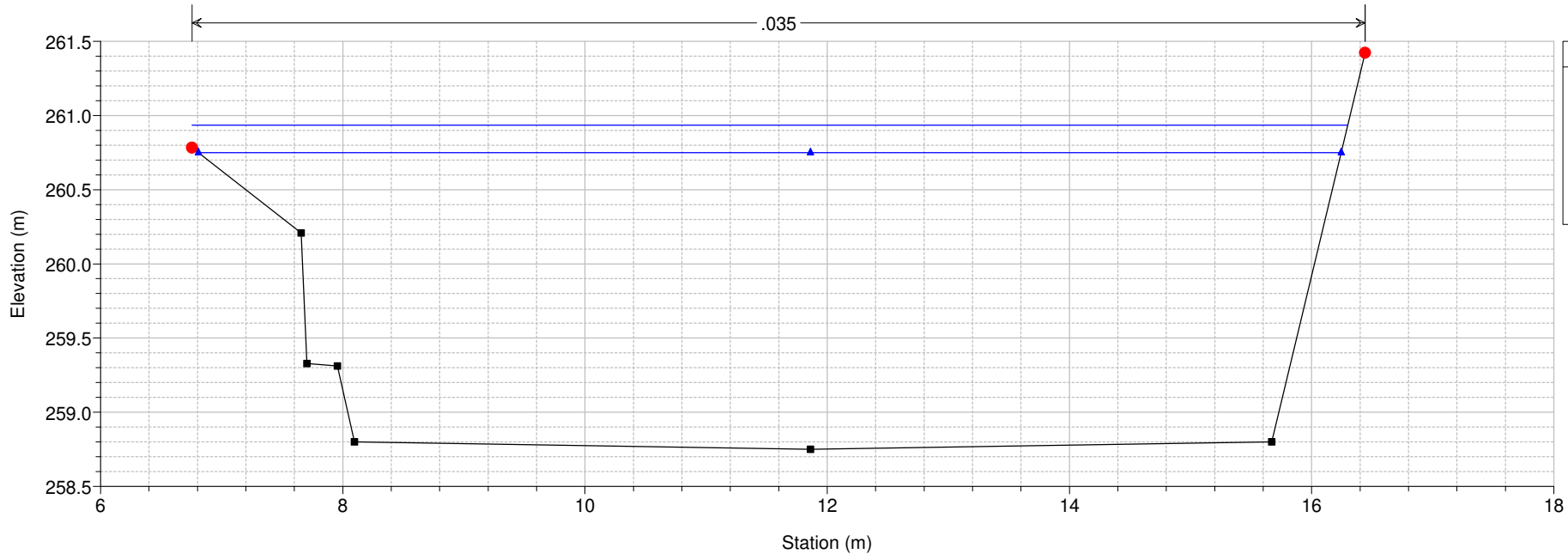
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 5 MUL 5A



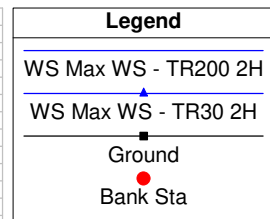
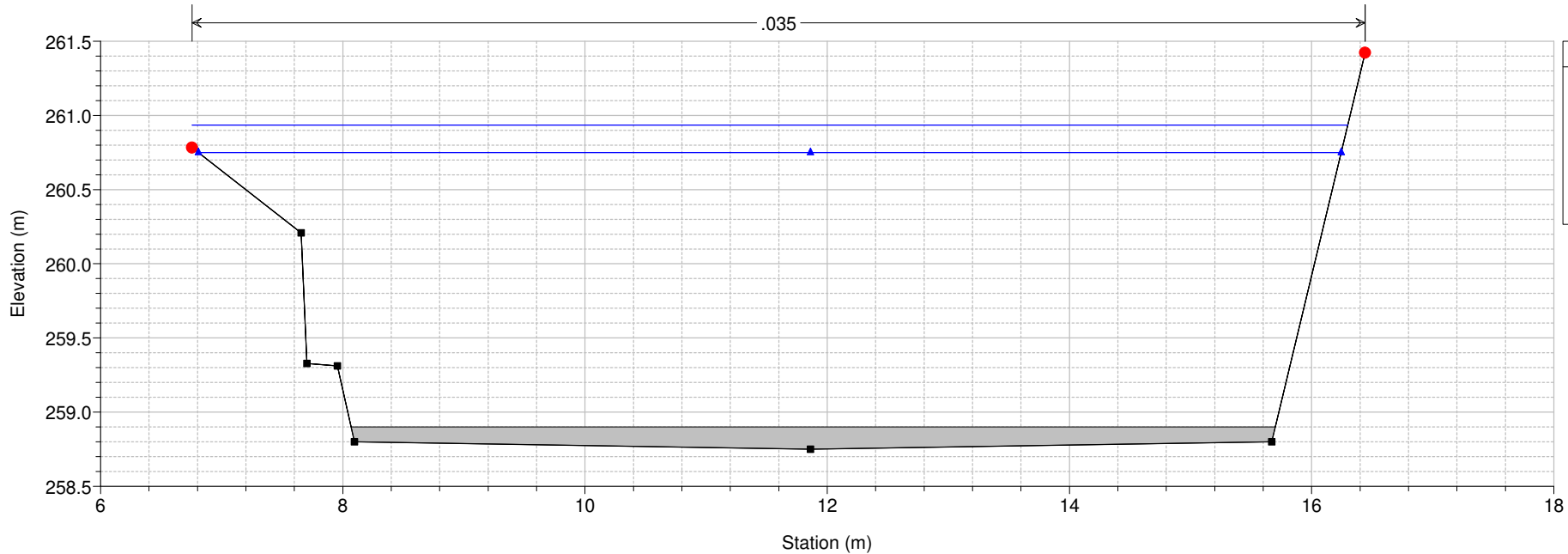
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 4.2 MUL 4B



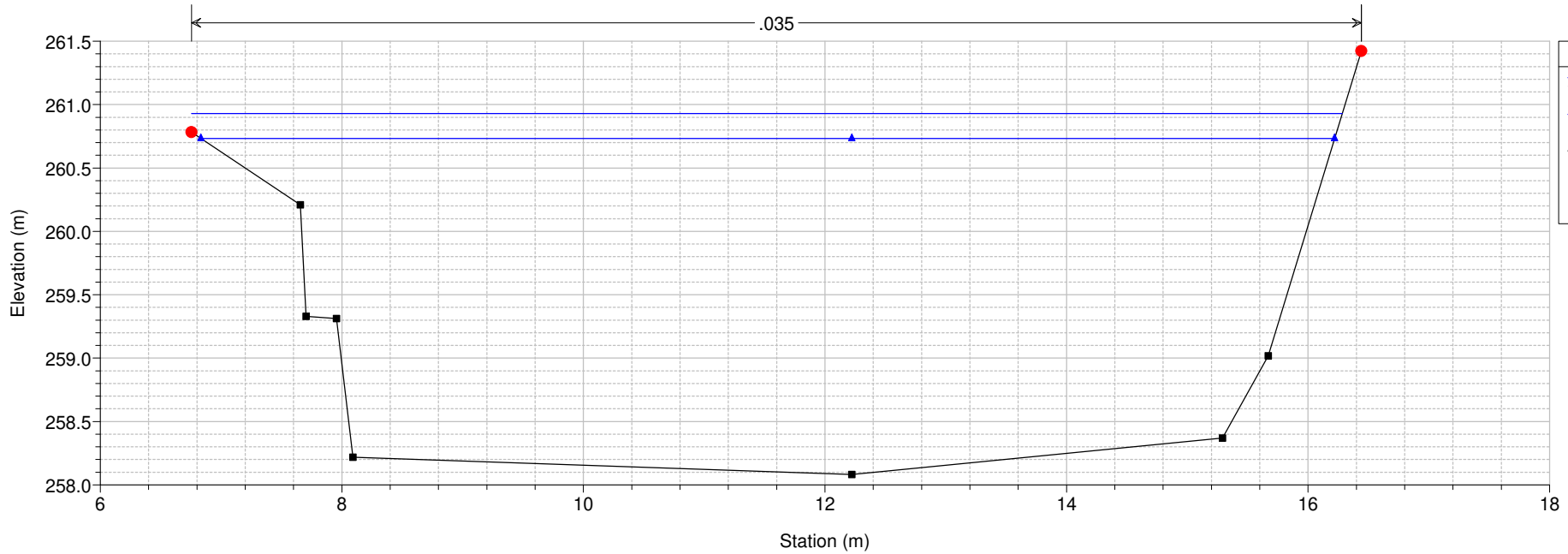
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 4.1 IS MUL 4B



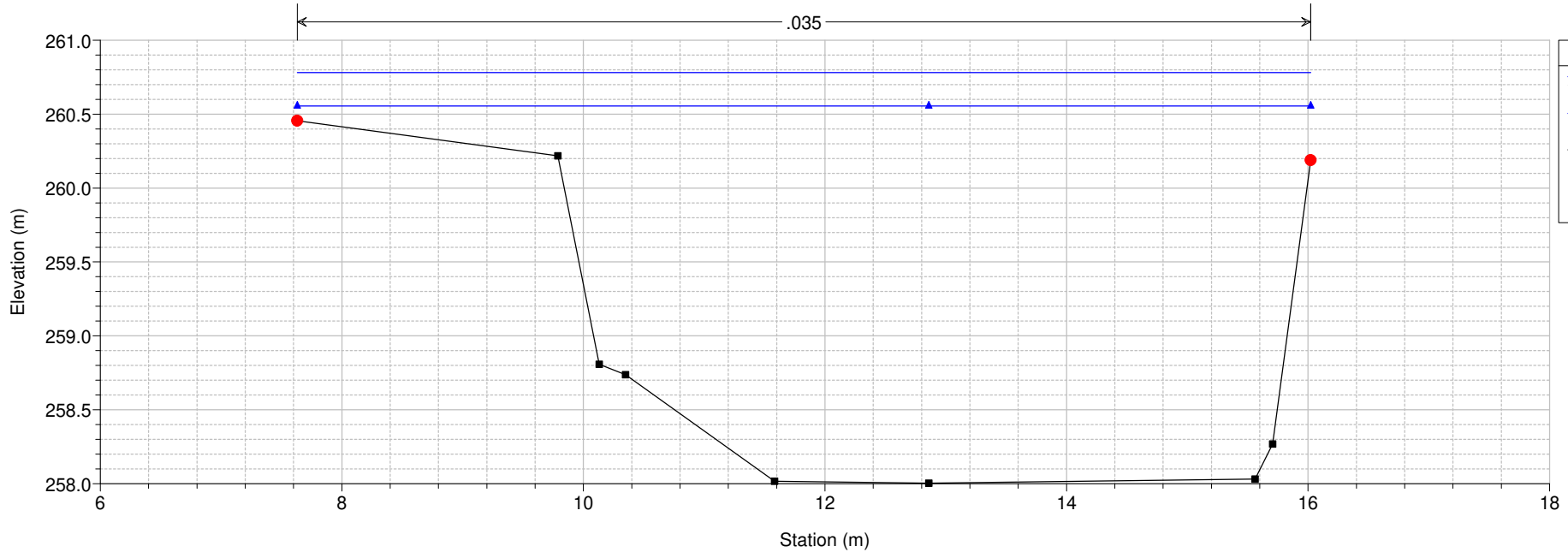
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 4 MUL 4A



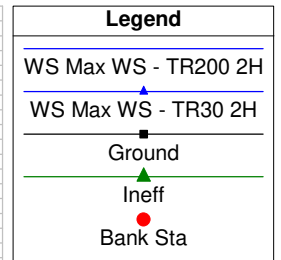
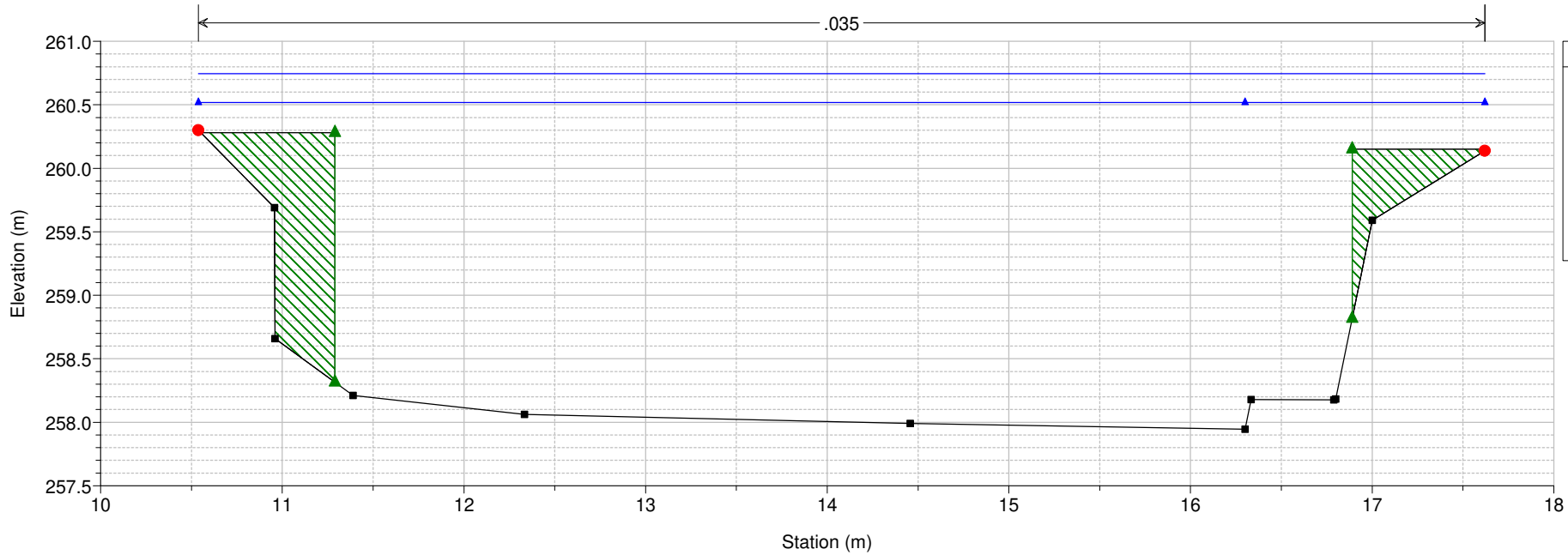
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.4 MUL 3C



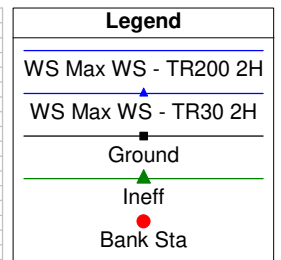
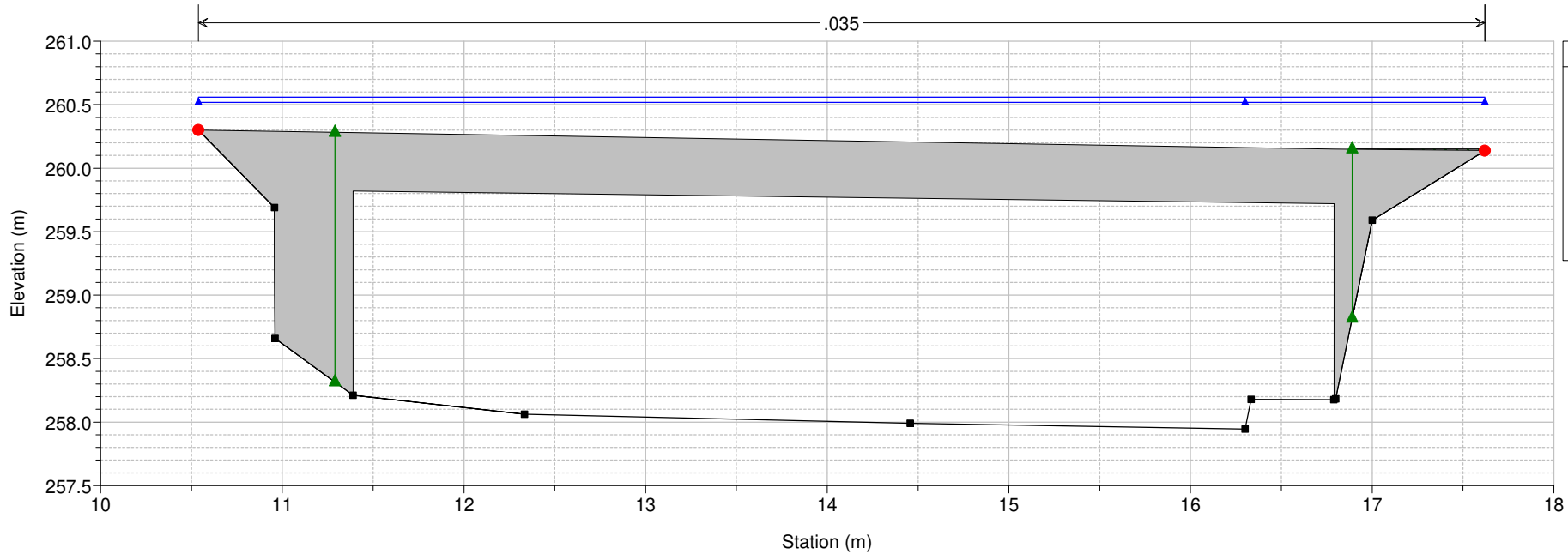
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.3 MUL 3B



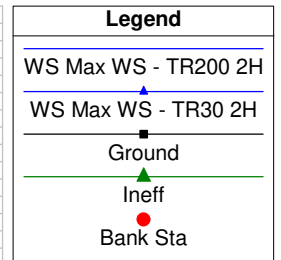
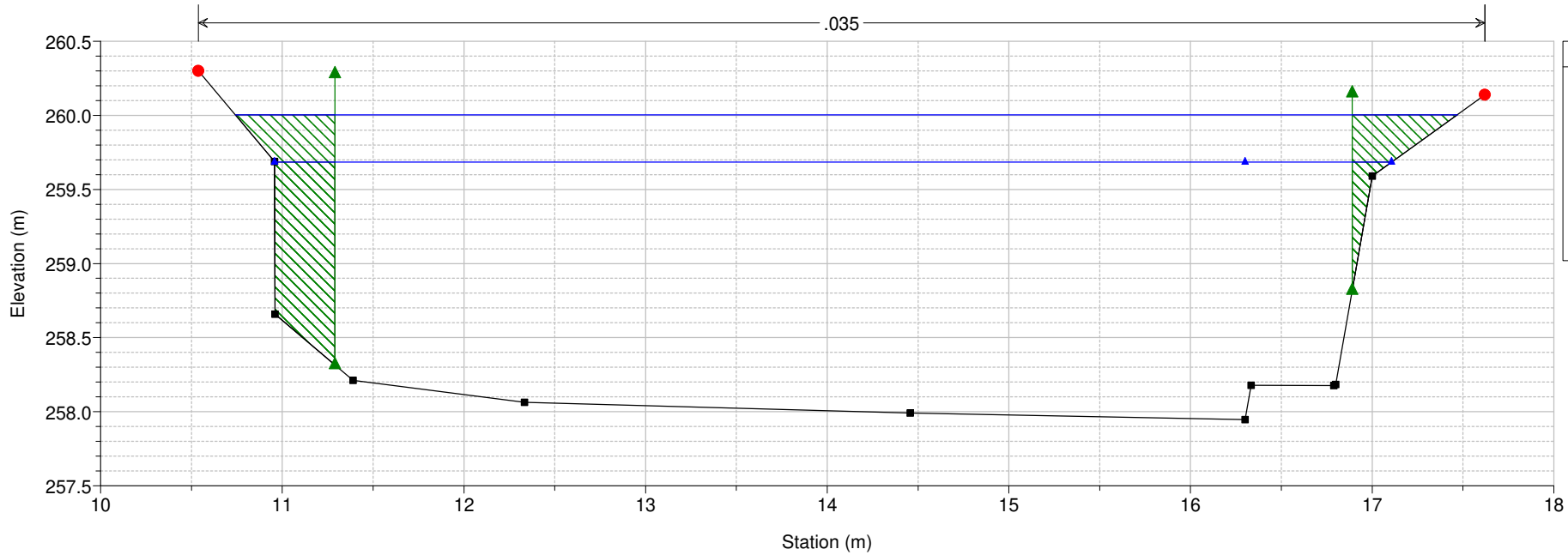
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.2 BR MUL 3A



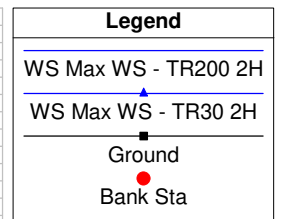
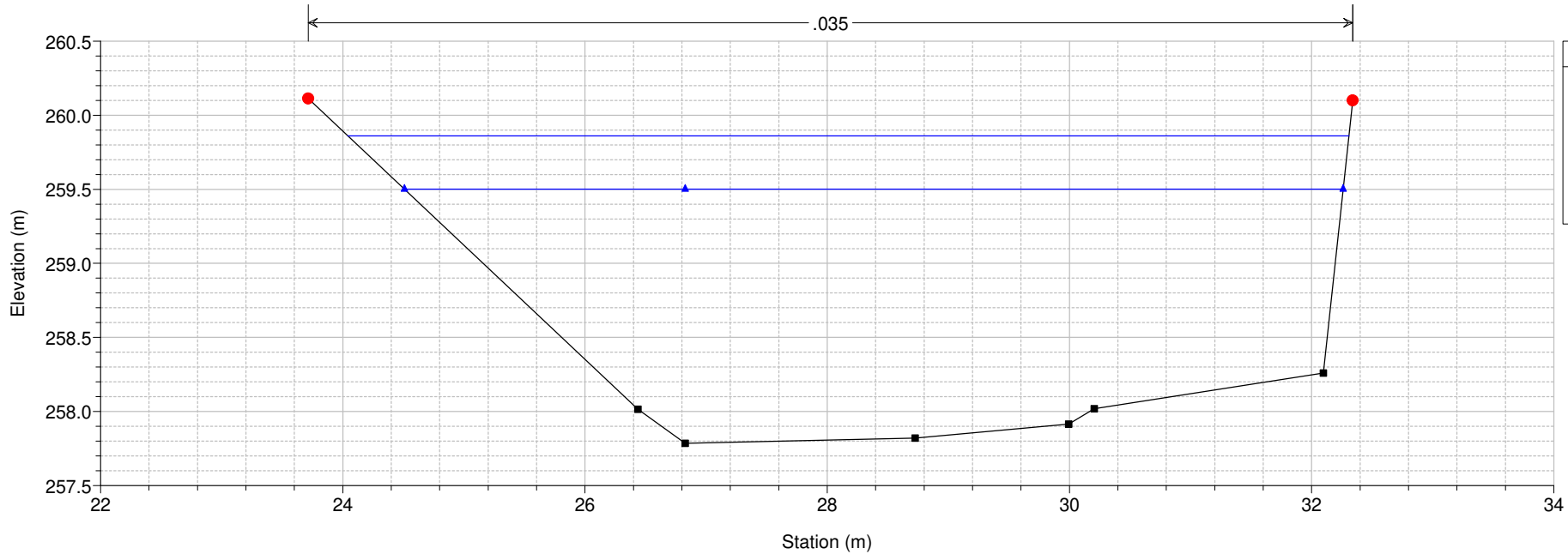
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.1 MUL 3B



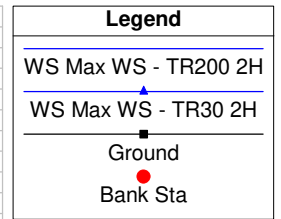
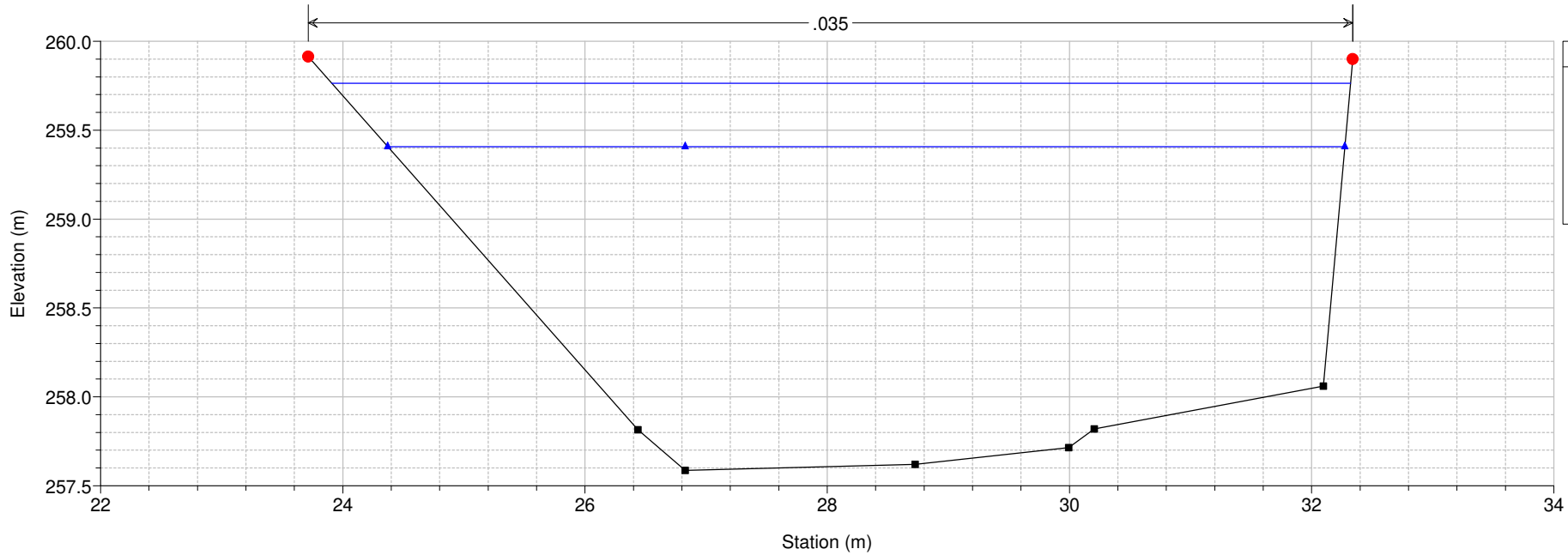
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.05 MUL 3A



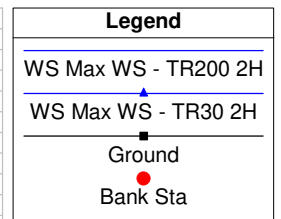
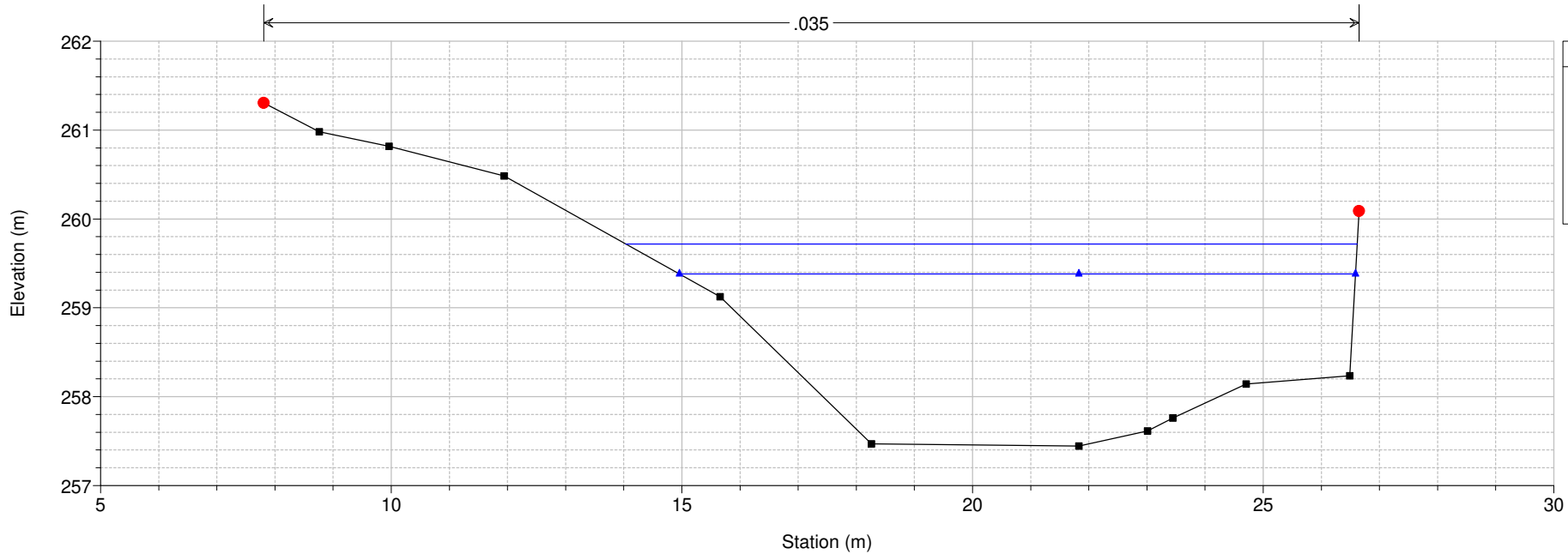
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulinaccia RS = 3.03 MUL 3A



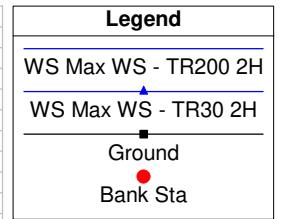
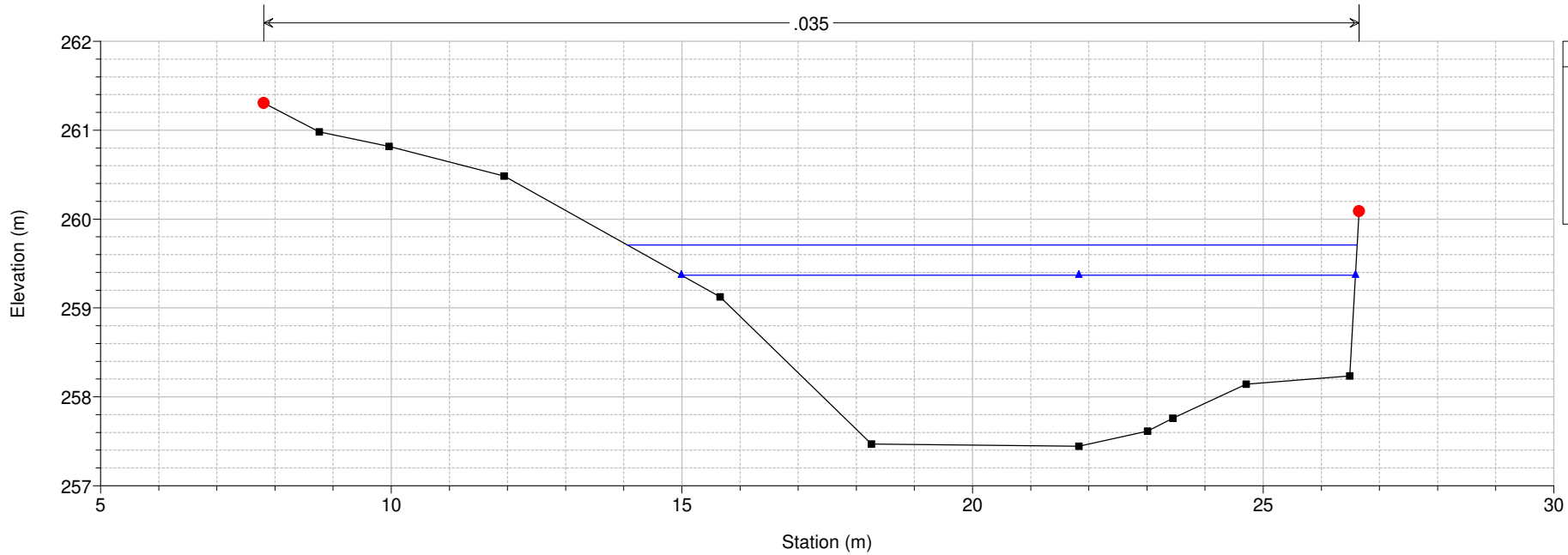
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulvalle scopicc RS = 2.1 MUL 2



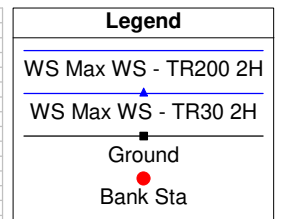
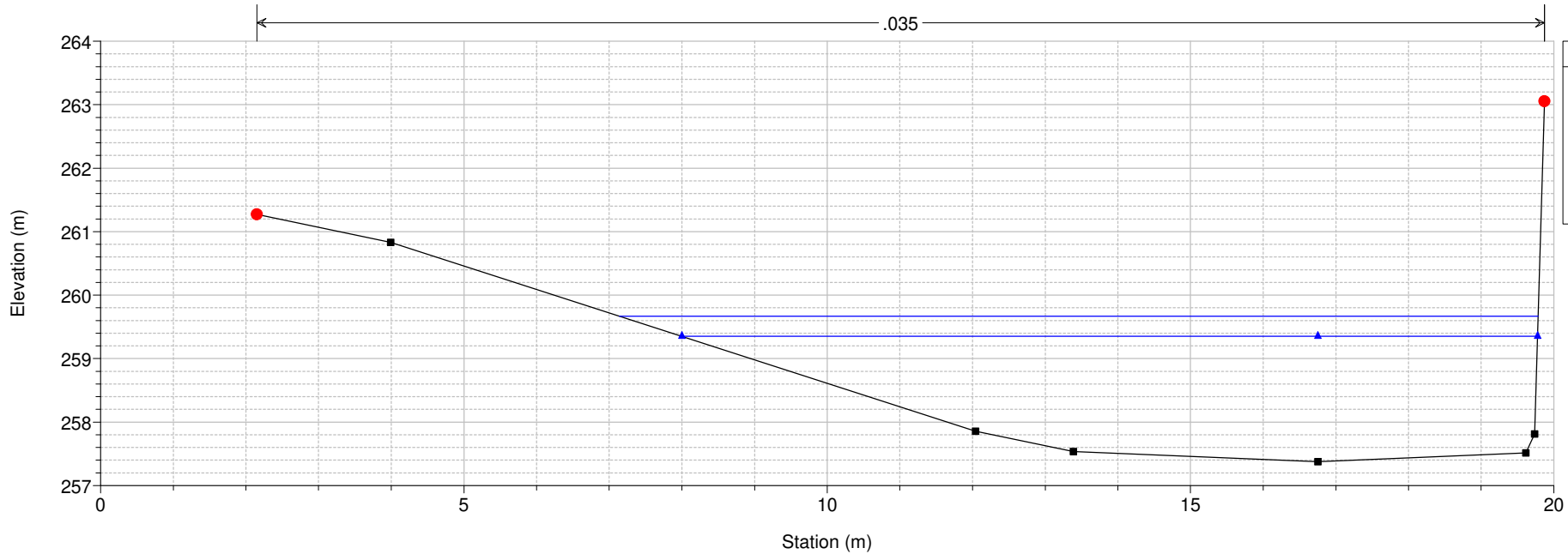
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulvalle scopicc RS = 2 MUL 2

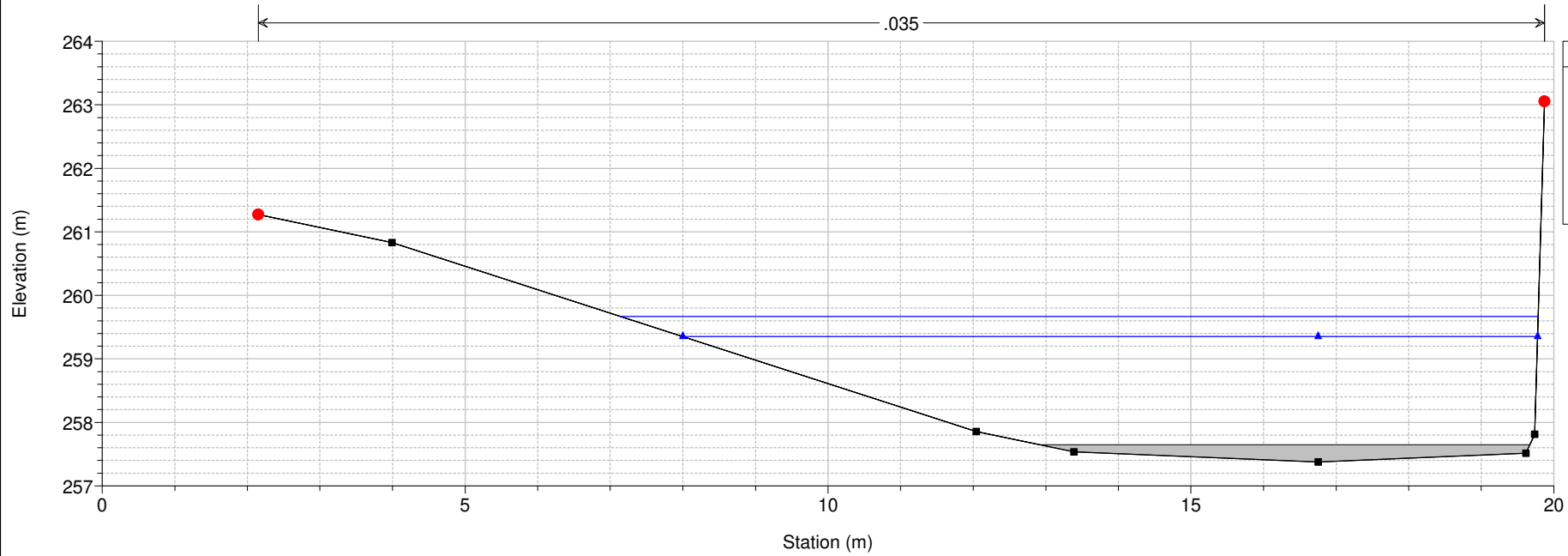


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

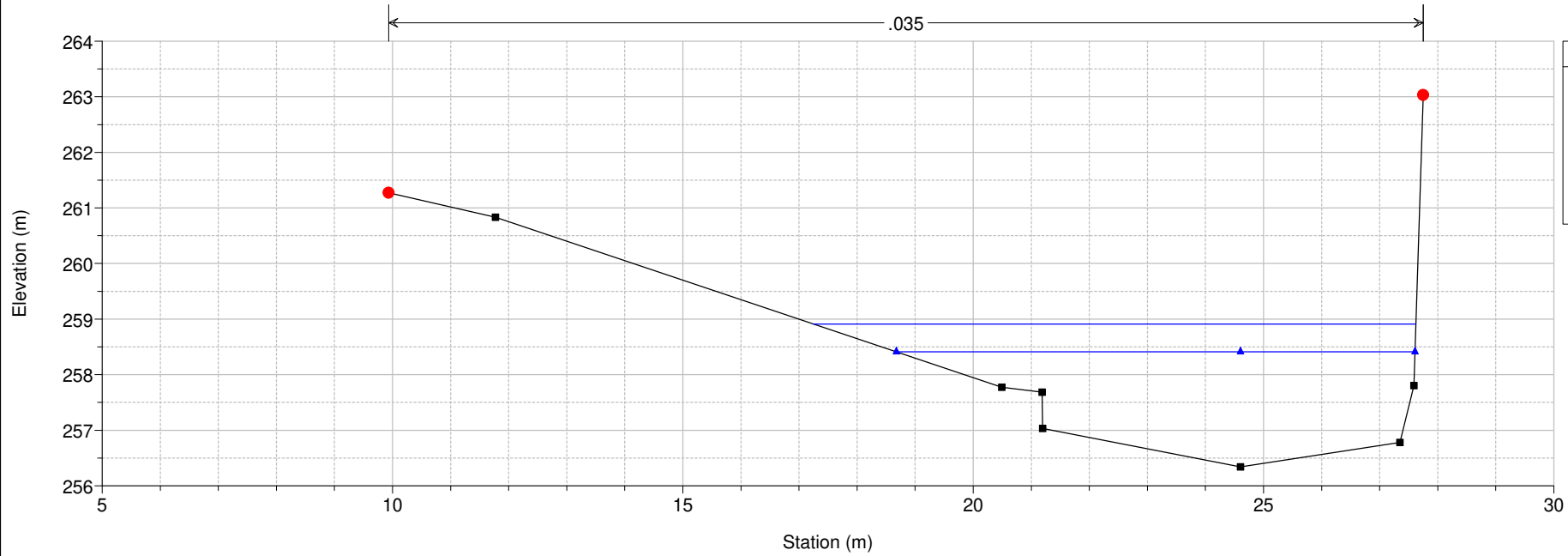
River = mulinaccia Reach = mulvalle scopicc RS = 1.2 MUL 1C



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = mulinaccia Reach = mulvalle scopicc RS = 1.1 IS MUL 1B

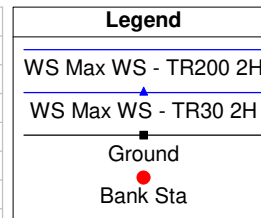
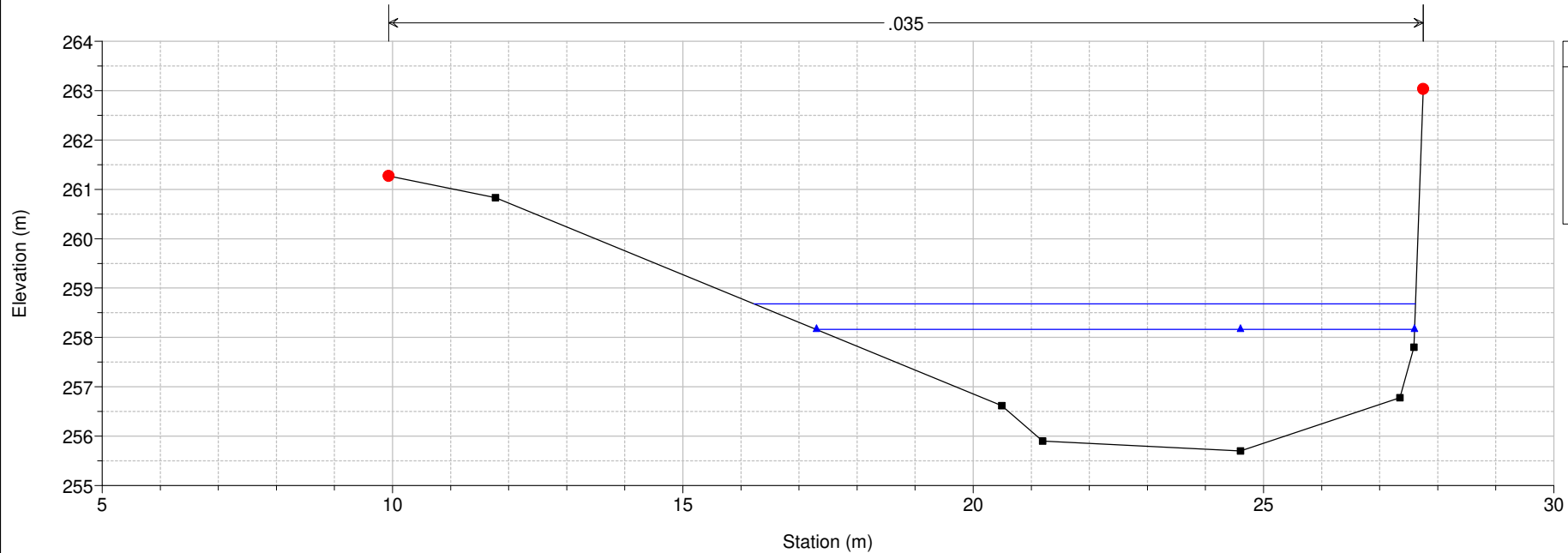


VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H
 River = mulinaccia Reach = mulvalle scopicc RS = 1 MUL 1A



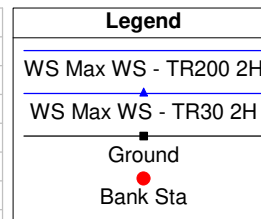
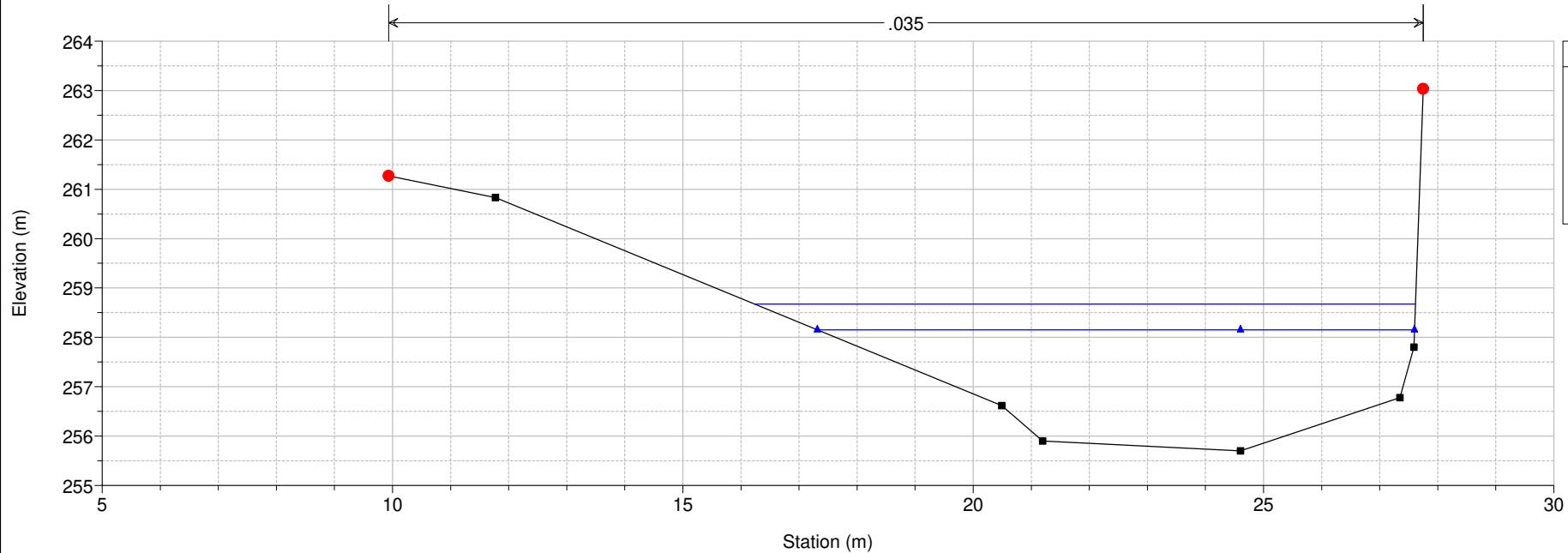
VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulvalle scopicc RS = 0.5 1A



VIS_SIE_SCO_MUL Plan: 1) TR200 2H 2) TR30 2H

River = mulinaccia Reach = mulvalle scopicc RS = 0.4 1A



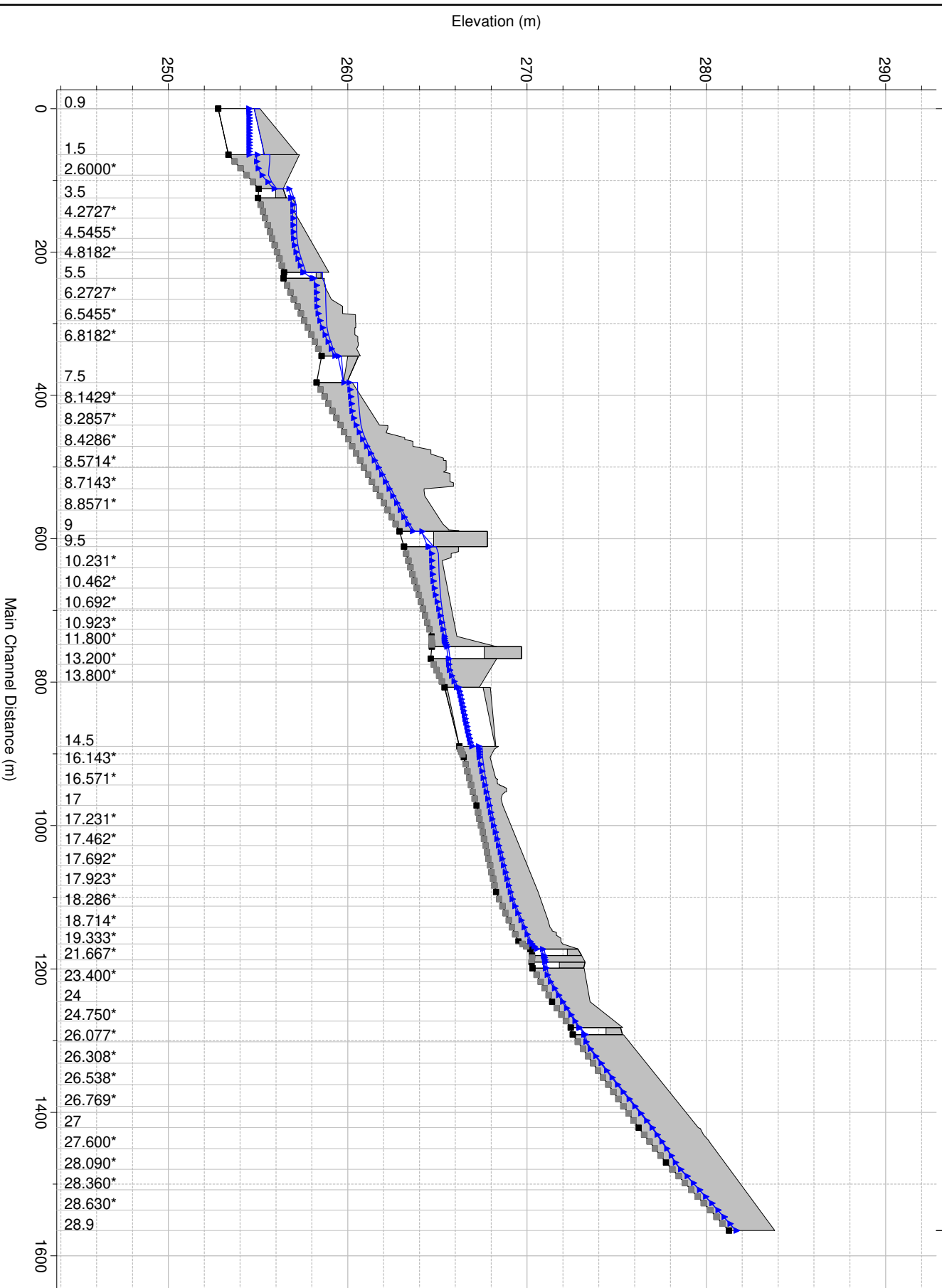
HEC-RAS Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
mulvalle scopicc	0.5	Max WS	TR30 2H	44.38	255.70	258.16	257.64	258.50	0.005102	2.56	17.33	10.30	0.63
mulvalle scopicc	0.5	Max WS	TR30 1H	32.32	255.70	258.03	257.35	258.24	0.003378	2.02	15.98	10.02	0.51
mulvalle scopicc	0.4	Max WS	TR200 2H	62.31	255.70	258.67	258.01	259.05	0.004716	2.72	22.90	11.38	0.61
mulvalle scopicc	0.4	Max WS	TR200 1H	52.91	255.70	258.59	257.83	258.89	0.003813	2.41	21.95	11.20	0.55
mulvalle scopicc	0.4	Max WS	TR30 2H	44.38	255.70	258.15	257.64	258.49	0.005168	2.57	17.25	10.28	0.63
mulvalle scopicc	0.4	Max WS	TR30 1H	32.32	255.70	258.02	257.35	258.23	0.003404	2.03	15.93	10.01	0.51

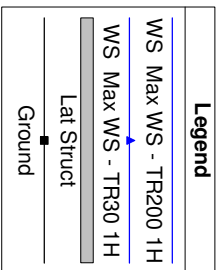
Table with 16 columns: Reach, River Sta, Profile, Plan, Q US (m3/s), Q Leaving Total (m3/s), Q DS (m3/s), Q Weir (m3/s), Q Gates (m3/s), Wr Top Wdth (m), Weir Max Depth (m), Weir Avg Depth (m), Min El Weir Flow (m), E.G. US. (m), W.S. US. (m), E.G. DS. (m), W.S. DS. (m). Contains multiple rows of data for various reaches and profiles.

**FOSSO
DI VISANO**

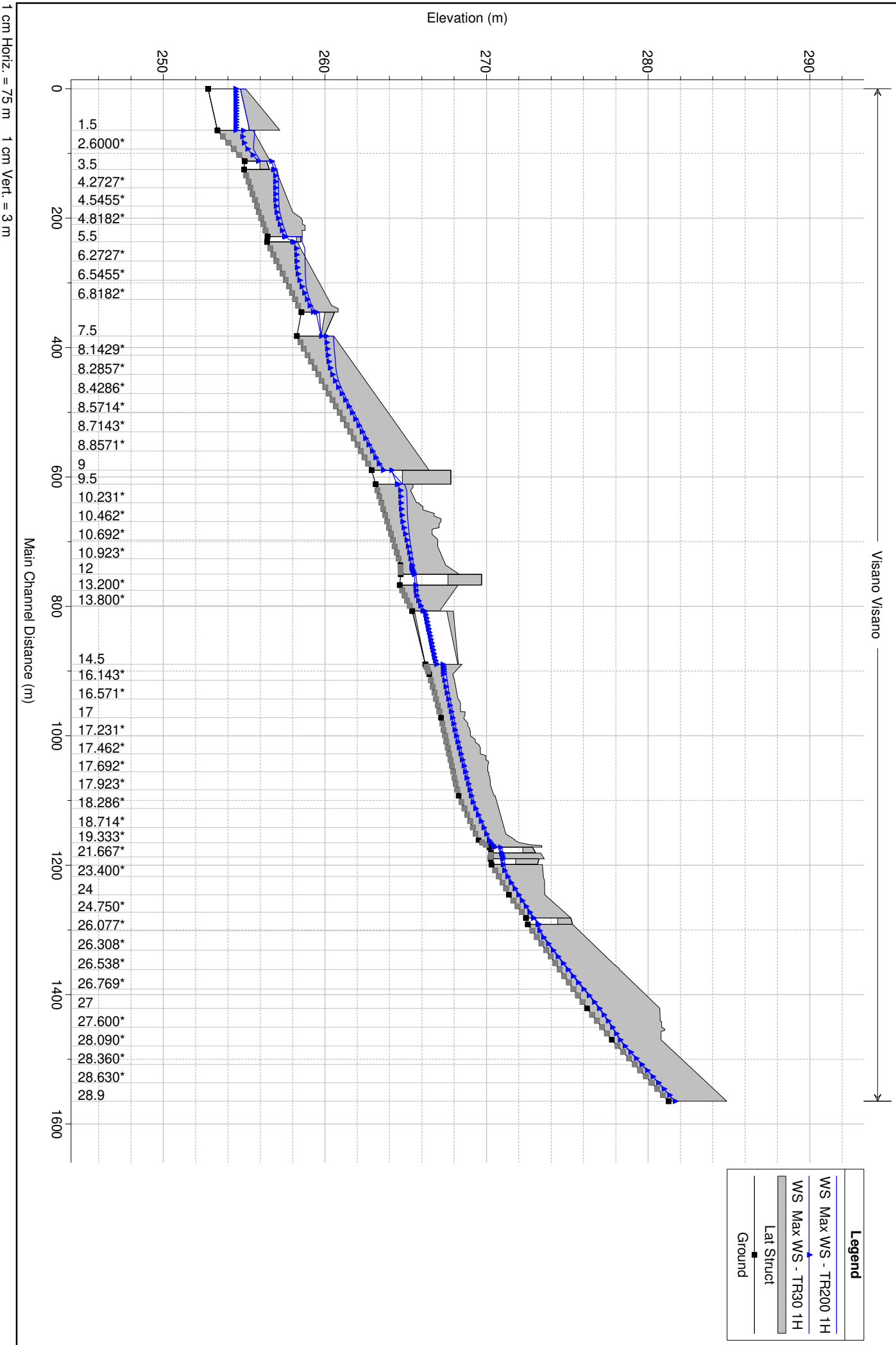
Visano Visano



1 cm Horiz. = 75 m 1 cm Vert. = 3 m

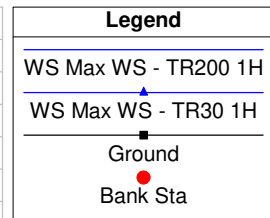
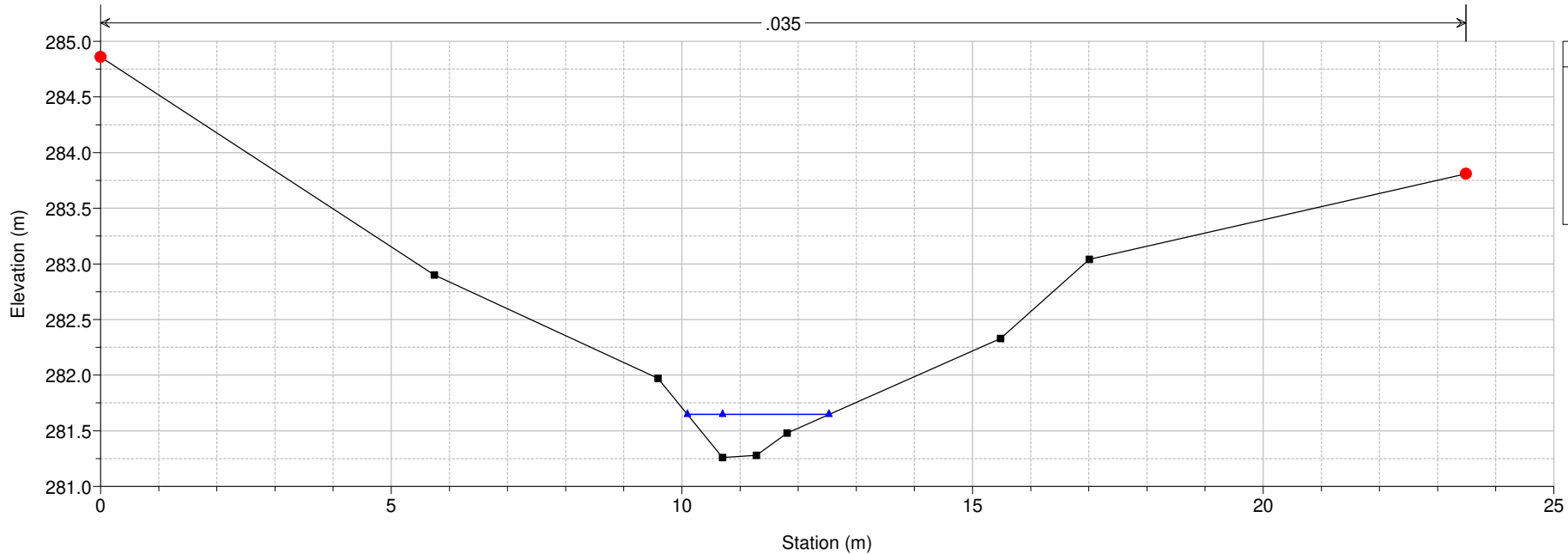


Visano Visano



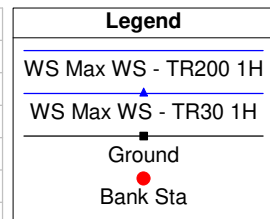
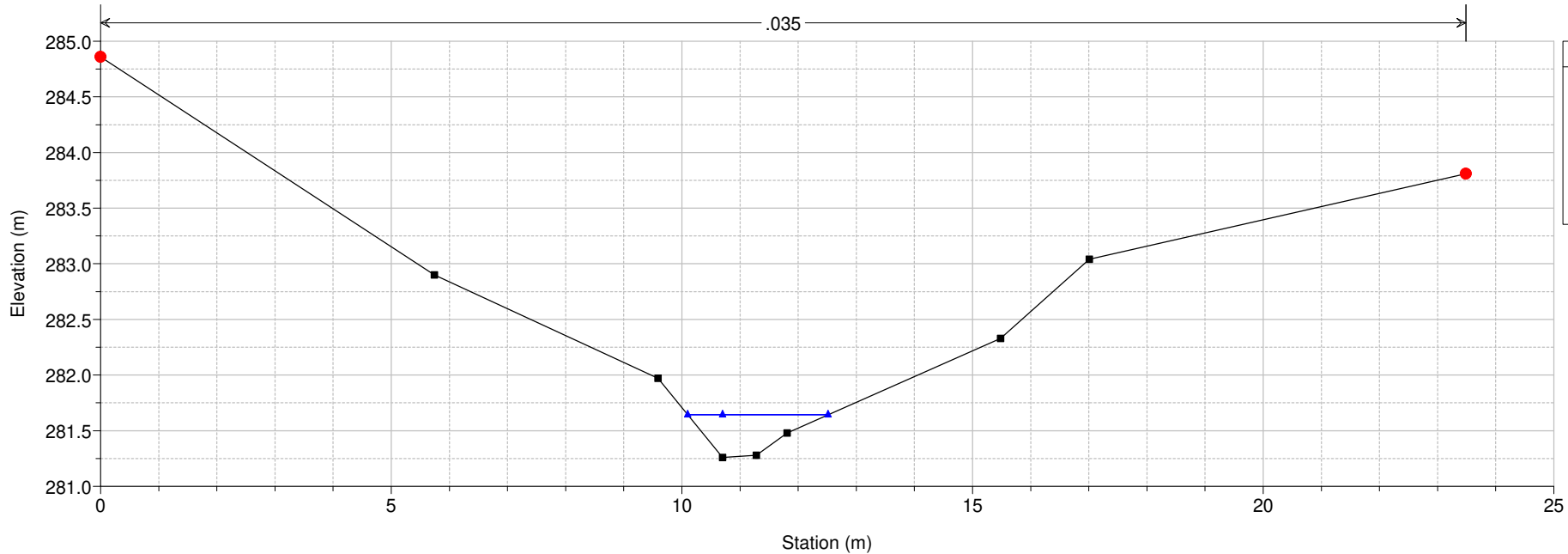
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 29 sez.1



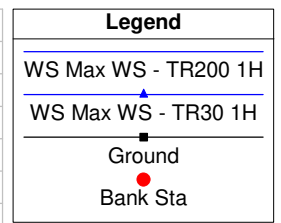
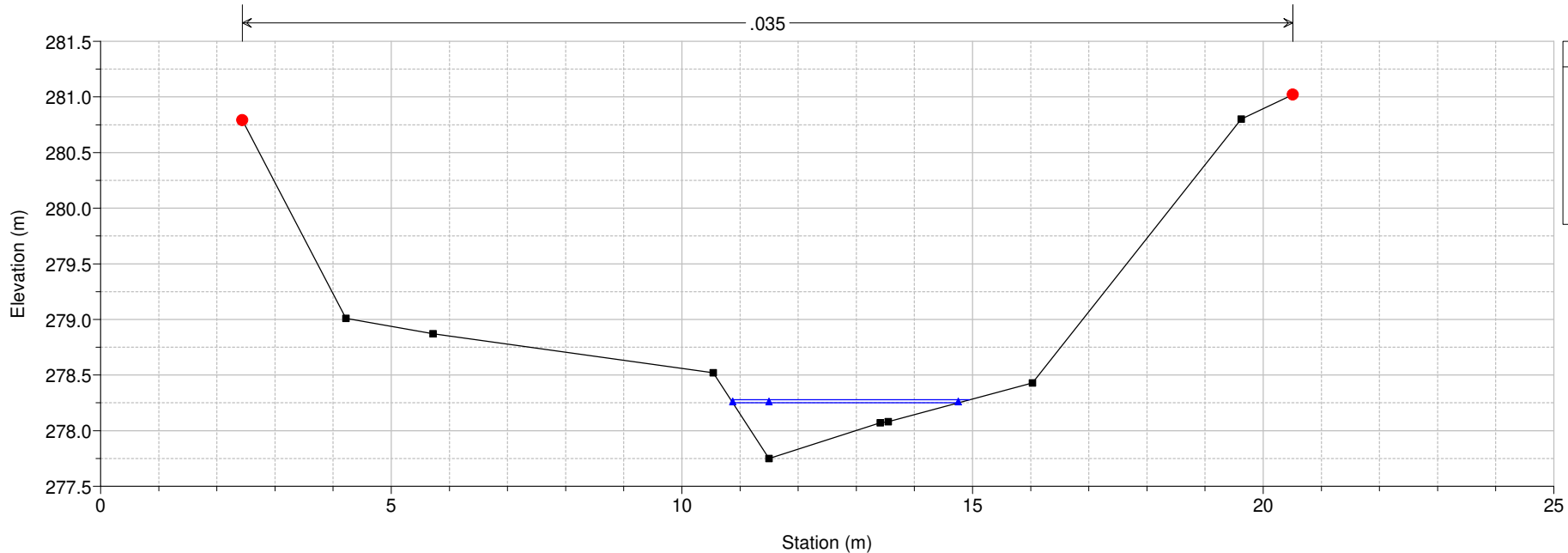
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 28.9 sez.1 copia



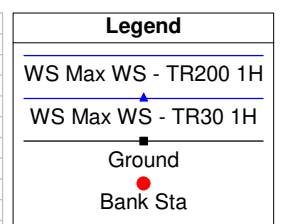
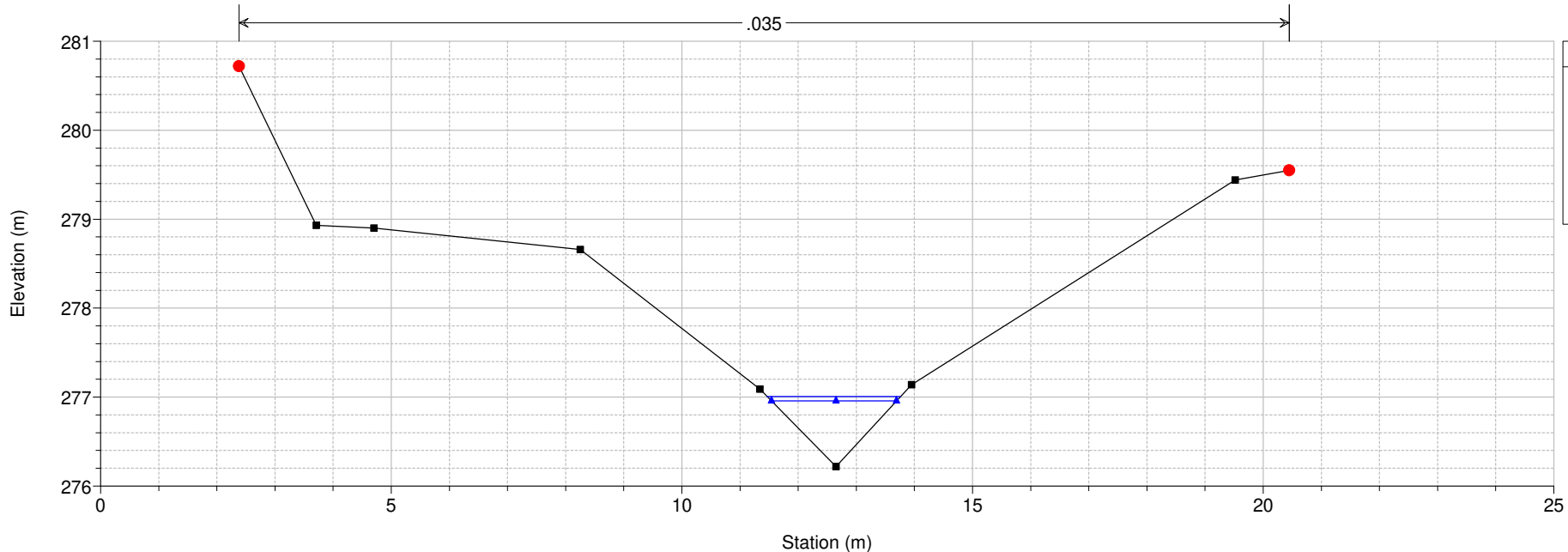
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 28 sez.3

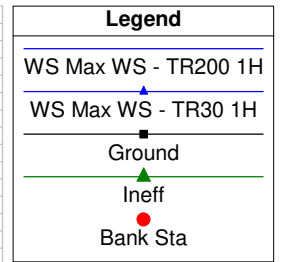
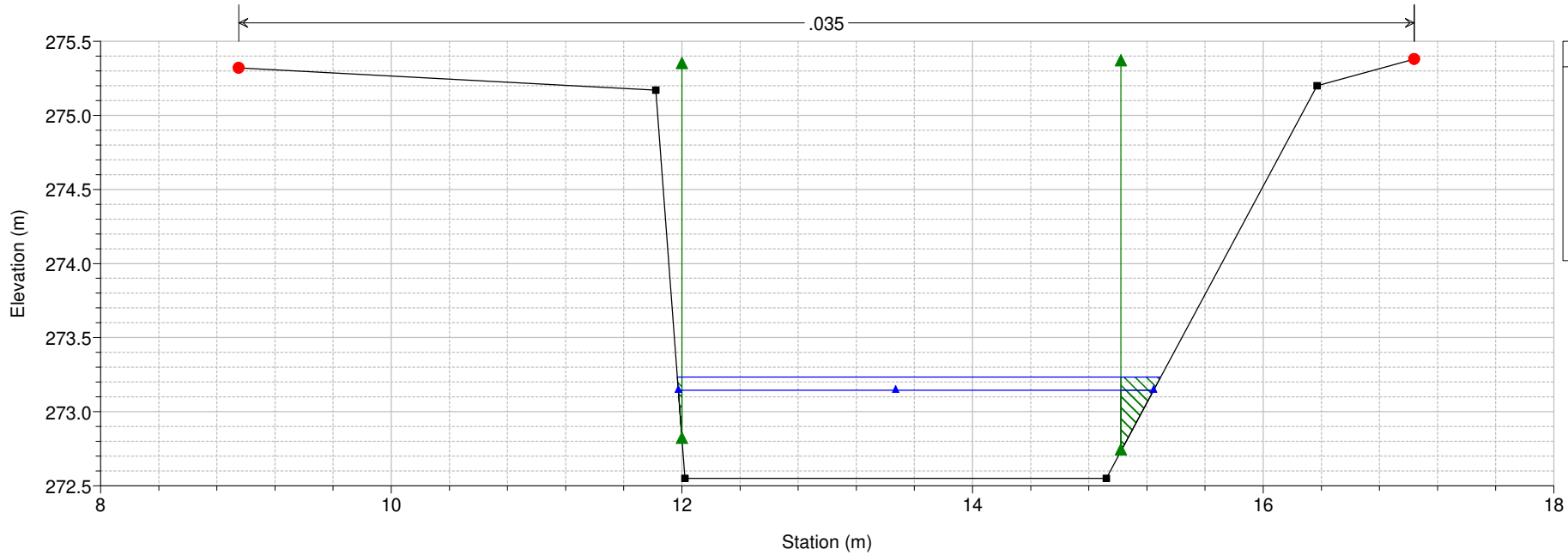


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

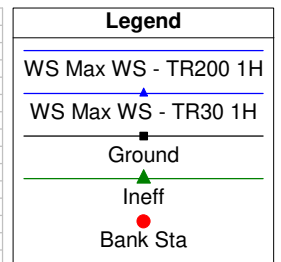
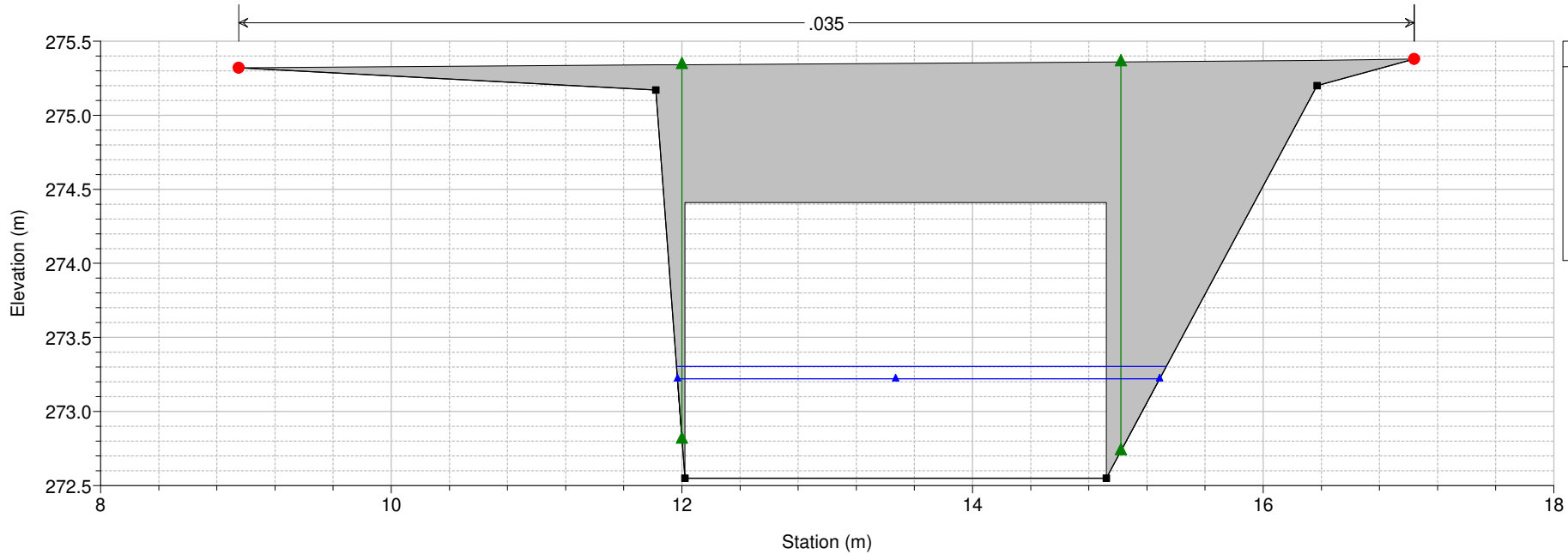
River = Visano Reach = Visano RS = 27 sez.4



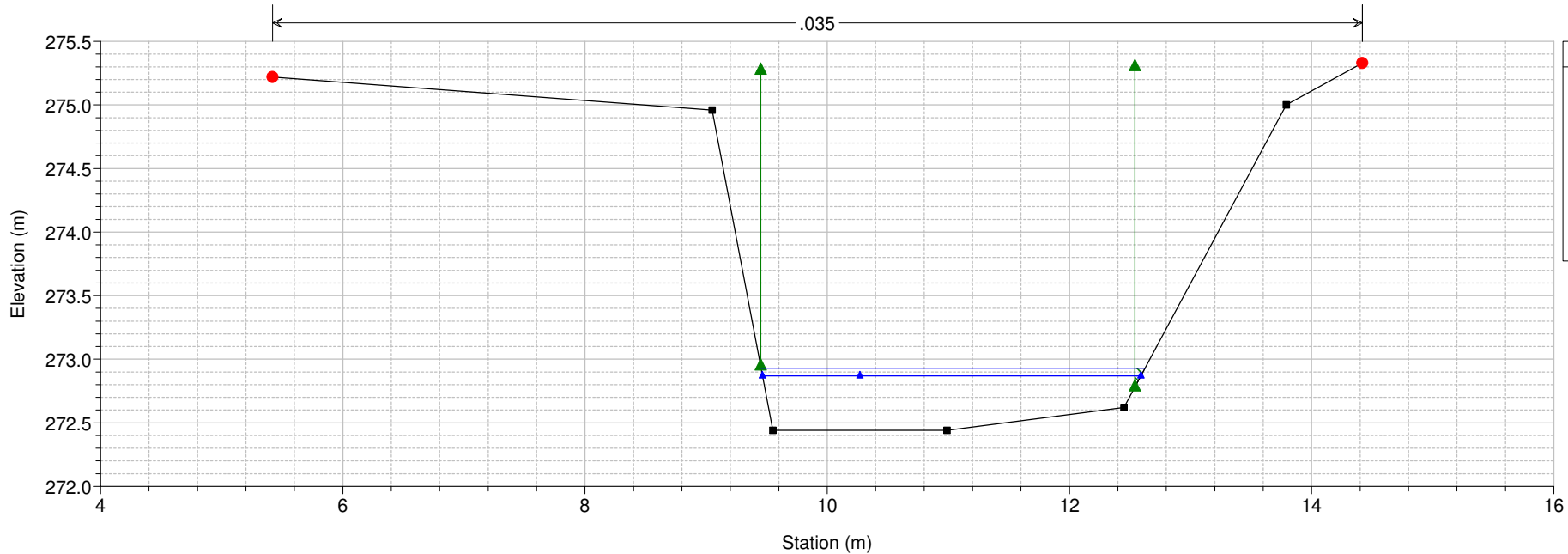
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 26 sez.5 monte culvert



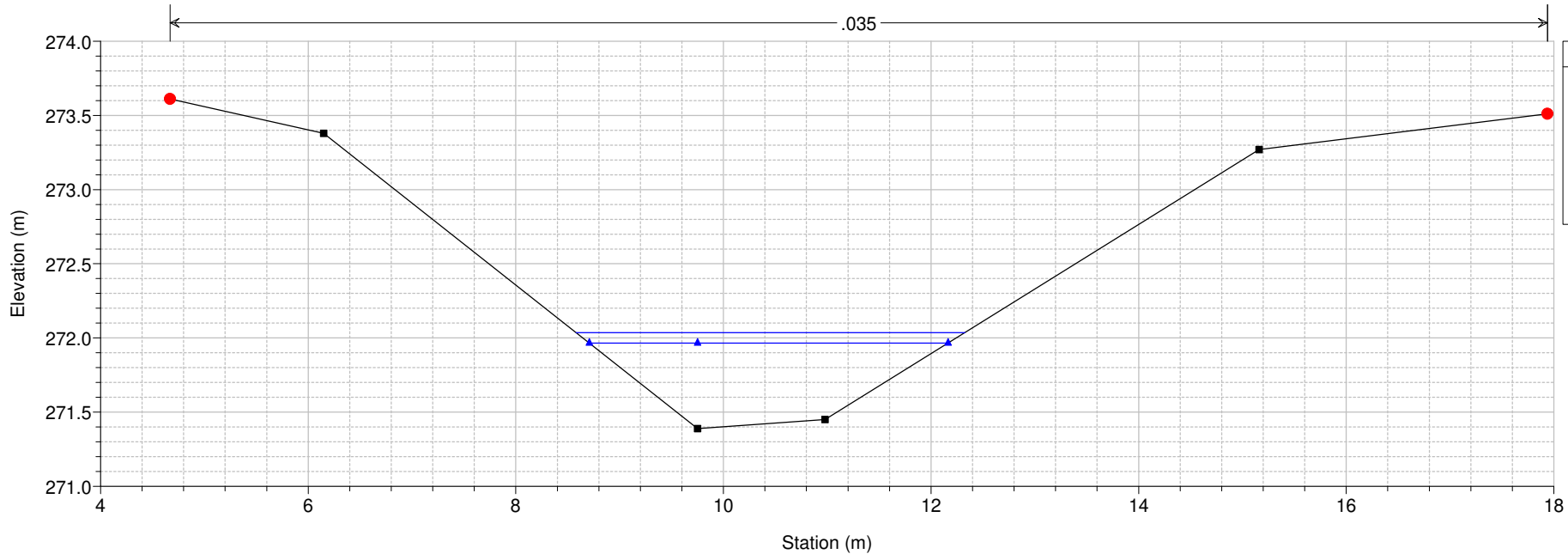
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 25.5 BR



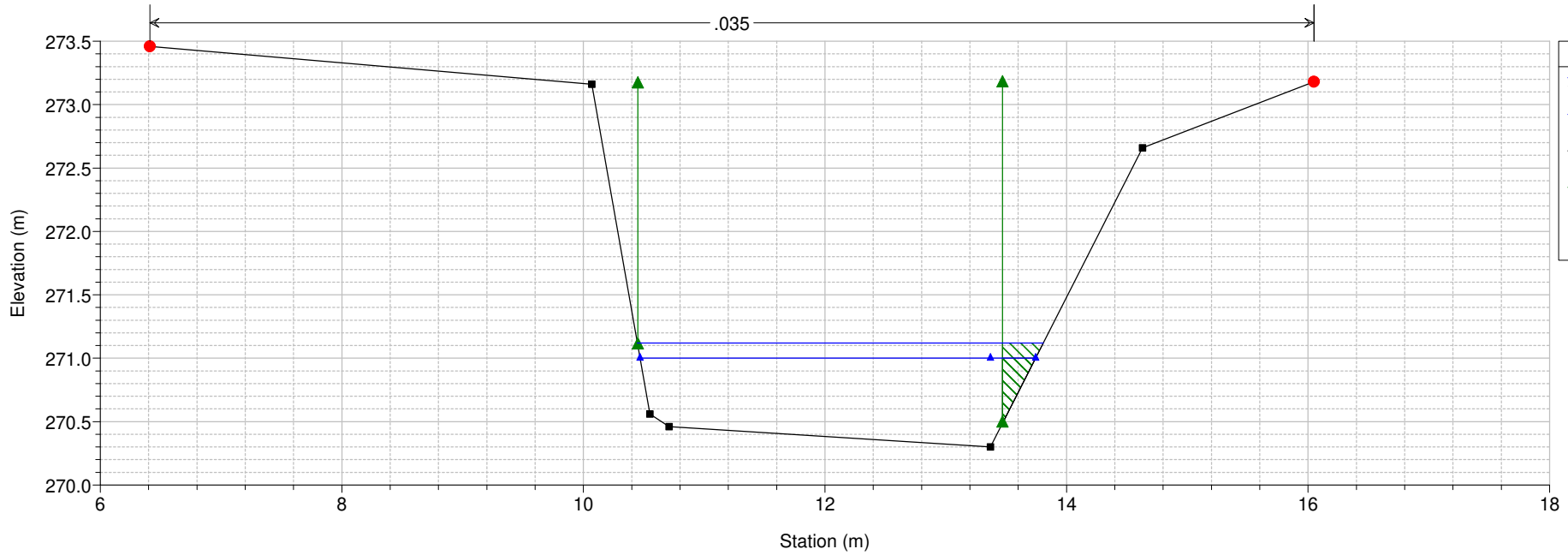
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
River = Visano Reach = Visano RS = 25 sez.6 valle culvert



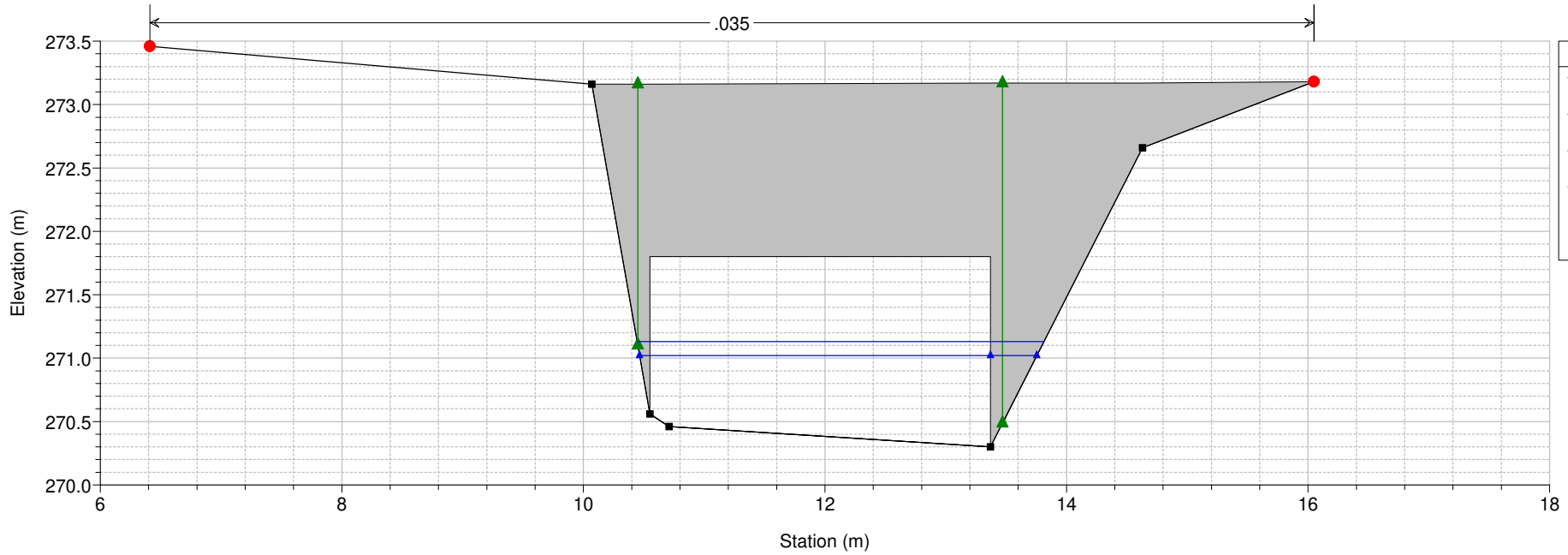
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
River = Visano Reach = Visano RS = 24 sez.7



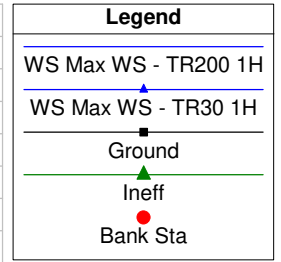
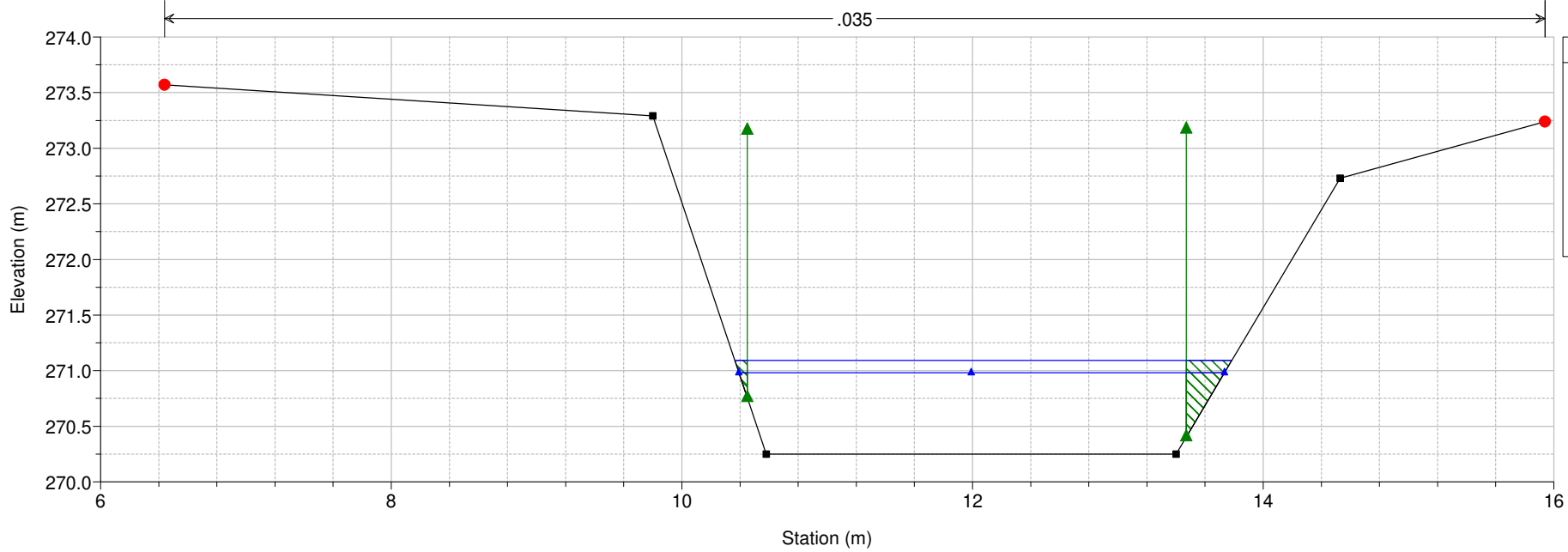
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 23 sez.8 monte culvert



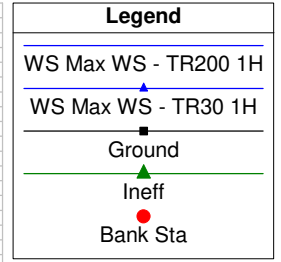
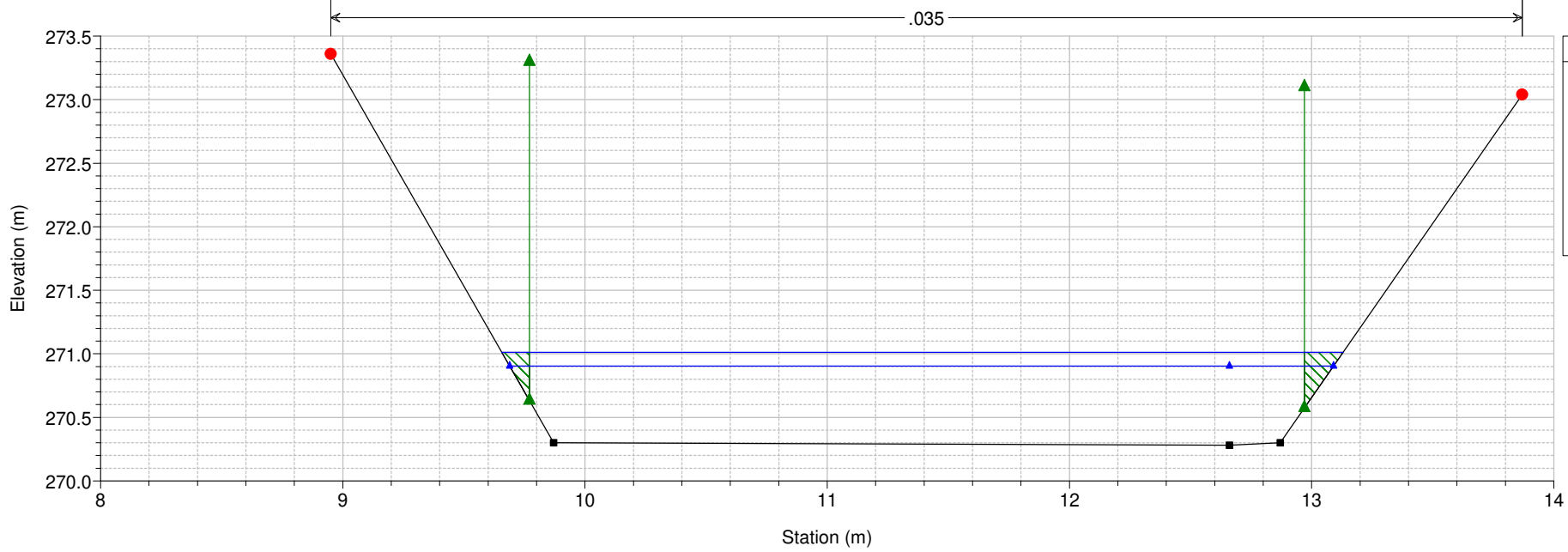
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 22.5 BR



VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 22 sez.9 valle culvert

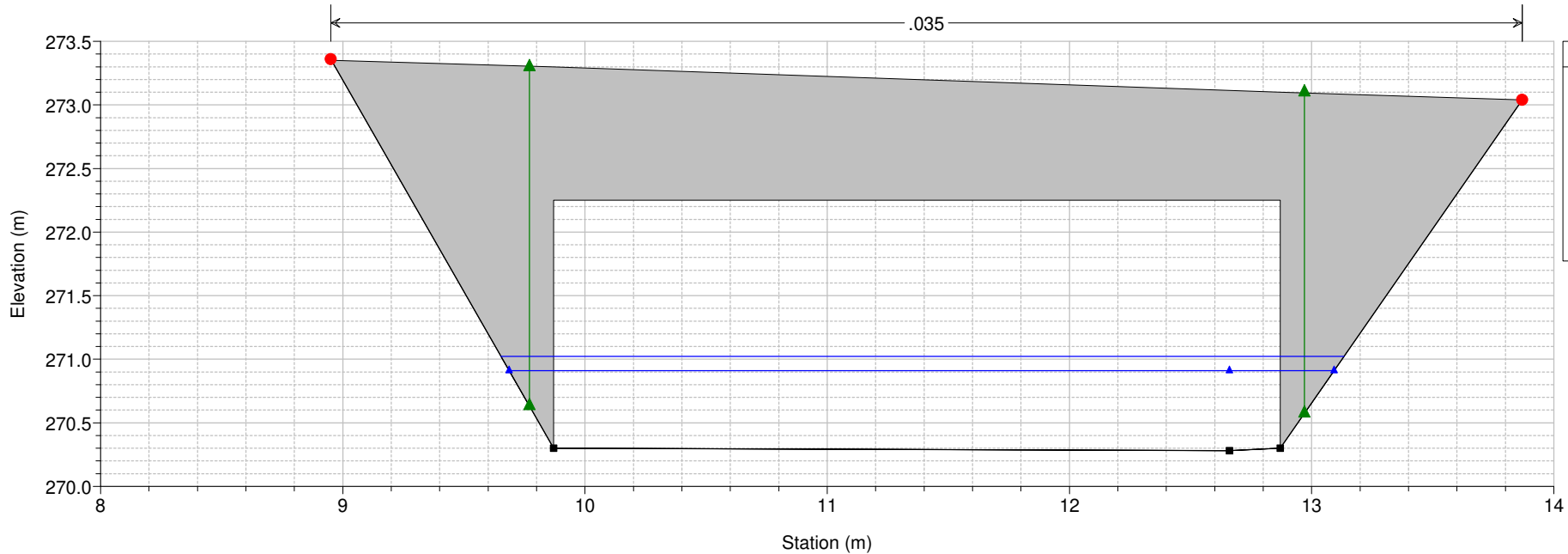


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 21 sez.10 monte culvert



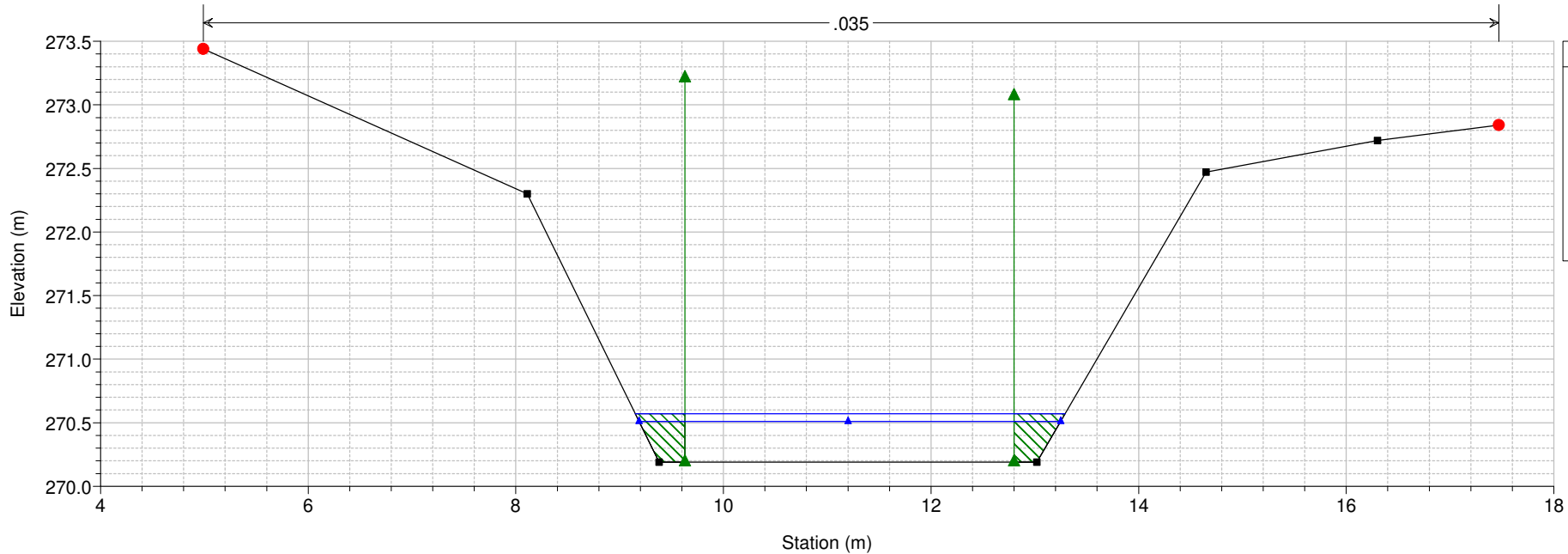
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 20.5 BR



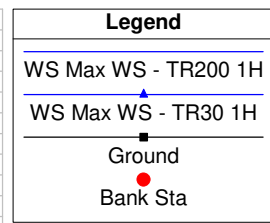
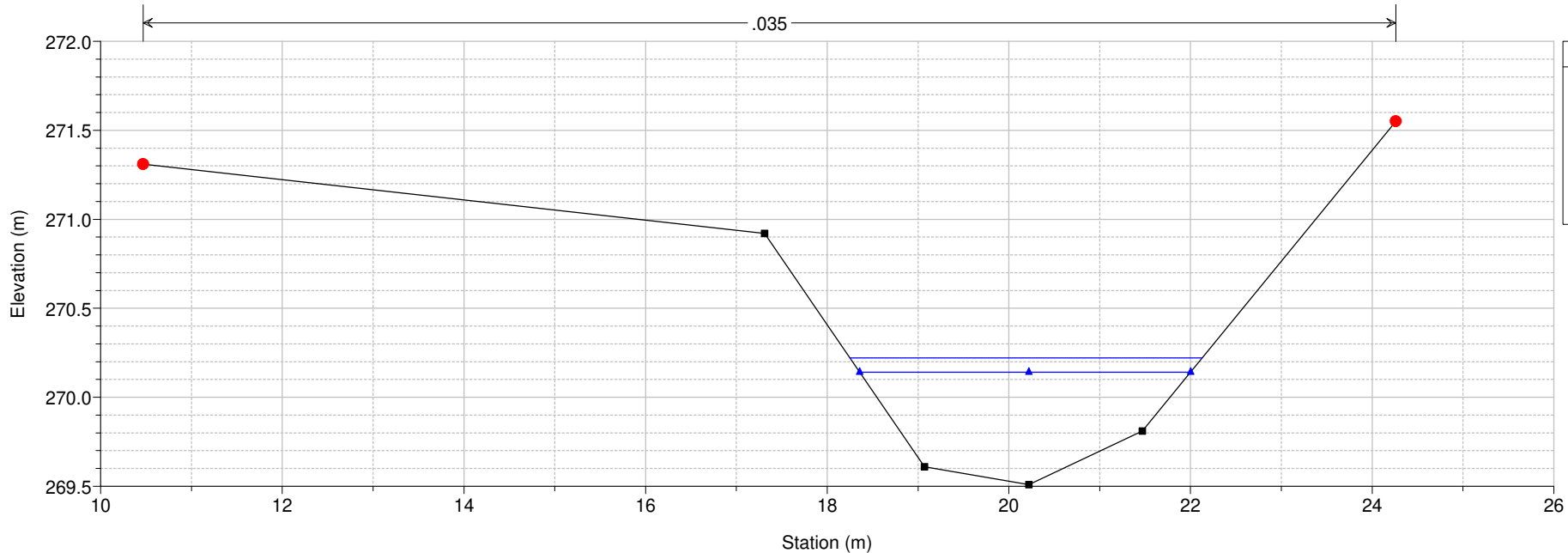
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 20 sez.11 valle culvert



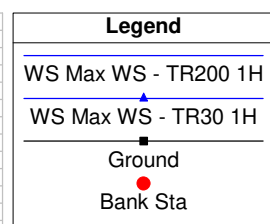
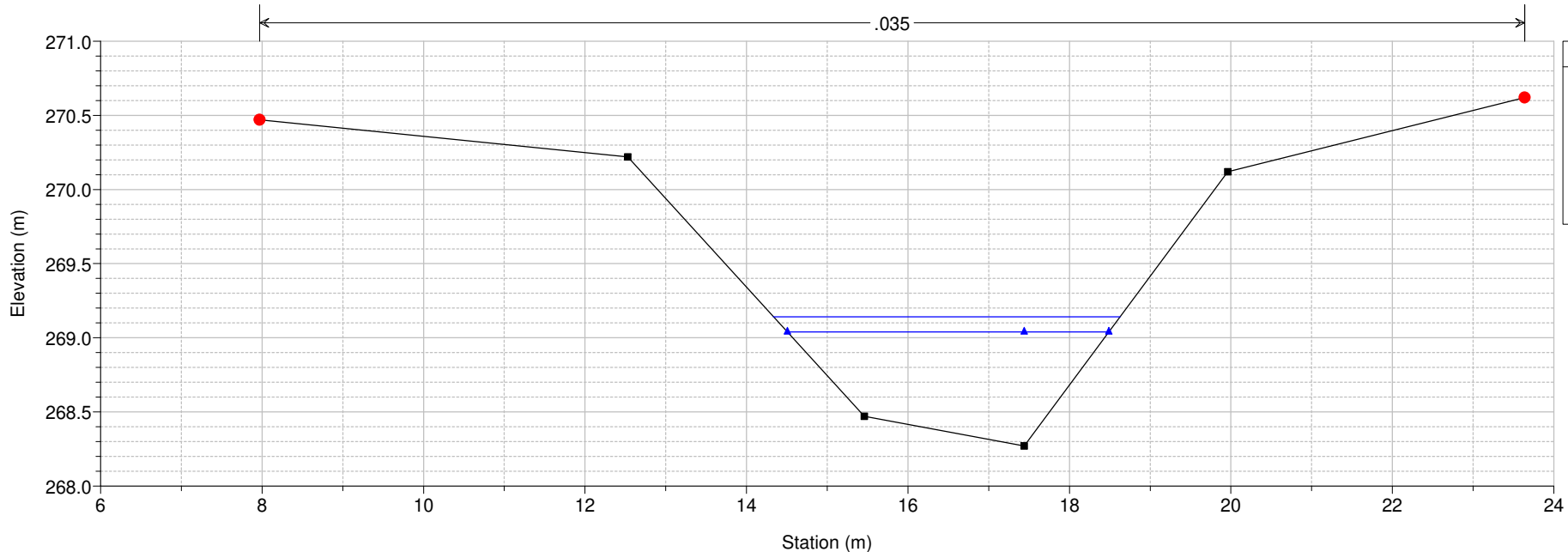
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 19 sez.12



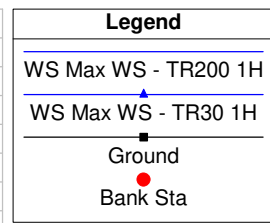
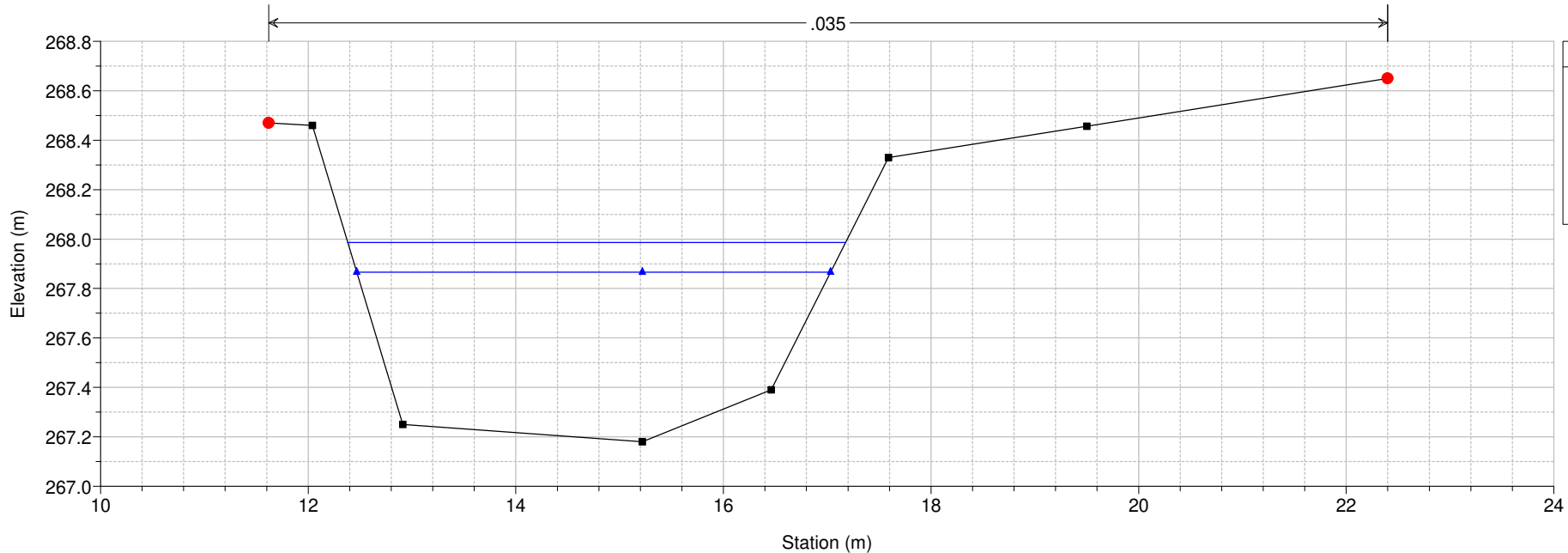
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 18 sez.13



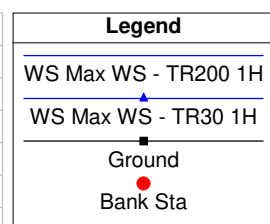
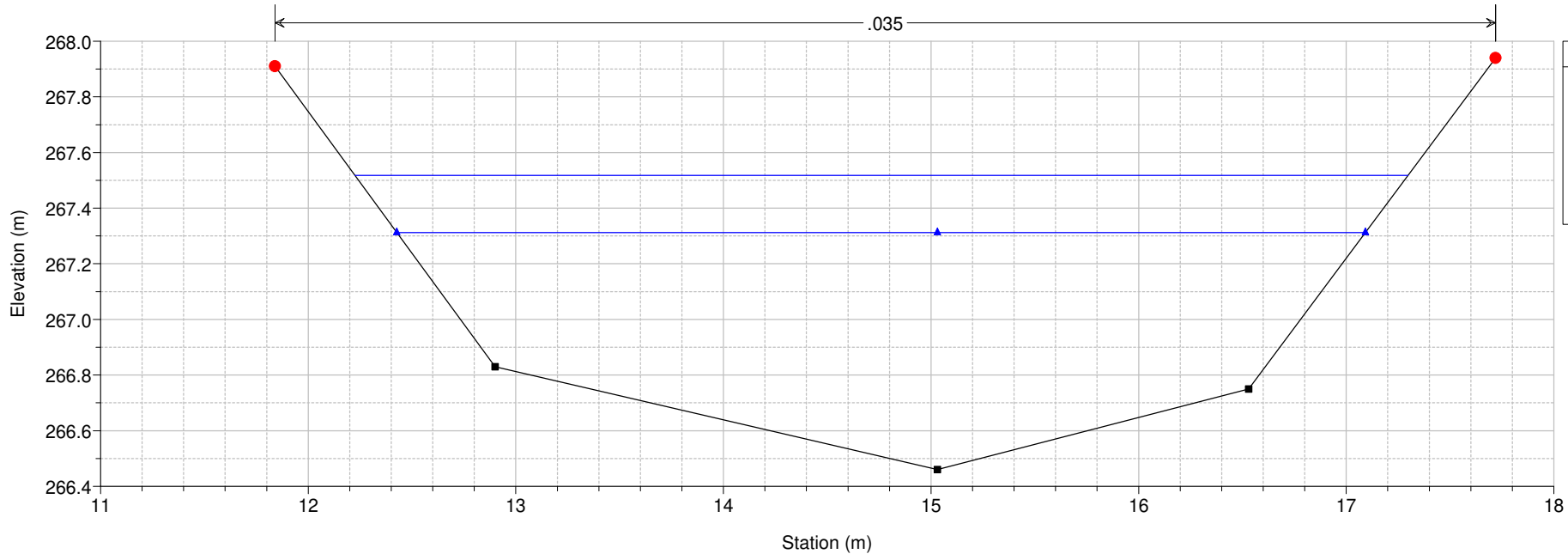
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 17 sez.14



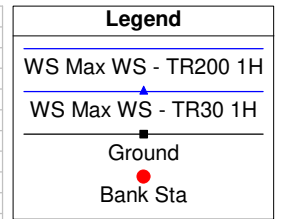
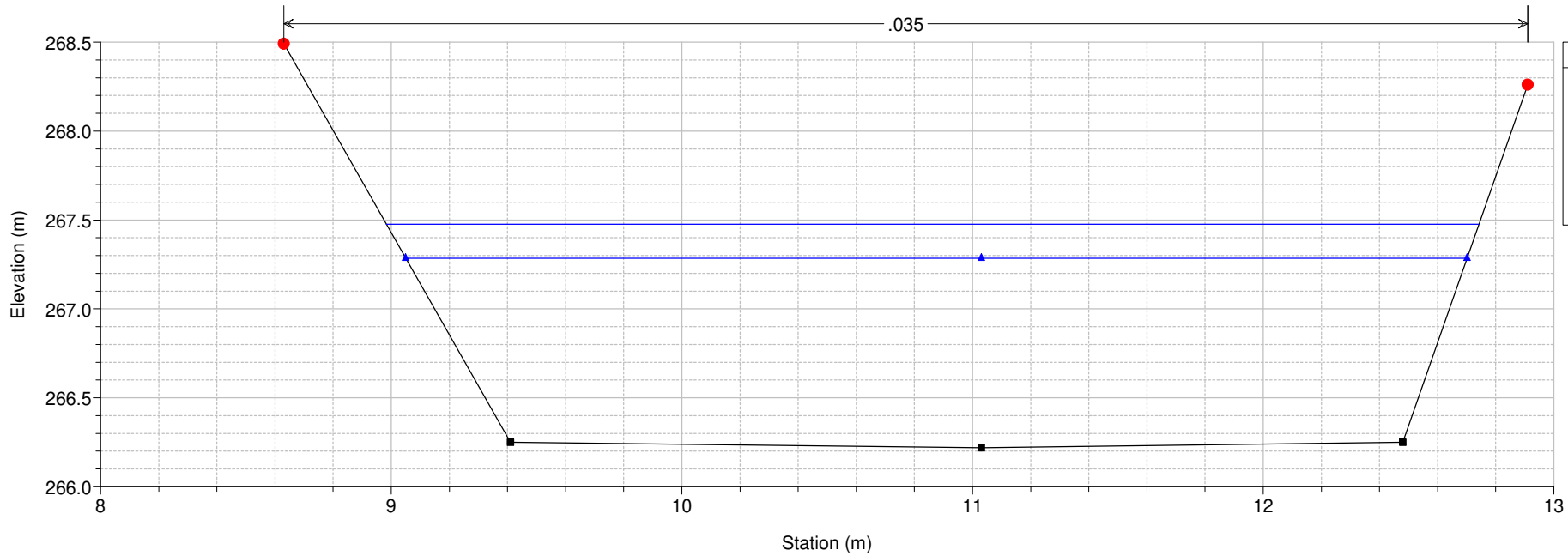
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 16 sez.15



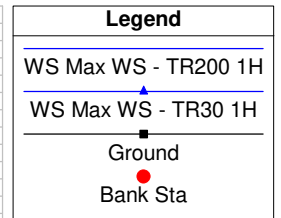
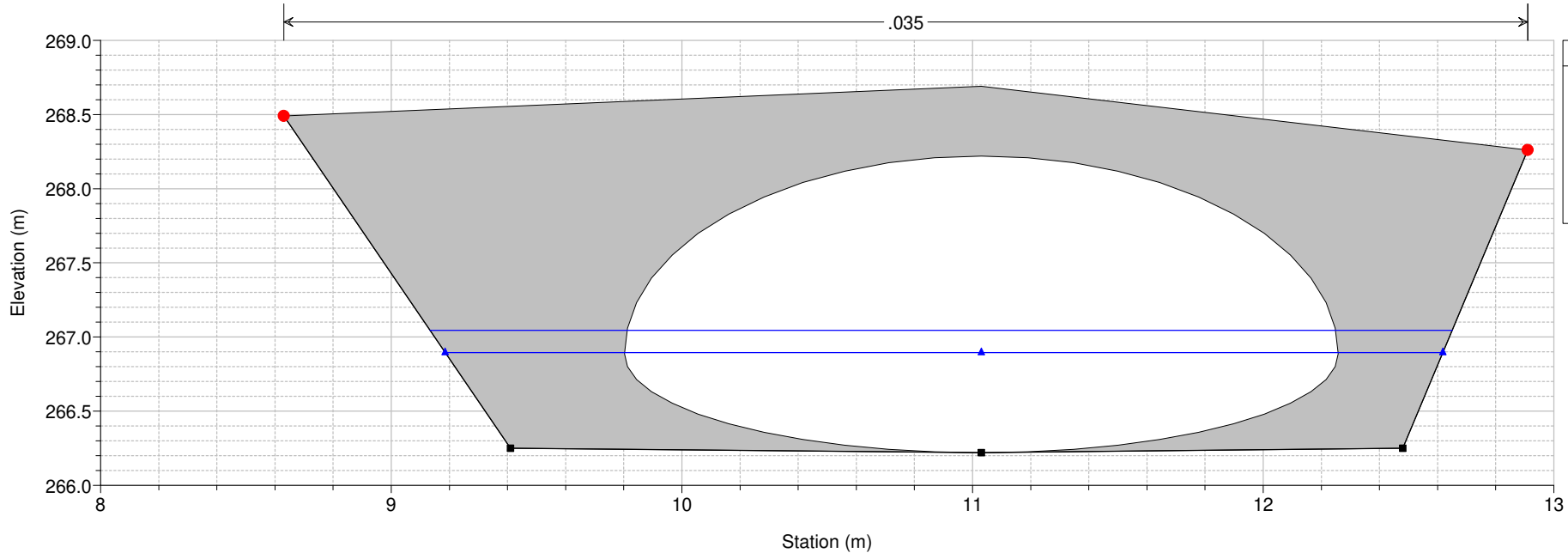
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 15 sez.16 monte culvert



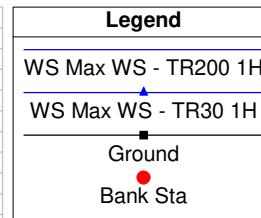
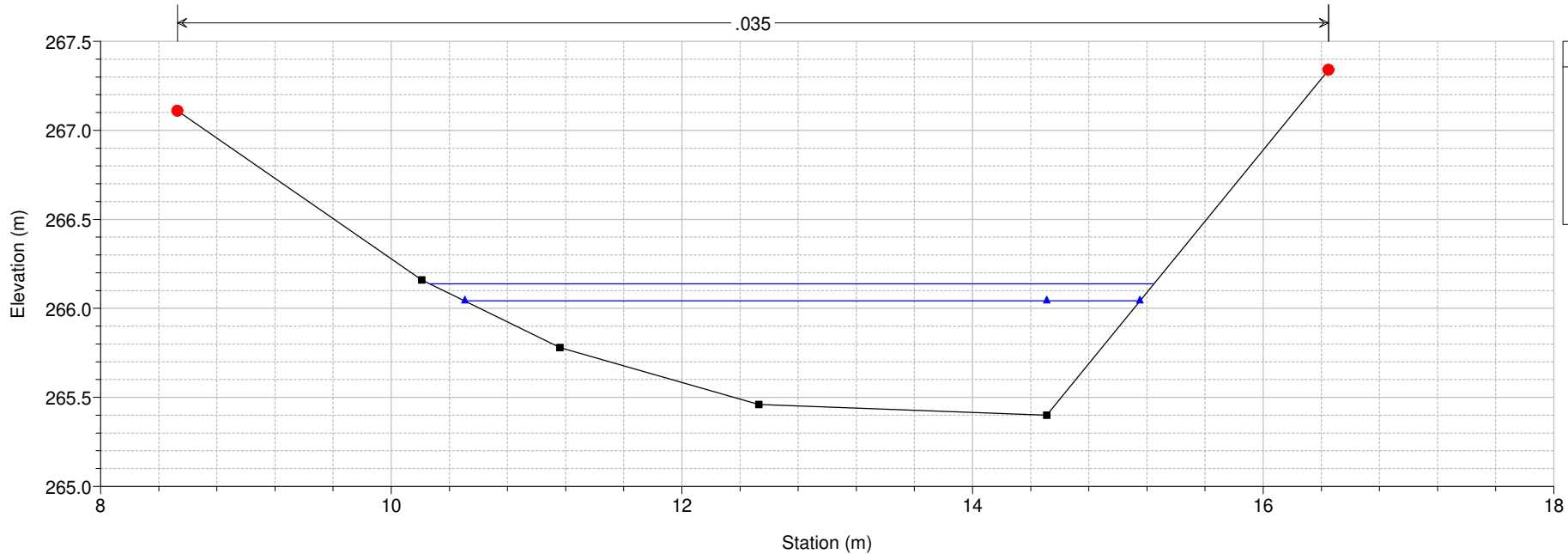
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 14.5 Culv



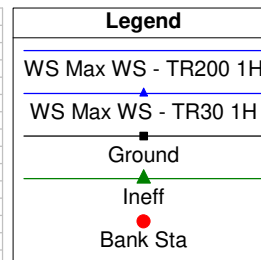
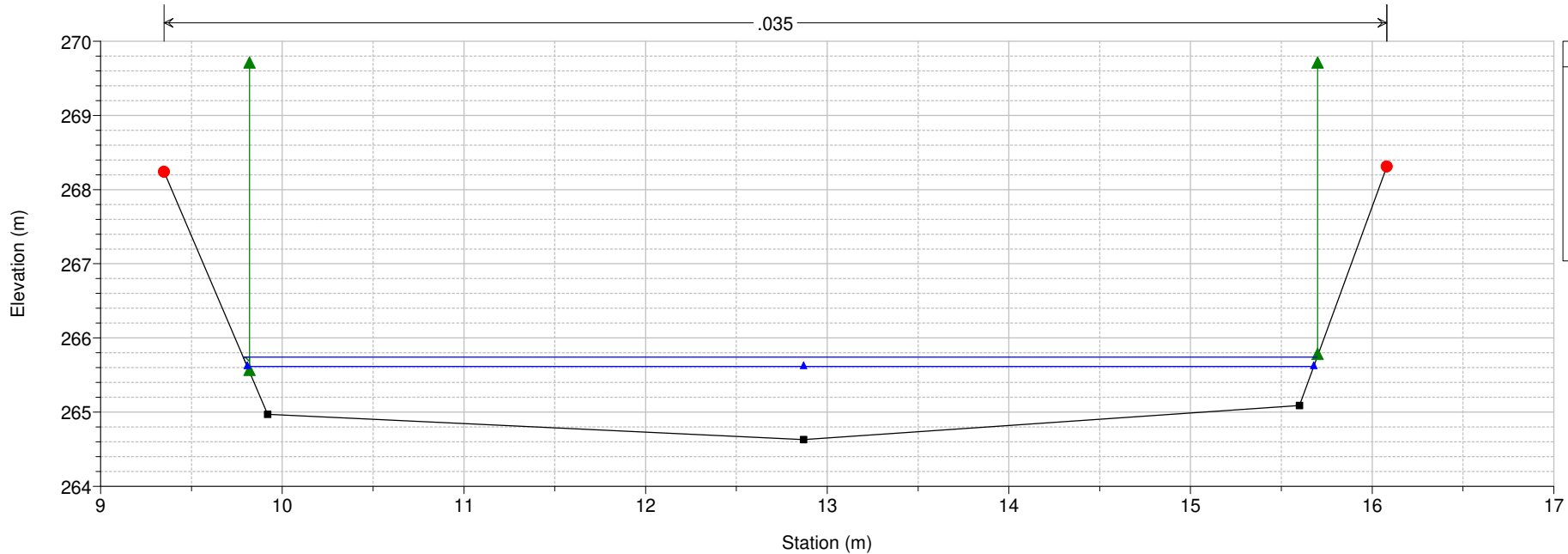
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 14 sez.17



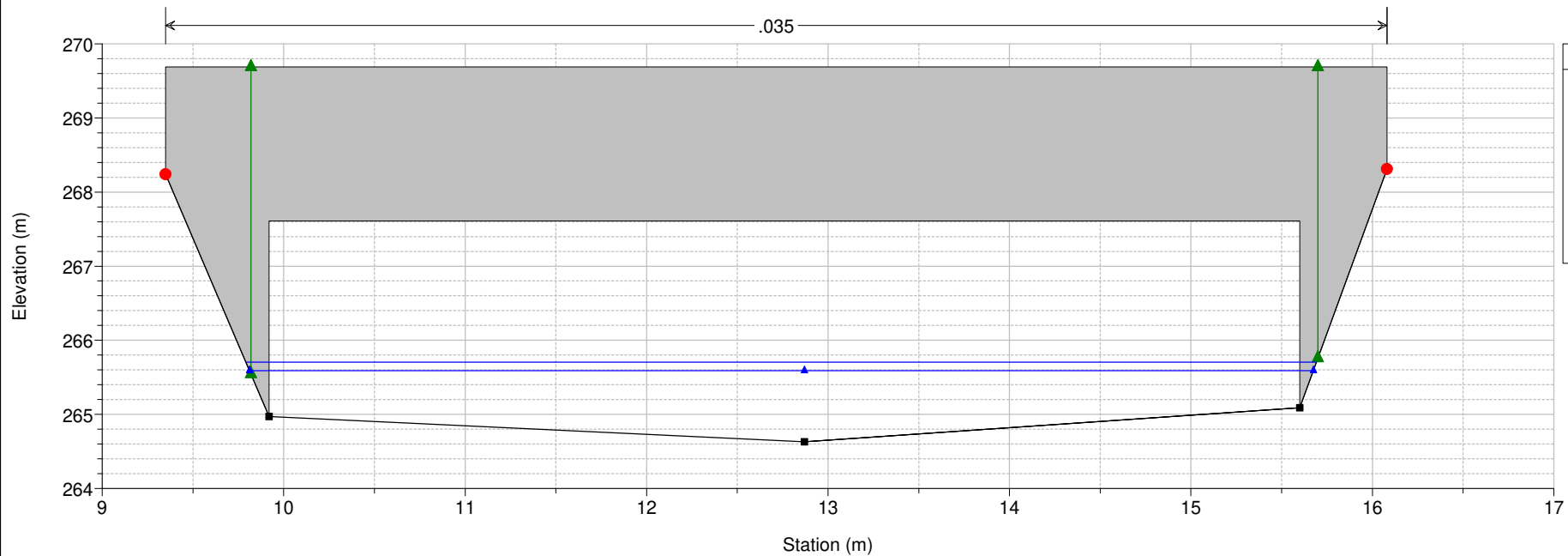
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 13 sez.18 monte culvert



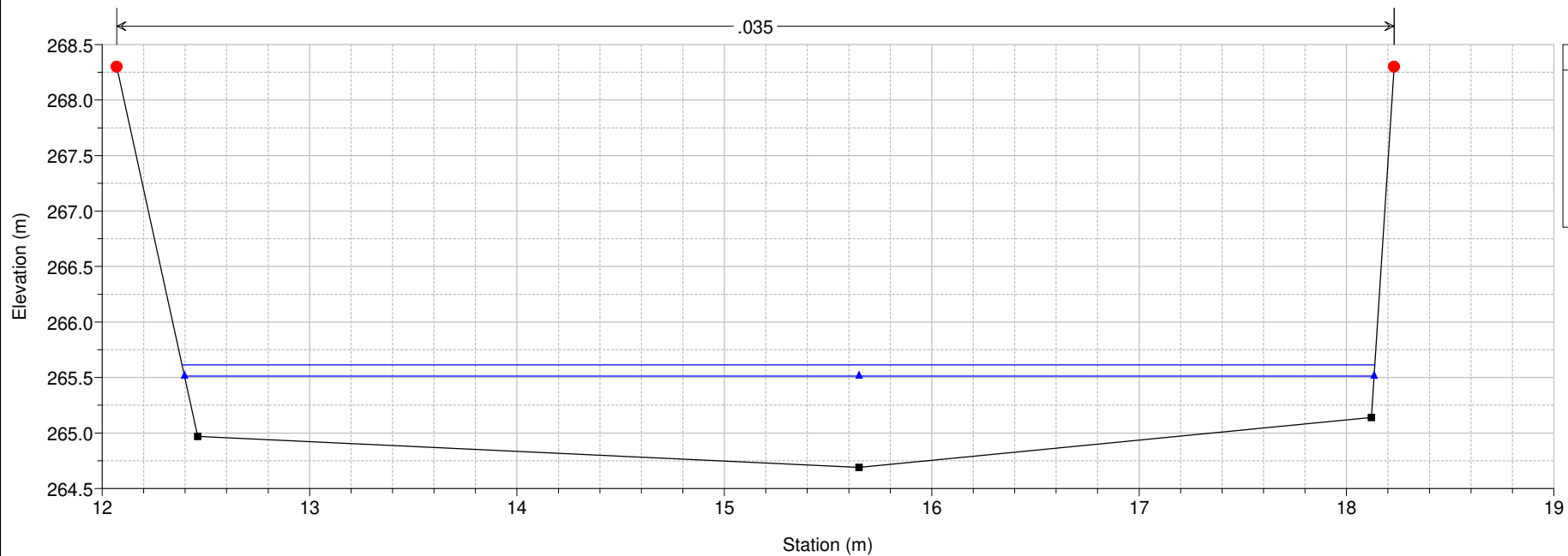
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 12.5 BR



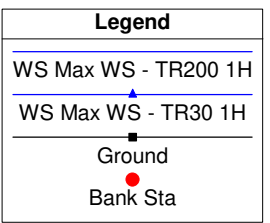
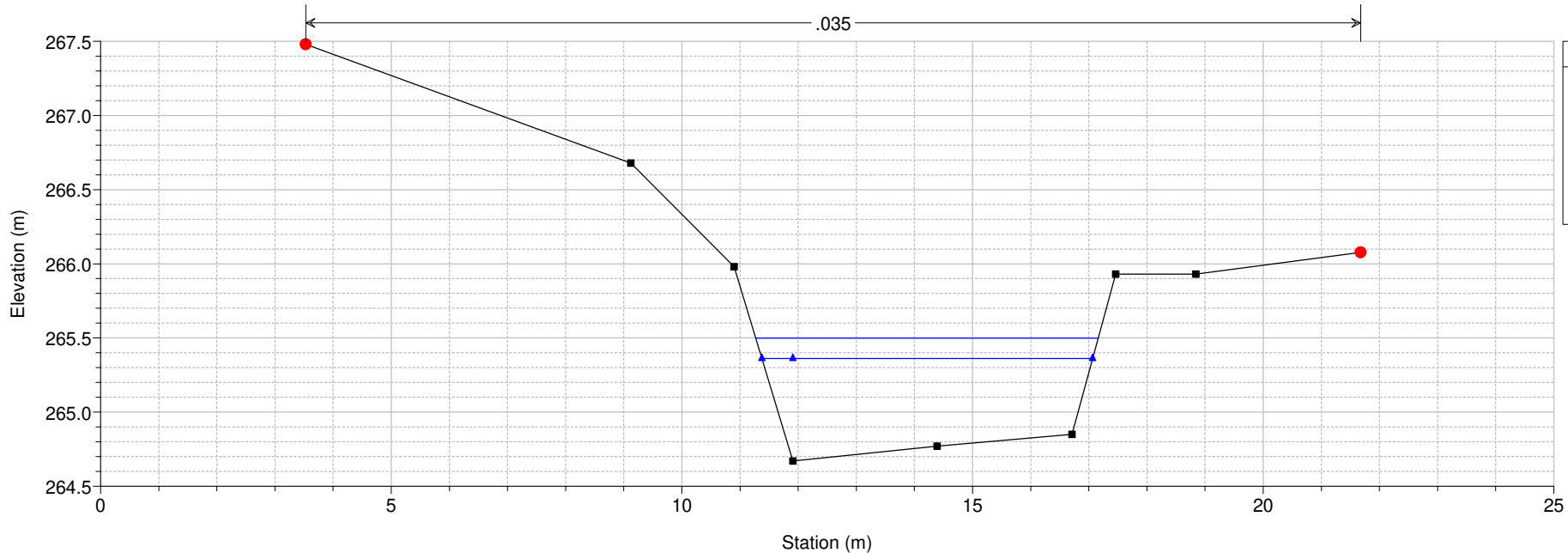
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 12 sez.19 valle culvert



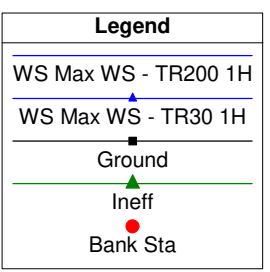
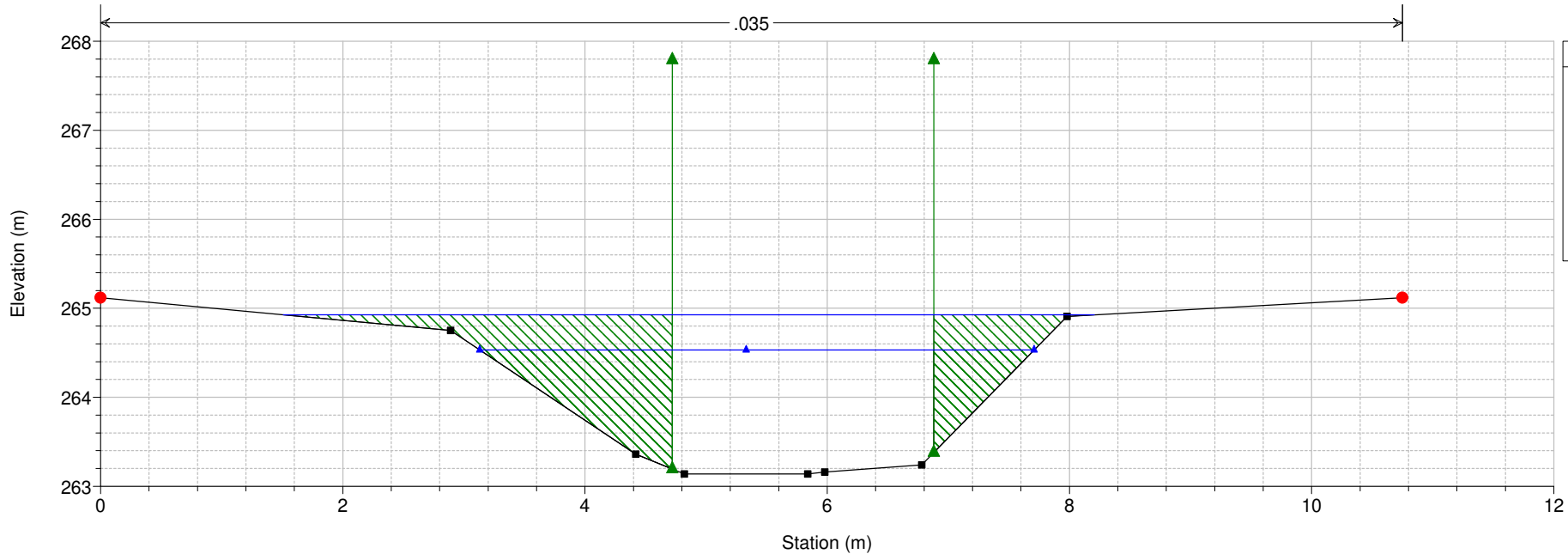
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 11 sez.20



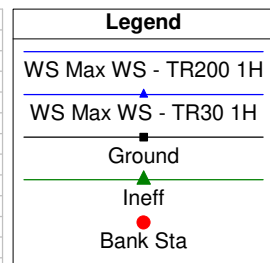
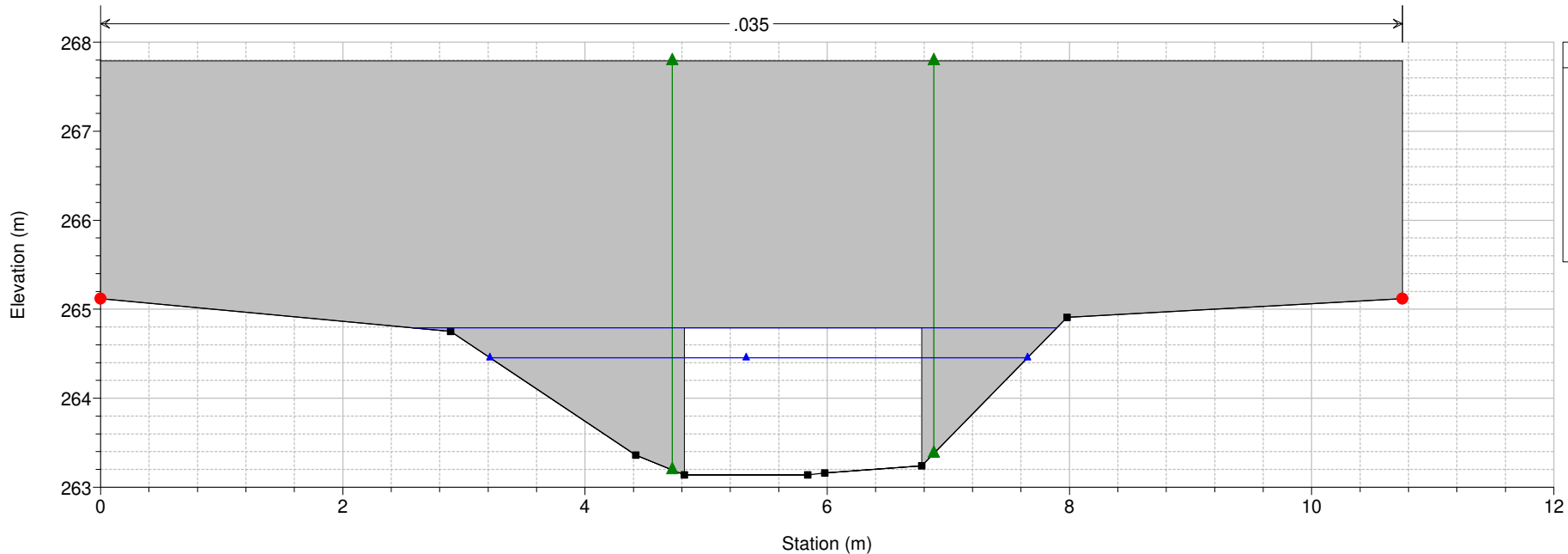
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 10 sez.21 monte culvert



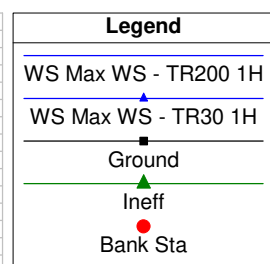
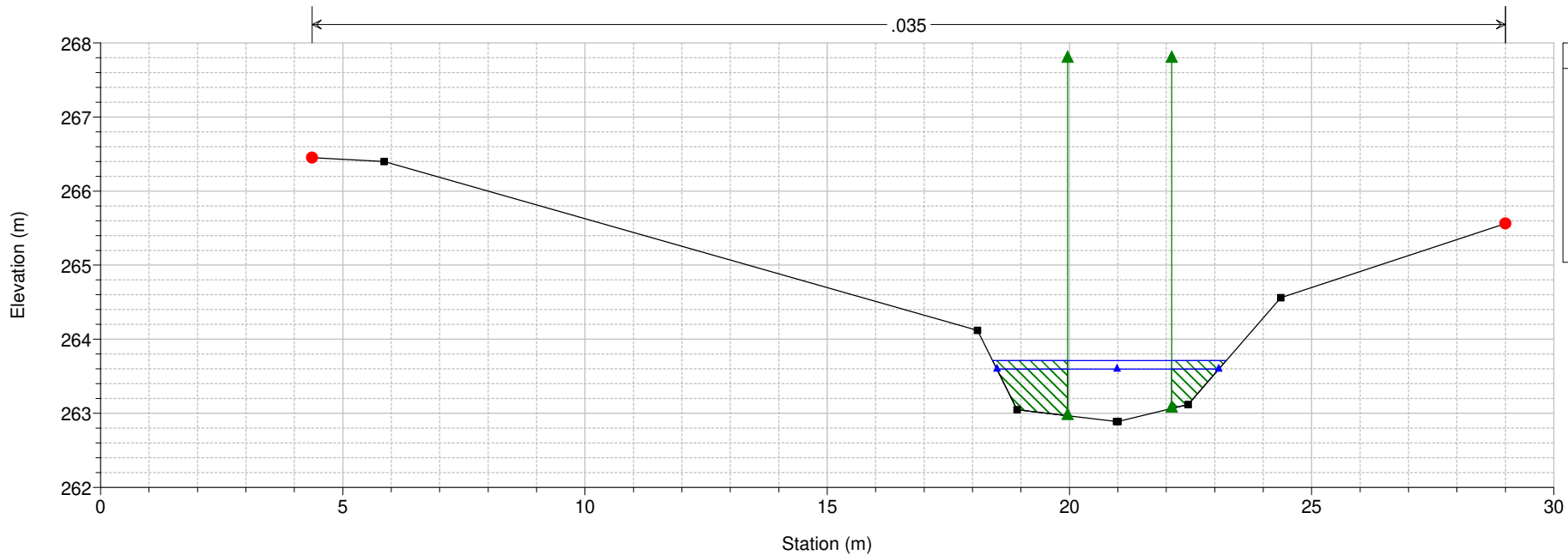
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 9.5 BR

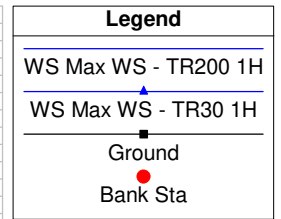
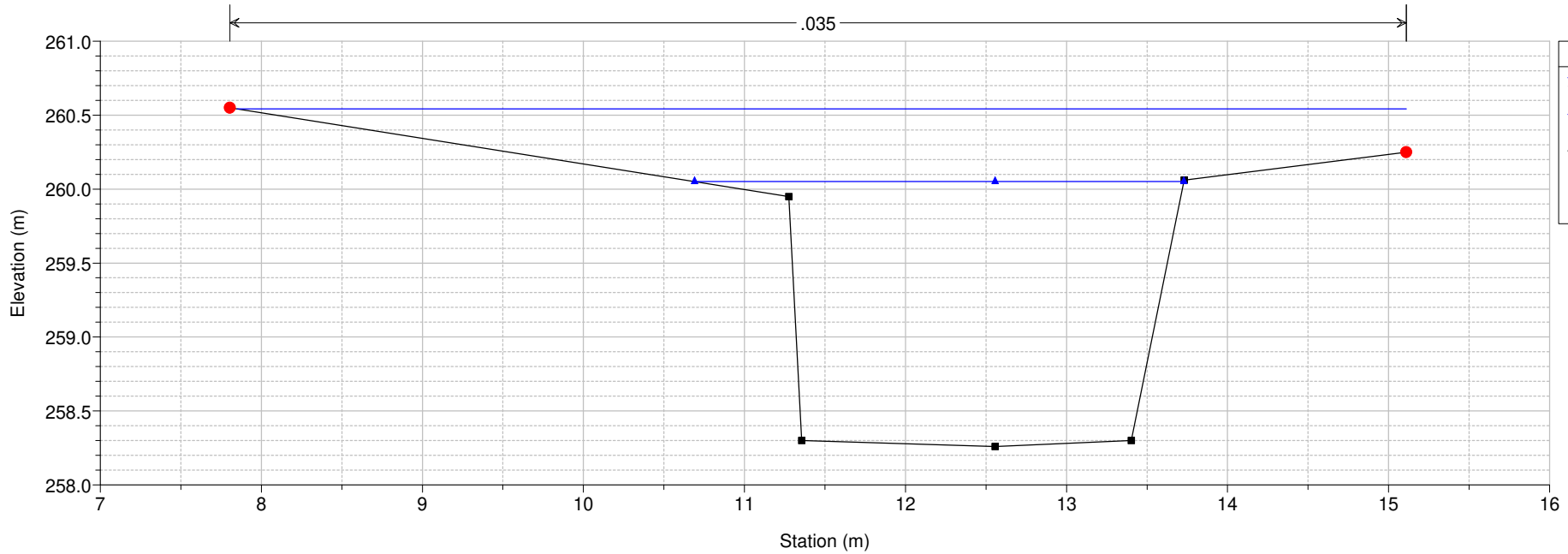


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

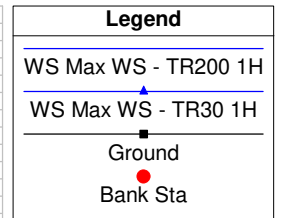
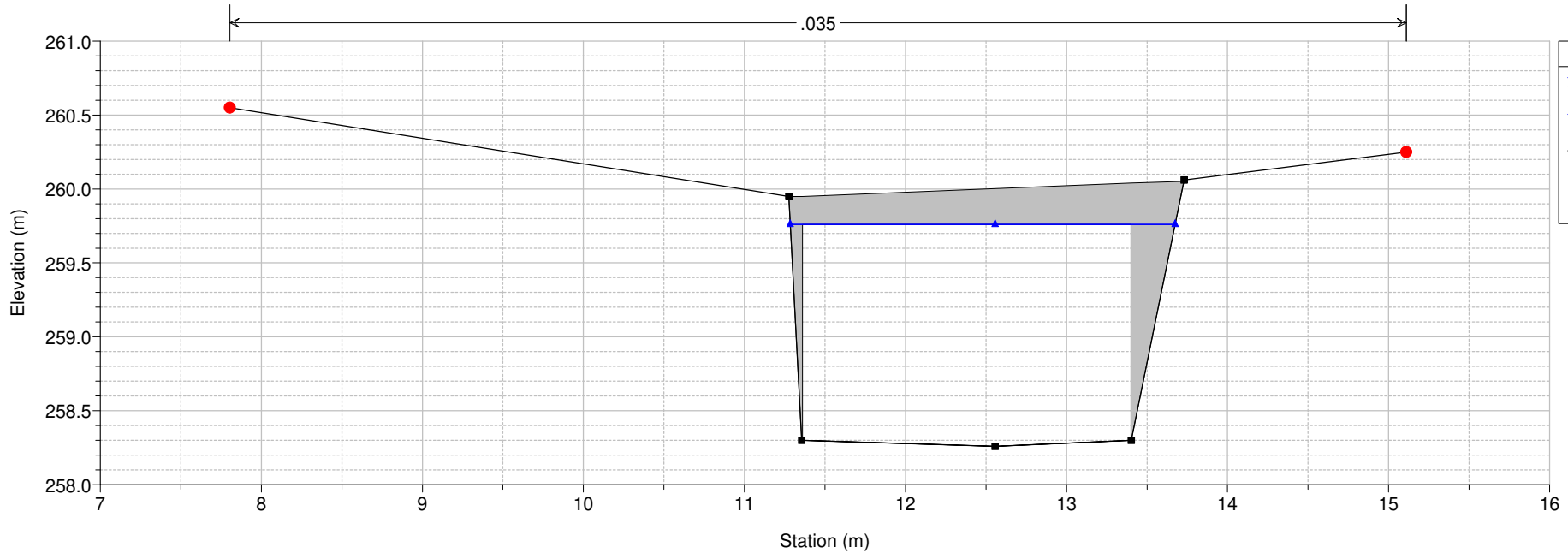
River = Visano Reach = Visano RS = 9 sez.22 valle culvert



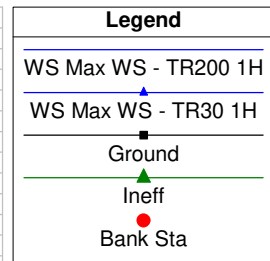
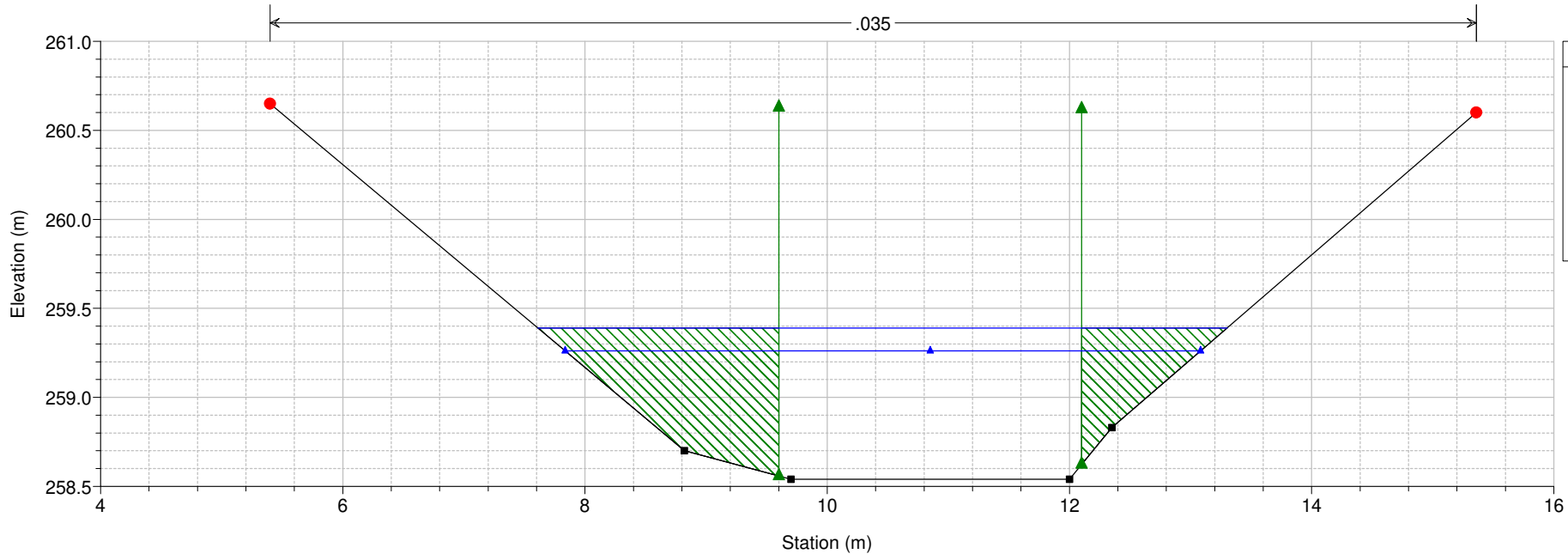
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
River = Visano Reach = Visano RS = 8 sez.23 monte culvert



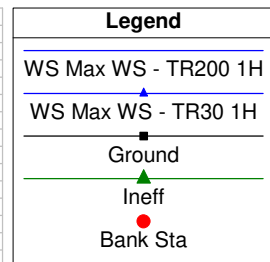
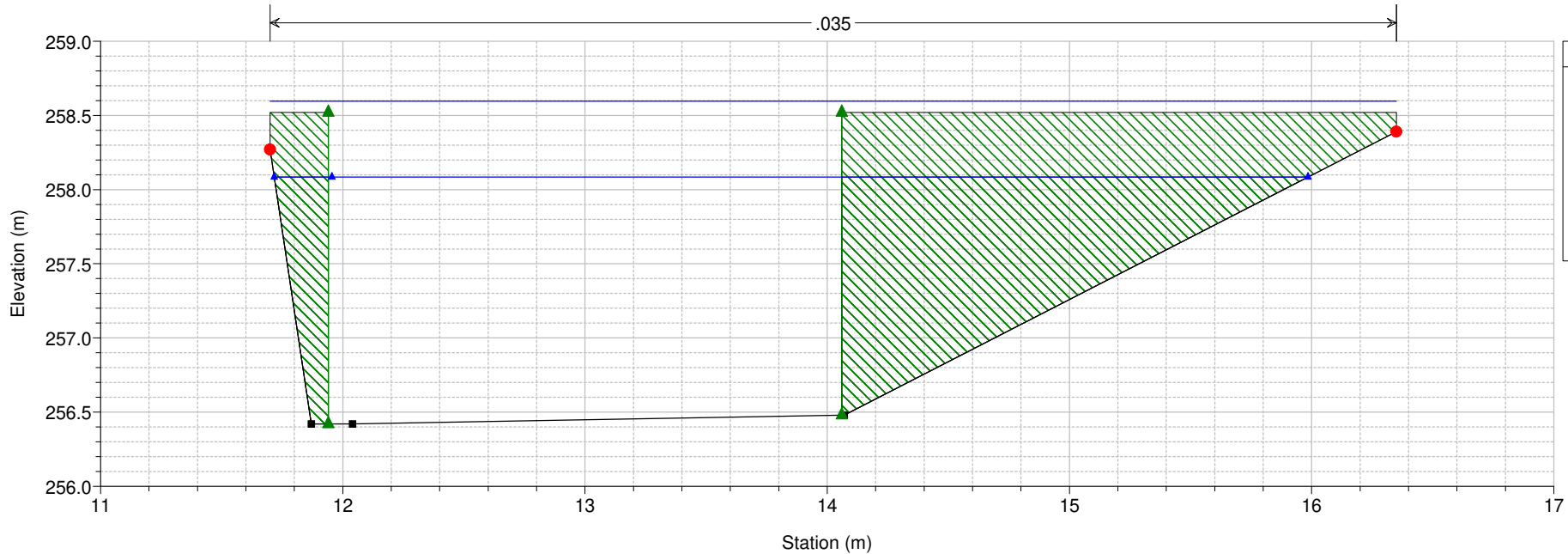
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
River = Visano Reach = Visano RS = 7.5 BR



VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 7 sez.24 valle culvert

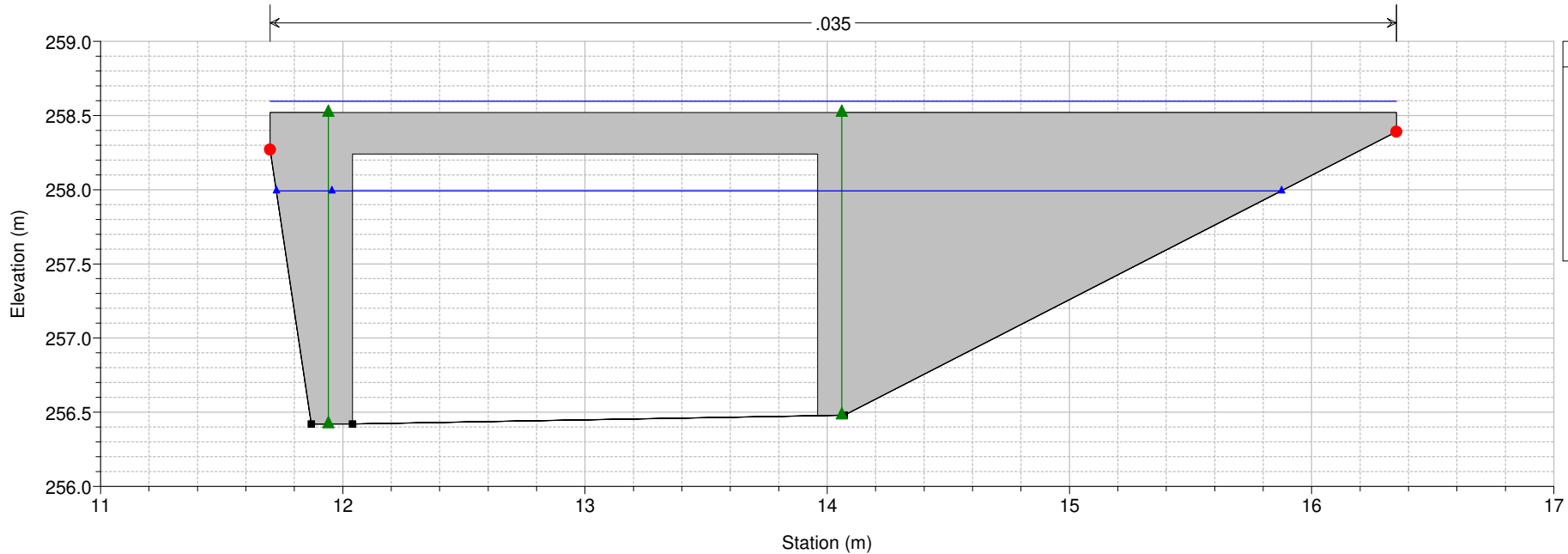


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 6 sez.25 monte culvert



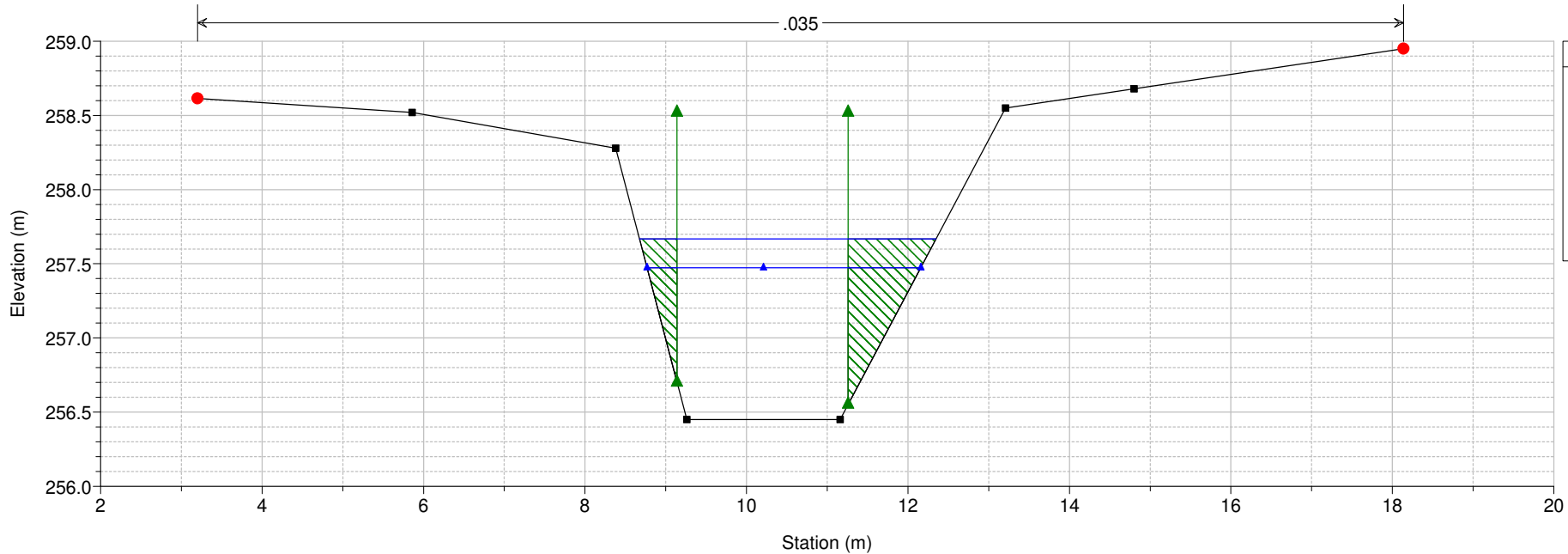
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 5.5 BR

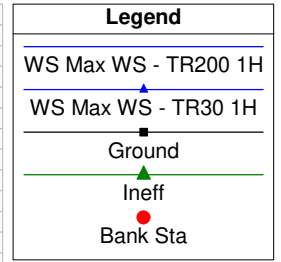
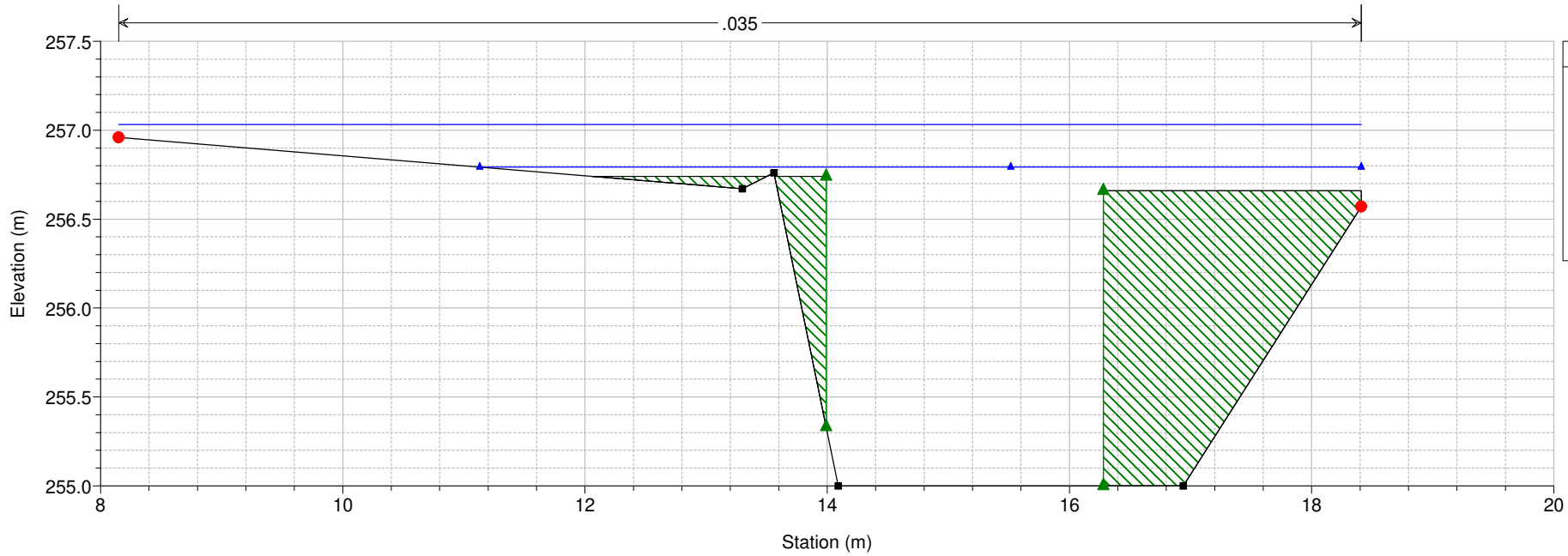


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

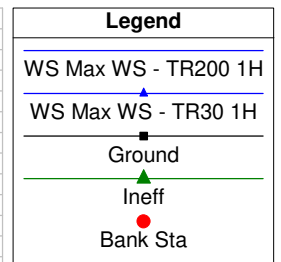
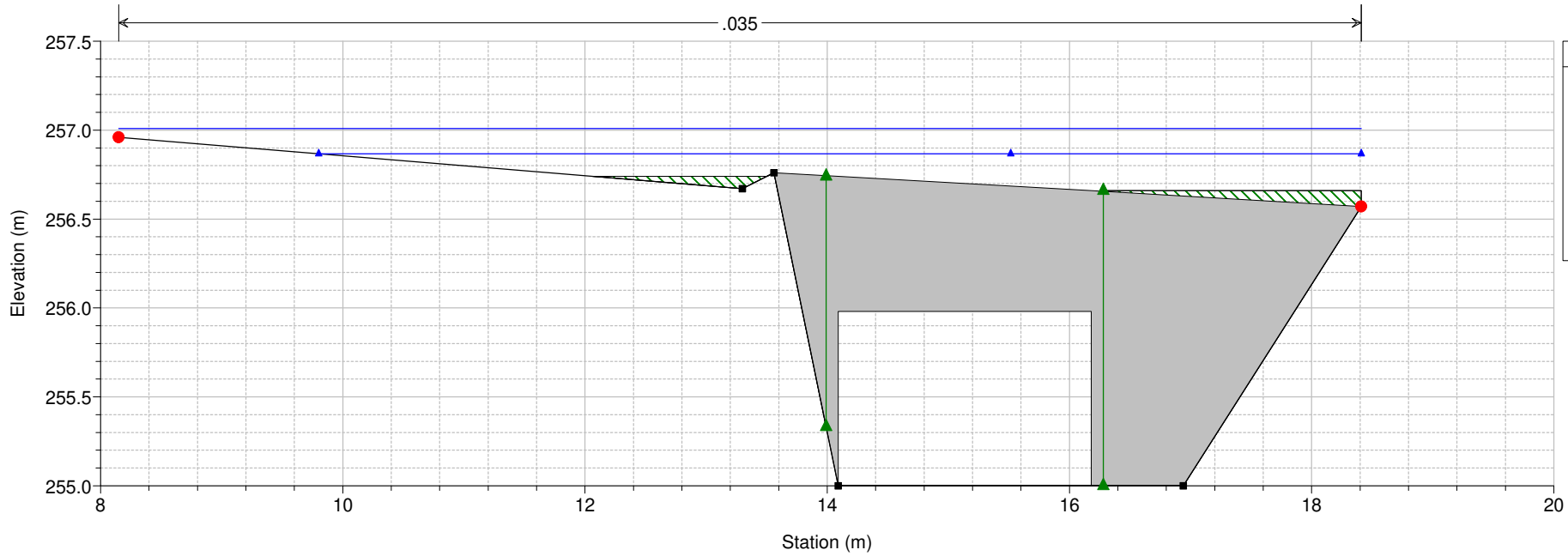
River = Visano Reach = Visano RS = 5 sez.26 valle culvert



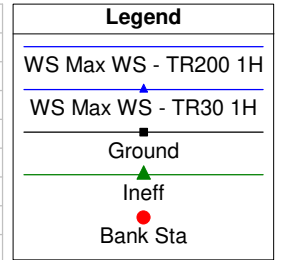
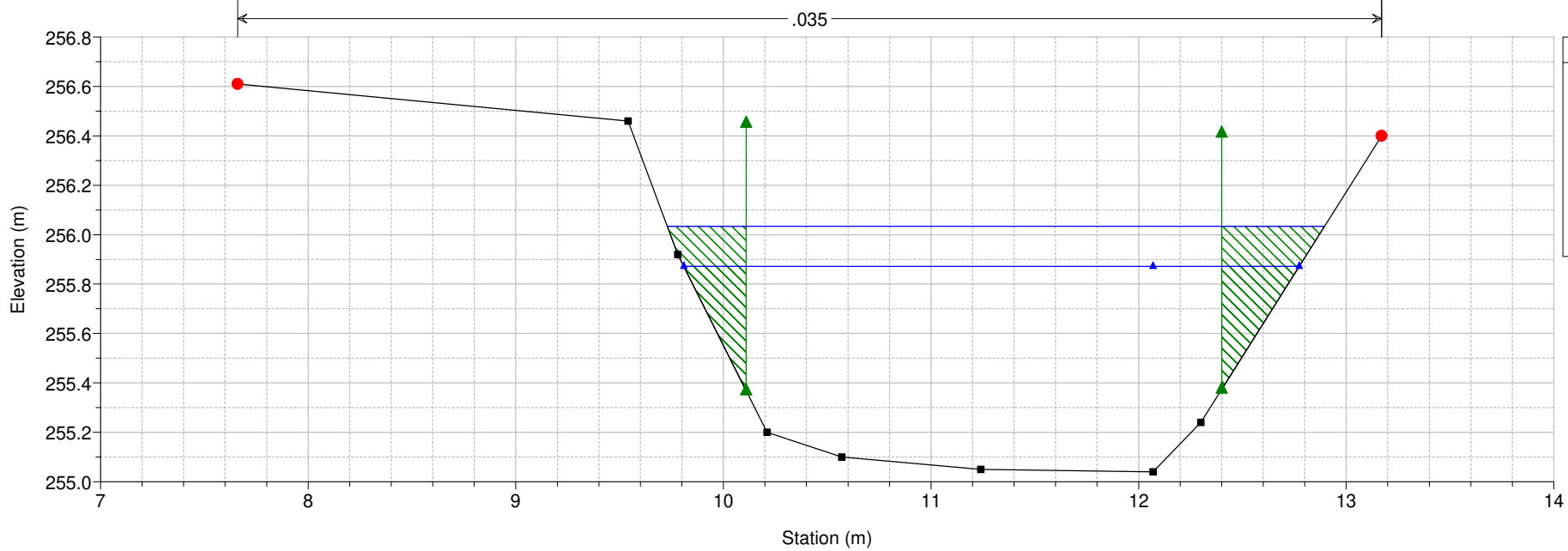
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 4 sez.27 monte culvert



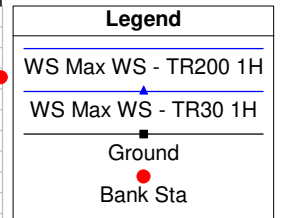
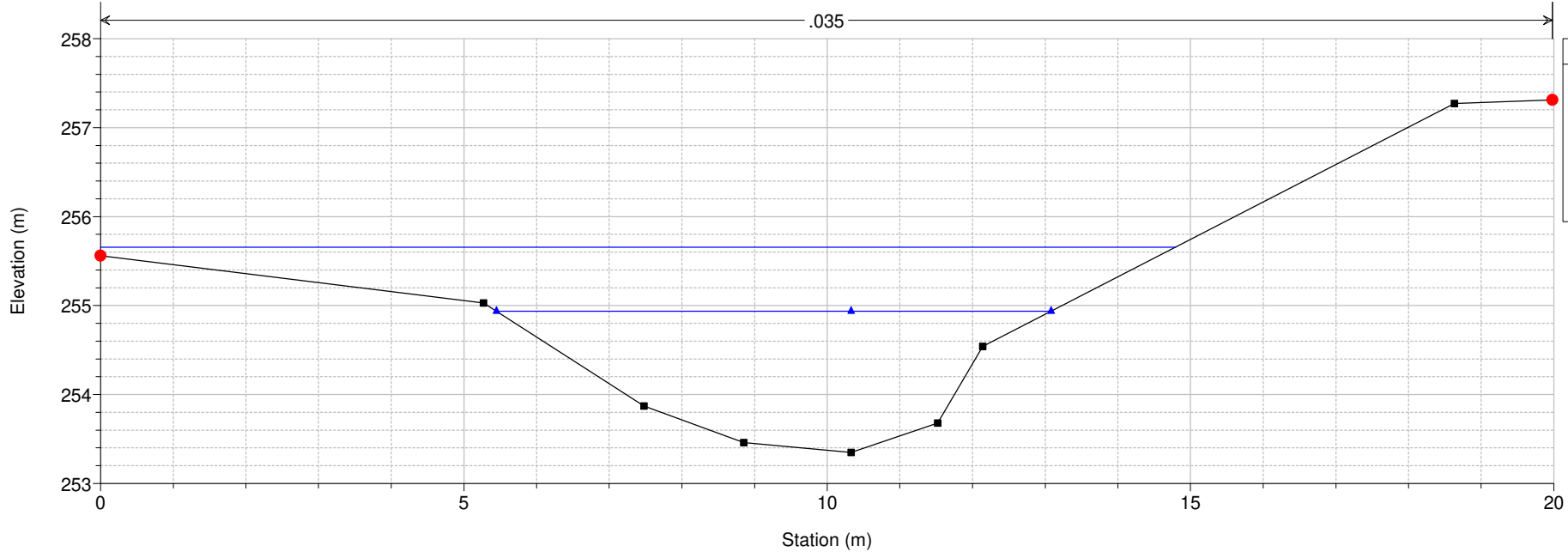
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 3.5 BR



VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 3 sez.28 valle culvert

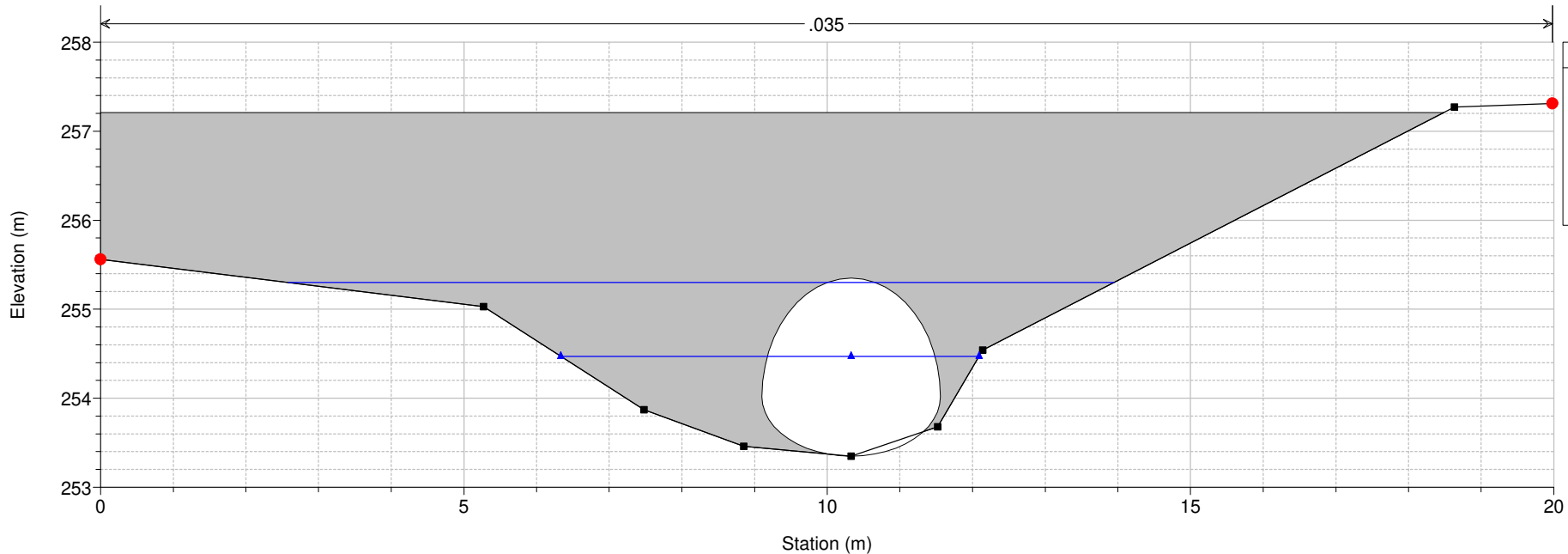


VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
 River = Visano Reach = Visano RS = 2 sez.29 monte culvert



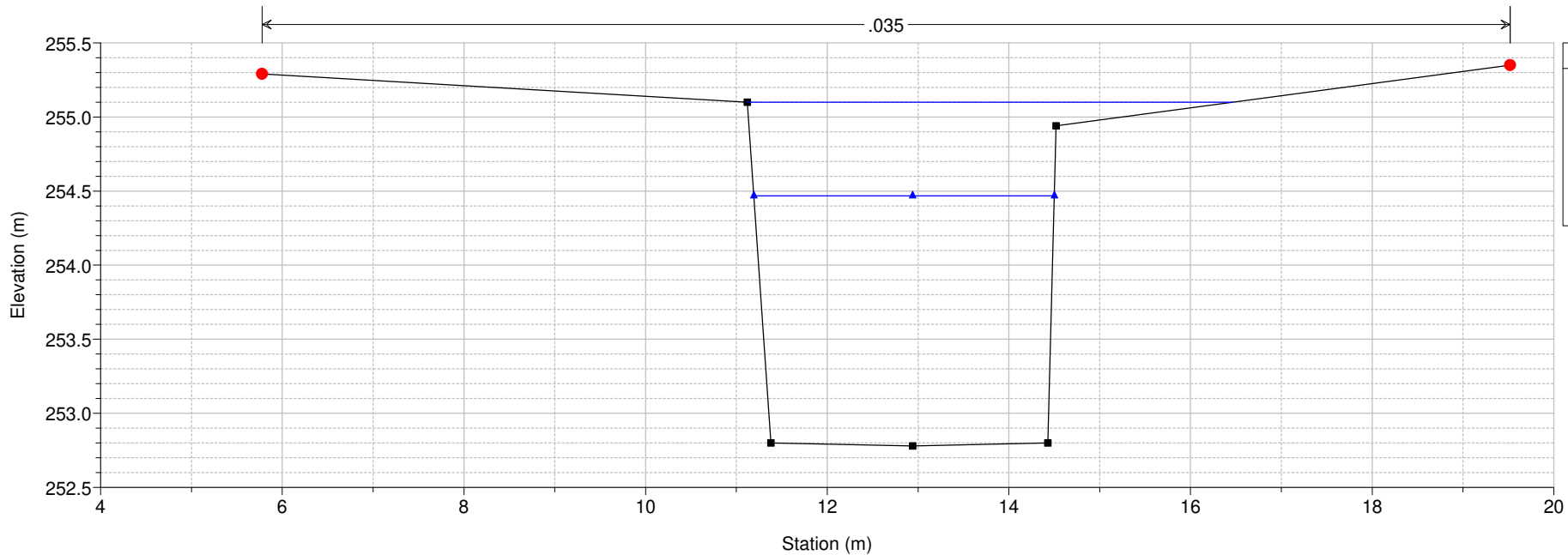
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 1.5 Culv



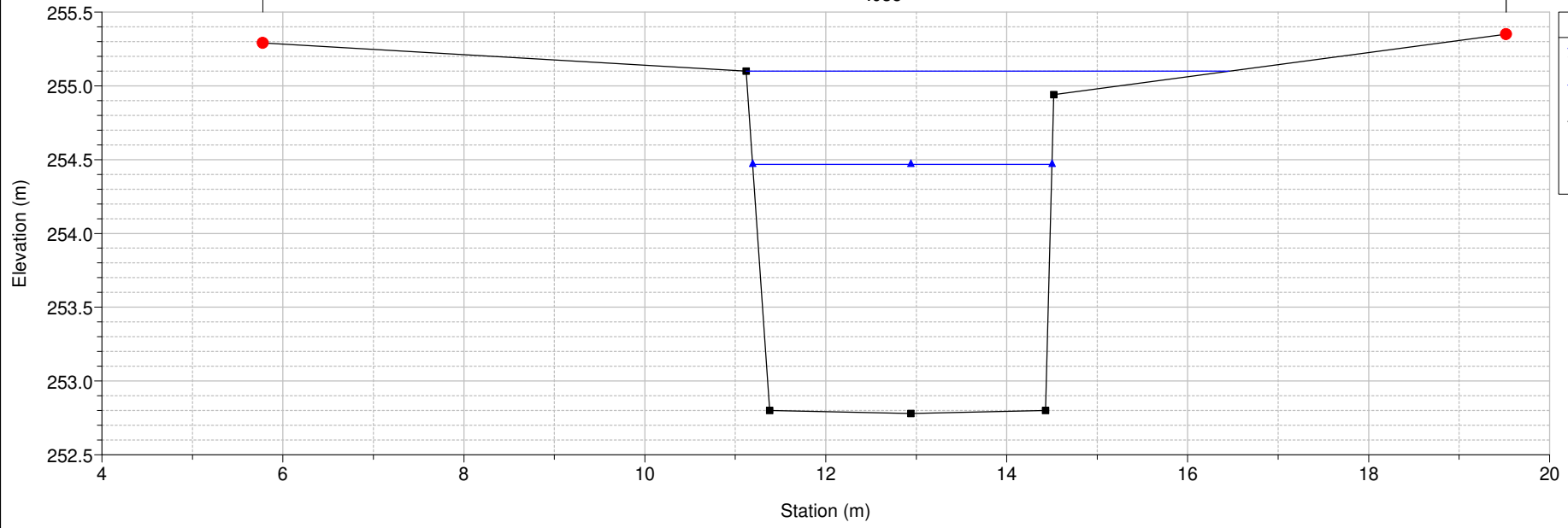
VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H

River = Visano Reach = Visano RS = 1 sez.30 valle culvert



VIS_SIE_SCO_MUL Plan: 1) TR200 1H 2) TR30 1H
River = Visano Reach = Visano RS = 0.9 sez.30_copia di 1

.035



Legend

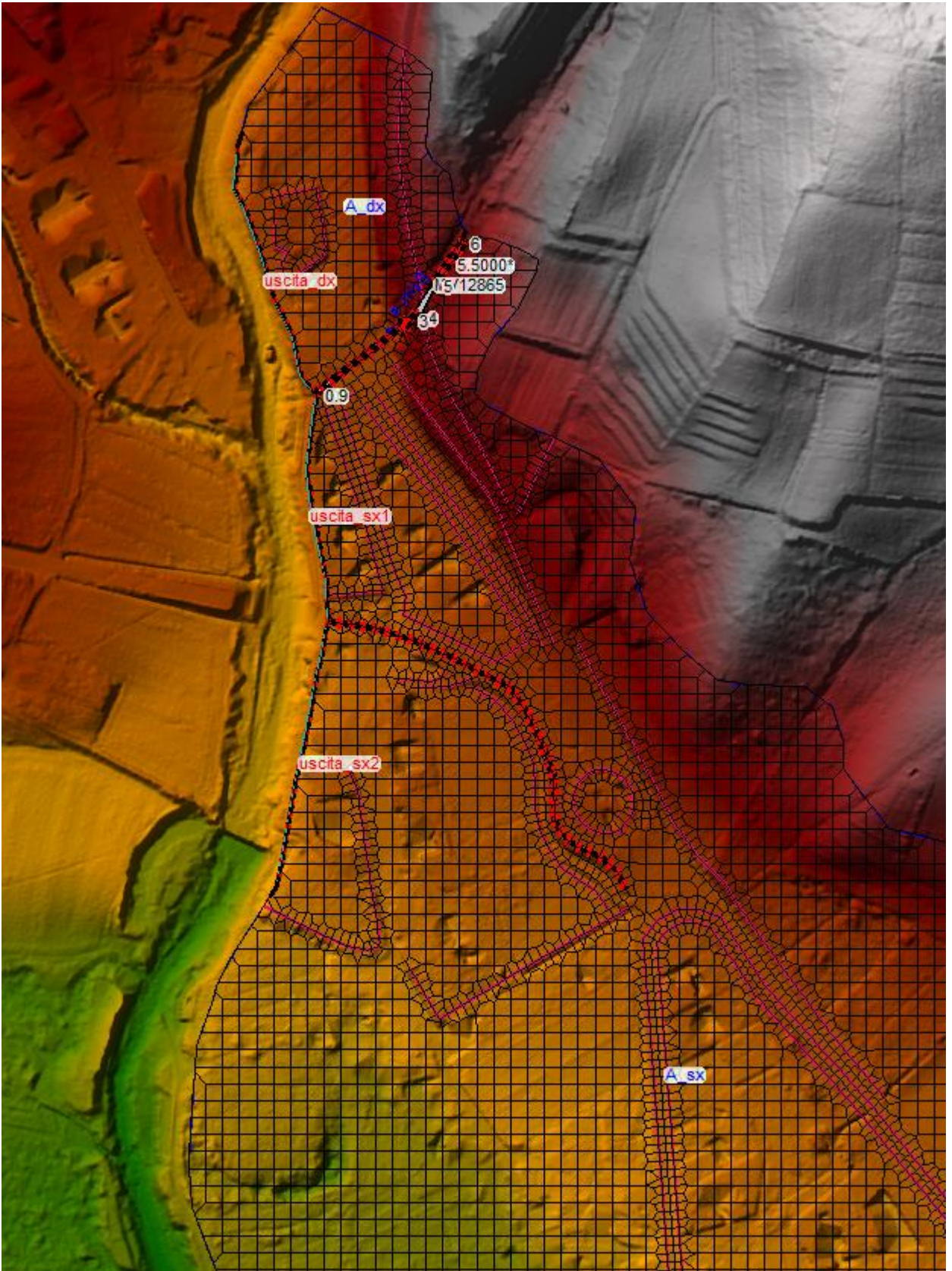
- WS Max WS - TR200 1H
- WS Max WS - TR30 1H
- Ground
- Bank Sta

Reach	River Sta	Profile	Plan	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
				(m ³ /s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m ²)	(m)	
Visano	18	Max WS	TR30 1H	3.31	268.27	269.04	268.93	269.18	0.009603	1.65	2.00	3.98	0.75
Visano	17	Max WS	TR200 2H	4.24	267.18	267.89	267.75	268.03	0.007939	1.62	2.61	4.61	0.69
Visano	17	Max WS	TR200 1H	5.19	267.18	267.99	267.82	268.13	0.007524	1.70	3.06	4.80	0.68
Visano	17	Max WS	TR30 2H	3.26	267.18	267.80	267.67	267.91	0.007947	1.49	2.18	4.43	0.68
Visano	17	Max WS	TR30 1H	3.93	267.18	267.87	267.73	267.99	0.007788	1.57	2.50	4.57	0.68
Visano	16	Max WS	TR200 2H	4.63	266.46	267.39	267.17	267.50	0.005623	1.49	3.11	4.81	0.59
Visano	16	Max WS	TR200 1H	5.70	266.46	267.52	267.25	267.63	0.004967	1.52	3.75	5.07	0.56
Visano	16	Max WS	TR30 2H	3.53	266.46	267.18	267.09	267.32	0.009412	1.63	2.16	4.41	0.74
Visano	16	Max WS	TR30 1H	4.29	266.46	267.31	267.15	267.44	0.006850	1.56	2.75	4.67	0.65
Visano	15	Max WS	TR200 2H	4.72	266.22	267.34		267.42	0.003174	1.27	3.73	3.68	0.40
Visano	15	Max WS	TR200 1H	5.81	266.22	267.48		267.57	0.003365	1.37	4.23	3.76	0.41
Visano	15	Max WS	TR30 2H	3.59	266.22	267.16		267.23	0.003213	1.17	3.06	3.58	0.41
Visano	15	Max WS	TR30 1H	4.37	266.22	267.29		267.36	0.003175	1.24	3.53	3.65	0.40
Visano	14.5			Culvert									
Visano	14	Max WS	TR200 2H	4.72	265.40	266.07	266.07	266.30	0.017097	2.14	2.21	4.74	1.00
Visano	14	Max WS	TR200 1H	5.81	265.40	266.14	266.15	266.40	0.017413	2.28	2.54	4.98	1.02
Visano	14	Max WS	TR30 2H	3.59	265.40	265.98	265.98	266.18	0.017376	1.98	1.81	4.44	0.99
Visano	14	Max WS	TR30 1H	4.37	265.40	266.04	266.04	266.27	0.017377	2.10	2.08	4.65	1.00
Visano	13.99			Lat Struct									
Visano	13.98			Lat Struct									
Visano	13	Max WS	TR200 2H	4.95	264.63	265.65	265.26	265.70	0.002243	1.05	4.71	5.88	0.37
Visano	13	Max WS	TR200 1H	6.10	264.63	265.74	265.32	265.81	0.002398	1.16	5.26	5.91	0.39
Visano	13	Max WS	TR30 2H	3.75	264.63	265.54	265.18	265.58	0.002019	0.92	4.09	5.85	0.35
Visano	13	Max WS	TR30 1H	4.57	264.63	265.62	265.23	265.67	0.002173	1.01	4.52	5.87	0.37
Visano	12.5			Bridge									
Visano	12	Max WS	TR200 2H	4.95	264.69	265.53	265.29	265.62	0.004445	1.31	3.79	5.74	0.51
Visano	12	Max WS	TR200 1H	6.10	264.69	265.61	265.36	265.72	0.004731	1.43	4.26	5.75	0.53
Visano	12	Max WS	TR30 2H	3.75	264.69	265.45	265.22	265.51	0.003918	1.14	3.30	5.73	0.48
Visano	12	Max WS	TR30 1H	4.57	264.69	265.51	265.27	265.59	0.004166	1.24	3.67	5.74	0.50
Visano	11.99			Lat Struct									
Visano	11.98			Lat Struct									
Visano	11	Max WS	TR200 2H	5.04	264.67	265.38	265.23	265.50	0.007038	1.54	3.27	5.72	0.65
Visano	11	Max WS	TR200 1H	6.21	264.67	265.50	265.30	265.63	0.006117	1.58	3.94	5.89	0.62
Visano	11	Max WS	TR30 2H	3.81	264.67	265.29	265.15	265.39	0.006933	1.39	2.74	5.58	0.63
Visano	11	Max WS	TR30 1H	4.65	264.67	265.36	265.21	265.47	0.006746	1.48	3.15	5.69	0.63
Visano	10	Max WS	TR200 2H	5.75	263.14	264.61	264.07	264.79	0.002713	1.85	3.11	4.73	0.49
Visano	10	Max WS	TR200 1H	7.09	263.14	264.93	264.21	265.11	0.002141	1.87	3.79	6.70	0.45
Visano	10	Max WS	TR30 2H	4.31	263.14	264.36	263.91	264.50	0.002920	1.68	2.56	4.26	0.49
Visano	10	Max WS	TR30 1H	5.29	263.14	264.53	264.02	264.70	0.002782	1.80	2.94	4.58	0.49
Visano	9.5			Bridge									
Visano	9	Max WS	TR200 2H	5.75	262.89	263.63	263.85	264.43	0.033156	3.97	1.45	4.65	1.55
Visano	9	Max WS	TR200 1H	7.09	262.89	263.71	263.99	264.68	0.034009	4.36	1.63	4.82	1.60
Visano	9	Max WS	TR30 2H	4.31	262.89	263.53	263.70	264.15	0.032015	3.50	1.23	4.43	1.48
Visano	9	Max WS	TR30 1H	5.29	262.89	263.60	263.81	264.34	0.032799	3.83	1.38	4.58	1.53
Visano	8.99			Lat Struct									
Visano	8.98			Lat Struct									
Visano	8	Max WS	TR200 2H	6.93	258.26	260.14	259.31	260.27	0.006156	1.60	4.33	4.13	0.50
Visano	8	Max WS	TR200 1H	8.37	258.26	260.54	259.45	260.62	0.003480	1.24	6.74	7.26	0.41
Visano	8	Max WS	TR30 2H	5.13	258.26	259.93	259.13	260.02	0.003901	1.39	3.68	2.43	0.36
Visano	8	Max WS	TR30 1H	6.34	258.26	260.05	259.26	260.18	0.005306	1.58	4.02	3.04	0.44
Visano	7.5			Bridge									
Visano	7	Max WS	TR200 2H	6.93	258.54	259.30	259.46	259.98	0.024217	3.66	1.89	5.38	1.34
Visano	7	Max WS	TR200 1H	8.37	258.54	259.39	259.59	260.18	0.024215	3.95	2.12	5.69	1.37
Visano	7	Max WS	TR30 2H	5.13	258.54	259.18	259.30	259.71	0.023521	3.22	1.59	4.96	1.29
Visano	7	Max WS	TR30 1H	6.34	258.54	259.26	259.40	259.90	0.024055	3.53	1.80	5.25	1.33
Visano	6.99			Lat Struct									
Visano	6.98			Lat Struct									
Visano	6	Max WS	TR200 2H	7.54	256.42	258.18	257.54	258.39	0.002488	2.05	3.67	4.39	0.50
Visano	6	Max WS	TR200 1H	9.21	256.42	258.60	257.69	258.79	0.008577	1.94	4.75	4.65	0.61
Visano	6	Max WS	TR30 2H	5.56	256.42	257.88	257.34	258.05	0.002556	1.83	3.03	4.00	0.49
Visano	6	Max WS	TR30 1H	6.89	256.42	258.08	257.47	258.29	0.002507	1.99	3.47	4.27	0.50

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Visano	5.5			Bridge									
Visano	5	Max WS	TR200 2H	7.54	256.45	257.55	257.55	258.09	0.013150	3.27	2.31	3.50	1.00
Visano	5	Max WS	TR200 1H	9.21	256.45	257.67	257.71	258.33	0.013876	3.60	2.56	3.67	1.04
Visano	5	Max WS	TR30 2H	5.56	256.45	257.35	257.35	257.79	0.013983	2.94	1.89	3.21	1.00
Visano	5	Max WS	TR30 1H	6.89	256.45	257.47	257.49	258.00	0.013907	3.20	2.15	3.39	1.02
Visano	4.99			Lat Struct									
Visano	4.98			Lat Struct									
Visano	4	Max WS	TR200 2H	8.13	255.00	256.87	256.10	257.00	0.008726	1.60	5.07	8.58	0.67
Visano	4	Max WS	TR200 1H	9.91	255.00	257.03	256.25	257.14	0.006347	1.48	6.70	10.26	0.58
Visano	4	Max WS	TR30 2H	5.48	255.00	256.69	255.85	256.79	0.003775	1.40	3.90	5.18	0.48
Visano	4	Max WS	TR30 1H	7.41	255.00	256.79	256.03	256.93	0.009083	1.65	4.49	7.28	0.67
Visano	3.5			Bridge									
Visano	3	Max WS	TR200 2H	8.09	255.04	255.97	256.19	256.82	0.028437	4.08	1.98	3.09	1.40
Visano	3	Max WS	TR200 1H	9.89	255.04	256.03	256.60	257.13	0.033118	4.63	2.14	3.17	1.53
Visano	3	Max WS	TR30 2H	5.97	255.04	255.78	255.99	256.53	0.034748	3.84	1.55	2.84	1.49
Visano	3	Max WS	TR30 1H	7.41	255.04	255.87	256.12	256.77	0.035240	4.20	1.76	2.96	1.53
Visano	2.99			Lat Struct									
Visano	2.98			Lat Struct									
Visano	2	Max WS	TR200 2H	8.26	253.35	255.64		255.65	0.000371	0.54	15.36	14.75	0.17
Visano	2	Max WS	TR200 1H	9.87	253.35	255.66		255.68	0.000503	0.63	15.63	14.80	0.20
Visano	2	Max WS	TR30 2H	6.07	253.35	254.88		254.92	0.001109	0.86	7.08	7.41	0.28
Visano	2	Max WS	TR30 1H	7.48	253.35	254.94		254.99	0.001459	1.00	7.48	7.63	0.32
Visano	1.5			Culvert									
Visano	1	Max WS	TR200 2H	8.08	252.78	255.25	253.68	255.29	0.002148	0.92	8.82	11.24	0.33
Visano	1	Max WS	TR200 1H	9.27	252.78	255.10	253.76	255.18	0.002430	1.22	7.61	5.34	0.33
Visano	1	Max WS	TR30 2H	5.73	252.78	254.68	253.50	254.72	0.001308	0.95	6.03	3.34	0.23
Visano	1	Max WS	TR30 1H	6.22	252.78	254.47	253.54	254.54	0.002123	1.17	5.34	3.31	0.29
Visano	0.9	Max WS	TR200 2H	8.08	252.78	255.25	253.68	255.29	0.002149	0.92	8.82	11.23	0.33
Visano	0.9	Max WS	TR200 1H	9.27	252.78	255.10	253.76	255.17	0.002430	1.22	7.61	5.34	0.33
Visano	0.9	Max WS	TR30 2H	5.73	252.78	254.68	253.50	254.72	0.001308	0.95	6.03	3.34	0.23
Visano	0.9	Max WS	TR30 1H	6.22	252.78	254.47	253.54	254.54	0.002124	1.17	5.33	3.31	0.29

Fosso

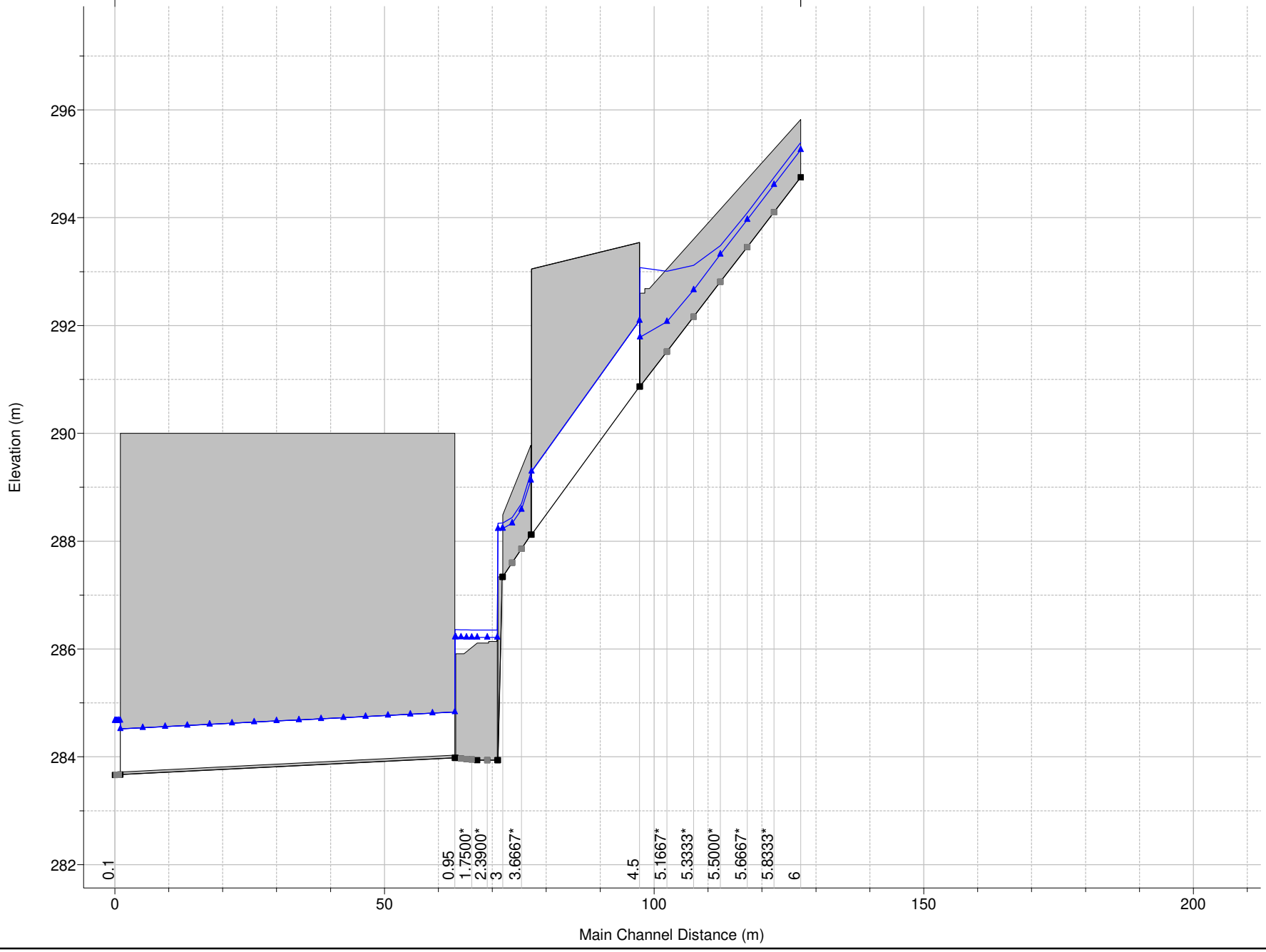
MV15982



MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Destra Idraulica

Stura MV12865



Legend	
WS Max WS - TR200_30min	▲
WS Max WS - TR30_30min	▲
Lat Struct	■
Ground	■

0.95
1.7500*
2.3900*
3
3.6667*

4.5
5.1667*
5.3333*
5.5000*
5.6667*
5.8333*

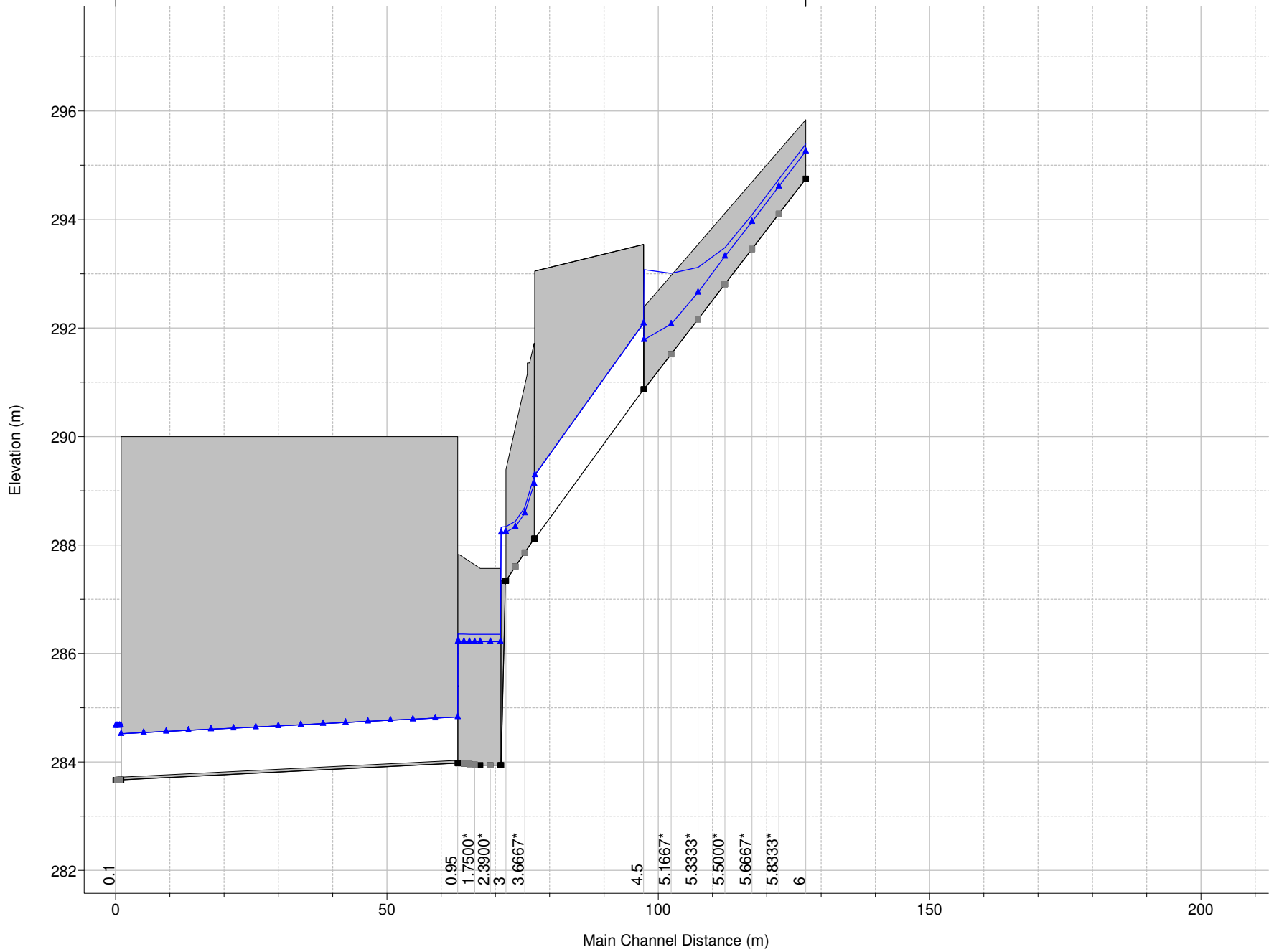
6

1 cm Horiz. = 10 m 1 cm Vert. = 1 m

MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Sinistra Idraulica

Stura MV12865

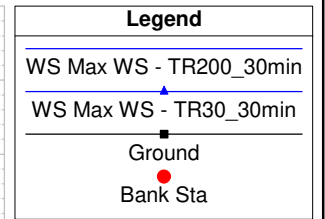
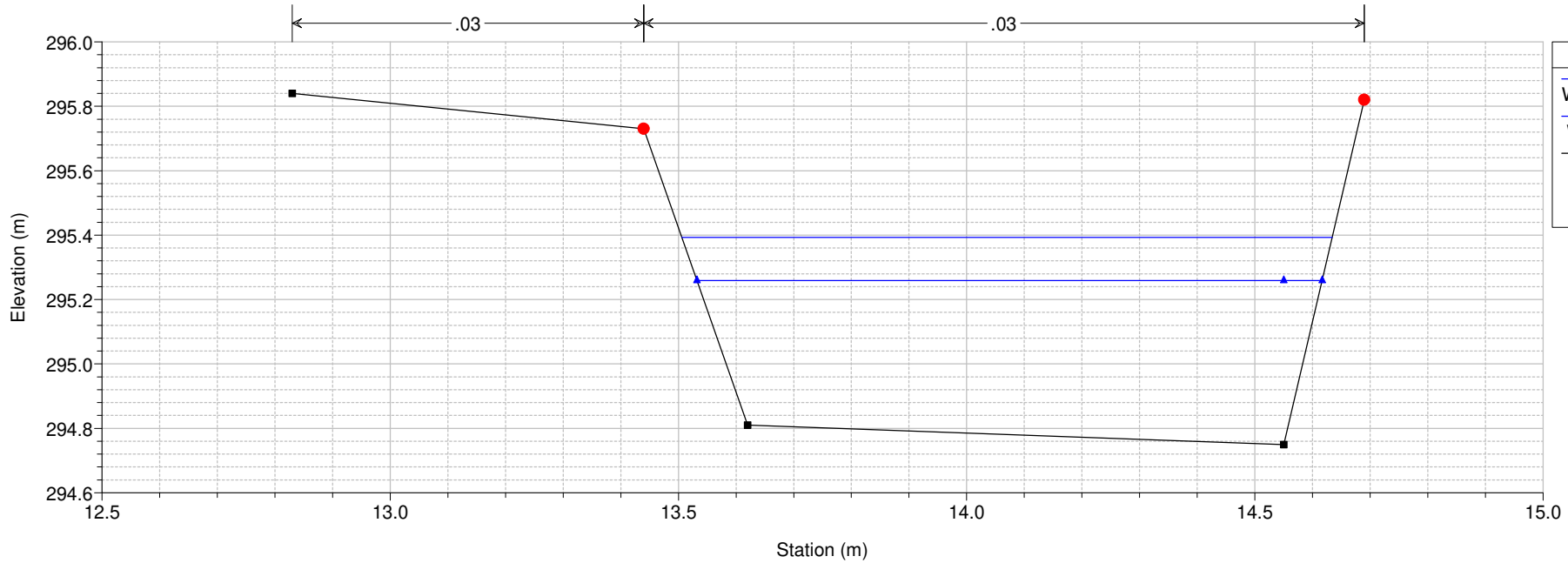


Legend	
WS Max WS - TR200_30min	
WS Max WS - TR30_30min	
Lat Struct	
Ground	

1 cm Horiz. = 10 m 1 cm Vert. = 1 m

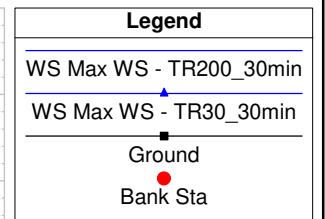
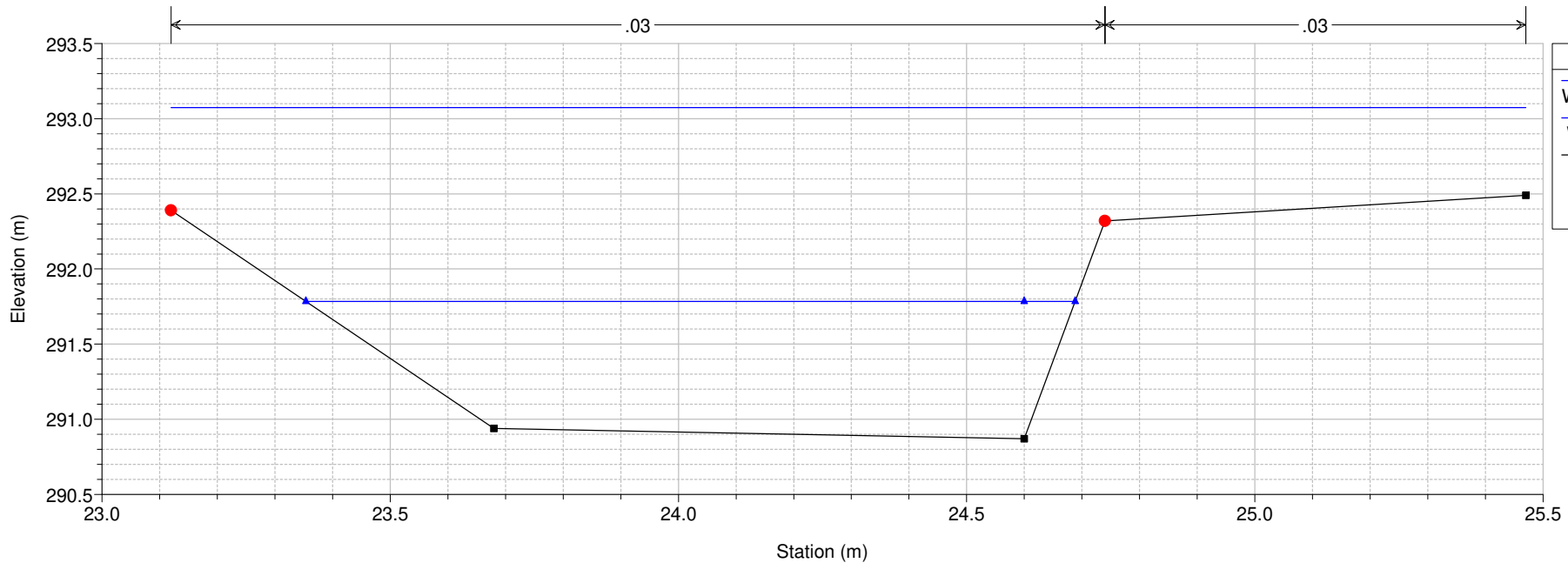
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 6 sez. 01 rilievo 2024



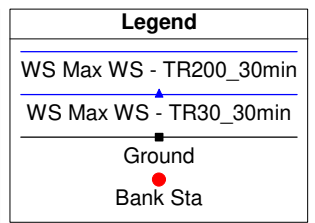
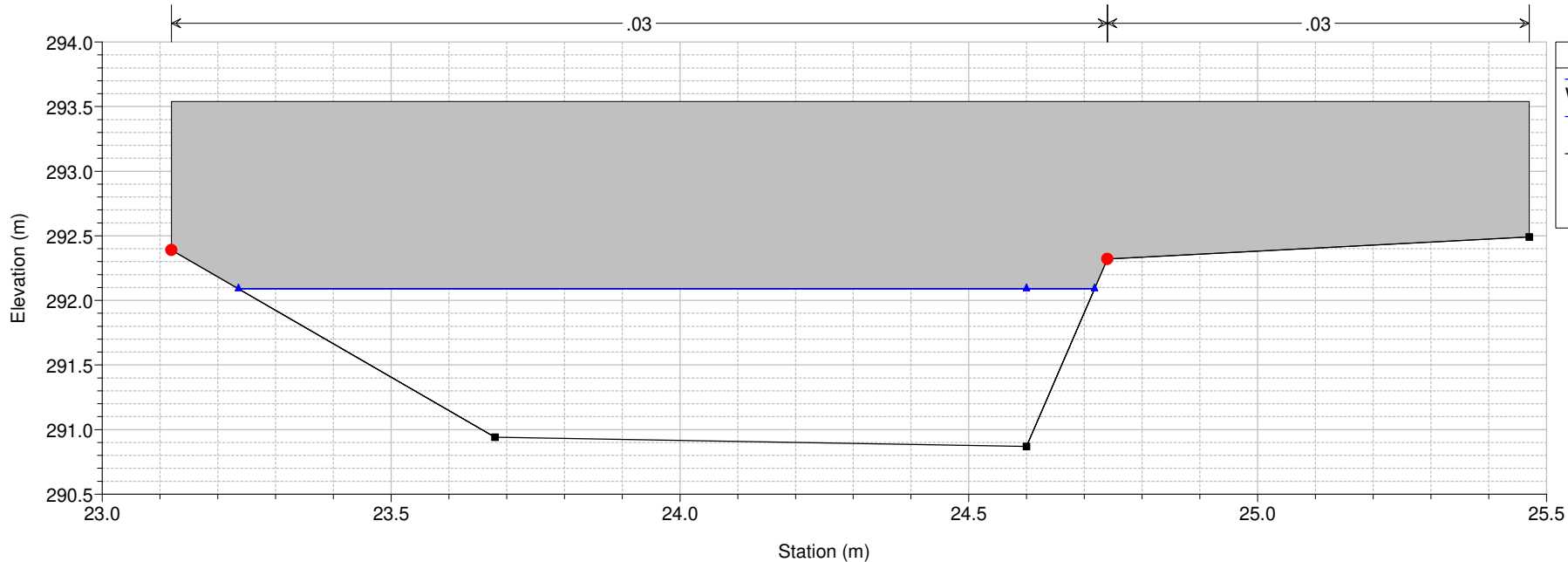
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 5 sez. 02 rilievo 2024



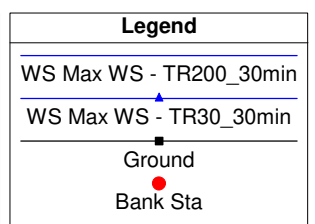
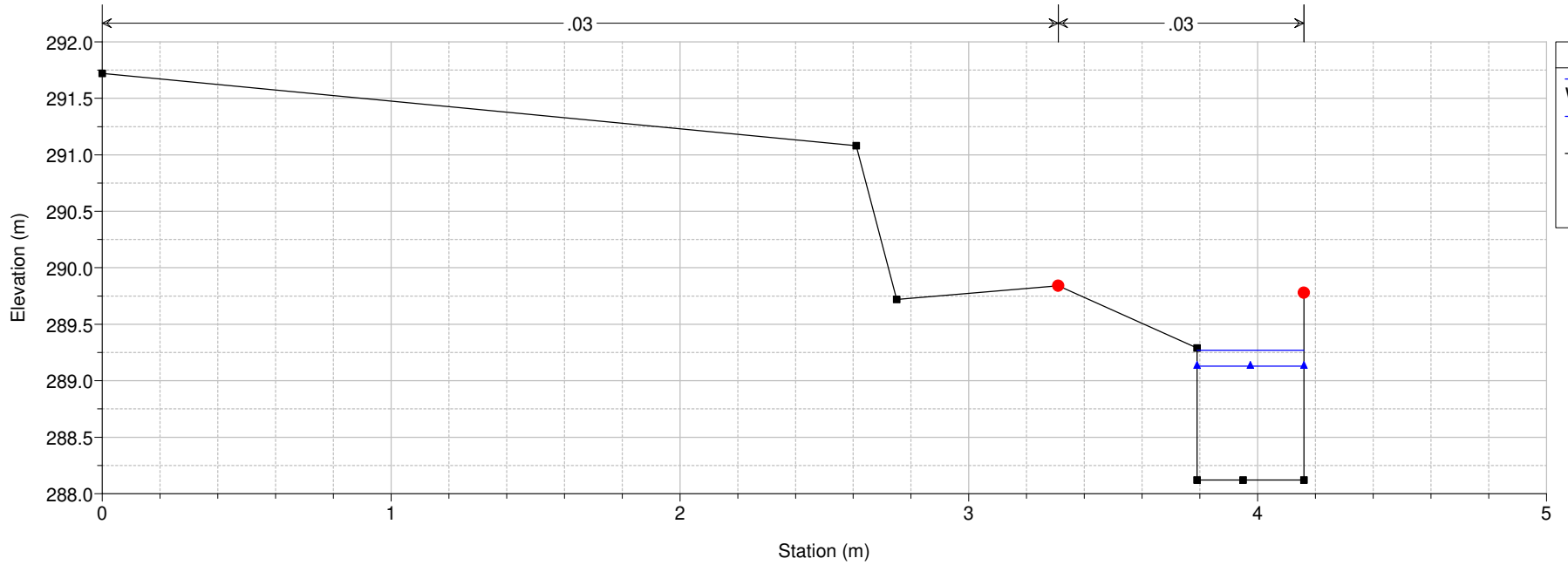
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 4.5 BR



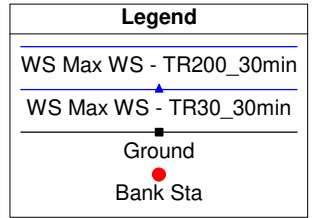
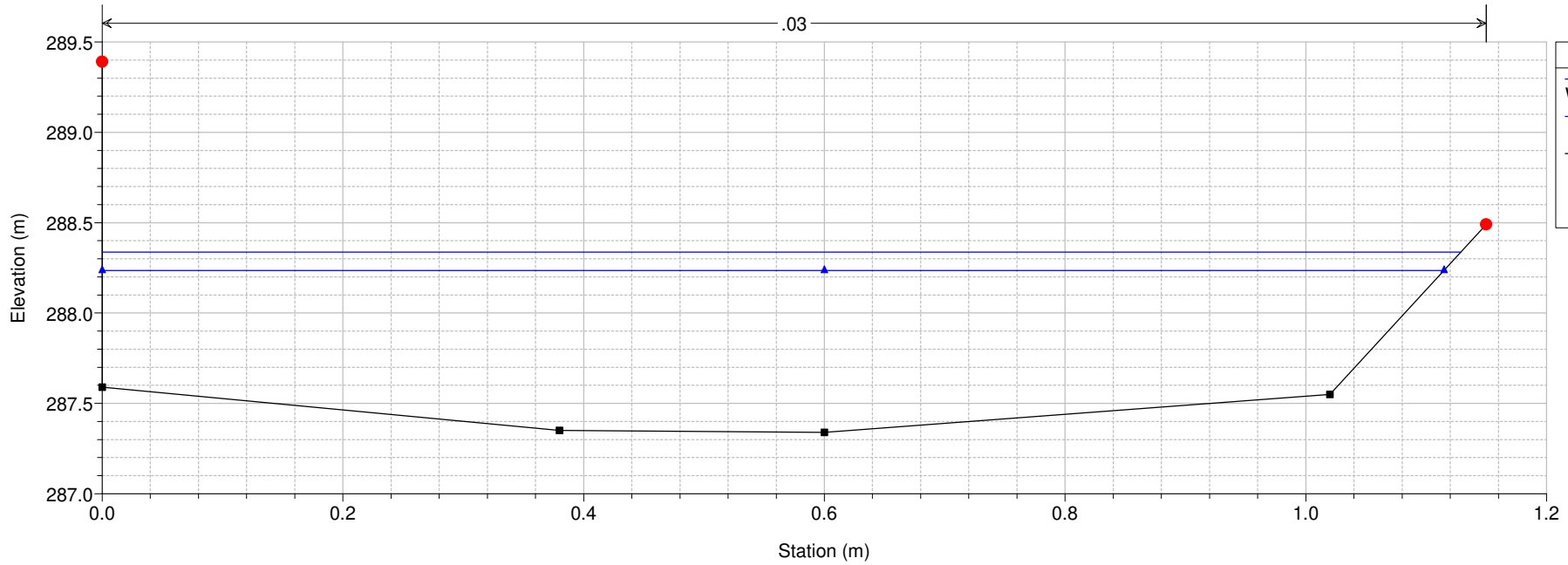
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 4 sez. 03 rilievo 2024



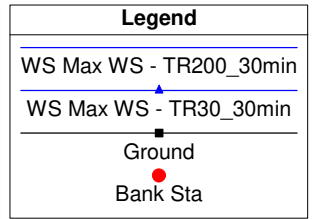
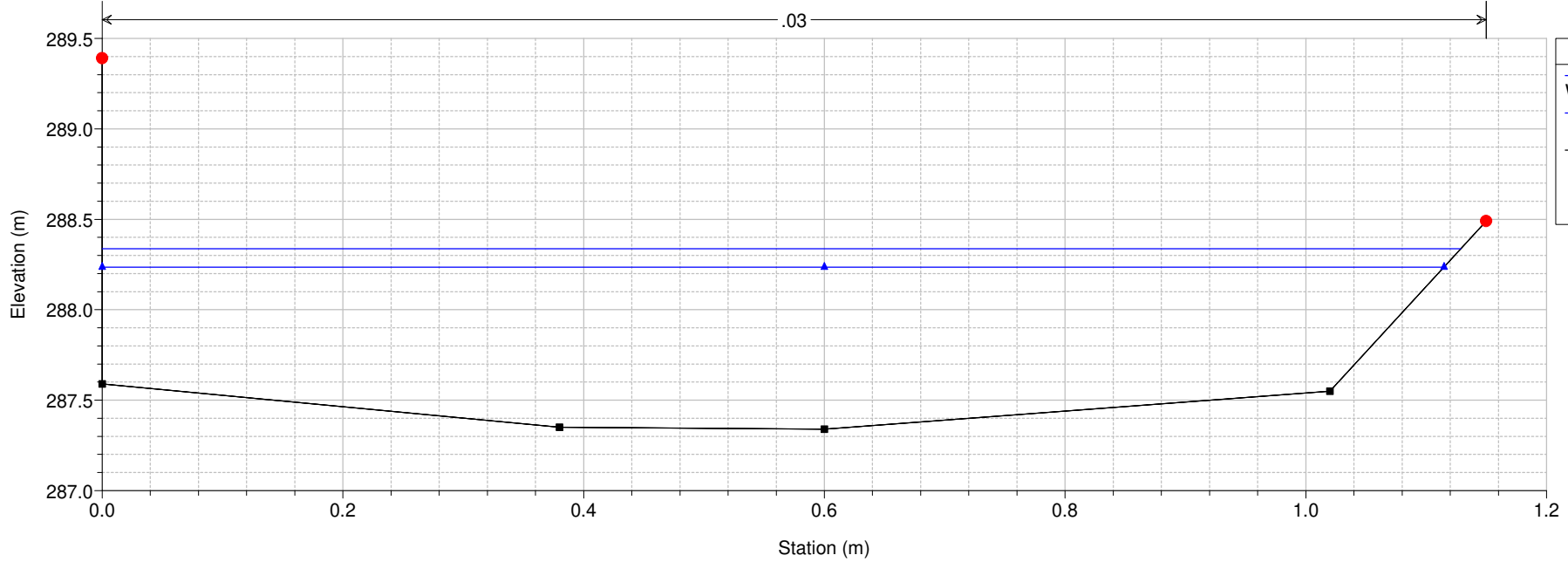
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 3 sez. 04 rilievo 2024

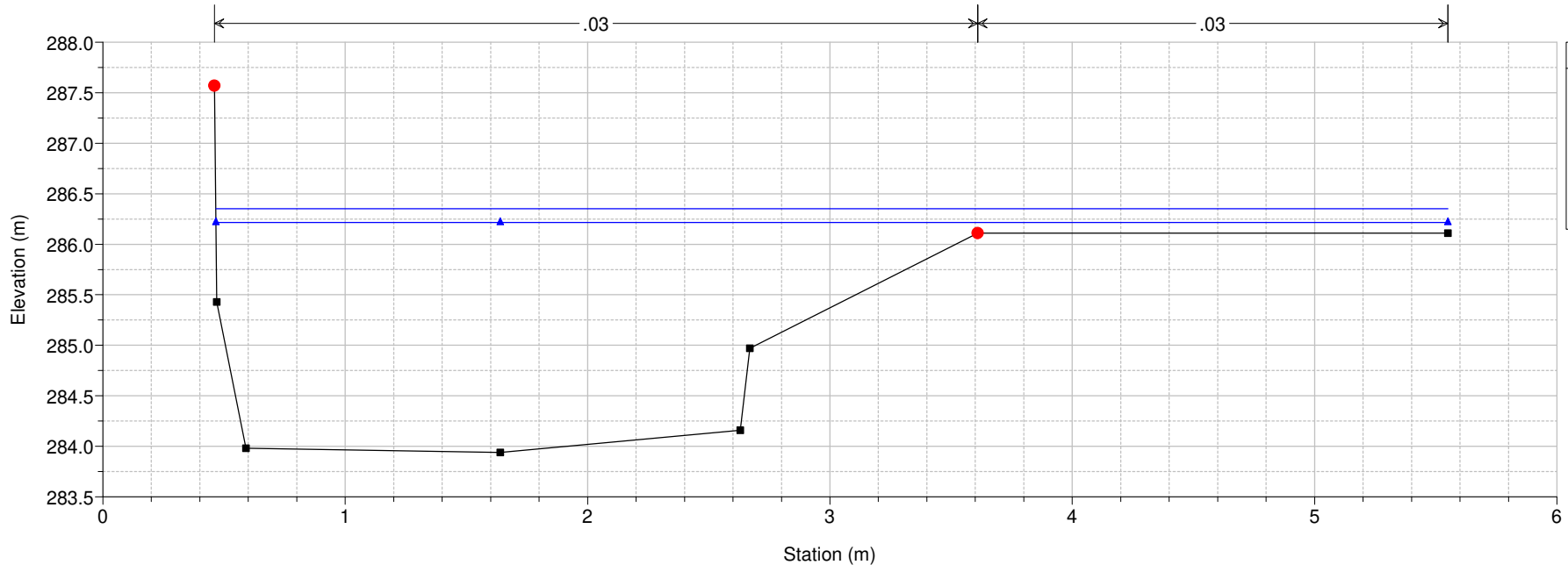


MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 2.95 IS



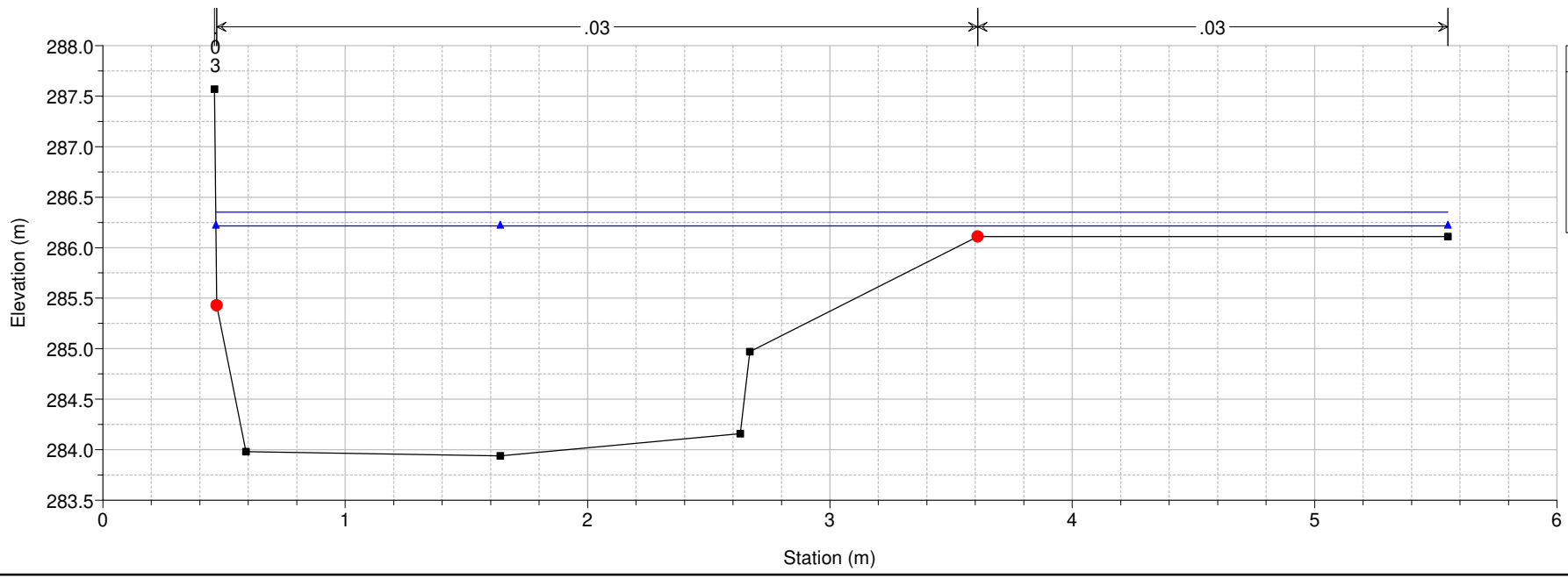
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min
 River = Stura Reach = MV12865 RS = 2.78 copia sez. 05 rilievo 2024 valle IS



Legend

- WS Max WS - TR200_30min
- WS Max WS - TR30_30min
- Ground
- Bank Sta

MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min
 River = Stura Reach = MV12865 RS = 2 sez. 05 rilievo 2024

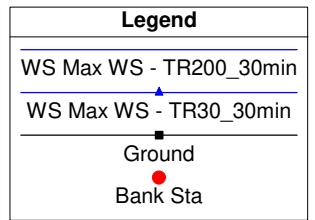
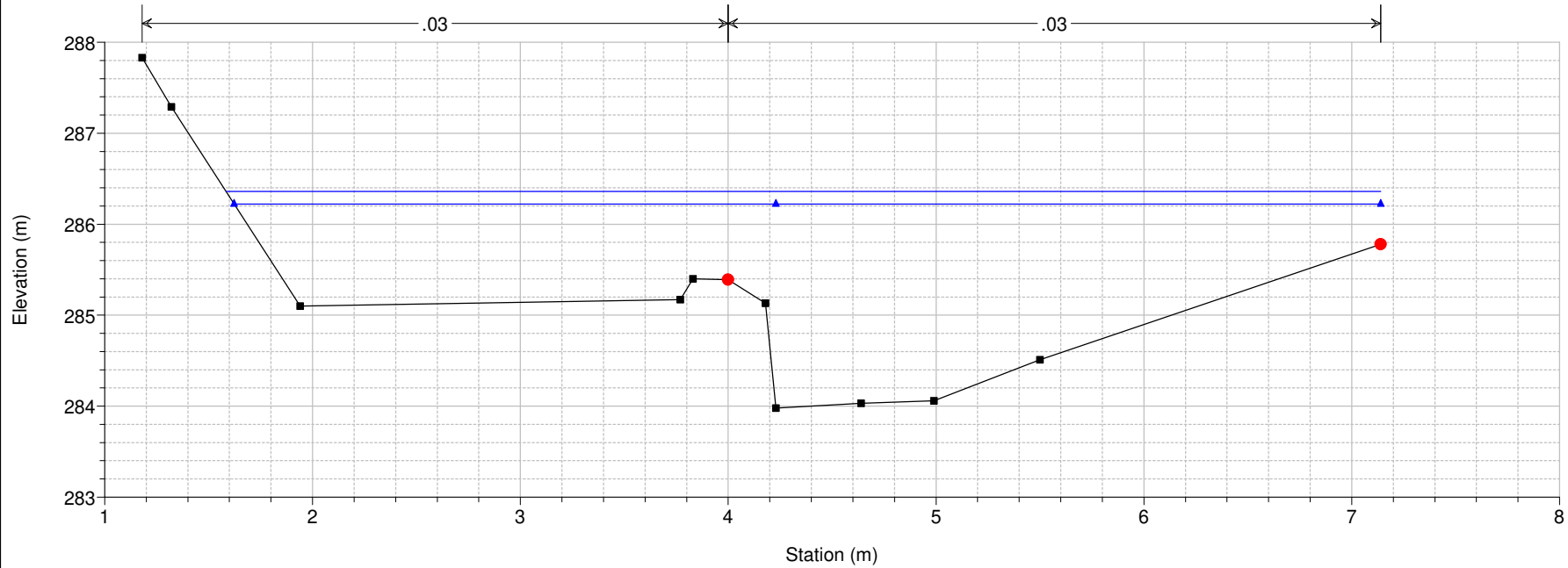


Legend

- WS Max WS - TR200_30min
- WS Max WS - TR30_30min
- Ground
- Bank Sta

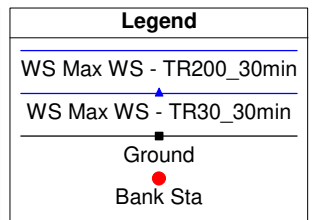
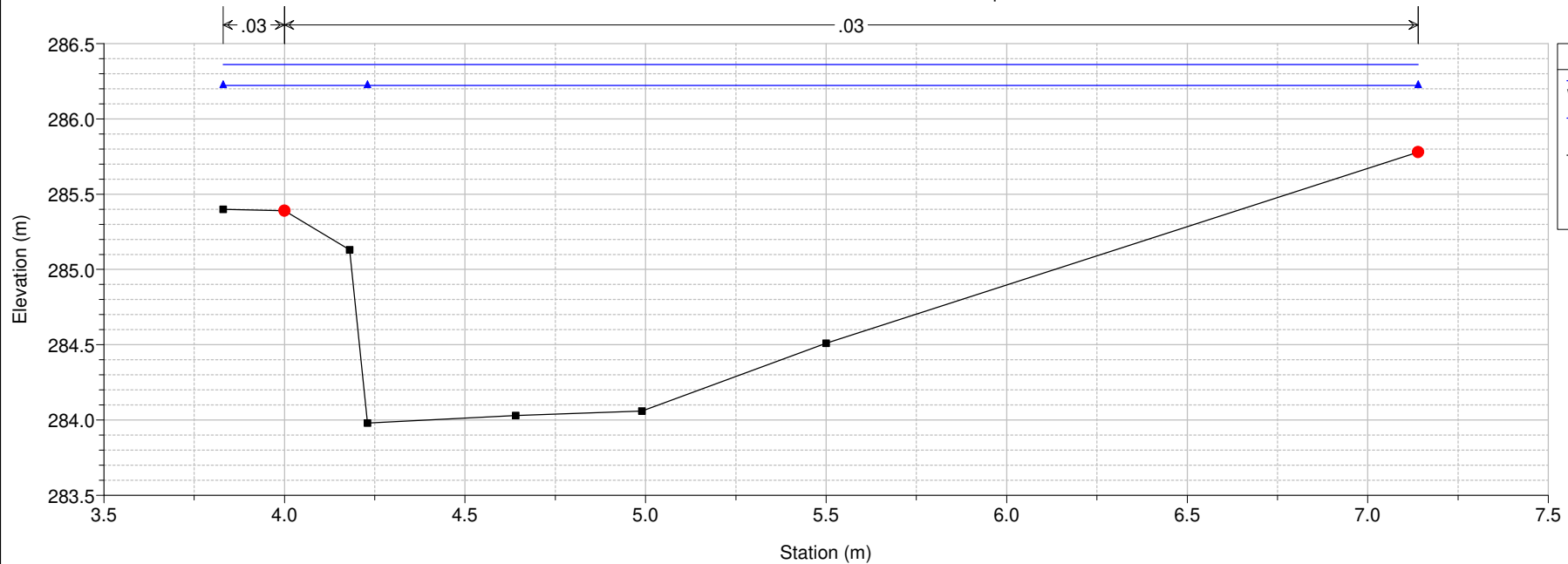
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 1 sez. 06 rilievo 2024



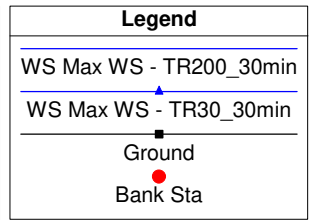
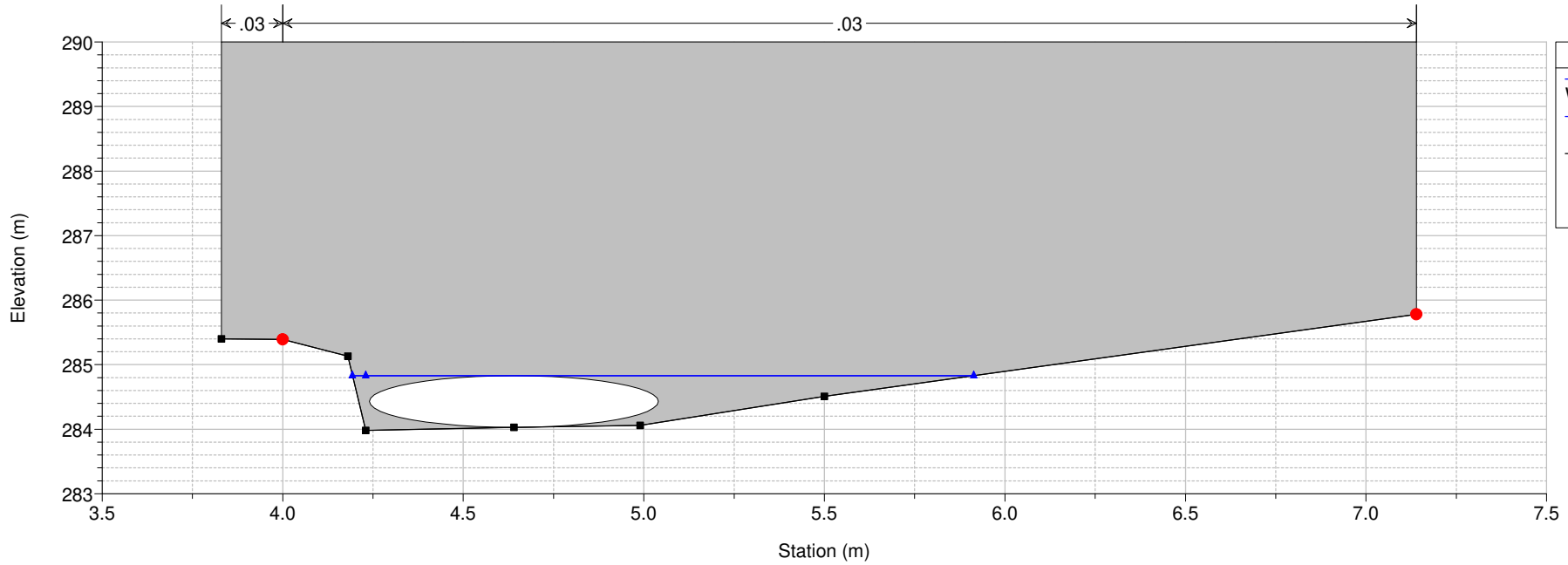
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 0.99 copia sez. 06 rilievo 2024 imbocco



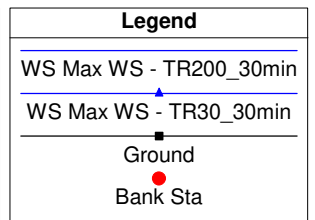
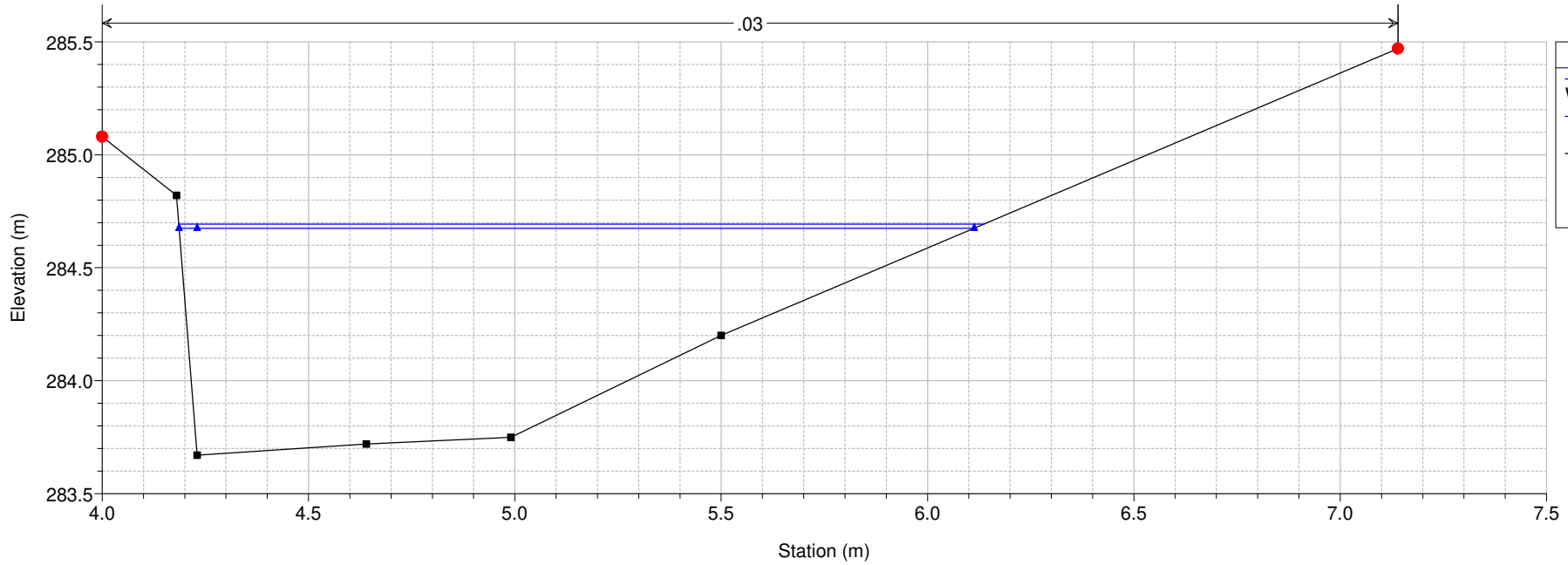
MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 0.95 Culv

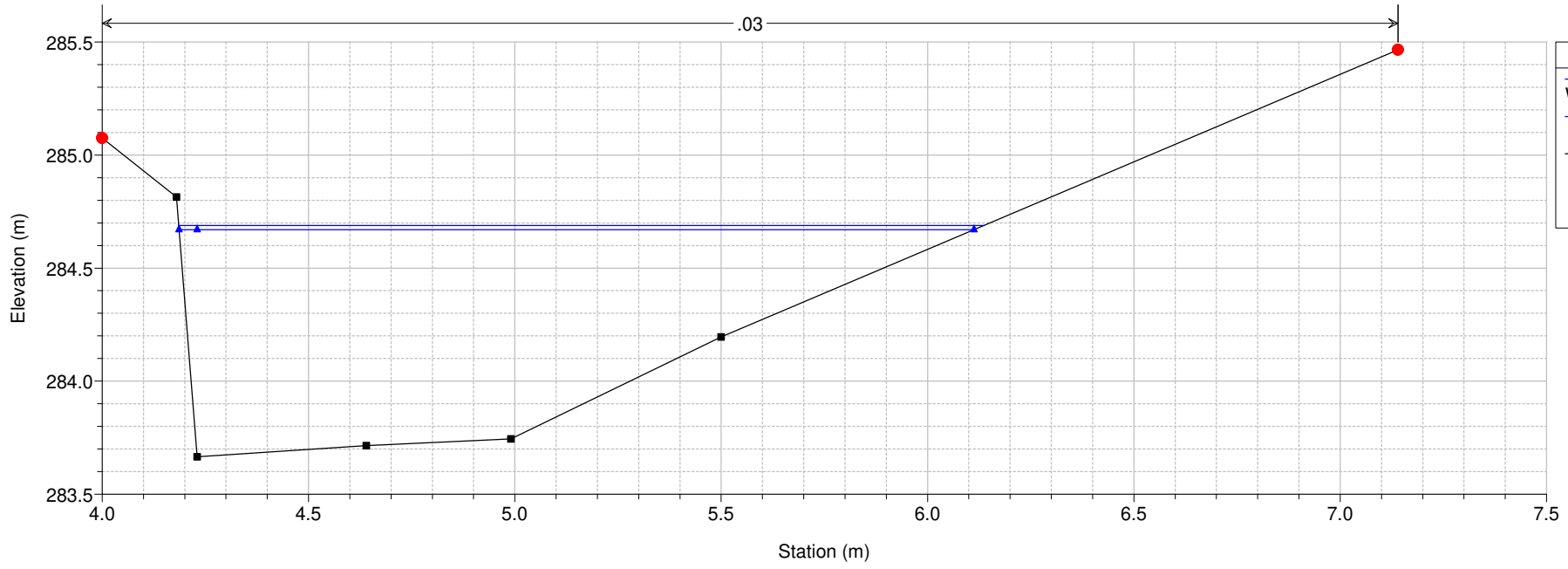


MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min

River = Stura Reach = MV12865 RS = 0.9 copia sez. 06 rilievo 2024 valle



MV12865_Stura Plan: 1) TR200_30min 2) TR30_30min
River = Stura Reach = MV12865 RS = 0.1 copia sez. 06 rilievo 2024 valle

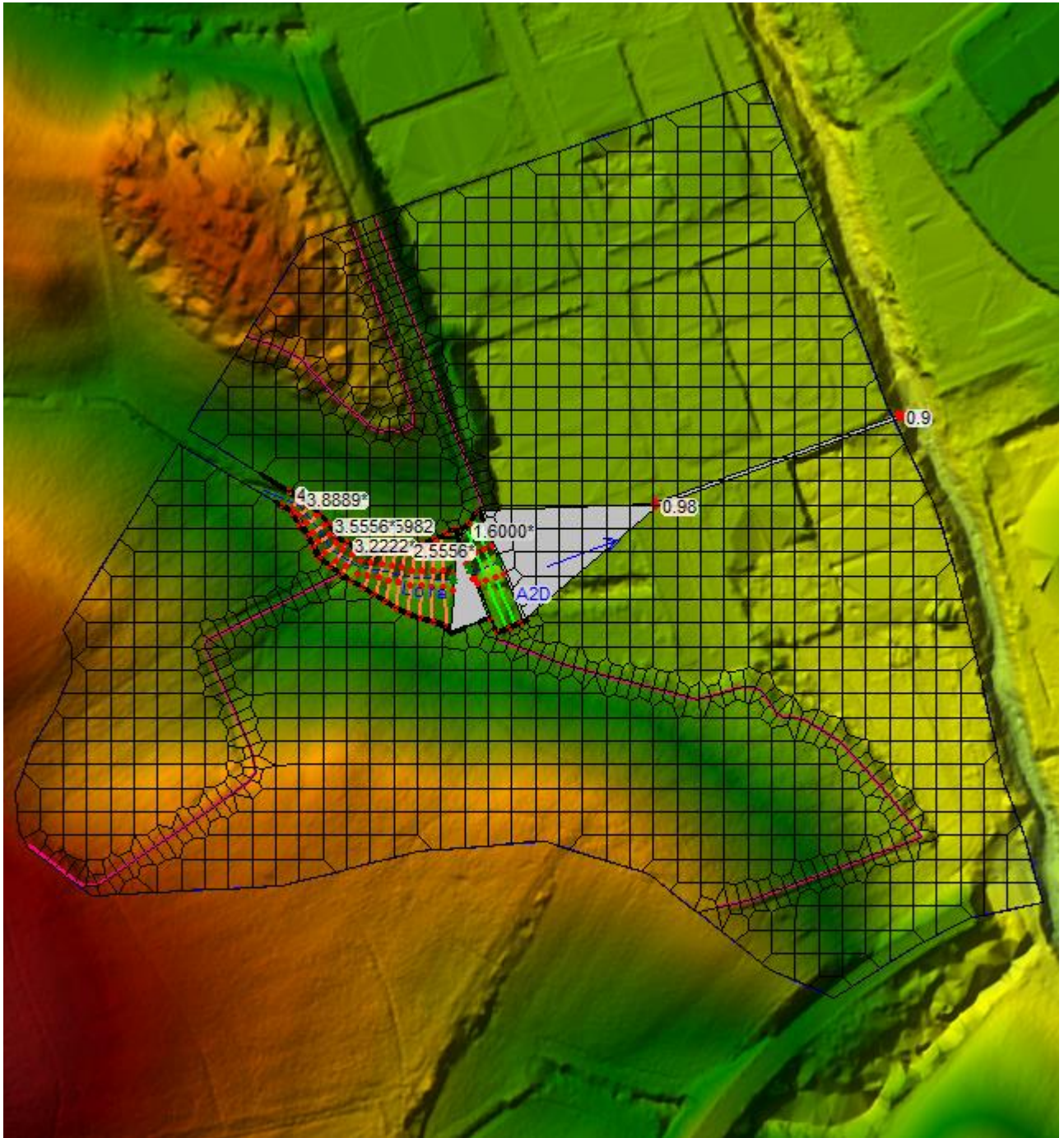


Legend

- WS Max WS - TR200_30min (Blue line with triangle)
- WS Max WS - TR30_30min (Black line with square)
- Ground (Black line)
- Bank Sta (Red dot)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV12865	6	Max WS	TR200_30min	3.34	294.75	295.39	295.88	296.82	0.131493	5.30	0.63	1.13	2.26
MV12865	6	Max WS	TR200_1h	2.85	294.75	295.33	295.71	296.65	0.130922	5.08	0.56	1.11	2.28
MV12865	6	Max WS	TR200_2h	2.02	294.75	295.21	295.53	296.32	0.130782	4.65	0.43	1.07	2.33
MV12865	6	Max WS	TR30_30min	2.33	294.75	295.26	295.60	296.45	0.130956	4.83	0.48	1.08	2.31
MV12865	6	Max WS	TR30_1h	2.02	294.75	295.21	295.53	296.32	0.130782	4.65	0.43	1.07	2.33
MV12865	6	Max WS	TR30_2h	1.44	294.75	295.13	295.38	296.04	0.130557	4.23	0.34	1.04	2.37
MV12865	5.99												
MV12865	5.98												
MV12865				Lat Struct									
MV12865				Lat Struct									
MV12865	5	Max WS	TR200_30min	2.80	290.87	293.07	291.81	293.11	0.001136	0.84	3.48	2.35	0.20
MV12865	5	Max WS	TR200_1h	2.79	290.87	292.70	291.81	292.77	0.002384	1.11	2.61	2.35	0.29
MV12865	5	Max WS	TR200_2h	2.02	290.87	291.70	291.64	291.97	0.020309	2.31	0.87	1.29	0.90
MV12865	5	Max WS	TR30_30min	2.33	290.87	291.79	291.71	292.07	0.019564	2.36	0.99	1.33	0.88
MV12865	5	Max WS	TR30_1h	2.02	290.87	291.70	291.64	291.97	0.020310	2.31	0.87	1.29	0.90
MV12865	5	Max WS	TR30_2h	1.44	290.87	291.54	291.50	291.77	0.019992	2.12	0.68	1.22	0.91
MV12865	4.5												
MV12865				Bridge									
MV12865	4	Max WS	TR200_30min	2.80	288.12	289.27	290.02	291.47	0.449992	6.57	0.43	0.37	1.96
MV12865	4	Max WS	TR200_1h	2.79	288.12	289.27	290.02	291.47	0.449654	6.57	0.42	0.37	1.96
MV12865	4	Max WS	TR200_2h	2.02	288.12	289.03	289.87	290.86	0.393078	6.00	0.34	0.37	2.01
MV12865	4	Max WS	TR30_30min	2.33	288.12	289.13	289.94	291.12	0.416742	6.24	0.37	0.37	1.99
MV12865	4	Max WS	TR30_1h	2.02	288.12	289.03	289.87	290.86	0.393078	6.00	0.34	0.37	2.01
MV12865	4	Max WS	TR30_2h	1.44	288.12	288.84	289.27	290.34	0.343329	5.44	0.26	0.37	2.05
MV12865	3.99												
MV12865				Lat Struct									
MV12865	3.98												
MV12865				Lat Struct									
MV12865	3	Max WS	TR200_30min	2.79	287.34	288.34	288.33	288.76	0.029278	2.89	0.97	1.13	1.00
MV12865	3	Max WS	TR200_1h	2.79	287.34	288.34	288.33	288.76	0.029371	2.89	0.96	1.13	1.00
MV12865	3	Max WS	TR200_2h	2.02	287.34	288.17	288.16	288.51	0.026688	2.61	0.77	1.11	0.99
MV12865	3	Max WS	TR30_30min	2.33	287.34	288.24	288.23	288.62	0.027898	2.73	0.85	1.11	1.00
MV12865	3	Max WS	TR30_1h	2.02	287.34	288.16	288.16	288.51	0.026884	2.61	0.77	1.10	1.00
MV12865	3	Max WS	TR30_2h	1.44	287.34	288.02	288.02	288.30	0.024695	2.35	0.61	1.08	1.00
MV12865	2.95												
MV12865				Inl Struct									
MV12865	2.78	Max WS	TR200_30min	2.80	283.94	286.35		286.36	0.000237	0.47	6.29	5.08	0.11
MV12865	2.78	Max WS	TR200_1h	2.79	283.94	286.34		286.35	0.000242	0.47	6.23	5.08	0.11
MV12865	2.78	Max WS	TR200_2h	2.02	283.94	286.11		286.12	0.000200	0.40	5.07	5.08	0.10
MV12865	2.78	Max WS	TR30_30min	2.33	283.94	286.22		286.23	0.000215	0.43	5.60	5.08	0.10
MV12865	2.78	Max WS	TR30_1h	2.02	283.94	286.11		286.12	0.000200	0.40	5.07	5.08	0.10
MV12865	2.78	Max WS	TR30_2h	1.44	283.94	285.70		285.71	0.000205	0.37	3.85	2.81	0.10
MV12865	2.77												
MV12865				Lat Struct									
MV12865	2.76												
MV12865				Lat Struct									
MV12865	2	Max WS	TR200_30min	2.61	283.94	286.35		286.36	0.000169	0.43	6.30	5.08	0.10
MV12865	2	Max WS	TR200_1h	2.61	283.94	286.34		286.35	0.000174	0.44	6.23	5.08	0.10
MV12865	2	Max WS	TR200_2h	2.02	283.94	286.11		286.12	0.000172	0.40	5.06	3.14	0.10
MV12865	2	Max WS	TR30_30min	2.28	283.94	286.22		286.22	0.000174	0.42	5.60	5.08	0.10
MV12865	2	Max WS	TR30_1h	2.02	283.94	286.11		286.12	0.000172	0.40	5.06	3.14	0.10
MV12865	2	Max WS	TR30_2h	1.44	283.94	285.70		285.71	0.000192	0.37	3.85	2.81	0.10
MV12865	1	Max WS	TR200_30min	2.27	283.98	286.36		286.36	0.000092	0.30	7.80	5.56	0.08
MV12865	1	Max WS	TR200_1h	2.25	283.98	286.35		286.35	0.000093	0.30	7.74	5.55	0.08
MV12865	1	Max WS	TR200_2h	1.93	283.98	286.11		286.12	0.000117	0.31	6.44	5.49	0.09
MV12865	1	Max WS	TR30_30min	2.07	283.98	286.22		286.23	0.000104	0.31	7.04	5.52	0.08
MV12865	1	Max WS	TR30_1h	1.93	283.98	286.11		286.12	0.000117	0.31	6.44	5.49	0.09
MV12865	1	Max WS	TR30_2h	1.44	283.98	285.70		285.71	0.000225	0.37	4.22	5.27	0.12
MV12865	0.99	Max WS	TR200_30min	1.64	283.98	286.36		286.37	0.000101	0.32	5.28	3.31	0.08
MV12865	0.99	Max WS	TR200_1h	1.63	283.98	286.35		286.35	0.000103	0.32	5.24	3.31	0.08
MV12865	0.99	Max WS	TR200_2h	1.53	283.98	286.11		286.12	0.000143	0.35	4.46	3.31	0.09
MV12865	0.99	Max WS	TR30_30min	1.58	283.98	286.22		286.23	0.000122	0.33	4.82	3.31	0.09
MV12865	0.99	Max WS	TR30_1h	1.53	283.98	286.11		286.12	0.000143	0.35	4.46	3.31	0.09
MV12865	0.99	Max WS	TR30_2h	1.33	283.98	285.70		285.71	0.000316	0.43	3.10	3.21	0.14
MV12865	0.95												
MV12865				Culvert									
MV12865	0.9	Max WS	TR200_30min	1.64	283.67	284.69		284.78	0.005005	1.27	1.29	1.95	0.50
MV12865	0.9	Max WS	TR200_1h	1.63	283.67	284.69		284.77	0.005001	1.27	1.29	1.95	0.50
MV12865	0.9	Max WS	TR200_2h	1.53	283.67	284.66		284.74	0.005007	1.25	1.22	1.91	0.50
MV12865	0.9	Max WS	TR30_30min	1.58	283.67	284.67		284.76	0.005007	1.26	1.25	1.93	0.50
MV12865	0.9	Max WS	TR30_1h	1.53	283.67	284.66		284.74	0.005007	1.25	1.22	1.91	0.50
MV12865	0.9	Max WS	TR30_2h	1.33	283.67	284.59		284.67	0.005008	1.21	1.10	1.82	0.50
MV12865	0.1	Max WS	TR200_30min	1.64	283.66	284.69		284.37	0.005000	1.27	1.29	1.95	0.50
MV12865	0.1	Max WS	TR200_1h	1.63	283.66	284.69		284.37	0.005003	1.27	1.29	1.95	0.50
MV12865	0.1	Max WS	TR200_2h	1.53	283.66	284.65		284.35	0.005010	1.25	1.22	1.90	0.50
MV12865	0.1	Max WS	TR30_30min	1.58	283.66	284.67		284.36	0.005008	1.26	1.25	1.93	0.50
MV12865	0.1	Max WS	TR30_1h	1.53	283.66	284.65		284.35	0.005009	1.25	1.22	1.90	0.50
MV12865	0.1	Max WS	TR30_2h	1.33	283.66	284.59		284.30	0.005003	1.21	1.10	1.82	0.49

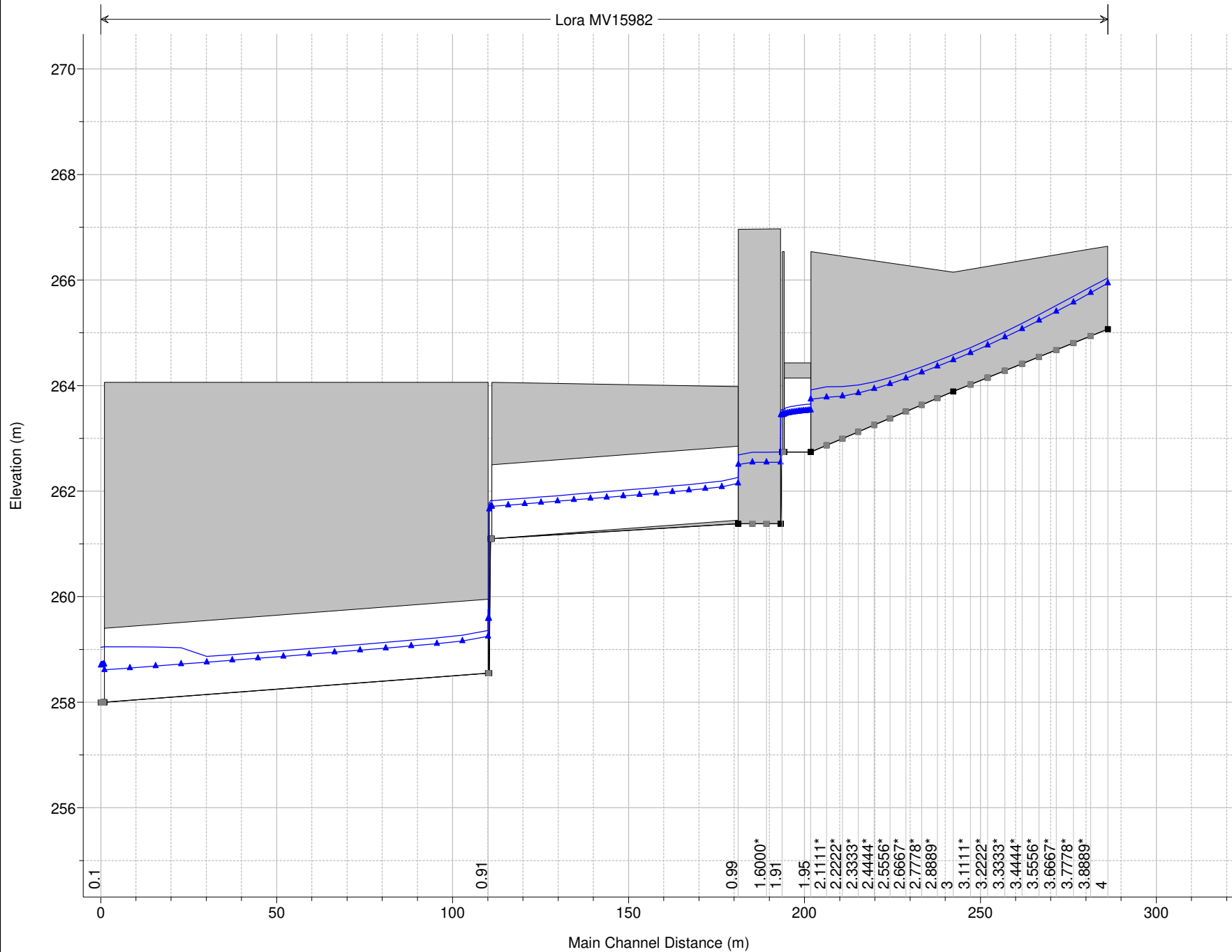
Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV12865	5.99	Max WS	TR200_30min	3.34	0.21	2.80	0.21		4.69	0.47	0.27	292.60	296.82	295.39	293.11	293.07
MV12865	5.99	Max WS	TR200_1h	2.85	0.01	2.79	0.01		1.84	0.10	0.05	292.60	296.65	295.33	292.77	292.70
MV12865	5.99	Max WS	TR200_2h	2.02	0.00	2.02	0.00					292.60	296.32	295.21	291.97	291.70
MV12865	5.99	Max WS	TR30_30min	2.33	0.00	2.33	0.00					292.60	296.45	295.26	292.07	291.79
MV12865	5.99	Max WS	TR30_1h	2.02	0.00	2.02	0.00					292.60	296.32	295.21	291.97	291.70
MV12865	5.99	Max WS	TR30_2h	1.44	0.00	1.44	0.00					292.60	296.04	295.12	291.77	291.54
MV12865	5.98	Max WS	TR200_30min	3.34	0.34	2.80	0.34		5.41	0.68	0.33	292.39	296.82	295.39	293.11	293.07
MV12865	5.98	Max WS	TR200_1h	2.85	0.05	2.79	0.05		2.54	0.31	0.16	292.39	296.65	295.33	292.77	292.70
MV12865	5.98	Max WS	TR200_2h	2.02	0.00	2.02	0.00					292.39	296.32	295.21	291.97	291.70
MV12865	5.98	Max WS	TR30_30min	2.33	0.00	2.33	0.00					292.39	296.45	295.26	292.07	291.79
MV12865	5.98	Max WS	TR30_1h	2.02	0.00	2.02	0.00					292.39	296.32	295.21	291.97	291.70
MV12865	5.98	Max WS	TR30_2h	1.44	0.00	1.44	0.00					292.39	296.04	295.12	291.77	291.54
MV12865	3.99	Max WS	TR200_30min	2.80	0.00	2.79	0.00					288.49	291.46	289.27	288.77	288.34
MV12865	3.99	Max WS	TR200_1h	2.79	0.00	2.79	0.00					288.49	291.46	289.26	288.76	288.34
MV12865	3.99	Max WS	TR200_2h	2.02	0.00	2.02	0.00					288.49	290.86	289.03	288.51	288.17
MV12865	3.99	Max WS	TR30_30min	2.33	0.00	2.33	0.00					288.49	291.11	289.12	288.62	288.24
MV12865	3.99	Max WS	TR30_1h	2.02	0.00	2.02	0.00					288.49	290.86	289.03	288.52	288.16
MV12865	3.99	Max WS	TR30_2h	1.44	0.00	1.44	0.00					288.49	290.34	288.83	288.30	288.02
MV12865	3.98	Max WS	TR200_30min	2.80	-0.05	2.79	-0.05		1.33	0.37	0.25	289.39	291.47	289.27	288.77	288.34
MV12865	3.98	Max WS	TR200_1h	2.79	-0.03	2.79	-0.03		1.07	0.25	0.18	289.39	291.46	289.26	288.76	288.34
MV12865	3.98	Max WS	TR200_2h	2.02	0.00	2.02	0.00					289.39	290.86	289.03	288.51	288.17
MV12865	3.98	Max WS	TR30_30min	2.33	0.00	2.33	0.00					289.39	291.11	289.13	288.62	288.24
MV12865	3.98	Max WS	TR30_1h	2.02	0.00	2.02	0.00					289.39	290.86	289.03	288.52	288.16
MV12865	3.98	Max WS	TR30_2h	1.44	0.00	1.44	0.00					289.39	290.34	288.83	288.30	288.02
MV12865	2.77	Max WS	TR200_30min	2.80	0.55	2.27	0.55		6.28	0.45	0.30	285.91	286.36	286.35	286.36	286.36
MV12865	2.77	Max WS	TR200_1h	2.79	0.54	2.25	0.54		6.28	0.43	0.29	285.91	286.35	286.34	286.35	286.35
MV12865	2.77	Max WS	TR200_2h	2.02	0.09	1.93	0.09		2.93	0.20	0.14	285.91	286.12	286.11	286.12	286.11
MV12865	2.77	Max WS	TR30_30min	2.33	0.26	2.07	0.26		6.28	0.31	0.16	285.91	286.23	286.22	286.23	286.22
MV12865	2.77	Max WS	TR30_1h	2.02	0.09	1.93	0.09		2.93	0.20	0.14	285.91	286.12	286.11	286.12	286.11
MV12865	2.77	Max WS	TR30_2h	1.44	0.00	1.44	0.00					285.91	285.71	285.70	285.71	285.70
MV12865	2.76	Max WS	TR200_30min	2.80	0.63	1.64	0.63		2.37	0.96	0.96	285.40	286.36	286.35	286.37	286.36
MV12865	2.76	Max WS	TR200_1h	2.79	0.62	1.63	0.62		2.37	0.95	0.95	285.40	286.35	286.34	286.35	286.35
MV12865	2.76	Max WS	TR200_2h	2.02	0.40	1.53	0.40		2.37	0.71	0.71	285.40	286.12	286.11	286.12	286.11
MV12865	2.76	Max WS	TR30_30min	2.33	0.50	1.58	0.50		2.37	0.82	0.82	285.40	286.23	286.22	286.23	286.22
MV12865	2.76	Max WS	TR30_1h	2.02	0.40	1.53	0.40		2.37	0.71	0.71	285.40	286.12	286.11	286.12	286.11
MV12865	2.76	Max WS	TR30_2h	1.44	0.11	1.33	0.11		2.37	0.30	0.30	285.40	285.71	285.70	285.71	285.70



MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Destra Idraulica

Lora MV15982



Legend	
WS Max WS - TR200_30min	
WS Max WS - TR30_30min	
Lat Struct	
Ground	

0.1

0.91

0.99

1.6000*

1.91

1.95

2.1111*

2.2222*

2.3333*

2.4444*

2.5556*

2.6667*

2.7778*

2.8889*

3

3.1111*

3.2222*

3.3333*

3.4444*

3.5556*

3.6667*

3.7778*

3.8889*

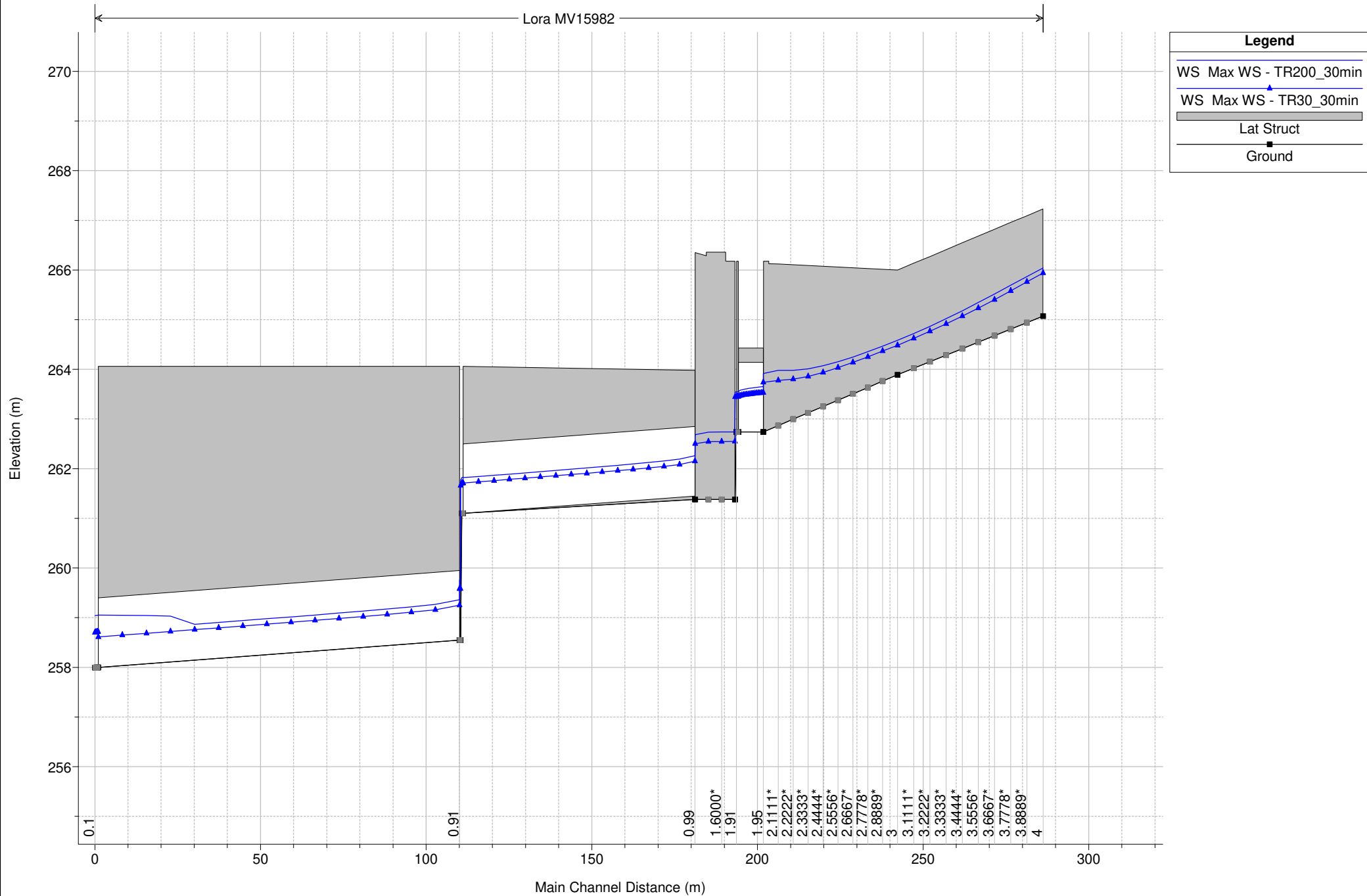
4

1 cm Horiz. = 15 m 1 cm Vert. = 1 m

MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Sinistra Idraulica

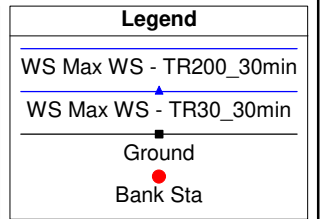
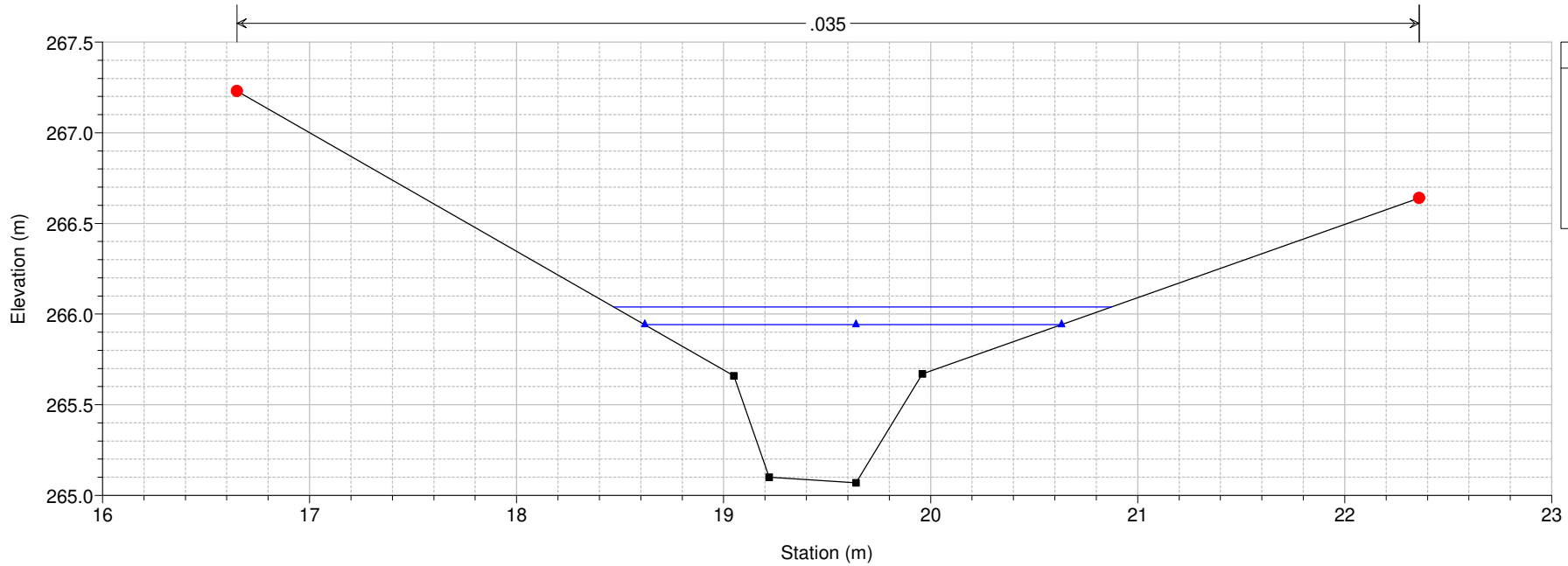
Lora MV15982



1 cm Horiz. = 15 m 1 cm Vert. = 1 m

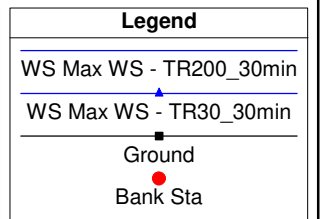
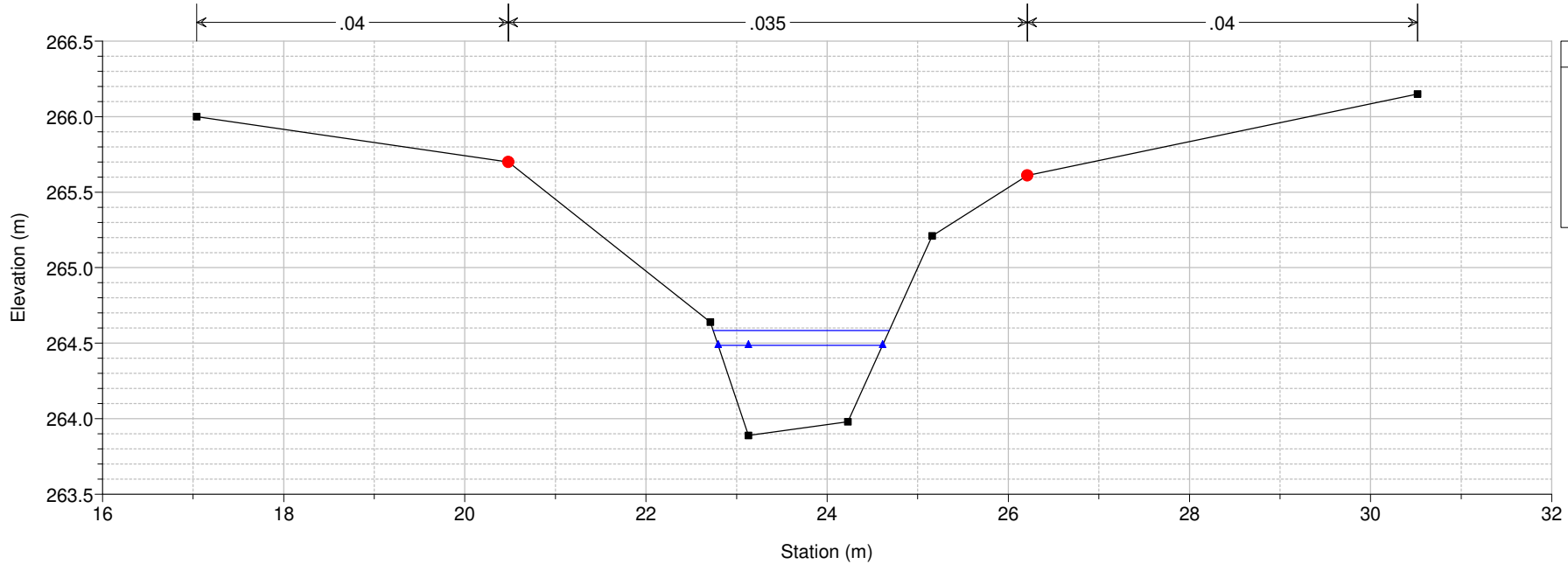
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 4 sez. 01 rilievo 2024



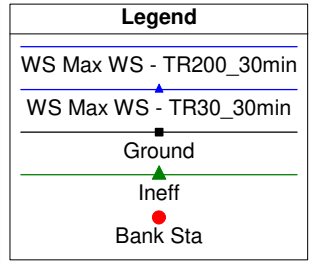
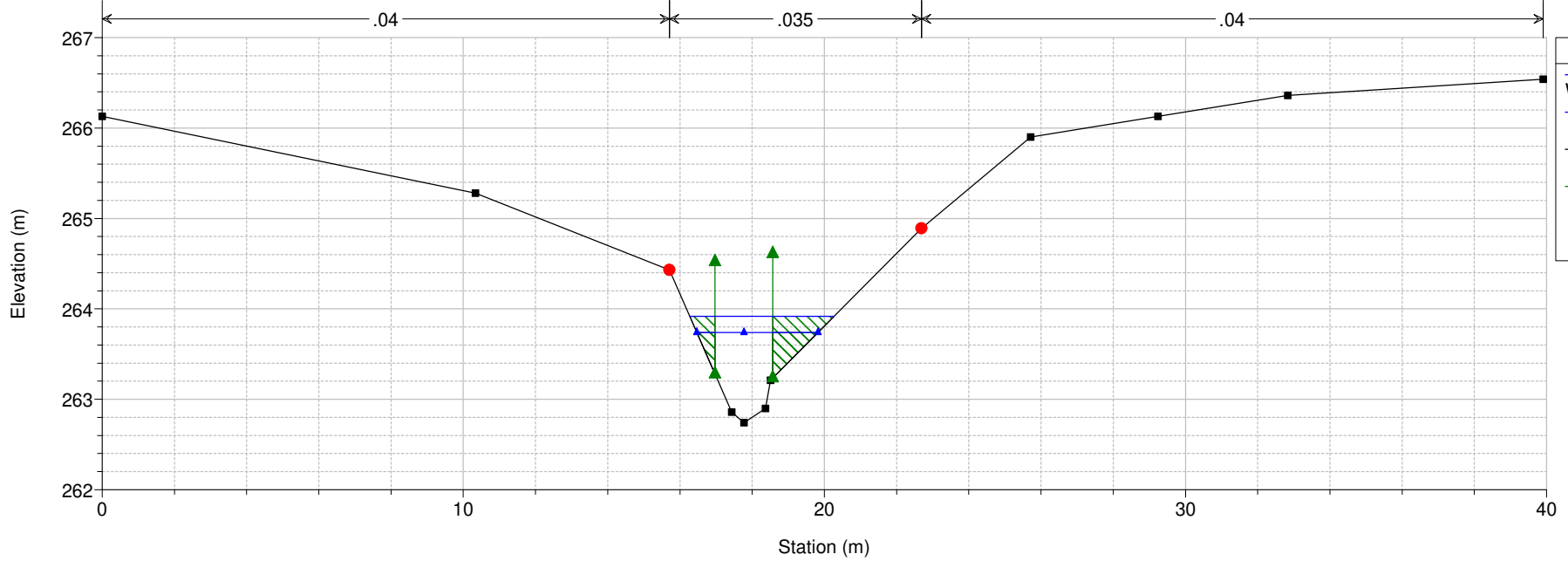
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 3 sez. 02 rilievo 2024



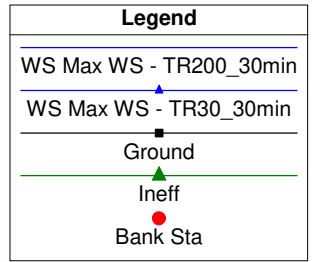
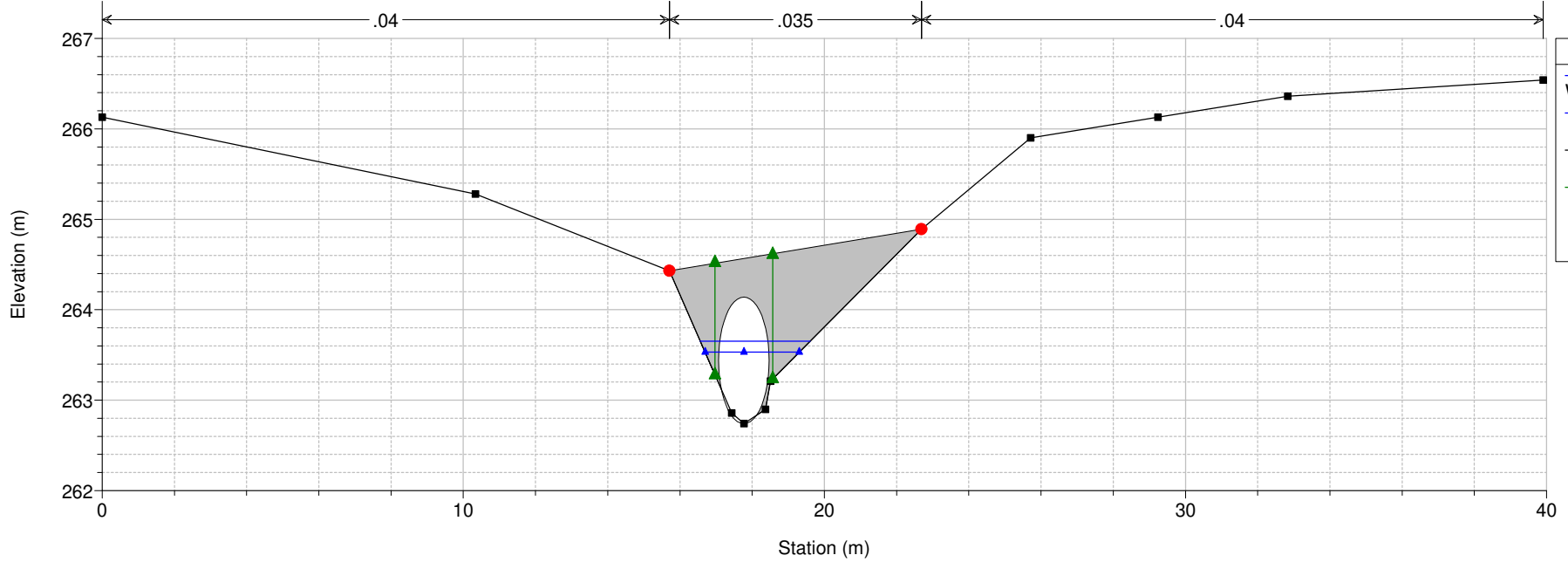
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 2 sez. 03 rilievo 2024

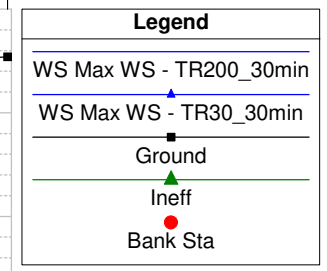
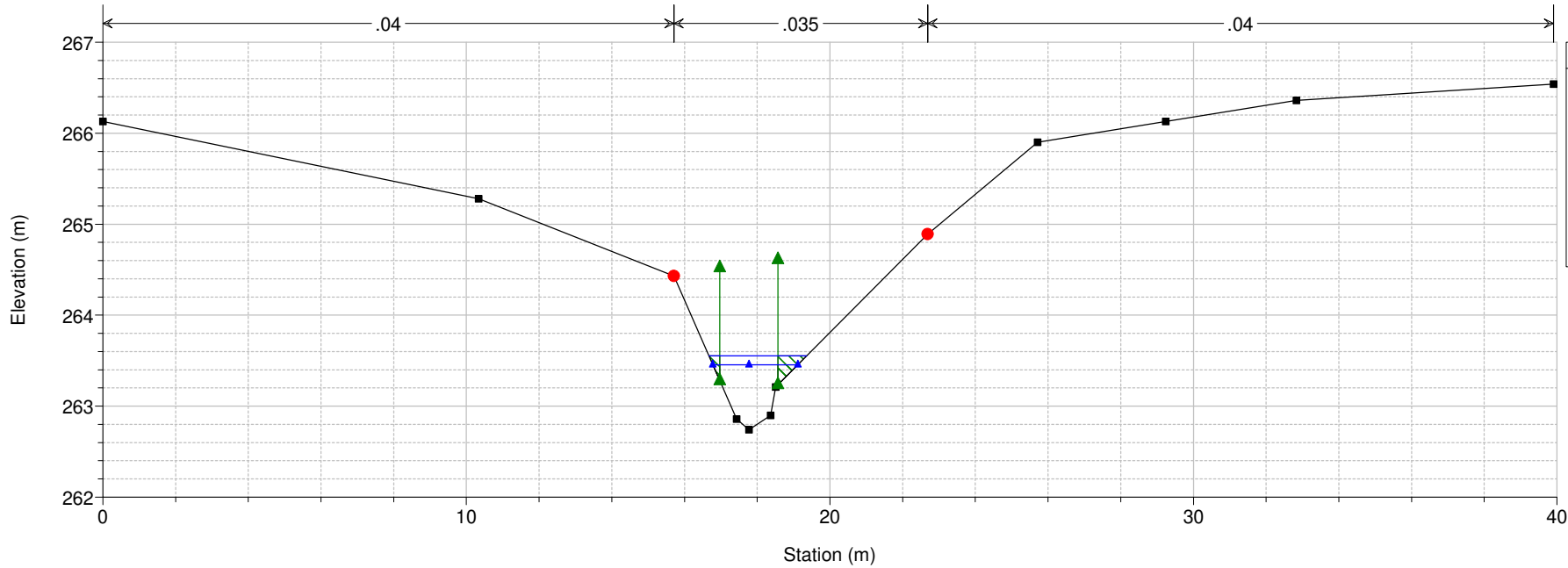


MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

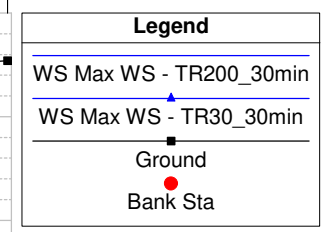
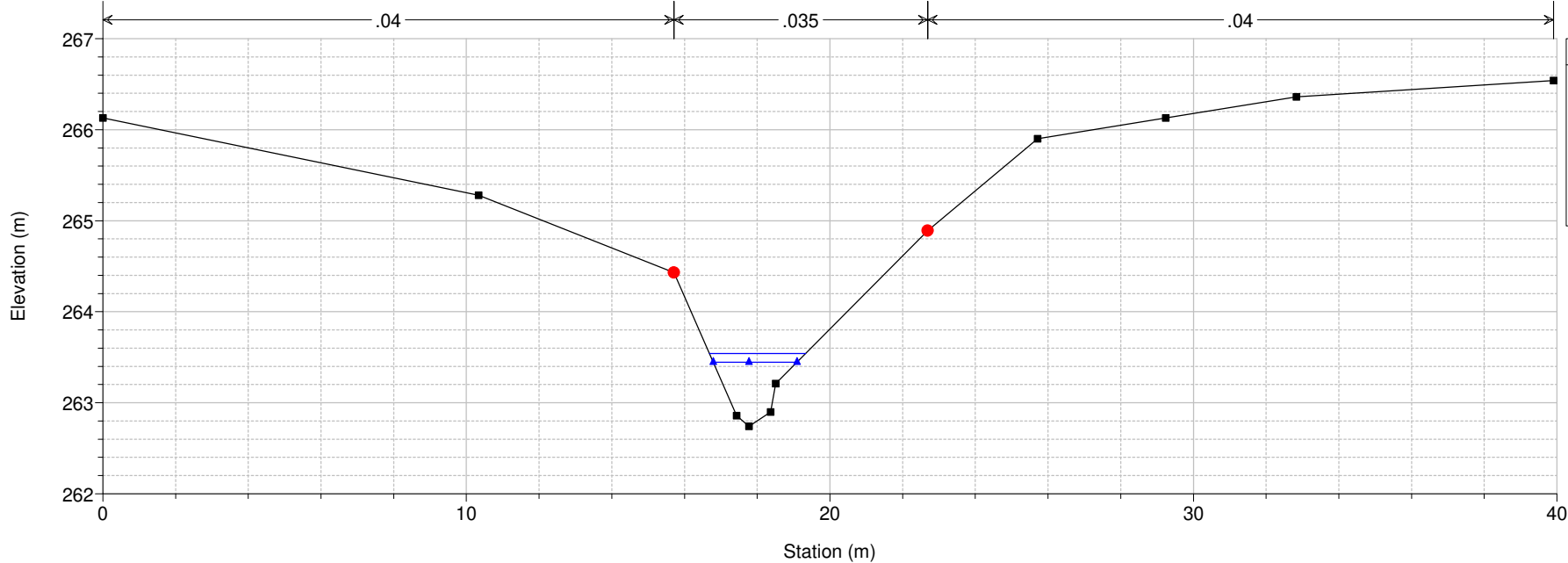
River = Lora Reach = MV15982 RS = 1.95 Culv



MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min
 River = Lora Reach = MV15982 RS = 1.93 copia sez. 03 rilievo 2024 valle BR

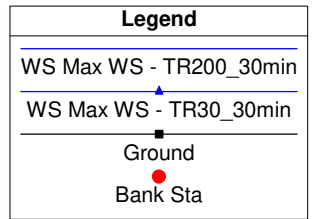
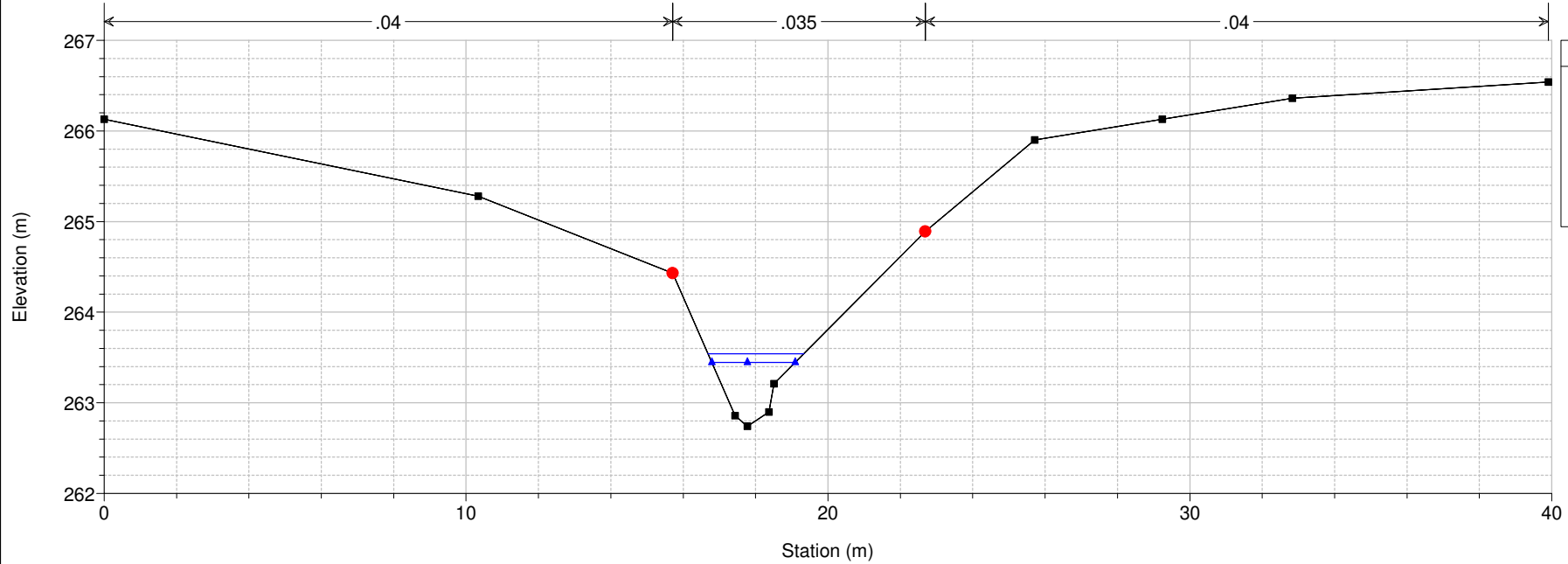


MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min
 River = Lora Reach = MV15982 RS = 1.92 copia sez. 03 rilievo 2024 monte IS



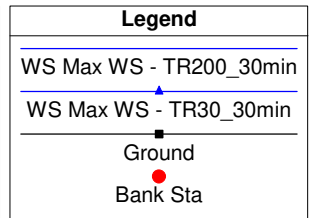
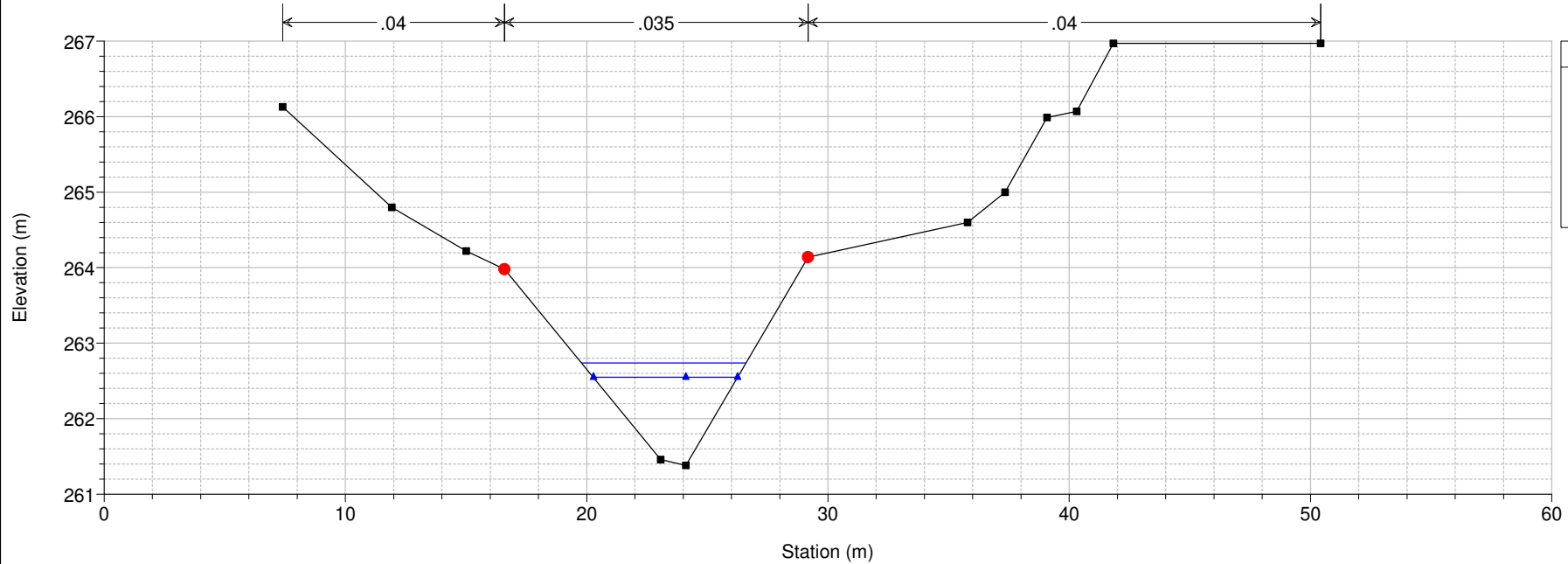
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 1.91 IS



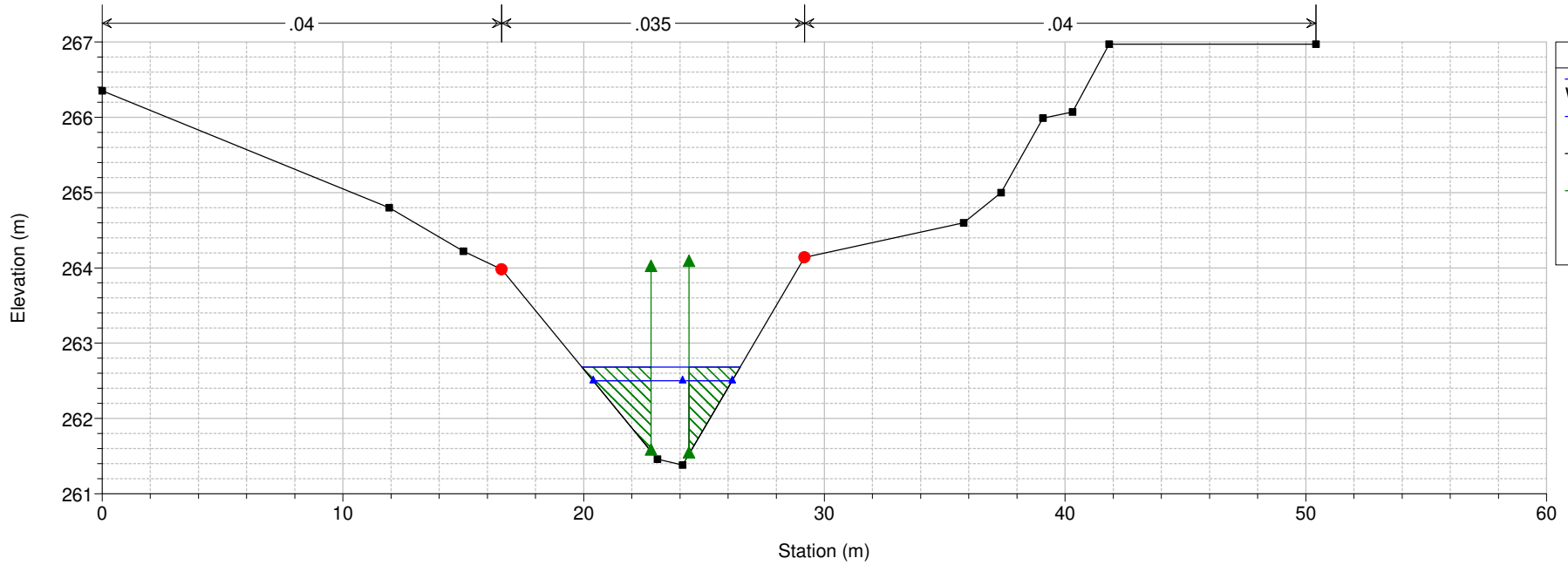
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 1.90 copia sez. 04 rilievo 2024



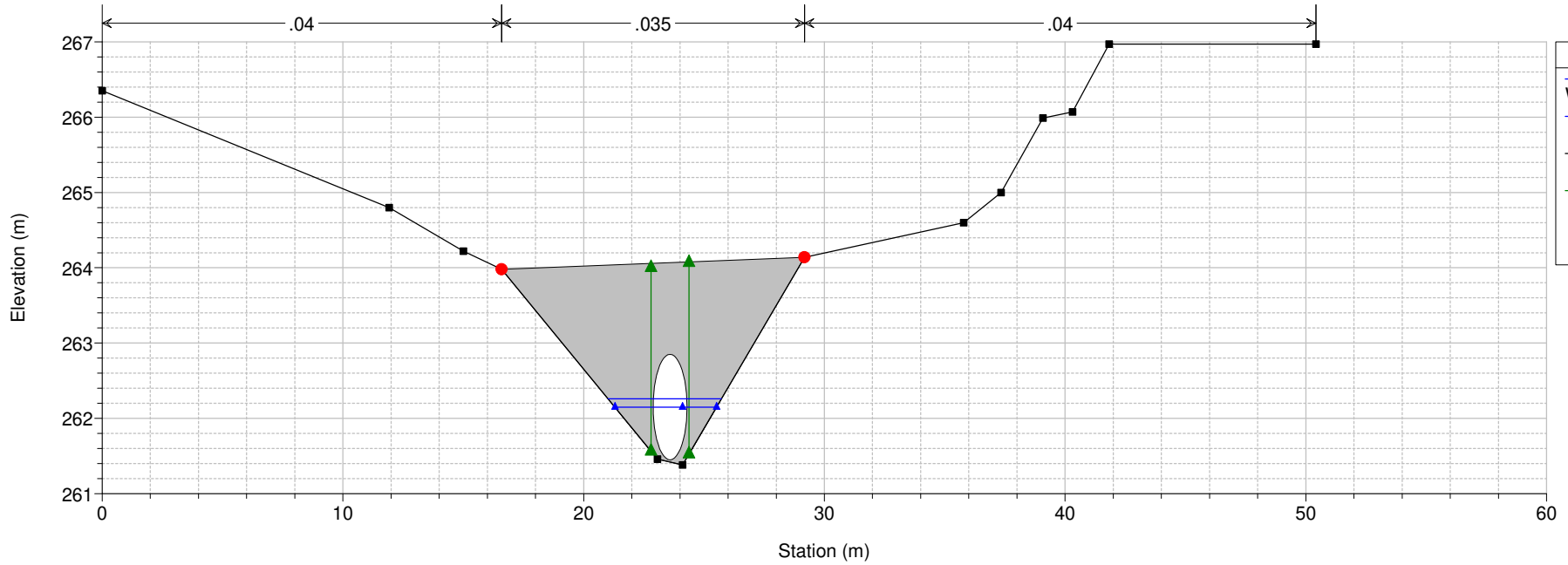
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 1 sez. 04 rilievo 2024



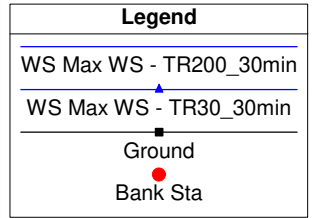
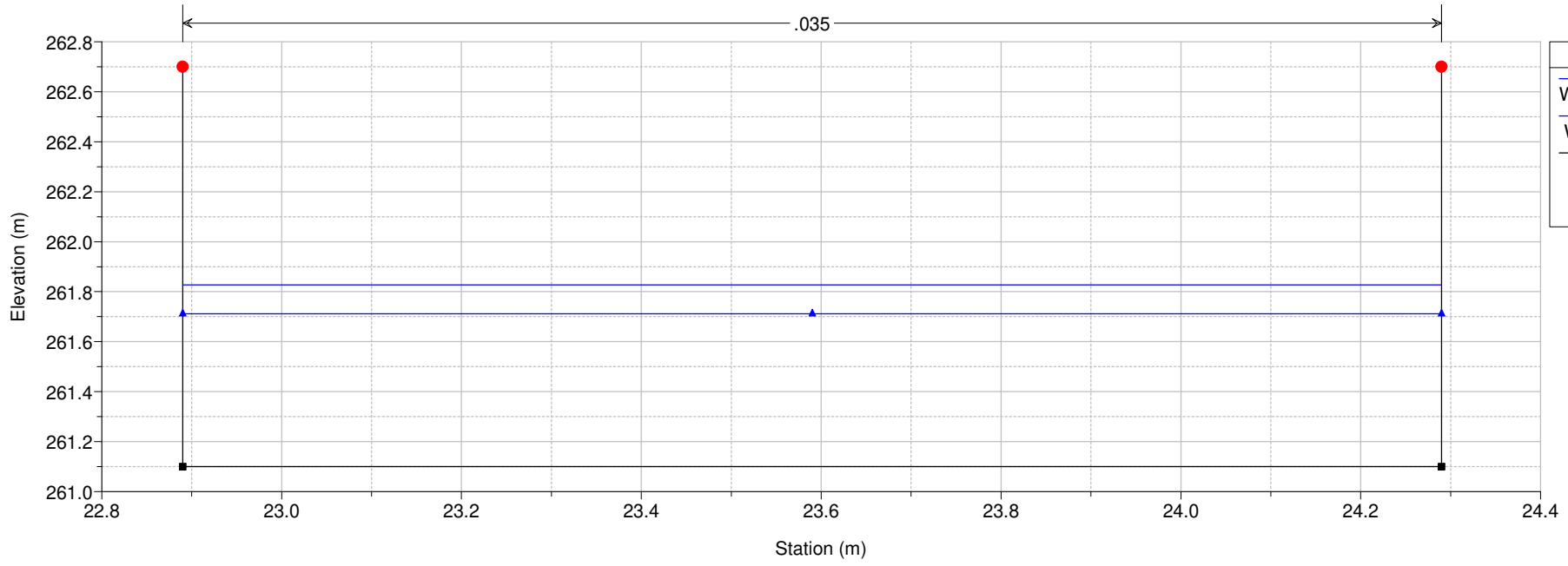
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.99 Culv



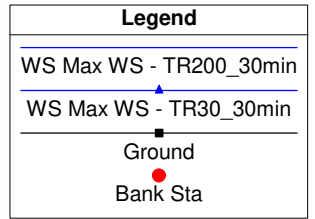
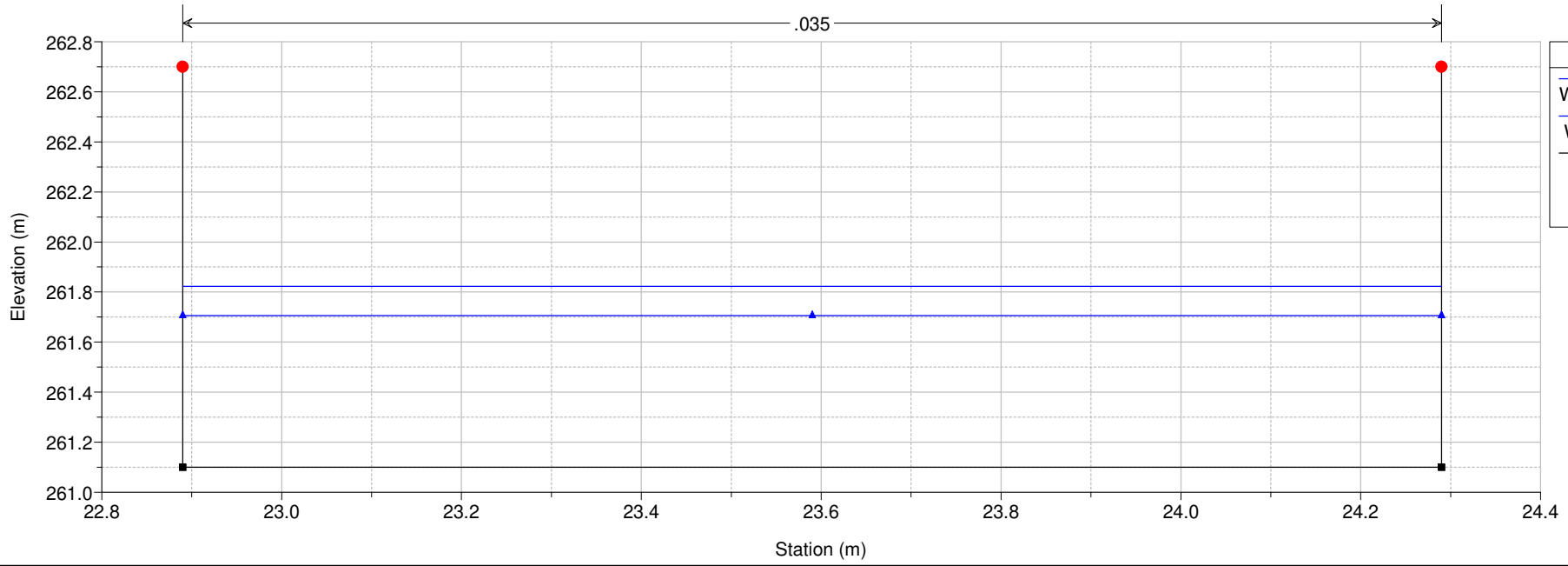
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.98



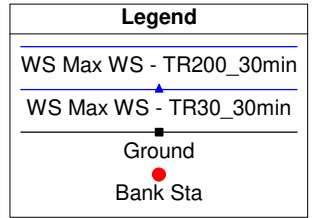
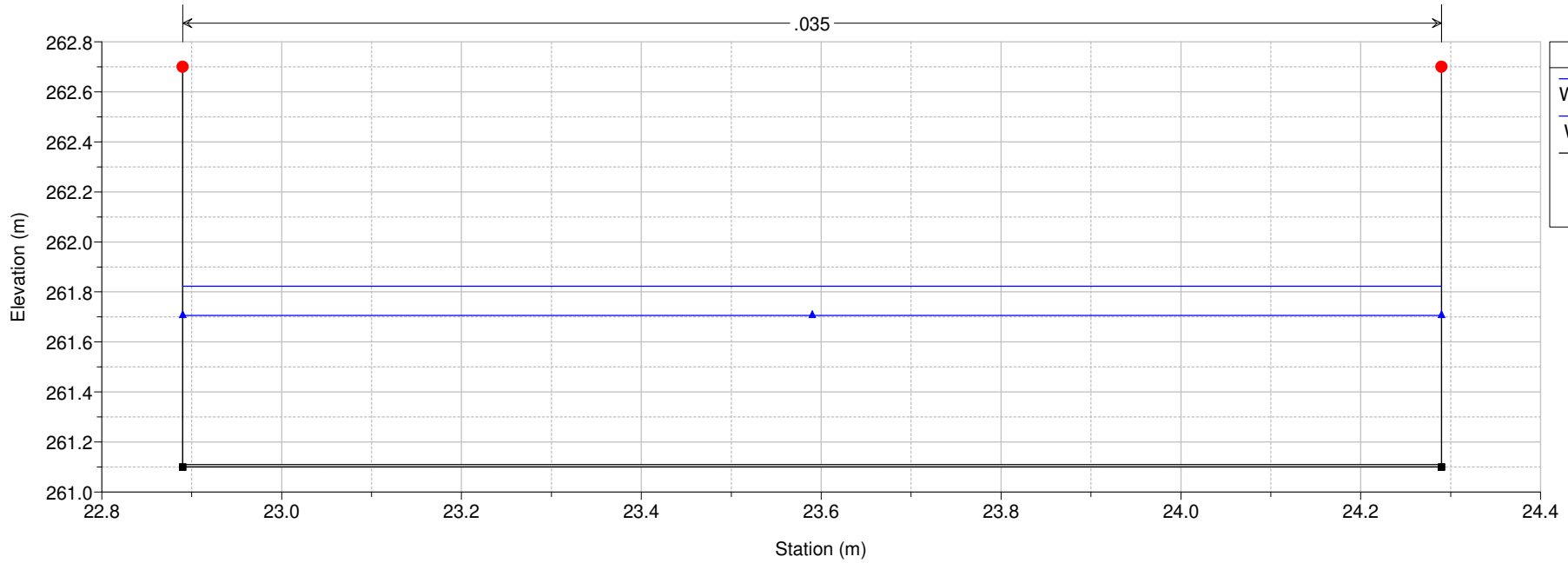
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.96



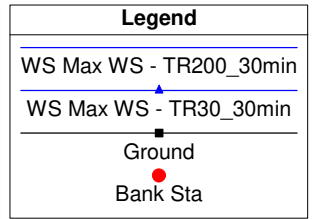
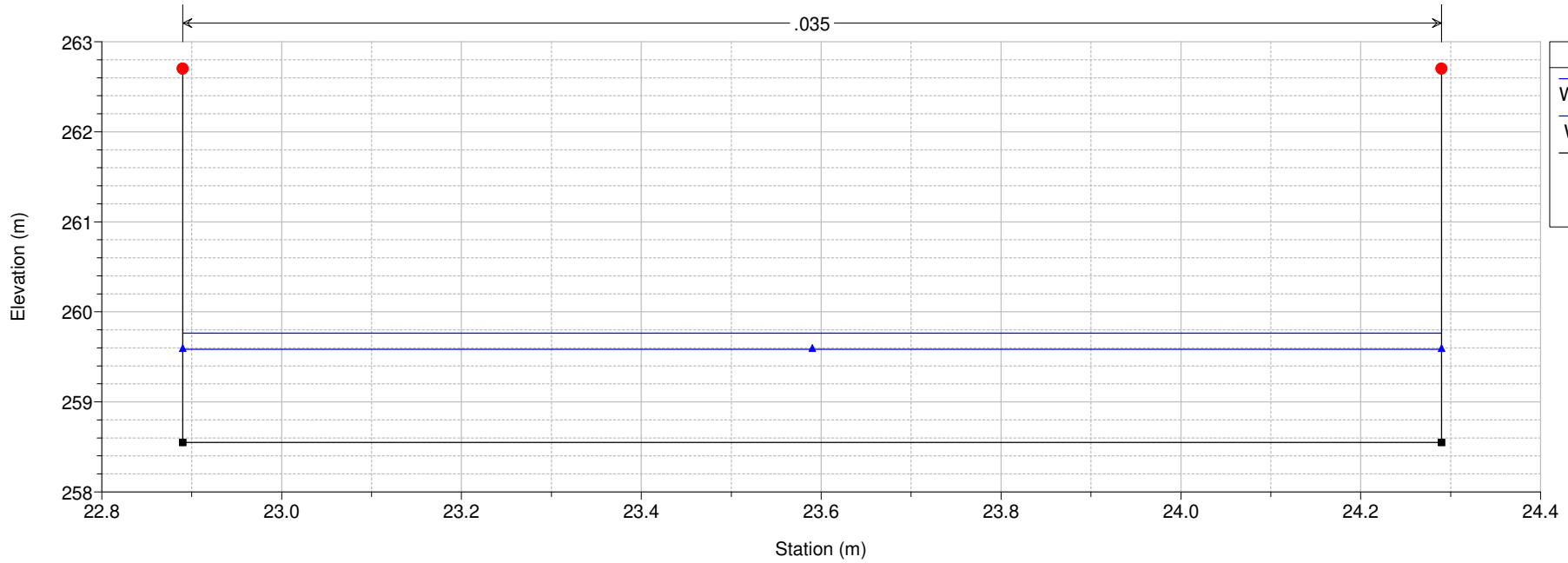
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.95 IS



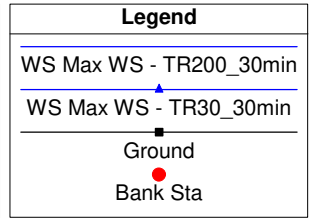
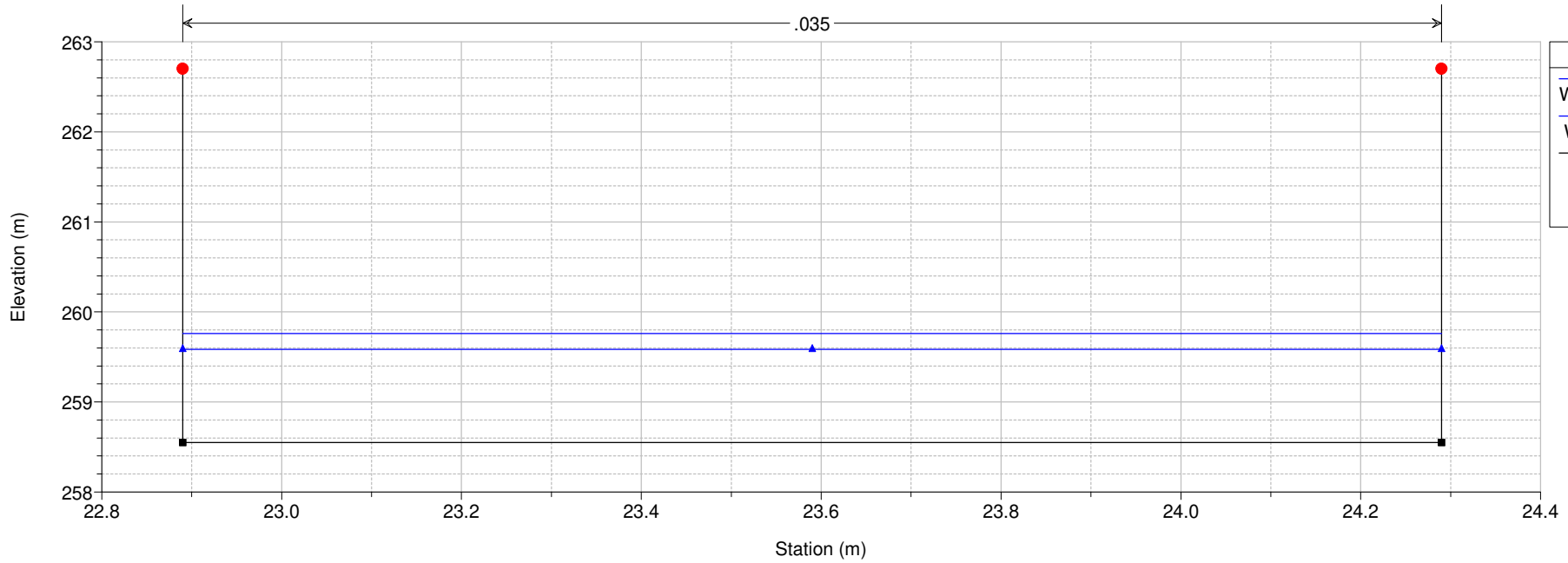
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.94



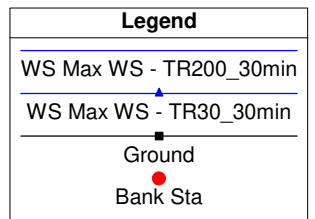
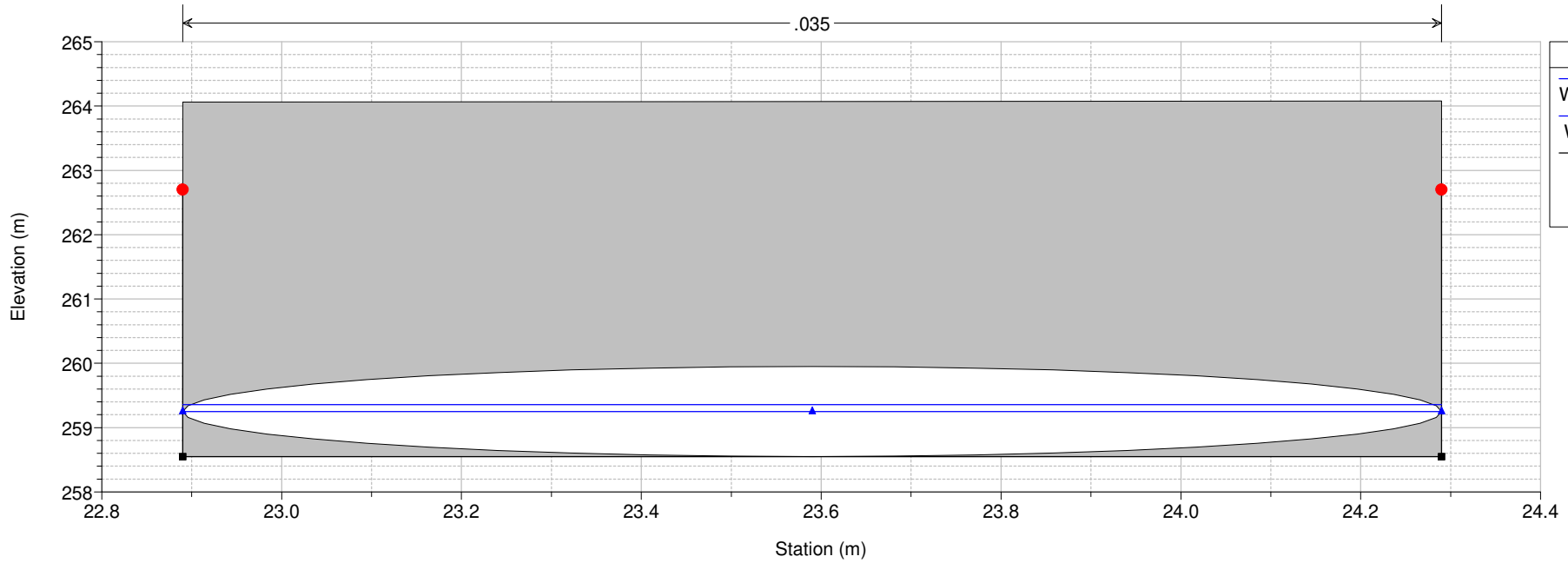
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.92



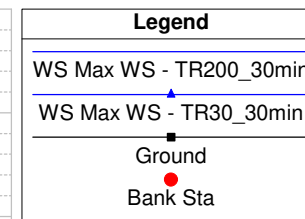
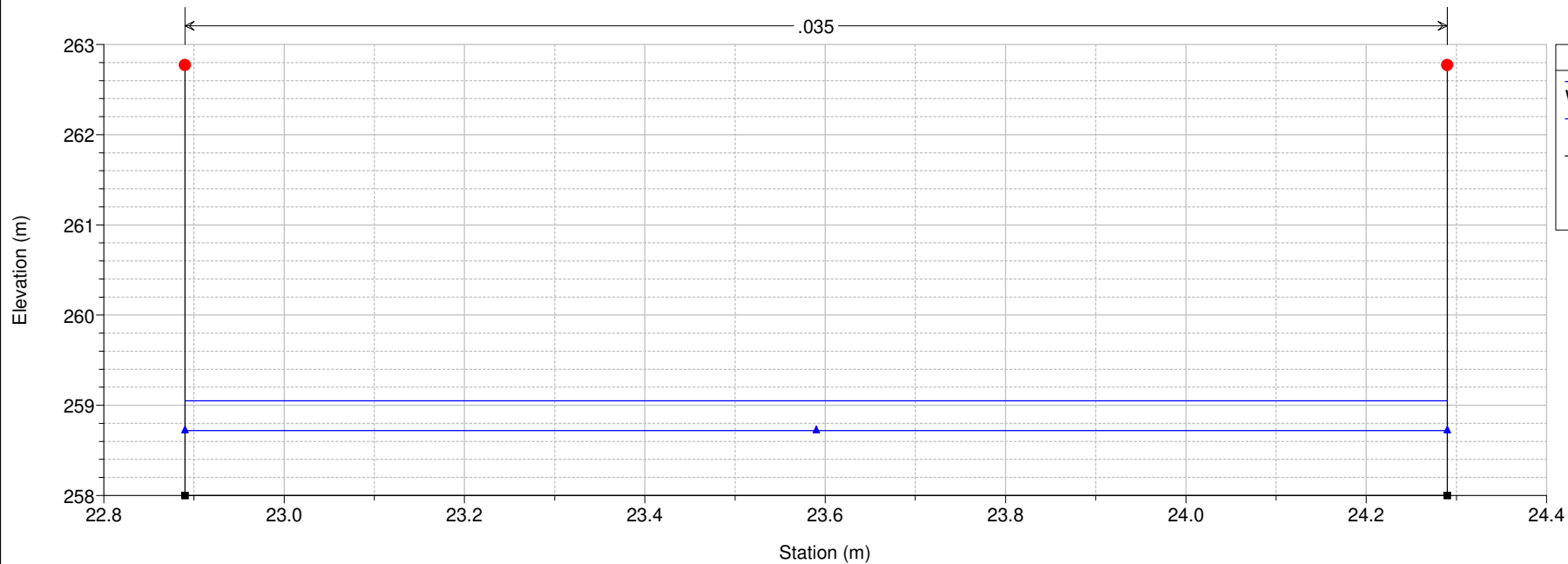
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.91 Culv



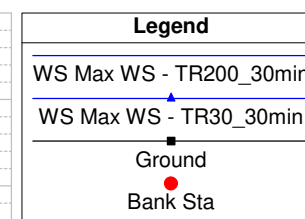
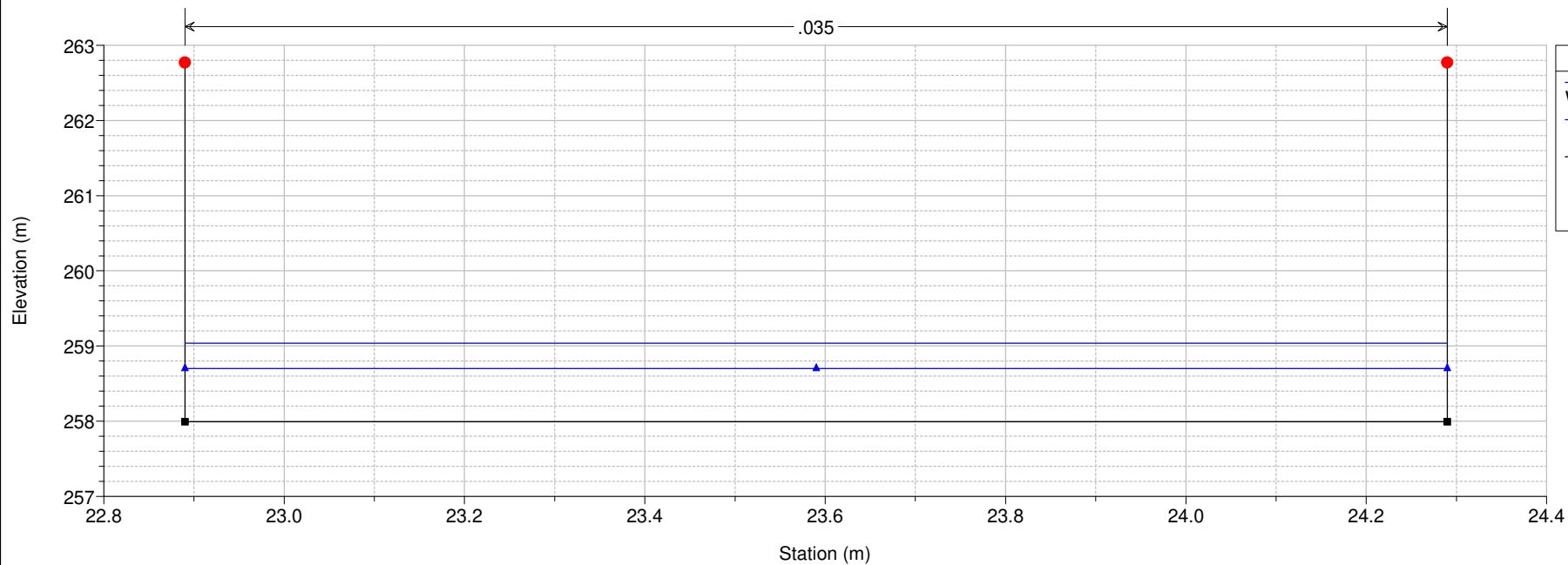
MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.9 sbocco



MV15982_Lora Plan: 1) TR200_30min 2) TR30_30min

River = Lora Reach = MV15982 RS = 0.1 sbocco



Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15982	4	Max WS	TR200_30min	2.37	265.07	266.04	266.09	266.32	0.033929	2.35	1.01	2.41	1.16
MV15982	4	Max WS	TR200_1h	1.62	265.07	265.91	265.96	266.16	0.037142	2.25	0.72	1.87	1.16
MV15982	4	Max WS	TR200_2h	1.04	265.07	265.75	265.80	265.99	0.040957	2.18	0.48	1.24	1.12
MV15982	4	Max WS	TR30_30min	1.79	265.07	265.94	265.99	266.20	0.036010	2.27	0.79	2.01	1.15
MV15982	4	Max WS	TR30_1h	1.22	265.07	265.80	265.86	266.05	0.040317	2.21	0.55	1.46	1.15
MV15982	4	Max WS	TR30_2h	0.78	265.07	265.65	265.66	265.87	0.038291	2.08	0.38	0.90	1.03
MV15982	3.99												
MV15982				Lat Struct									
MV15982	3.98												
MV15982				Lat Struct									
MV15982	3	Max WS	TR200_30min	2.37	263.89	264.58	264.61	264.88	0.026306	2.40	0.99	1.95	1.07
MV15982	3	Max WS	TR200_1h	1.62	263.89	264.45	264.48	264.69	0.026639	2.17	0.75	1.77	1.07
MV15982	3	Max WS	TR200_2h	1.04	263.89	264.33	264.35	264.52	0.026748	1.92	0.54	1.62	1.06
MV15982	3	Max WS	TR30_30min	1.79	263.89	264.49	264.51	264.74	0.026611	2.23	0.80	1.82	1.07
MV15982	3	Max WS	TR30_1h	1.22	263.89	264.37	264.39	264.58	0.026716	2.01	0.61	1.67	1.06
MV15982	3	Max WS	TR30_2h	0.78	263.89	264.27	264.28	264.43	0.026859	1.77	0.44	1.53	1.05
MV15982	2	Max WS	TR200_30min	2.36	262.74	263.92		264.03	0.003680	1.48	1.59	4.00	0.48
MV15982	2	Max WS	TR200_1h	1.41	262.74	263.71		263.77	0.002886	1.12	1.26	3.25	0.40
MV15982	2	Max WS	TR200_2h	0.84	262.74	263.50		263.54	0.002921	0.91	0.92	2.49	0.39
MV15982	2	Max WS	TR30_30min	1.79	262.74	263.74		263.83	0.004086	1.37	1.30	3.36	0.48
MV15982	2	Max WS	TR30_1h	1.20	262.74	263.65		263.70	0.002766	1.04	1.16	3.02	0.39
MV15982	2	Max WS	TR30_2h	0.78	262.74	263.47		263.51	0.002927	0.89	0.87	2.39	0.38
MV15982	1.95												
MV15982				Culvert									
MV15982	1.93	Max WS	TR200_30min	2.36	262.74	263.55	263.53	263.83	0.016993	2.35	1.01	2.69	0.95
MV15982	1.93	Max WS	TR200_1h	1.62	262.74	263.43	263.40	263.63	0.016531	2.00	0.81	2.25	0.90
MV15982	1.93	Max WS	TR200_2h	1.04	262.74	263.29	263.27	263.45	0.019395	1.76	0.59	1.76	0.92
MV15982	1.93	Max WS	TR30_30min	1.79	262.74	263.45	263.43	263.68	0.017060	2.10	0.85	2.34	0.92
MV15982	1.93	Max WS	TR30_1h	1.35	262.74	263.36	263.34	263.55	0.018609	1.93	0.70	2.00	0.93
MV15982	1.93	Max WS	TR30_2h	0.85	262.74	263.23	263.22	263.38	0.021941	1.71	0.50	1.55	0.96
MV15982	1.929												
MV15982				Lat Struct									
MV15982	1.928												
MV15982				Lat Struct									
MV15982	1.92	Max WS	TR200_30min	2.36	262.74	263.54	263.54	263.76	0.020564	2.06	1.15	2.65	1.00
MV15982	1.92	Max WS	TR200_1h	1.60	262.74	263.42	263.41	263.60	0.020863	1.90	0.85	2.21	0.98
MV15982	1.92	Max WS	TR200_2h	1.04	262.74	263.28	263.28	263.45	0.022758	1.80	0.58	1.72	0.99
MV15982	1.92	Max WS	TR30_30min	1.77	262.74	263.44	263.44	263.64	0.021514	1.96	0.90	2.30	1.00
MV15982	1.92	Max WS	TR30_1h	1.34	262.74	263.35	263.35	263.54	0.023469	1.92	0.70	1.96	1.02
MV15982	1.92	Max WS	TR30_2h	0.84	262.74	263.22	263.22	263.38	0.023488	1.76	0.48	1.51	0.99
MV15982	1.91												
MV15982				Inl Struct									
MV15982	1.90	Max WS	TR200_30min	2.36	261.38	262.74	261.98	262.75	0.000413	0.46	5.17	6.82	0.17
MV15982	1.90	Max WS	TR200_1h	1.62	261.38	262.49	261.87	262.50	0.000510	0.45	3.60	5.72	0.18
MV15982	1.90	Max WS	TR200_2h	1.04	261.38	262.27	261.78	262.28	0.000601	0.43	2.44	4.74	0.19
MV15982	1.90	Max WS	TR30_30min	1.79	261.38	262.55	261.90	262.56	0.000486	0.45	3.95	5.98	0.18
MV15982	1.90	Max WS	TR30_1h	1.25	261.38	262.35	261.82	262.36	0.000567	0.44	2.85	5.11	0.19
MV15982	1.90	Max WS	TR30_2h	0.79	261.38	262.15	261.73	262.16	0.000650	0.41	1.92	4.23	0.19
MV15982	1.89												
MV15982				Lat Struct									
MV15982	1.88												
MV15982				Lat Struct									
MV15982	1	Max WS	TR200_30min	2.36	261.38	262.68		262.76	0.001393	1.20	1.96	6.58	0.34
MV15982	1	Max WS	TR200_1h	1.62	261.38	262.45		262.50	0.001330	1.02	1.59	5.53	0.32
MV15982	1	Max WS	TR200_2h	1.04	261.38	262.24		262.27	0.001206	0.83	1.25	4.60	0.30
MV15982	1	Max WS	TR30_30min	1.79	261.38	262.50		262.56	0.001351	1.07	1.68	5.78	0.33
MV15982	1	Max WS	TR30_1h	1.25	261.38	262.32		262.36	0.001262	0.90	1.38	4.96	0.31
MV15982	1	Max WS	TR30_2h	0.78	261.38	262.12		262.15	0.001116	0.72	1.08	4.12	0.28
MV15982	0.99												
MV15982				Culvert									
MV15982	0.98	Max WS	TR200_30min	2.36	261.10	261.83	261.76	262.10	0.025959	2.32	1.02	1.40	0.87
MV15982	0.98	Max WS	TR200_1h	1.62	261.10	261.67	261.61	261.88	0.022973	2.01	0.80	1.40	0.85
MV15982	0.98	Max WS	TR200_2h	1.04	261.10	261.54	261.48	261.68	0.020241	1.70	0.61	1.40	0.82
MV15982	0.98	Max WS	TR30_30min	1.78	261.10	261.71	261.65	261.93	0.023694	2.08	0.86	1.40	0.85
MV15982	0.98	Max WS	TR30_1h	1.25	261.10	261.59	261.53	261.76	0.021071	1.81	0.69	1.40	0.83
MV15982	0.98	Max WS	TR30_2h	0.78	261.10	261.47	261.42	261.58	0.018805	1.52	0.51	1.40	0.80
MV15982	0.96	Max WS	TR200_30min	2.36	261.10	261.82	261.76	262.10	0.026447	2.33	1.01	1.40	0.88
MV15982	0.96	Max WS	TR200_1h	1.62	261.10	261.67	261.61	261.88	0.023480	2.02	0.80	1.40	0.86
MV15982	0.96	Max WS	TR200_2h	1.04	261.10	261.53	261.48	261.68	0.020809	1.71	0.61	1.40	0.83
MV15982	0.96	Max WS	TR30_30min	1.78	261.10	261.71	261.65	261.93	0.024214	2.10	0.85	1.40	0.86
MV15982	0.96	Max WS	TR30_1h	1.25	261.10	261.59	261.53	261.76	0.021584	1.83	0.68	1.40	0.84
MV15982	0.96	Max WS	TR30_2h	0.78	261.10	261.46	261.42	261.58	0.019353	1.53	0.51	1.40	0.81
MV15982	0.95												
MV15982				Inl Struct									
MV15982	0.94	Max WS	TR200_30min	2.36	258.55	259.76	259.21	259.86	0.006982	1.39	1.70	1.40	0.40
MV15982	0.94	Max WS	TR200_1h	1.62	258.55	259.53	259.06	259.60	0.005600	1.18	1.37	1.40	0.38
MV15982	0.94	Max WS	TR200_2h	1.04	258.55	259.32	258.93	259.37	0.004303	0.96	1.08	1.40	0.35
MV15982	0.94	Max WS	TR30_30min	1.79	258.55	259.59	259.10	259.66	0.005953	1.23	1.45	1.40	0.39
MV15982	0.94	Max WS	TR30_1h	1.25	258.55	259.40	258.98	259.46	0.004834	1.05	1.19	1.40	0.36

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15982	0.94	Max WS	TR30_2h	0.78	258.55	259.22	258.87	259.25	0.003598	0.84	0.93	1.40	0.33
MV15982	0.92	Max WS	TR200_30min	2.36	258.55	259.76		259.86	0.007009	1.39	1.70	1.40	0.40
MV15982	0.92	Max WS	TR200_1h	1.62	258.55	259.53		259.60	0.005622	1.18	1.37	1.40	0.38
MV15982	0.92	Max WS	TR200_2h	1.04	258.55	259.32		259.37	0.004321	0.96	1.08	1.40	0.35
MV15982	0.92	Max WS	TR30_30min	1.79	258.55	259.58		259.66	0.005975	1.23	1.45	1.40	0.39
MV15982	0.92	Max WS	TR30_1h	1.25	258.55	259.40		259.46	0.004852	1.05	1.19	1.40	0.36
MV15982	0.92	Max WS	TR30_2h	0.78	258.55	259.21		259.25	0.003611	0.84	0.93	1.40	0.33
MV15982	0.91			Culvert									
MV15982	0.9	Max WS	TR200_30min	2.36	258.00	259.05	258.66	259.18	0.009992	1.60	1.47	1.40	0.50
MV15982	0.9	Max WS	TR200_1h	1.62	258.00	259.05	258.51	259.11	0.004761	1.10	1.46	1.40	0.34
MV15982	0.9	Max WS	TR200_2h	1.04	258.00	259.04	258.38	259.07	0.001974	0.71	1.46	1.40	0.22
MV15982	0.9	Max WS	TR30_30min	1.78	258.00	258.72	258.55	258.88	0.015345	1.77	1.01	1.40	0.67
MV15982	0.9	Max WS	TR30_1h	1.23	258.00	258.71	258.43	258.79	0.007553	1.24	0.99	1.40	0.47
MV15982	0.9	Max WS	TR30_2h	0.77	258.00	258.70	258.31	258.73	0.003039	0.78	0.98	1.40	0.30
MV15982	0.1	Max WS	TR200_30min	0.10	257.99	259.04	258.08	259.04	0.000018	0.07	1.46	1.40	0.02
MV15982	0.1	Max WS	TR200_1h	0.10	257.99	259.04	258.08	259.04	0.000018	0.07	1.46	1.40	0.02
MV15982	0.1	Max WS	TR200_2h	0.10	257.99	259.04	258.08	259.04	0.000018	0.07	1.46	1.40	0.02
MV15982	0.1	Max WS	TR30_30min	0.10	257.99	258.70	258.08	258.70	0.000051	0.10	0.99	1.40	0.04
MV15982	0.1	Max WS	TR30_1h	0.10	257.99	258.70	258.08	258.70	0.000051	0.10	0.99	1.40	0.04
MV15982	0.1	Max WS	TR30_2h	0.10	257.99	258.70	258.08	258.70	0.000051	0.10	0.99	1.40	0.04

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV15982	3.99	Max WS	TR200_30min	2.37	0.00	2.36	0.00		1.87	0.02	0.01	266.15	266.32	266.04	264.03	263.92
MV15982	3.99	Max WS	TR200_1h	1.62	0.00	1.41	0.00		1.87	0.02	0.01	266.15	266.16	265.91	263.77	263.71
MV15982	3.99	Max WS	TR200_2h	1.04	0.00	0.84	0.00		1.87	0.02	0.01	266.15	265.99	265.75	263.54	263.50
MV15982	3.99	Max WS	TR30_30min	1.79	0.00	1.79	0.00		1.87	0.02	0.01	266.15	266.20	265.94	263.83	263.74
MV15982	3.99	Max WS	TR30_1h	1.22	0.00	1.20	0.00		1.87	0.02	0.01	266.15	266.05	265.80	263.70	263.65
MV15982	3.99	Max WS	TR30_2h	0.78	0.00	0.78	0.00		1.87	0.02	0.01	266.15	265.87	265.65	263.51	263.47
MV15982	3.98	Max WS	TR200_30min	2.37	0.00	2.36	0.00					266.00	266.32	266.04	264.03	263.92
MV15982	3.98	Max WS	TR200_1h	1.62	0.00	1.41	0.00					266.00	266.16	265.91	263.77	263.71
MV15982	3.98	Max WS	TR200_2h	1.04	0.00	0.84	0.00					266.00	265.99	265.75	263.54	263.50
MV15982	3.98	Max WS	TR30_30min	1.79	0.00	1.79	0.00					266.00	266.20	265.94	263.83	263.74
MV15982	3.98	Max WS	TR30_1h	1.22	0.00	1.20	0.00					266.00	266.05	265.80	263.70	263.65
MV15982	3.98	Max WS	TR30_2h	0.78	0.00	0.78	0.00					266.00	265.87	265.65	263.51	263.47
MV15982	1.929	Max WS	TR200_30min	2.36	0.00	2.36	0.00					266.54	263.83	263.55	263.76	263.54
MV15982	1.929	Max WS	TR200_1h	1.62	0.00	1.60	0.00					266.54	263.63	263.43	263.60	263.42
MV15982	1.929	Max WS	TR200_2h	1.04	0.00	1.04	0.00					266.54	263.45	263.29	263.45	263.28
MV15982	1.929	Max WS	TR30_30min	1.79	0.00	1.77	0.00					266.54	263.68	263.45	263.64	263.44
MV15982	1.929	Max WS	TR30_1h	1.35	0.00	1.34	0.00					266.54	263.55	263.36	263.54	263.35
MV15982	1.929	Max WS	TR30_2h	0.85	0.00	0.84	0.00					266.54	263.38	263.23	263.38	263.22
MV15982	1.928	Max WS	TR200_30min	2.36	0.00	2.36	0.00					266.18	263.83	263.55	263.76	263.54
MV15982	1.928	Max WS	TR200_1h	1.62	0.00	1.60	0.00					266.18	263.63	263.43	263.60	263.42
MV15982	1.928	Max WS	TR200_2h	1.04	0.00	1.04	0.00					266.18	263.45	263.29	263.45	263.28
MV15982	1.928	Max WS	TR30_30min	1.79	0.00	1.77	0.00					266.18	263.68	263.45	263.64	263.44
MV15982	1.928	Max WS	TR30_1h	1.35	0.00	1.34	0.00					266.18	263.55	263.36	263.54	263.35
MV15982	1.928	Max WS	TR30_2h	0.85	0.00	0.84	0.00					266.18	263.38	263.23	263.38	263.22
MV15982	1.89	Max WS	TR200_30min	2.36	0.00	2.36	0.00					266.96	262.75	262.74	262.76	262.68
MV15982	1.89	Max WS	TR200_1h	1.62	0.00	1.62	0.00					266.96	262.50	262.49	262.50	262.45
MV15982	1.89	Max WS	TR200_2h	1.04	0.00	1.04	0.00					266.96	262.28	262.27	262.27	262.24
MV15982	1.89	Max WS	TR30_30min	1.79	0.00	1.79	0.00					266.96	262.56	262.55	262.56	262.50
MV15982	1.89	Max WS	TR30_1h	1.25	0.00	1.25	0.00					266.96	262.36	262.35	262.36	262.32
MV15982	1.89	Max WS	TR30_2h	0.79	0.00	0.78	0.00					266.96	262.16	262.15	262.15	262.12
MV15982	1.88	Max WS	TR200_30min	2.36	0.00	2.36	0.00					266.18	262.75	262.74	262.76	262.68
MV15982	1.88	Max WS	TR200_1h	1.62	0.00	1.62	0.00					266.18	262.50	262.49	262.50	262.45
MV15982	1.88	Max WS	TR200_2h	1.04	0.00	1.04	0.00					266.18	262.28	262.27	262.27	262.24
MV15982	1.88	Max WS	TR30_30min	1.79	0.00	1.79	0.00					266.18	262.56	262.55	262.56	262.50
MV15982	1.88	Max WS	TR30_1h	1.25	0.00	1.25	0.00					266.18	262.36	262.35	262.36	262.32
MV15982	1.88	Max WS	TR30_2h	0.79	0.00	0.78	0.00					266.18	262.16	262.15	262.15	262.13

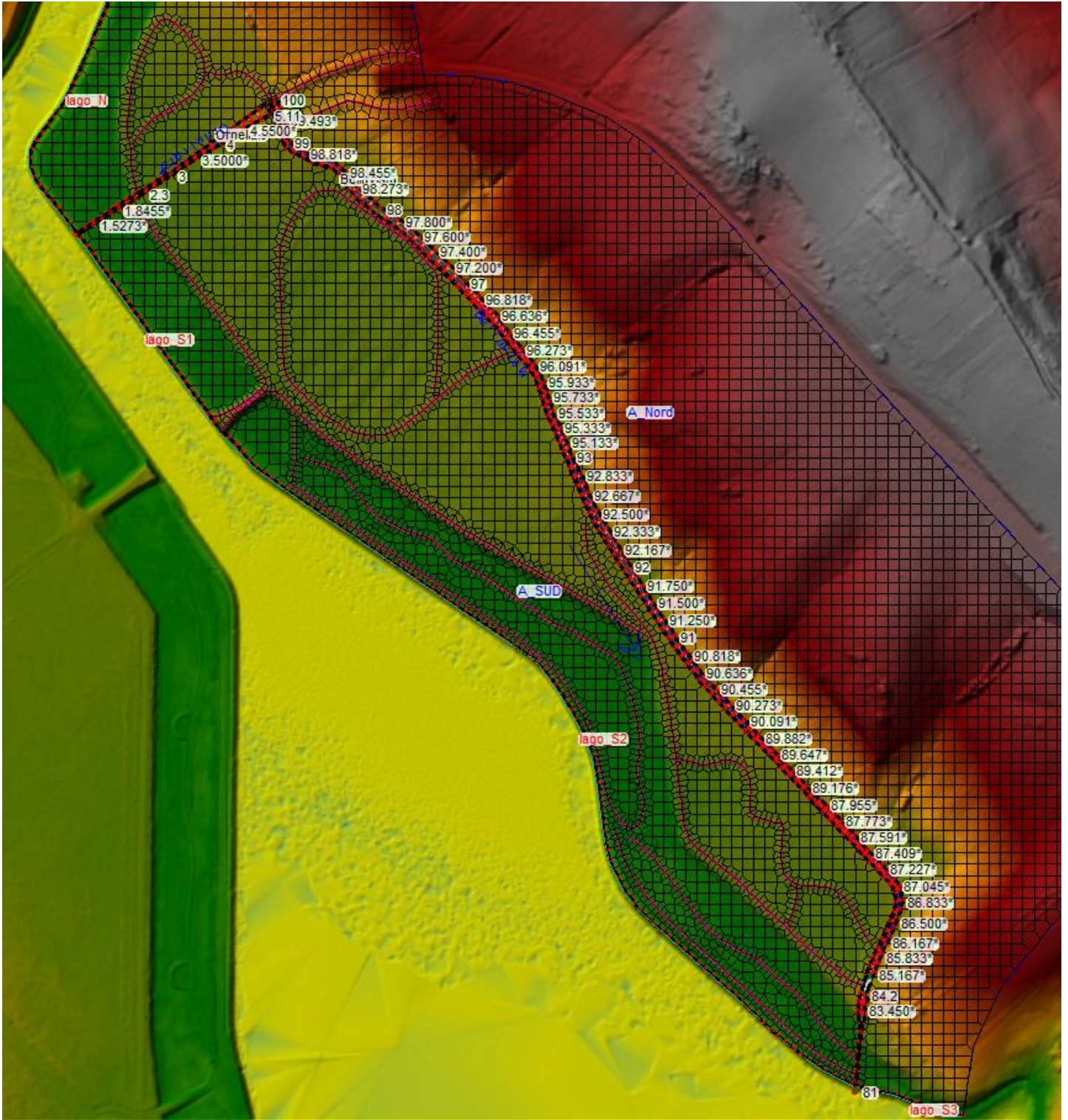
Fosso

MV12865

Bellavista

Fosso MV16963

Fosso Ornellaio

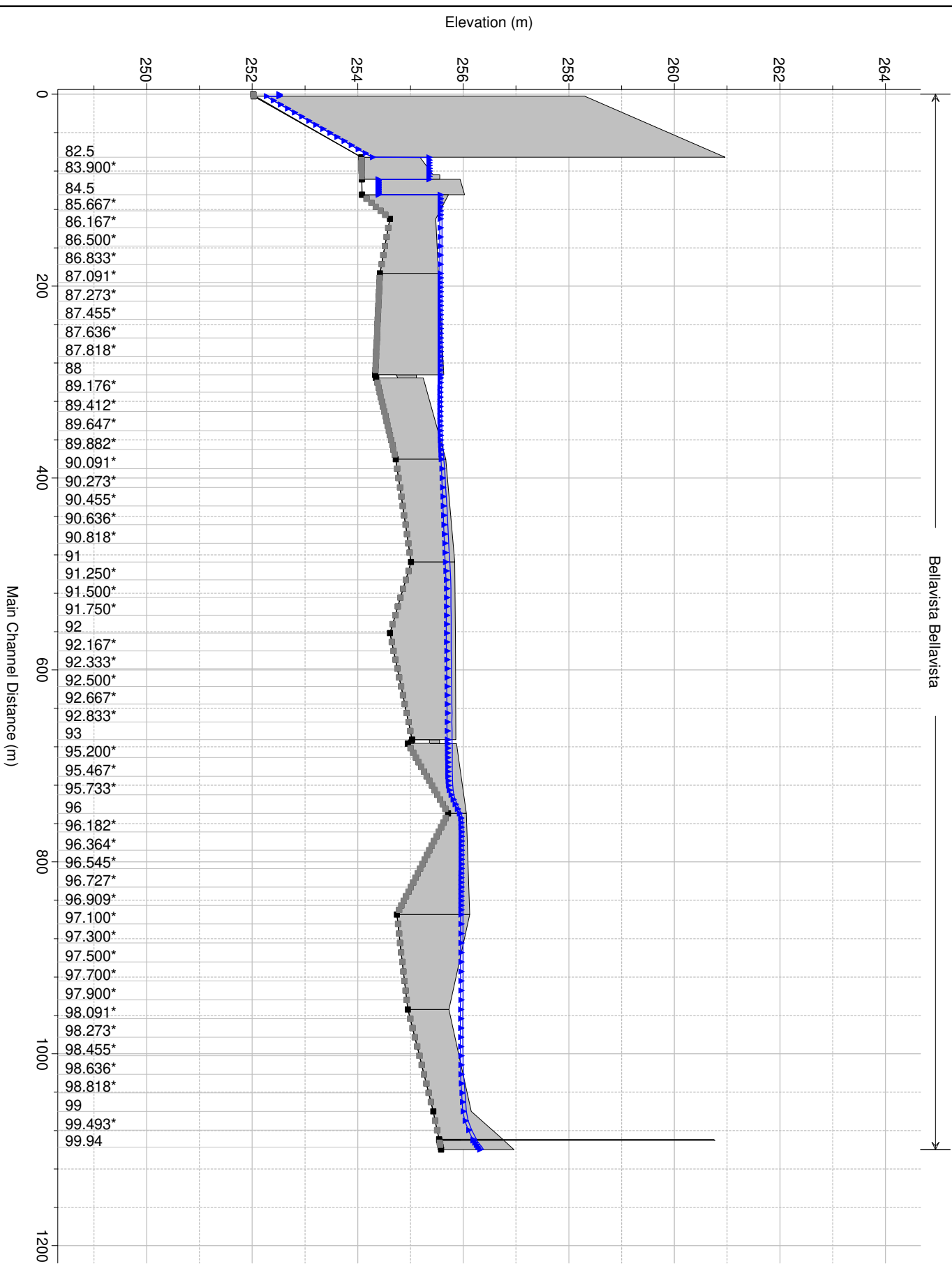


Fosso
MV16963

Bellavista Plan: 1) TR200_1H 2) TR30_1h
 Structure Laterali Destra Idraulica

Bellavista Bellavista

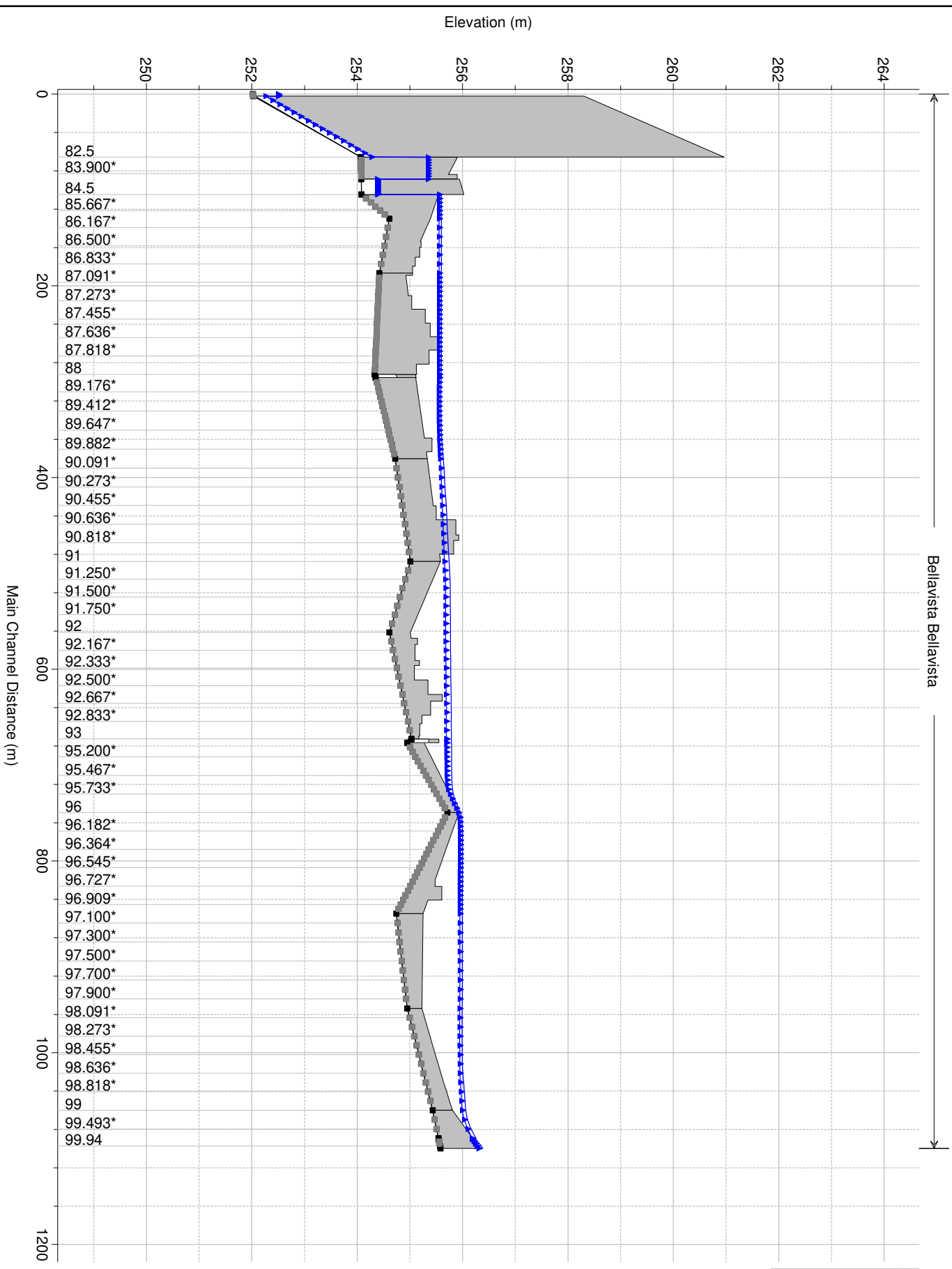
Legend	
	WS Max WS - TR200_1H
	WS Max WS - TR30_1h
	Lat Struct
	Ground



1 cm Horiz. = 55 m 1 cm Vert. = 1 m

Bellavista Plan: 1) TR200_1H 2) TR30_1h
 Structure Laterali Sinistra Idraulica

Bellavista Bellavista

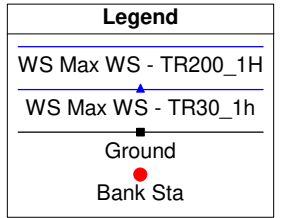
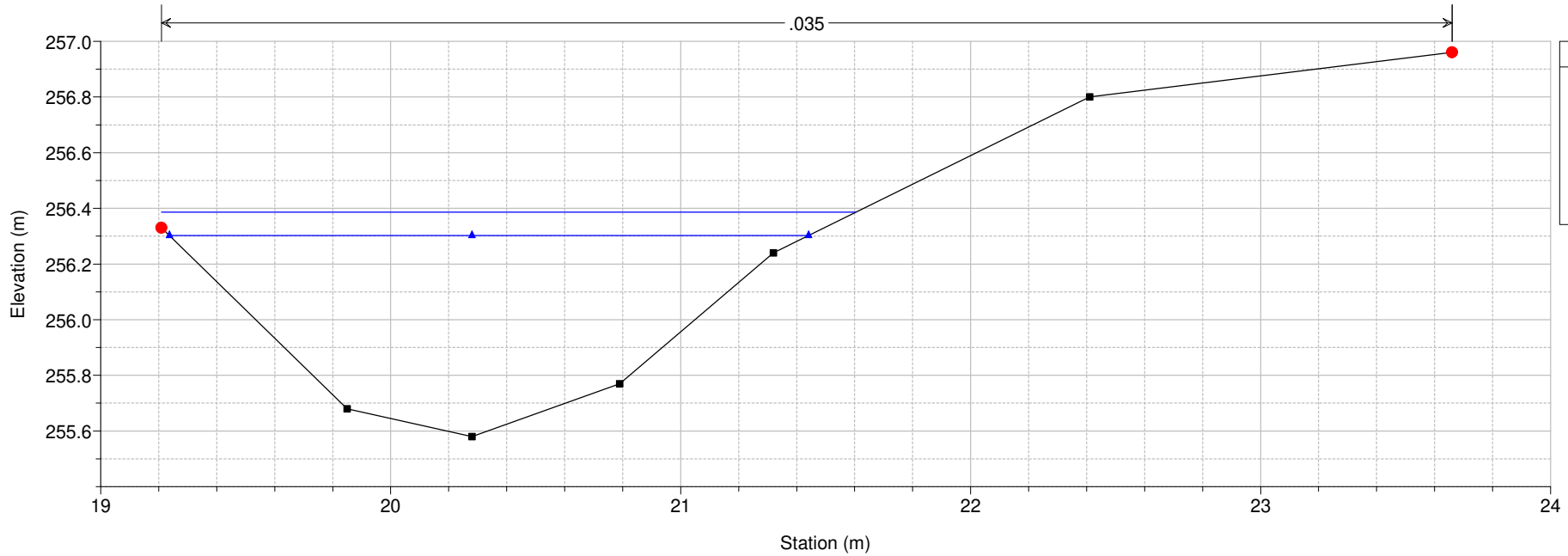


1 cm Horiz. = 55 m 1 cm Vert. = 1 m

Legend	
—	WS Max WS - TR200_1H
-▲-	WS Max WS - TR30_1h
-	Lat Struct
-■-	Ground

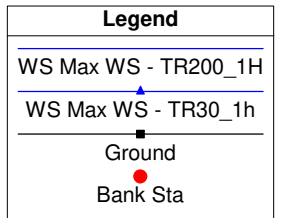
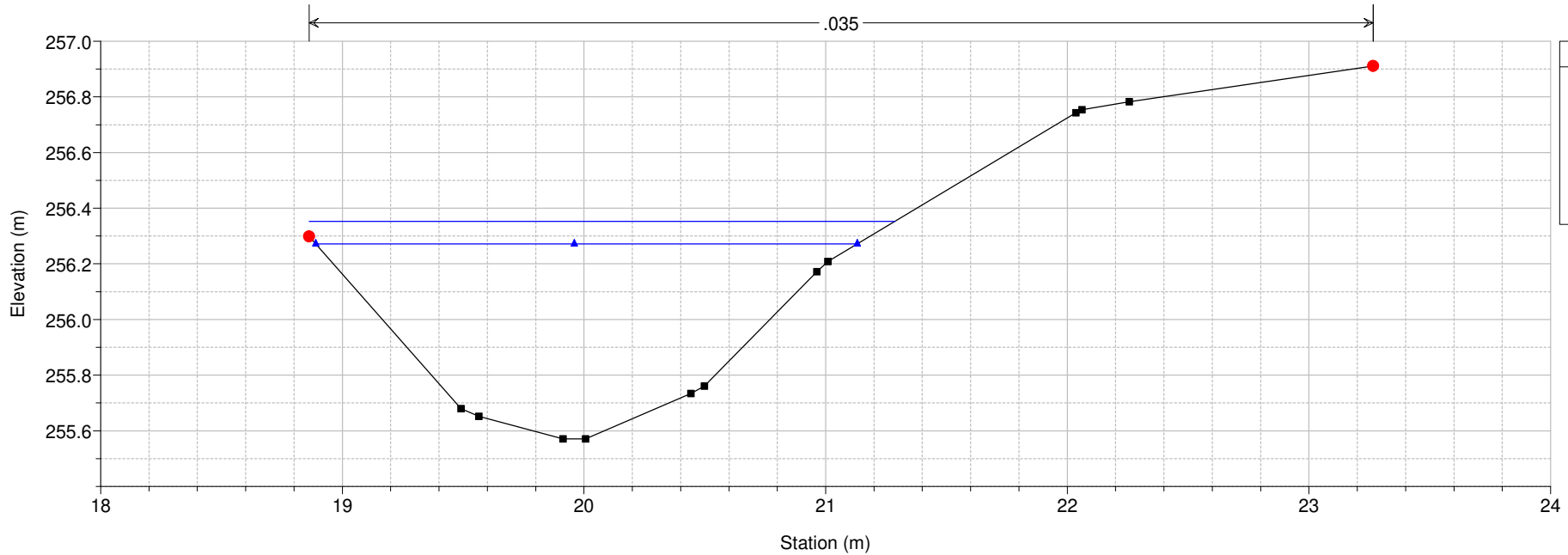
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 100 06

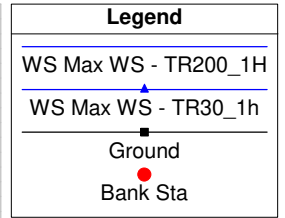
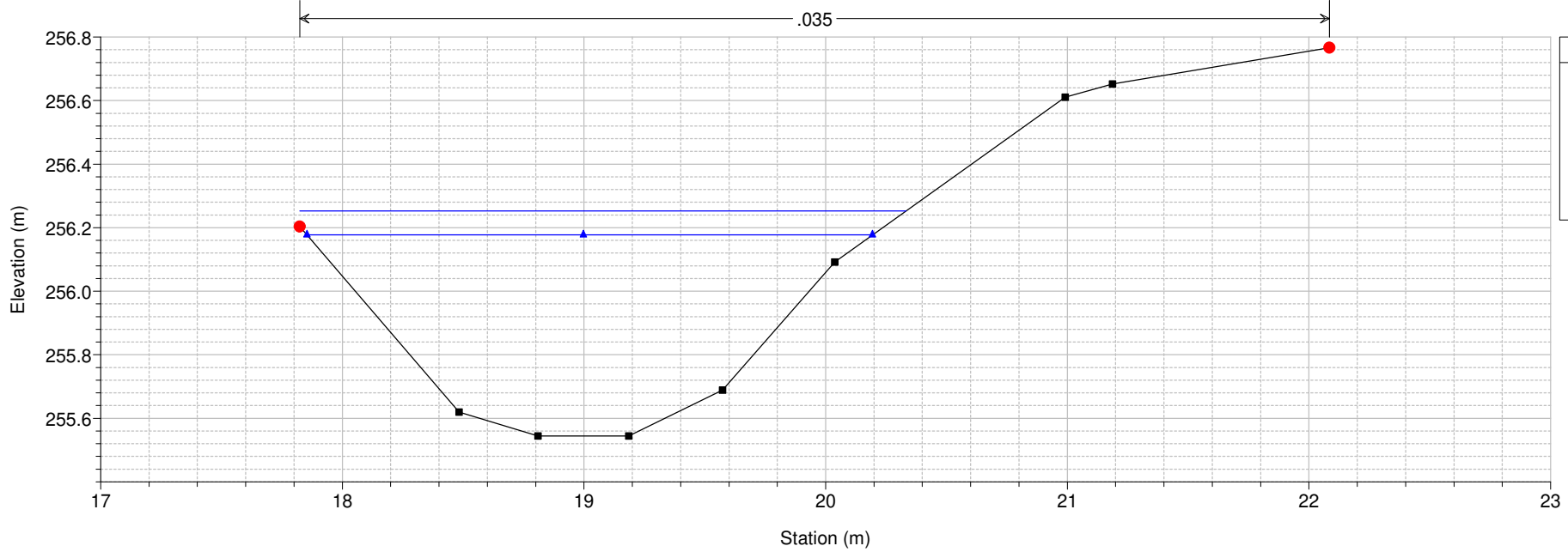


Bellavista Plan: 1) TR200_1H 2) TR30_1h

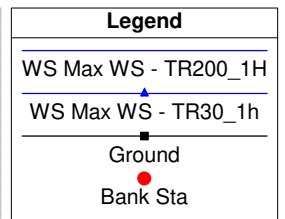
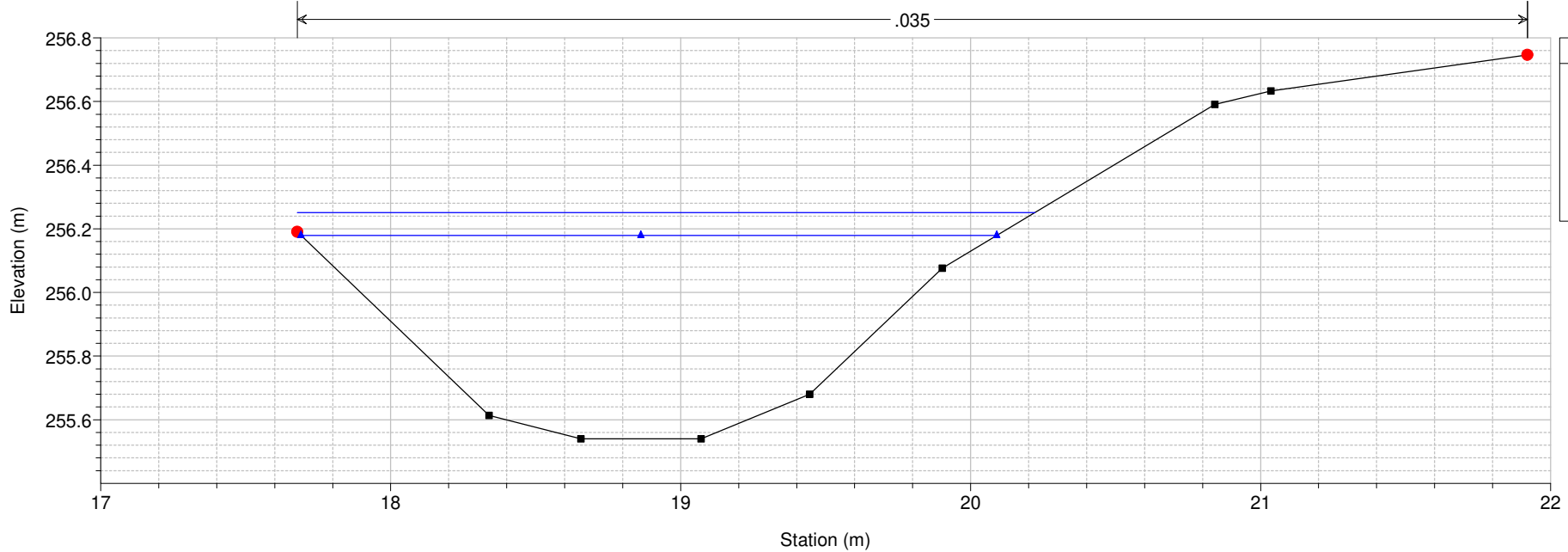
River = Bellavista Reach = Bellavista RS = 99.94 Interpolata per



Bellavista Plan: 1) TR200_1H 2) TR30_1h
 River = Bellavista Reach = Bellavista RS = 99.76 Interpolata per tombino su LS

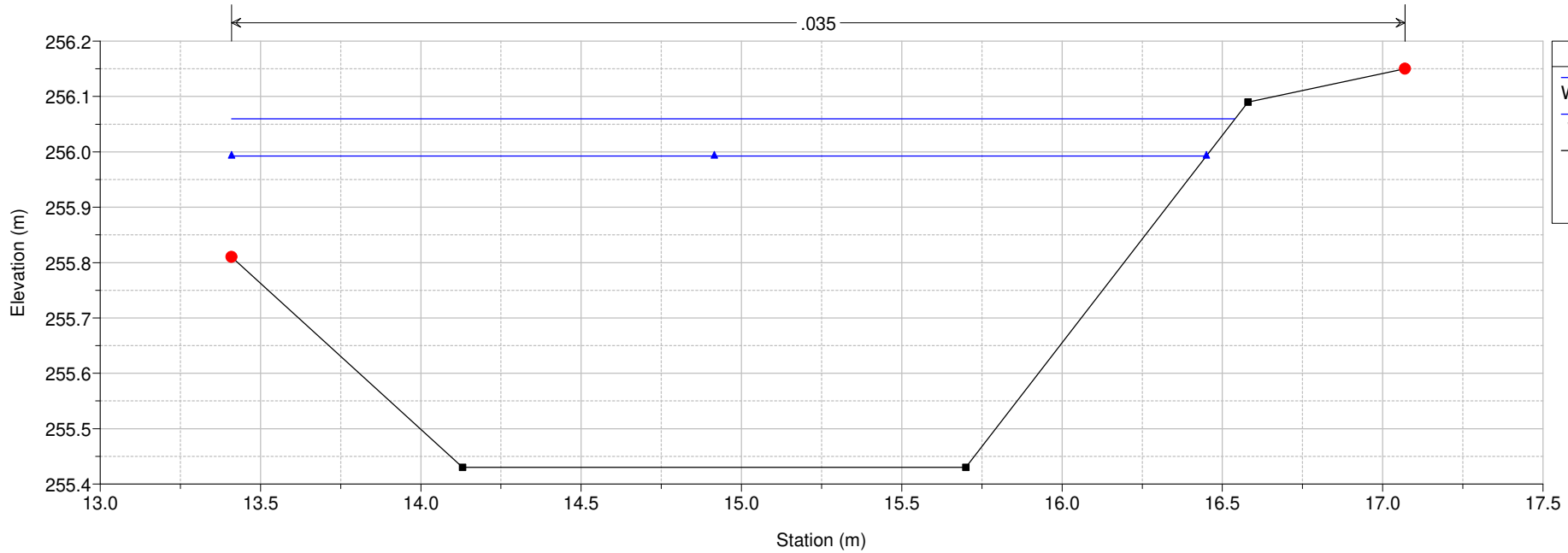


Bellavista Plan: 1) TR200_1H 2) TR30_1h
 River = Bellavista Reach = Bellavista RS = 99.74 Interpolata per tombino su LS e CC



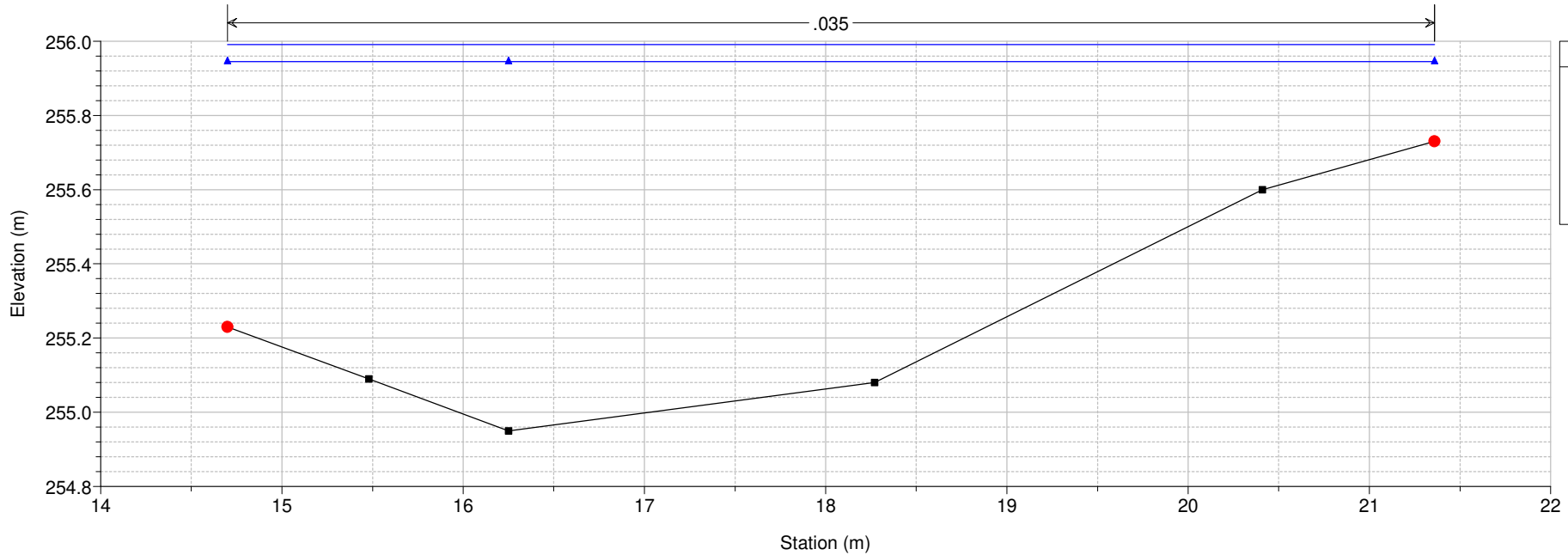
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 99 7



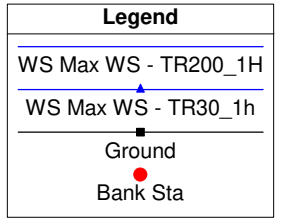
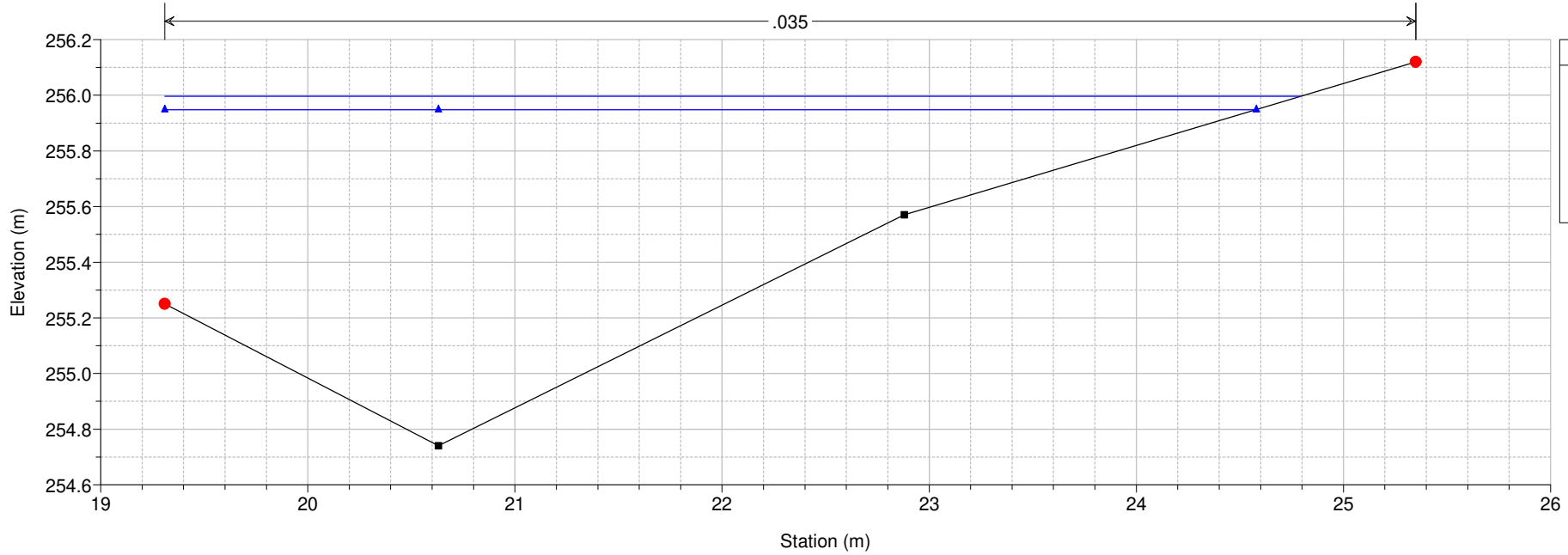
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 98 8



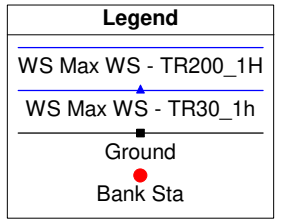
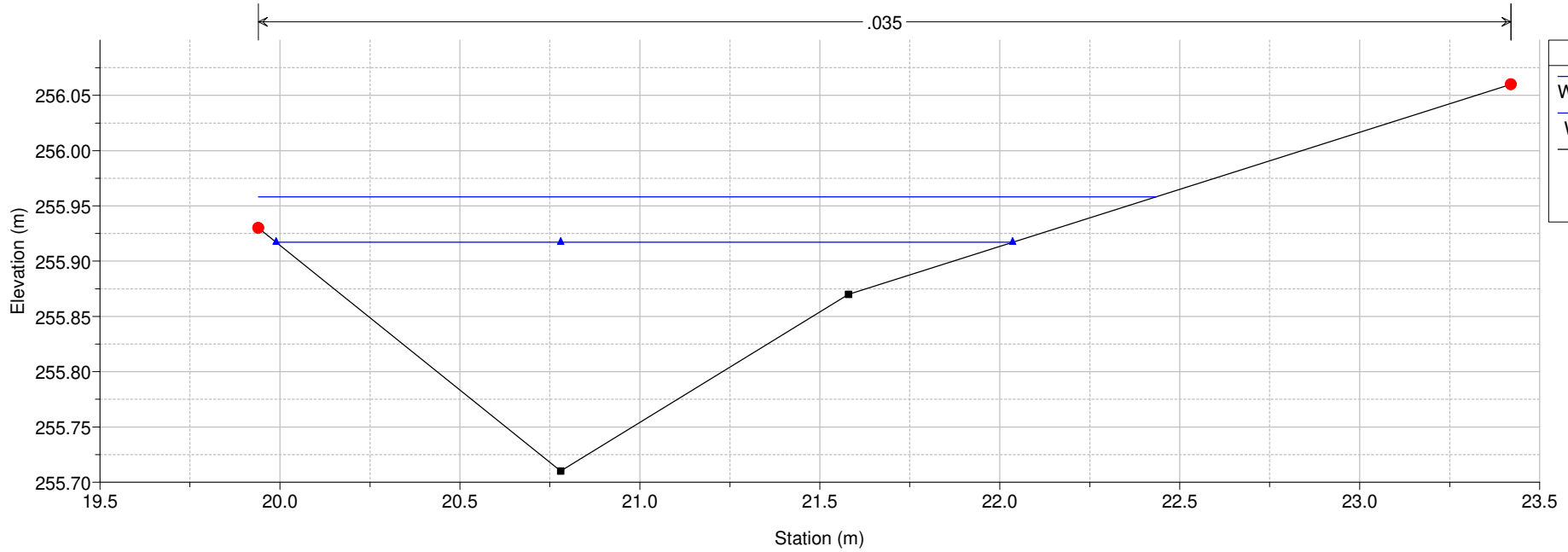
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 97 9



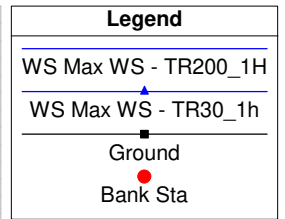
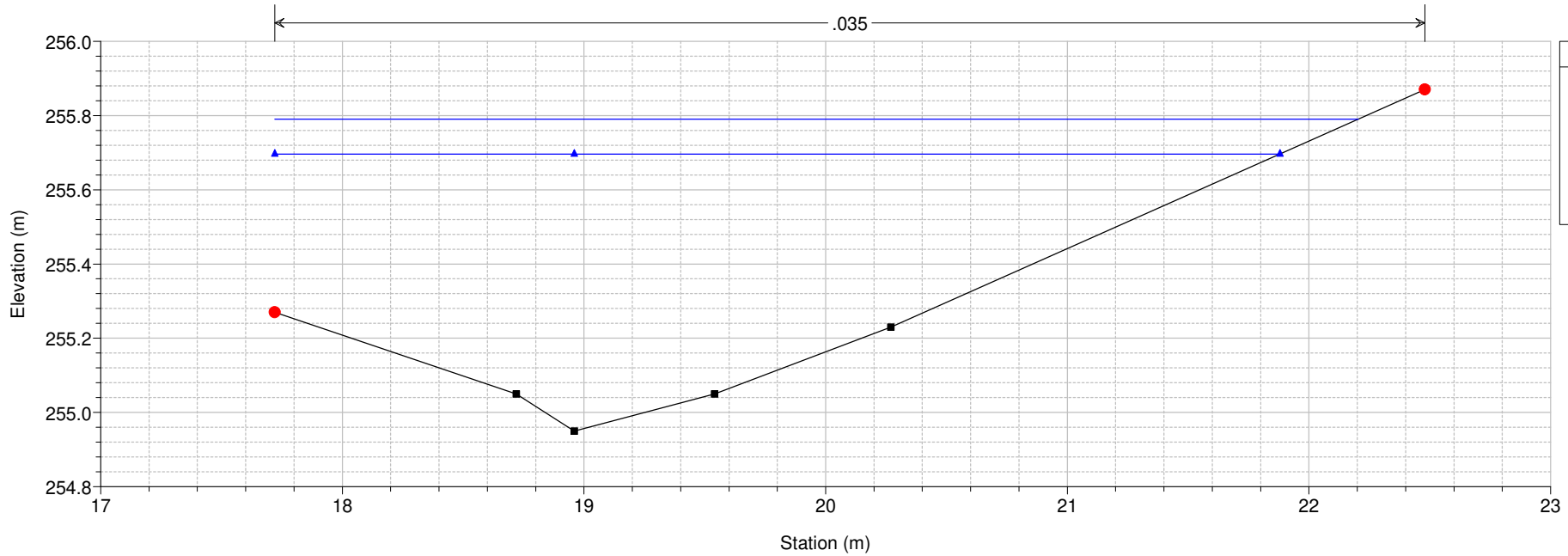
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 96 10



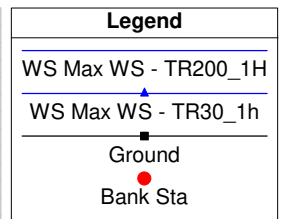
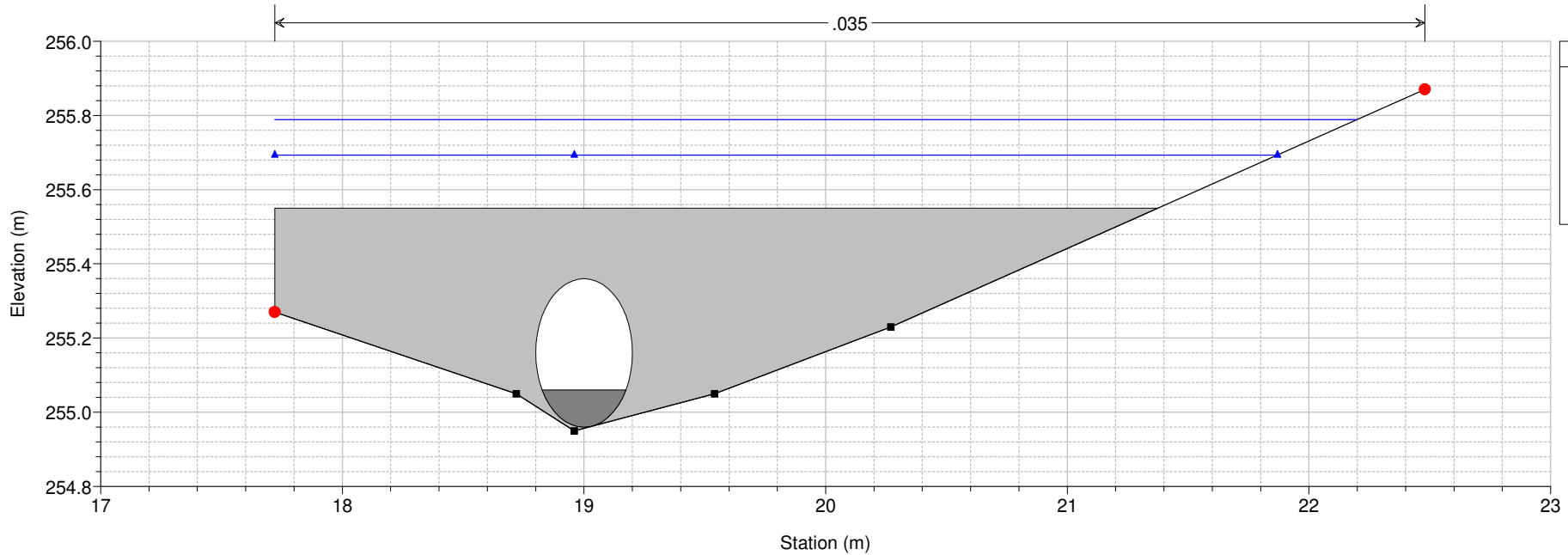
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 95 11A



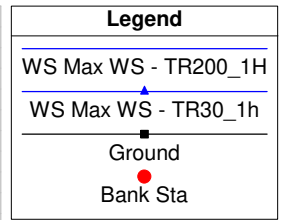
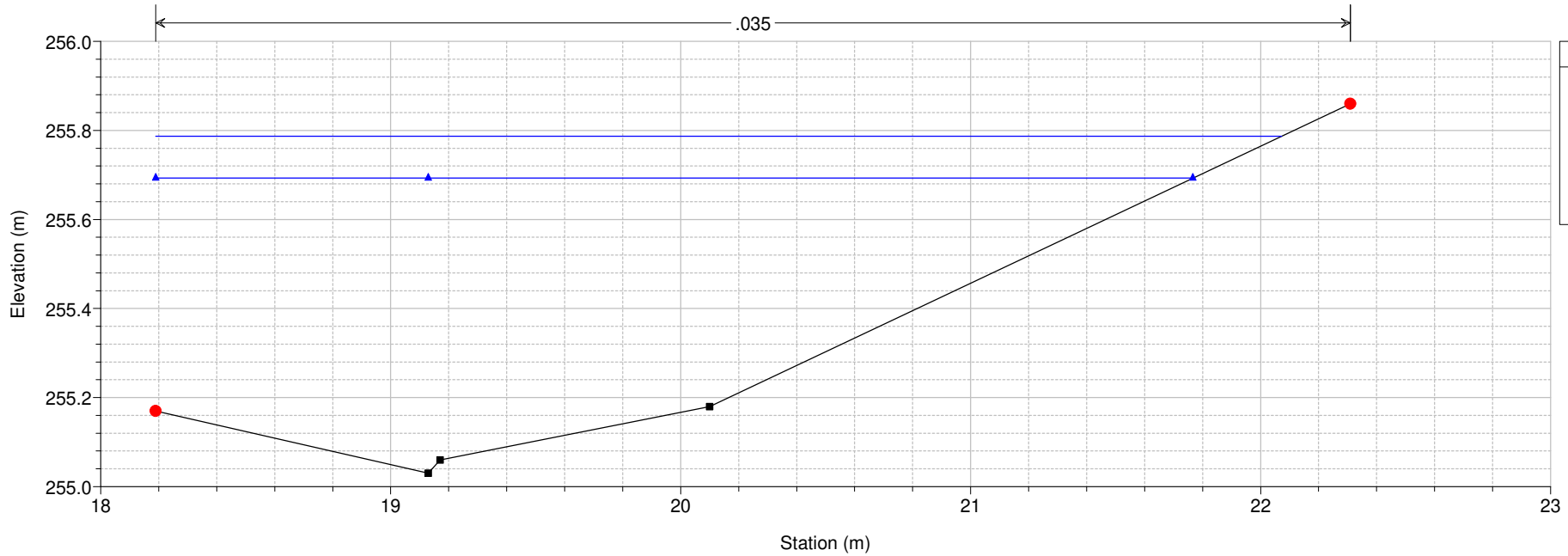
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 94 Culv



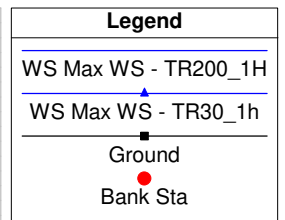
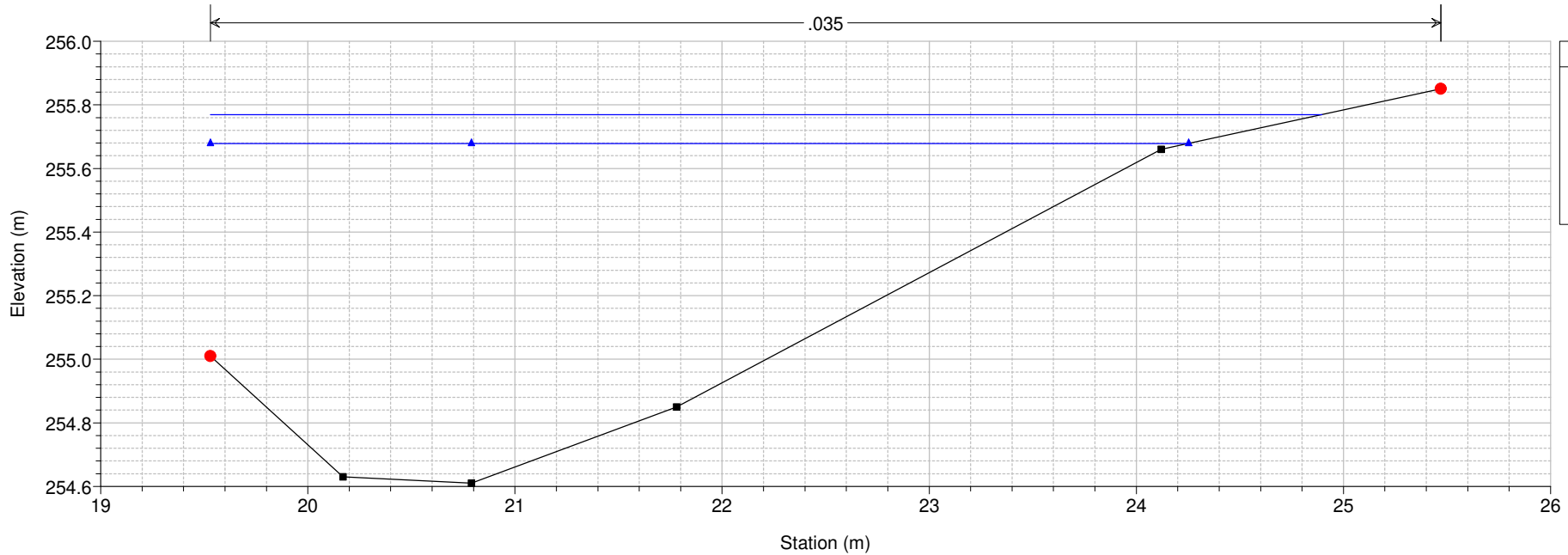
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 93 11C



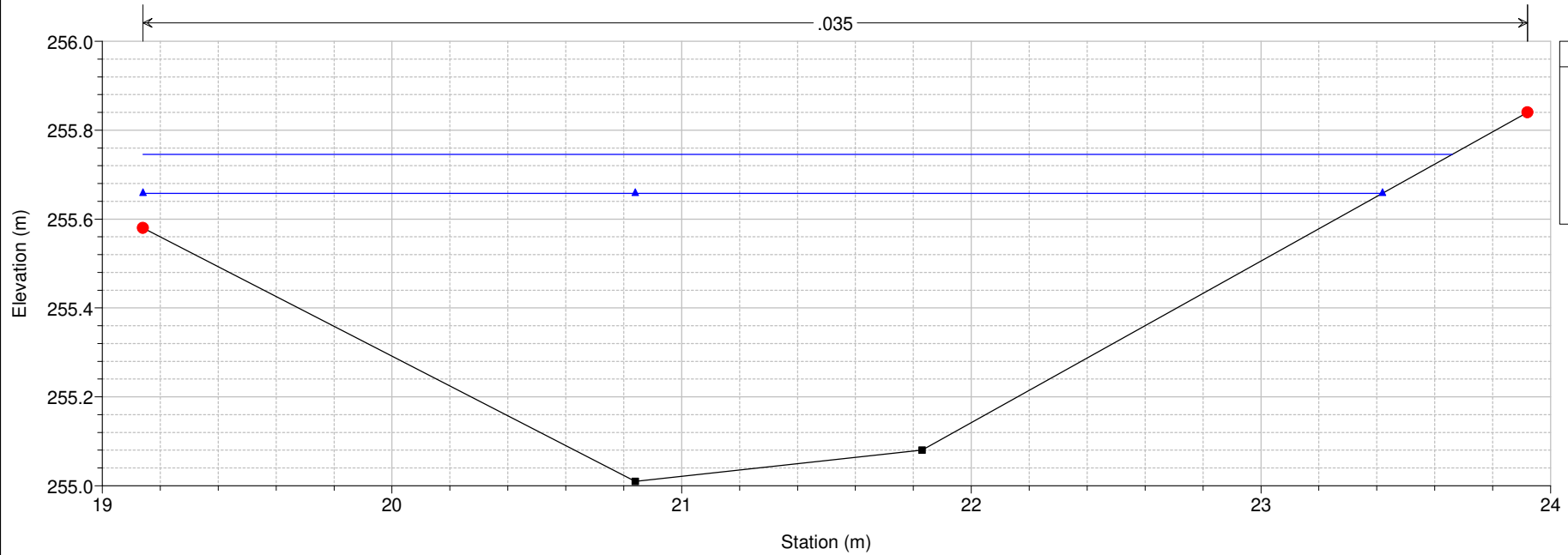
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 92 12



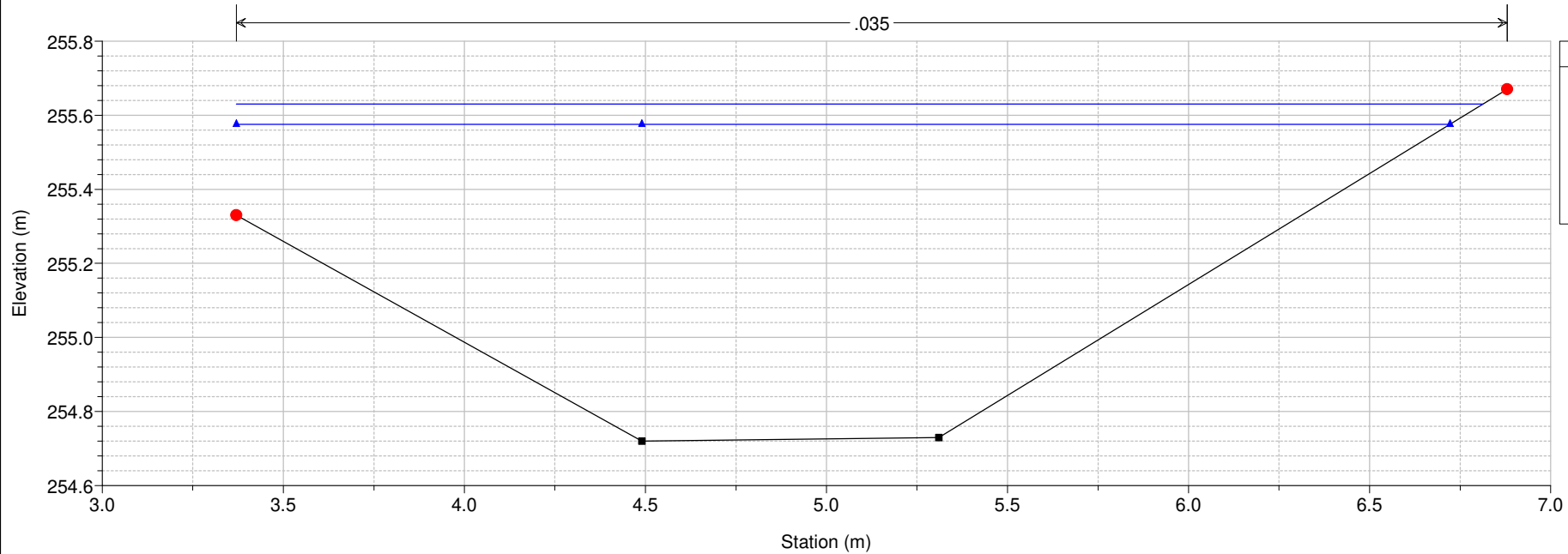
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 91 13



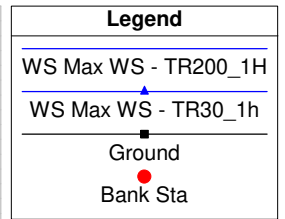
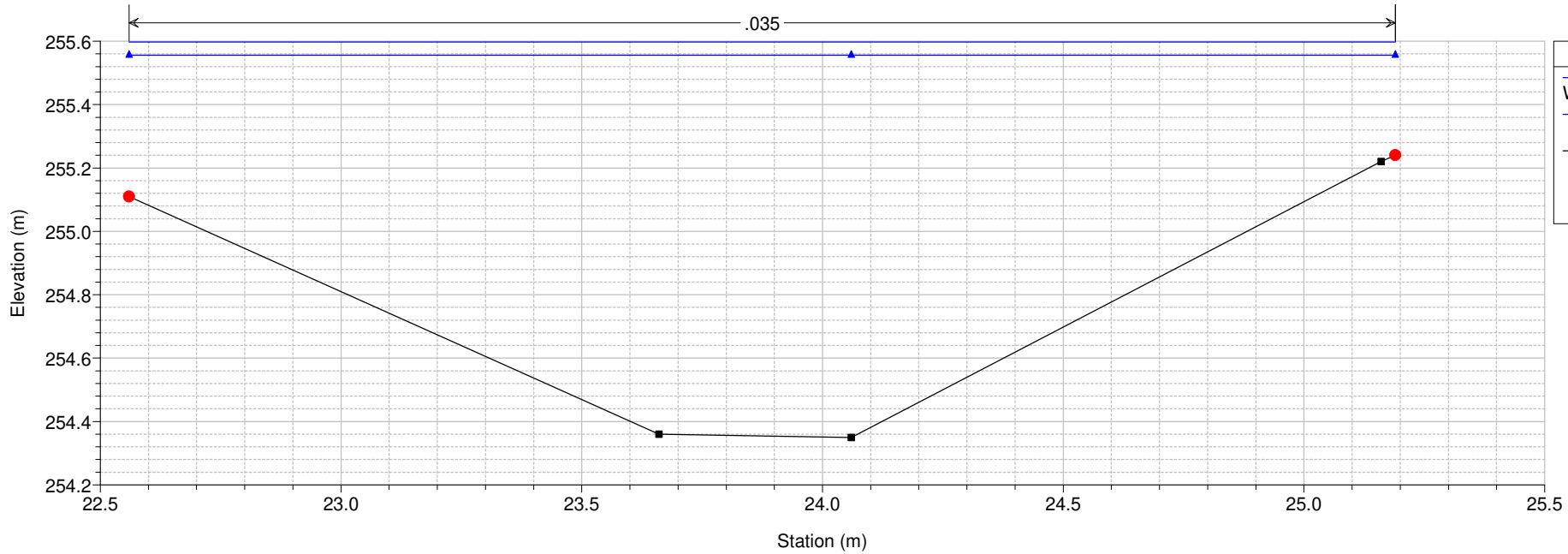
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 90 14



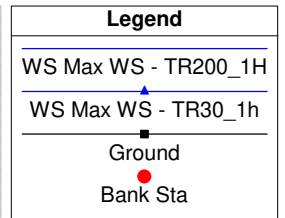
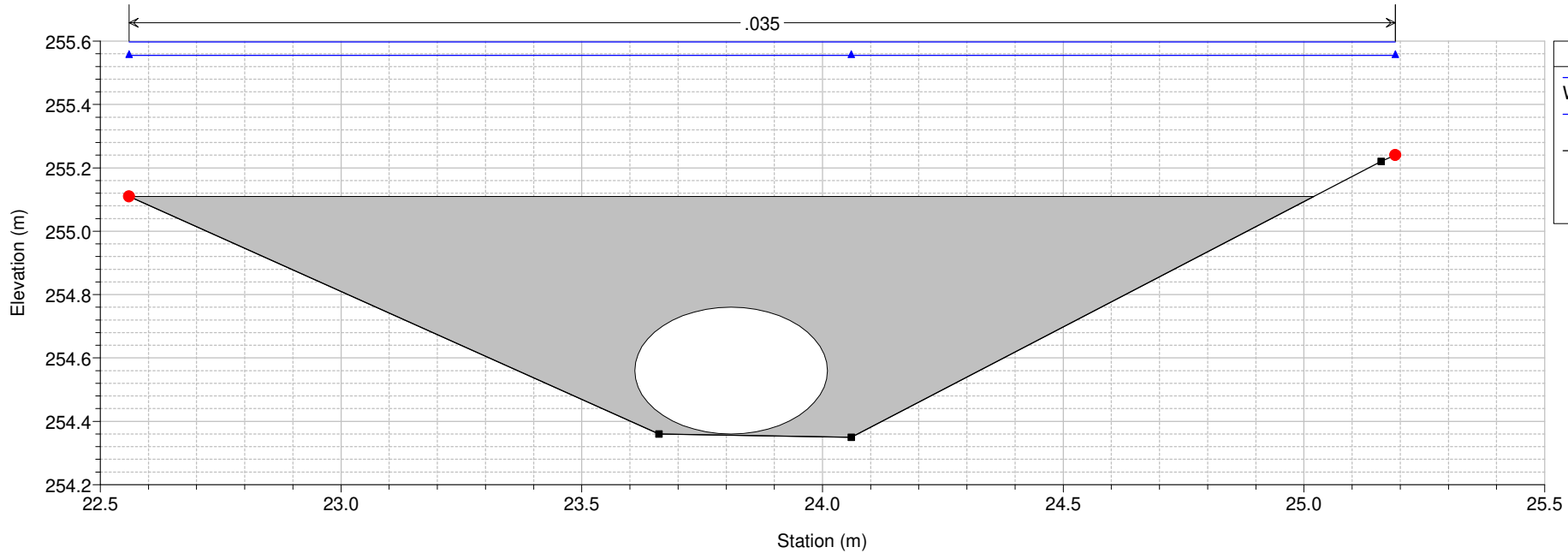
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 89 15A



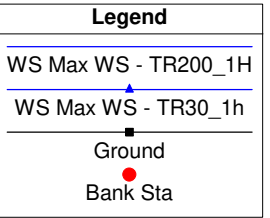
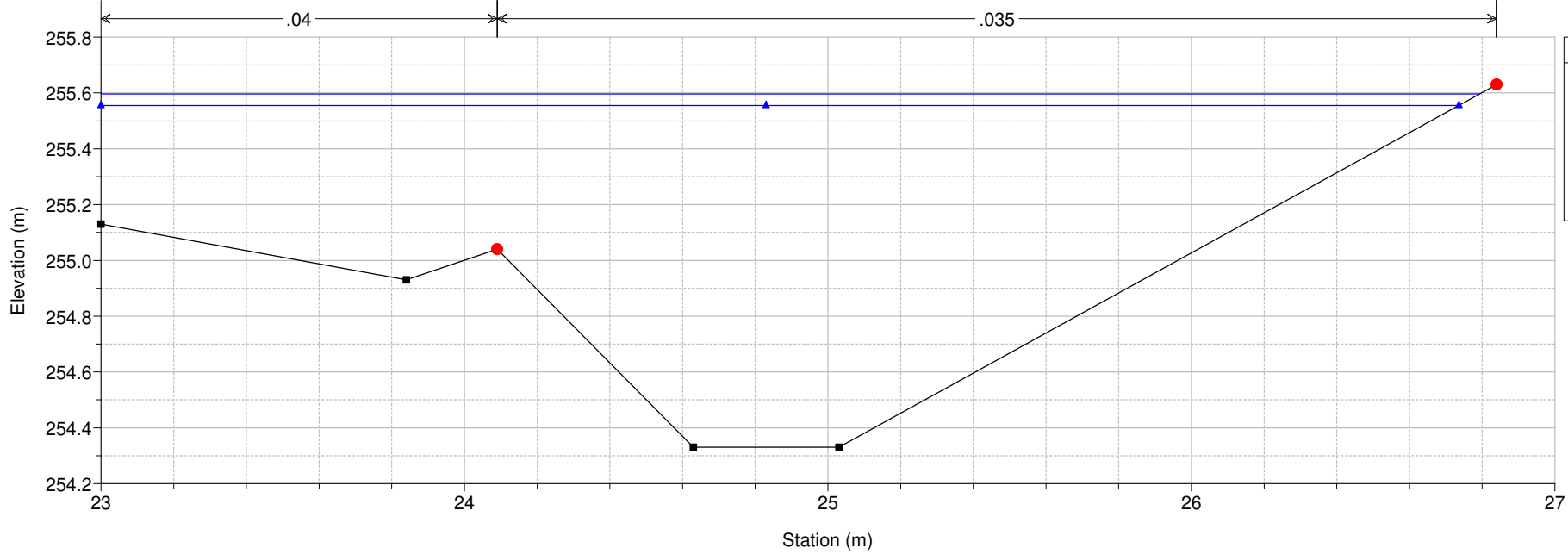
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 88.5 Culv



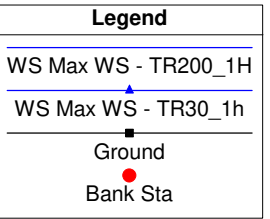
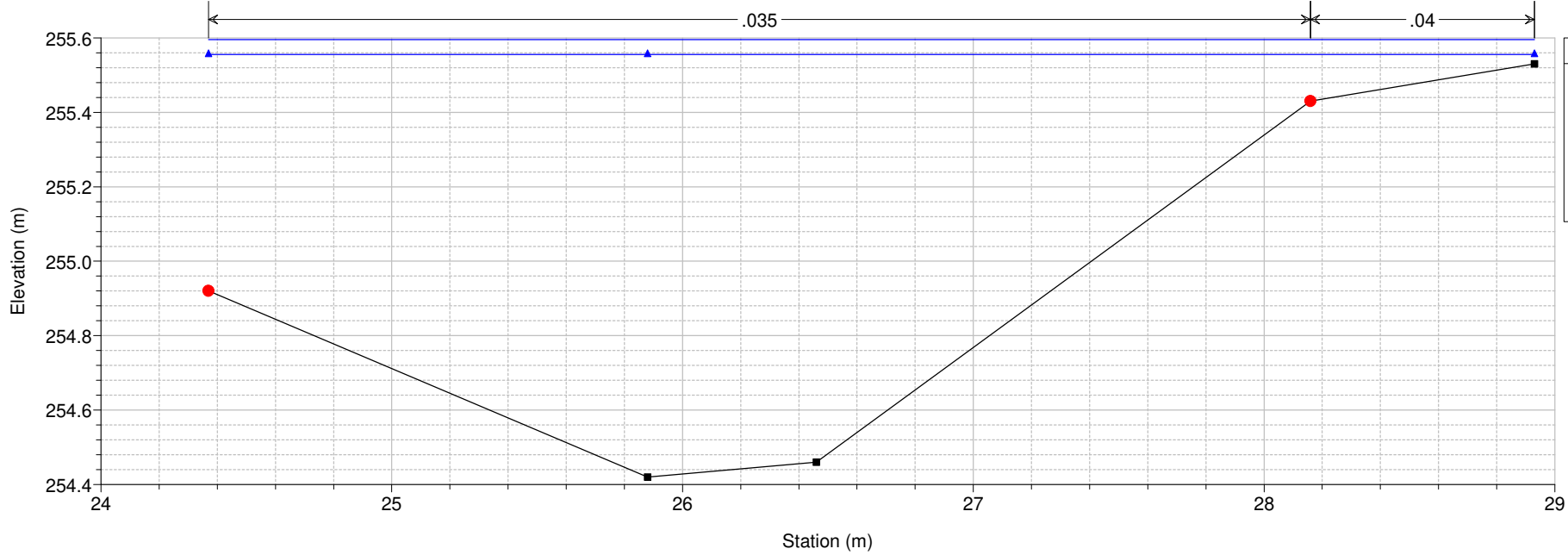
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 88 15B



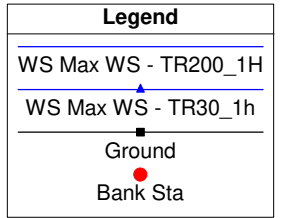
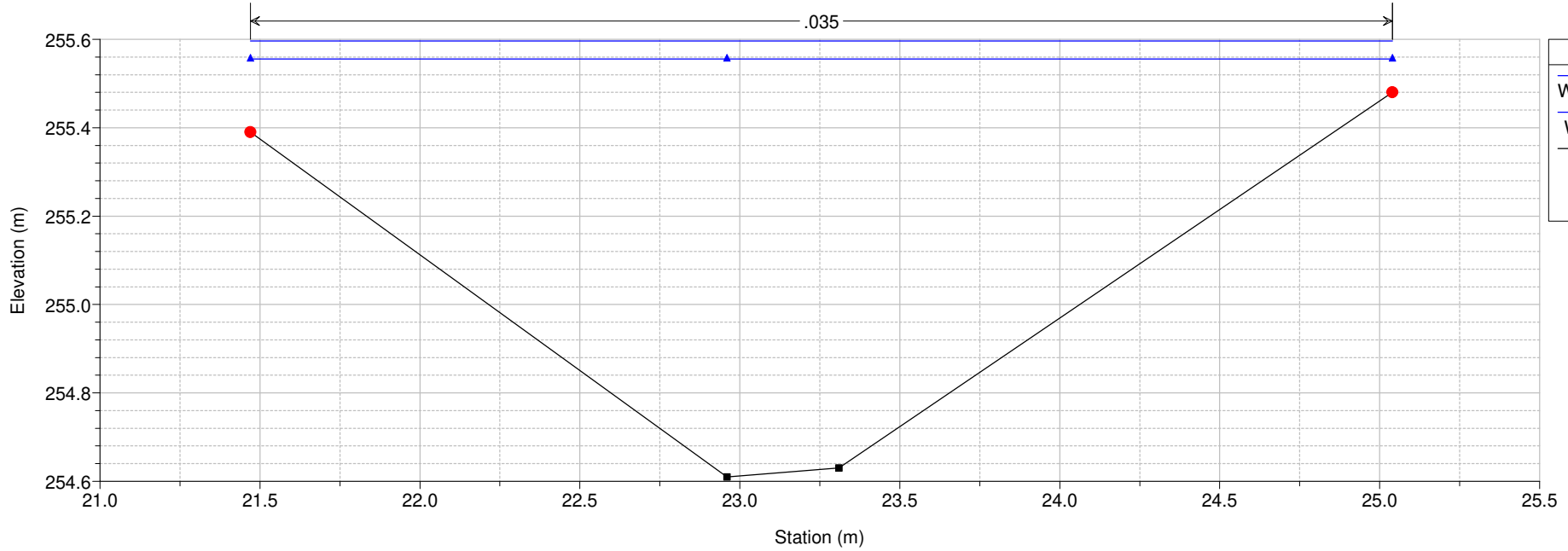
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 87 16



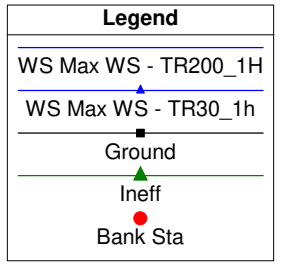
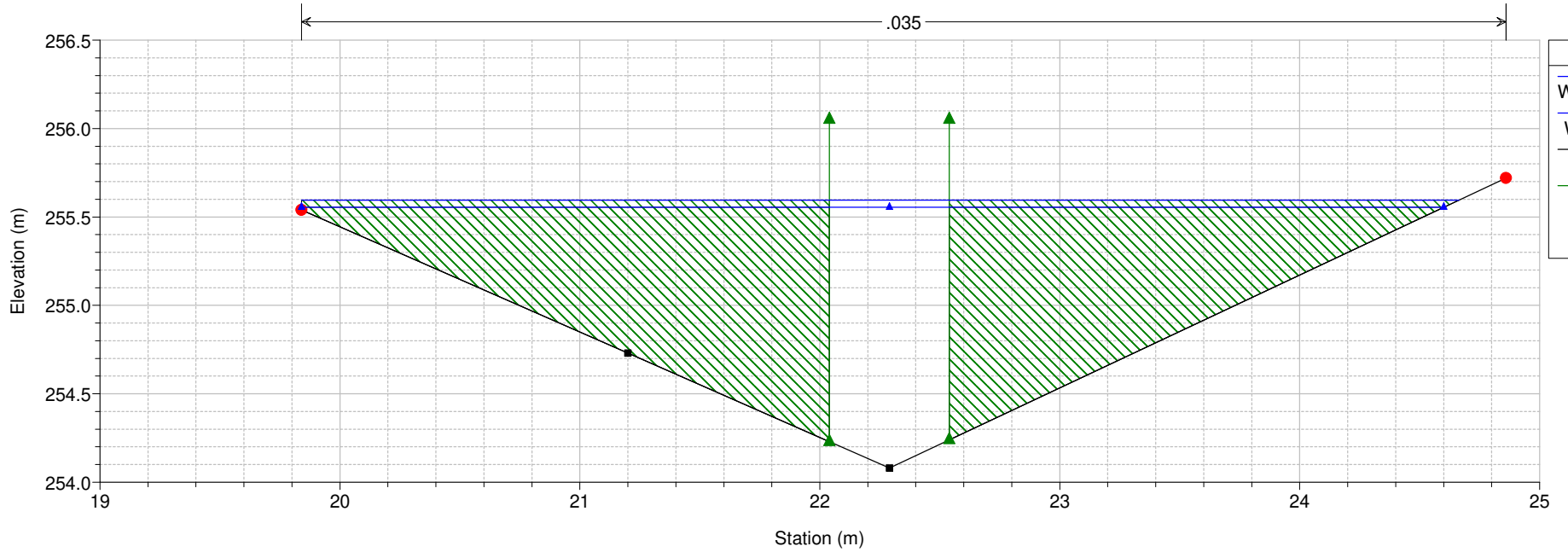
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 86 17



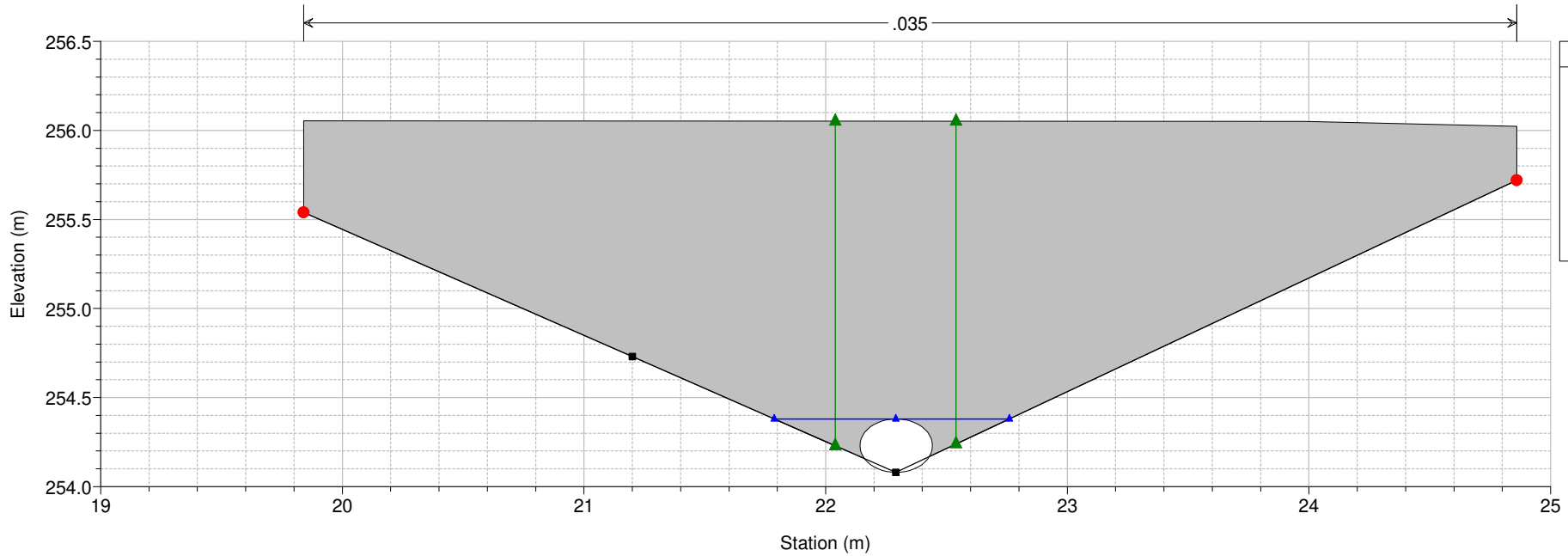
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 85 18A

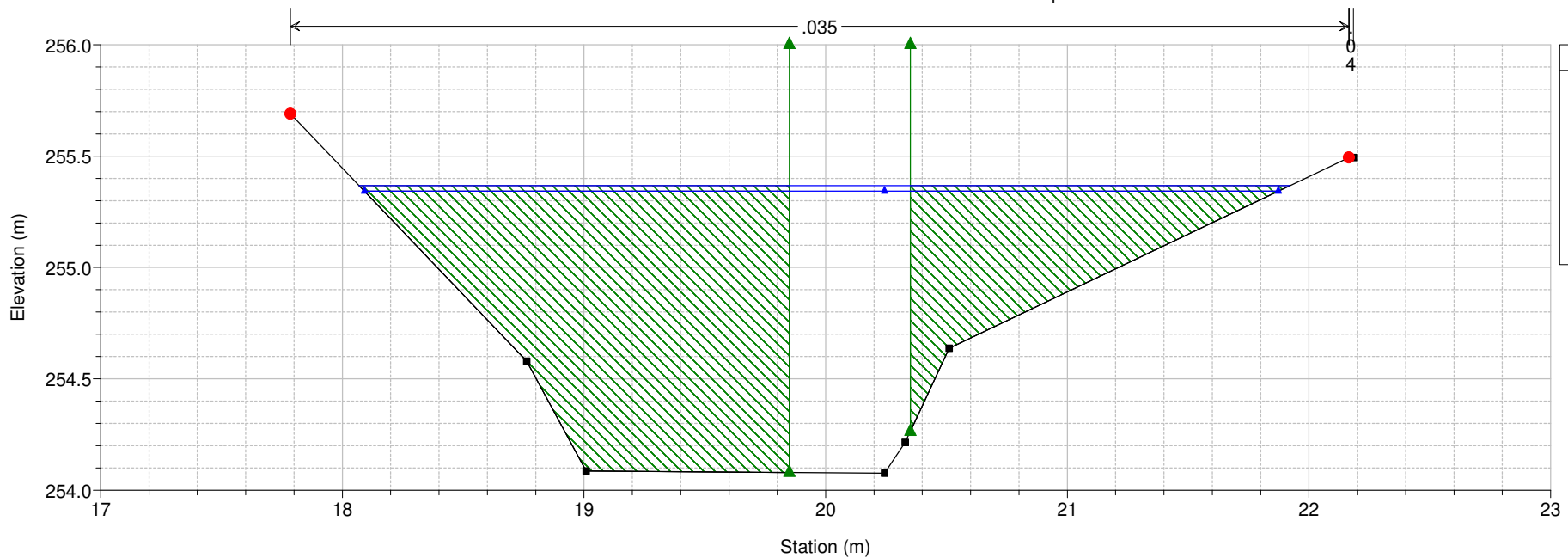


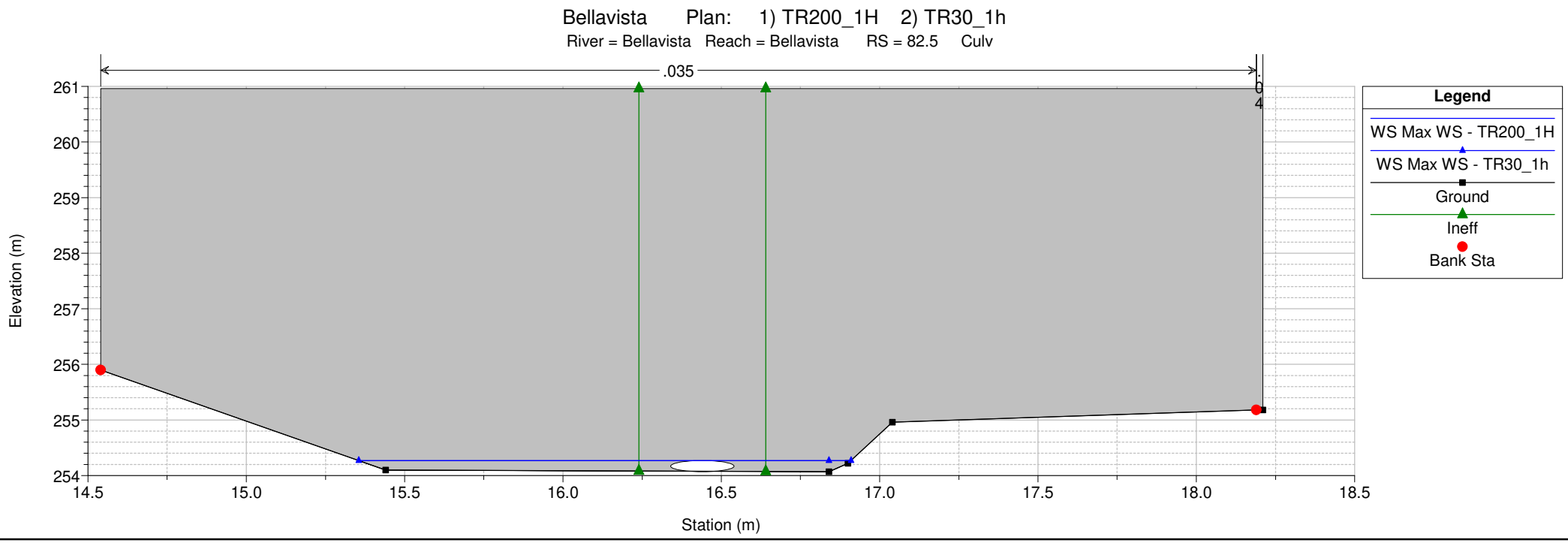
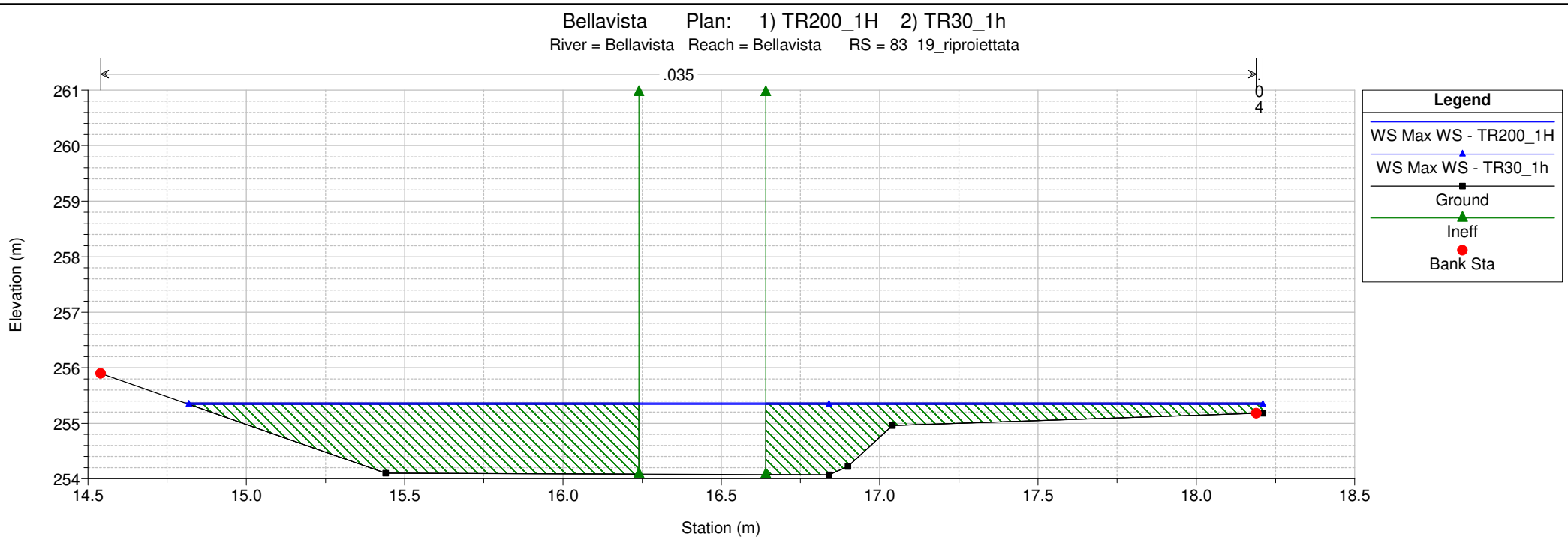
Bellavista Plan: 1) TR200_1H 2) TR30_1h

River = Bellavista Reach = Bellavista RS = 84.5 Culv

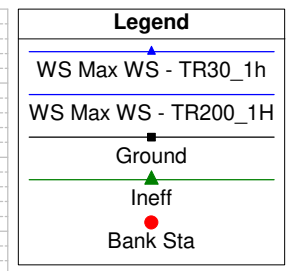
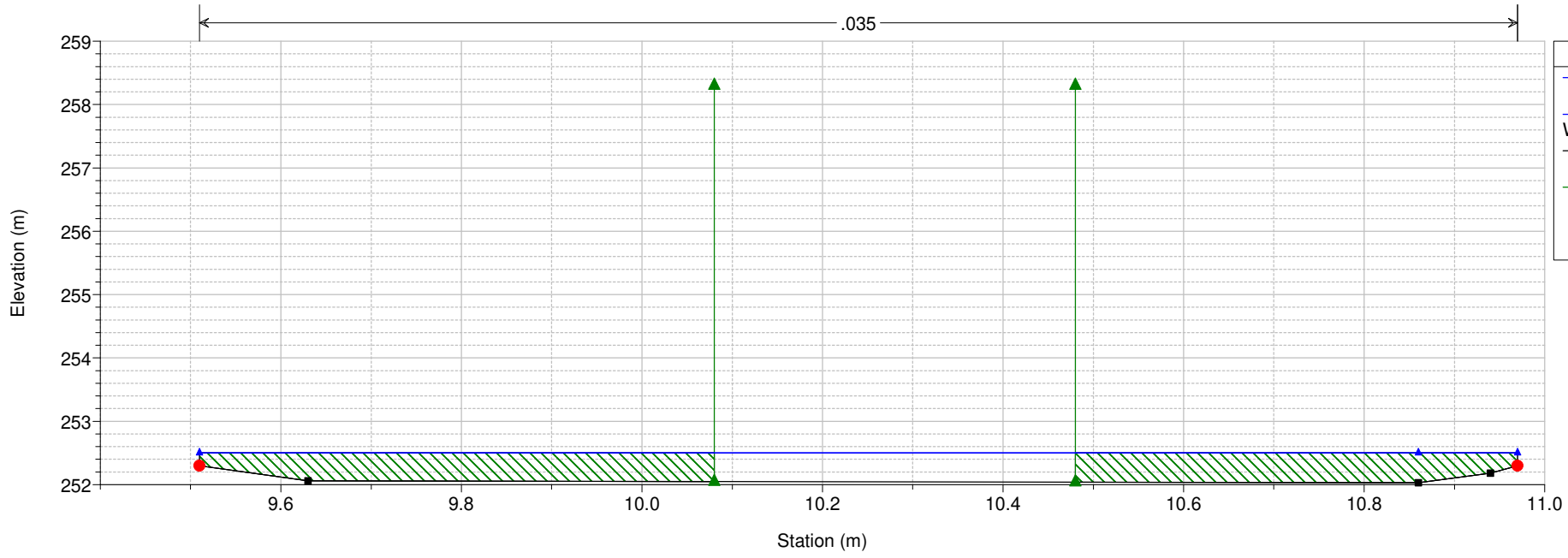


Bellavista Plan: 1) TR200_1H 2) TR30_1h
River = Bellavista Reach = Bellavista RS = 84.2 interpolata valle tombino

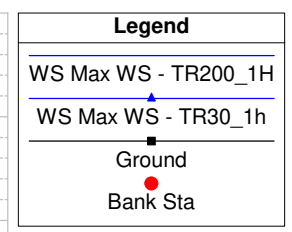
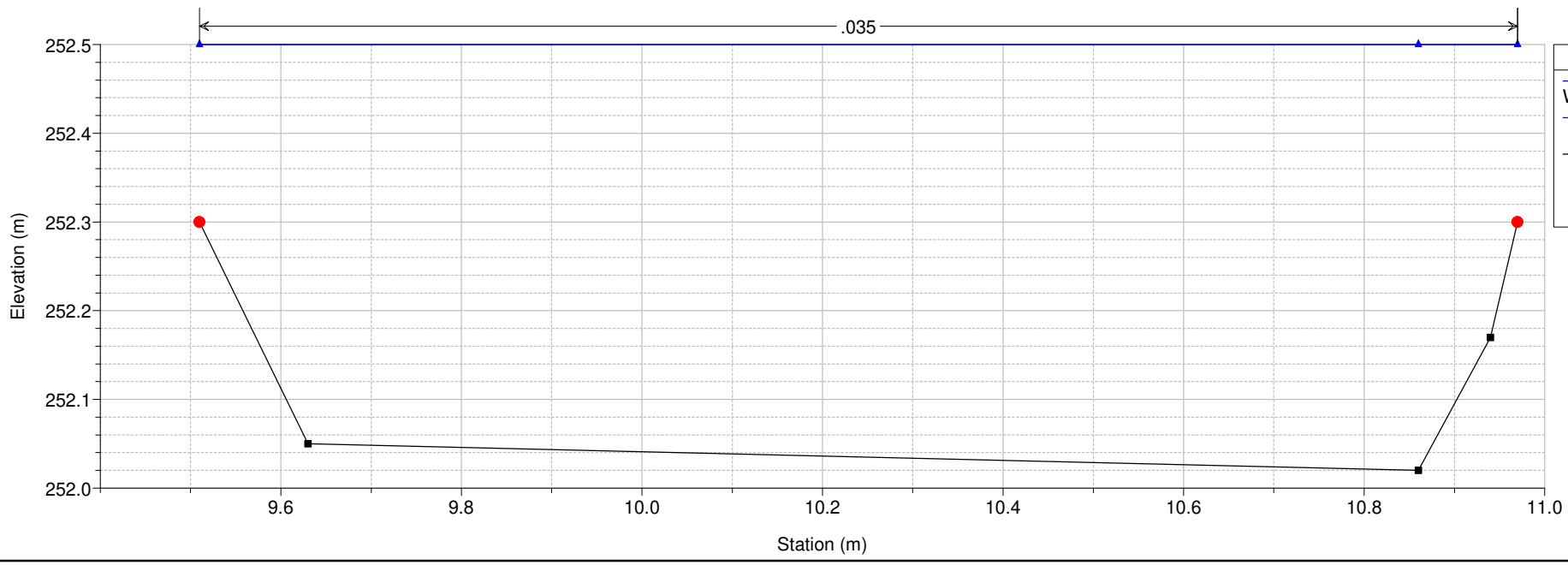




Bellavista Plan: 1) TR200_1H 2) TR30_1h
 River = Bellavista Reach = Bellavista RS = 81 21-COPIA SEZ.19



Bellavista Plan: 1) TR200_1H 2) TR30_1h
 River = Bellavista Reach = Bellavista RS = 80.9



Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Bellavista	100	Max WS	TR200_30min	3.19	255.58	256.52		256.75	0.017070	2.15	1.48	2.65	0.92
Bellavista	100	Max WS	TR200_45min	2.51	255.58	256.44		256.63	0.015478	1.95	1.28	2.50	0.87
Bellavista	100	Max WS	TR200_1H	2.10	255.58	256.39		256.55	0.014379	1.82	1.15	2.39	0.84
Bellavista	100	Max WS	TR200_2H	1.34	255.58	256.25	256.17	256.38	0.012688	1.56	0.86	2.06	0.77
Bellavista	100	Max WS	TR30_30min	2.42	255.58	256.43		256.62	0.015422	1.93	1.25	2.47	0.87
Bellavista	100	Max WS	TR30_45min	1.91	255.58	256.35		256.51	0.014259	1.77	1.08	2.33	0.83
Bellavista	100	Max WS	TR30_1h	1.59	255.58	256.30		256.44	0.013309	1.65	0.96	2.20	0.80
Bellavista	100	Max WS	TR30_2h	1.01	255.58	256.17		256.28	0.012631	1.45	0.69	1.88	0.76
Bellavista	100	Max WS	TR200_3H	1.03	255.58	256.18	256.10	256.29	0.012162	1.44	0.71	1.90	0.75
Bellavista	100	Max WS	TR30_3H	0.77	255.58	256.11	256.03	256.20	0.011505	1.31	0.59	1.75	0.72
Bellavista	99.99			Lat Struct									
Bellavista	99.98			Lat Struct									
Bellavista	99.94	Max WS	TR200_30min	3.14	255.57	256.48		256.71	0.016750	2.13	1.48	2.66	0.91
Bellavista	99.94	Max WS	TR200_45min	2.49	255.57	256.40		256.60	0.015245	1.94	1.28	2.52	0.87
Bellavista	99.94	Max WS	TR200_1H	2.09	255.57	256.35		256.52	0.014187	1.81	1.16	2.42	0.84
Bellavista	99.94	Max WS	TR200_2H	1.34	255.57	256.22	256.14	256.35	0.012509	1.55	0.86	2.10	0.77
Bellavista	99.94	Max WS	TR30_30min	2.40	255.57	256.39		256.58	0.015245	1.92	1.25	2.50	0.87
Bellavista	99.94	Max WS	TR30_45min	1.91	255.57	256.32		256.48	0.014217	1.77	1.08	2.36	0.84
Bellavista	99.94	Max WS	TR30_1h	1.59	255.57	256.27		256.41	0.013178	1.65	0.97	2.24	0.80
Bellavista	99.94	Max WS	TR30_2h	1.01	255.57	256.14		256.25	0.012497	1.45	0.70	1.91	0.76
Bellavista	99.94	Max WS	TR200_3H	1.03	255.57	256.15	256.08	256.26	0.011913	1.43	0.72	1.93	0.75
Bellavista	99.94	Max WS	TR30_3H	0.77	255.57	256.09	256.01	256.17	0.011203	1.29	0.60	1.79	0.72
Bellavista	99.76	Max WS	TR200_30min	3.00	255.54	256.36		256.59	0.016557	2.09	1.43	2.71	0.92
Bellavista	99.76	Max WS	TR200_45min	2.42	255.54	256.30		256.49	0.015239	1.92	1.26	2.59	0.88
Bellavista	99.76	Max WS	TR200_1H	2.07	255.54	256.25		256.42	0.014353	1.80	1.15	2.51	0.85
Bellavista	99.76	Max WS	TR200_2H	1.34	255.54	256.14	256.07	256.26	0.012565	1.54	0.87	2.22	0.79
Bellavista	99.76	Max WS	TR30_30min	2.35	255.54	256.28		256.47	0.015621	1.92	1.22	2.56	0.89
Bellavista	99.76	Max WS	TR30_45min	1.90	255.54	256.21		256.38	0.015300	1.81	1.05	2.44	0.88
Bellavista	99.76	Max WS	TR30_1h	1.59	255.54	256.18		256.32	0.013513	1.65	0.96	2.34	0.82
Bellavista	99.76	Max WS	TR30_2h	1.01	255.54	256.05		256.16	0.013194	1.46	0.69	1.99	0.79
Bellavista	99.76	Max WS	TR200_3H	1.03	255.54	256.07	256.00	256.17	0.011730	1.41	0.73	2.04	0.75
Bellavista	99.76	Max WS	TR30_3H	0.77	255.54	256.01	255.93	256.09	0.010711	1.26	0.61	1.90	0.71
Bellavista	99.75			Lat Struct									
Bellavista	99.74	Max WS	TR200_30min	2.72	255.54	256.35		256.53	0.013321	1.88	1.45	2.73	0.82
Bellavista	99.74	Max WS	TR200_45min	2.18	255.54	256.29		256.44	0.011677	1.69	1.29	2.62	0.77
Bellavista	99.74	Max WS	TR200_1H	1.84	255.54	256.25		256.38	0.010574	1.56	1.18	2.54	0.73
Bellavista	99.74	Max WS	TR200_2H	1.14	255.54	256.14	256.01	256.22	0.008184	1.26	0.91	2.29	0.64
Bellavista	99.74	Max WS	TR30_30min	2.11	255.54	256.28		256.42	0.012030	1.70	1.24	2.59	0.78
Bellavista	99.74	Max WS	TR30_45min	1.68	255.54	256.22		256.34	0.010683	1.53	1.10	2.49	0.73
Bellavista	99.74	Max WS	TR30_1h	1.38	255.54	256.18		256.28	0.009328	1.38	1.00	2.40	0.68
Bellavista	99.74	Max WS	TR30_2h	0.84	255.54	256.07		256.13	0.007402	1.13	0.75	2.07	0.60
Bellavista	99.74	Max WS	TR200_3H	0.86	255.54	256.08	255.95	256.14	0.007057	1.11	0.77	2.10	0.58
Bellavista	99.74	Max WS	TR30_3H	0.63	255.54	256.02	255.88	256.07	0.006028	0.96	0.65	1.96	0.53
Bellavista	99.73			Lat Struct									
Bellavista	99	Max WS	TR200_30min	2.15	255.43	256.08		256.17	0.006322	1.31	1.64	3.16	0.58
Bellavista	99	Max WS	TR200_45min	1.79	255.43	256.07		256.14	0.004586	1.11	1.61	3.15	0.49
Bellavista	99	Max WS	TR200_1H	1.56	255.43	256.06		256.11	0.003786	1.00	1.57	3.13	0.45
Bellavista	99	Max WS	TR200_2H	1.08	255.43	256.00	255.75	256.03	0.002586	0.78	1.38	3.05	0.37
Bellavista	99	Max WS	TR30_30min	1.83	255.43	256.00		256.09	0.007276	1.31	1.40	3.05	0.62
Bellavista	99	Max WS	TR30_45min	1.58	255.43	255.99		256.06	0.006022	1.17	1.34	3.03	0.56
Bellavista	99	Max WS	TR30_1h	1.30	255.43	255.99		256.04	0.003944	0.96	1.36	3.04	0.46
Bellavista	99	Max WS	TR30_2h	0.84	255.43	255.96		255.98	0.002099	0.67	1.25	2.99	0.33
Bellavista	99	Max WS	TR200_3H	0.84	255.43	255.96	255.71	255.99	0.001985	0.66	1.28	3.00	0.32
Bellavista	99	Max WS	TR30_3H	0.64	255.43	255.93	255.67	255.95	0.001438	0.54	1.18	2.96	0.27
Bellavista	98.98			Lat Struct									
Bellavista	98	Max WS	TR200_30min	0.63	254.95	255.97		255.97	0.000037	0.13	4.95	6.66	0.05
Bellavista	98	Max WS	TR200_45min	0.91	254.95	255.99		255.99	0.000069	0.18	5.08	6.66	0.07
Bellavista	98	Max WS	TR200_1H	0.95	254.95	255.99		255.99	0.000076	0.19	5.07	6.66	0.07
Bellavista	98	Max WS	TR200_2H	0.63	254.95	255.96	255.19	255.96	0.000039	0.13	4.86	6.66	0.05
Bellavista	98	Max WS	TR30_30min	0.26	254.95	255.91		255.91	0.000008	0.06	4.55	6.66	0.02
Bellavista	98	Max WS	TR30_45min	0.45	254.95	255.94		255.94	0.000022	0.10	4.71	6.66	0.04
Bellavista	98	Max WS	TR30_1h	0.53	254.95	255.95		255.95	0.000029	0.11	4.76	6.66	0.04
Bellavista	98	Max WS	TR30_2h	0.48	254.95	255.93		255.93	0.000025	0.10	4.67	6.66	0.04
Bellavista	98	Max WS	TR200_3H	0.46	254.95	255.94	255.16	255.94	0.000023	0.10	4.70	6.66	0.04
Bellavista	98	Max WS	TR30_3H	0.31	254.95	255.91	255.13	255.91	0.000011	0.07	4.54	6.66	0.03
Bellavista	97.99			Lat Struct									
Bellavista	97.98			Lat Struct									
Bellavista	97	Max WS	TR200_30min	-0.31	254.74	255.98		255.98	0.000021	-0.09	3.52	5.40	0.03
Bellavista	97	Max WS	TR200_45min	-0.25	254.74	256.00		256.00	0.000012	-0.07	3.63	5.49	0.03
Bellavista	97	Max WS	TR200_1H	-0.23	254.74	256.00		256.00	0.000010	-0.06	3.62	5.48	0.02
Bellavista	97	Max WS	TR200_2H	-0.18	254.74	255.96	254.99	255.96	0.000008	-0.05	3.43	5.32	0.02
Bellavista	97	Max WS	TR30_30min	-0.19	254.74	255.91		255.91	0.000011	-0.06	3.19	5.12	0.02
Bellavista	97	Max WS	TR30_45min	-0.23	254.74	255.94		255.94	0.000013	-0.07	3.32	5.23	0.03
Bellavista	97	Max WS	TR30_1h	-0.20	254.74	255.95		255.95	0.000010	-0.06	3.37	5.27	0.02
Bellavista	97	Max WS	TR30_2h	-0.14	254.74	255.93		255.93	0.000005	-0.04	3.28	5.20	0.02

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Bellavista	89.98			Lat Struct									
Bellavista	89	Max WS	TR200_30min	0.09	254.35	255.57		255.57	0.000004	0.04	2.28	2.63	0.01
Bellavista	89	Max WS	TR200_45min	0.15	254.35	255.59		255.59	0.000011	0.06	2.33	2.63	0.02
Bellavista	89	Max WS	TR200_1H	0.16	254.35	255.60		255.60	0.000012	0.07	2.35	2.63	0.02
Bellavista	89	Max WS	TR200_2H	0.11	254.35	255.59		255.59	0.000006	0.05	2.32	2.63	0.02
Bellavista	89	Max WS	TR30_30min	-0.03	254.35	255.52		255.52	0.000000	-0.01	2.15	2.63	0.00
Bellavista	89	Max WS	TR30_45min	0.01	254.35	255.55		255.55	0.000000	0.00	2.21	2.63	0.00
Bellavista	89	Max WS	TR30_1h	0.02	254.35	255.56		255.56	0.000000	0.01	2.24	2.63	0.00
Bellavista	89	Max WS	TR30_2h	-0.01	254.35	255.55		255.55	0.000000	0.00	2.24	2.63	0.00
Bellavista	89	Max WS	TR200_3H	0.02	254.35	255.57		255.57	0.000000	0.01	2.27	2.63	0.00
Bellavista	89	Max WS	TR30_3H	-0.06	254.35	255.54		255.54	0.000002	-0.03	2.19	2.63	0.01
Bellavista	88.5			Culvert									
Bellavista	88	Max WS	TR200_30min	0.09	254.33	255.57		255.57	0.000003	0.04	2.64	3.75	0.01
Bellavista	88	Max WS	TR200_45min	0.15	254.33	255.59		255.59	0.000009	0.06	2.72	3.78	0.02
Bellavista	88	Max WS	TR200_1H	0.16	254.33	255.60		255.60	0.000009	0.06	2.74	3.79	0.02
Bellavista	88	Max WS	TR200_2H	0.11	254.33	255.58	254.50	255.58	0.000005	0.04	2.70	3.78	0.02
Bellavista	88	Max WS	TR30_30min	-0.04	254.33	255.52		255.52	0.000001	-0.02	2.47	3.69	0.01
Bellavista	88	Max WS	TR30_45min	0.01	254.33	255.54		255.54	0.000000	0.00	2.55	3.72	0.00
Bellavista	88	Max WS	TR30_1h	0.02	254.33	255.56		255.56	0.000000	0.01	2.59	3.74	0.00
Bellavista	88	Max WS	TR30_2h	-0.01	254.33	255.55		255.55	0.000000	0.00	2.59	3.74	0.00
Bellavista	88	Max WS	TR200_3H	0.02	254.33	255.57	254.38	255.57	0.000000	0.01	2.64	3.75	0.00
Bellavista	88	Max WS	TR30_3H	-0.06	254.33	255.54	254.44	255.54	0.000001	-0.02	2.53	3.71	0.01
Bellavista	87.99			Lat Struct									
Bellavista	87.98			Lat Struct									
Bellavista	87	Max WS	TR200_30min	0.16	254.42	255.57		255.57	0.000006	0.05	3.14	4.56	0.02
Bellavista	87	Max WS	TR200_45min	0.21	254.42	255.59		255.59	0.000009	0.06	3.23	4.56	0.02
Bellavista	87	Max WS	TR200_1H	0.21	254.42	255.60		255.60	0.000009	0.07	3.26	4.56	0.02
Bellavista	87	Max WS	TR200_2H	0.17	254.42	255.58	254.60	255.58	0.000006	0.05	3.21	4.56	0.02
Bellavista	87	Max WS	TR30_30min	0.05	254.42	255.52		255.52	0.000001	0.02	2.93	4.51	0.01
Bellavista	87	Max WS	TR30_45min	0.08	254.42	255.55		255.55	0.000002	0.03	3.03	4.56	0.01
Bellavista	87	Max WS	TR30_1h	0.10	254.42	255.56		255.56	0.000002	0.03	3.08	4.56	0.01
Bellavista	87	Max WS	TR30_2h	0.08	254.42	255.55		255.55	0.000001	0.03	3.07	4.56	0.01
Bellavista	87	Max WS	TR200_3H	0.12	254.42	255.57	254.57	255.57	0.000003	0.04	3.13	4.56	0.01
Bellavista	87	Max WS	TR30_3H	0.03	254.42	255.54	254.50	255.54	0.000000	0.01	3.00	4.56	0.00
Bellavista	86.99			Lat Struct									
Bellavista	86.98			Lat Struct									
Bellavista	86	Max WS	TR200_30min	0.06	254.61	255.57		255.57	0.000003	0.03	2.07	3.57	0.01
Bellavista	86	Max WS	TR200_45min	0.04	254.61	255.59		255.59	0.000001	0.02	2.15	3.57	0.01
Bellavista	86	Max WS	TR200_1H	0.04	254.61	255.60		255.60	0.000001	0.02	2.17	3.57	0.01
Bellavista	86	Max WS	TR200_2H	0.06	254.61	255.58	254.73	255.58	0.000002	0.03	2.13	3.57	0.01
Bellavista	86	Max WS	TR30_30min	0.05	254.61	255.52		255.52	0.000003	0.03	1.91	3.57	0.01
Bellavista	86	Max WS	TR30_45min	0.04	254.61	255.55		255.55	0.000001	0.02	1.99	3.57	0.01
Bellavista	86	Max WS	TR30_1h	0.05	254.61	255.56		255.56	0.000002	0.03	2.02	3.57	0.01
Bellavista	86	Max WS	TR30_2h	0.05	254.61	255.56		255.56	0.000002	0.03	2.02	3.57	0.01
Bellavista	86	Max WS	TR200_3H	0.05	254.61	255.57	254.73	255.57	0.000002	0.03	2.07	3.57	0.01
Bellavista	86	Max WS	TR30_3H	0.04	254.61	255.54	254.71	255.54	0.000002	0.02	1.97	3.57	0.01
Bellavista	85	Max WS	TR200_30min	0.09	254.08	255.57		255.57	0.000015	0.13	0.71	4.78	0.03
Bellavista	85	Max WS	TR200_45min	0.09	254.08	255.59		255.59	0.000015	0.12	0.72	4.82	0.03
Bellavista	85	Max WS	TR200_1H	0.09	254.08	255.60		255.60	0.000014	0.12	0.72	4.82	0.03
Bellavista	85	Max WS	TR200_2H	0.09	254.08	255.58		255.58	0.000015	0.13	0.71	4.81	0.03
Bellavista	85	Max WS	TR30_30min	0.08	254.08	255.52		255.52	0.000015	0.12	0.68	4.68	0.03
Bellavista	85	Max WS	TR30_45min	0.09	254.08	255.54		255.55	0.000015	0.13	0.69	4.75	0.03
Bellavista	85	Max WS	TR30_1h	0.09	254.08	255.55		255.56	0.000015	0.12	0.70	4.76	0.03
Bellavista	85	Max WS	TR30_2h	0.09	254.08	255.55		255.56	0.000015	0.13	0.70	4.76	0.03
Bellavista	85	Max WS	TR200_3H	0.09	254.08	255.57		255.57	0.000015	0.13	0.70	4.78	0.03
Bellavista	85	Max WS	TR30_3H	0.09	254.08	255.54		255.54	0.000015	0.12	0.69	4.73	0.03
Bellavista	84.5			Culvert									
Bellavista	84.2	Max WS	TR200_30min	0.06	254.08	255.37		255.37	0.000009	0.09	0.64	3.86	0.03
Bellavista	84.2	Max WS	TR200_45min	0.07	254.08	255.37		255.37	0.000016	0.12	0.64	3.87	0.03
Bellavista	84.2	Max WS	TR200_1H	0.08	254.08	255.37		255.37	0.000020	0.13	0.64	3.85	0.04
Bellavista	84.2	Max WS	TR200_2H	0.09	254.08	255.35	254.24	255.35	0.000024	0.14	0.62	3.79	0.04
Bellavista	84.2	Max WS	TR30_30min	0.06	254.08	255.33		255.33	0.000010	0.09	0.62	3.76	0.03
Bellavista	84.2	Max WS	TR30_45min	0.07	254.08	255.34		255.34	0.000014	0.11	0.62	3.78	0.03
Bellavista	84.2	Max WS	TR30_1h	0.08	254.08	255.34		255.34	0.000018	0.12	0.62	3.78	0.04
Bellavista	84.2	Max WS	TR30_2h	0.09	254.08	255.33		255.33	0.000023	0.14	0.62	3.74	0.04
Bellavista	84.2	Max WS	TR200_3H	0.09	254.08	255.33	254.24	255.33	0.000025	0.14	0.62	3.75	0.04
Bellavista	84.2	Max WS	TR30_3H	0.09	254.08	255.32	254.24	255.32	0.000024	0.14	0.61	3.71	0.04
Bellavista	84.19			Lat Struct									
Bellavista	84.18			Lat Struct									
Bellavista	83	Max WS	TR200_30min	0.07	254.07	255.37		255.37	0.000016	0.14	0.52	3.40	0.04
Bellavista	83	Max WS	TR200_45min	0.07	254.07	255.37		255.37	0.000016	0.14	0.52	3.41	0.04
Bellavista	83	Max WS	TR200_1H	0.07	254.07	255.37		255.37	0.000016	0.14	0.52	3.40	0.04

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Bellavista	83	Max WS	TR200_2H	0.07	254.07	255.35		255.35	0.000017	0.14	0.51	3.39	0.04
Bellavista	83	Max WS	TR30_30min	0.07	254.07	255.33		255.34	0.000018	0.14	0.50	3.39	0.04
Bellavista	83	Max WS	TR30_45min	0.07	254.07	255.34		255.34	0.000017	0.14	0.51	3.39	0.04
Bellavista	83	Max WS	TR30_1h	0.07	254.07	255.34		255.34	0.000017	0.14	0.51	3.39	0.04
Bellavista	83	Max WS	TR30_2h	0.07	254.07	255.33		255.33	0.000018	0.14	0.50	3.38	0.04
Bellavista	83	Max WS	TR200_3H	0.07	254.07	255.33		255.33	0.000018	0.14	0.50	3.39	0.04
Bellavista	83	Max WS	TR30_3H	0.07	254.07	255.32		255.32	0.000018	0.14	0.50	3.38	0.04
Bellavista	82.5												
				Culvert									
Bellavista	81	Max WS	TR200_30min	0.00	252.03	252.50		252.50	0.000002	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR200_45min	0.00	252.03	252.50		252.50	0.000001	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR200_1H	0.00	252.03	252.50		252.50	0.000001	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR200_2H	0.00	252.03	252.50	252.06	252.50	0.000001	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR30_30min	0.00	252.03	252.50		252.50	0.000001	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR30_45min	0.00	252.03	252.50		252.50	0.000001	0.02	0.18	1.46	0.01
Bellavista	81	Max WS	TR30_1h	0.01	252.03	252.50		252.50	0.000003	0.03	0.18	1.46	0.01
Bellavista	81	Max WS	TR30_2h	0.00	252.03	252.50		252.50	0.000000	0.01	0.18	1.46	0.00
Bellavista	81	Max WS	TR200_3H	0.01	252.03	252.50	252.08	252.50	0.000006	0.04	0.18	1.46	0.02
Bellavista	81	Max WS	TR30_3H	0.00	252.03	252.50	252.05	252.50	0.000000	0.01	0.18	1.46	0.00
Bellavista	80.9	Max WS	TR200_30min	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR200_45min	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR200_1H	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR200_2H	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR30_30min	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR30_45min	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR30_1h	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR30_2h	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR200_3H	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00
Bellavista	80.9	Max WS	TR30_3H	0.00	252.02	252.50	252.04	252.50	0.000000	0.00	0.65	1.46	0.00

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)	
Bellavista	99.99	Max WS	TR200_30min	3.19	0.00	3.00	0.00						256.77	256.75	256.52	256.59	256.36
Bellavista	99.99	Max WS	TR200_45min	2.51	0.00	2.42	0.00						256.77	256.63	256.44	256.49	256.30
Bellavista	99.99	Max WS	TR200_1H	2.10	0.00	2.07	0.00						256.77	256.55	256.39	256.42	256.25
Bellavista	99.99	Max WS	TR200_2H	1.34	0.00	1.34	0.00						256.77	256.38	256.25	256.26	256.14
Bellavista	99.99	Max WS	TR30_30min	2.42	0.00	2.35	0.00						256.77	256.62	256.43	256.47	256.28
Bellavista	99.99	Max WS	TR30_45min	1.91	0.00	1.90	0.00						256.77	256.51	256.35	256.38	256.21
Bellavista	99.99	Max WS	TR30_1h	1.59	0.00	1.59	0.00						256.77	256.44	256.30	256.32	256.18
Bellavista	99.99	Max WS	TR30_2h	1.01	0.00	1.01	0.00						256.77	256.28	256.17	256.16	256.05
Bellavista	99.99	Max WS	TR200_3H	1.03	0.00	1.03	0.00						256.77	256.29	256.18	256.17	256.07
Bellavista	99.99	Max WS	TR30_3H	0.77	0.00	0.77	0.00						256.77	256.20	256.11	256.09	256.01
Bellavista	99.98	Max WS	TR200_30min	3.19	0.95	2.15	0.95		39.70	0.27	0.19		255.81	256.75	256.52	256.17	256.08
Bellavista	99.98	Max WS	TR200_45min	2.51	0.65	1.79	0.65		39.70	0.26	0.15		255.81	256.63	256.44	256.14	256.07
Bellavista	99.98	Max WS	TR200_1H	2.10	0.46	1.56	0.46		39.70	0.25	0.11		255.81	256.55	256.39	256.11	256.06
Bellavista	99.98	Max WS	TR200_2H	1.34	0.17	1.08	0.17		20.49	0.19	0.09		255.81	256.38	256.25	256.03	256.00
Bellavista	99.98	Max WS	TR30_30min	2.42	0.46	1.83	0.46		39.70	0.19	0.12		255.81	256.62	256.43	256.09	256.00
Bellavista	99.98	Max WS	TR30_45min	1.91	0.24	1.58	0.24		39.70	0.18	0.08		255.81	256.51	256.35	256.06	255.99
Bellavista	99.98	Max WS	TR30_1h	1.59	0.19	1.30	0.19		26.21	0.18	0.08		255.81	256.44	256.30	256.04	255.99
Bellavista	99.98	Max WS	TR30_2h	1.01	0.08	0.84	0.08		13.54	0.15	0.07		255.81	256.28	256.17	255.98	255.96
Bellavista	99.98	Max WS	TR200_3H	1.03	0.09	0.84	0.09		14.72	0.15	0.07		255.81	256.29	256.18	255.99	255.96
Bellavista	99.98	Max WS	TR30_3H	0.77	0.05	0.64	0.05		10.51	0.12	0.06		255.81	256.20	256.11	255.95	255.93
Bellavista	99.75	Max WS	TR200_30min	3.00	0.26	2.72	0.00						260.75	256.58	256.36	256.53	256.35
Bellavista	99.75	Max WS	TR200_45min	2.42	0.24	2.18	0.00						260.75	256.49	256.30	256.44	256.29
Bellavista	99.75	Max WS	TR200_1H	2.07	0.23	1.84	0.00						260.75	256.42	256.25	256.38	256.25
Bellavista	99.75	Max WS	TR200_2H	1.34	0.20	1.14	0.00						260.75	256.26	256.14	256.22	256.14
Bellavista	99.75	Max WS	TR30_30min	2.35	0.24	2.11	0.00						260.75	256.47	256.28	256.42	256.28
Bellavista	99.75	Max WS	TR30_45min	1.90	0.22	1.68	0.00						260.75	256.38	256.21	256.34	256.22
Bellavista	99.75	Max WS	TR30_1h	1.59	0.21	1.38	0.00						260.75	256.32	256.18	256.28	256.18
Bellavista	99.75	Max WS	TR30_2h	1.01	0.17	0.84	0.00						260.75	256.16	256.05	256.13	256.07
Bellavista	99.75	Max WS	TR200_3H	1.03	0.18	0.86	0.00						260.75	256.17	256.07	256.14	256.08
Bellavista	99.75	Max WS	TR30_3H	0.77	0.14	0.63	0.00						260.75	256.09	256.01	256.07	256.02
Bellavista	99.73	Max WS	TR200_30min	2.72	1.26	0.63	1.26		62.72	0.24	0.12		255.73	256.53	256.35	255.97	255.97
Bellavista	99.73	Max WS	TR200_45min	2.18	1.53	0.91	1.53		73.32	0.26	0.12		255.73	256.44	256.29	255.99	255.99
Bellavista	99.73	Max WS	TR200_1H	1.84	1.52	0.95	1.52		72.09	0.26	0.13		255.73	256.38	256.25	255.99	255.99
Bellavista	99.73	Max WS	TR200_2H	1.14	1.10	0.63	1.10		59.25	0.23	0.12		255.73	256.22	256.14	255.96	255.96
Bellavista	99.73	Max WS	TR30_30min	2.11	0.63	0.26	0.63		47.10	0.18	0.10		255.73	256.42	256.28	255.91	255.91
Bellavista	99.73	Max WS	TR30_45min	1.68	0.85	0.45	0.85		53.02	0.21	0.11		255.73	256.34	256.22	255.94	255.94
Bellavista	99.73	Max WS	TR30_1h	1.38	0.94	0.53	0.94		55.22	0.22	0.11		255.73	256.28	256.18	255.95	255.95
Bellavista	99.73	Max WS	TR30_2h	0.84	0.80	0.48	0.80		51.63	0.20	0.10		255.73	256.13	256.07	255.93	255.93
Bellavista	99.73	Max WS	TR200_3H	0.86	0.84	0.46	0.84		52.82	0.21	0.11		255.73	256.14	256.08	255.94	255.94
Bellavista	99.73	Max WS	TR30_3H	0.63	0.62	0.31	0.62		46.93	0.18	0.09		255.73	256.07	256.02	255.91	255.91
Bellavista	98.98	Max WS	TR200_30min	2.15	0.48	0.63	0.48		104.68	0.74	0.48		255.23	256.17	256.08	255.97	255.97
Bellavista	98.98	Max WS	TR200_45min	1.79	0.98	0.91	0.98		104.68	0.76	0.50		255.23	256.14	256.07	255.99	255.99
Bellavista	98.98	Max WS	TR200_1H	1.56	3.11	0.95	3.11		104.68	0.76	0.50		255.23	256.11	256.06	255.99	255.99
Bellavista	98.98	Max WS	TR200_2H	1.08	0.05	0.63	0.05		104.68	0.73	0.46		255.23	256.03	256.00	255.96	255.96
Bellavista	98.98	Max WS	TR30_30min	1.83	3.66	0.26	3.66		104.68	0.68	0.41		255.23	256.09	256.00	255.91	255.91
Bellavista	98.98	Max WS	TR30_45min	1.58	4.14	0.45	4.14		104.68	0.71	0.43		255.23	256.06	255.99	255.94	255.94
Bellavista	98.98	Max WS	TR30_1h	1.30	3.35	0.53	3.35		104.68	0.72	0.44		255.23	256.04	255.99	255.95	255.95
Bellavista	98.98	Max WS	TR30_2h	0.84	0.18	0.48	0.18		104.68	0.70	0.43		255.23	255.98	255.96	255.93	255.93
Bellavista	98.98	Max WS	TR200_3H	0.84	0.03	0.46	0.03		104.68	0.71	0.43		255.23	255.99	255.96	255.94	255.94
Bellavista	98.98	Max WS	TR30_3H	0.64	0.06	0.31	0.06		104.68	0.68	0.40		255.23	255.95	255.93	255.91	255.91
Bellavista	97.99	Max WS	TR200_30min	0.63	1.23	-0.31	1.23		62.48	0.24	0.12		255.73	255.97	255.97	255.98	255.98
Bellavista	97.99	Max WS	TR200_45min	0.91	1.49	-0.25	1.49		67.68	0.26	0.13		255.73	255.99	255.99	256.00	256.00
Bellavista	97.99	Max WS	TR200_1H	0.95	1.48	-0.23	1.48		67.21	0.26	0.13		255.73	255.99	255.99	256.00	256.00
Bellavista	97.99	Max WS	TR200_2H	0.63	1.05	-0.18	1.05		58.34	0.23	0.11		255.73	255.96	255.96	255.96	255.96
Bellavista	97.99	Max WS	TR30_30min	0.26	0.59	-0.19	0.59		46.57	0.18	0.09		255.73	255.91	255.91	255.91	255.91
Bellavista	97.99	Max WS	TR30_45min	0.45	0.82	-0.23	0.82		52.95	0.21	0.10		255.73	255.94	255.94	255.94	255.94
Bellavista	97.99	Max WS	TR30_1h	0.53	0.90	-0.20	0.90		55.14	0.22	0.11		255.73	255.95	255.95	255.95	255.95
Bellavista	97.99	Max WS	TR30_2h	0.48	0.76	-0.14	0.76		51.24	0.20	0.10		255.73	255.93	255.93	255.93	255.93
Bellavista	97.99	Max WS	TR200_3H	0.46	0.80	-0.14	0.80		52.31	0.21	0.10		255.73	255.94	255.94	255.94	255.94
Bellavista	97.99	Max WS	TR30_3H	0.31	0.58	-0.11	0.58		46.05	0.18	0.09		255.73	255.91	255.91	255.91	255.91
Bellavista	97.98	Max WS	TR200_30min	0.63	1.02	-0.31	1.02		99.53	0.74	0.74		255.23	255.97	255.97	255.98	255.98
Bellavista	97.98	Max WS	TR200_45min	0.91	0.39	-0.25	0.39		99.53	0.76	0.76		255.23	255.99	255.99	256.00	256.00
Bellavista	97.98	Max WS	TR200_1H	0.95	6.97	-0.23	6.97		99.53	0.75	0.75		255.23	255.99	255.99	256.00	256.00
Bellavista	97.98	Max WS	TR200_2H	0.63	0.54	-0.18	0.54		99.53	0.73	0.72		255.23	255.96	255.96	255.96	255.96
Bellavista	97.98	Max WS	TR30_30min	0.26	6.41	-0.19	6.41		99.53	0.68	0.67		255.23	255.91	255.91	255.91	255.91
Bellavista	97.98	Max WS	TR30_45min	0.45	7.45	-0.23	7.45		99.53	0.71	0.70		255.23	255.94	255.94	255.94	255.94
Bellavista	97.98	Max WS	TR30_1h	0.53	6.27	-0.20	6.27		99.53	0.72	0.71		255.23	255.95	255.95	255.95	255.95
Bellavista	97.98	Max WS	TR30_2h	0.48	0.84	-0.14	0.84		99.53	0.69	0.69		255.23	255.93	255.93	255.93	255.93
Bellavista	97.98	Max WS	TR200_3H	0.46	0.29	-0.14	0.29		99.53	0.71	0.70		255.23	255.94	255.94	255.94	255.94
Bellavista	97.98	Max WS	TR30_3H	0.31	0.26	-0.11	0.26		99.53	0.68	0.67		255.23	255.91	255.91	255.91	255.91
Bellavista	96.99	Max WS	TR200_30min	-0.31	0.00	0.14	0.00						256.06	255.98	255.98	255.96	255.95
Bellavista	96.99	Max WS	TR200_45min	-0.25	0.00	0.17	0.00						256.06	256.00	256.00	255.98	255.96
Bellavista	96.99	Max WS	TR200_1H	-0.23	0.00	0.17	0.00						256.06	256.00	256.00	255.98	255.96
Bellavista	96.99	Max WS	TR200_2H	-0.18	0.00	0.11	0.00					</					

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
Bellavista	95.98	Max WS	TR200_3H	0.09	0.42	0.15	0.42		67.28	0.45		255.27	255.92	255.90	255.72	255.72
Bellavista	95.98	Max WS	TR30_3H	0.06	0.40	0.08	0.40		54.86	0.38		255.27	255.89	255.88	255.65	255.65
Bellavista	92.99	Max WS	TR200_30min	0.21	0.00	0.73	0.00					255.84	255.73	255.73	255.70	255.70
Bellavista	92.99	Max WS	TR200_45min	0.22	0.00	0.82	0.00					255.84	255.77	255.77	255.74	255.73
Bellavista	92.99	Max WS	TR200_1H	0.16	0.00	0.89	0.00					255.84	255.79	255.79	255.75	255.75
Bellavista	92.99	Max WS	TR200_2H	0.18	0.00	0.81	0.00					255.84	255.76	255.75	255.73	255.72
Bellavista	92.99	Max WS	TR30_30min	0.09	0.00	0.55	0.00					255.84	255.64	255.64	255.62	255.61
Bellavista	92.99	Max WS	TR30_45min	0.10	0.00	0.59	0.00					255.84	255.68	255.68	255.65	255.64
Bellavista	92.99	Max WS	TR30_1h	0.09	0.00	0.64	0.00					255.84	255.69	255.69	255.67	255.66
Bellavista	92.99	Max WS	TR30_2h	0.09	0.00	0.60	0.00					255.84	255.68	255.68	255.66	255.65
Bellavista	92.99	Max WS	TR200_3H	0.14	0.00	0.69	0.00					255.84	255.72	255.72	255.69	255.68
Bellavista	92.99	Max WS	TR30_3H	0.07	0.00	0.52	0.00					255.84	255.64	255.64	255.62	255.62
Bellavista	92.98	Max WS	TR200_30min	0.21	5.91	0.73	5.91		184.93	0.71	0.46	255.01	255.73	255.73	255.70	255.70
Bellavista	92.98	Max WS	TR200_45min	0.22	-3.02	0.82	-3.02		184.93	0.75	0.51	255.01	255.77	255.77	255.74	255.73
Bellavista	92.98	Max WS	TR200_1H	0.16	4.71	0.89	4.71		184.93	0.76	0.52	255.01	255.79	255.79	255.75	255.75
Bellavista	92.98	Max WS	TR200_2H	0.18	1.52	0.81	1.52		184.93	0.73	0.50	255.01	255.76	255.75	255.73	255.72
Bellavista	92.98	Max WS	TR30_30min	0.09	2.33	0.55	2.33		184.93	0.62	0.38	255.01	255.64	255.64	255.62	255.61
Bellavista	92.98	Max WS	TR30_45min	0.10	2.30	0.59	2.30		184.93	0.65	0.42	255.01	255.68	255.68	255.65	255.64
Bellavista	92.98	Max WS	TR30_1h	0.09	7.57	0.64	7.57		184.93	0.67	0.43	255.01	255.69	255.69	255.67	255.66
Bellavista	92.98	Max WS	TR30_2h	0.09	2.52	0.60	2.52		184.93	0.66	0.42	255.01	255.68	255.68	255.66	255.65
Bellavista	92.98	Max WS	TR200_3H	0.14	0.41	0.69	0.41		184.93	0.69	0.45	255.01	255.72	255.72	255.69	255.68
Bellavista	92.98	Max WS	TR30_3H	0.07	1.94	0.52	1.94		184.93	0.62	0.38	255.01	255.64	255.64	255.62	255.62
Bellavista	90.99	Max WS	TR200_30min	0.73	0.00	1.09	0.00					255.67	255.70	255.70	255.61	255.60
Bellavista	90.99	Max WS	TR200_45min	0.82	0.00	1.24	0.00					255.67	255.74	255.73	255.64	255.62
Bellavista	90.99	Max WS	TR200_1H	0.89	0.00	1.28	0.00					255.67	255.75	255.75	255.65	255.63
Bellavista	90.99	Max WS	TR200_2H	0.81	0.00	1.16	0.00					255.67	255.73	255.72	255.63	255.61
Bellavista	90.99	Max WS	TR30_30min	0.55	0.00	0.72	0.00					255.67	255.62	255.61	255.54	255.54
Bellavista	90.99	Max WS	TR30_45min	0.59	0.00	0.87	0.00					255.67	255.65	255.64	255.57	255.56
Bellavista	90.99	Max WS	TR30_1h	0.64	0.00	0.93	0.00					255.67	255.67	255.66	255.59	255.58
Bellavista	90.99	Max WS	TR30_2h	0.60	0.00	0.87	0.00					255.67	255.66	255.65	255.58	255.57
Bellavista	90.99	Max WS	TR200_3H	0.69	0.00	1.03	0.00					255.67	255.69	255.68	255.61	255.59
Bellavista	90.99	Max WS	TR30_3H	0.52	0.00	0.75	0.00					255.67	255.62	255.62	255.56	255.55
Bellavista	90.98	Max WS	TR200_30min	0.73	1.19	1.09	1.19		70.84	0.27	0.21	255.33	255.70	255.70	255.61	255.60
Bellavista	90.98	Max WS	TR200_45min	0.82	1.13	1.24	1.13		70.84	0.29	0.24	255.33	255.74	255.73	255.64	255.62
Bellavista	90.98	Max WS	TR200_1H	0.89	0.32	1.28	0.32		70.84	0.30	0.25	255.33	255.75	255.75	255.65	255.63
Bellavista	90.98	Max WS	TR200_2H	0.81	0.64	1.16	0.64		70.84	0.28	0.23	255.33	255.73	255.72	255.63	255.61
Bellavista	90.98	Max WS	TR30_30min	0.55	0.12	0.72	0.12		70.84	0.21	0.14	255.33	255.62	255.61	255.54	255.54
Bellavista	90.98	Max WS	TR30_45min	0.59	0.89	0.87	0.89		70.84	0.23	0.16	255.33	255.65	255.64	255.57	255.56
Bellavista	90.98	Max WS	TR30_1h	0.64	-0.14	0.93	-0.14		70.84	0.25	0.18	255.33	255.67	255.66	255.59	255.58
Bellavista	90.98	Max WS	TR30_2h	0.60	-0.37	0.87	-0.37		70.84	0.24	0.18	255.33	255.66	255.65	255.58	255.57
Bellavista	90.98	Max WS	TR200_3H	0.69	-0.58	1.03	-0.58		70.84	0.26	0.21	255.33	255.69	255.68	255.61	255.59
Bellavista	90.98	Max WS	TR30_3H	0.52	0.17	0.75	0.17		70.84	0.22	0.15	255.33	255.62	255.62	255.56	255.55
Bellavista	89.99	Max WS	TR200_30min	1.09	1.34	0.09	1.34		66.88	0.33	0.16	255.24	255.61	255.60	255.57	255.57
Bellavista	89.99	Max WS	TR200_45min	1.24	1.57	0.15	1.57		73.06	0.35	0.16	255.24	255.64	255.62	255.59	255.59
Bellavista	89.99	Max WS	TR200_1H	1.28	1.64	0.16	1.64		75.19	0.36	0.17	255.24	255.65	255.63	255.60	255.60
Bellavista	89.99	Max WS	TR200_2H	1.16	1.51	0.11	1.51		71.21	0.35	0.16	255.24	255.63	255.61	255.59	255.59
Bellavista	89.99	Max WS	TR30_30min	0.72	0.92	-0.03	0.92		56.10	0.28	0.14	255.24	255.54	255.54	255.52	255.52
Bellavista	89.99	Max WS	TR30_45min	0.87	1.10	0.01	1.10		60.53	0.31	0.15	255.24	255.57	255.56	255.55	255.55
Bellavista	89.99	Max WS	TR30_1h	0.93	1.20	0.02	1.20		63.11	0.32	0.15	255.24	255.59	255.58	255.56	255.56
Bellavista	89.99	Max WS	TR30_2h	0.87	1.19	-0.01	1.19		62.53	0.31	0.15	255.24	255.58	255.57	255.55	255.55
Bellavista	89.99	Max WS	TR200_3H	1.03	1.33	0.02	1.33		66.26	0.33	0.16	255.24	255.61	255.59	255.57	255.57
Bellavista	89.99	Max WS	TR30_3H	0.75	1.05	-0.06	1.05		59.27	0.30	0.15	255.24	255.56	255.55	255.54	255.54
Bellavista	89.98	Max WS	TR200_30min	1.09	0.41	0.09	0.41		84.59	0.46	0.33	255.11	255.61	255.60	255.57	255.57
Bellavista	89.98	Max WS	TR200_45min	1.24	0.87	0.15	0.87		84.59	0.48	0.35	255.11	255.64	255.62	255.59	255.59
Bellavista	89.98	Max WS	TR200_1H	1.28	0.25	0.16	0.25		84.59	0.49	0.36	255.11	255.65	255.63	255.60	255.60
Bellavista	89.98	Max WS	TR200_2H	1.16	0.63	0.11	0.63		84.59	0.48	0.35	255.11	255.63	255.61	255.59	255.59
Bellavista	89.98	Max WS	TR30_30min	0.72	1.53	-0.03	1.53		84.59	0.41	0.28	255.11	255.54	255.54	255.52	255.52
Bellavista	89.98	Max WS	TR30_45min	0.87	1.48	0.01	1.48		84.59	0.44	0.30	255.11	255.57	255.56	255.55	255.55
Bellavista	89.98	Max WS	TR30_1h	0.93	1.73	0.02	1.73		84.59	0.45	0.31	255.11	255.59	255.58	255.56	255.56
Bellavista	89.98	Max WS	TR30_2h	0.87	0.50	-0.01	0.50		84.59	0.44	0.31	255.11	255.58	255.57	255.55	255.55
Bellavista	89.98	Max WS	TR200_3H	1.03	0.18	0.02	0.18		84.59	0.46	0.33	255.11	255.61	255.59	255.57	255.57
Bellavista	89.98	Max WS	TR30_3H	0.75	0.66	-0.06	0.66		84.59	0.43	0.30	255.11	255.56	255.55	255.54	255.54
Bellavista	87.99	Max WS	TR200_30min	0.09	0.04	0.16	0.04		40.53	0.04	0.02	255.53	255.57	255.57	255.57	255.57
Bellavista	87.99	Max WS	TR200_45min	0.15	0.10	0.21	0.10		62.92	0.06	0.03	255.53	255.59	255.59	255.59	255.59
Bellavista	87.99	Max WS	TR200_1H	0.16	0.13	0.21	0.13		69.06	0.07	0.03	255.53	255.60	255.60	255.60	255.60
Bellavista	87.99	Max WS	TR200_2H	0.11	0.08	0.17	0.08		57.41	0.05	0.03	255.53	255.58	255.58	255.58	255.58
Bellavista	87.99	Max WS	TR30_30min	-0.04	0.00	0.05	0.00					255.53	255.52	255.52	255.52	255.52
Bellavista	87.99	Max WS	TR30_45min	0.01	0.00	0.08	0.00		16.14	0.02	0.01	255.53	255.54	255.54	255.55	255.55
Bellavista	87.99	Max WS	TR30_1h	0.02	0.01	0.10	0.01		26.26	0.03	0.01	255.53	255.56	255.56	255.56	255.56
Bellavista	87.99	Max WS	TR30_2h	-0.01	0.01	0.08	0.01		25.31	0.02	0.01	255.53	255.55	255.55	255.55	255.55
Bellavista	87.99	Max WS	TR200_3H	0.02	0.03	0.12	0.03		38.94	0.04	0.02	255.53	255.57	255.57	255.57	255.57
Bellavista	87.99	Max WS	TR30_3H	-0.06	0.00	0.03	0.00		8.56	0.01	0.00	255.53	255.54	255.54	255.54	255.54
Bellavista	87.98	Max WS	TR200_30min	0.09	0.91	0.16	0.91		107.07	0.64	0.35	254.93	255.57	255.57	255.57	255.57
Bellavista	87.98	Max WS	TR200_45min	0.15	1.15	0.21	1.15		107.07	0.66	0.37	254.93	255.59	255.59	255.59	255.59
Bellavista	87.98	Max WS	TR200_1H	0.16	0.26	0.21	0.26		107.07	0.67	0.38	254.93	255.60	255.60	255.60	255.60
Bellavista	87.98	Max WS	TR200_2H	0.11	1.03	0.17	1.03		107.07	0.66	0.37	254.93	255.58	25		

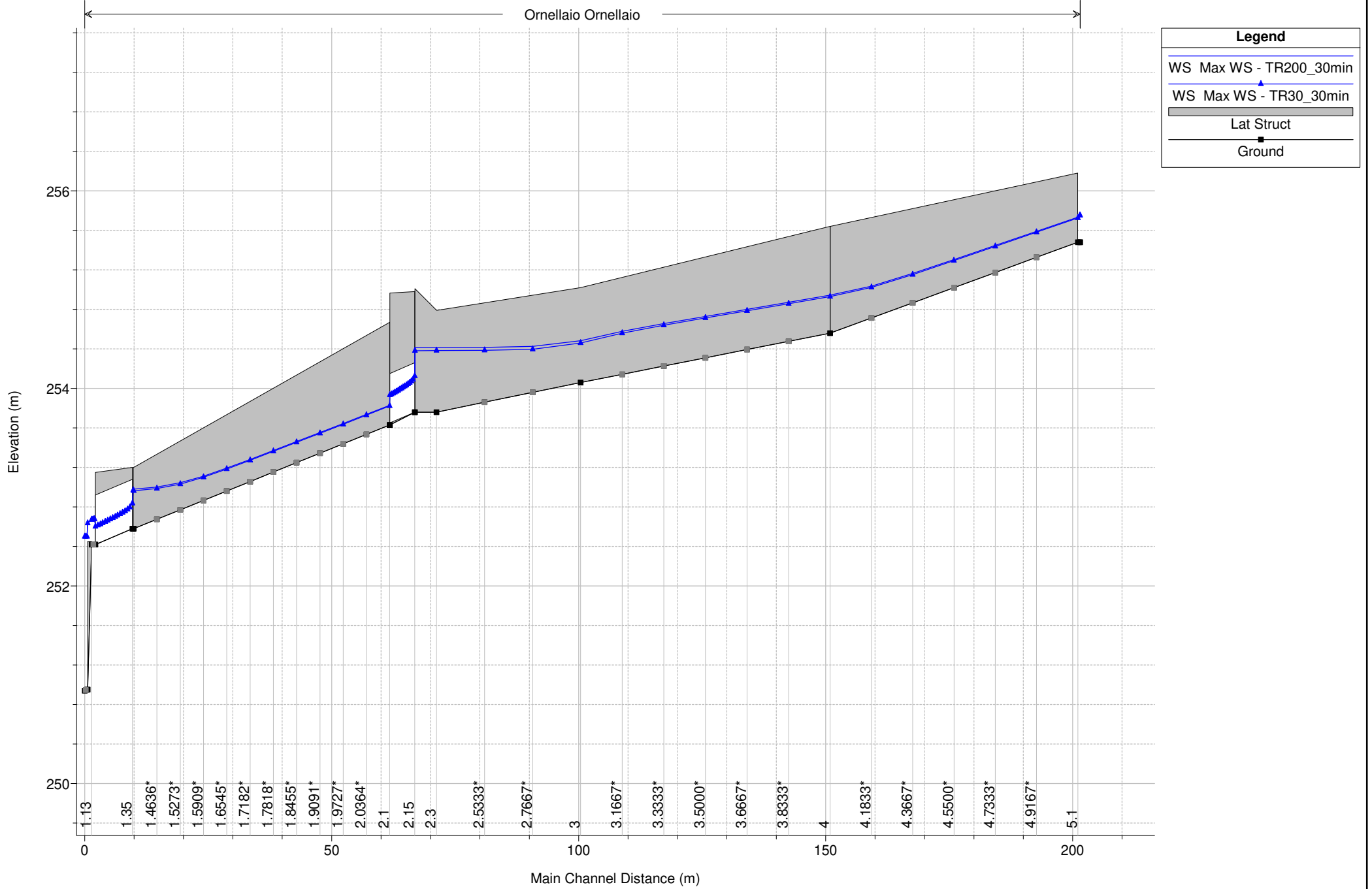
Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
Bellavista	84.19	Max WS	TR30_45min	0.07	0.09	0.07	0.09		12.43	0.16	0.08	255.18	255.34	255.34	255.34	255.34
Bellavista	84.19	Max WS	TR30_1h	0.08	0.09	0.07	0.09		12.46	0.16	0.08	255.18	255.34	255.34	255.34	255.34
Bellavista	84.19	Max WS	TR30_2h	0.09	0.07	0.07	0.07		11.41		0.07	255.18	255.33	255.33	255.33	255.33
Bellavista	84.19	Max WS	TR200_3H	0.09	0.08	0.07	0.08		11.67	0.15	0.08	255.18	255.33	255.33	255.33	255.33
Bellavista	84.19	Max WS	TR30_3H	0.09	0.06	0.07	0.06		10.50	0.14	0.07	255.18	255.32	255.32	255.32	255.32
Bellavista	84.18	Max WS	TR200_30min	0.06	0.00	0.07	0.00					255.73	255.37	255.37	255.37	255.37
Bellavista	84.18	Max WS	TR200_45min	0.07	0.00	0.07	0.00					255.73	255.37	255.37	255.37	255.37
Bellavista	84.18	Max WS	TR200_1H	0.08	0.00	0.07	0.00					255.73	255.37	255.37	255.37	255.37
Bellavista	84.18	Max WS	TR200_2H	0.09	0.00	0.07	0.00					255.73	255.35	255.35	255.35	255.35
Bellavista	84.18	Max WS	TR30_30min	0.06	0.00	0.07	0.00					255.73	255.33	255.33	255.34	255.33
Bellavista	84.18	Max WS	TR30_45min	0.07	0.00	0.07	0.00					255.73	255.34	255.34	255.34	255.34
Bellavista	84.18	Max WS	TR30_1h	0.08	0.00	0.07	0.00					255.73	255.34	255.34	255.34	255.34
Bellavista	84.18	Max WS	TR30_2h	0.09	0.00	0.07	0.00					255.73	255.33	255.33	255.33	255.33
Bellavista	84.18	Max WS	TR200_3H	0.09	0.00	0.07	0.00					255.73	255.33	255.33	255.33	255.33
Bellavista	84.18	Max WS	TR30_3H	0.09	0.00	0.07	0.00					255.73	255.32	255.32	255.32	255.32

Fosso
ORNELLAIO

Bellavista Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Destra Idraulica

Ornellaio Ornellaio

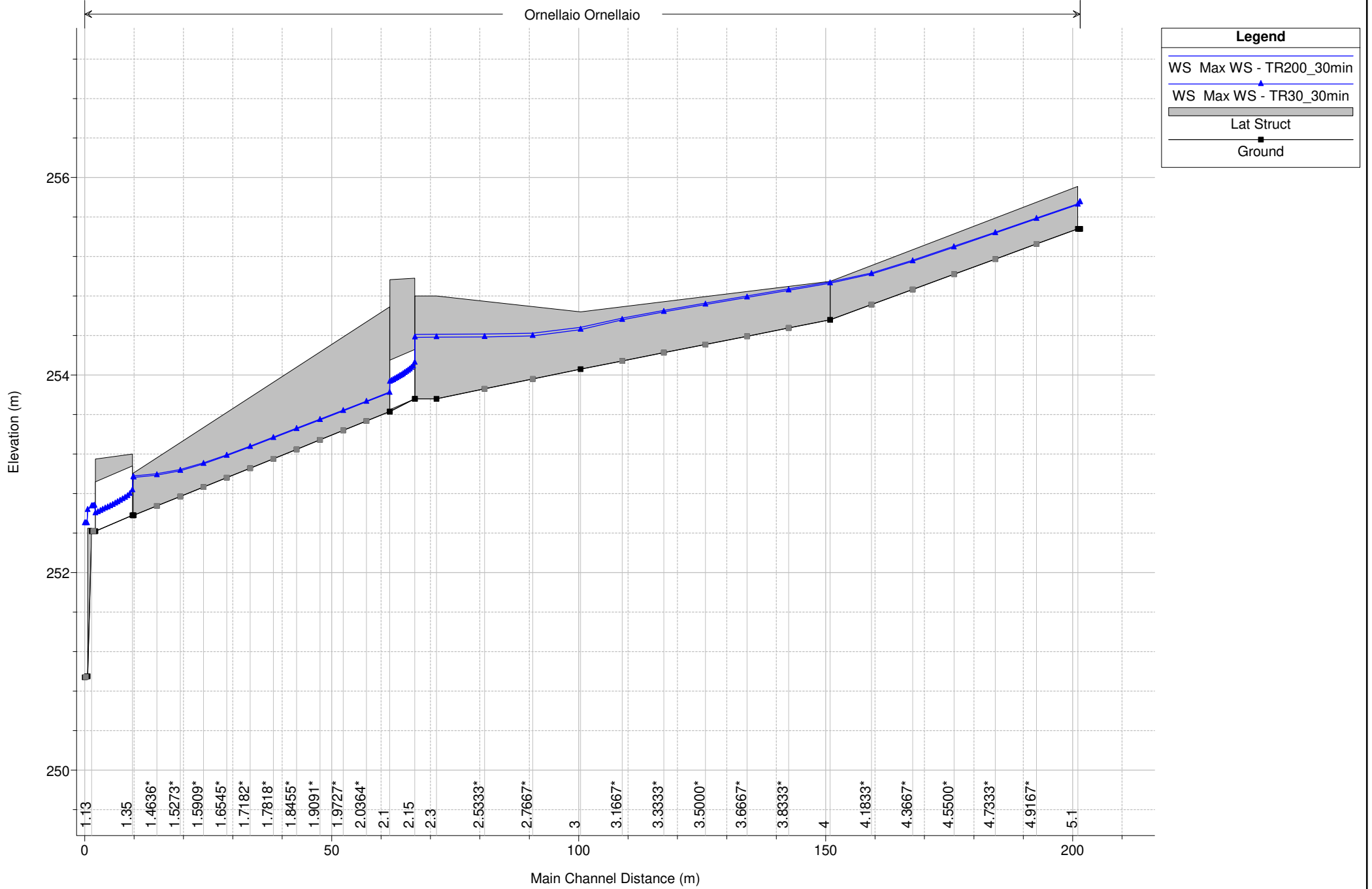


1 cm Horiz. = 10 m 1 cm Vert. = 0.5 m

Bellavista Plan: 1) TR200_30min 2) TR30_30min

Strutture Lateral Sinistra Idraulica

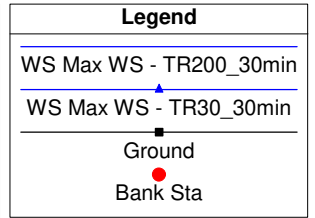
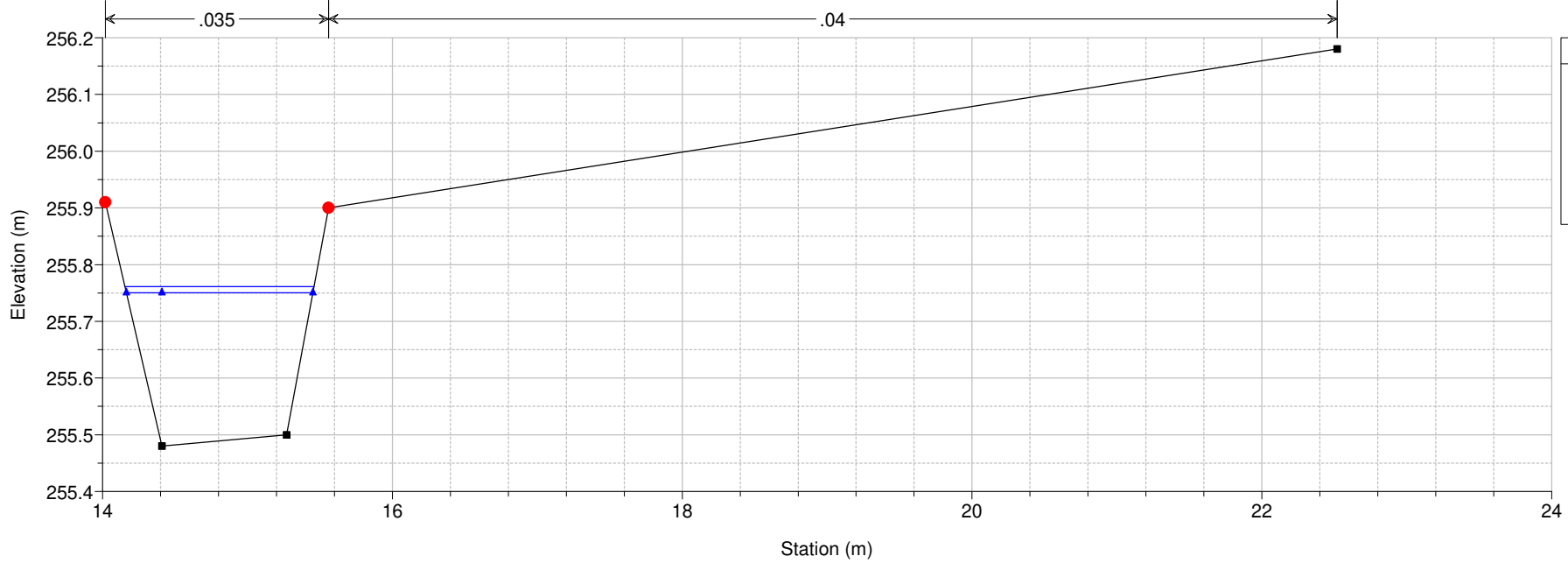
Ornellaio Ornellaio



1 cm Horiz. = 10 m 1 cm Vert. = 0.5 m

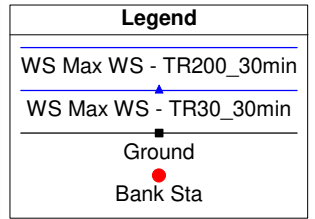
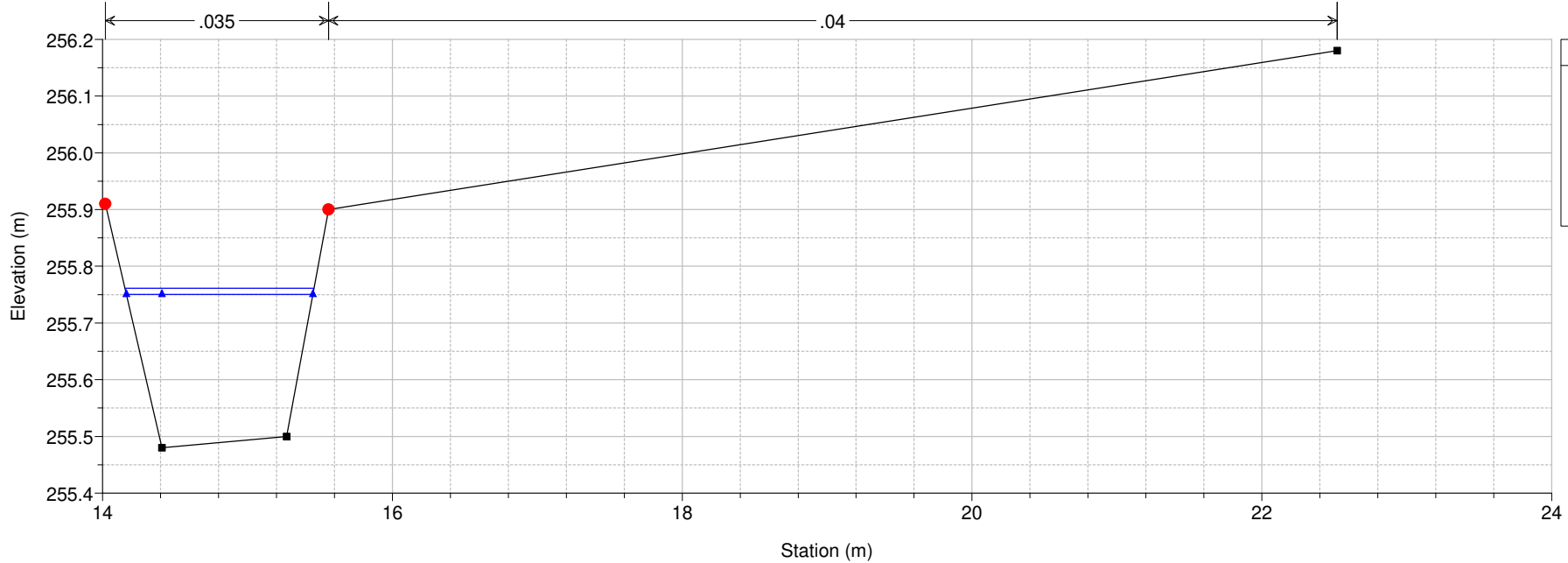
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 5.11 copia sez.5C



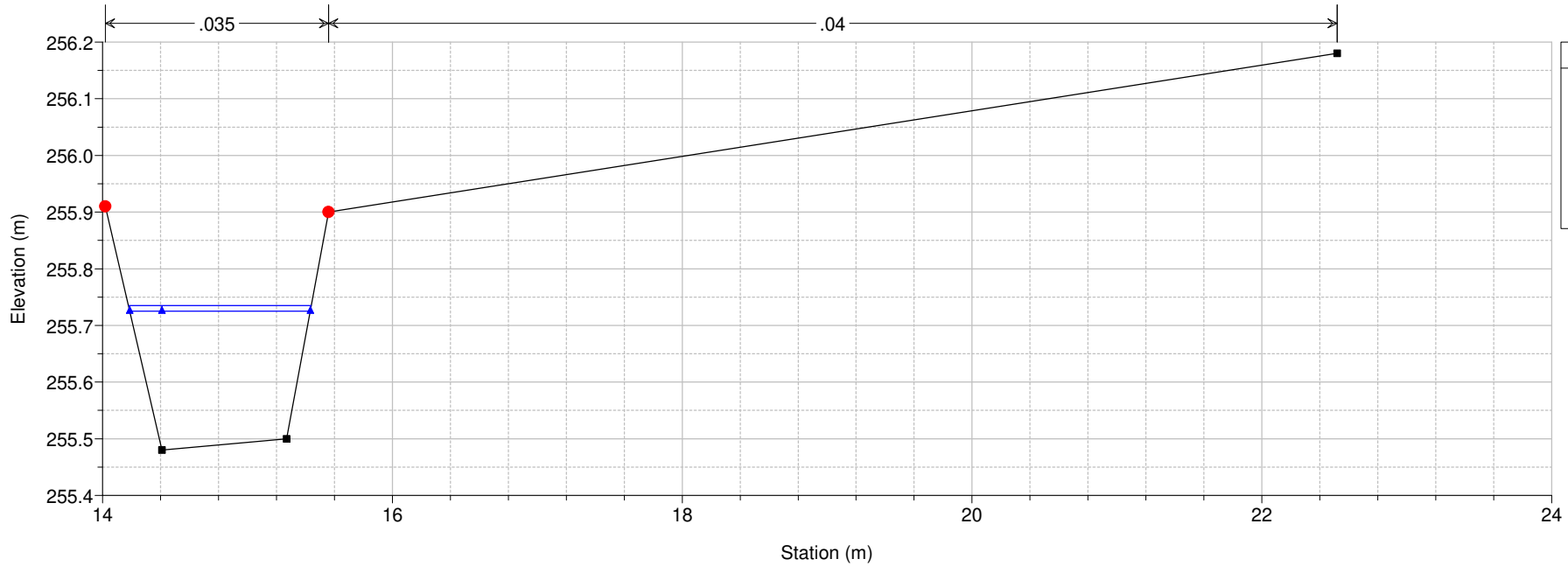
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 5.108



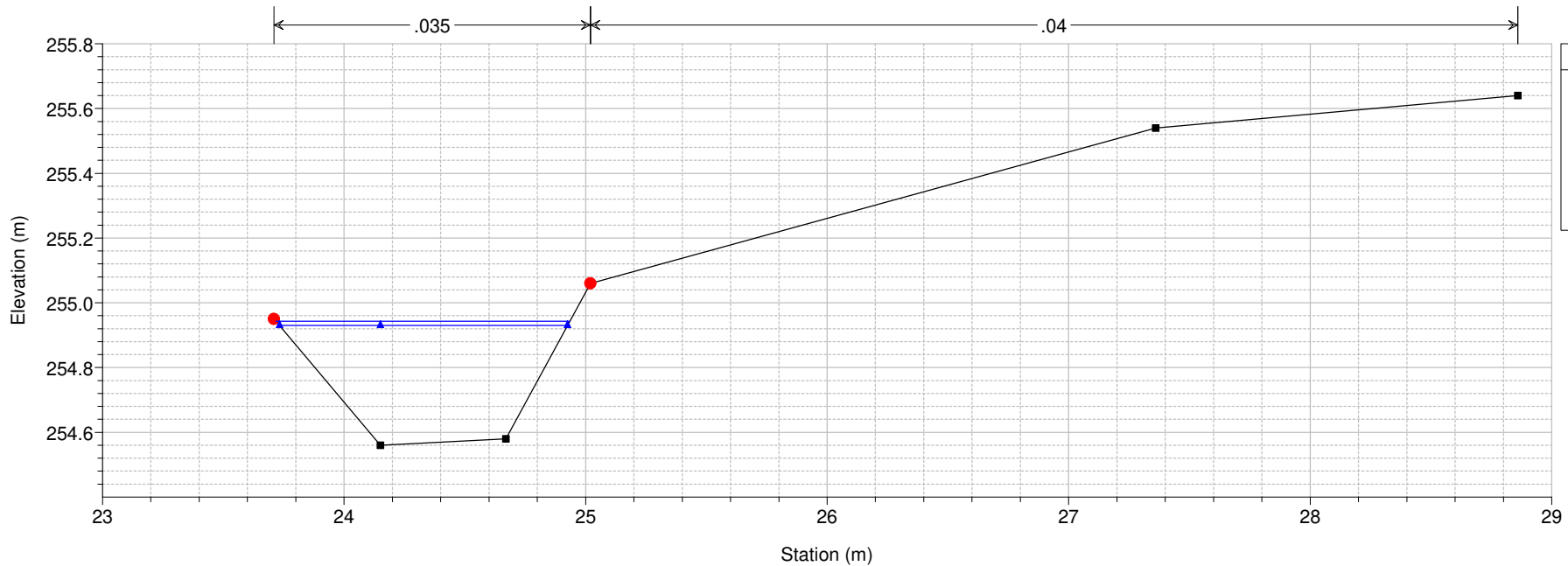
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 5.1 5C

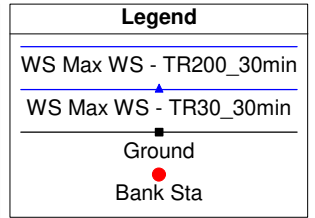
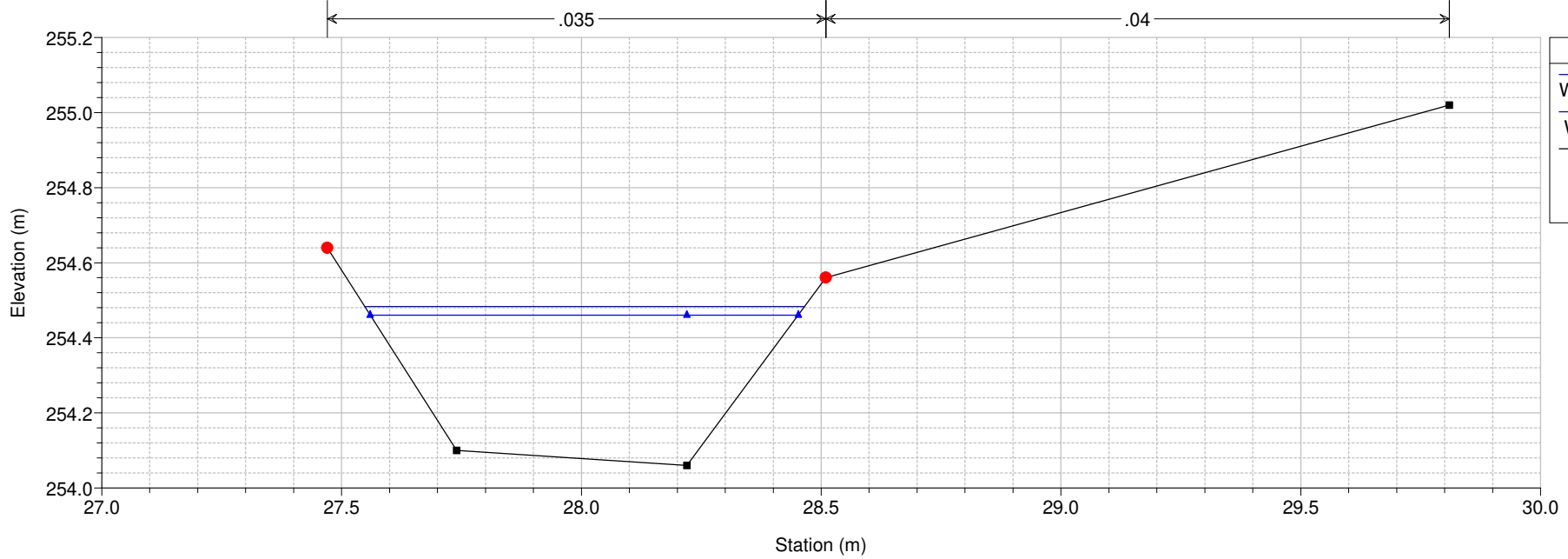


Bellavista Plan: 1) TR200_30min 2) TR30_30min

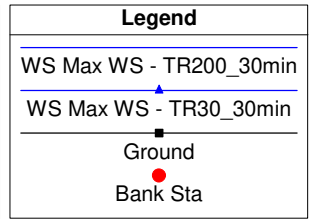
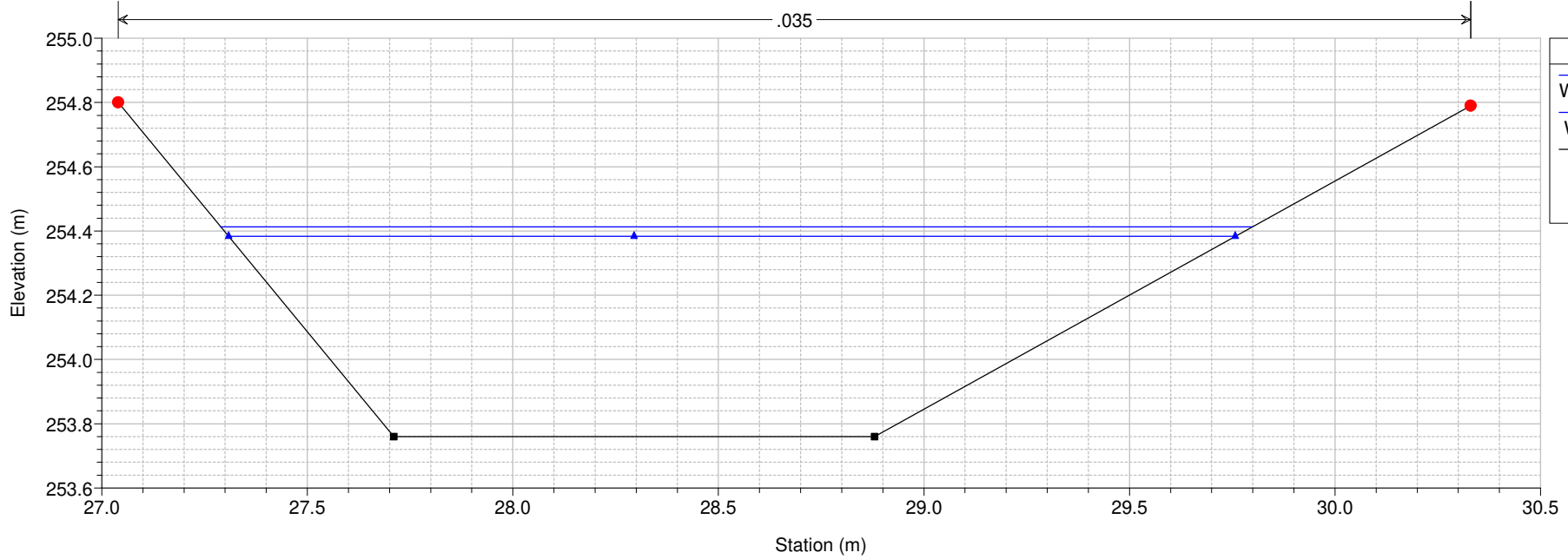
River = Ornellaio Reach = Ornellaio RS = 4 4



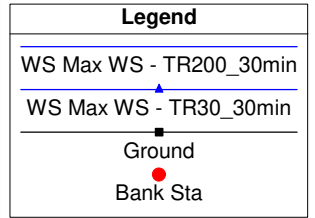
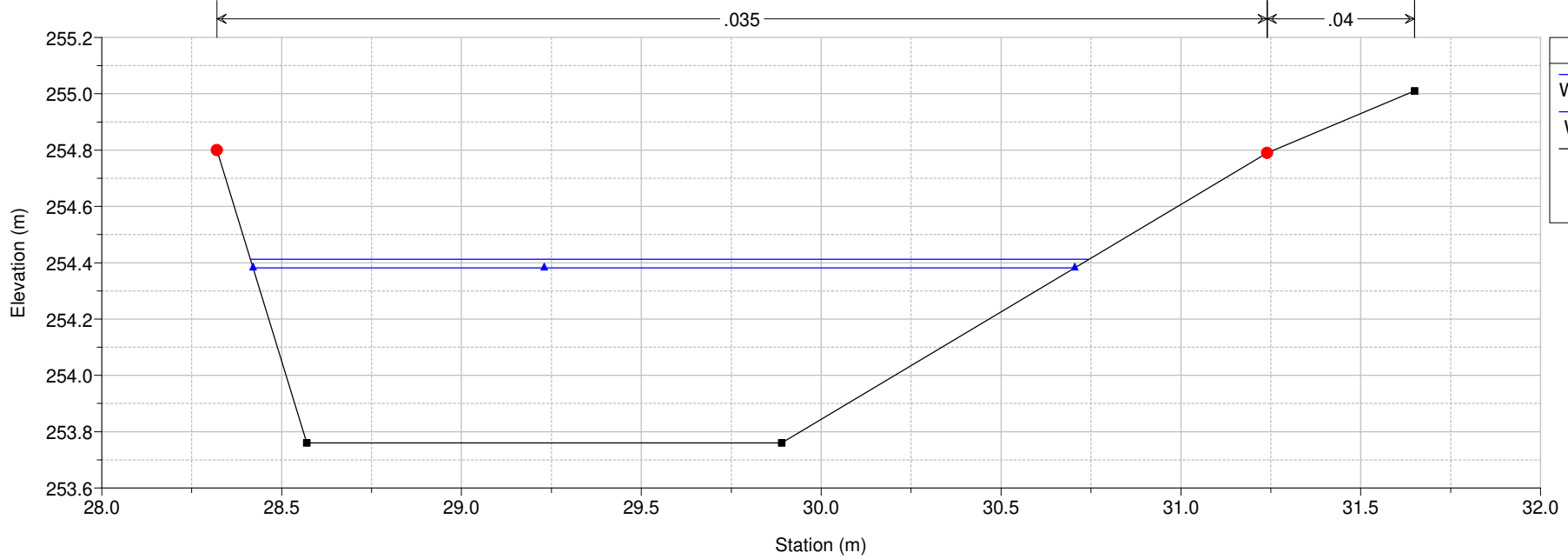
Bellavista Plan: 1) TR200_30min 2) TR30_30min
 River = Ornellaio Reach = Ornellaio RS = 3 3



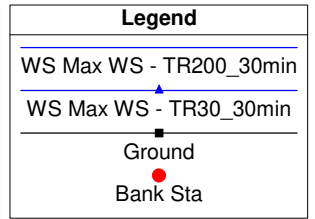
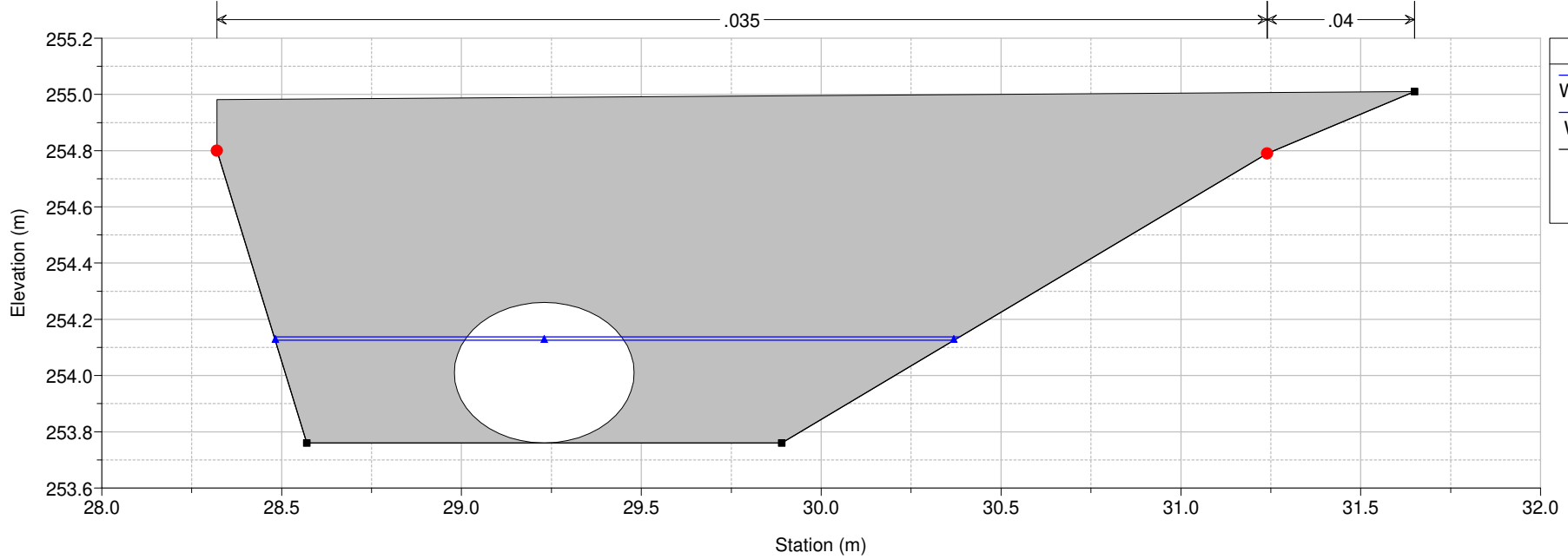
Bellavista Plan: 1) TR200_30min 2) TR30_30min
 River = Ornellaio Reach = Ornellaio RS = 2.3 2A_Imbocco tombino



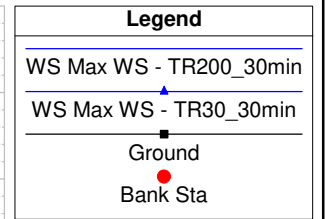
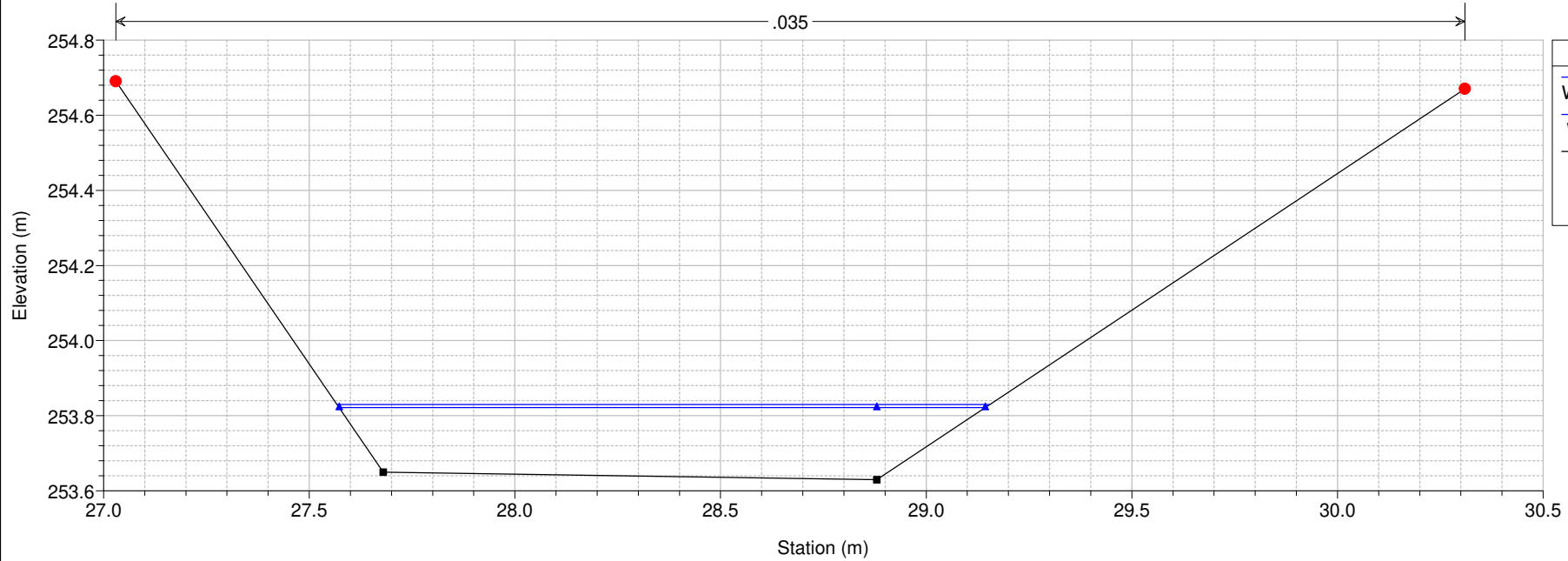
Bellavista Plan: 1) TR200_30min 2) TR30_30min
River = Ornellaio Reach = Ornellaio RS = 2.2 2B_imbocco tombino



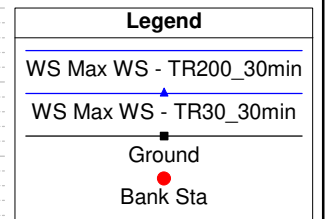
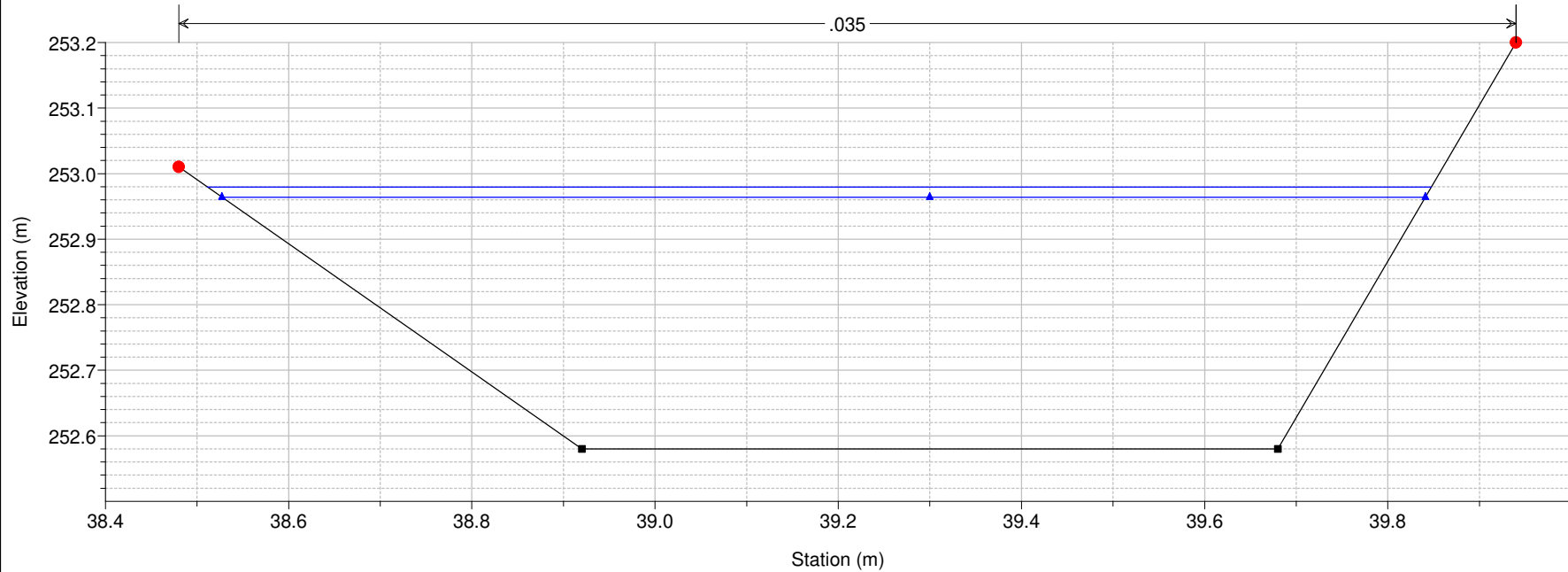
Bellavista Plan: 1) TR200_30min 2) TR30_30min
River = Ornellaio Reach = Ornellaio RS = 2.15 Culv



Bellavista Plan: 1) TR200_30min 2) TR30_30min
River = Ornellaio Reach = Ornellaio RS = 2.1 2C sbocco tombino

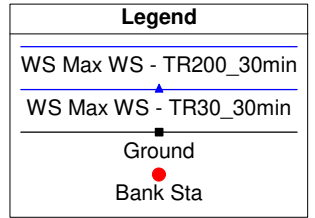
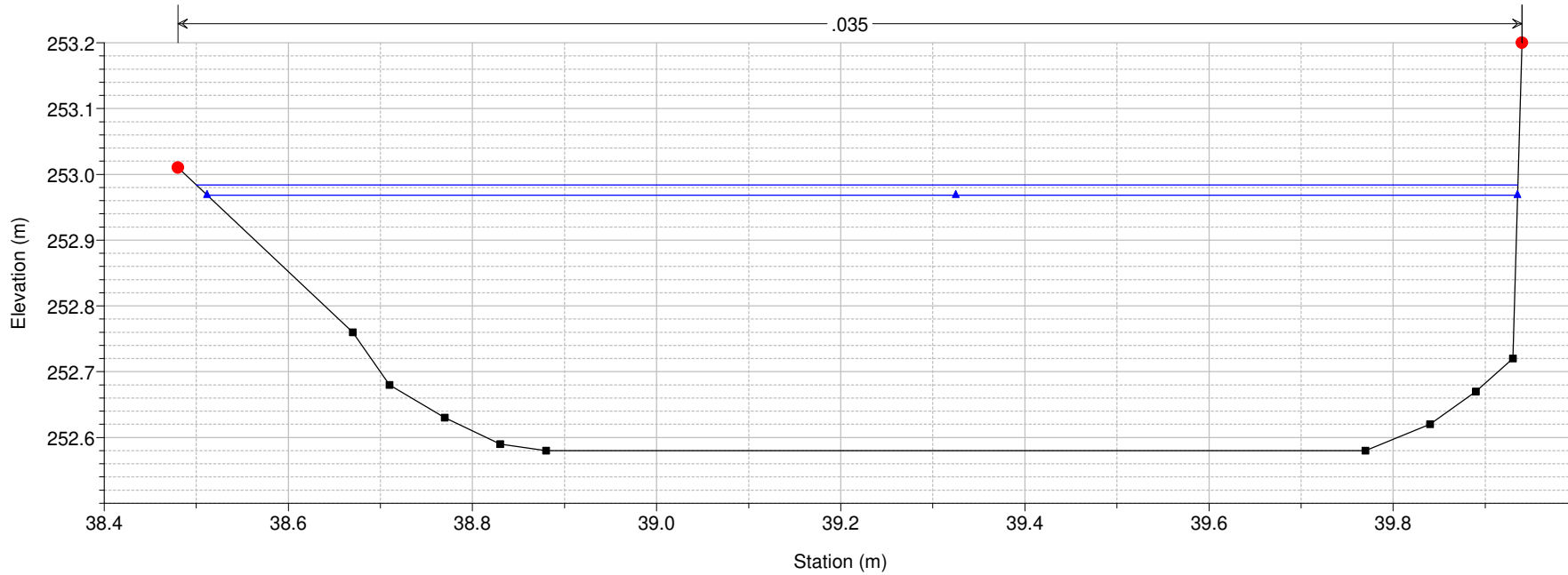


Bellavista Plan: 1) TR200_30min 2) TR30_30min
River = Ornellaio Reach = Ornellaio RS = 1.4 1A risagomata



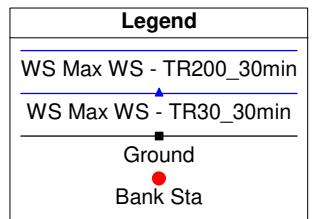
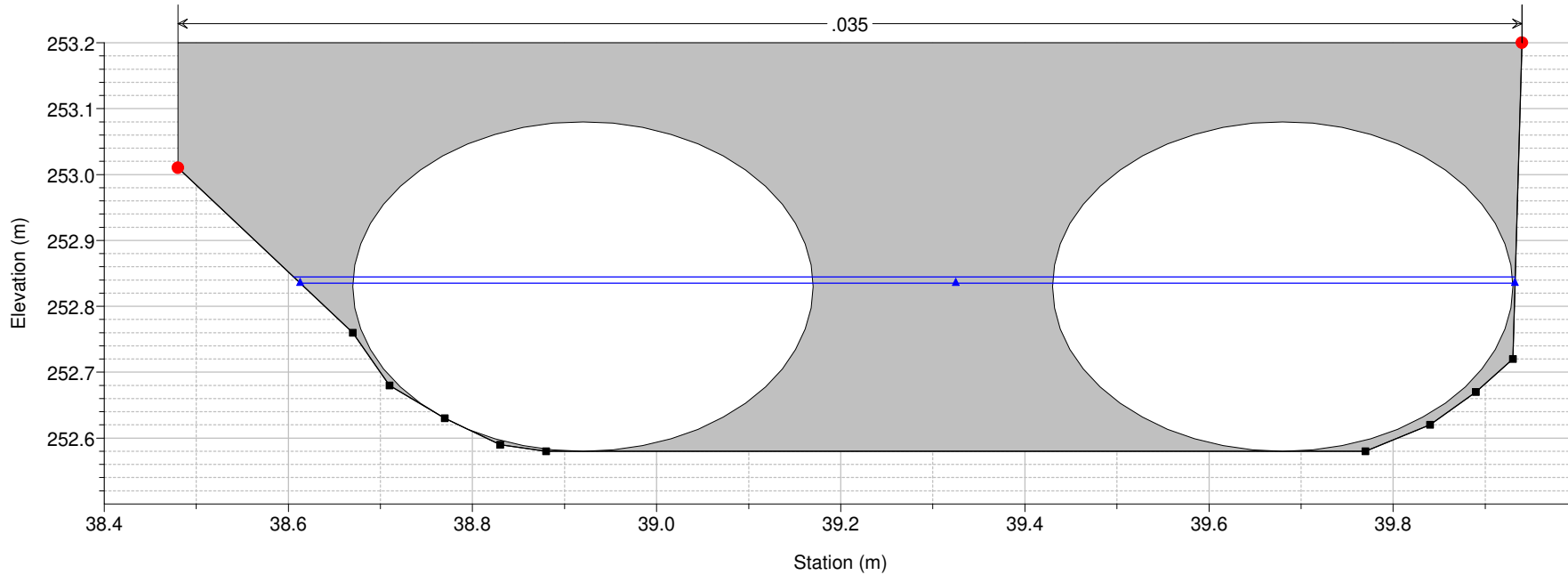
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.39 1A



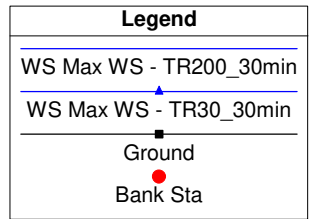
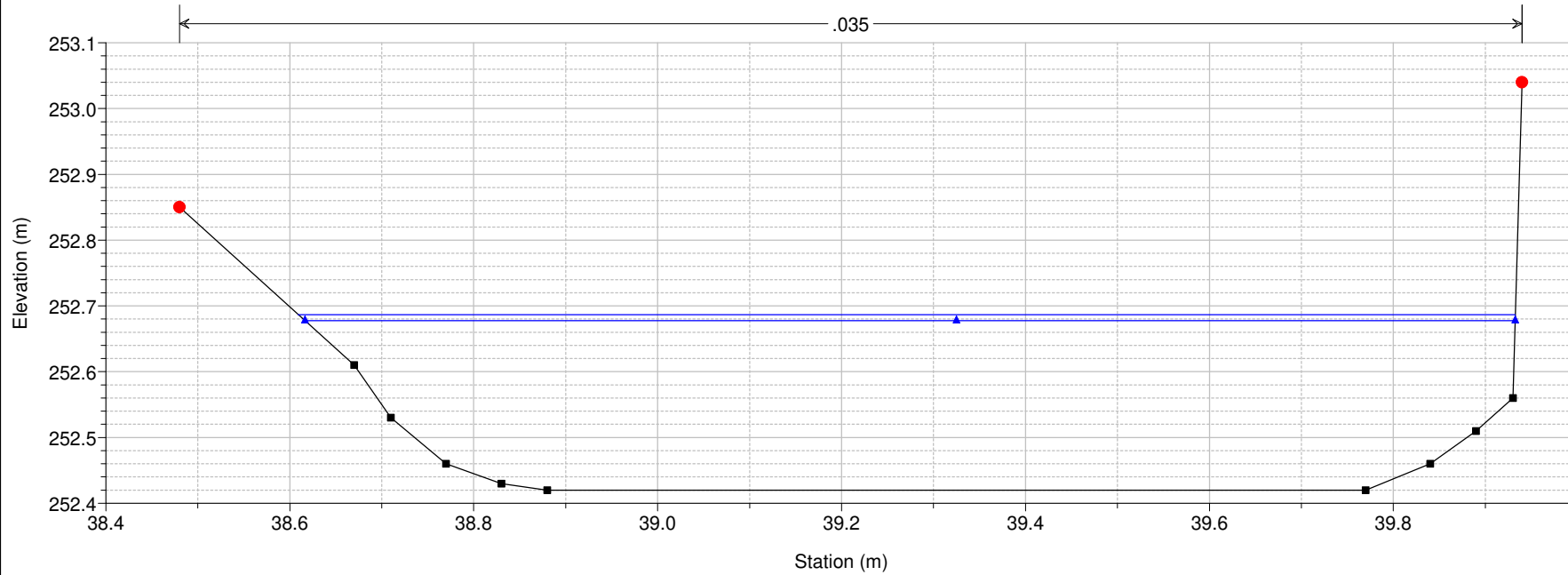
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.35 Culv



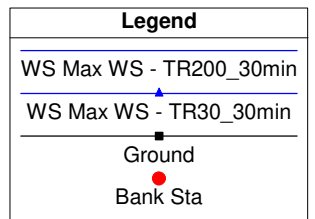
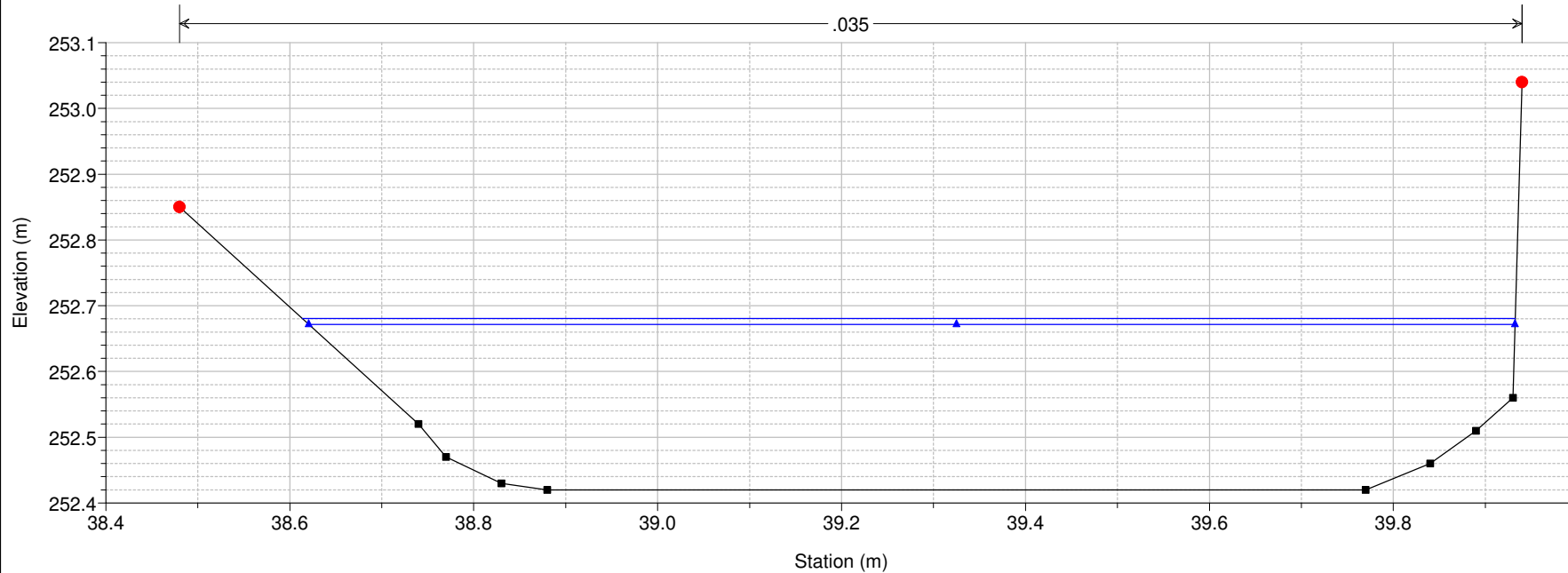
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.2 sez. 1C



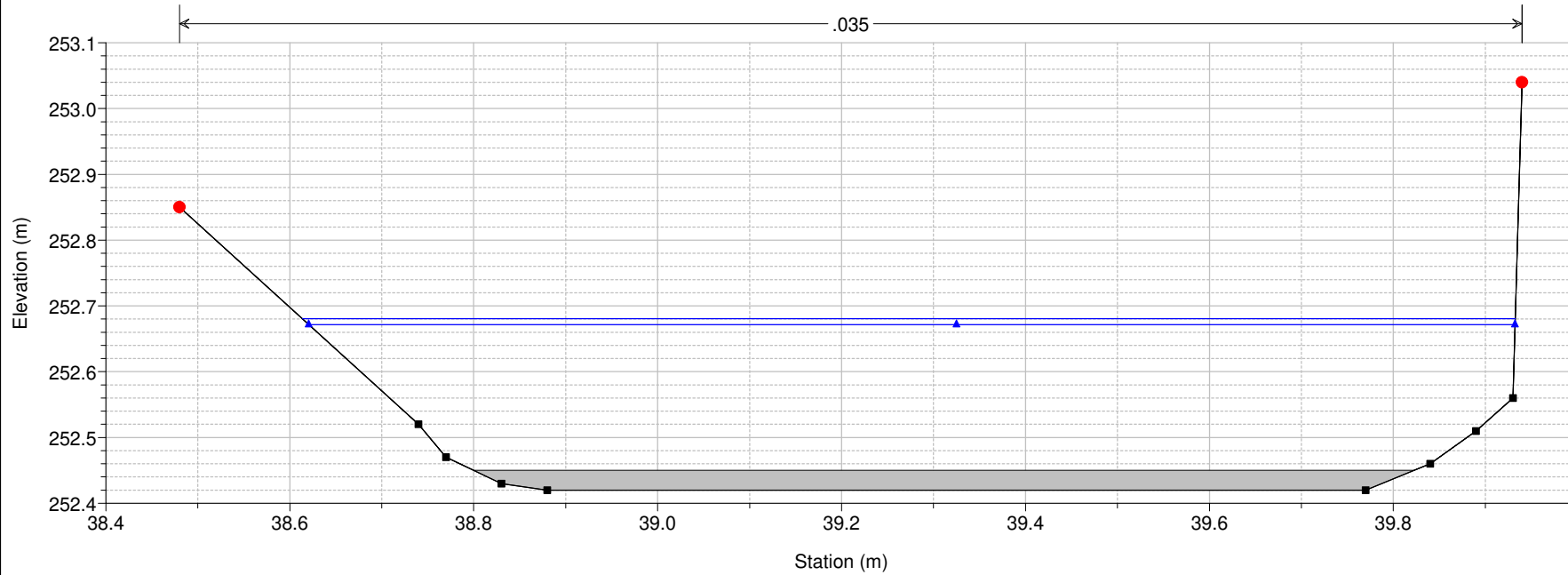
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.175 coipia sez.1C valle BR



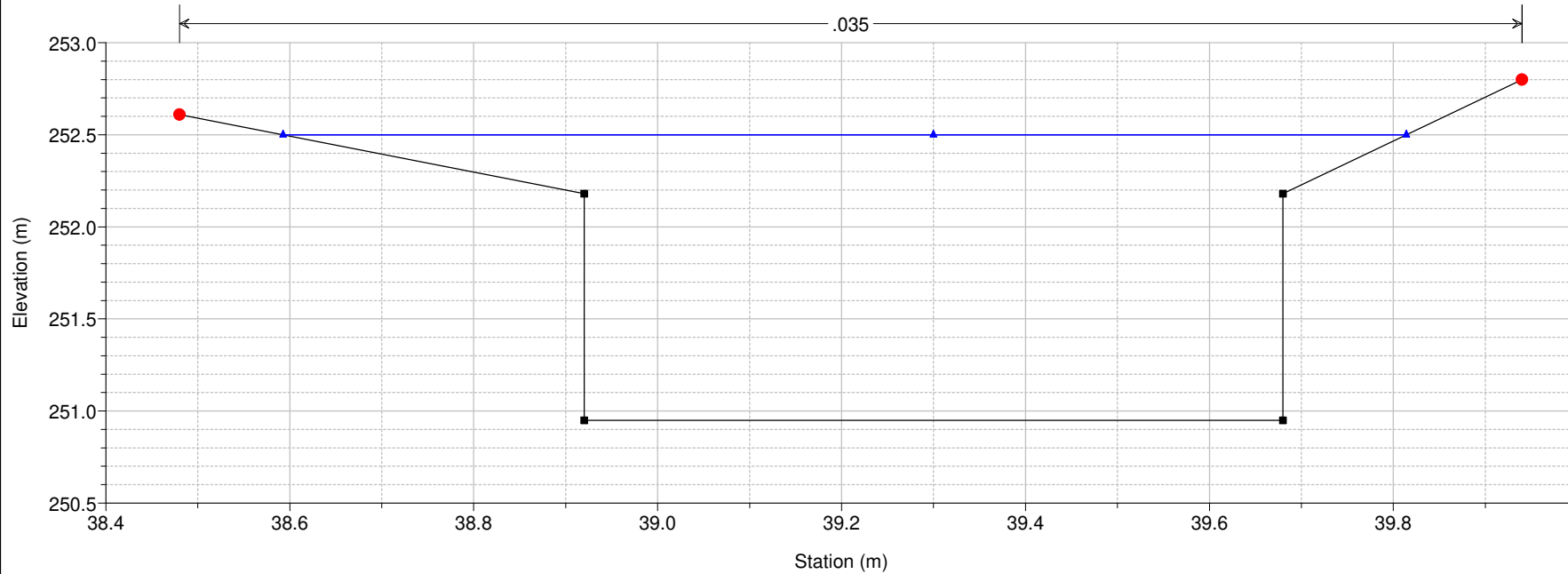
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.13 IS



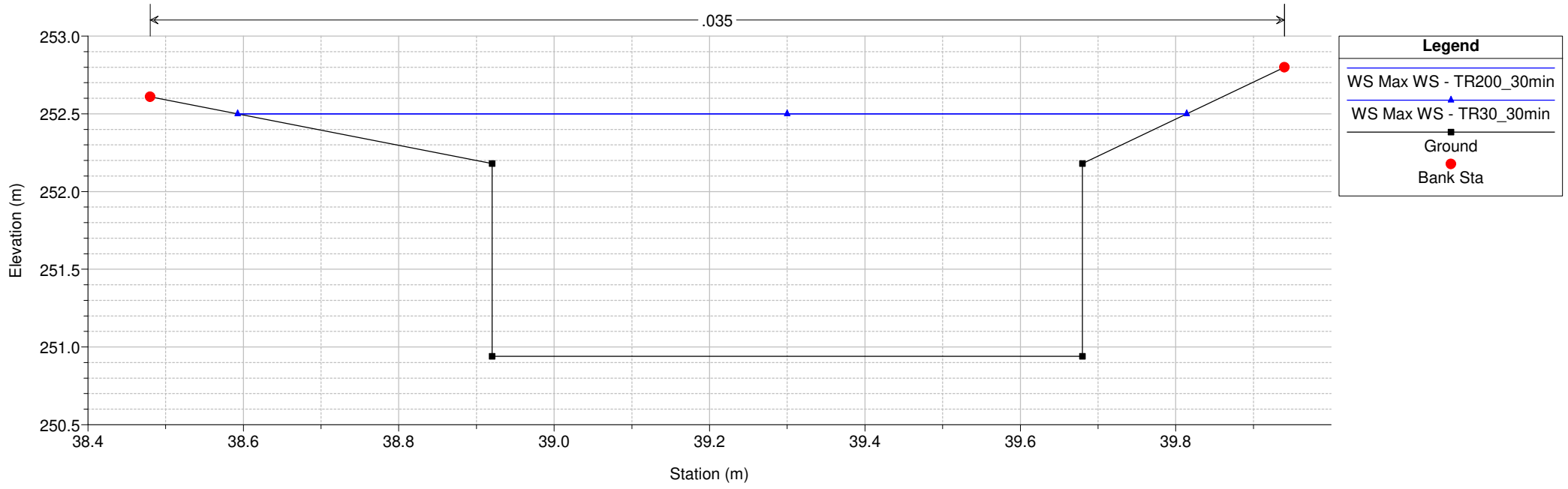
Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.125



Bellavista Plan: 1) TR200_30min 2) TR30_30min

River = Ornellaio Reach = Ornellaio RS = 1.1 1D



Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Ornellaio	5.11	Max WS	TR200_30min	0.05	255.48	255.76		255.76	0.000330	0.17	0.29	1.30	0.11
Ornellaio	5.11	Max WS	TR200_45min	0.05	255.48	255.75		255.75	0.000367	0.18	0.28	1.29	0.12
Ornellaio	5.11	Max WS	TR200_1H	0.05	255.48	255.75		255.75	0.000399	0.18	0.27	1.28	0.13
Ornellaio	5.11	Max WS	TR200_2H	0.05	255.48	255.73	255.56	255.73	0.000507	0.20	0.25	1.25	0.14
Ornellaio	5.11	Max WS	TR30_30min	0.05	255.48	255.75		255.75	0.000379	0.18	0.28	1.29	0.12
Ornellaio	5.11	Max WS	TR30_45min	0.05	255.48	255.76		255.76	0.000345	0.17	0.29	1.30	0.12
Ornellaio	5.11	Max WS	TR30_1h	0.05	255.48	255.74		255.74	0.000463	0.19	0.26	1.26	0.13
Ornellaio	5.11	Max WS	TR30_2h	0.05	255.48	255.73		255.73	0.000532	0.20	0.25	1.25	0.14
Ornellaio	5.11	Max WS	TR200_3H	0.05	255.48	255.72	255.56	255.72	0.000602	0.21	0.24	1.23	0.15
Ornellaio	5.11	Max WS	TR30_3H	0.05	255.48	255.70	255.56	255.70	0.000832	0.24	0.21	1.20	0.18
Ornellaio	5.108	Max WS	TR200_30min	0.05	255.48	255.76		255.76	0.000330	0.17	0.29	1.30	0.11
Ornellaio	5.108	Max WS	TR200_45min	0.05	255.48	255.75		255.75	0.000368	0.18	0.28	1.29	0.12
Ornellaio	5.108	Max WS	TR200_1H	0.05	255.48	255.75		255.75	0.000399	0.18	0.27	1.28	0.13
Ornellaio	5.108	Max WS	TR200_2H	0.05	255.48	255.73	255.56	255.73	0.000507	0.20	0.25	1.25	0.14
Ornellaio	5.108	Max WS	TR30_30min	0.05	255.48	255.75		255.75	0.000379	0.18	0.28	1.29	0.12
Ornellaio	5.108	Max WS	TR30_45min	0.05	255.48	255.76		255.76	0.000345	0.17	0.29	1.30	0.12
Ornellaio	5.108	Max WS	TR30_1h	0.05	255.48	255.74		255.74	0.000463	0.19	0.26	1.26	0.13
Ornellaio	5.108	Max WS	TR30_2h	0.05	255.48	255.73		255.73	0.000532	0.20	0.25	1.25	0.14
Ornellaio	5.108	Max WS	TR200_3H	0.05	255.48	255.72	255.56	255.72	0.000602	0.21	0.24	1.23	0.15
Ornellaio	5.108	Max WS	TR30_3H	0.05	255.48	255.70	255.56	255.70	0.000832	0.24	0.21	1.20	0.18
Ornellaio	5.1	Max WS	TR200_30min	0.31	255.48	255.73		255.81	0.017377	1.17	0.26	1.26	0.83
Ornellaio	5.1	Max WS	TR200_45min	0.29	255.48	255.73		255.80	0.017464	1.16	0.25	1.25	0.83
Ornellaio	5.1	Max WS	TR200_1H	0.28	255.48	255.72		255.79	0.017534	1.15	0.24	1.24	0.83
Ornellaio	5.1	Max WS	TR200_2H	0.25	255.48	255.71	255.68	255.77	0.017512	1.10	0.22	1.21	0.82
Ornellaio	5.1	Max WS	TR30_30min	0.29	255.48	255.73		255.79	0.017499	1.15	0.25	1.25	0.83
Ornellaio	5.1	Max WS	TR30_45min	0.27	255.48	255.72		255.78	0.017542	1.13	0.24	1.23	0.82
Ornellaio	5.1	Max WS	TR30_1h	0.26	255.48	255.71		255.78	0.017590	1.12	0.23	1.22	0.82
Ornellaio	5.1	Max WS	TR30_2h	0.22	255.48	255.69		255.75	0.017523	1.06	0.20	1.19	0.82
Ornellaio	5.1	Max WS	TR200_3H	0.22	255.48	255.69	255.67	255.75	0.017483	1.07	0.21	1.19	0.82
Ornellaio	5.1	Max WS	TR30_3H	0.19	255.48	255.68	255.65	255.73	0.017808	1.03	0.19	1.16	0.82
Ornellaio	5.09			Lat Struct									
Ornellaio	5.08			Lat Struct									
Ornellaio	4	Max WS	TR200_30min	0.30	254.56	254.94		254.99	0.008628	0.94	0.33	1.22	0.58
Ornellaio	4	Max WS	TR200_45min	0.29	254.56	254.93		254.98	0.008668	0.93	0.31	1.20	0.58
Ornellaio	4	Max WS	TR200_1H	0.28	254.56	254.93	254.81	254.97	0.008699	0.92	0.30	1.18	0.58
Ornellaio	4	Max WS	TR200_2H	0.25	254.56	254.90	254.81	254.94	0.008846	0.89	0.28	1.14	0.58
Ornellaio	4	Max WS	TR30_30min	0.29	254.56	254.93		254.97	0.008683	0.92	0.31	1.19	0.58
Ornellaio	4	Max WS	TR30_45min	0.27	254.56	254.92		254.96	0.008705	0.91	0.30	1.17	0.58
Ornellaio	4	Max WS	TR30_1h	0.26	254.56	254.91		254.95	0.008781	0.90	0.29	1.16	0.58
Ornellaio	4	Max WS	TR30_2h	0.22	254.56	254.88		254.92	0.008925	0.87	0.25	1.09	0.58
Ornellaio	4	Max WS	TR200_3H	0.22	254.56	254.88	254.80	254.92	0.008945	0.88	0.26	1.11	0.58
Ornellaio	4	Max WS	TR30_3H	0.19	254.56	254.86	254.78	254.89	0.009077	0.85	0.23	1.06	0.58
Ornellaio	3.99			Lat Struct									
Ornellaio	3.98			Lat Struct									
Ornellaio	3	Max WS	TR200_30min	0.30	254.06	254.48		254.54	0.012045	1.08	0.28	0.92	0.62
Ornellaio	3	Max WS	TR200_45min	0.29	254.06	254.47		254.53	0.012584	1.08	0.27	0.90	0.63
Ornellaio	3	Max WS	TR200_1H	0.28	254.06	254.45		254.51	0.013033	1.09	0.26	0.89	0.64
Ornellaio	3	Max WS	TR200_2H	0.25	254.06	254.42	254.35	254.48	0.014228	1.09	0.23	0.85	0.67
Ornellaio	3	Max WS	TR30_30min	0.28	254.06	254.46		254.52	0.012879	1.09	0.26	0.89	0.64
Ornellaio	3	Max WS	TR30_45min	0.27	254.06	254.44		254.50	0.014348	1.12	0.24	0.87	0.68
Ornellaio	3	Max WS	TR30_1h	0.26	254.06	254.43		254.49	0.013838	1.09	0.24	0.86	0.66
Ornellaio	3	Max WS	TR30_2h	0.22	254.06	254.38		254.44	0.016382	1.11	0.19	0.81	0.72
Ornellaio	3	Max WS	TR200_3H	0.22	254.06	254.40	254.33	254.46	0.015134	1.09	0.21	0.82	0.69
Ornellaio	3	Max WS	TR30_3H	0.19	254.06	254.36	254.31	254.42	0.016284	1.07	0.18	0.79	0.72
Ornellaio	2.3	Max WS	TR200_30min	0.30	253.76	254.41		254.42	0.000273	0.25	1.20	2.51	0.12
Ornellaio	2.3	Max WS	TR200_45min	0.29	253.76	254.39		254.40	0.000280	0.25	1.15	2.47	0.12
Ornellaio	2.3	Max WS	TR200_1H	0.28	253.76	254.38		254.38	0.000286	0.25	1.11	2.43	0.12
Ornellaio	2.3	Max WS	TR200_2H	0.25	253.76	254.33	253.92	254.33	0.000302	0.25	0.99	2.33	0.12
Ornellaio	2.3	Max WS	TR30_30min	0.28	253.76	254.38		254.39	0.000283	0.25	1.13	2.45	0.12
Ornellaio	2.3	Max WS	TR30_45min	0.27	253.76	254.36		254.36	0.000291	0.25	1.07	2.40	0.12
Ornellaio	2.3	Max WS	TR30_1h	0.26	253.76	254.34		254.35	0.000297	0.25	1.03	2.37	0.12
Ornellaio	2.3	Max WS	TR30_2h	0.22	253.76	254.28		254.28	0.000315	0.24	0.89	2.24	0.12
Ornellaio	2.3	Max WS	TR200_3H	0.22	253.76	254.29	253.91	254.30	0.000312	0.24	0.92	2.26	0.12
Ornellaio	2.3	Max WS	TR30_3H	0.19	253.76	254.25	253.89	254.25	0.000324	0.24	0.81	2.17	0.12
Ornellaio	2.2	Max WS	TR200_30min	0.30	253.76	254.41		254.42	0.000280	0.25	1.19	2.33	0.11
Ornellaio	2.2	Max WS	TR200_45min	0.29	253.76	254.39		254.39	0.000287	0.25	1.14	2.30	0.11
Ornellaio	2.2	Max WS	TR200_1H	0.28	253.76	254.37		254.38	0.000291	0.25	1.10	2.27	0.12
Ornellaio	2.2	Max WS	TR200_2H	0.25	253.76	254.33		254.33	0.000302	0.25	1.00	2.20	0.12
Ornellaio	2.2	Max WS	TR30_30min	0.28	253.76	254.38		254.39	0.000289	0.25	1.12	2.28	0.12
Ornellaio	2.2	Max WS	TR30_45min	0.27	253.76	254.36		254.36	0.000295	0.25	1.07	2.25	0.12
Ornellaio	2.2	Max WS	TR30_1h	0.26	253.76	254.34		254.35	0.000298	0.25	1.03	2.22	0.12
Ornellaio	2.2	Max WS	TR30_2h	0.22	253.76	254.28		254.28	0.000311	0.24	0.89	2.13	0.12
Ornellaio	2.2	Max WS	TR200_3H	0.22	253.76	254.29		254.30	0.000308	0.24	0.92	2.15	0.12
Ornellaio	2.2	Max WS	TR30_3H	0.19	253.76	254.24		254.25	0.000315	0.23	0.82	2.07	0.12
Ornellaio	2.15			Culvert									
Ornellaio	2.1	Max WS	TR200_30min	0.30	253.63	253.83		253.90	0.019882	1.14	0.26	1.59	0.89

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Ornellaio	2.1	Max WS	TR200_45min	0.29	253.63	253.82		253.89	0.019963	1.13	0.26	1.58	0.89
Ornellaio	2.1	Max WS	TR200_1H	0.28	253.63	253.82		253.88	0.019976	1.11	0.25	1.57	0.89
Ornellaio	2.1	Max WS	TR200_2H	0.25	253.63	253.81	253.80	253.87	0.019961	1.07	0.23	1.54	0.88
Ornellaio	2.1	Max WS	TR30_30min	0.28	253.63	253.82		253.89	0.020060	1.12	0.25	1.57	0.89
Ornellaio	2.1	Max WS	TR30_45min	0.27	253.63	253.82		253.88	0.019962	1.10	0.24	1.56	0.89
Ornellaio	2.1	Max WS	TR30_1h	0.26	253.63	253.81		253.87	0.019955	1.09	0.24	1.55	0.89
Ornellaio	2.1	Max WS	TR30_2h	0.22	253.63	253.79		253.85	0.019792	1.02	0.21	1.52	0.87
Ornellaio	2.1	Max WS	TR200_3H	0.22	253.63	253.80	253.78	253.85	0.019737	1.03	0.22	1.52	0.87
Ornellaio	2.1	Max WS	TR30_3H	0.19	253.63	253.78	253.77	253.83	0.020340	0.99	0.19	1.49	0.88
Ornellaio	2.09			Lat Struct									
Ornellaio	2.08			Lat Struct									
Ornellaio	1.4	Max WS	TR200_30min	0.30	252.58	252.98		253.01	0.004372	0.72	0.42	1.34	0.41
Ornellaio	1.4	Max WS	TR200_45min	0.29	252.58	252.97		252.99	0.004383	0.72	0.40	1.32	0.41
Ornellaio	1.4	Max WS	TR200_1H	0.28	252.58	252.96		252.99	0.004381	0.71	0.39	1.31	0.41
Ornellaio	1.4	Max WS	TR200_2H	0.25	252.58	252.93	252.79	252.96	0.004376	0.68	0.36	1.27	0.41
Ornellaio	1.4	Max WS	TR30_30min	0.28	252.58	252.96		252.99	0.004387	0.71	0.40	1.31	0.41
Ornellaio	1.4	Max WS	TR30_45min	0.27	252.58	252.95		252.98	0.004483	0.71	0.38	1.29	0.42
Ornellaio	1.4	Max WS	TR30_1h	0.26	252.58	252.94		252.97	0.004384	0.69	0.37	1.28	0.41
Ornellaio	1.4	Max WS	TR30_2h	0.22	252.58	252.91		252.93	0.004427	0.66	0.33	1.23	0.41
Ornellaio	1.4	Max WS	TR200_3H	0.22	252.58	252.92	252.78	252.94	0.004343	0.66	0.34	1.24	0.41
Ornellaio	1.4	Max WS	TR30_3H	0.19	252.58	252.89	252.76	252.91	0.004273	0.63	0.30	1.21	0.40
Ornellaio	1.39	Max WS	TR200_30min	0.30	252.58	252.98		253.00	0.002615	0.60	0.51	1.44	0.32
Ornellaio	1.39	Max WS	TR200_45min	0.29	252.58	252.97		252.99	0.002598	0.59	0.49	1.43	0.32
Ornellaio	1.39	Max WS	TR200_1H	0.28	252.58	252.96		252.98	0.002577	0.58	0.48	1.42	0.32
Ornellaio	1.39	Max WS	TR200_2H	0.25	252.58	252.94		252.95	0.002519	0.56	0.44	1.40	0.32
Ornellaio	1.39	Max WS	TR30_30min	0.28	252.58	252.97		252.99	0.002590	0.58	0.49	1.42	0.32
Ornellaio	1.39	Max WS	TR30_45min	0.27	252.58	252.96		252.97	0.002561	0.57	0.47	1.41	0.32
Ornellaio	1.39	Max WS	TR30_1h	0.26	252.58	252.95		252.96	0.002543	0.56	0.46	1.41	0.32
Ornellaio	1.39	Max WS	TR30_2h	0.22	252.58	252.91		252.93	0.002445	0.53	0.41	1.38	0.31
Ornellaio	1.39	Max WS	TR200_3H	0.22	252.58	252.92		252.93	0.002468	0.54	0.42	1.39	0.31
Ornellaio	1.39	Max WS	TR30_3H	0.19	252.58	252.89		252.91	0.002382	0.51	0.38	1.36	0.31
Ornellaio	1.35			Culvert									
Ornellaio	1.2	Max WS	TR200_30min	0.30	252.42	252.69		252.73	0.009920	0.96	0.32	1.32	0.62
Ornellaio	1.2	Max WS	TR200_45min	0.29	252.42	252.68		252.73	0.009757	0.94	0.31	1.32	0.62
Ornellaio	1.2	Max WS	TR200_1H	0.28	252.42	252.68		252.72	0.009632	0.92	0.30	1.31	0.61
Ornellaio	1.2	Max WS	TR200_2H	0.25	252.42	252.66	252.59	252.70	0.009214	0.87	0.28	1.30	0.60
Ornellaio	1.2	Max WS	TR30_30min	0.28	252.42	252.68		252.72	0.009699	0.93	0.31	1.32	0.62
Ornellaio	1.2	Max WS	TR30_45min	0.27	252.42	252.67		252.71	0.009408	0.90	0.30	1.31	0.61
Ornellaio	1.2	Max WS	TR30_1h	0.26	252.42	252.67		252.71	0.009371	0.89	0.29	1.31	0.60
Ornellaio	1.2	Max WS	TR30_2h	0.22	252.42	252.65		252.68	0.008665	0.82	0.26	1.29	0.58
Ornellaio	1.2	Max WS	TR200_3H	0.22	252.42	252.65	252.58	252.68	0.008913	0.84	0.27	1.29	0.59
Ornellaio	1.2	Max WS	TR30_3H	0.19	252.42	252.63	252.57	252.66	0.008402	0.78	0.25	1.28	0.57
Ornellaio	1.175	Max WS	TR200_30min	0.30	252.42	252.68	252.62	252.73	0.010941	0.99	0.31	1.32	0.65
Ornellaio	1.175	Max WS	TR200_45min	0.29	252.42	252.67	252.61	252.72	0.010796	0.97	0.30	1.31	0.65
Ornellaio	1.175	Max WS	TR200_1H	0.28	252.42	252.67	252.61	252.72	0.010638	0.95	0.29	1.31	0.64
Ornellaio	1.175	Max WS	TR200_2H	0.25	252.42	252.65	252.60	252.70	0.010202	0.90	0.27	1.30	0.63
Ornellaio	1.175	Max WS	TR30_30min	0.28	252.42	252.67	252.61	252.72	0.010699	0.96	0.29	1.31	0.65
Ornellaio	1.175	Max WS	TR30_45min	0.27	252.42	252.66	252.61	252.71	0.010529	0.94	0.29	1.31	0.64
Ornellaio	1.175	Max WS	TR30_1h	0.26	252.42	252.66	252.60	252.70	0.010352	0.92	0.28	1.30	0.64
Ornellaio	1.175	Max WS	TR30_2h	0.22	252.42	252.64	252.58	252.68	0.009758	0.85	0.25	1.29	0.62
Ornellaio	1.175	Max WS	TR200_3H	0.22	252.42	252.64	252.59	252.68	0.009923	0.87	0.26	1.29	0.62
Ornellaio	1.175	Max WS	TR30_3H	0.19	252.42	252.63	252.57	252.66	0.009400	0.81	0.24	1.28	0.60
Ornellaio	1.13			Inl Struct									
Ornellaio	1.125	Max WS	TR200_30min	0.29	250.95	252.50		252.50	0.000321	0.24	1.25	1.22	0.07
Ornellaio	1.125	Max WS	TR200_45min	0.27	250.95	252.50		252.50	0.000275	0.22	1.25	1.22	0.07
Ornellaio	1.125	Max WS	TR200_1H	0.27	250.95	252.50		252.50	0.000278	0.22	1.25	1.22	0.07
Ornellaio	1.125	Max WS	TR200_2H	0.22	250.95	252.50	251.16	252.50	0.000185	0.18	1.25	1.22	0.06
Ornellaio	1.125	Max WS	TR30_30min	0.27	250.95	252.50		252.50	0.000275	0.22	1.25	1.22	0.07
Ornellaio	1.125	Max WS	TR30_45min	0.25	250.95	252.50		252.50	0.000232	0.20	1.25	1.22	0.06
Ornellaio	1.125	Max WS	TR30_1h	0.25	250.95	252.50		252.50	0.000233	0.20	1.25	1.22	0.06
Ornellaio	1.125	Max WS	TR30_2h	0.19	250.95	252.50		252.50	0.000140	0.16	1.25	1.22	0.05
Ornellaio	1.125	Max WS	TR200_3H	0.19	250.95	252.50	251.14	252.50	0.000139	0.15	1.25	1.22	0.05
Ornellaio	1.125	Max WS	TR30_3H	0.16	250.95	252.50	251.11	252.50	0.000093	0.13	1.25	1.22	0.04
Ornellaio	1.1	Max WS	TR200_30min	0.09	250.94	252.50	251.05	252.50	0.000029	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR200_45min	0.09	250.94	252.50	251.05	252.50	0.000029	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR200_1H	0.09	250.94	252.50	251.05	252.50	0.000029	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR200_2H	0.09	250.94	252.50	251.05	252.50	0.000028	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR30_30min	0.09	250.94	252.50	251.05	252.50	0.000029	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR30_45min	0.09	250.94	252.50	251.05	252.50	0.000028	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR30_1h	0.09	250.94	252.50	251.05	252.50	0.000029	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR30_2h	0.09	250.94	252.50	251.05	252.50	0.000028	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR200_3H	0.09	250.94	252.50	251.05	252.50	0.000028	0.07	1.26	1.22	0.02
Ornellaio	1.1	Max WS	TR30_3H	0.09	250.94	252.50	251.05	252.50	0.000028	0.07	1.26	1.22	0.02

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Wdth (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
Ornelaio	5.09	Max WS	TR200_30min	0.31	0.00	0.30	0.00					255.64	255.80	255.73	254.99	254.94
Ornelaio	5.09	Max WS	TR200_45min	0.29	0.00	0.29	0.00					255.64	255.80	255.73	254.98	254.93
Ornelaio	5.09	Max WS	TR200_1H	0.28	0.00	0.28	0.00					255.64	255.79	255.72	254.97	254.93
Ornelaio	5.09	Max WS	TR200_2H	0.25	0.00	0.25	0.00					255.64	255.77	255.71	254.94	254.90
Ornelaio	5.09	Max WS	TR30_30min	0.29	0.00	0.29	0.00					255.64	255.79	255.72	254.97	254.93
Ornelaio	5.09	Max WS	TR30_45min	0.27	0.00	0.27	0.00					255.64	255.78	255.72	254.96	254.92
Ornelaio	5.09	Max WS	TR30_1h	0.26	0.00	0.26	0.00					255.64	255.77	255.71	254.95	254.91
Ornelaio	5.09	Max WS	TR30_2h	0.22	0.00	0.22	0.00					255.64	255.75	255.69	254.92	254.88
Ornelaio	5.09	Max WS	TR200_3H	0.22	0.00	0.22	0.00					255.64	255.75	255.69	254.92	254.88
Ornelaio	5.09	Max WS	TR30_3H	0.19	0.00	0.19	0.00					255.64	255.73	255.67	254.89	254.86
Ornelaio	5.08	Max WS	TR200_30min	0.31	0.00	0.30	0.00					254.95	255.80	255.73	254.99	254.94
Ornelaio	5.08	Max WS	TR200_45min	0.29	0.00	0.29	0.00					254.95	255.80	255.73	254.98	254.93
Ornelaio	5.08	Max WS	TR200_1H	0.28	0.00	0.28	0.00					254.95	255.79	255.72	254.97	254.93
Ornelaio	5.08	Max WS	TR200_2H	0.25	0.00	0.25	0.00					254.95	255.77	255.71	254.94	254.90
Ornelaio	5.08	Max WS	TR30_30min	0.29	0.00	0.29	0.00					254.95	255.79	255.72	254.97	254.93
Ornelaio	5.08	Max WS	TR30_45min	0.27	0.00	0.27	0.00					254.95	255.78	255.72	254.96	254.92
Ornelaio	5.08	Max WS	TR30_1h	0.26	0.00	0.26	0.00					254.95	255.77	255.71	254.95	254.91
Ornelaio	5.08	Max WS	TR30_2h	0.22	0.00	0.22	0.00					254.95	255.75	255.69	254.92	254.88
Ornelaio	5.08	Max WS	TR200_3H	0.22	0.00	0.22	0.00					254.95	255.75	255.69	254.92	254.88
Ornelaio	5.08	Max WS	TR30_3H	0.19	0.00	0.19	0.00					254.95	255.73	255.67	254.89	254.86
Ornelaio	3.99	Max WS	TR200_30min	0.30	0.00	0.30	0.00					254.79	254.99	254.94	254.42	254.41
Ornelaio	3.99	Max WS	TR200_45min	0.29	0.00	0.29	0.00					254.79	254.98	254.93	254.39	254.39
Ornelaio	3.99	Max WS	TR200_1H	0.28	0.00	0.28	0.00					254.79	254.97	254.92	254.38	254.37
Ornelaio	3.99	Max WS	TR200_2H	0.25	0.00	0.25	0.00					254.79	254.94	254.90	254.33	254.33
Ornelaio	3.99	Max WS	TR30_30min	0.29	0.00	0.28	0.00					254.79	254.97	254.93	254.39	254.38
Ornelaio	3.99	Max WS	TR30_45min	0.27	0.00	0.27	0.00					254.79	254.96	254.92	254.36	254.36
Ornelaio	3.99	Max WS	TR30_1h	0.26	0.00	0.26	0.00					254.79	254.95	254.91	254.35	254.34
Ornelaio	3.99	Max WS	TR30_2h	0.22	0.00	0.22	0.00					254.79	254.92	254.88	254.28	254.28
Ornelaio	3.99	Max WS	TR200_3H	0.22	0.00	0.22	0.00					254.79	254.92	254.88	254.30	254.29
Ornelaio	3.99	Max WS	TR30_3H	0.19	0.00	0.19	0.00					254.79	254.89	254.86	254.25	254.24
Ornelaio	3.98	Max WS	TR200_30min	0.30	0.00	0.30	0.00					254.64	254.99	254.94	254.42	254.41
Ornelaio	3.98	Max WS	TR200_45min	0.29	0.00	0.29	0.00					254.64	254.98	254.93	254.39	254.39
Ornelaio	3.98	Max WS	TR200_1H	0.28	0.00	0.28	0.00					254.64	254.97	254.92	254.38	254.37
Ornelaio	3.98	Max WS	TR200_2H	0.25	0.00	0.25	0.00					254.64	254.94	254.90	254.33	254.33
Ornelaio	3.98	Max WS	TR30_30min	0.29	0.00	0.28	0.00					254.64	254.97	254.93	254.39	254.38
Ornelaio	3.98	Max WS	TR30_45min	0.27	0.00	0.27	0.00					254.64	254.96	254.92	254.36	254.36
Ornelaio	3.98	Max WS	TR30_1h	0.26	0.00	0.26	0.00					254.64	254.95	254.91	254.35	254.34
Ornelaio	3.98	Max WS	TR30_2h	0.22	0.00	0.22	0.00					254.64	254.92	254.88	254.28	254.28
Ornelaio	3.98	Max WS	TR200_3H	0.22	0.00	0.22	0.00					254.64	254.92	254.88	254.30	254.29
Ornelaio	3.98	Max WS	TR30_3H	0.19	0.00	0.19	0.00					254.64	254.89	254.86	254.25	254.24
Ornelaio	2.09	Max WS	TR200_30min	0.30	0.00	0.30	0.00					253.20	253.90	253.83	253.00	252.98
Ornelaio	2.09	Max WS	TR200_45min	0.29	0.00	0.29	0.00					253.20	253.89	253.82	252.99	252.97
Ornelaio	2.09	Max WS	TR200_1H	0.28	0.00	0.28	0.00					253.20	253.88	253.82	252.98	252.96
Ornelaio	2.09	Max WS	TR200_2H	0.25	0.00	0.25	0.00					253.20	253.87	253.81	252.96	252.94
Ornelaio	2.09	Max WS	TR30_30min	0.28	0.00	0.28	0.00					253.20	253.89	253.82	252.99	252.97
Ornelaio	2.09	Max WS	TR30_45min	0.27	0.00	0.27	0.00					253.20	253.88	253.82	252.97	252.96
Ornelaio	2.09	Max WS	TR30_1h	0.26	0.00	0.26	0.00					253.20	253.87	253.81	252.96	252.95
Ornelaio	2.09	Max WS	TR30_2h	0.22	0.00	0.22	0.00					253.20	253.85	253.79	252.93	252.91
Ornelaio	2.09	Max WS	TR200_3H	0.22	0.00	0.22	0.00					253.20	253.85	253.80	252.94	252.92
Ornelaio	2.09	Max WS	TR30_3H	0.19	0.00	0.19	0.00					253.20	253.83	253.78	252.91	252.89
Ornelaio	2.08	Max WS	TR200_30min	0.30	0.00	0.30	0.00					253.01	253.90	253.83	253.00	252.98
Ornelaio	2.08	Max WS	TR200_45min	0.29	0.00	0.29	0.00					253.01	253.89	253.82	252.99	252.97
Ornelaio	2.08	Max WS	TR200_1H	0.28	0.00	0.28	0.00					253.01	253.88	253.82	252.98	252.96
Ornelaio	2.08	Max WS	TR200_2H	0.25	0.00	0.25	0.00					253.01	253.87	253.81	252.96	252.94
Ornelaio	2.08	Max WS	TR30_30min	0.28	0.00	0.28	0.00					253.01	253.89	253.82	252.99	252.97
Ornelaio	2.08	Max WS	TR30_45min	0.27	0.00	0.27	0.00					253.01	253.88	253.82	252.97	252.96
Ornelaio	2.08	Max WS	TR30_1h	0.26	0.00	0.26	0.00					253.01	253.87	253.81	252.96	252.95
Ornelaio	2.08	Max WS	TR30_2h	0.22	0.00	0.22	0.00					253.01	253.85	253.79	252.93	252.91
Ornelaio	2.08	Max WS	TR200_3H	0.22	0.00	0.22	0.00					253.01	253.85	253.80	252.94	252.92
Ornelaio	2.08	Max WS	TR30_3H	0.19	0.00	0.19	0.00					253.01	253.83	253.78	252.91	252.89

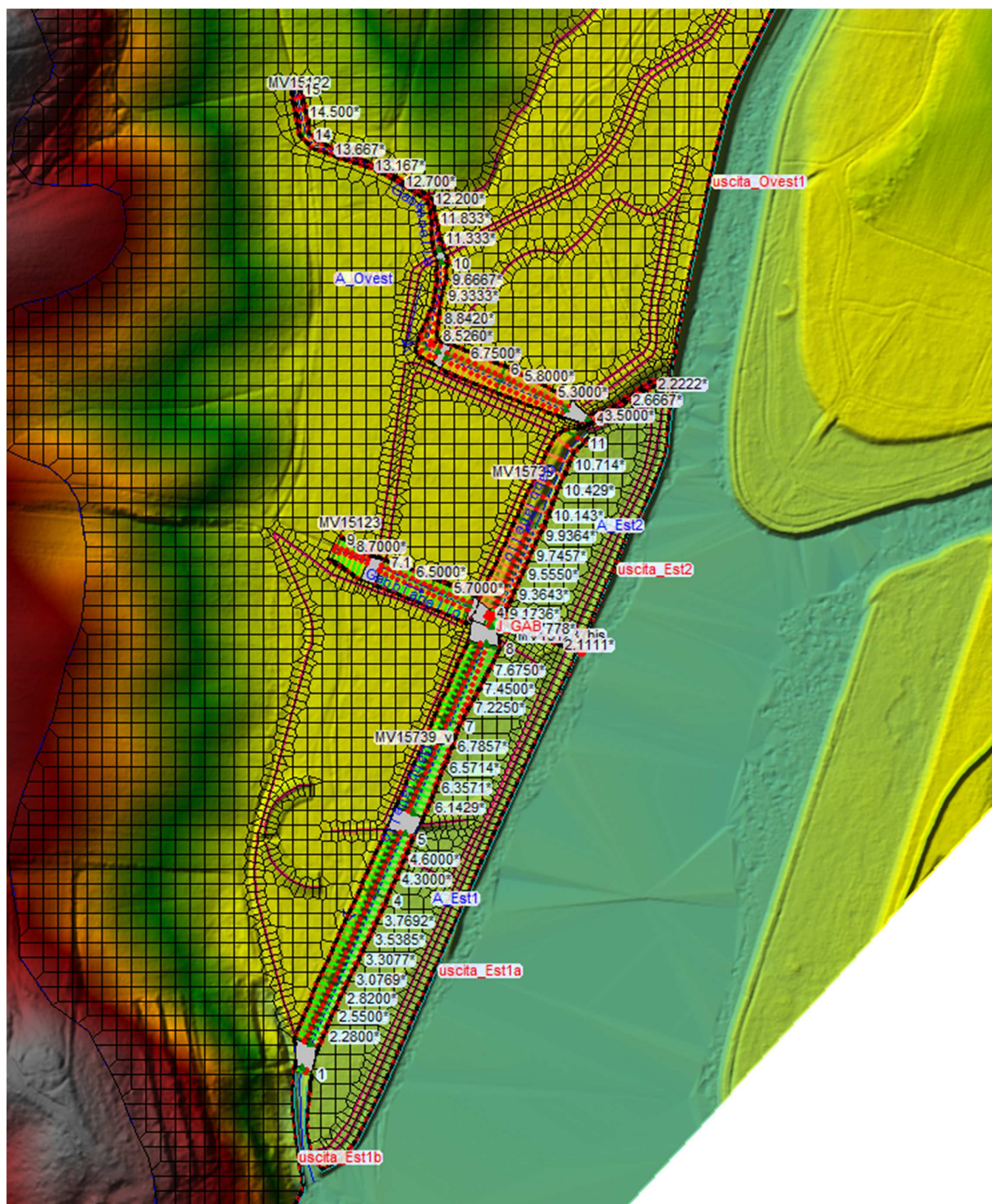
Gabbianello

Fosso MV15122

Fosso MV15739

Fosso MV15123

Fosso MV15123_bis

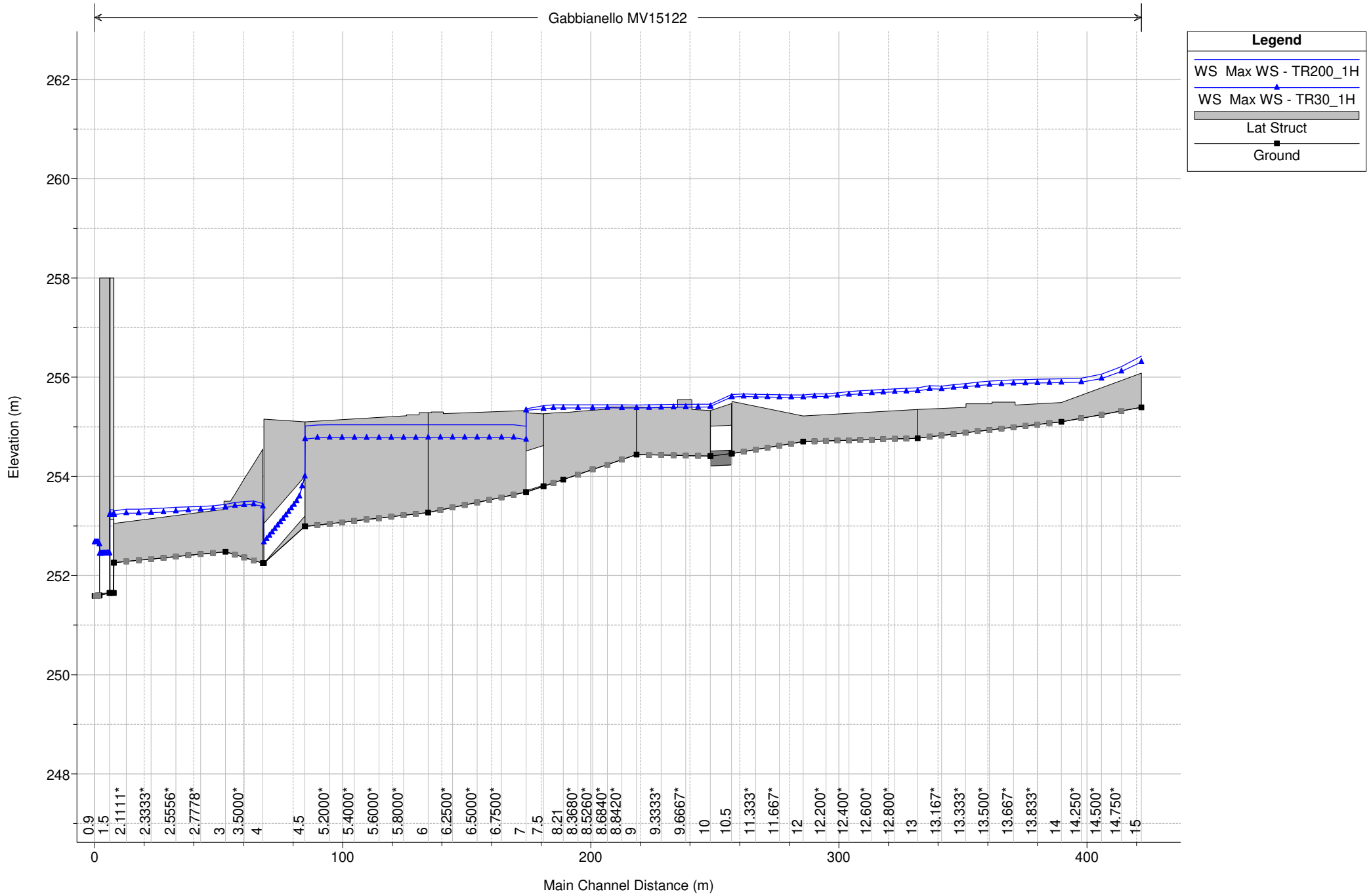


FOSSO
MV15122

Gabbianello Plan: 1) TR200_1H 2) TR30_1H

Strutture Lateralali Destra Idraulica

Gabbianello MV15122

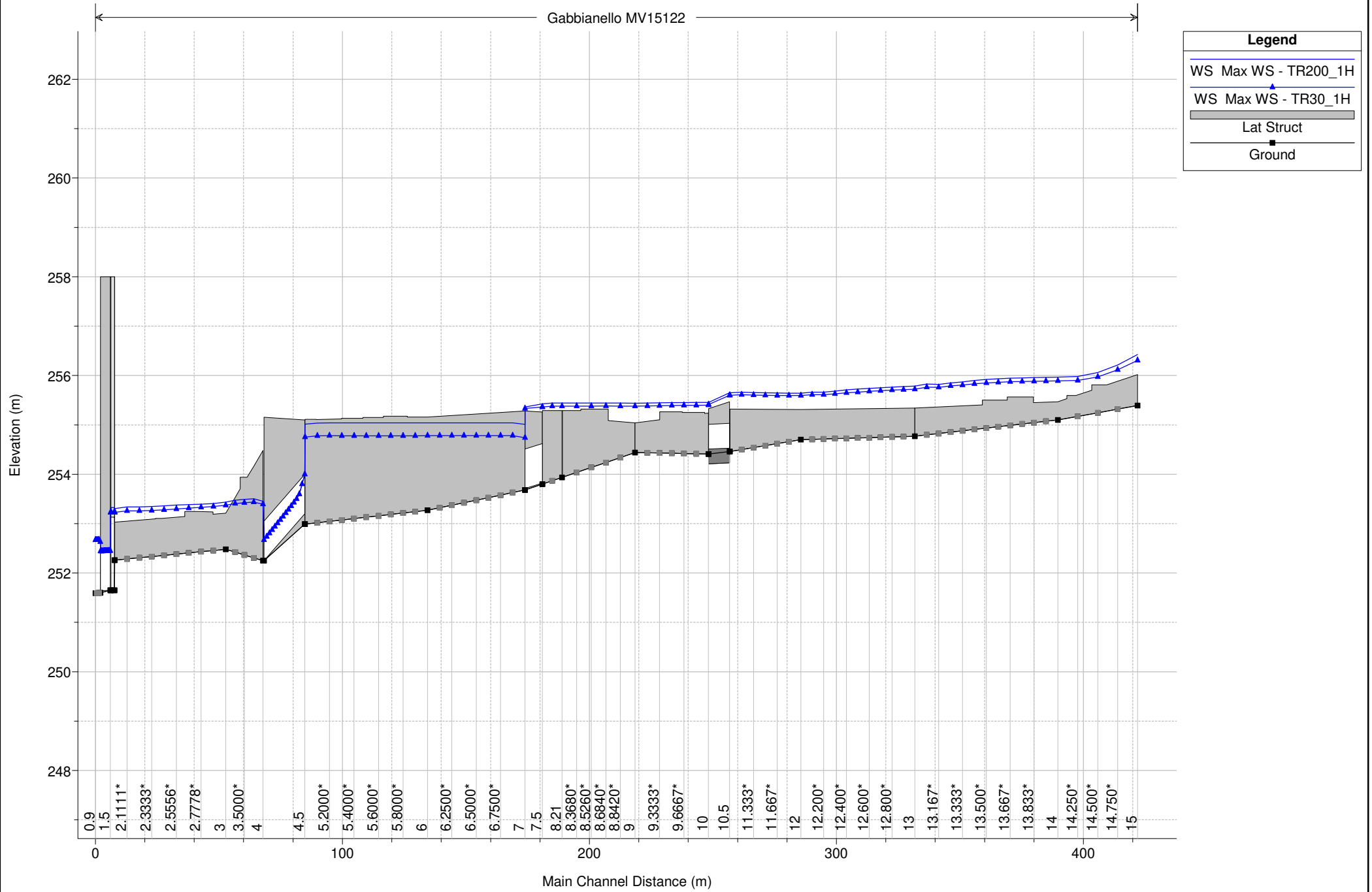


1 cm Horiz. = 20 m 1 cm Vert. = 1 m

Gabbianello Plan: 1) TR200_1H 2) TR30_1H

Strutture Lateral Sinistra Idraulica

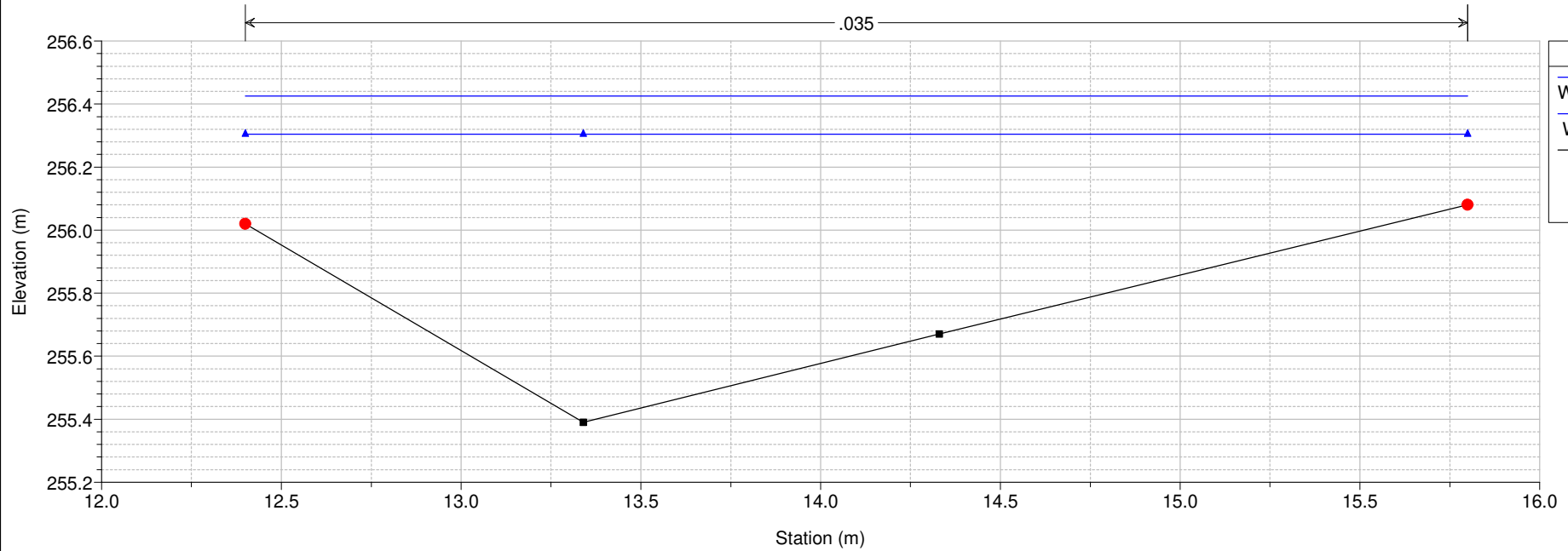
Gabbianello MV15122



1 cm Horiz. = 20 m 1 cm Vert. = 1 m

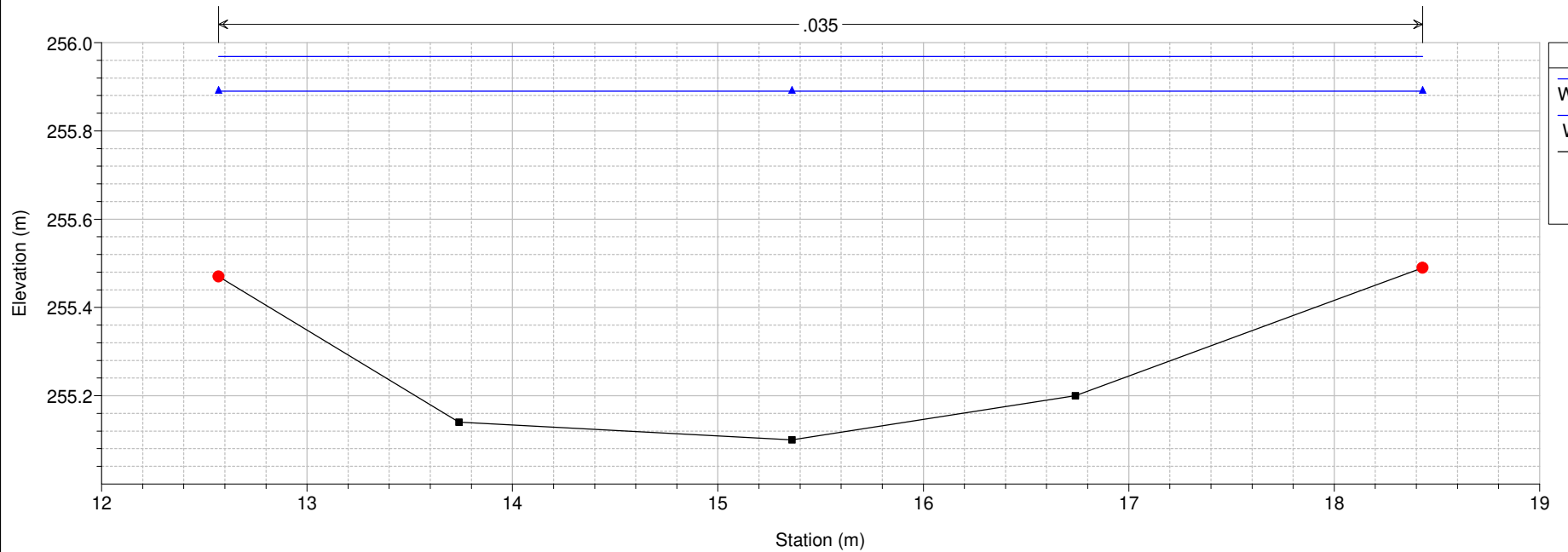
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 15 G01



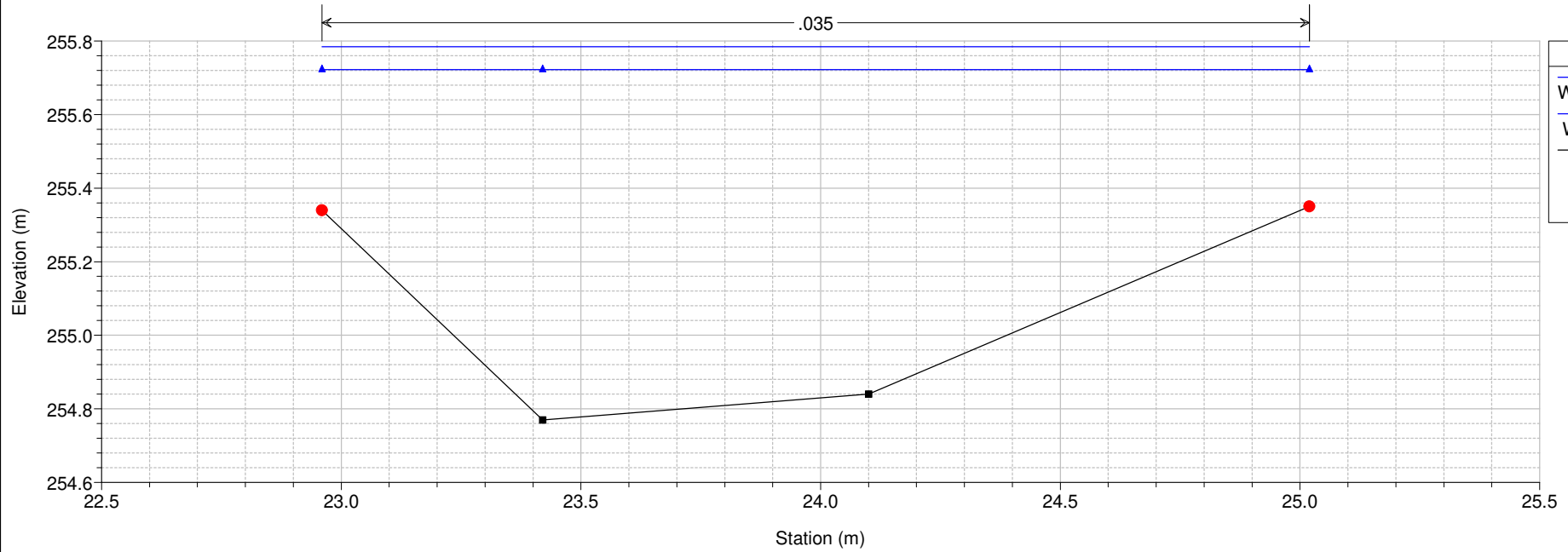
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 14 G02



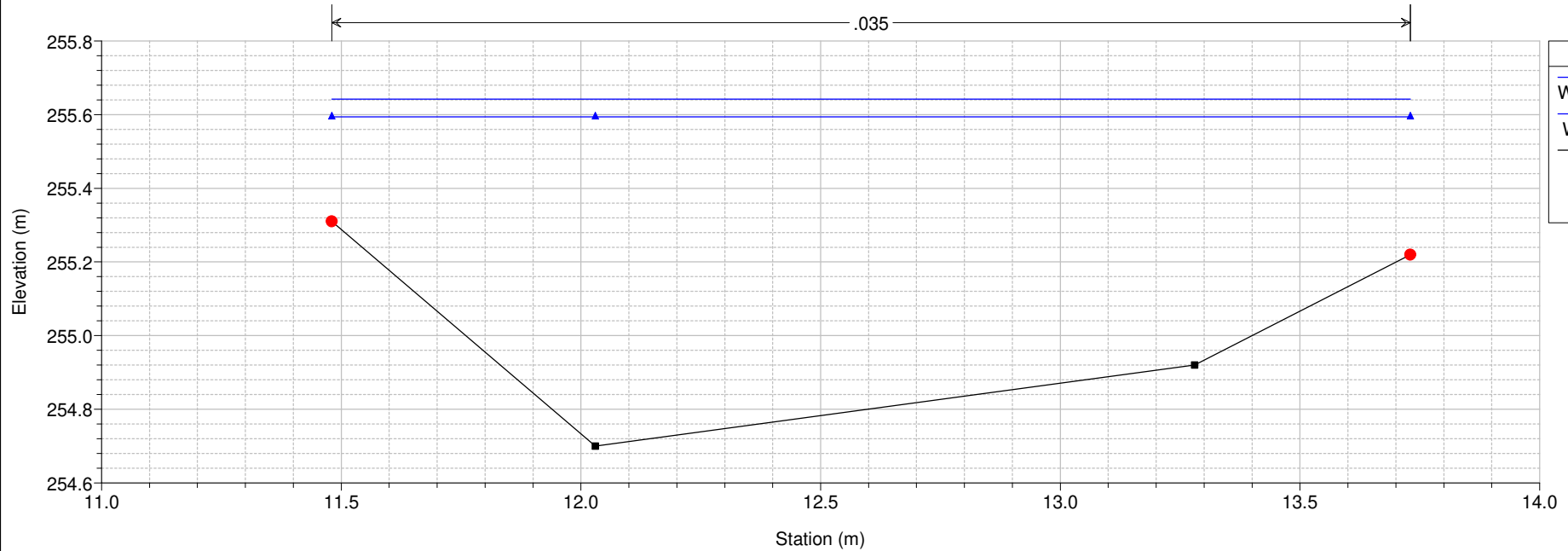
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 13 G03

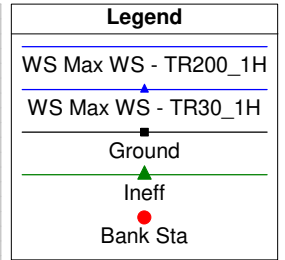
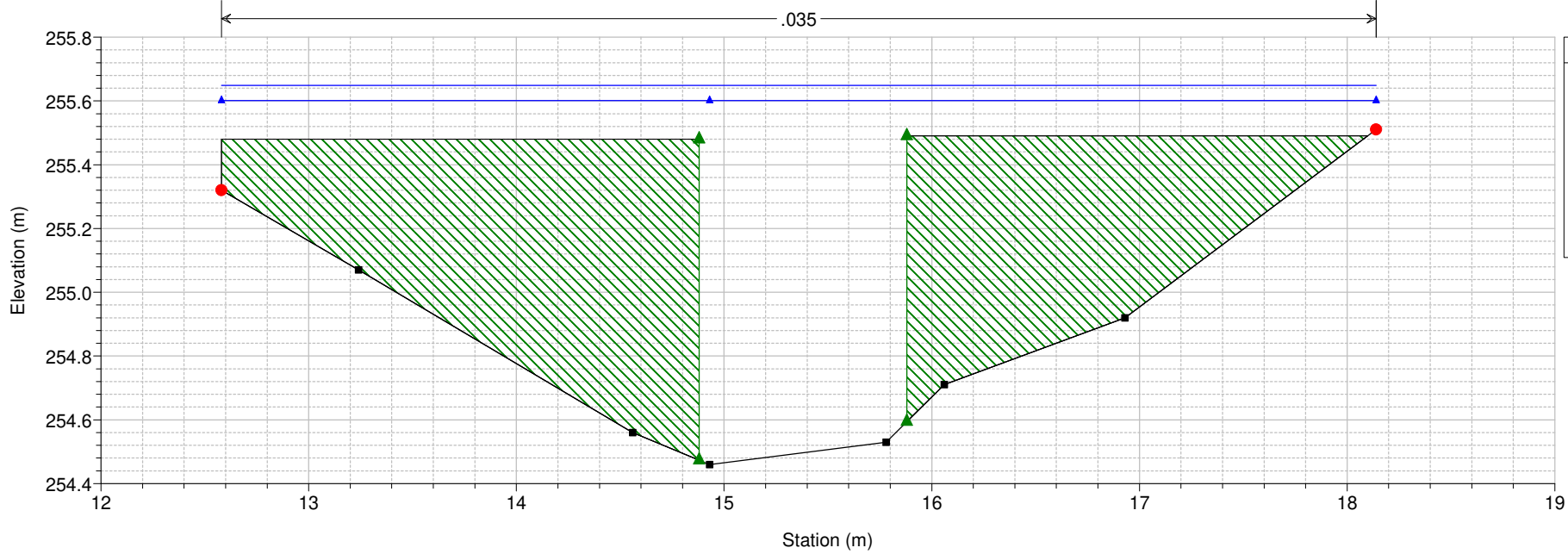


Gabbianello Plan: 1) TR200_1H 2) TR30_1H

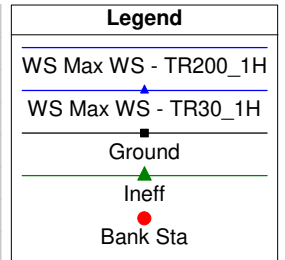
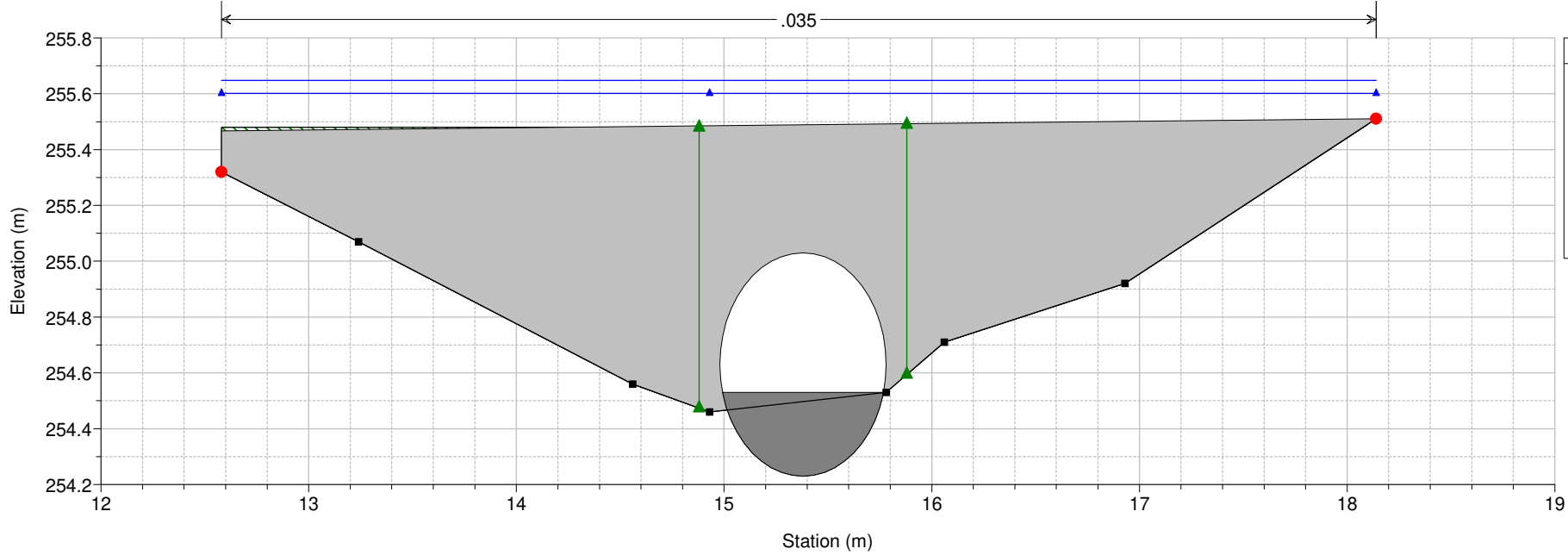
River = Gabbianello Reach = MV15122 RS = 12 G04



Gabbianello Plan: 1) TR200_1H 2) TR30_1H
 River = Gabbianello Reach = MV15122 RS = 11 G05A

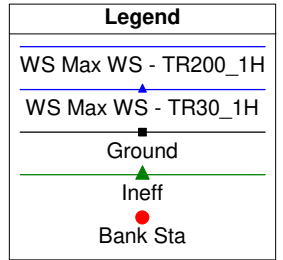
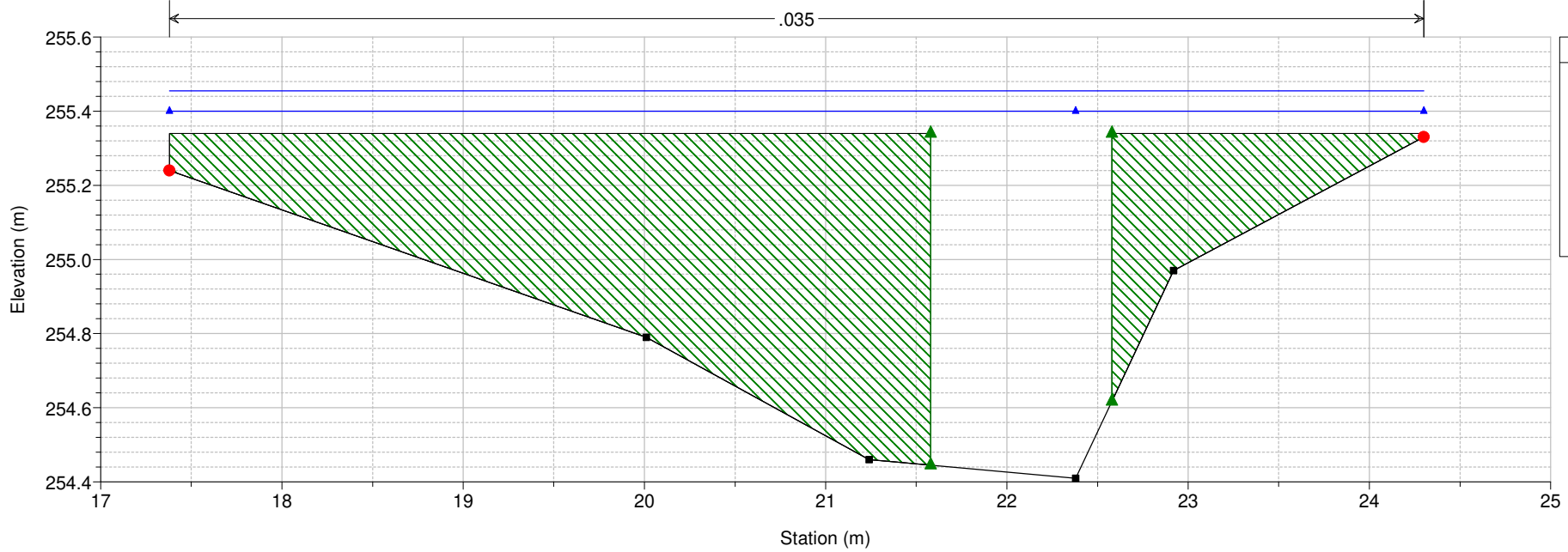


Gabbianello Plan: 1) TR200_1H 2) TR30_1H
 River = Gabbianello Reach = MV15122 RS = 10.5 Culv



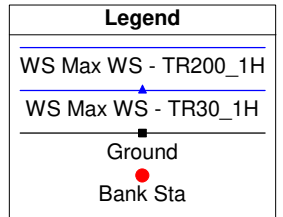
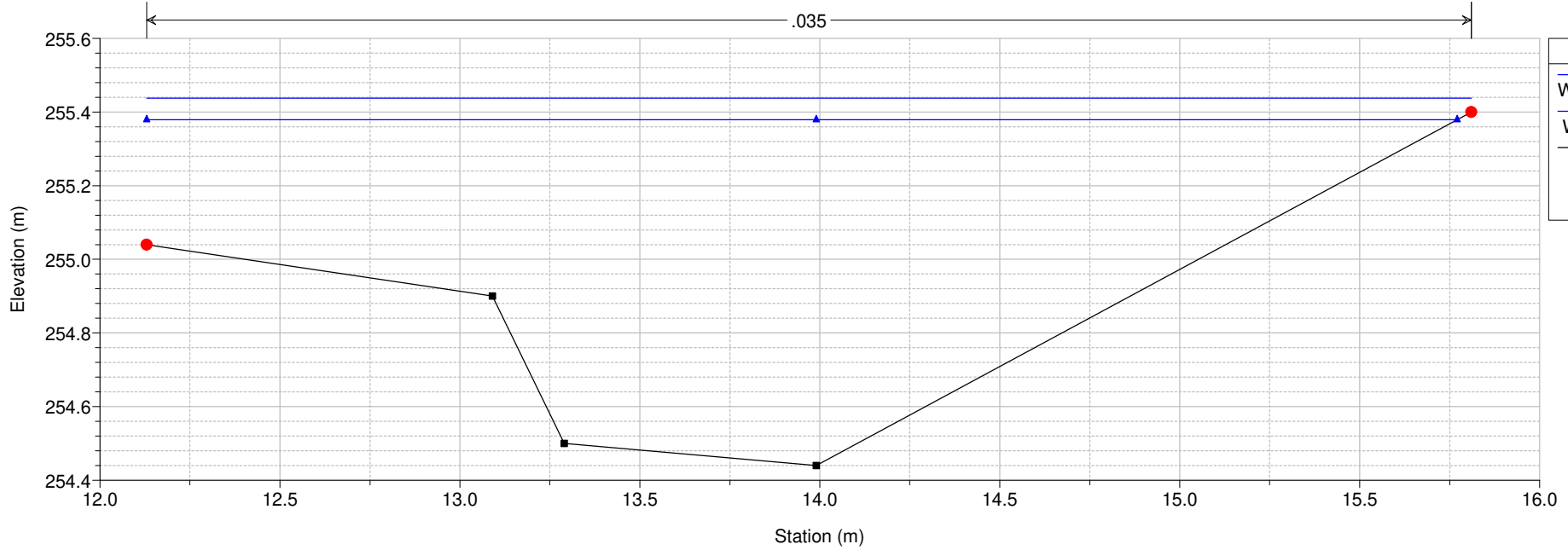
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 10 G05B

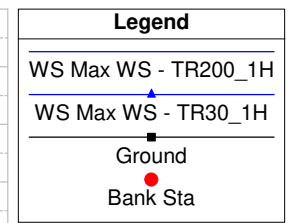
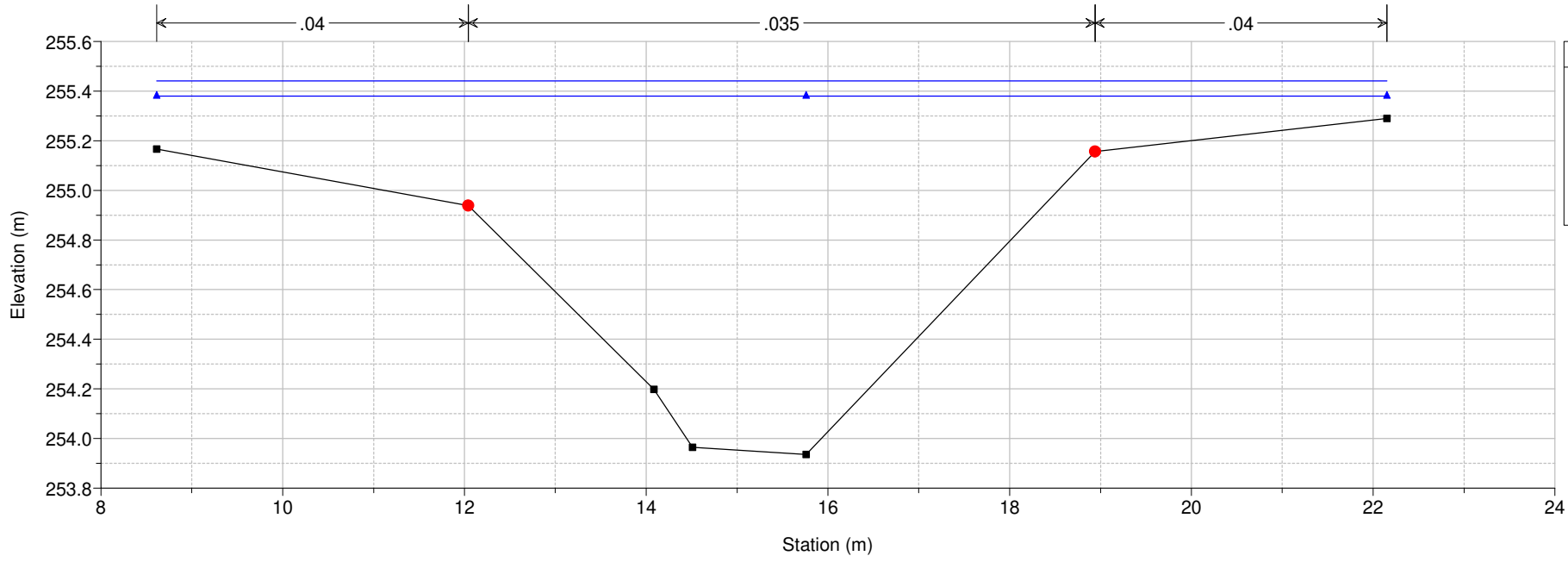


Gabbianello Plan: 1) TR200_1H 2) TR30_1H

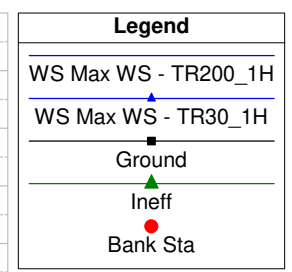
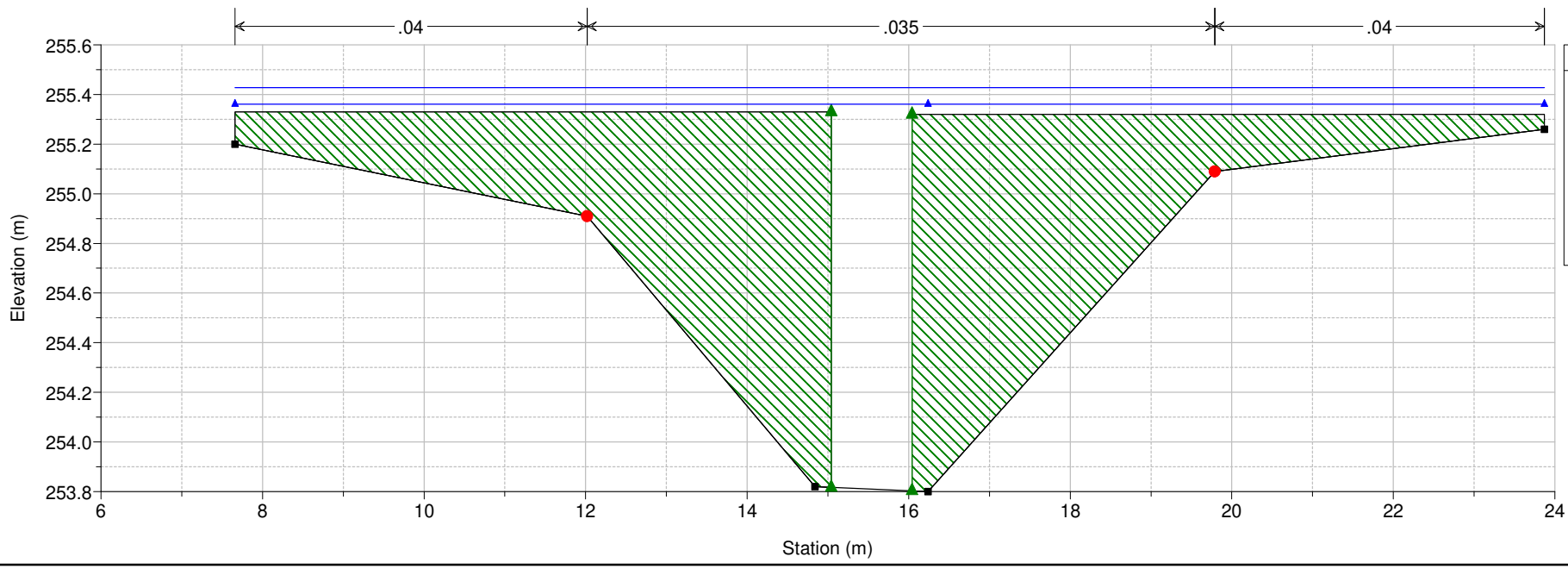
River = Gabbianello Reach = MV15122 RS = 9 G06



Gabbianello Plan: 1) TR200_1H 2) TR30_1H
 River = Gabbianello Reach = MV15122 RS = 8.21 Interpolata per LS

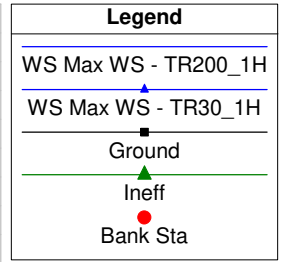
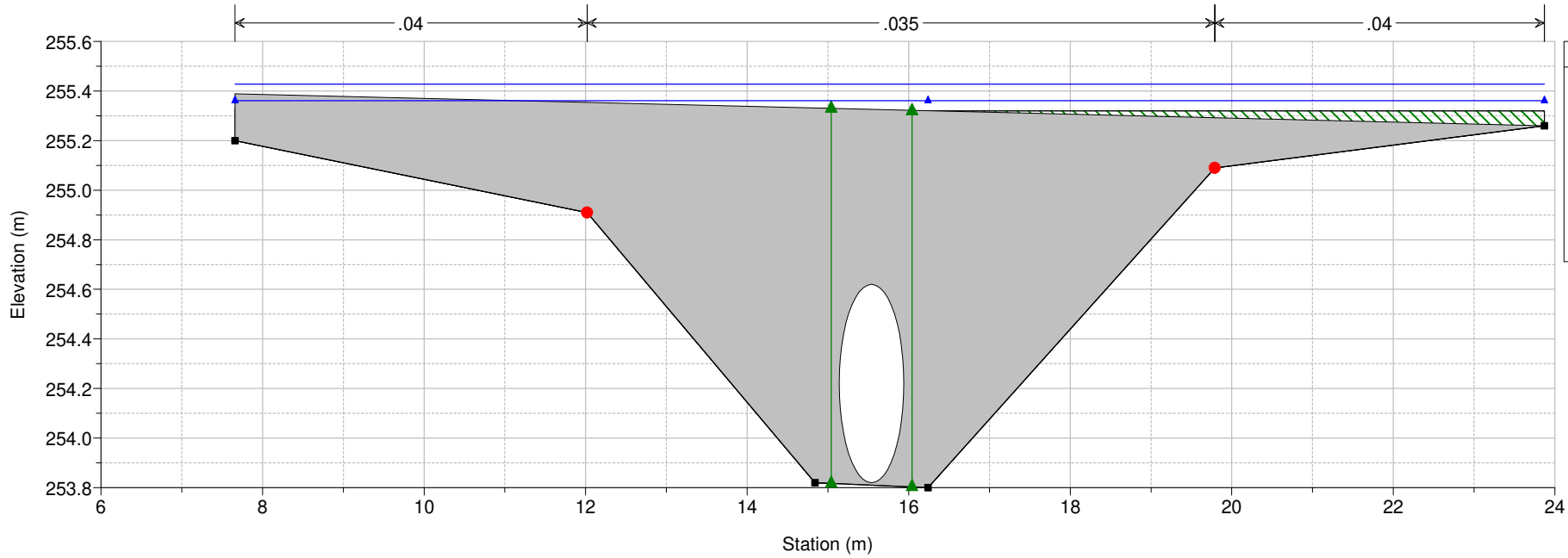


Gabbianello Plan: 1) TR200_1H 2) TR30_1H
 River = Gabbianello Reach = MV15122 RS = 8 G07A



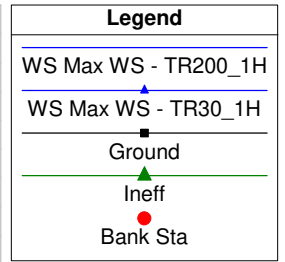
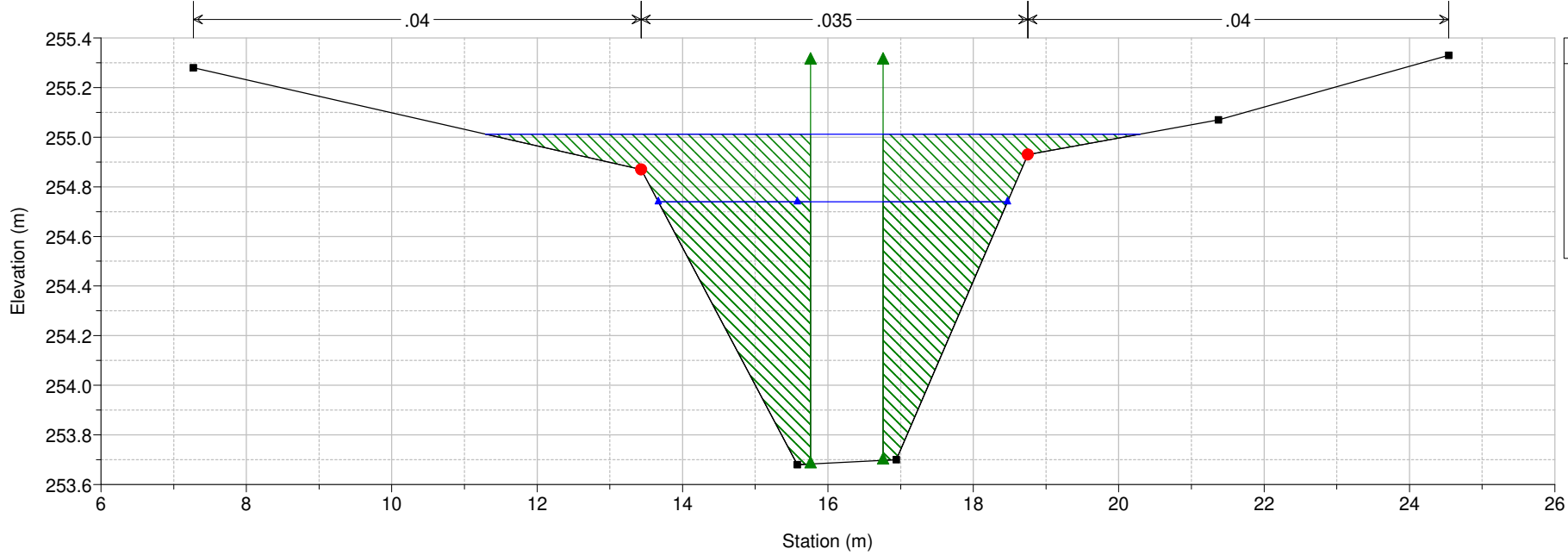
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 7.5 Culv



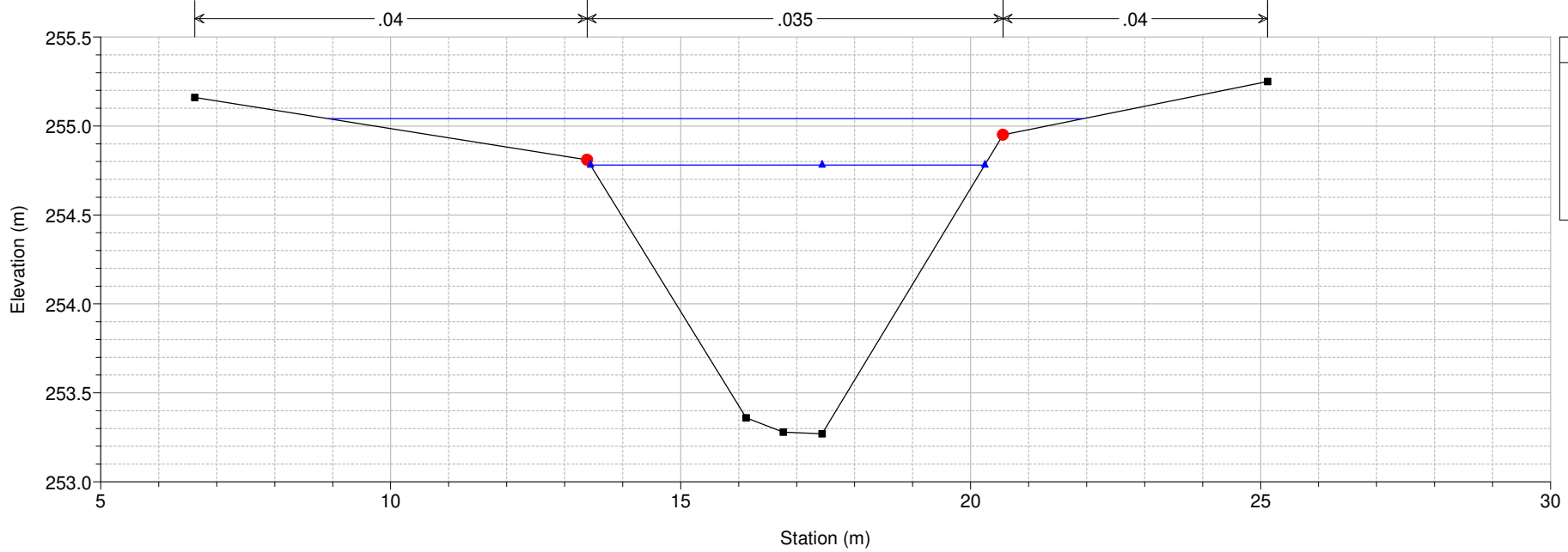
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 7 G07B



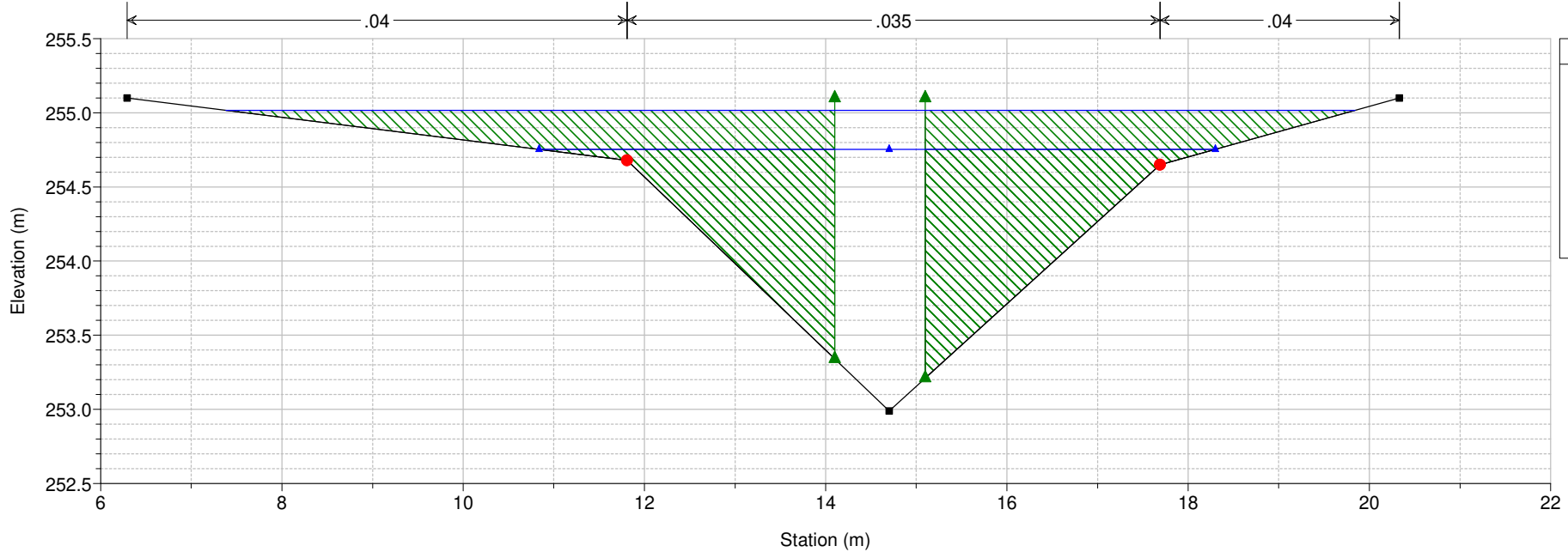
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

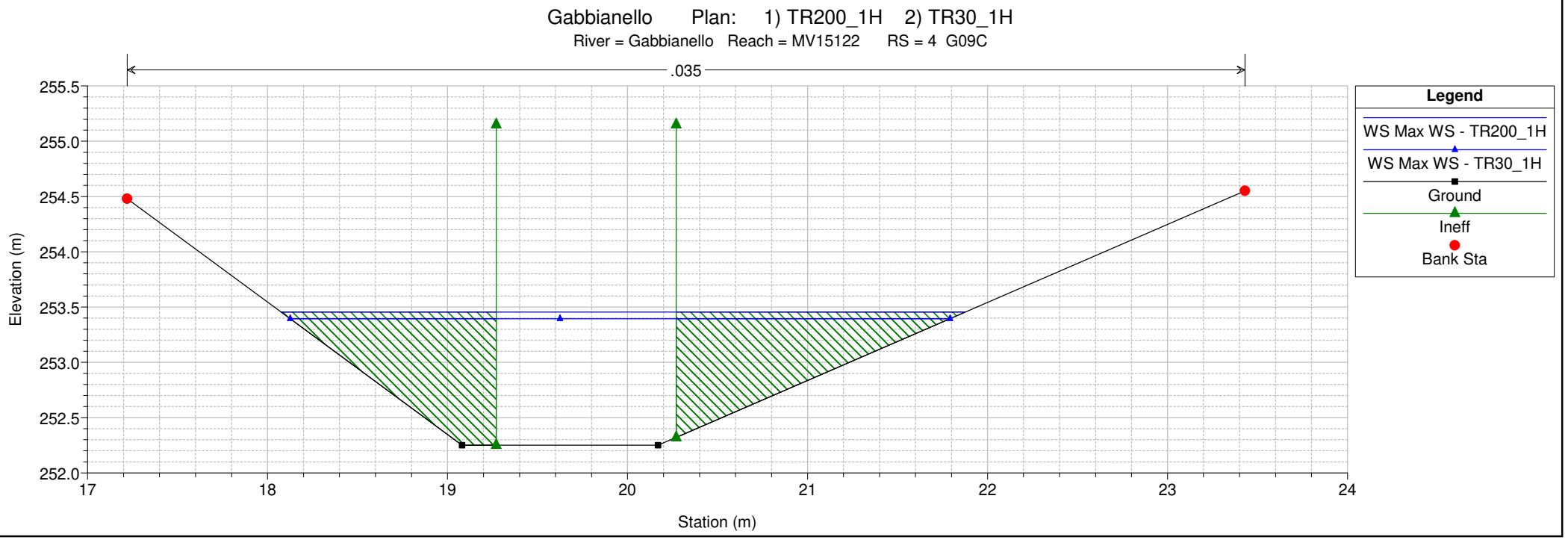
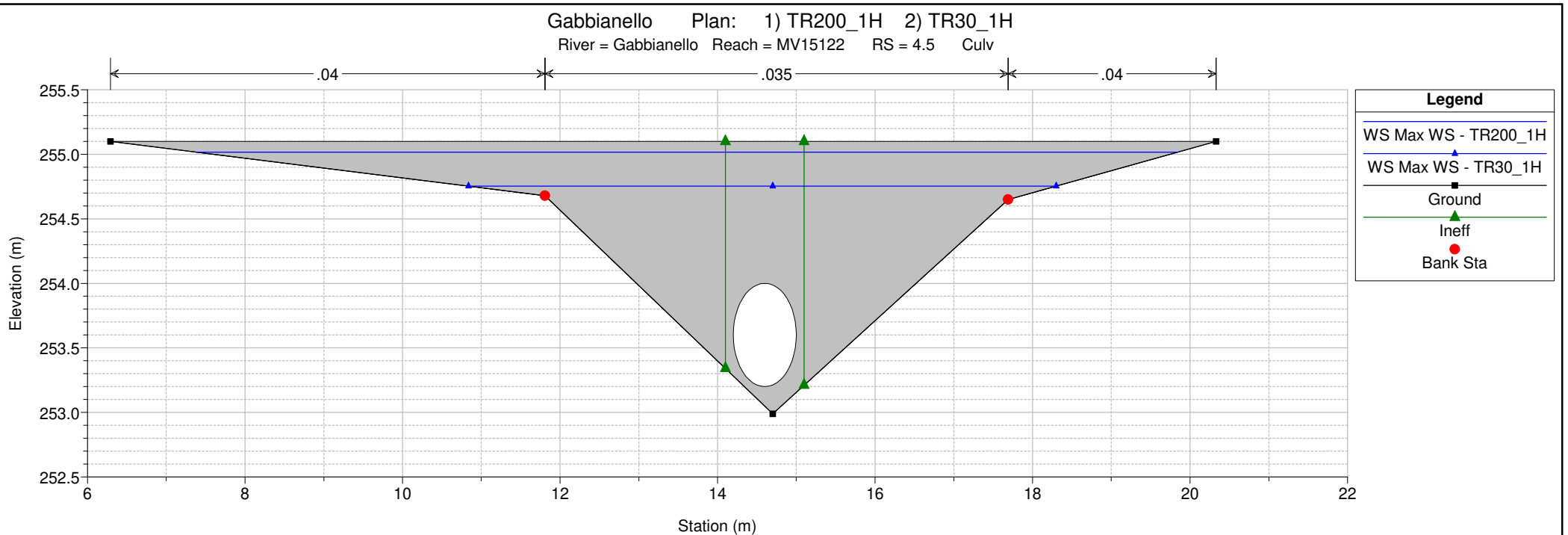
River = Gabbianello Reach = MV15122 RS = 6 G08



Gabbianello Plan: 1) TR200_1H 2) TR30_1H

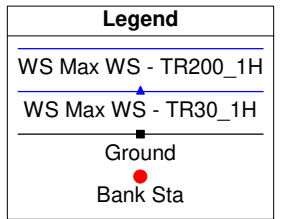
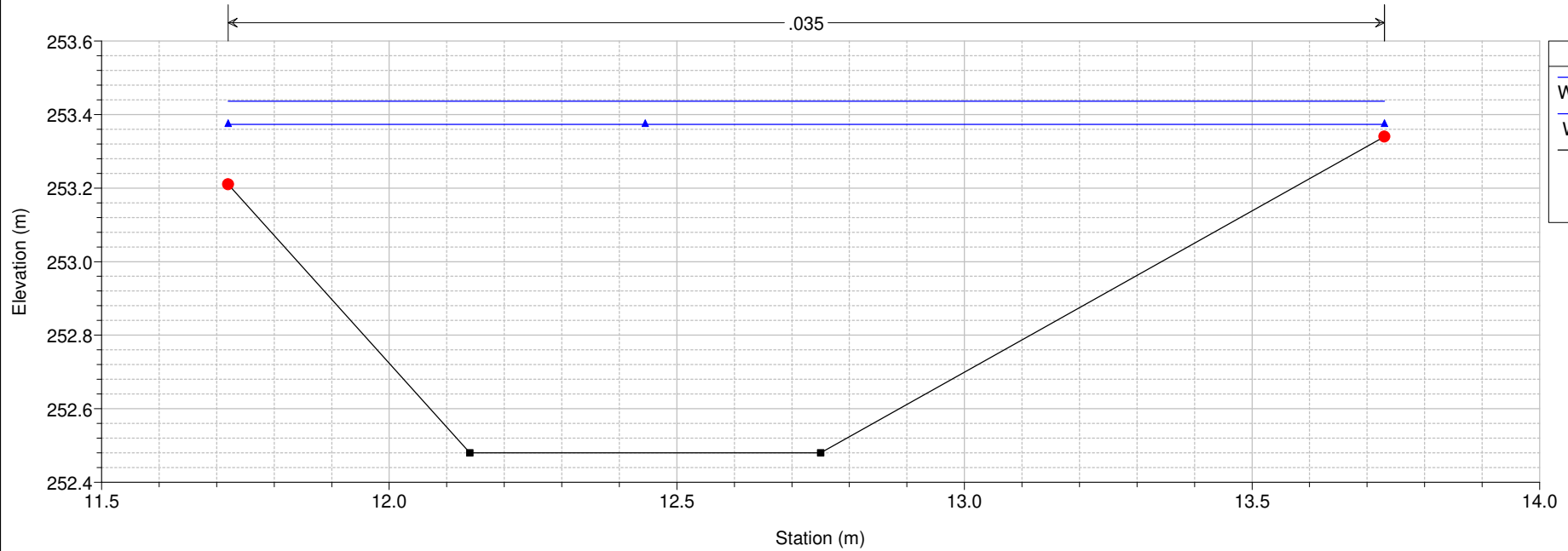
River = Gabbianello Reach = MV15122 RS = 5 G09





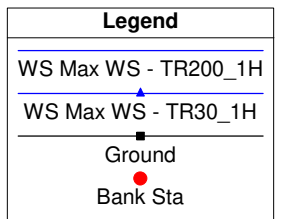
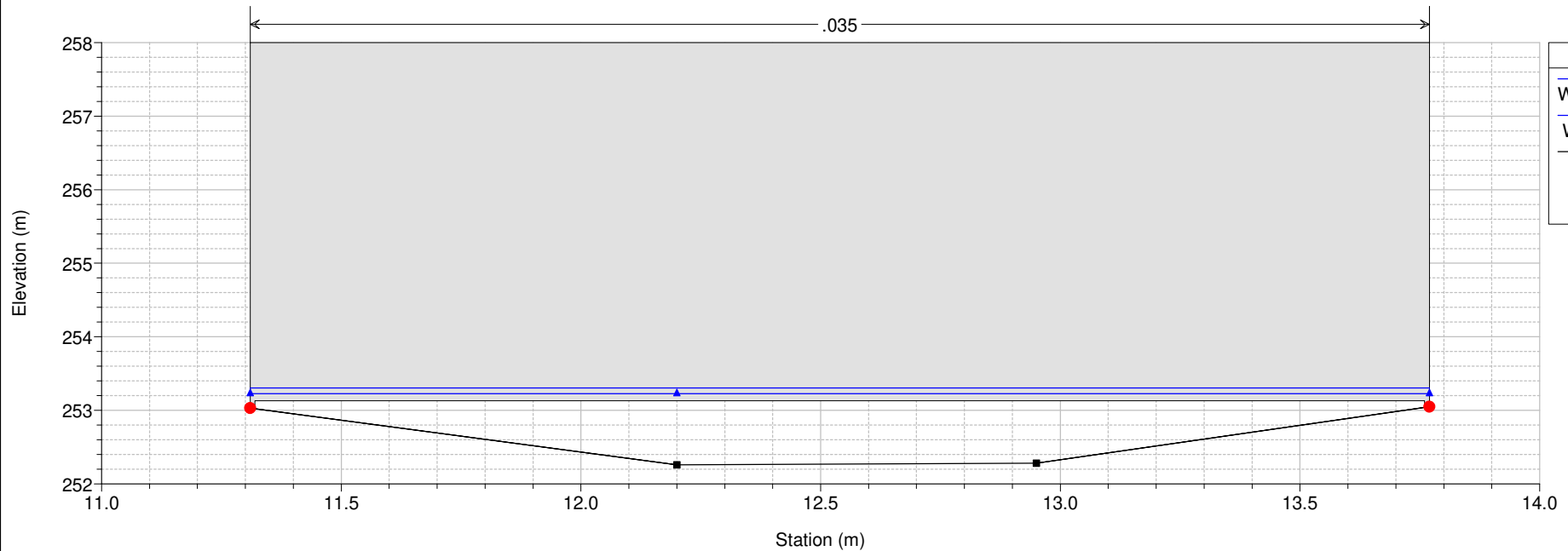
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 3 G10



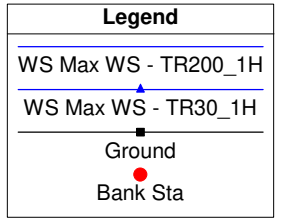
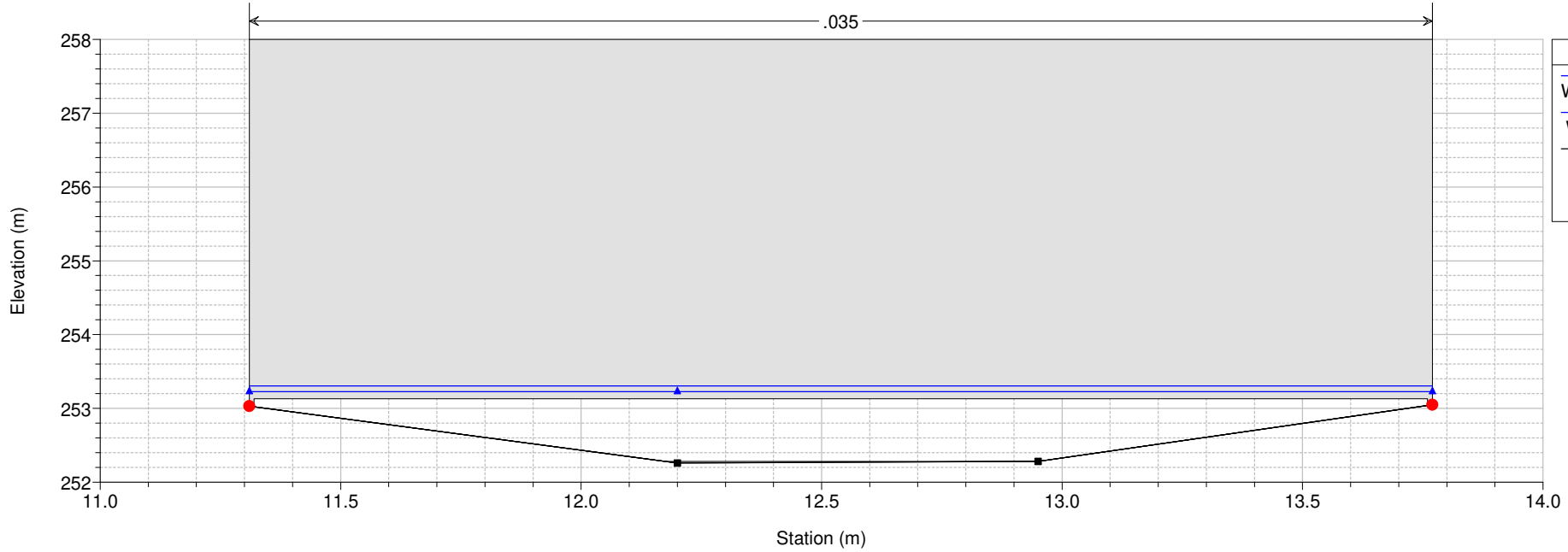
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 2 G11



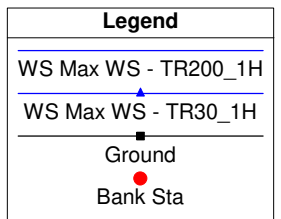
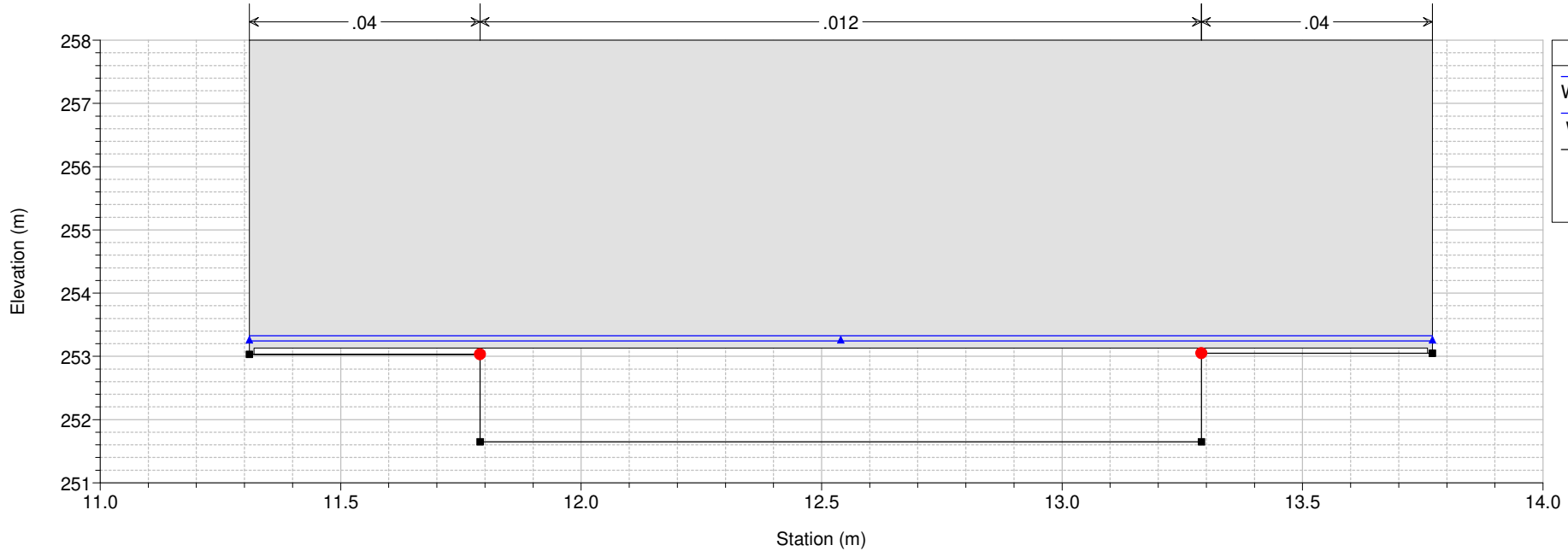
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1.95 IS



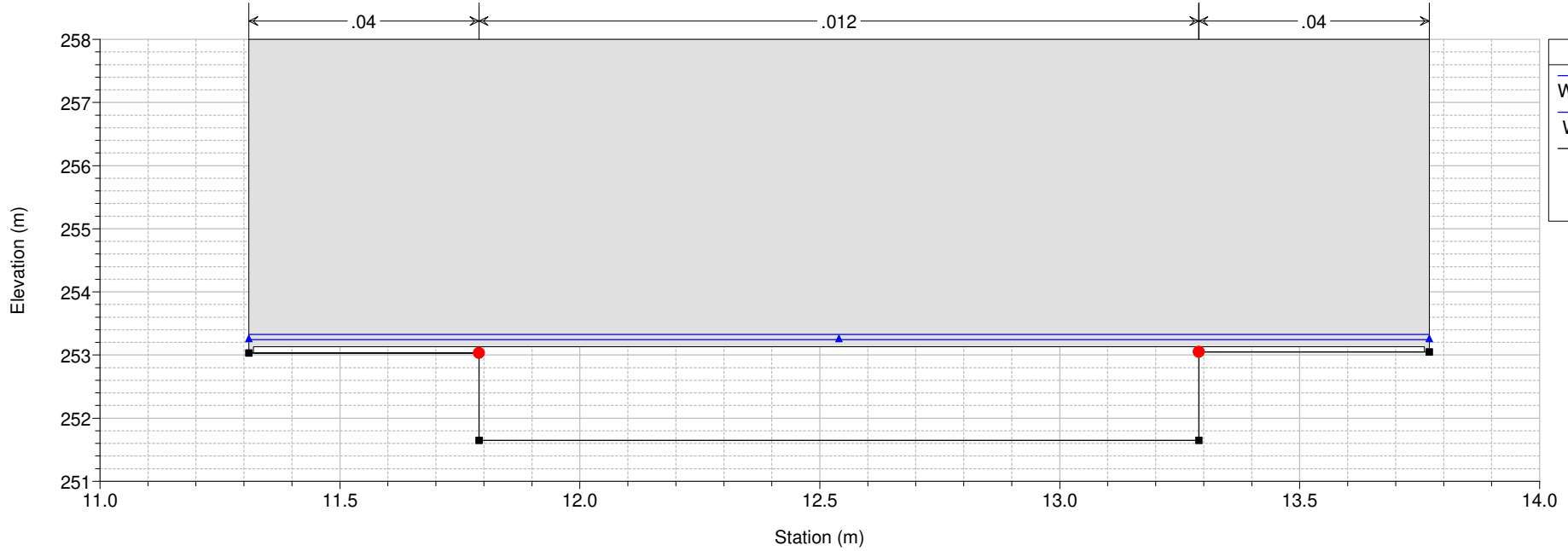
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1.9 G11



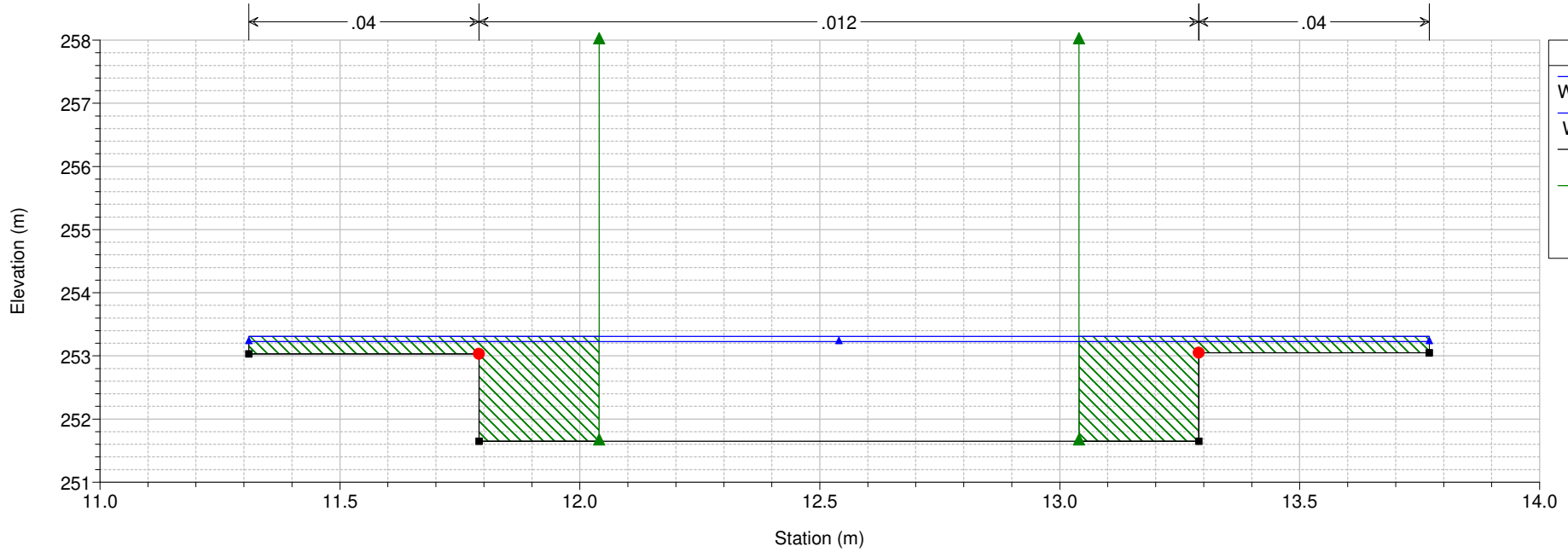
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1.7 G11



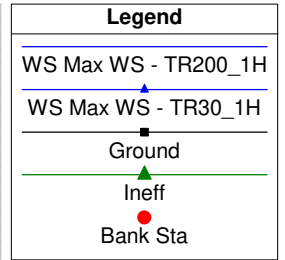
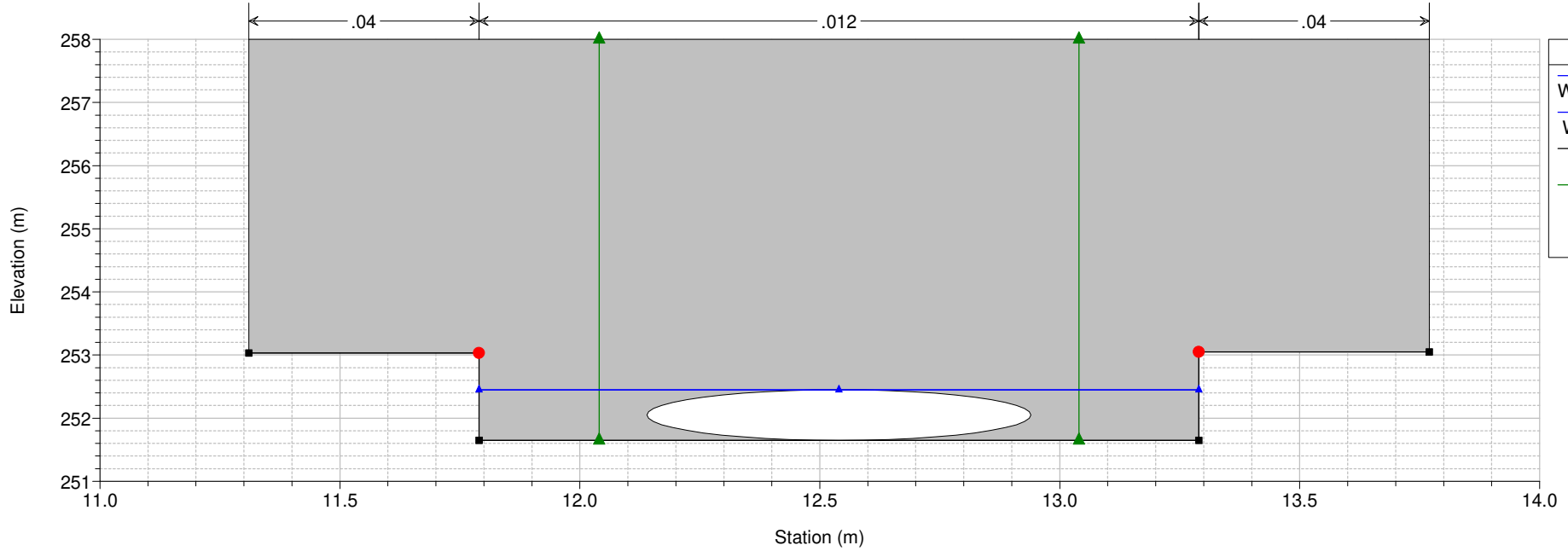
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1.6



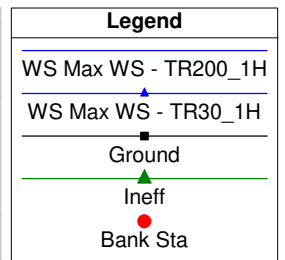
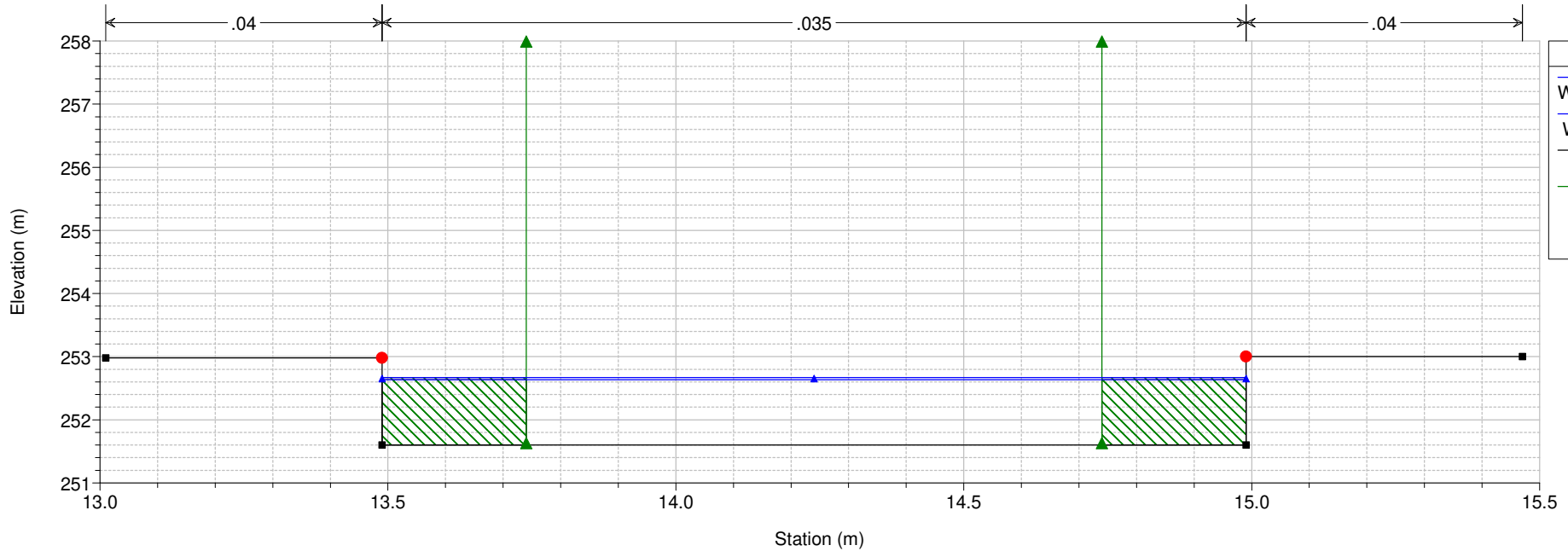
Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1.5 Culv

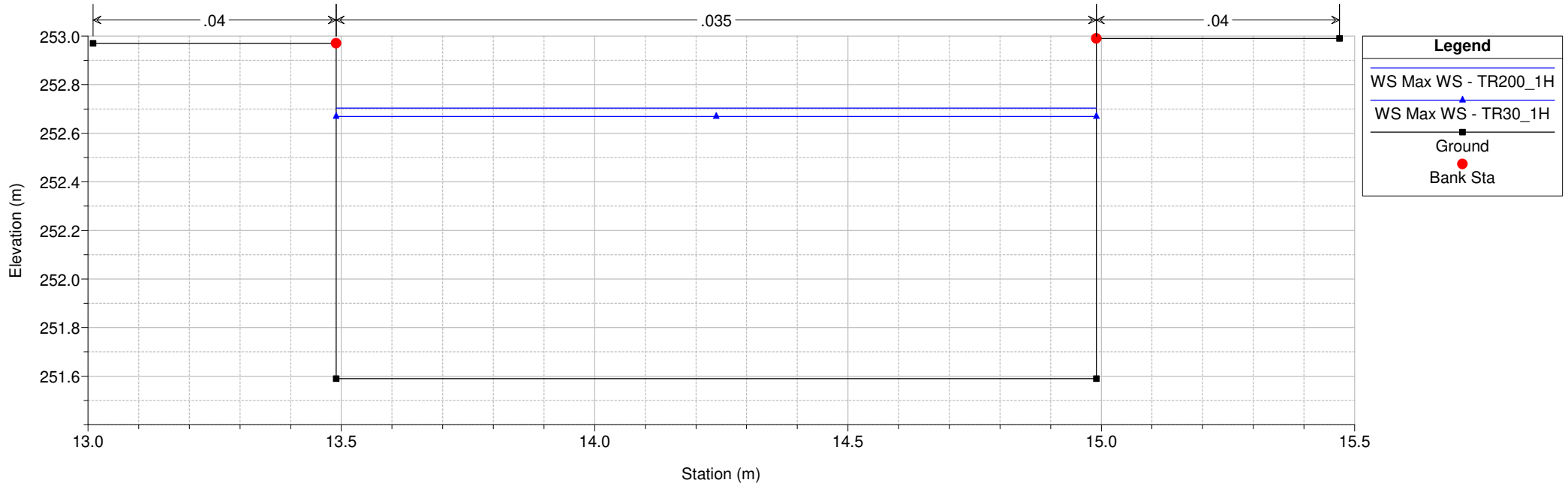


Gabbianello Plan: 1) TR200_1H 2) TR30_1H

River = Gabbianello Reach = MV15122 RS = 1 G12



Gabbianello Plan: 1) TR200_1H 2) TR30_1H
River = Gabbianello Reach = MV15122 RS = 0.9 copia G12 valle



Legend

- WS Max WS - TR200_1H
- WS Max WS - TR30_1H
- Ground
- Bank Sta

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15122	15	Max WS	TR200_30min	7.88	255.39	256.44	256.55	256.98	0.029845	3.27	2.41	3.40	1.24
MV15122	15	Max WS	TR200_45min	8.03	255.39	256.44	256.56	257.00	0.030042	3.30	2.43	3.40	1.25
MV15122	15	Max WS	TR200_1H	7.66	255.39	256.42	256.53	256.96	0.029473	3.23	2.37	3.40	1.24
MV15122	15	Max WS	TR200_2H	5.75	255.39	256.32	256.39	256.73	0.026560	2.85	2.02	3.40	1.18
MV15122	15	Max WS	TR30_30min	5.55	255.39	256.31	256.38	256.71	0.026310	2.80	1.98	3.40	1.17
MV15122	15	Max WS	TR30_45min	5.70	255.39	256.32	256.39	256.73	0.026540	2.84	2.01	3.40	1.18
MV15122	15	Max WS	TR30_1H	5.46	255.39	256.30	256.37	256.70	0.026149	2.78	1.96	3.40	1.17
MV15122	15	Max WS	TR30_2H	4.14	255.39	256.22	256.26	256.53	0.023803	2.46	1.68	3.40	1.12
MV15122	14.99			Lat Struct									
MV15122	14.98			Lat Struct									
MV15122	14	Max WS	TR200_30min	5.67	255.10	255.97	255.69	256.06	0.003906	1.31	4.34	5.86	0.49
MV15122	14	Max WS	TR200_45min	5.78	255.10	255.98	255.69	256.07	0.003927	1.32	4.38	5.86	0.49
MV15122	14	Max WS	TR200_1H	5.56	255.10	255.97	255.68	256.05	0.003758	1.28	4.33	5.86	0.48
MV15122	14	Max WS	TR200_2H	4.54	255.10	255.90	255.62	255.97	0.003344	1.15	3.95	5.86	0.45
MV15122	14	Max WS	TR30_30min	4.36	255.10	255.89	255.61	255.96	0.003247	1.12	3.88	5.86	0.44
MV15122	14	Max WS	TR30_45min	4.49	255.10	255.90	255.62	255.97	0.003329	1.15	3.92	5.86	0.45
MV15122	14	Max WS	TR30_1H	4.27	255.10	255.89	255.61	255.95	0.003127	1.10	3.87	5.86	0.43
MV15122	14	Max WS	TR30_2H	3.54	255.10	255.84	255.56	255.89	0.002800	1.00	3.55	5.86	0.41
MV15122	13	Max WS	TR200_30min	2.62	254.77	255.78	255.54	255.91	0.008185	1.60	1.63	2.06	0.57
MV15122	13	Max WS	TR200_45min	2.67	254.77	255.79	255.55	255.92	0.008266	1.62	1.65	2.06	0.58
MV15122	13	Max WS	TR200_1H	2.61	254.77	255.78	255.54	255.91	0.008107	1.60	1.64	2.06	0.57
MV15122	13	Max WS	TR200_2H	2.26	254.77	255.74	255.49	255.85	0.007232	1.47	1.54	2.06	0.55
MV15122	13	Max WS	TR30_30min	2.15	254.77	255.72	255.47	255.82	0.006986	1.44	1.50	2.06	0.54
MV15122	13	Max WS	TR30_45min	2.20	254.77	255.73	255.48	255.83	0.007082	1.45	1.52	2.06	0.54
MV15122	13	Max WS	TR30_1H	2.17	254.77	255.72	255.47	255.83	0.006964	1.44	1.51	2.06	0.54
MV15122	13	Max WS	TR30_2H	1.88	254.77	255.68	255.43	255.77	0.006078	1.32	1.43	2.06	0.50
MV15122	12.99			Lat Struct									
MV15122	12.98			Lat Struct									
MV15122	12	Max WS	TR200_30min	1.83	254.70	255.64	255.32	255.70	0.003984	1.12	1.64	2.25	0.42
MV15122	12	Max WS	TR200_45min	1.88	254.70	255.65	255.32	255.71	0.004068	1.13	1.66	2.25	0.42
MV15122	12	Max WS	TR200_1H	1.84	254.70	255.64	255.32	255.71	0.004001	1.12	1.65	2.25	0.42
MV15122	12	Max WS	TR200_2H	1.61	254.70	255.60	255.28	255.66	0.003537	1.03	1.56	2.25	0.39
MV15122	12	Max WS	TR30_30min	1.51	254.70	255.59	255.27	255.64	0.003337	0.99	1.53	2.25	0.38
MV15122	12	Max WS	TR30_45min	1.57	254.70	255.60	255.27	255.65	0.003445	1.01	1.55	2.25	0.39
MV15122	12	Max WS	TR30_1H	1.55	254.70	255.59	255.27	255.65	0.003401	1.00	1.54	2.25	0.39
MV15122	12	Max WS	TR30_2H	1.37	254.70	255.56	255.24	255.61	0.003023	0.93	1.47	2.25	0.37
MV15122	11	Max WS	TR200_30min	1.15	254.46	255.65		255.67	0.002300	0.61	1.89	5.56	0.33
MV15122	11	Max WS	TR200_45min	1.21	254.46	255.65		255.67	0.002444	0.63	1.92	5.56	0.34
MV15122	11	Max WS	TR200_1H	1.18	254.46	255.65		255.67	0.002404	0.62	1.89	5.56	0.34
MV15122	11	Max WS	TR200_2H	0.95	254.46	255.61		255.63	0.002275	0.56	1.68	5.56	0.33
MV15122	11	Max WS	TR30_30min	0.84	254.46	255.60		255.61	0.002118	0.53	1.60	5.56	0.31
MV15122	11	Max WS	TR30_45min	0.86	254.46	255.61		255.62	0.001985	0.52	1.65	5.56	0.31
MV15122	11	Max WS	TR30_1H	0.87	254.46	255.60		255.62	0.002144	0.54	1.63	5.56	0.32
MV15122	11	Max WS	TR30_2H	0.73	254.46	255.57		255.58	0.002108	0.50	1.46	5.56	0.31
MV15122	10.5			Culvert									
MV15122	10	Max WS	TR200_30min	1.09	254.41	255.44	254.93	255.47	0.004430	0.68	1.61	6.92	0.45
MV15122	10	Max WS	TR200_45min	1.19	254.41	255.46	254.97	255.48	0.004368	0.70	1.71	6.92	0.45
MV15122	10	Max WS	TR200_1H	1.16	254.41	255.46	254.96	255.48	0.004293	0.69	1.69	6.92	0.44
MV15122	10	Max WS	TR200_2H	0.94	254.41	255.42	254.89	255.44	0.004628	0.65	1.46	6.92	0.45
MV15122	10	Max WS	TR30_30min	0.65	254.41	255.35	254.79	255.38	0.007827	0.66	0.99	6.92	0.56
MV15122	10	Max WS	TR30_45min	0.79	254.41	255.40	254.84	255.41	0.005045	0.62	1.27	6.92	0.46
MV15122	10	Max WS	TR30_1H	0.84	254.41	255.40	254.86	255.42	0.005131	0.64	1.31	6.92	0.47
MV15122	10	Max WS	TR30_2H	0.73	254.41	255.36	254.82	255.39	0.008350	0.70	1.04	6.92	0.58
MV15122	9.99			Lat Struct									
MV15122	9.98			Lat Struct									
MV15122	9	Max WS	TR200_30min	1.08	254.44	255.42	254.95	255.44	0.000823	0.50	2.17	3.68	0.21
MV15122	9	Max WS	TR200_45min	1.15	254.44	255.44	254.97	255.45	0.000879	0.52	2.22	3.68	0.21
MV15122	9	Max WS	TR200_1H	1.12	254.44	255.44	254.96	255.45	0.000833	0.51	2.21	3.68	0.21
MV15122	9	Max WS	TR200_2H	0.97	254.44	255.40	254.92	255.41	0.000751	0.47	2.09	3.68	0.20
MV15122	9	Max WS	TR30_30min	0.92	254.44	255.34	254.90	255.35	0.000945	0.50	1.85	3.56	0.22
MV15122	9	Max WS	TR30_45min	0.90	254.44	255.37	254.89	255.38	0.000735	0.45	1.98	3.63	0.20
MV15122	9	Max WS	TR30_1H	0.93	254.44	255.38	254.90	255.39	0.000769	0.46	2.00	3.64	0.20
MV15122	9	Max WS	TR30_2H	0.92	254.44	255.34	254.90	255.35	0.000924	0.49	1.87	3.57	0.22
MV15122	8.99			Lat Struct									
MV15122	8.98			Lat Struct									
MV15122	8.21	Max WS	TR200_30min	1.57	253.94	255.43	254.37	255.43	0.000053	0.20	8.93	13.54	0.06
MV15122	8.21	Max WS	TR200_45min	1.64	253.94	255.44	254.38	255.44	0.000055	0.21	9.13	13.54	0.07
MV15122	8.21	Max WS	TR200_1H	1.60	253.94	255.44	254.38	255.44	0.000053	0.20	9.10	13.54	0.06
MV15122	8.21	Max WS	TR200_2H	1.43	253.94	255.40	254.35	255.41	0.000048	0.19	8.61	13.54	0.06
MV15122	8.21	Max WS	TR30_30min	1.26	253.94	255.34	254.32	255.34	0.000050	0.18	7.71	13.54	0.06
MV15122	8.21	Max WS	TR30_45min	1.35	253.94	255.38	254.33	255.38	0.000049	0.19	8.21	13.54	0.06
MV15122	8.21	Max WS	TR30_1H	1.38	253.94	255.38	254.34	255.38	0.000050	0.19	8.28	13.54	0.06

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15122	8.21	Max WS	TR30_2H	1.28	253.94	255.34	254.33	255.34	0.000050	0.19	7.78	13.54	0.06
MV15122	8.20			Lat Struct									
MV15122	8	Max WS	TR200_30min	1.64	253.80	255.41		255.43	0.003067	0.66	2.94	16.21	0.39
MV15122	8	Max WS	TR200_45min	1.70	253.80	255.43		255.45	0.002604	0.63	3.20	16.21	0.37
MV15122	8	Max WS	TR200_1H	1.66	253.80	255.43		255.44	0.002544	0.62	3.17	16.21	0.36
MV15122	8	Max WS	TR200_2H	1.50	253.80	255.39		255.41	0.003726	0.68	2.54	16.21	0.43
MV15122	8	Max WS	TR30_30min	1.37	253.80	255.32		255.36	0.000583	0.91	1.51	16.21	0.24
MV15122	8	Max WS	TR30_45min	1.45	253.80	255.36		255.39	0.006031	0.80	2.02	16.21	0.53
MV15122	8	Max WS	TR30_1H	1.47	253.80	255.36		255.39	0.005722	0.79	2.10	16.21	0.52
MV15122	8	Max WS	TR30_2H	1.40	253.80	255.33		255.37	0.004665	0.90	1.59	16.21	0.50
MV15122	7.5			Culvert									
MV15122	7	Max WS	TR200_30min	1.46	253.68	254.89	254.29	254.96	0.001430	1.22	1.20	5.50	0.36
MV15122	7	Max WS	TR200_45min	1.44	253.68	254.98	254.29	255.05	0.001072	1.11	1.29	8.07	0.31
MV15122	7	Max WS	TR200_1H	1.44	253.68	255.01	254.29	255.07	0.000999	1.09	1.32	9.00	0.30
MV15122	7	Max WS	TR200_2H	1.46	253.68	254.87	254.29	254.95	0.001509	1.24	1.18	5.23	0.36
MV15122	7	Max WS	TR30_30min	1.35	253.68	254.72	254.26	254.81	0.002020	1.31	1.03	4.75	0.41
MV15122	7	Max WS	TR30_45min	1.38	253.68	254.74	254.27	254.83	0.001986	1.31	1.05	4.80	0.41
MV15122	7	Max WS	TR30_1H	1.38	253.68	254.74	254.27	254.83	0.001980	1.31	1.05	4.80	0.41
MV15122	7	Max WS	TR30_2H	1.36	253.68	254.73	254.26	254.82	0.001961	1.30	1.04	4.78	0.41
MV15122	6.99			Lat Struct									
MV15122	6.98			Lat Struct									
MV15122	6	Max WS	TR200_30min	1.52	253.27	254.92	253.72	254.92	0.000069	0.22	7.08	9.29	0.07
MV15122	6	Max WS	TR200_45min	1.54	253.27	255.01	253.73	255.02	0.000052	0.20	8.06	12.11	0.06
MV15122	6	Max WS	TR200_1H	1.55	253.27	255.04	253.73	255.04	0.000048	0.20	8.39	13.02	0.06
MV15122	6	Max WS	TR200_2H	1.49	253.27	254.91	253.72	254.91	0.000070	0.22	6.93	8.95	0.07
MV15122	6	Max WS	TR30_30min	1.58	253.27	254.76	253.73	254.77	0.000124	0.27	5.84	6.73	0.09
MV15122	6	Max WS	TR30_45min	1.66	253.27	254.77	253.74	254.78	0.000132	0.28	5.93	6.78	0.10
MV15122	6	Max WS	TR30_1H	1.44	253.27	254.78	253.71	254.78	0.000098	0.24	5.97	6.80	0.08
MV15122	6	Max WS	TR30_2H	1.51	253.27	254.78	253.72	254.78	0.000108	0.25	5.93	6.78	0.09
MV15122	5.99			Lat Struct									
MV15122	5	Max WS	TR200_30min	1.54	252.99	254.90		254.93	0.000536	0.88	1.76	10.15	0.21
MV15122	5	Max WS	TR200_45min	1.60	252.99	254.99		255.03	0.000486	0.86	1.85	11.95	0.20
MV15122	5	Max WS	TR200_1H	1.62	252.99	255.02		255.05	0.000474	0.86	1.88	12.46	0.20
MV15122	5	Max WS	TR200_2H	1.53	252.99	254.88		254.92	0.000546	0.88	1.74	9.83	0.21
MV15122	5	Max WS	TR30_30min	1.43	252.99	254.74		254.78	0.000641	0.90	1.60	7.12	0.23
MV15122	5	Max WS	TR30_45min	1.45	252.99	254.75		254.79	0.000628	0.90	1.61	7.46	0.23
MV15122	5	Max WS	TR30_1H	1.45	252.99	254.75		254.79	0.000628	0.90	1.61	7.46	0.23
MV15122	5	Max WS	TR30_2H	1.44	252.99	254.75		254.79	0.000634	0.90	1.61	7.30	0.23
MV15122	4.5			Culvert									
MV15122	4	Max WS	TR200_30min	1.52	252.25	253.43	252.87	253.52	0.001688	1.29	1.18	3.75	0.38
MV15122	4	Max WS	TR200_45min	1.58	252.25	253.45	252.89	253.54	0.001735	1.32	1.19	3.79	0.39
MV15122	4	Max WS	TR200_1H	1.61	252.25	253.45	252.90	253.55	0.001785	1.34	1.20	3.80	0.39
MV15122	4	Max WS	TR200_2H	1.52	252.25	253.43	252.87	253.52	0.001684	1.29	1.18	3.75	0.38
MV15122	4	Max WS	TR30_30min	1.41	252.25	253.38	252.84	253.46	0.001683	1.25	1.13	3.64	0.38
MV15122	4	Max WS	TR30_45min	1.43	252.25	253.39	252.85	253.47	0.001700	1.26	1.13	3.65	0.38
MV15122	4	Max WS	TR30_1H	1.41	252.25	253.39	252.84	253.47	0.001621	1.24	1.14	3.67	0.37
MV15122	4	Max WS	TR30_2H	1.42	252.25	253.39	252.84	253.47	0.001638	1.24	1.14	3.67	0.37
MV15122	3.99			Lat Struct									
MV15122	3.98			Lat Struct									
MV15122	3	Max WS	TR200_30min	1.47	252.48	253.42	253.11	253.48	0.004784	1.13	1.31	2.01	0.45
MV15122	3	Max WS	TR200_45min	1.55	252.48	253.43	253.12	253.50	0.004956	1.16	1.34	2.01	0.45
MV15122	3	Max WS	TR200_1H	1.54	252.48	253.44	253.12	253.50	0.004805	1.14	1.35	2.01	0.45
MV15122	3	Max WS	TR200_2H	1.46	252.48	253.42	253.10	253.48	0.004645	1.11	1.31	2.01	0.44
MV15122	3	Max WS	TR30_30min	1.28	252.48	253.36	253.06	253.42	0.004631	1.07	1.20	2.01	0.44
MV15122	3	Max WS	TR30_45min	1.37	252.48	253.37	253.08	253.43	0.005104	1.13	1.21	2.01	0.46
MV15122	3	Max WS	TR30_1H	1.37	252.48	253.37	253.08	253.44	0.004970	1.12	1.22	2.01	0.46
MV15122	3	Max WS	TR30_2H	1.35	252.48	253.38	253.08	253.44	0.004723	1.09	1.23	2.01	0.45
MV15122	2	Max WS	TR200_30min	1.38	252.26	253.28	252.81	253.32	0.006738	0.95	1.46		0.30
MV15122	2	Max WS	TR200_45min	1.40	252.26	253.30	252.81	253.34	0.006878	0.96	1.46		0.30
MV15122	2	Max WS	TR200_1H	1.40	252.26	253.30	252.81	253.35	0.006927	0.96	1.46		0.30
MV15122	2	Max WS	TR200_2H	1.38	252.26	253.28	252.81	253.32	0.006756	0.95	1.46		0.30
MV15122	2	Max WS	TR30_30min	1.32	252.26	253.20	252.80	253.24	0.006185	0.91	1.46		0.30
MV15122	2	Max WS	TR30_45min	1.33	252.26	253.21	252.80	253.26	0.006276	0.92	1.46		0.30
MV15122	2	Max WS	TR30_1H	1.34	252.26	253.23	252.80	253.27	0.006375	0.92	1.46		0.30
MV15122	2	Max WS	TR30_2H	1.34	252.26	253.22	252.80	253.26	0.006319	0.92	1.46		0.30
MV15122	1.95			Inl Struct									
MV15122	1.9	Max WS	TR200_30min	1.38	251.65	253.30	252.09	253.32	0.000199	0.62	2.30		0.15
MV15122	1.9	Max WS	TR200_45min	1.40	251.65	253.32	252.10	253.34	0.000203	0.63	2.30		0.15
MV15122	1.9	Max WS	TR200_1H	1.40	251.65	253.32	252.10	253.34	0.000204	0.63	2.30		0.16
MV15122	1.9	Max WS	TR200_2H	1.38	251.65	253.30	252.09	253.32	0.000199	0.62	2.30		0.15
MV15122	1.9	Max WS	TR30_30min	1.32	251.65	253.22	252.08	253.23	0.000182	0.59	2.30		0.15

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15122	1.9	Max WS	TR30_45min	1.33	251.65	253.23	252.08	253.25	0.000185	0.60	2.30		0.15
MV15122	1.9	Max WS	TR30_1H	1.34	251.65	253.24	252.08	253.26	0.000188	0.60	2.30		0.15
MV15122	1.9	Max WS	TR30_2H	1.34	251.65	253.24	252.09	253.25	0.000186	0.60	2.30		0.15
MV15122	1.7	Max WS	TR200_30min	1.38	251.65	253.30	252.09	253.31	0.000199	0.62	2.30		0.15
MV15122	1.7	Max WS	TR200_45min	1.40	251.65	253.32	252.10	253.34	0.000203	0.63	2.30		0.15
MV15122	1.7	Max WS	TR200_1H	1.40	251.65	253.32	252.10	253.34	0.000204	0.63	2.30		0.16
MV15122	1.7	Max WS	TR200_2H	1.38	251.65	253.30	252.09	253.32	0.000199	0.62	2.30		0.15
MV15122	1.7	Max WS	TR30_30min	1.32	251.65	253.22	252.08	253.23	0.000182	0.59	2.30		0.15
MV15122	1.7	Max WS	TR30_45min	1.33	251.65	253.23	252.08	253.25	0.000185	0.60	2.30		0.15
MV15122	1.7	Max WS	TR30_1H	1.34	251.65	253.24	252.08	253.26	0.000188	0.60	2.30		0.15
MV15122	1.7	Max WS	TR30_2H	1.34	251.65	253.24	252.09	253.25	0.000186	0.60	2.30		0.15
MV15122	1.6	Max WS	TR200_30min	1.38	251.65	253.28		253.32	0.000054	0.85	1.63	2.46	0.21
MV15122	1.6	Max WS	TR200_45min	1.40	251.65	253.30		253.34	0.000053	0.84	1.65	2.46	0.21
MV15122	1.6	Max WS	TR200_1H	1.40	251.65	253.31		253.35	0.000052	0.84	1.66	2.46	0.21
MV15122	1.6	Max WS	TR200_2H	1.38	251.65	253.28		253.32	0.000054	0.85	1.63	2.46	0.21
MV15122	1.6	Max WS	TR30_30min	1.32	251.65	253.20		253.24	0.000059	0.85	1.55	2.46	0.22
MV15122	1.6	Max WS	TR30_45min	1.33	251.65	253.21		253.25	0.000058	0.85	1.56	2.46	0.22
MV15122	1.6	Max WS	TR30_1H	1.34	251.65	253.23		253.26	0.000057	0.85	1.58	2.46	0.22
MV15122	1.6	Max WS	TR30_2H	1.34	251.65	253.22		253.26	0.000057	0.85	1.57	2.46	0.22
MV15122	1.5												
MV15122	1	Max WS	TR200_30min	1.38	251.60	252.66	252.18	252.74	0.001943	1.31	1.06	1.50	0.41
MV15122	1	Max WS	TR200_45min	1.40	251.60	252.67	252.18	252.75	0.001929	1.31	1.07	1.50	0.40
MV15122	1	Max WS	TR200_1H	1.40	251.60	252.67	252.18	252.76	0.001930	1.31	1.07	1.50	0.41
MV15122	1	Max WS	TR200_2H	1.38	251.60	252.66	252.18	252.74	0.001942	1.31	1.06	1.50	0.41
MV15122	1	Max WS	TR30_30min	1.32	251.60	252.62	252.16	252.71	0.002000	1.30	1.02	1.50	0.41
MV15122	1	Max WS	TR30_45min	1.33	251.60	252.63	252.17	252.71	0.001995	1.30	1.03	1.50	0.41
MV15122	1	Max WS	TR30_1H	1.34	251.60	252.63	252.17	252.72	0.001983	1.30	1.03	1.50	0.41
MV15122	1	Max WS	TR30_2H	1.34	251.60	252.63	252.17	252.72	0.001985	1.30	1.03	1.50	0.41
MV15122	0.9	Max WS	TR200_30min	1.38	251.59	252.69	252.03	252.73	0.002501	0.83	1.65	1.50	0.25
MV15122	0.9	Max WS	TR200_45min	1.39	251.59	252.70	252.03	252.74	0.002499	0.84	1.67	1.50	0.25
MV15122	0.9	Max WS	TR200_1H	1.40	251.59	252.70	252.04	252.74	0.002501	0.84	1.67	1.50	0.25
MV15122	0.9	Max WS	TR200_2H	1.38	251.59	252.69	252.03	252.73	0.002500	0.83	1.66	1.50	0.25
MV15122	0.9	Max WS	TR30_30min	1.32	251.59	252.66	252.02	252.69	0.002499	0.83	1.60	1.50	0.26
MV15122	0.9	Max WS	TR30_45min	1.33	251.59	252.66	252.02	252.70	0.002500	0.83	1.61	1.50	0.26
MV15122	0.9	Max WS	TR30_1H	1.34	251.59	252.67	252.02	252.70	0.002499	0.83	1.62	1.50	0.25
MV15122	0.9	Max WS	TR30_2H	1.34	251.59	252.67	252.02	252.70	0.002499	0.83	1.61	1.50	0.26

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV15122	14.99	Max WS	TR200_30min	7.88	5.84	2.62	5.84		93.49	0.51	0.42	255.35	256.98	256.44	255.91	255.78
MV15122	14.99	Max WS	TR200_45min	8.03	4.98	2.67	4.98		93.49	0.52	0.43	255.35	257.00	256.44	255.92	255.79
MV15122	14.99	Max WS	TR200_1H	7.66	3.88	2.61	3.88		93.49	0.51	0.42	255.35	256.96	256.42	255.91	255.78
MV15122	14.99	Max WS	TR200_2H	5.75	3.27	2.26	3.27		93.49	0.45	0.35	255.35	256.73	256.32	255.85	255.74
MV15122	14.99	Max WS	TR30_30min	5.55	3.95	2.15	3.95		93.49	0.43	0.34	255.35	256.71	256.31	255.82	255.72
MV15122	14.99	Max WS	TR30_45min	5.70	3.11	2.20	3.11		93.49	0.44	0.35	255.35	256.73	256.32	255.83	255.73
MV15122	14.99	Max WS	TR30_1H	5.46	2.42	2.17	2.42		93.49	0.43	0.34	255.35	256.70	256.30	255.83	255.72
MV15122	14.99	Max WS	TR30_2H	4.14	2.07	1.88	2.07		93.49	0.38	0.29	255.35	256.53	256.22	255.77	255.68
MV15122	14.98	Max WS	TR200_30min	7.88	4.69	2.62	4.69		88.70	0.51	0.42	255.34	256.98	256.44	255.91	255.78
MV15122	14.98	Max WS	TR200_45min	8.03	3.39	2.67	3.39		88.70	0.52	0.43	255.34	257.00	256.44	255.92	255.79
MV15122	14.98	Max WS	TR200_1H	7.66	0.83	2.61	0.83		88.70	0.52	0.42	255.34	256.96	256.42	255.91	255.78
MV15122	14.98	Max WS	TR200_2H	5.75	1.93	2.26	1.93		88.70	0.45	0.36	255.34	256.73	256.32	255.85	255.74
MV15122	14.98	Max WS	TR30_30min	5.55	3.33	2.15	3.33		88.70	0.44	0.34	255.34	256.71	256.31	255.82	255.72
MV15122	14.98	Max WS	TR30_45min	5.70	1.86	2.20	1.86		88.70	0.45	0.35	255.34	256.73	256.32	255.83	255.73
MV15122	14.98	Max WS	TR30_1H	5.46	1.08	2.17	1.08		88.70	0.44	0.34	255.34	256.70	256.30	255.83	255.72
MV15122	14.98	Max WS	TR30_2H	4.14	1.41	1.88	1.41		88.70	0.39	0.29	255.34	256.53	256.22	255.77	255.68
MV15122	12.99	Max WS	TR200_30min	2.62	0.94	1.15	0.94		73.85	0.44	0.38	255.22	255.91	255.78	255.67	255.65
MV15122	12.99	Max WS	TR200_45min	2.67	0.25	1.21	0.25		73.85	0.46	0.39	255.22	255.92	255.79	255.67	255.65
MV15122	12.99	Max WS	TR200_1H	2.61	0.32	1.18	0.32		73.85	0.45	0.38	255.22	255.91	255.78	255.67	255.65
MV15122	12.99	Max WS	TR200_2H	2.26	0.43	0.95	0.43		73.85	0.40	0.30	255.22	255.85	255.74	255.63	255.61
MV15122	12.99	Max WS	TR30_30min	2.15	0.38	0.84	0.38		73.85	0.39	0.32	255.22	255.82	255.72	255.61	255.60
MV15122	12.99	Max WS	TR30_45min	2.20	0.22	0.86	0.22		73.85	0.40	0.33	255.22	255.83	255.73	255.62	255.61
MV15122	12.99	Max WS	TR30_1H	2.17	0.61	0.87	0.61		73.85	0.39	0.33	255.22	255.83	255.72	255.62	255.60
MV15122	12.99	Max WS	TR30_2H	1.88	0.33	0.73	0.33		73.85	0.36	0.29	255.22	255.77	255.68	255.58	255.57
MV15122	12.98	Max WS	TR200_30min	2.62	2.12	1.15	2.12		75.63	0.44	0.37	255.31	255.91	255.78	255.67	255.65
MV15122	12.98	Max WS	TR200_45min	2.67	1.22	1.21	1.22		75.63	0.45	0.38	255.31	255.92	255.79	255.67	255.65
MV15122	12.98	Max WS	TR200_1H	2.61	1.03	1.18	1.03		75.63	0.45	0.38	255.31	255.91	255.78	255.67	255.65
MV15122	12.98	Max WS	TR200_2H	2.26	1.18	0.95	1.18		75.63	0.40	0.33	255.31	255.85	255.74	255.63	255.61
MV15122	12.98	Max WS	TR30_30min	2.15	1.16	0.84	1.16		75.63	0.38	0.31	255.31	255.82	255.72	255.61	255.60
MV15122	12.98	Max WS	TR30_45min	2.20	0.88	0.86	0.88		75.63	0.39	0.32	255.31	255.83	255.73	255.62	255.61
MV15122	12.98	Max WS	TR30_1H	2.17	1.06	0.87	1.06		75.63	0.38	0.32	255.31	255.83	255.72	255.62	255.60
MV15122	12.98	Max WS	TR30_2H	1.88	0.90	0.73	0.90		75.63	0.34	0.29	255.31	255.77	255.68	255.58	255.57
MV15122	9.99	Max WS	TR200_30min	1.09	-0.64	1.08	-0.64		28.97	0.30	0.18	255.33	255.47	255.44	255.44	255.42
MV15122	9.99	Max WS	TR200_45min	1.19	-0.69	1.15	-0.69		28.97	0.31	0.18	255.33	255.48	255.46	255.45	255.44
MV15122	9.99	Max WS	TR200_1H	1.16	-0.65	1.12	-0.65		28.97	0.30	0.18	255.33	255.48	255.46	255.45	255.44
MV15122	9.99	Max WS	TR200_2H	0.94	-0.48	0.97	-0.48		28.96	0.26	0.14	255.33	255.44	255.42	255.41	255.40
MV15122	9.99	Max WS	TR30_30min	0.65	-0.39	0.92	-0.39		28.96	0.25	0.12	255.33	255.38	255.35	255.35	255.34
MV15122	9.99	Max WS	TR30_45min	0.79	-0.43	0.90	-0.43		28.96	0.25	0.13	255.33	255.41	255.40	255.38	255.37
MV15122	9.99	Max WS	TR30_1H	0.84	-0.41	0.93	-0.41		28.96	0.25	0.13	255.33	255.42	255.40	255.39	255.38
MV15122	9.99	Max WS	TR30_2H	0.73	-0.33	0.92	-0.33		23.57	0.22	0.13	255.33	255.39	255.36	255.35	255.34
MV15122	9.98	Max WS	TR200_30min	1.09	0.82	1.08	0.82		31.62	0.38	0.24	255.04	255.47	255.44	255.44	255.42
MV15122	9.98	Max WS	TR200_45min	1.19	0.87	1.15	0.87		31.62	0.40	0.25	255.04	255.48	255.46	255.45	255.44
MV15122	9.98	Max WS	TR200_1H	1.16	0.86	1.12	0.86		31.62	0.40	0.25	255.04	255.48	255.46	255.45	255.44
MV15122	9.98	Max WS	TR200_2H	0.94	0.41	0.97	0.41		31.62	0.36	0.22	255.04	255.44	255.42	255.41	255.40
MV15122	9.98	Max WS	TR30_30min	0.65	0.24	0.92	0.24		31.62	0.30	0.16	255.04	255.38	255.35	255.35	255.34
MV15122	9.98	Max WS	TR30_45min	0.79	0.29	0.90	0.29		31.62	0.33	0.19	255.04	255.41	255.40	255.38	255.37
MV15122	9.98	Max WS	TR30_1H	0.84	0.27	0.93	0.27		31.62	0.34	0.20	255.04	255.42	255.40	255.39	255.38
MV15122	9.98	Max WS	TR30_2H	0.73	0.30	0.92	0.30		31.62	0.30	0.16	255.04	255.39	255.36	255.35	255.34
MV15122	8.99	Max WS	TR200_30min	1.08	-0.74	1.64	-0.74		46.44	0.22	0.17	255.26	255.44	255.42	255.43	255.41
MV15122	8.99	Max WS	TR200_45min	1.15	-0.77	1.70	-0.77		46.44	0.23	0.18	255.26	255.45	255.44	255.45	255.43
MV15122	8.99	Max WS	TR200_1H	1.12	-0.72	1.66	-0.72		46.44	0.22	0.18	255.26	255.45	255.44	255.44	255.43
MV15122	8.99	Max WS	TR200_2H	0.97	-0.64	1.50	-0.64		46.44	0.20	0.15	255.26	255.41	255.40	255.41	255.39
MV15122	8.99	Max WS	TR30_30min	0.92	-0.52	1.37	-0.52		46.44	0.17	0.12	255.26	255.35	255.34	255.36	255.32
MV15122	8.99	Max WS	TR30_45min	0.90	-0.54	1.45	-0.54		46.44	0.18	0.13	255.26	255.38	255.37	255.39	255.36
MV15122	8.99	Max WS	TR30_1H	0.93	-0.56	1.47	-0.56		46.44	0.18	0.13	255.26	255.39	255.38	255.39	255.36
MV15122	8.99	Max WS	TR30_2H	0.92	-0.44	1.40	-0.44		46.44	0.16	0.11	255.26	255.35	255.34	255.37	255.33
MV15122	8.98	Max WS	TR200_30min	1.08	0.59	1.57	0.59		24.30	0.38	0.23	255.04	255.44	255.42	255.43	255.43
MV15122	8.98	Max WS	TR200_45min	1.15	0.53	1.64	0.53		24.30	0.40	0.24	255.04	255.45	255.44	255.44	255.44
MV15122	8.98	Max WS	TR200_1H	1.12	0.54	1.60	0.54		24.30	0.40	0.24	255.04	255.45	255.44	255.44	255.44
MV15122	8.98	Max WS	TR200_2H	0.97	0.21	1.43	0.21		24.30	0.36	0.20	255.04	255.41	255.40	255.41	255.40
MV15122	8.98	Max WS	TR30_30min	0.92	0.15	1.26	0.15		24.30	0.30	0.14	255.04	255.35	255.34	255.34	255.34
MV15122	8.98	Max WS	TR30_45min	0.90	0.19	1.35	0.19		24.30	0.33	0.18	255.04	255.38	255.37	255.38	255.38
MV15122	8.98	Max WS	TR30_1H	0.93	0.16	1.38	0.16		24.30	0.34	0.18	255.04	255.39	255.38	255.38	255.38
MV15122	8.98	Max WS	TR30_2H	0.92	0.31	1.28	0.31		24.30	0.30	0.14	255.04	255.35	255.34	255.34	255.34
MV15122	8.20	Max WS	TR200_30min	1.57	0.07	1.64	0.07		6.33	0.14	0.13	255.29	255.43	255.43	255.43	255.41
MV15122	8.20	Max WS	TR200_45min	1.64	0.05	1.70	0.05		6.33	0.15	0.15	255.29	255.44	255.44	255.45	255.43
MV15122	8.20	Max WS	TR200_1H	1.60	0.06	1.66	0.06		6.33	0.15	0.15	255.29	255.44	255.44	255.44	255.43
MV15122	8.20	Max WS	TR200_2H	1.43	-0.02	1.50	-0.02		6.33	0.12	0.11	255.29	255.41	255.40	255.41	255.39
MV15122	8.20	Max WS	TR30_30min	1.26	-0.02	1.37	-0.02		6.33	0.03	0.05	255.29	255.34	255.34	255.36	255.32
MV15122	8.20	Max WS	TR30_45min	1.35	-0.01	1.45	-0.01		6.33	0.09	0.08	255.29	255.38	255.38	255.39	255.36
MV15122	8.20	Max WS	TR30_1H	1.38	-0.02	1.47	-0.02		6.33	0.09	0.09	255.29	255.38	255.38	255.39	255.36
MV15122	8.20	Max WS	TR30_2H	1.28	0.02	1.40	0.02		6.33	0.05	0.05	255.29	255.34	255.34	255.37	255.33
MV15122																

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV15122	3.98	Max WS	TR200_45min	1.58	0.36	1.40	0.36		48.69	0.29	0.22	253.03	253.54	253.45	253.34	253.30
MV15122	3.98	Max WS	TR200_1H	1.61	-0.71	1.40	-0.71		48.74	0.31	0.25	253.03	253.55	253.45	253.35	253.30
MV15122	3.98	Max WS	TR200_2H	1.52	-1.21	1.38	-1.21		48.93	0.34	0.25	253.03	253.52	253.43	253.32	253.28
MV15122	3.98	Max WS	TR30_30min	1.41	-0.52	1.32	-0.52		47.97	0.20	0.16	253.03	253.46	253.38	253.24	253.20
MV15122	3.98	Max WS	TR30_45min	1.43	-0.84	1.33	-0.84		48.27	0.24	0.18	253.03	253.47	253.39	253.26	253.21
MV15122	3.98	Max WS	TR30_1H	1.41	-0.48	1.34	-0.48		48.12	0.23	0.18	253.03	253.47	253.39	253.27	253.23
MV15122	3.98	Max WS	TR30_2H	1.42	-0.16	1.34	-0.16		47.88	0.22	0.17	253.03	253.47	253.40	253.26	253.22

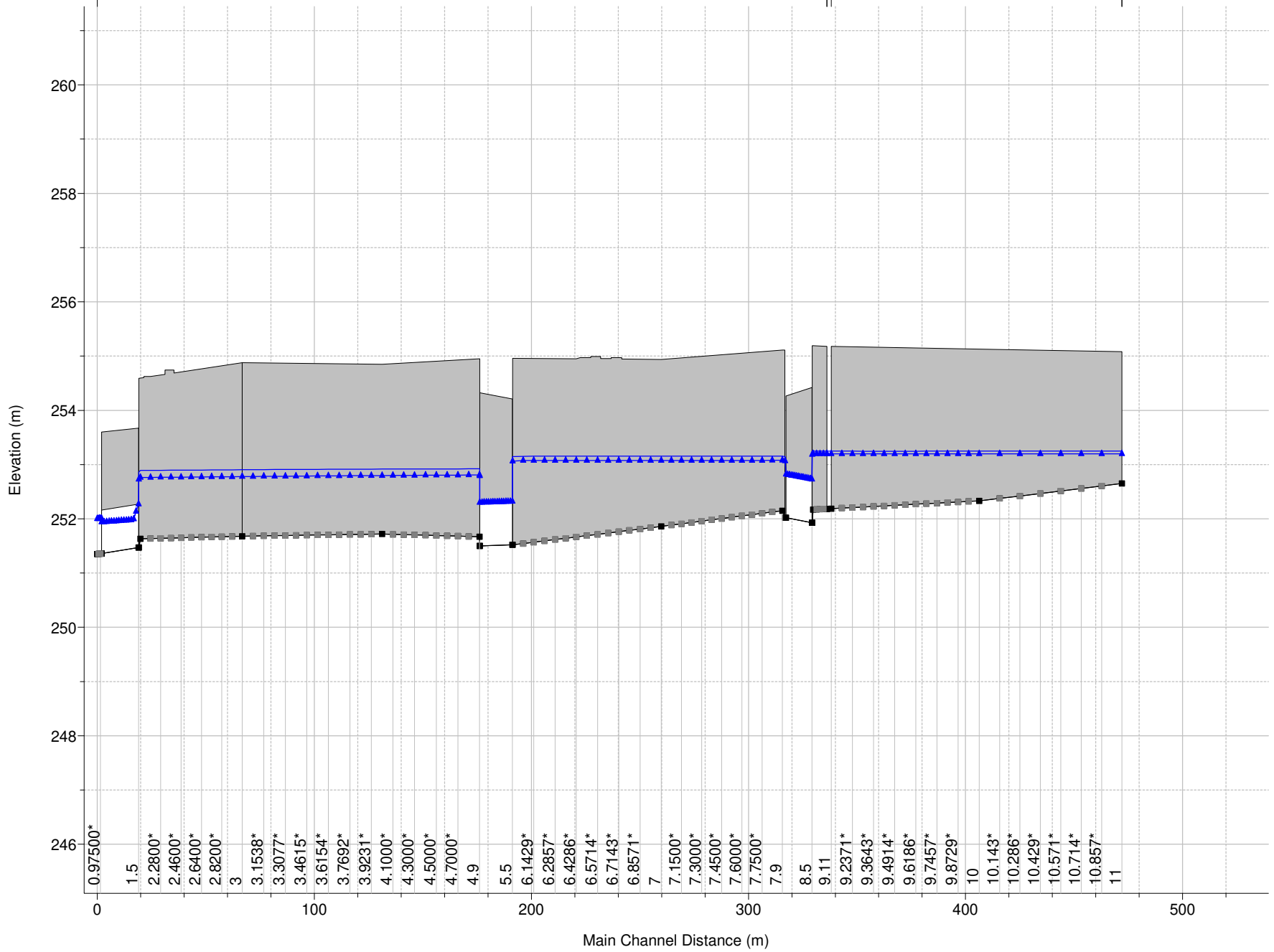
FOSSO
MV15739

Gabbianello Plan: 1) TR200_30min 2) TR30_45min

Strutture Laterali Destra Idraulica

Gabbianello MV15739_v

Gabbianello MV15739



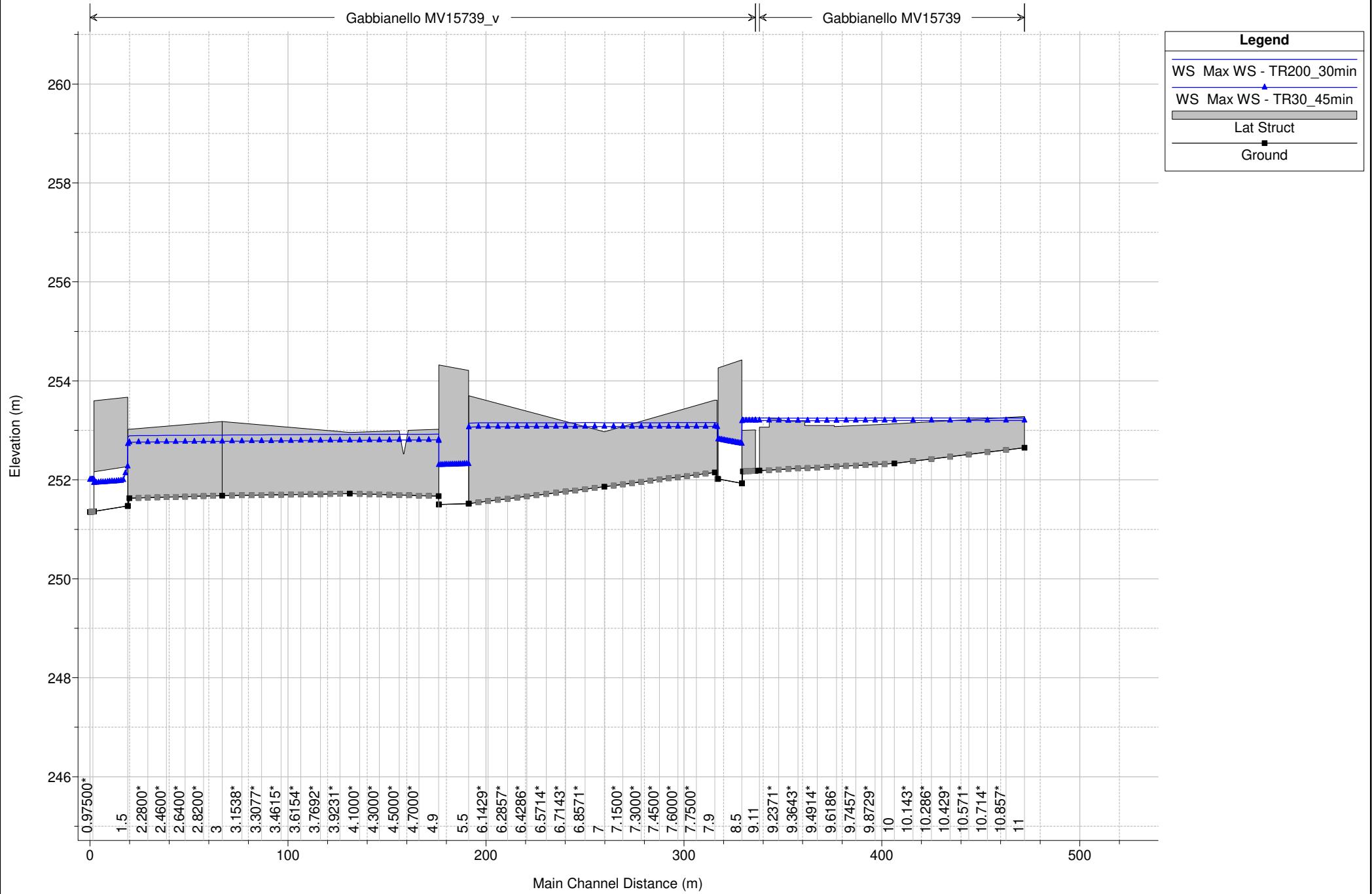
Legend	
WS Max WS - TR200_30min	
WS Max WS - TR30_45min	
Lat Struct	
Ground	

0.97500* 1.5 2.2800* 2.4600* 2.6400* 2.8200* 3 3.1538* 3.3077* 3.4615* 3.6154* 3.7692* 3.9231* 4.1000* 4.3000* 4.5000* 4.7000* 4.9 5.5 6.1429* 6.2857* 6.4286* 6.5714* 6.7143* 6.8571* 7 7.1500* 7.3000* 7.4500* 7.6000* 7.7500* 7.9 8.5 9.11 9.2371* 9.3643* 9.4914* 9.6186* 9.7457* 9.8729* 10 10.143* 10.286* 10.429* 10.571* 10.714* 10.857* 11

1 cm Horiz. = 25 m 1 cm Vert. = 1 m

Gabbianello Plan: 1) TR200_30min 2) TR30_45min

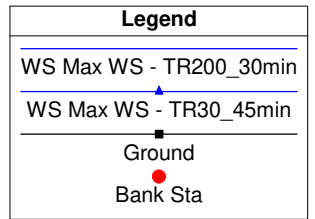
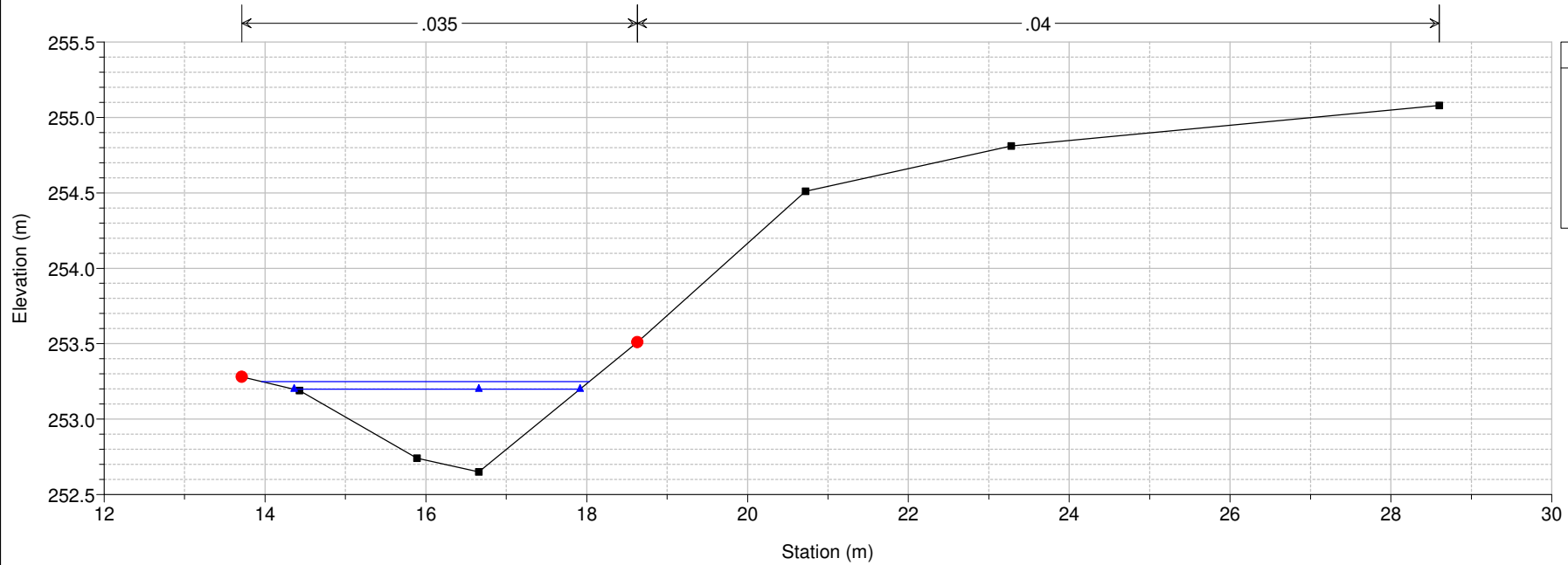
Strutture Laterali Sinistra Idraulica



1 cm Horiz. = 25 m 1 cm Vert. = 1 m

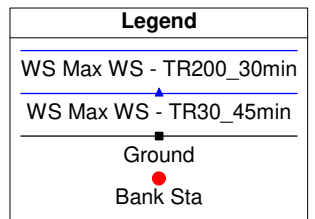
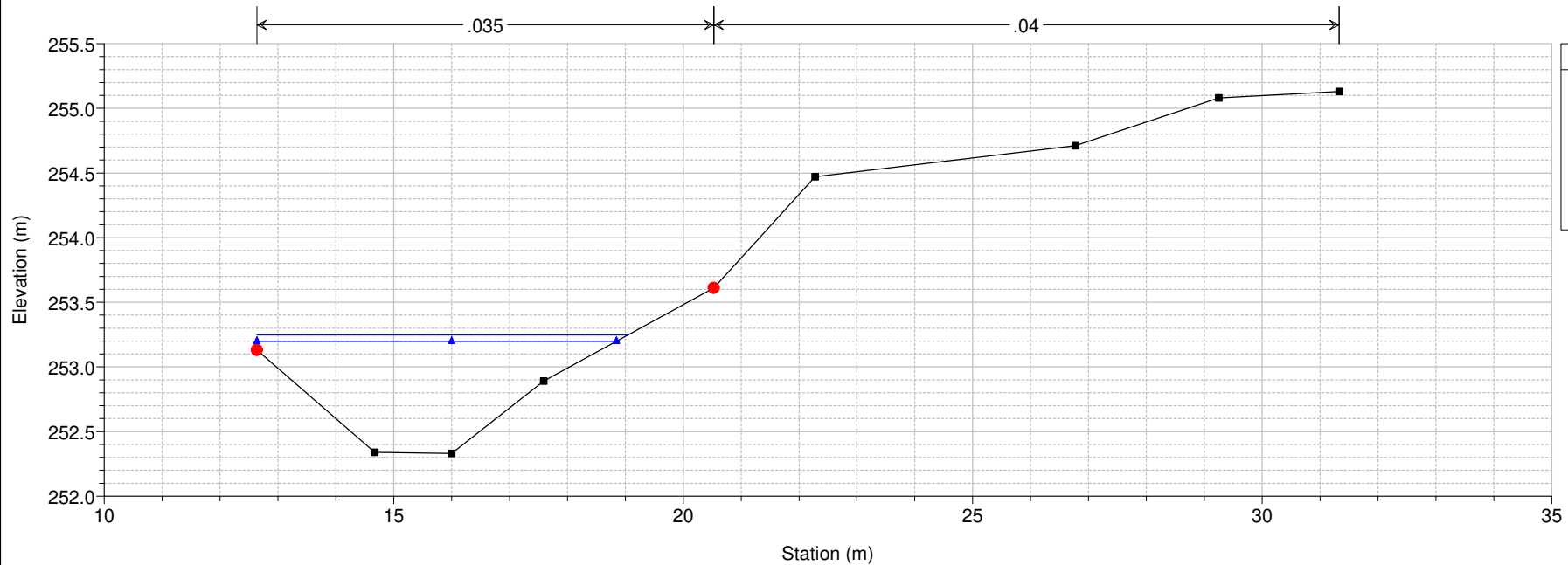
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739 RS = 11 G20

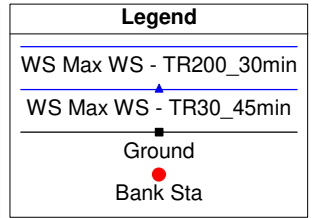
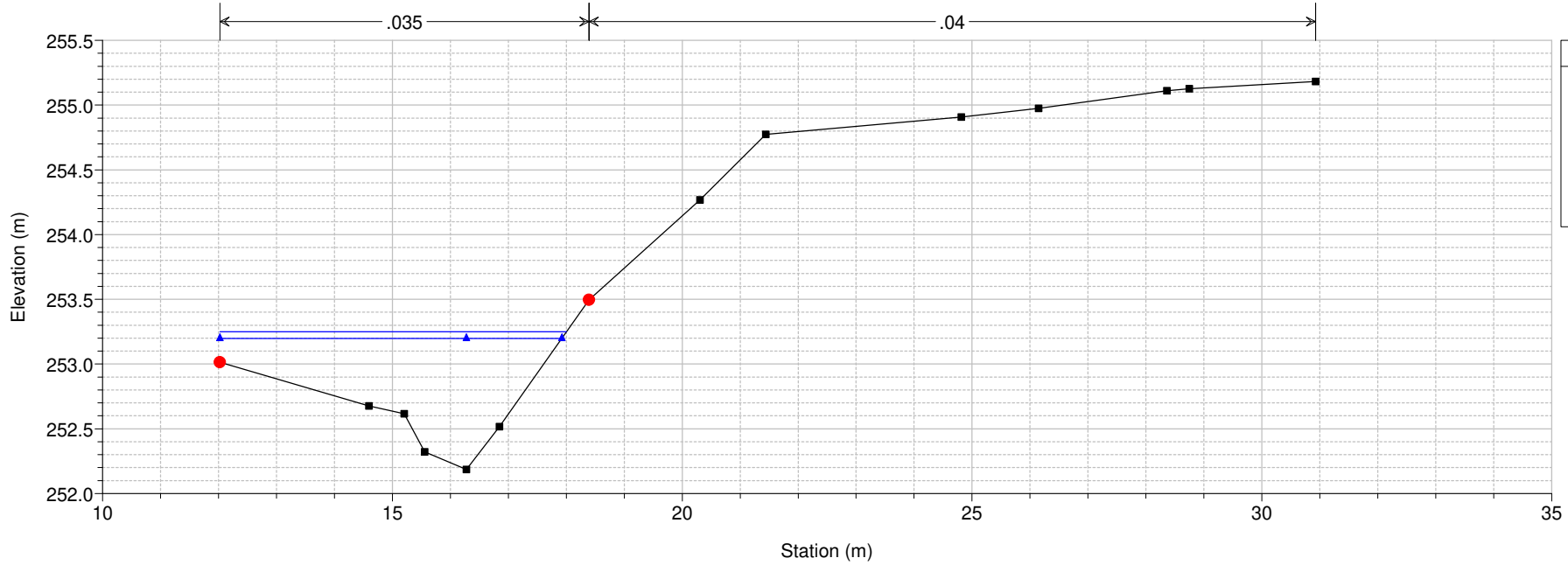


Gabbianello Plan: 1) TR200_30min 2) TR30_45min

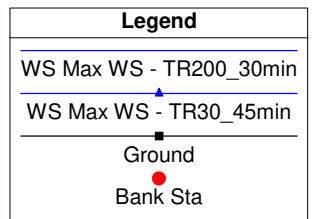
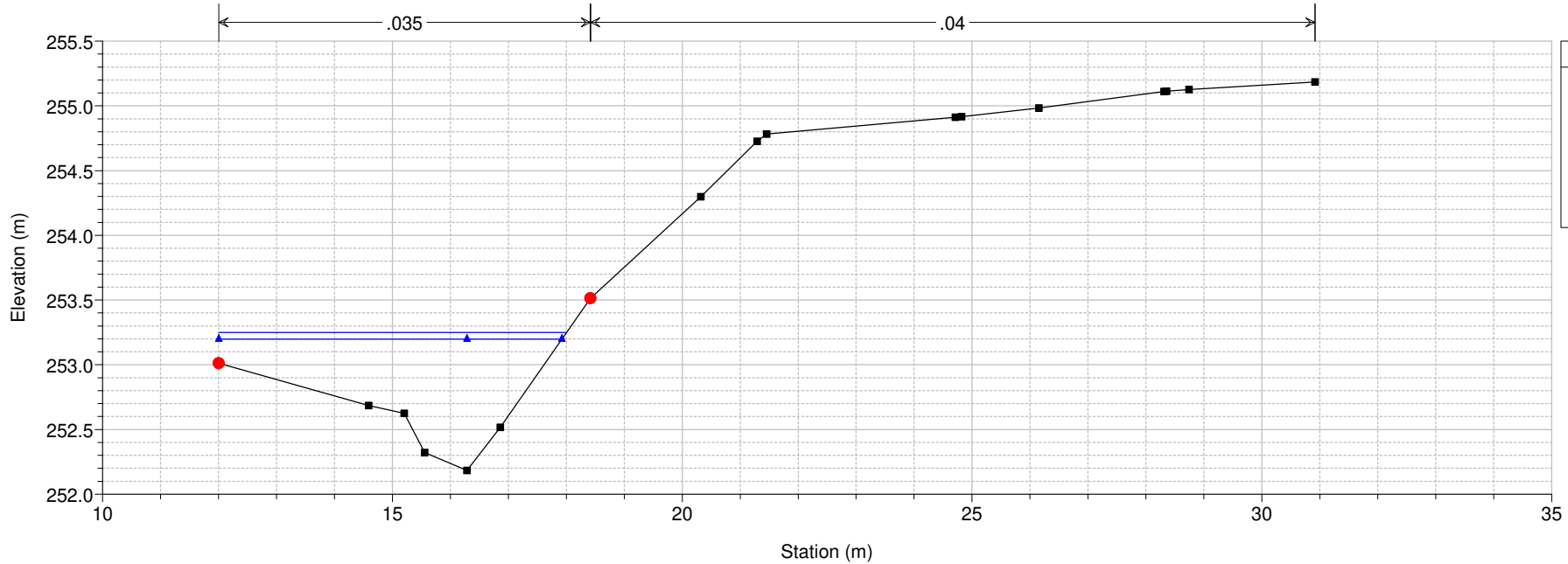
River = Gabbianello Reach = MV15739 RS = 10 G21



Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739 RS = 9.11 interpolata monte J

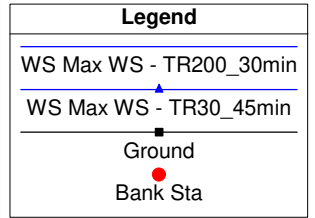
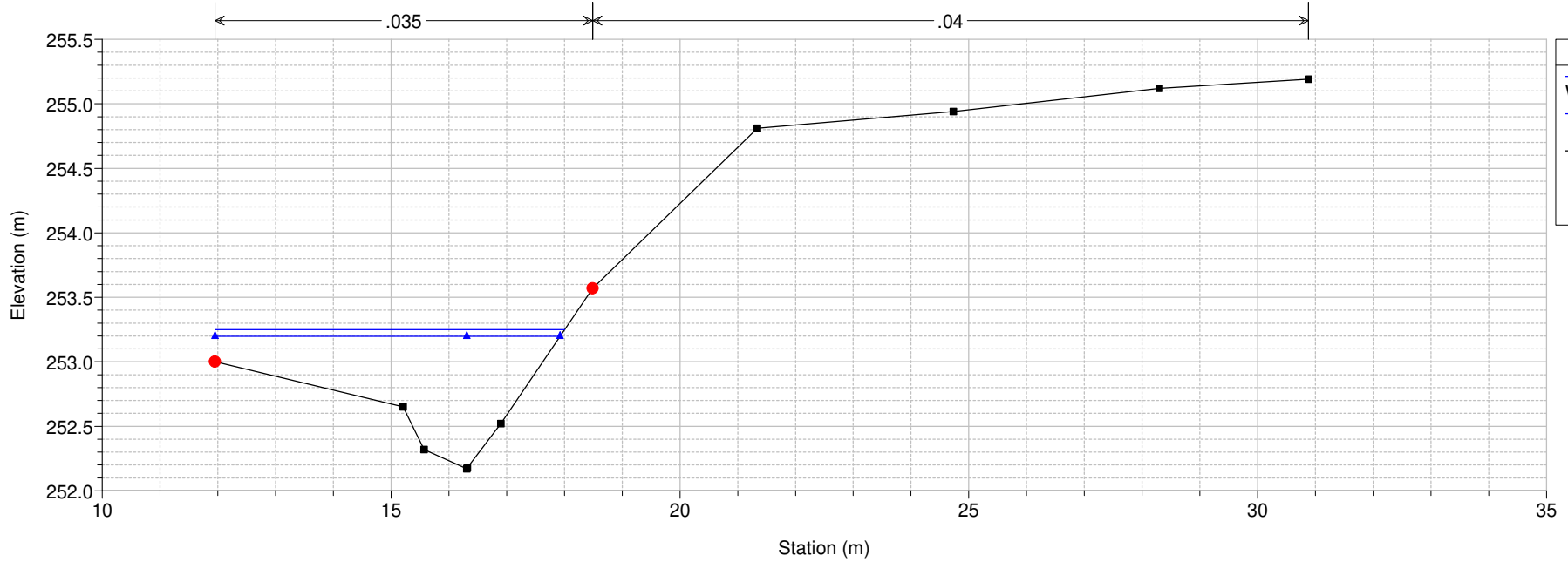


Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 9.08 interpolata valle J



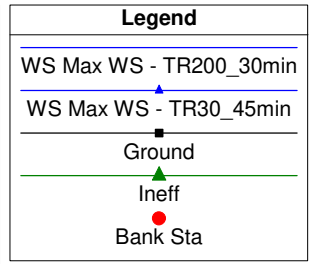
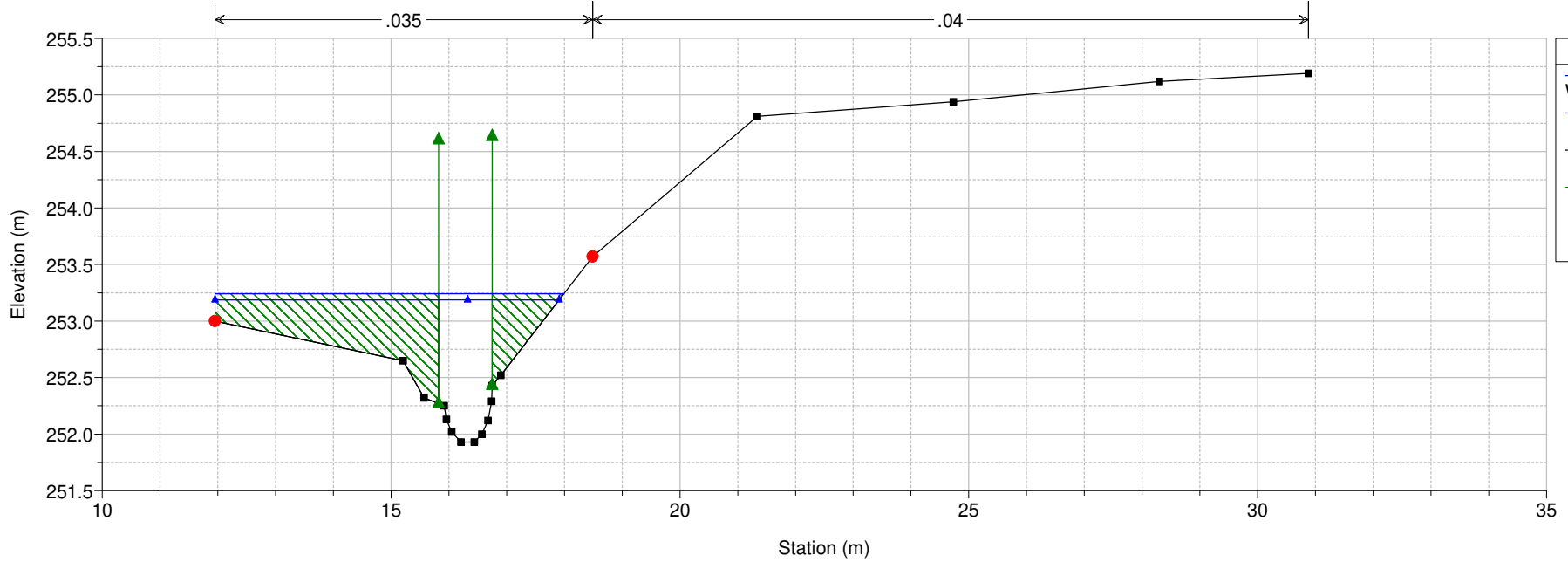
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739_v RS = 9 G22A



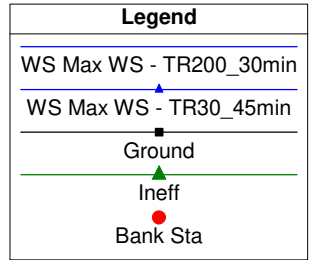
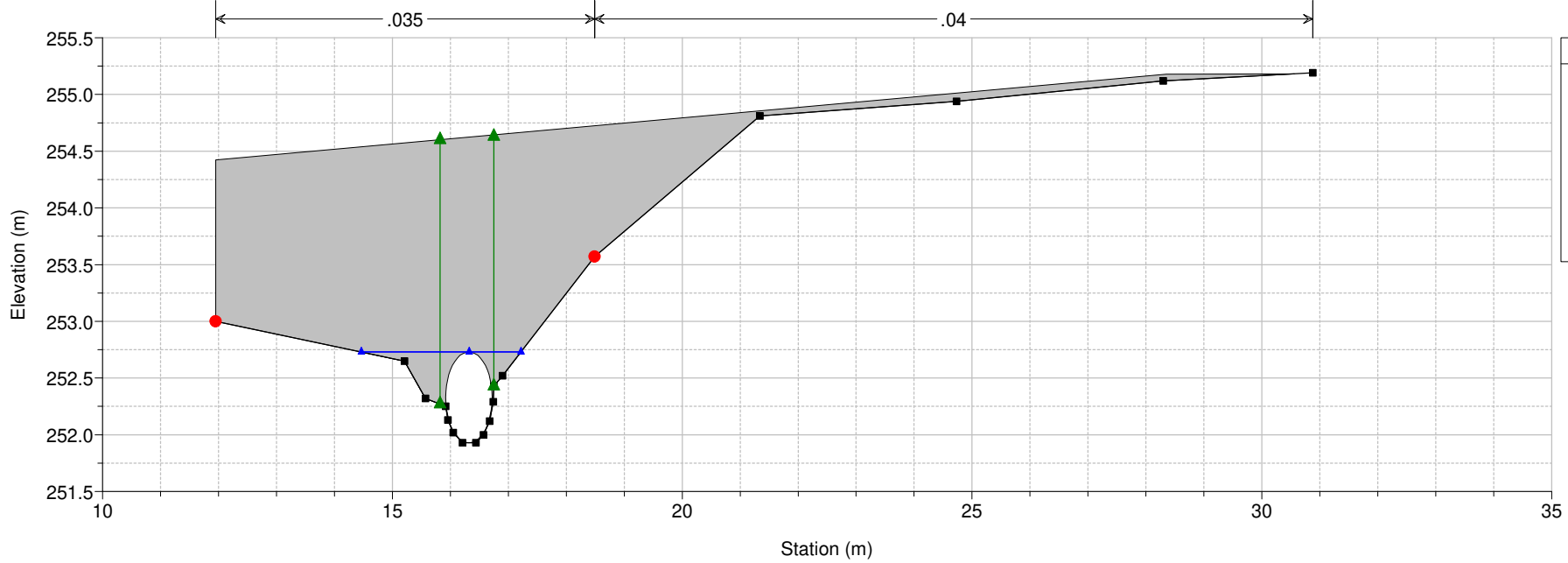
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739_v RS = 8.9 copia G22A fondo risagomato per BR



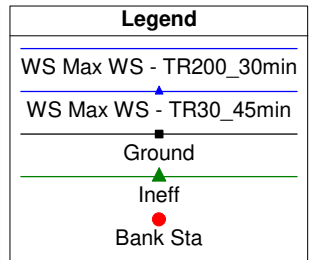
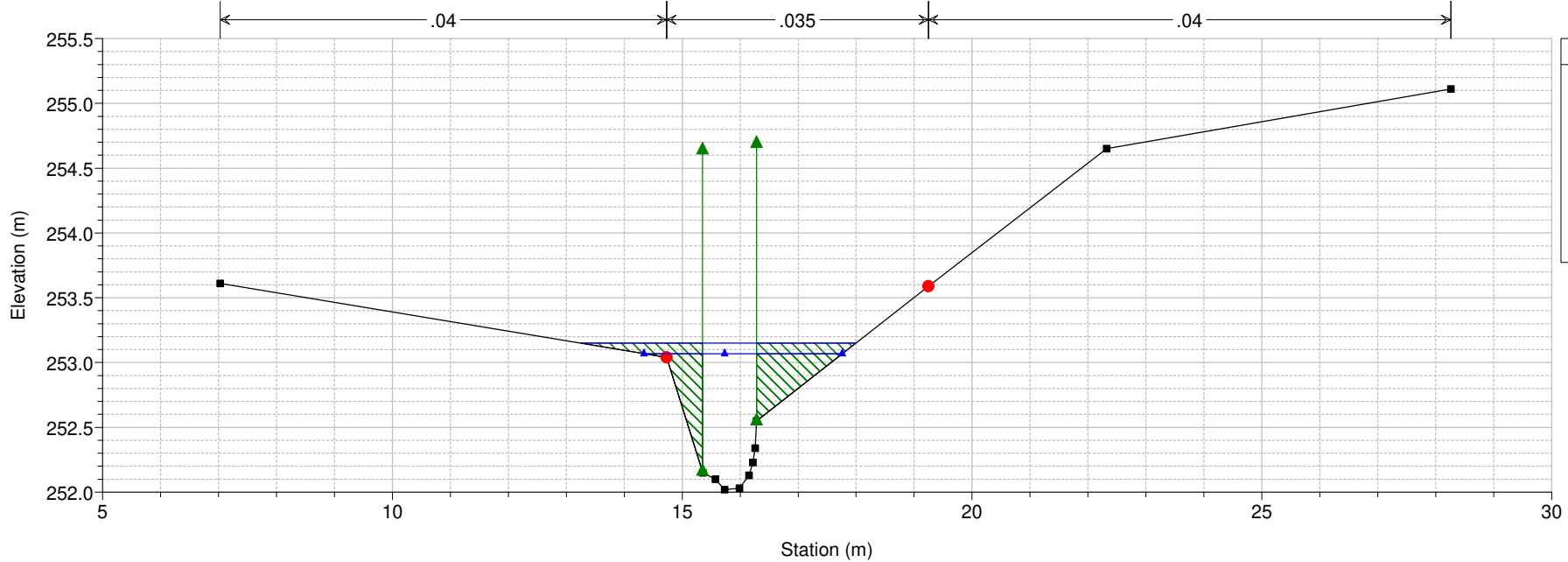
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

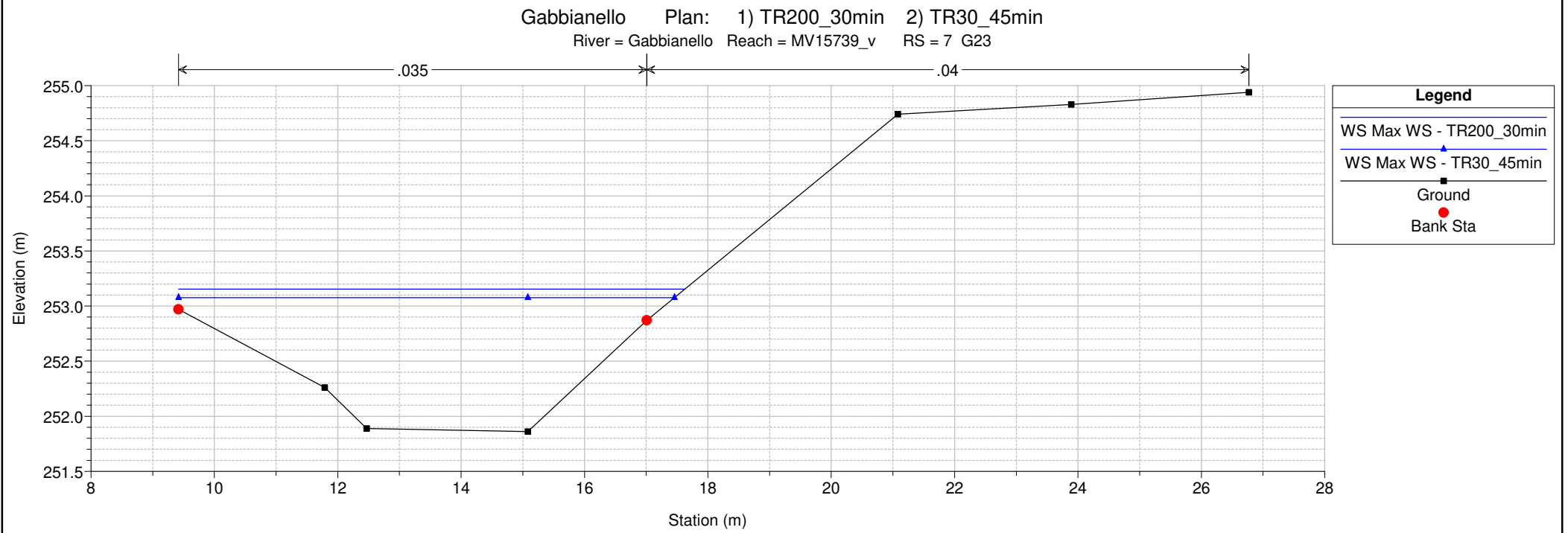
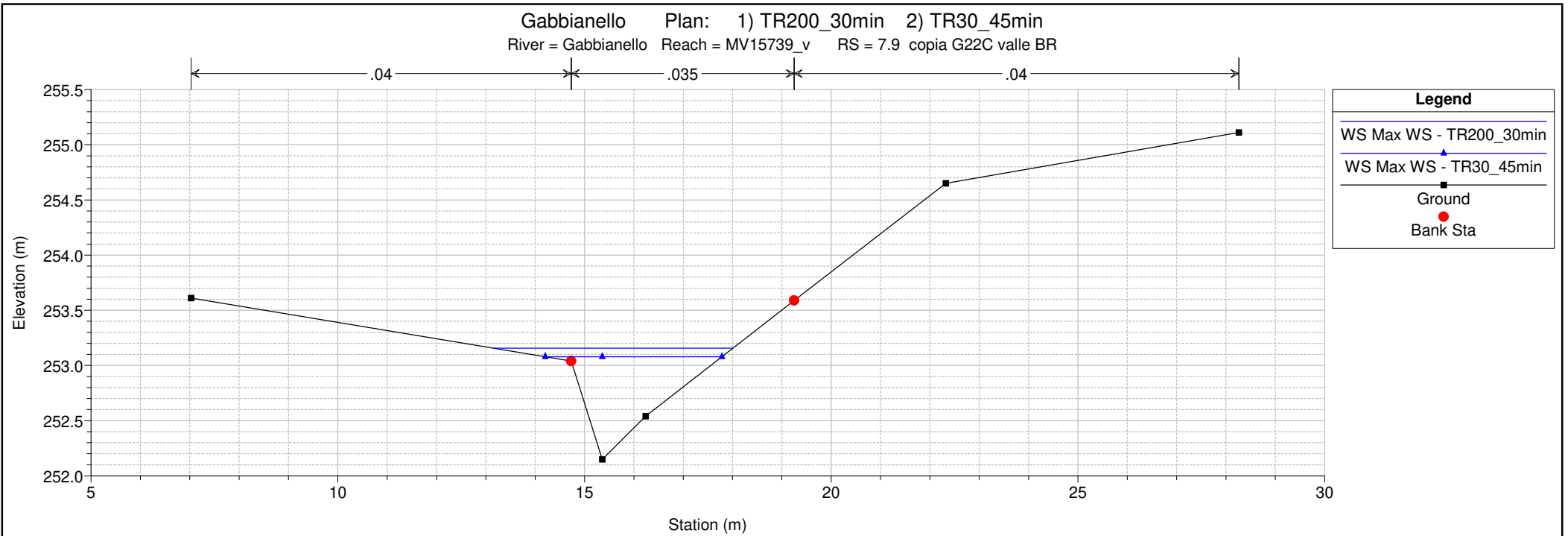
River = Gabbianello Reach = MV15739_v RS = 8.5 Culv



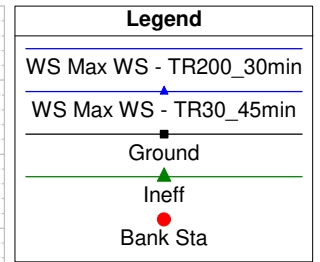
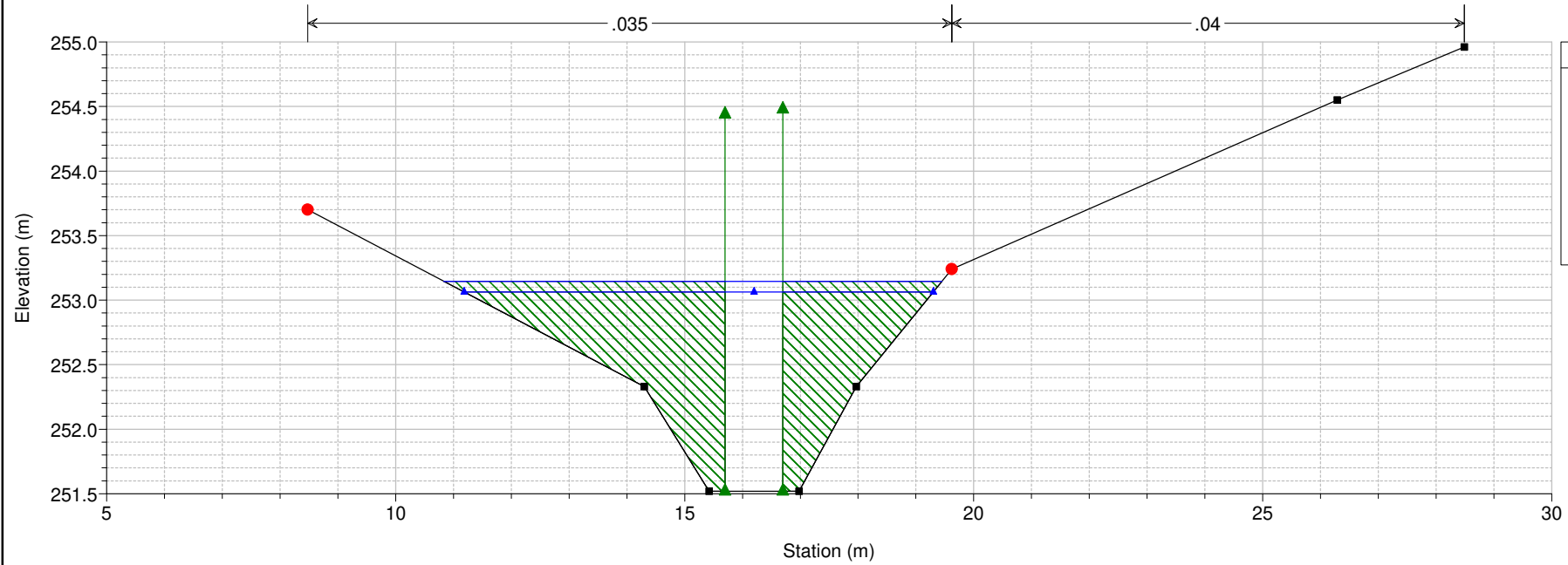
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739_v RS = 8 G22C fondo risagomato per culvert

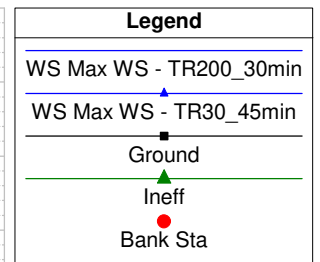
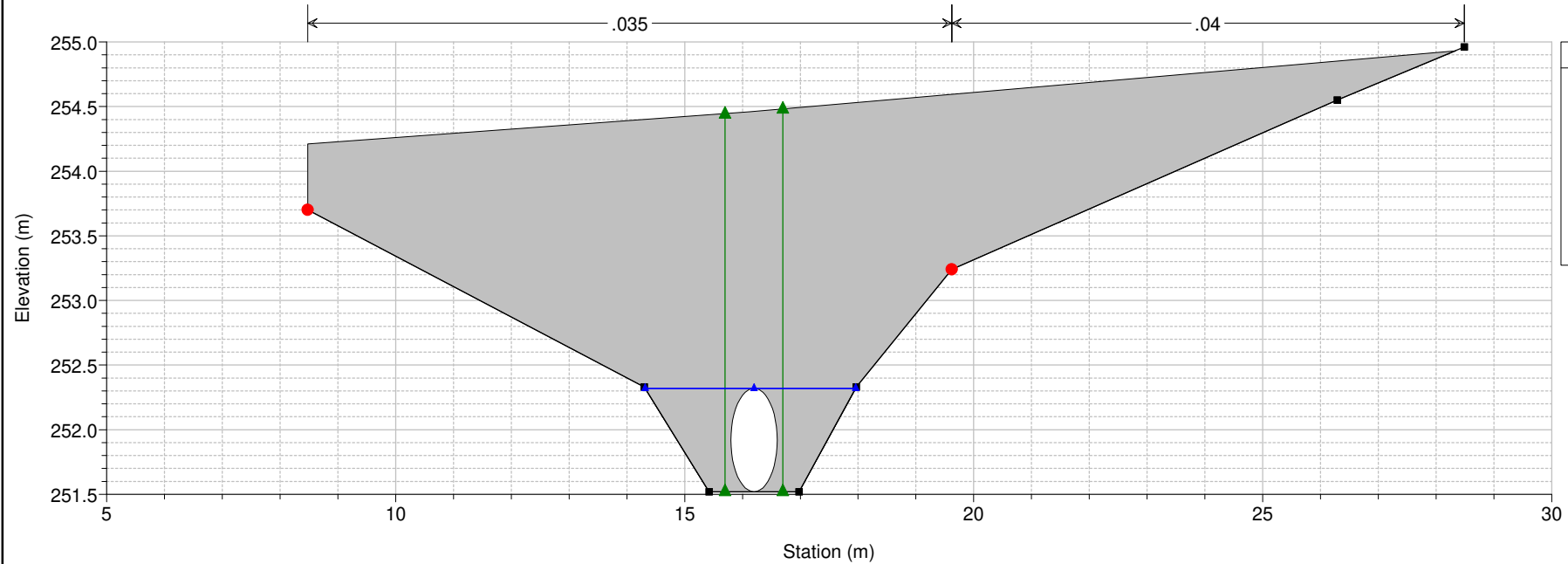




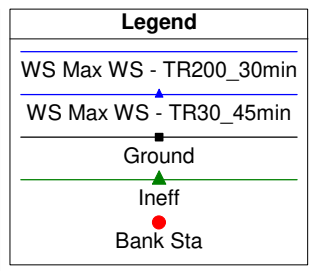
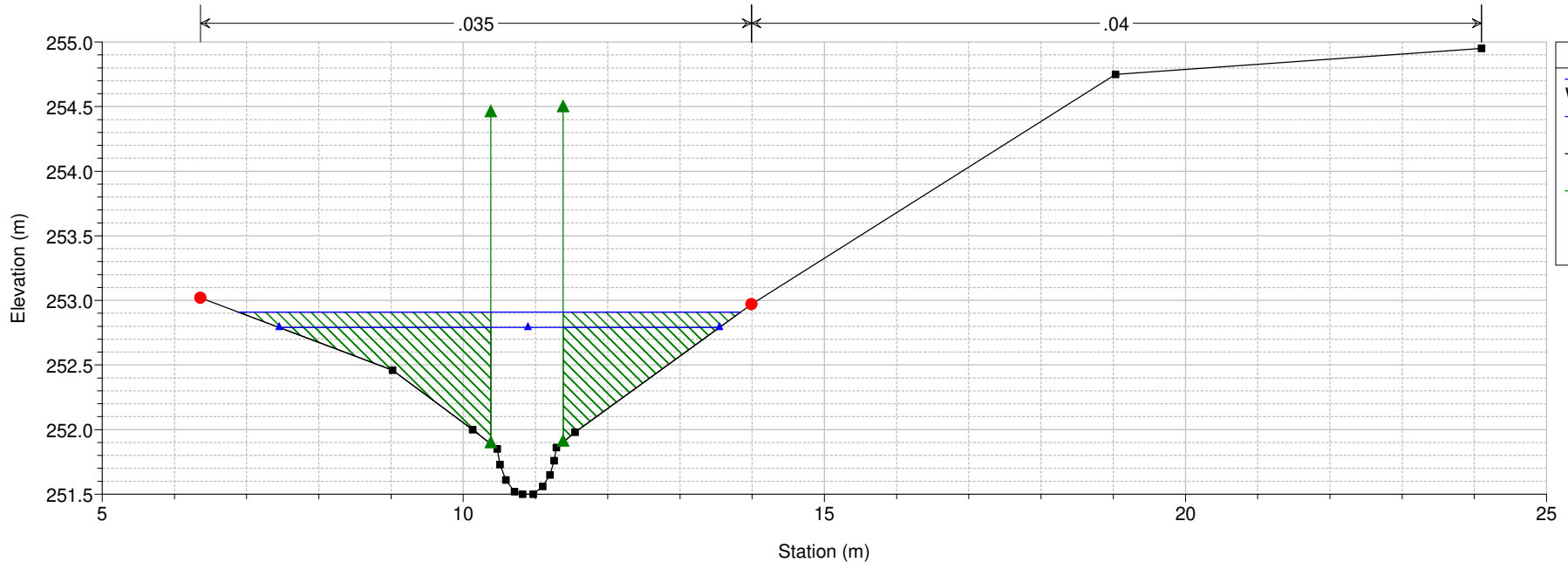
Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 6 G24A



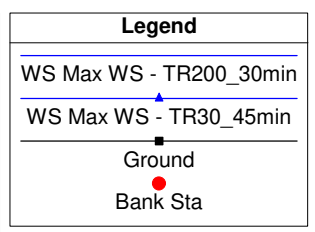
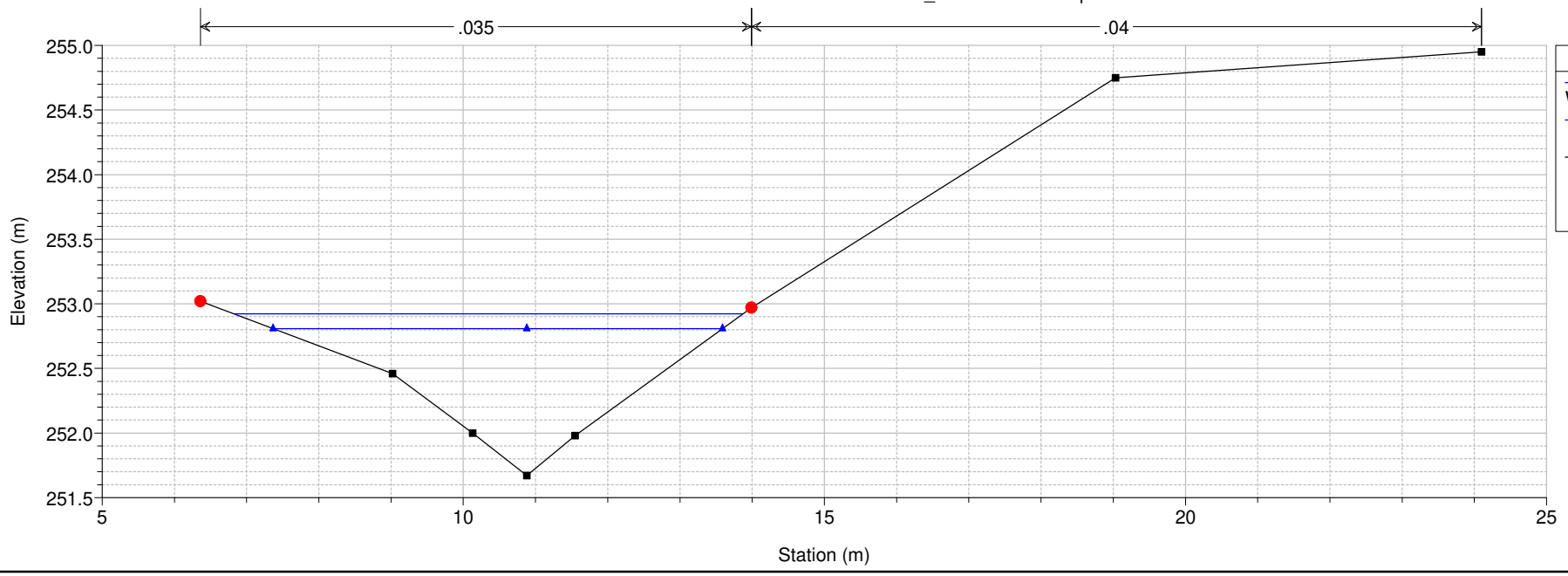
Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 5.5 Culv



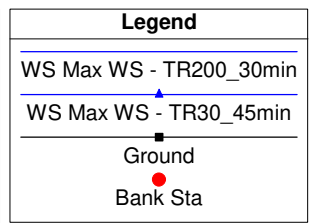
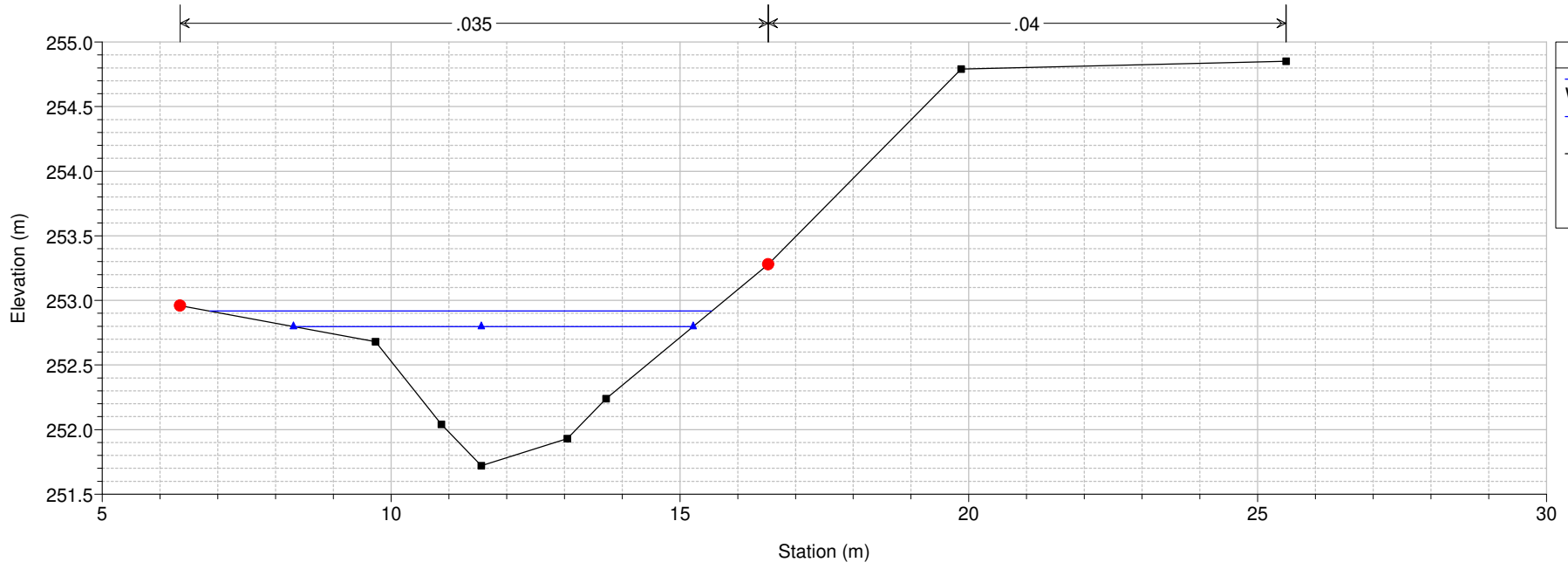
Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 5 G24C fondo sagomato per culvert



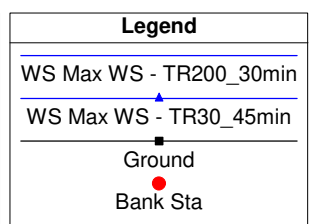
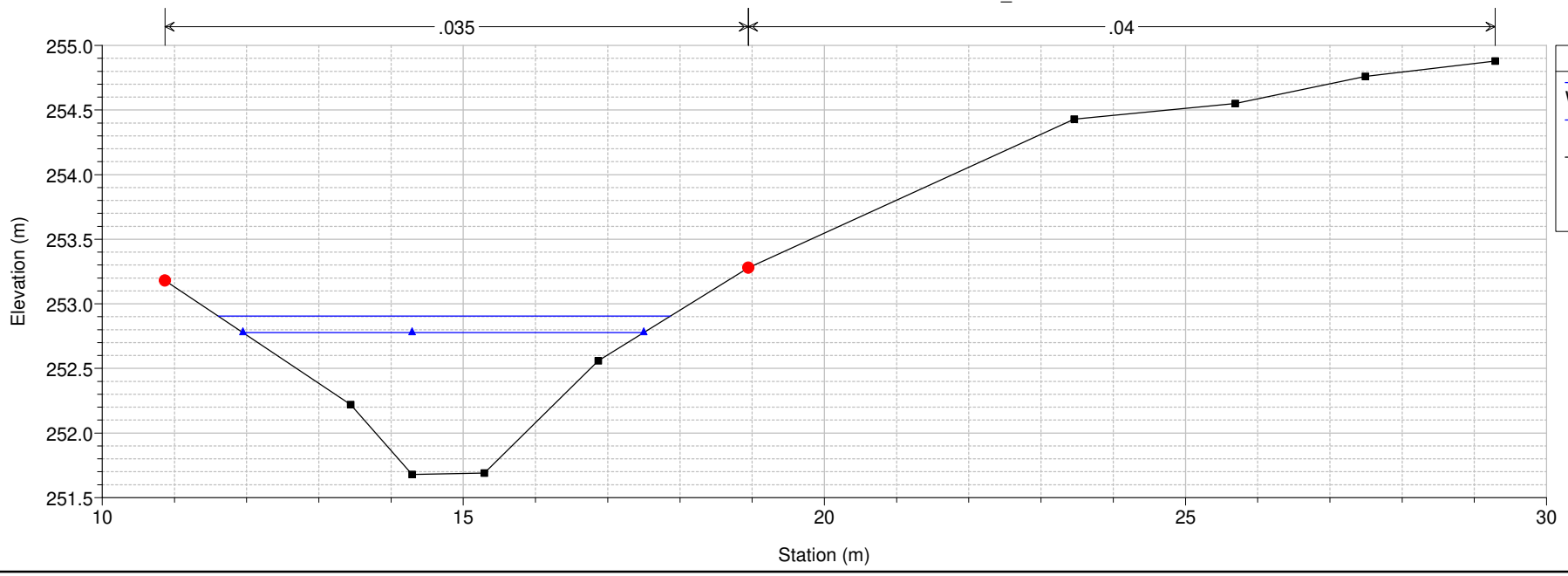
Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 4.9 copia G24C valle BR

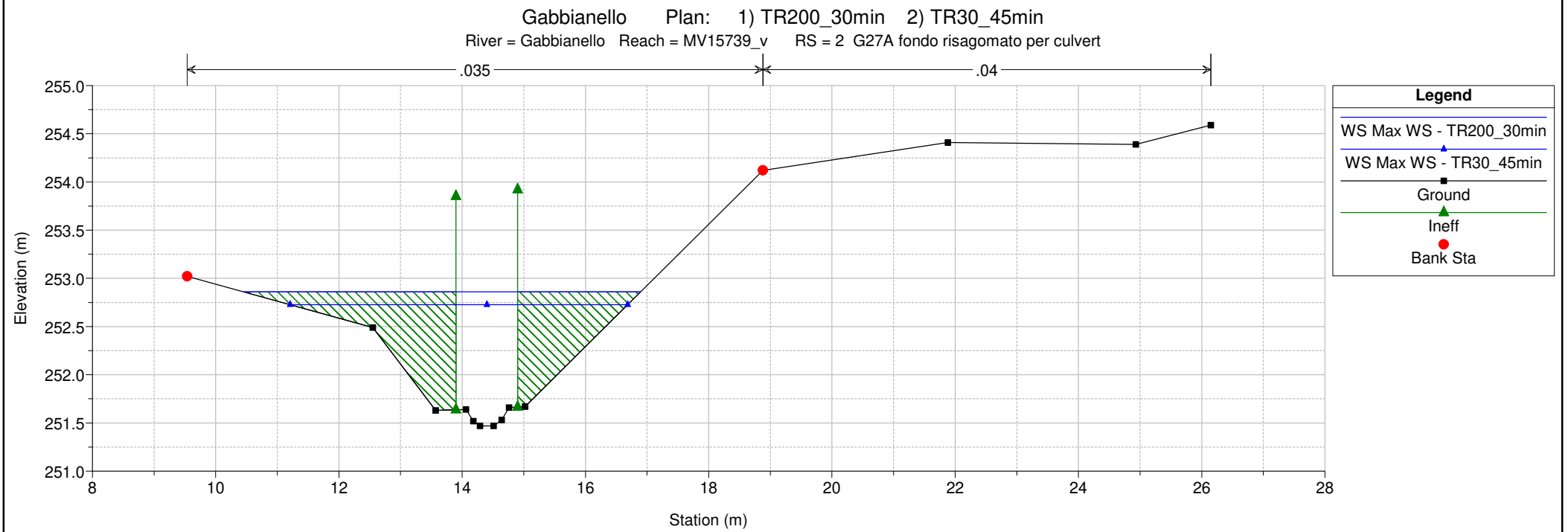
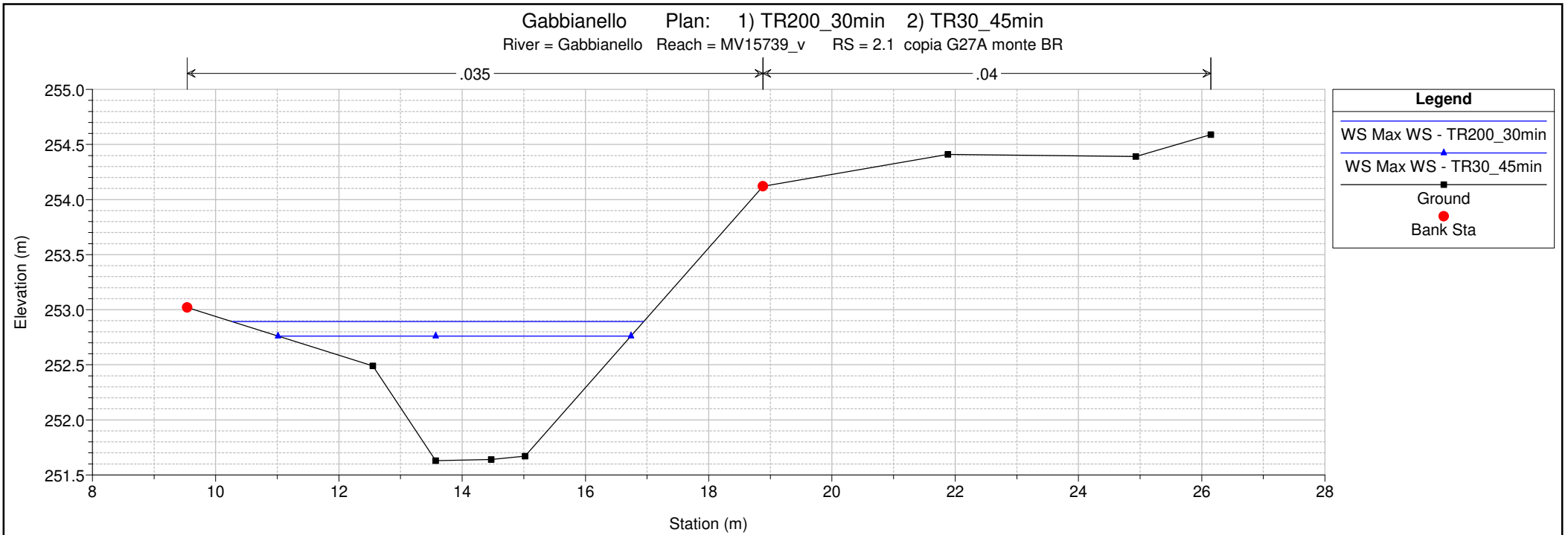


Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 4 G25



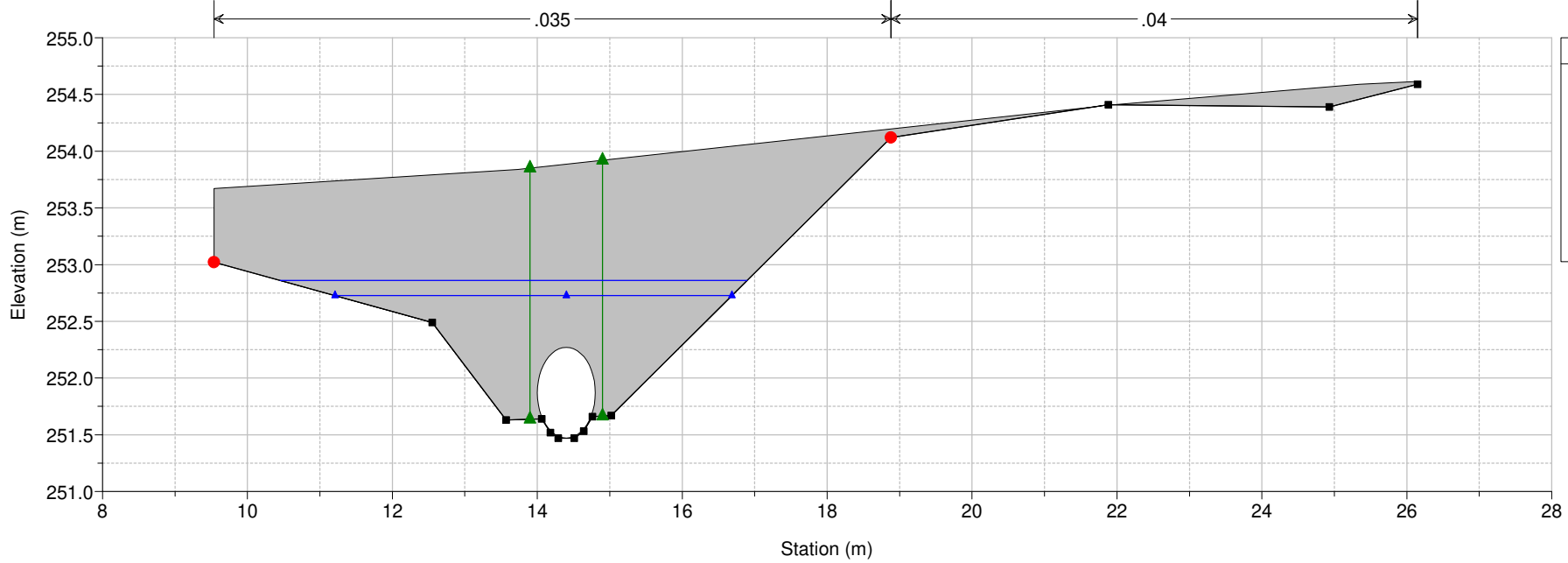
Gabbianello Plan: 1) TR200_30min 2) TR30_45min
 River = Gabbianello Reach = MV15739_v RS = 3 G26





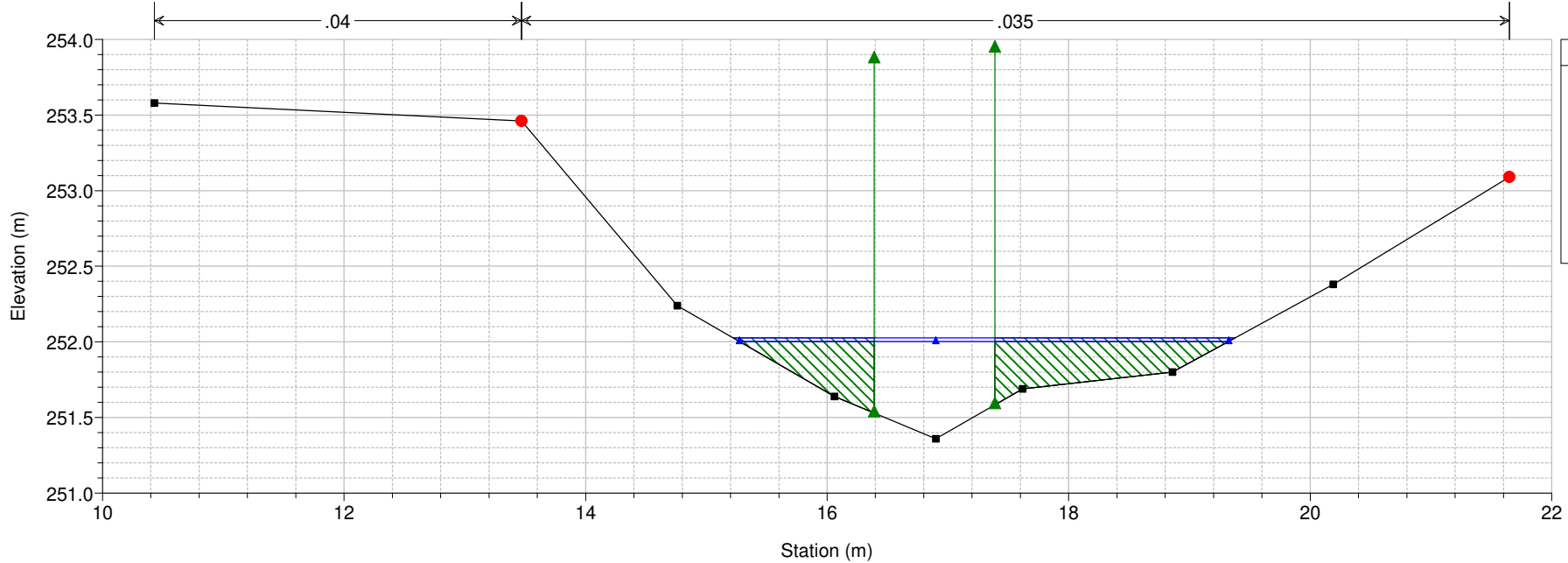
Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739_v RS = 1.5 Culv

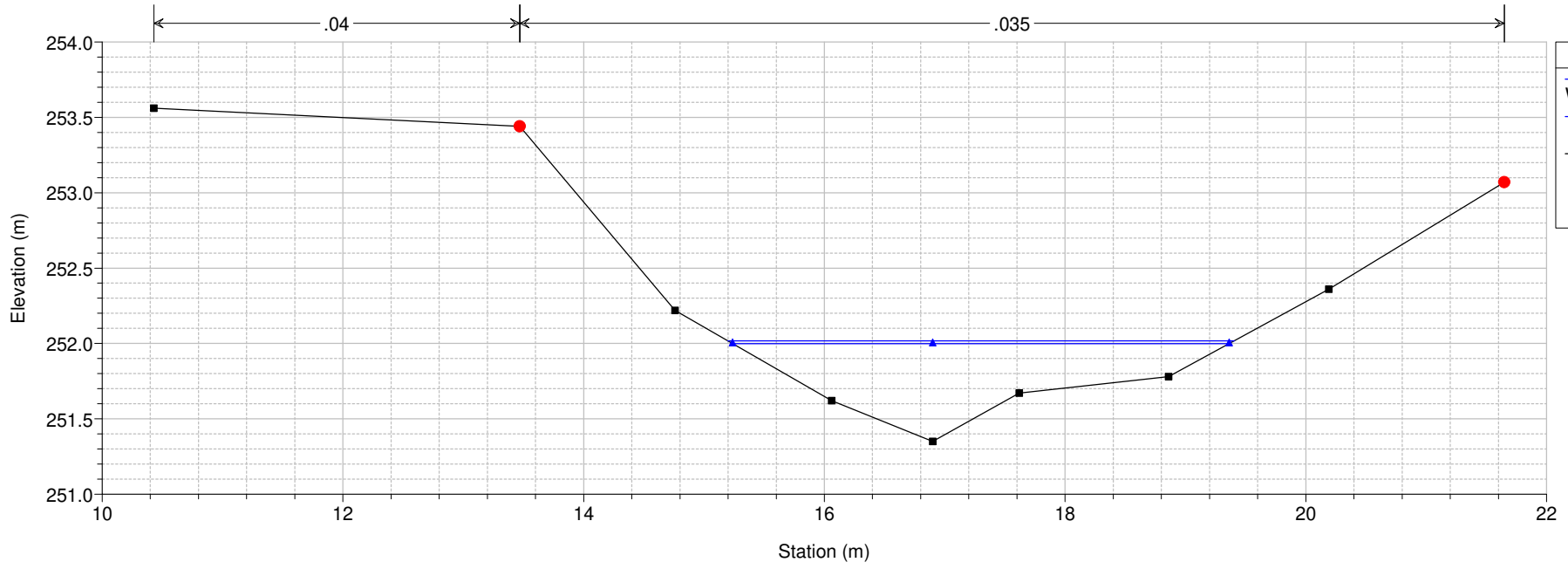


Gabbianello Plan: 1) TR200_30min 2) TR30_45min

River = Gabbianello Reach = MV15739_v RS = 1 G27C



Gabbianello Plan: 1) TR200_30min 2) TR30_45min
River = Gabbianello Reach = MV15739_v RS = 0.9 copia G27C sez. valle



Legend

- WS Max WS - TR200_30min
- WS Max WS - TR30_45min
- Ground
- Bank Sta

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15739	11	Max WS	TR200_30min	0.05	252.65	253.25	252.76	253.25	0.000010	0.04	1.27	4.07	0.02
MV15739	11	Max WS	TR200_45min	0.05	252.65	253.24	252.76	253.24	0.000010	0.04	1.23	3.98	0.02
MV15739	11	Max WS	TR200_1H	0.05	252.65	253.25	252.76	253.25	0.000009	0.04	1.29	4.13	0.02
MV15739	11	Max WS	TR200_2H	0.05	252.65	253.26	252.76	253.26	0.000009	0.04	1.33	4.23	0.02
MV15739	11	Max WS	TR30_30min	0.05	252.65	253.20	252.76	253.20	0.000014	0.05	1.08	3.58	0.03
MV15739	11	Max WS	TR30_45min	0.05	252.65	253.20	252.76	253.20	0.000014	0.05	1.07	3.55	0.03
MV15739	11	Max WS	TR30_1H	0.05	252.65	253.19	252.76	253.19	0.000015	0.05	1.03	3.45	0.03
MV15739	11	Max WS	TR30_2H	0.05	252.65	253.18	252.76	253.18	0.000016	0.05	1.01	3.42	0.03
MV15739	10.99												
MV15739	10.98												
MV15739	10	Max WS	TR200_30min	-0.19	252.33	253.25	252.45	253.25	0.000008	-0.05	3.53	6.41	0.02
MV15739	10	Max WS	TR200_45min	-0.15	252.33	253.24	252.44	253.24	0.000005	-0.04	3.48	6.38	0.02
MV15739	10	Max WS	TR200_1H	0.59	252.33	253.24	252.56	253.24	0.000084	0.17	3.49	6.39	0.07
MV15739	10	Max WS	TR200_2H	0.35	252.33	253.26	252.50	253.26	0.000027	0.10	3.60	6.45	0.04
MV15739	10	Max WS	TR30_30min	-0.02	252.33	253.20	252.36	253.20	0.000000	0.00	3.23	6.22	0.00
MV15739	10	Max WS	TR30_45min	-0.01	252.33	253.20	252.35	253.20	0.000000	0.00	3.22	6.21	0.00
MV15739	10	Max WS	TR30_1H	0.01	252.33	253.19	252.35	253.19	0.000000	0.00	3.15	6.16	0.00
MV15739	10	Max WS	TR30_2H	0.21	252.33	253.18	252.46	253.18	0.000016	0.07	3.09	6.12	0.03
MV15739	9.11	Max WS	TR200_30min	-0.95	252.19	253.25	252.68	253.25	0.000248	-0.28	3.33	5.98	0.12
MV15739	9.11	Max WS	TR200_45min	-0.83	252.19	253.24	252.65	253.24	0.000201	-0.25	3.28	5.96	0.11
MV15739	9.11	Max WS	TR200_1H	0.10	252.19	253.24	252.36	253.24	0.000003	0.03	3.30	5.97	0.01
MV15739	9.11	Max WS	TR200_2H	-0.38	252.19	253.26	252.50	253.26	0.000038	-0.11	3.39	5.99	0.05
MV15739	9.11	Max WS	TR30_30min	-0.41	252.19	253.20	252.51	253.20	0.000061	-0.13	3.04	5.90	0.06
MV15739	9.11	Max WS	TR30_45min	-0.40	252.19	253.20	252.50	253.20	0.000058	-0.13	3.03	5.90	0.06
MV15739	9.11	Max WS	TR30_1H	-0.31	252.19	253.19	252.47	253.19	0.000037	-0.10	2.96	5.88	0.05
MV15739	9.11	Max WS	TR30_2H	-0.06	252.19	253.18	252.33	253.18	0.000002	-0.02	2.91	5.86	0.01
MV15739_v	9.08	Max WS	TR200_30min	0.69	252.18	253.25	252.60	253.25	0.000135	0.21	3.33	6.00	0.09
MV15739_v	9.08	Max WS	TR200_45min	0.63	252.18	253.24	252.58	253.24	0.000116	0.19	3.28	5.98	0.08
MV15739_v	9.08	Max WS	TR200_1H	0.99	252.18	253.24	252.69	253.25	0.000281	0.30	3.30	5.99	0.13
MV15739_v	9.08	Max WS	TR200_2H	1.15	252.18	253.26	252.72	253.26	0.000347	0.34	3.39	6.01	0.14
MV15739_v	9.08	Max WS	TR30_30min	0.76	252.18	253.20	252.61	253.20	0.000210	0.25	3.04	5.92	0.11
MV15739_v	9.08	Max WS	TR30_45min	0.67	252.18	253.20	252.59	253.20	0.000169	0.22	3.03	5.92	0.10
MV15739_v	9.08	Max WS	TR30_1H	0.64	252.18	253.19	252.58	253.19	0.000161	0.21	2.96	5.90	0.10
MV15739_v	9.08	Max WS	TR30_2H	0.75	252.18	253.18	252.61	253.18	0.000240	0.26	2.90	5.88	0.12
MV15739_v	9.079												
MV15739_v	9.078												
MV15739_v	9	Max WS	TR200_30min	0.54	252.17	253.25	252.54	253.25	0.000082	0.16	3.34	6.06	0.07
MV15739_v	9	Max WS	TR200_45min	0.49	252.17	253.24	252.53	253.24	0.000072	0.15	3.29	6.04	0.06
MV15739_v	9	Max WS	TR200_1H	0.84	252.17	253.24	252.63	253.25	0.000207	0.25	3.30	6.05	0.11
MV15739_v	9	Max WS	TR200_2H	0.96	252.17	253.26	252.66	253.26	0.000245	0.28	3.40	6.07	0.12
MV15739_v	9	Max WS	TR30_30min	0.66	252.17	253.20	252.58	253.20	0.000165	0.22	3.04	5.98	0.10
MV15739_v	9	Max WS	TR30_45min	0.59	252.17	253.20	252.56	253.20	0.000133	0.20	3.03	5.98	0.09
MV15739_v	9	Max WS	TR30_1H	0.57	252.17	253.19	252.55	253.19	0.000133	0.19	2.96	5.96	0.09
MV15739_v	9	Max WS	TR30_2H	0.70	252.17	253.18	252.59	253.18	0.000215	0.24	2.90	5.94	0.11
MV15739_v	8.9	Max WS	TR200_30min	0.53	251.93	253.24		253.25	0.000377	0.47	1.12	6.04	0.14
MV15739_v	8.9	Max WS	TR200_45min	0.48	251.93	253.24		253.24	0.000321	0.44	1.11	6.03	0.13
MV15739_v	8.9	Max WS	TR200_1H	0.84	251.93	253.22		253.25	0.001004	0.77	1.10	6.02	0.22
MV15739_v	8.9	Max WS	TR200_2H	0.95	251.93	253.24		253.27	0.001244	0.86	1.11	6.03	0.25
MV15739_v	8.9	Max WS	TR30_30min	0.67	251.93	253.19		253.21	0.000703	0.63	1.07	5.96	0.19
MV15739_v	8.9	Max WS	TR30_45min	0.59	251.93	253.19		253.20	0.000556	0.56	1.07	5.96	0.17
MV15739_v	8.9	Max WS	TR30_1H	0.57	251.93	253.18		253.19	0.000537	0.54	1.06	5.94	0.16
MV15739_v	8.9	Max WS	TR30_2H	0.71	251.93	253.16		253.18	0.000854	0.68	1.04	5.92	0.21
MV15739_v	8.5												
MV15739_v	8	Max WS	TR200_30min	0.53	252.02	253.15	252.42	253.16	0.000524	0.54	0.98	4.74	0.17
MV15739_v	8	Max WS	TR200_45min	0.48	252.02	253.16	252.39	253.17	0.000420	0.49	0.99	4.87	0.15
MV15739_v	8	Max WS	TR200_1H	0.48	252.02	253.14	252.39	253.16	0.000442	0.49	0.97	4.65	0.15
MV15739_v	8	Max WS	TR200_2H	0.43	252.02	253.10	252.37	253.11	0.000416	0.46	0.93	3.90	0.15
MV15739_v	8	Max WS	TR30_30min	0.65	252.02	253.04	252.46	253.07	0.001136	0.74	0.88	2.95	0.24
MV15739_v	8	Max WS	TR30_45min	0.59	252.02	253.07	252.44	253.09	0.000865	0.66	0.90	3.42	0.21
MV15739_v	8	Max WS	TR30_1H	0.57	252.02	253.07	252.43	253.09	0.000817	0.64	0.90	3.37	0.21
MV15739_v	8	Max WS	TR30_2H	0.71	252.02	252.99	252.48	253.03	0.001620	0.85	0.83	2.77	0.29
MV15739_v	7.99												
MV15739_v	7.98												
MV15739_v	7.9	Max WS	TR200_30min	0.53	252.15	253.16	252.63	253.16	0.000416	0.32	1.71	4.86	0.15
MV15739_v	7.9	Max WS	TR200_45min	0.48	252.15	253.16	252.61	253.17	0.000328	0.29	1.74	4.98	0.13
MV15739_v	7.9	Max WS	TR200_1H	0.48	252.15	253.15	252.62	253.16	0.000360	0.30	1.68	4.76	0.14
MV15739_v	7.9	Max WS	TR200_2H	0.43	252.15	253.10	252.60	253.11	0.000394	0.30	1.47	3.98	0.14
MV15739_v	7.9	Max WS	TR30_30min	0.65	252.15	253.05	252.67	253.06	0.001251	0.51	1.28	3.13	0.25
MV15739_v	7.9	Max WS	TR30_45min	0.59	252.15	253.08	252.66	253.09	0.000869	0.43	1.38	3.58	0.21
MV15739_v	7.9	Max WS	TR30_1H	0.57	252.15	253.08	252.65	253.08	0.000831	0.42	1.36	3.52	0.20
MV15739_v	7.9	Max WS	TR30_2H	0.71	252.15	253.00	252.69	253.02	0.002002	0.62	1.15	2.81	0.31
MV15739_v	7	Max WS	TR200_30min	0.64	251.86	253.15	252.05	253.16	0.000013	0.09	6.97	8.21	0.03
MV15739_v	7	Max WS	TR200_45min	0.60	251.86	253.16	252.04	253.16	0.000011	0.09	7.02	8.22	0.03
MV15739_v	7	Max WS	TR200_1H	0.60	251.86	253.15	252.04	253.15	0.000012	0.09	6.91	8.20	0.03
MV15739_v	7	Max WS	TR200_2H	0.58	251.86	253.10	252.04	253.10	0.000013	0.09	6.53	8.09	0.03
MV15739_v	7	Max WS	TR30_30min	0.75	251.86	253.05	252.07	253.05	0.000028	0.12	6.10	7.98	0.04
MV15739_v	7	Max WS	TR30_45min	0.71	251.86	253.08	252.06	253.08	0.000022	0.11	6.32	8.04	0.04

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15739_v	7	Max WS	TR30_1H	0.69	251.86	253.07	252.06	253.07	0.000021	0.11	6.29	8.03	0.04
MV15739_v	7	Max WS	TR30_2H	0.78	251.86	253.00	252.07	253.00	0.000037	0.14	5.70	7.87	0.05
MV15739_v	6	Max WS	TR200_30min	0.80	251.52	253.15		253.16	0.000155	0.49	1.63	8.62	0.12
MV15739_v	6	Max WS	TR200_45min	0.77	251.52	253.15		253.17	0.000142	0.47	1.63	8.66	0.12
MV15739_v	6	Max WS	TR200_1H	0.77	251.52	253.14		253.15	0.000145	0.47	1.62	8.58	0.12
MV15739_v	6	Max WS	TR200_2H	0.77	251.52	253.09		253.10	0.000162	0.49	1.57	8.29	0.13
MV15739_v	6	Max WS	TR30_30min	0.88	251.52	253.04		253.05	0.000235	0.58	1.52	7.94	0.15
MV15739_v	6	Max WS	TR30_45min	0.86	251.52	253.06		253.08	0.000211	0.55	1.54	8.12	0.14
MV15739_v	6	Max WS	TR30_1H	0.85	251.52	253.06		253.08	0.000209	0.55	1.54	8.10	0.14
MV15739_v	6	Max WS	TR30_2H	0.88	251.52	252.98		253.00	0.000264	0.60	1.46	7.63	0.16
MV15739_v	5.5												
MV15739_v	5	Max WS	TR200_30min	0.80	251.50	252.91	252.04	252.93	0.000538	0.63	1.27	6.96	0.18
MV15739_v	5	Max WS	TR200_45min	0.77	251.50	252.93	252.03	252.95	0.000468	0.59	1.30	7.14	0.17
MV15739_v	5	Max WS	TR200_1H	0.77	251.50	252.92	252.03	252.94	0.000486	0.60	1.28	7.04	0.17
MV15739_v	5	Max WS	TR200_2H	0.77	251.50	252.87	252.03	252.89	0.000561	0.63	1.23	6.68	0.18
MV15739_v	5	Max WS	TR30_30min	0.87	251.50	252.75	252.07	252.78	0.001013	0.78	1.11	5.80	0.24
MV15739_v	5	Max WS	TR30_45min	0.86	251.50	252.79	252.06	252.82	0.000866	0.74	1.15	6.10	0.22
MV15739_v	5	Max WS	TR30_1H	0.84	251.50	252.79	252.06	252.82	0.000835	0.73	1.16	6.12	0.22
MV15739_v	5	Max WS	TR30_2H	0.87	251.50	252.70	252.06	252.73	0.001171	0.82	1.06	5.44	0.25
MV15739_v	4.99												
MV15739_v	4.98												
MV15739_v	4.9	Max WS	TR200_30min	0.80	251.67	252.92	252.15	252.92	0.000120	0.20	3.92	7.05	0.09
MV15739_v	4.9	Max WS	TR200_45min	0.77	251.67	252.95	252.15	252.95	0.000100	0.19	4.09	7.22	0.08
MV15739_v	4.9	Max WS	TR200_1H	0.77	251.67	252.93	252.15	252.94	0.000106	0.19	4.00	7.13	0.08
MV15739_v	4.9	Max WS	TR200_2H	0.77	251.67	252.88	252.15	252.89	0.000135	0.21	3.66	6.77	0.09
MV15739_v	4.9	Max WS	TR30_30min	0.87	251.67	252.77	252.17	252.77	0.000306	0.30	2.93	5.95	0.14
MV15739_v	4.9	Max WS	TR30_45min	0.86	251.67	252.81	252.17	252.81	0.000242	0.27	3.16	6.22	0.12
MV15739_v	4.9	Max WS	TR30_1H	0.84	251.67	252.81	252.17	252.81	0.000232	0.27	3.18	6.24	0.12
MV15739_v	4.9	Max WS	TR30_2H	0.87	251.67	252.72	252.17	252.73	0.000392	0.33	2.64	5.59	0.15
MV15739_v	4	Max WS	TR200_30min	0.86	251.72	252.92	252.09	252.92	0.000115	0.19	4.50	8.68	0.08
MV15739_v	4	Max WS	TR200_45min	0.83	251.72	252.94	252.09	252.94	0.000098	0.18	4.71	9.04	0.08
MV15739_v	4	Max WS	TR200_1H	0.85	251.72	252.93	252.09	252.93	0.000107	0.18	4.59	8.85	0.08
MV15739_v	4	Max WS	TR200_2H	0.88	251.72	252.88	252.10	252.88	0.000144	0.21	4.16	8.09	0.09
MV15739_v	4	Max WS	TR30_30min	0.94	251.72	252.76	252.11	252.76	0.000257	0.28	3.29	6.31	0.13
MV15739_v	4	Max WS	TR30_45min	0.92	251.72	252.80	252.10	252.80	0.000216	0.26	3.56	6.92	0.12
MV15739_v	4	Max WS	TR30_1H	0.95	251.72	252.80	252.11	252.80	0.000229	0.27	3.57	6.94	0.12
MV15739_v	4	Max WS	TR30_2H	0.94	251.72	252.70	252.11	252.71	0.000309	0.32	2.97	5.52	0.14
MV15739_v	3	Max WS	TR200_30min	1.13	251.68	252.90	252.09	252.91	0.000189	0.28	4.06	6.26	0.11
MV15739_v	3	Max WS	TR200_45min	1.13	251.68	252.93	252.09	252.93	0.000171	0.27	4.22	6.40	0.11
MV15739_v	3	Max WS	TR200_1H	1.13	251.68	252.92	252.09	252.92	0.000180	0.27	4.13	6.32	0.11
MV15739_v	3	Max WS	TR200_2H	1.12	251.68	252.86	252.08	252.87	0.000220	0.29	3.80	6.02	0.12
MV15739_v	3	Max WS	TR30_30min	1.08	251.68	252.73	252.08	252.74	0.000356	0.35	3.07	5.31	0.15
MV15739_v	3	Max WS	TR30_45min	1.10	251.68	252.78	252.08	252.78	0.000302	0.33	3.31	5.55	0.14
MV15739_v	3	Max WS	TR30_1H	1.11	251.68	252.78	252.08	252.78	0.000308	0.33	3.32	5.56	0.14
MV15739_v	3	Max WS	TR30_2H	1.06	251.68	252.67	252.07	252.68	0.000441	0.38	2.77	4.98	0.16
MV15739_v	2.99												
MV15739_v	2.98												
MV15739_v	2.1	Max WS	TR200_30min	1.32	251.63	252.89	252.03	252.90	0.000240	0.31	4.30	6.68	0.12
MV15739_v	2.1	Max WS	TR200_45min	1.34	251.63	252.92	252.04	252.92	0.000223	0.30	4.47	6.87	0.12
MV15739_v	2.1	Max WS	TR200_1H	1.33	251.63	252.90	252.03	252.91	0.000232	0.30	4.38	6.77	0.12
MV15739_v	2.1	Max WS	TR200_2H	1.29	251.63	252.85	252.03	252.85	0.000270	0.32	4.01	6.36	0.13
MV15739_v	2.1	Max WS	TR30_30min	1.19	251.63	252.71	252.01	252.72	0.000385	0.37	3.22	5.39	0.15
MV15739_v	2.1	Max WS	TR30_45min	1.23	251.63	252.76	252.01	252.77	0.000341	0.35	3.48	5.73	0.14
MV15739_v	2.1	Max WS	TR30_1H	1.23	251.63	252.76	252.01	252.77	0.000341	0.35	3.48	5.73	0.14
MV15739_v	2.1	Max WS	TR30_2H	1.14	251.63	252.65	252.00	252.66	0.000449	0.39	2.90	4.94	0.16
MV15739_v	2	Max WS	TR200_30min	1.33	251.47	252.86		252.91	0.001058	1.02	1.30	6.45	0.29
MV15739_v	2	Max WS	TR200_45min	1.35	251.47	252.89		252.94	0.001016	1.01	1.33	6.64	0.28
MV15739_v	2	Max WS	TR200_1H	1.34	251.47	252.87		252.92	0.001039	1.02	1.31	6.53	0.28
MV15739_v	2	Max WS	TR200_2H	1.30	251.47	252.82		252.87	0.001130	1.03	1.26	6.13	0.29
MV15739_v	2	Max WS	TR30_30min	1.19	251.47	252.68		252.74	0.001406	1.06	1.12	5.13	0.32
MV15739_v	2	Max WS	TR30_45min	1.23	251.47	252.73		252.78	0.001301	1.05	1.17	5.48	0.31
MV15739_v	2	Max WS	TR30_1H	1.23	251.47	252.73		252.78	0.001301	1.05	1.17	5.48	0.31
MV15739_v	2	Max WS	TR30_2H	1.14	251.47	252.62		252.68	0.001564	1.08	1.06	4.67	0.34
MV15739_v	1.5												
MV15739_v	1	Max WS	TR200_30min	1.33	251.36	252.03	252.02	252.31	0.015738	2.34	0.57	4.15	0.99
MV15739_v	1	Max WS	TR200_45min	1.35	251.36	252.03	252.03	252.31	0.015758	2.35	0.57	4.18	0.99
MV15739_v	1	Max WS	TR200_1H	1.34	251.36	252.03	252.02	252.31	0.015740	2.35	0.57	4.16	0.99
MV15739_v	1	Max WS	TR200_2H	1.30	251.36	252.02	252.01	252.29	0.015650	2.31	0.56	4.12	0.99
MV15739_v	1	Max WS	TR30_30min	1.19	251.36	251.99	251.98	252.25	0.015394	2.23	0.54	4.01	0.97
MV15739_v	1	Max WS	TR30_45min	1.23	251.36	252.00	251.99	252.26	0.015495	2.26	0.54	4.05	0.98
MV15739_v	1	Max WS	TR30_1H	1.23	251.36	252.00	251.99	252.26	0.015503	2.26	0.54	4.05	0.98
MV15739_v	1	Max WS	TR30_2H	1.14	251.36	251.98	251.97	252.22	0.015208	2.18	0.52	3.96	0.96
MV15739_v	0.9	Max WS	TR200_30min	1.33	251.35	252.02	251.88	252.06	0.005000	0.94	1.41	4.21	0.52
MV15739_v	0.9	Max WS	TR200_45min	1.35	251.35	252.02	251.88	252.07	0.005011	0.94	1.43	4.22	0.52
MV15739_v	0.9	Max WS	TR200_1H	1.34	251.35	252.02	251.88	252.06	0.004999	0.94	1.42	4.22	0.52
MV15739_v	0.9	Max WS	TR200_2H	1.30	251.35	252.01	251.87	252.06	0.005015	0.93	1.39	4.18	0.52
MV15739_v	0.9	Max WS	TR30_30min	1.19	251.35	251.99	251.86	252.03	0.005035	0.91	1.31	4.09	0.52

HEC-RAS Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15739_v	0.9	Max WS	TR30_45min	1.23	251.35	252.00	251.86	252.04	0.005029	0.92	1.34	4.13	0.52
MV15739_v	0.9	Max WS	TR30_1H	1.23	251.35	252.00	251.86	252.04	0.005032	0.92	1.34	4.13	0.52
MV15739_v	0.9	Max WS	TR30_2H	1.14	251.35	251.98	251.85	252.02	0.005026	0.90	1.27	4.05	0.51

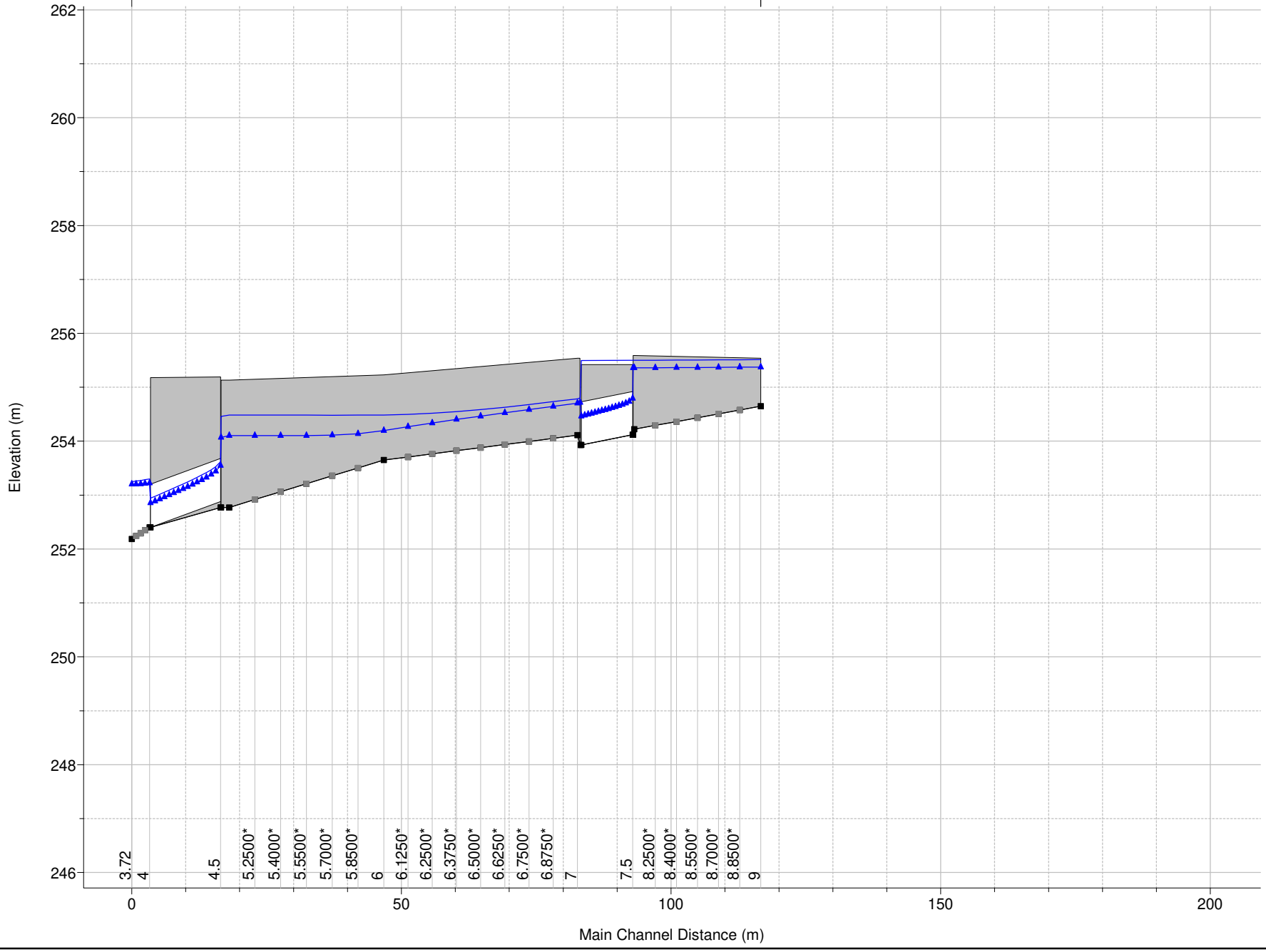
Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wt Top Wdth (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV15739	10.99	Max WS	TR200_30min	0.05	-0.58	-0.95	-0.58		121.94	0.11	0.06	255.08	253.25	253.25	253.25	253.25
MV15739	10.99	Max WS	TR200_45min	0.05	-0.83	-0.83	-0.83		136.94	0.13	0.07	255.08	253.24	253.24	253.24	253.24
MV15739	10.99	Max WS	TR200_1H	0.05	-0.95	0.10	-0.95		136.94	0.14	0.08	255.08	253.25	253.25	253.24	253.24
MV15739	10.99	Max WS	TR200_2H	0.05	-0.79	-0.38	-0.79		136.94	0.13	0.07	255.08	253.26	253.26	253.26	253.26
MV15739	10.99	Max WS	TR30_30min	0.05	-0.12	-0.41	-0.12		65.38	0.06	0.03	255.08	253.20	253.20	253.20	253.20
MV15739	10.99	Max WS	TR30_45min	0.05	-0.25	-0.40	-0.25		88.79	0.08	0.04	255.08	253.20	253.20	253.20	253.20
MV15739	10.99	Max WS	TR30_1H	0.05	-0.33	-0.31	-0.33		97.52	0.09	0.05	255.08	253.19	253.19	253.19	253.19
MV15739	10.99	Max WS	TR30_2H	0.05	-0.34	-0.06	-0.34		98.76	0.09	0.05	255.08	253.18	253.18	253.18	253.18
MV15739	10.98	Max WS	TR200_30min	0.05	1.11	-0.95	1.11		119.90	0.19	0.10	253.06	253.25	253.25	253.25	253.25
MV15739	10.98	Max WS	TR200_45min	0.05	0.87	-0.83	0.87		116.25	0.18	0.09	253.06	253.24	253.24	253.24	253.24
MV15739	10.98	Max WS	TR200_1H	0.05	0.91	0.10	0.91		121.67	0.18	0.09	253.06	253.25	253.25	253.24	253.24
MV15739	10.98	Max WS	TR200_2H	0.05	1.15	-0.38	1.15		126.54	0.20	0.10	253.06	253.26	253.26	253.26	253.26
MV15739	10.98	Max WS	TR30_30min	0.05	0.54	-0.41	0.54		91.02	0.14	0.07	253.06	253.20	253.20	253.20	253.20
MV15739	10.98	Max WS	TR30_45min	0.05	0.47	-0.40	0.47		89.83	0.14	0.07	253.06	253.20	253.20	253.20	253.20
MV15739	10.98	Max WS	TR30_1H	0.05	0.31	-0.31	0.31		84.91	0.13	0.06	253.06	253.19	253.19	253.19	253.19
MV15739	10.98	Max WS	TR30_2H	0.05	0.21	-0.06	0.21		71.19	0.13	0.06	253.06	253.18	253.18	253.18	253.18
MV15739_v	9.079	Max WS	TR200_30min	0.69	0.00	0.53	0.00					255.18	253.25	253.25	253.25	253.24
MV15739_v	9.079	Max WS	TR200_45min	0.63	0.00	0.48	0.00					255.18	253.24	253.24	253.24	253.24
MV15739_v	9.079	Max WS	TR200_1H	0.99	0.00	0.84	0.00					255.18	253.25	253.24	253.25	253.22
MV15739_v	9.079	Max WS	TR200_2H	1.15	0.00	0.95	0.00					255.18	253.26	253.26	253.27	253.24
MV15739_v	9.079	Max WS	TR30_30min	0.76	0.00	0.67	0.00					255.18	253.20	253.20	253.21	253.19
MV15739_v	9.079	Max WS	TR30_45min	0.67	0.00	0.59	0.00					255.18	253.20	253.20	253.20	253.19
MV15739_v	9.079	Max WS	TR30_1H	0.64	0.00	0.57	0.00					255.18	253.19	253.19	253.19	253.18
MV15739_v	9.079	Max WS	TR30_2H	0.75	0.00	0.71	0.00					255.18	253.18	253.18	253.18	253.16
MV15739_v	9.078	Max WS	TR200_30min	0.69	0.21	0.53	0.21		6.70	0.25	0.24	253.00	253.25	253.25	253.25	253.24
MV15739_v	9.078	Max WS	TR200_45min	0.63	0.15	0.48	0.15		6.70	0.24	0.24	253.00	253.24	253.24	253.24	253.24
MV15739_v	9.078	Max WS	TR200_1H	0.99	0.15	0.84	0.15		6.70	0.24	0.24	253.00	253.25	253.24	253.25	253.22
MV15739_v	9.078	Max WS	TR200_2H	1.15	0.20	0.95	0.20		6.70	0.26	0.25	253.00	253.26	253.26	253.27	253.24
MV15739_v	9.078	Max WS	TR30_30min	0.76	0.14	0.67	0.14		6.70	0.20	0.19	253.00	253.20	253.20	253.21	253.19
MV15739_v	9.078	Max WS	TR30_45min	0.67	0.07	0.59	0.07		6.70	0.20	0.19	253.00	253.20	253.20	253.20	253.19
MV15739_v	9.078	Max WS	TR30_1H	0.64	0.12	0.57	0.12		6.70	0.19	0.18	253.00	253.19	253.19	253.19	253.18
MV15739_v	9.078	Max WS	TR30_2H	0.75	0.08	0.71	0.08		6.70	0.18	0.17	253.00	253.18	253.18	253.18	253.16
MV15739_v	7.99	Max WS	TR200_30min	0.53	0.00	0.80	0.00					254.94	253.16	253.15	253.16	253.15
MV15739_v	7.99	Max WS	TR200_45min	0.48	0.00	0.77	0.00					254.94	253.17	253.16	253.17	253.15
MV15739_v	7.99	Max WS	TR200_1H	0.48	0.00	0.77	0.00					254.94	253.16	253.14	253.15	253.14
MV15739_v	7.99	Max WS	TR200_2H	0.43	0.00	0.77	0.00					254.94	253.11	253.10	253.10	253.09
MV15739_v	7.99	Max WS	TR30_30min	0.65	0.00	0.88	0.00					254.94	253.07	253.04	253.05	253.04
MV15739_v	7.99	Max WS	TR30_45min	0.59	0.00	0.86	0.00					254.94	253.09	253.07	253.08	253.06
MV15739_v	7.99	Max WS	TR30_1H	0.57	0.00	0.85	0.00					254.94	253.09	253.07	253.08	253.06
MV15739_v	7.99	Max WS	TR30_2H	0.71	0.00	0.88	0.00					254.94	253.03	252.99	253.00	252.98
MV15739_v	7.98	Max WS	TR200_30min	0.53	0.30	0.80	0.30		34.07	0.18	0.09	252.97	253.16	253.15	253.16	253.15
MV15739_v	7.98	Max WS	TR200_45min	0.48	0.33	0.77	0.33		35.38	0.19	0.10	252.97	253.17	253.16	253.17	253.15
MV15739_v	7.98	Max WS	TR200_1H	0.48	0.28	0.77	0.28		32.90	0.18	0.09	252.97	253.16	253.14	253.15	253.14
MV15739_v	7.98	Max WS	TR200_2H	0.43	0.13	0.77	0.13		24.18	0.13	0.07	252.97	253.11	253.10	253.10	253.09
MV15739_v	7.98	Max WS	TR30_30min	0.65	0.03	0.88	0.03		14.36	0.08	0.04	252.97	253.07	253.04	253.05	253.04
MV15739_v	7.98	Max WS	TR30_45min	0.59	0.08	0.86	0.08		19.47	0.11	0.05	252.97	253.09	253.07	253.08	253.06
MV15739_v	7.98	Max WS	TR30_1H	0.57	0.07	0.85	0.07		18.80	0.10	0.05	252.97	253.09	253.07	253.08	253.06
MV15739_v	7.98	Max WS	TR30_2H	0.71	0.00	0.88	0.00		5.07	0.03	0.01	252.97	253.03	252.99	253.00	252.98
MV15739_v	4.99	Max WS	TR200_30min	0.80	0.00	1.13	0.00					254.85	252.93	252.91	252.91	252.90
MV15739_v	4.99	Max WS	TR200_45min	0.77	0.00	1.13	0.00					254.85	252.95	252.94	252.93	252.93
MV15739_v	4.99	Max WS	TR200_1H	0.77	0.00	1.13	0.00					254.85	252.94	252.92	252.92	252.92
MV15739_v	4.99	Max WS	TR200_2H	0.77	0.00	1.12	0.00					254.85	252.89	252.87	252.87	252.86
MV15739_v	4.99	Max WS	TR30_30min	0.87	0.00	1.08	0.00					254.85	252.78	252.75	252.74	252.73
MV15739_v	4.99	Max WS	TR30_45min	0.86	0.00	1.10	0.00					254.85	252.82	252.79	252.78	252.78
MV15739_v	4.99	Max WS	TR30_1H	0.84	0.00	1.11	0.00					254.85	252.82	252.79	252.78	252.78
MV15739_v	4.99	Max WS	TR30_2H	0.87	0.00	1.06	0.00					254.85	252.73	252.70	252.68	252.67
MV15739_v	4.98	Max WS	TR200_30min	0.80	0.12	1.13	0.12		3.95	0.40	0.22	252.52	252.93	252.91	252.91	252.90
MV15739_v	4.98	Max WS	TR200_45min	0.77	0.13	1.13	0.13		4.15	0.42	0.23	252.52	252.95	252.94	252.93	252.93
MV15739_v	4.98	Max WS	TR200_1H	0.77	0.12	1.13	0.12		4.04	0.41	0.22	252.52	252.94	252.92	252.92	252.92
MV15739_v	4.98	Max WS	TR200_2H	0.77	0.10	1.12	0.10		3.62	0.36	0.19	252.52	252.89	252.87	252.87	252.86
MV15739_v	4.98	Max WS	TR30_30min	0.87	0.04	1.08	0.04		2.54	0.24	0.14	252.52	252.78	252.75	252.74	252.73
MV15739_v	4.98	Max WS	TR30_45min	0.86	0.06	1.10	0.06		2.90	0.28	0.16	252.52	252.82	252.79	252.78	252.78
MV15739_v	4.98	Max WS	TR30_1H	0.84	0.05	1.11	0.05		2.92	0.29	0.16	252.52	252.82	252.79	252.78	252.78
MV15739_v	4.98	Max WS	TR30_2H	0.87	0.02	1.06	0.02		2.07	0.19	0.11	252.52	252.73	252.70	252.68	252.67
MV15739_v	2.99	Max WS	TR200_30min	1.13	0.00	1.33	0.00					254.59	252.91	252.90	252.91	252.86
MV15739_v	2.99	Max WS	TR200_45min	1.13	0.00	1.35	0.00					254.59	252.93	252.93	252.94	252.89
MV15739_v	2.99	Max WS	TR200_1H	1.13	0.00	1.34	0.00					254.59	252.92	252.92	252.92	252.87
MV15739_v	2.99	Max WS	TR200_2H	1.12	0.00	1.30	0.00					254.59	252.87	252.86	252.87	252.82
MV15739_v	2.99	Max WS	TR30_30min	1.08	0.00	1.19	0.00					254.59	252.74	252.73	252.74	252.68
MV15739_v	2.99	Max WS	TR30_45min	1.10	0.00	1.23	0.00					254.59	252.78	252.78	252.78	252.73
MV15739_v	2.99	Max WS	TR30_1H	1.11	0.00	1.23	0.00					254.59	252.78	252.78	252.78	252.73
MV15739_v	2.99	Max WS	TR30_2H	1.06	0.00	1.14	0.00					254.59	252.68	252.67	252.67	252.62
MV15739_v	2.98	Max WS	TR200_30min	1.13	0.00	1.33	0.00					253.02	252.91	252.90	252.91	252.86
MV15739_v	2.98	Max WS	TR200_45min	1.13	0.00	1.35	0.00					253.02	252.93	252.93	252.94	252.89
MV15739_v	2.98	Max WS	TR200_1H	1.13	0.00	1.34	0.00					253.02	252.92	252.92	252.92	252.87
MV15739_v	2.98															

FOSSO
MV15123

Gabbianello Plan: 1) TR200_30min 2) TR30_30min

Strutture Laterali Destra Idraulica

Gabbianello MV15123



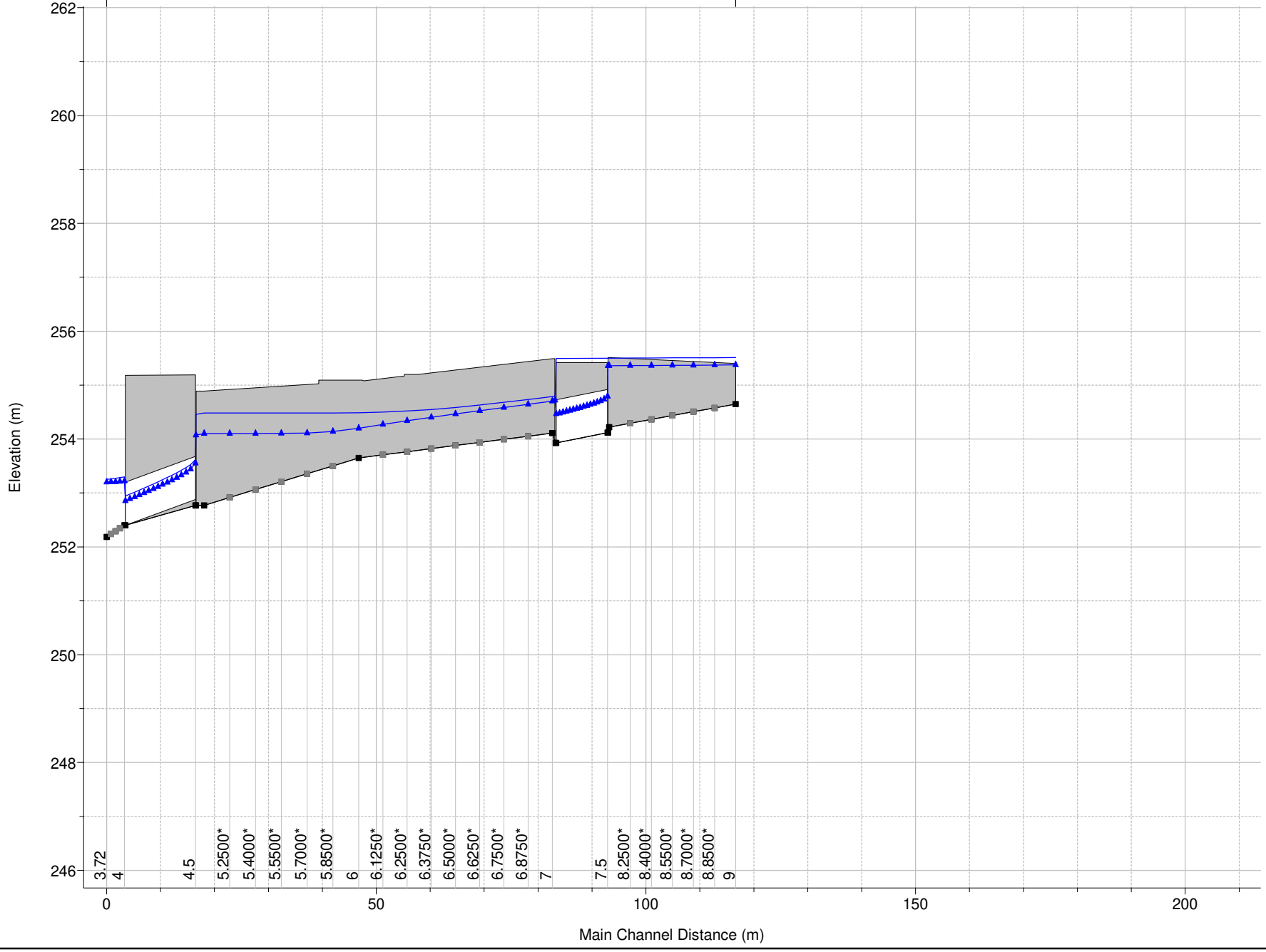
Legend

- WS Max WS - TR200_30min
- WS Max WS - TR30_30min
- Lat Struct
- Ground

1 cm Horiz. = 10 m 1 cm Vert. = 1 m

Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 Strutture Lateral Sinistra Idraulica

Gabbianello MV15123



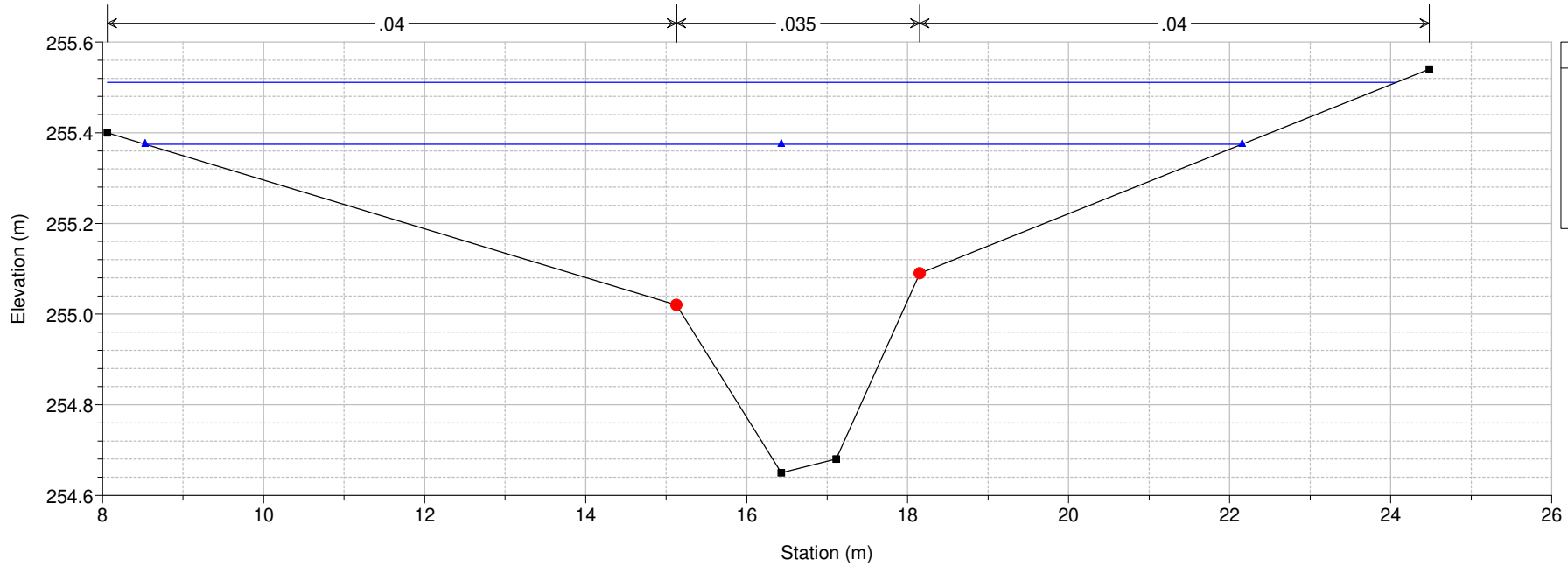
Legend

- WS Max WS - TR200_30min (Blue line with triangles)
- WS Max WS - TR30_30min (Blue line with squares)
- Lat Struct (Grey shaded area)
- Ground (Black line with squares)

1 cm Horiz. = 10 m 1 cm Vert. = 1 m

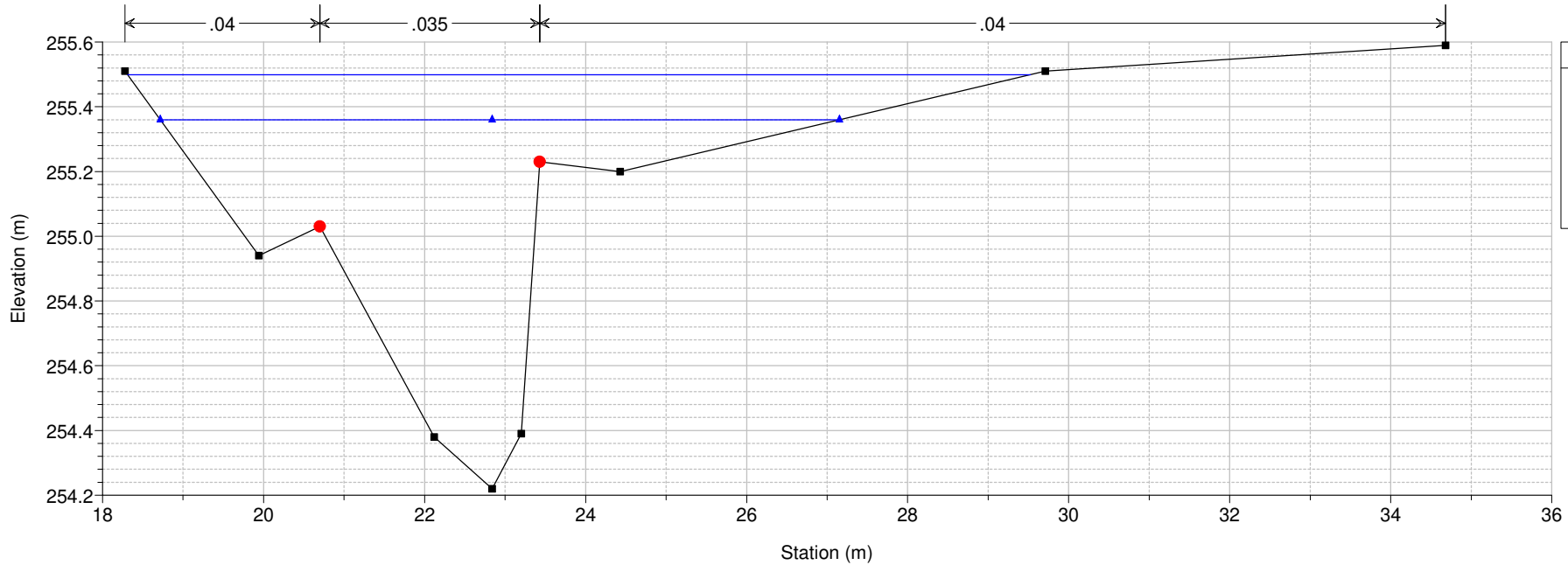
Gabbianello Plan: 1) TR200_30min 2) TR30_30min

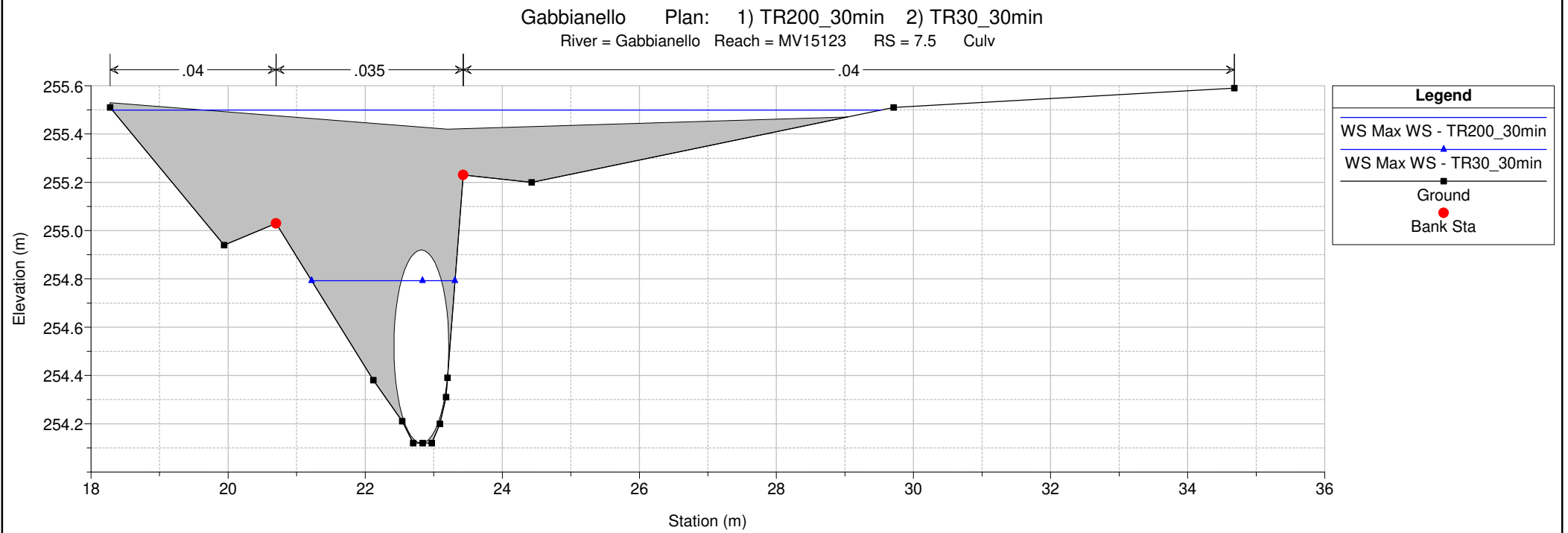
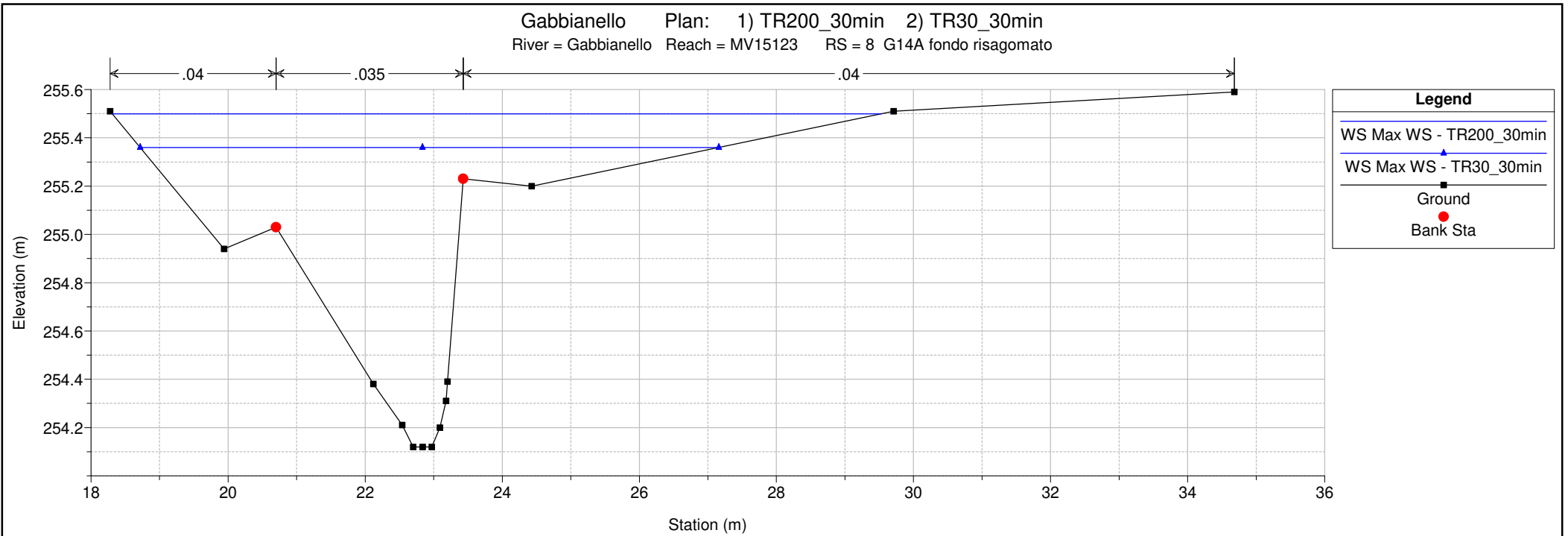
River = Gabbianello Reach = MV15123 RS = 9 G13

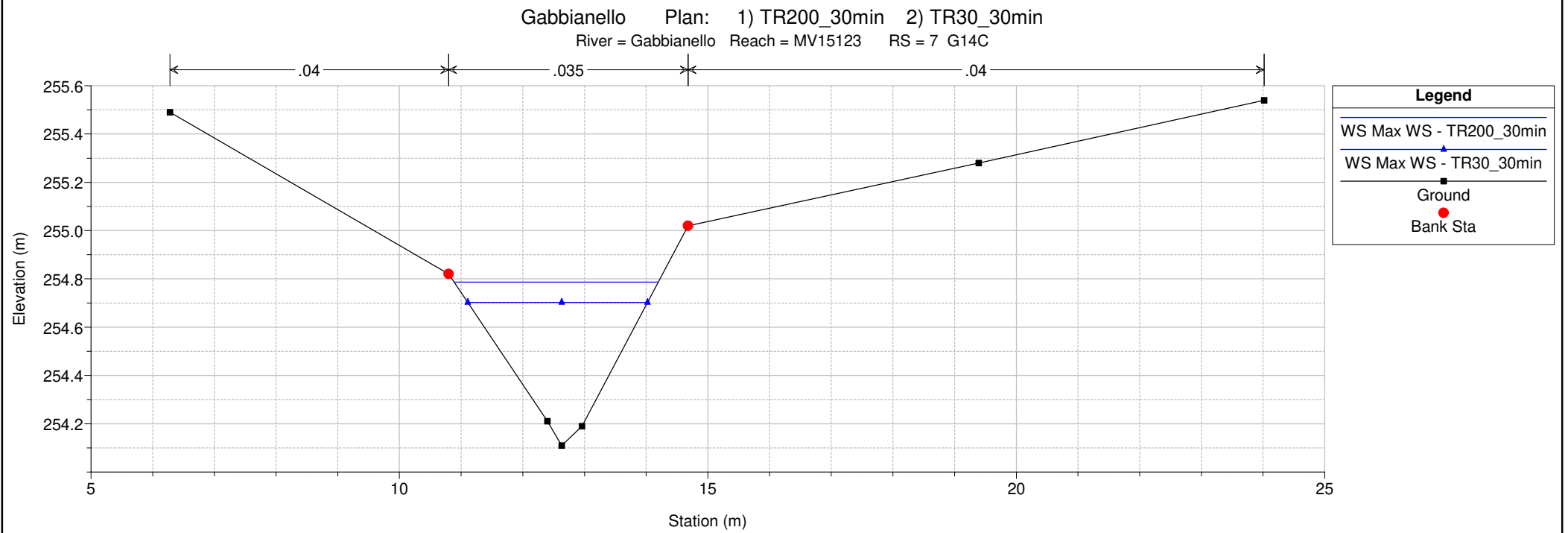
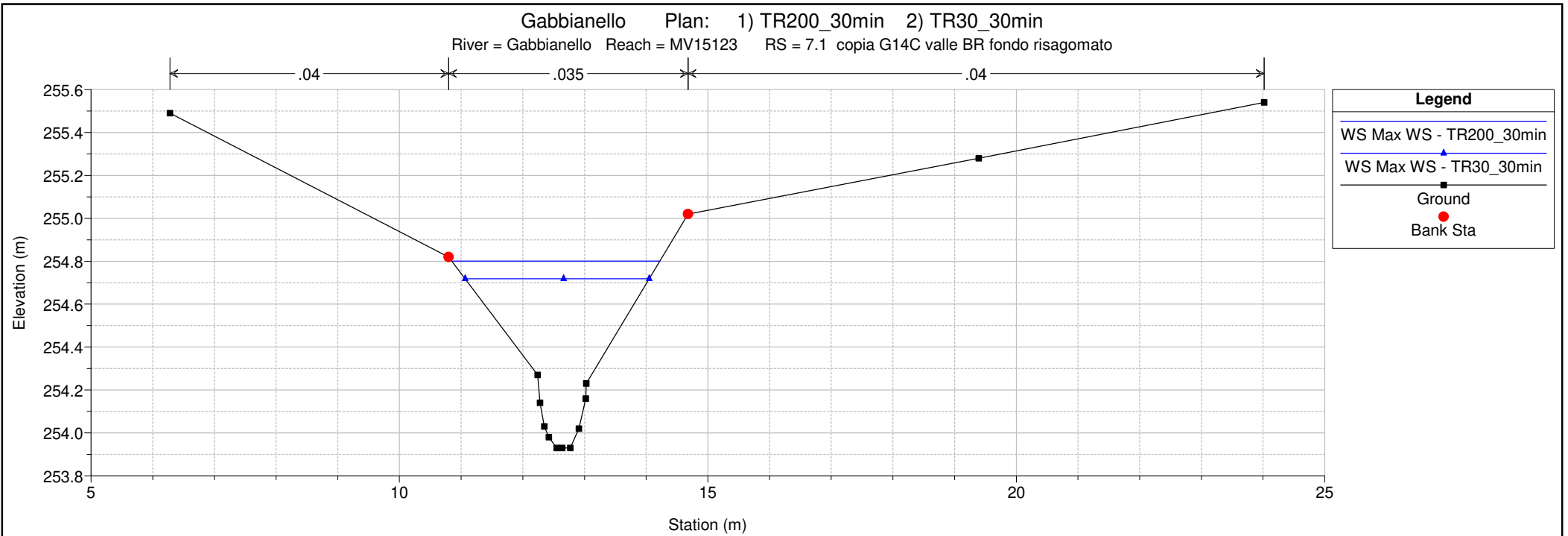


Gabbianello Plan: 1) TR200_30min 2) TR30_30min

River = Gabbianello Reach = MV15123 RS = 8.1 copia G14A monte BR

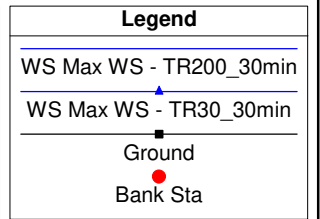
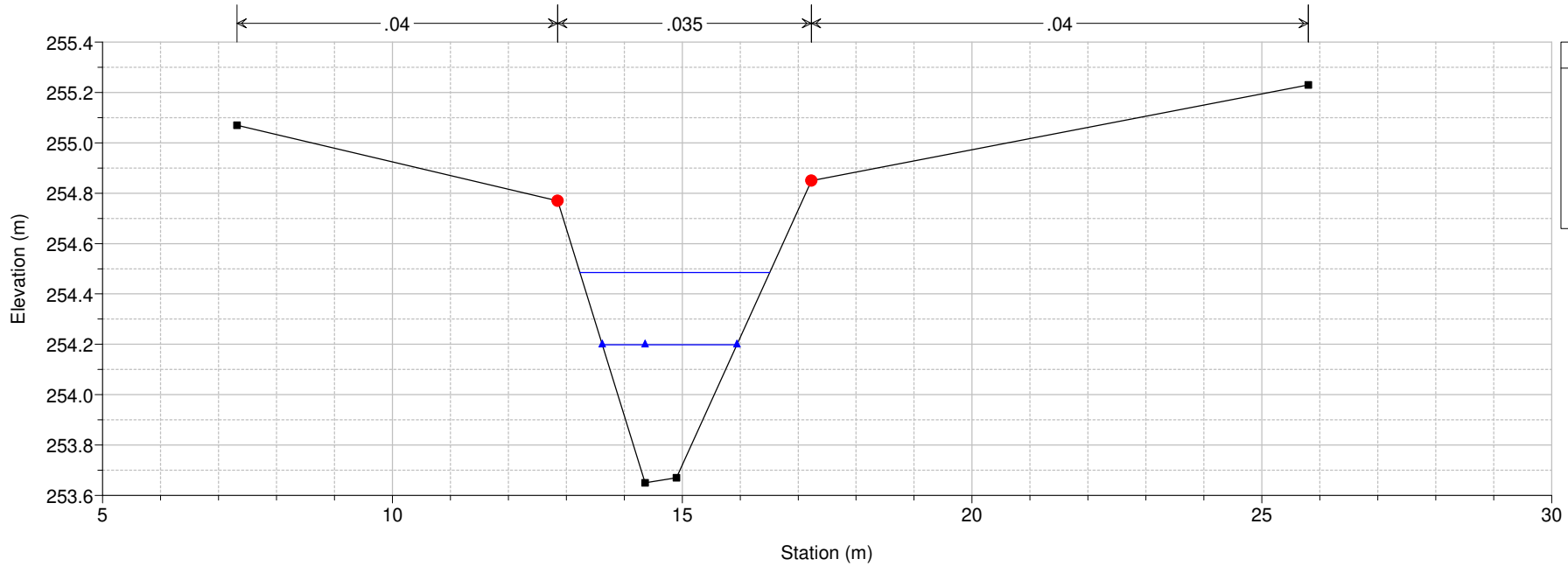






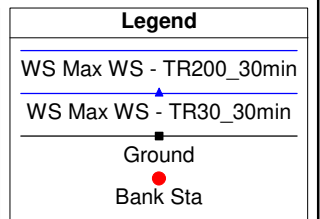
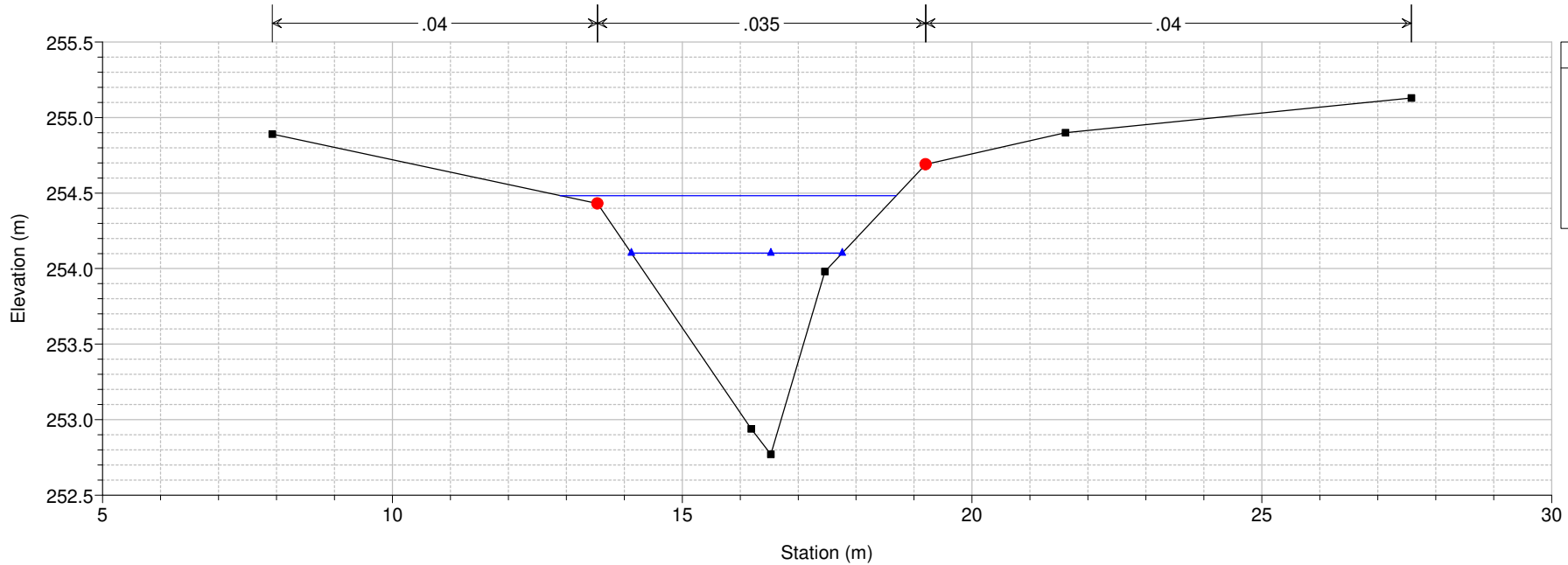
Gabbianello Plan: 1) TR200_30min 2) TR30_30min

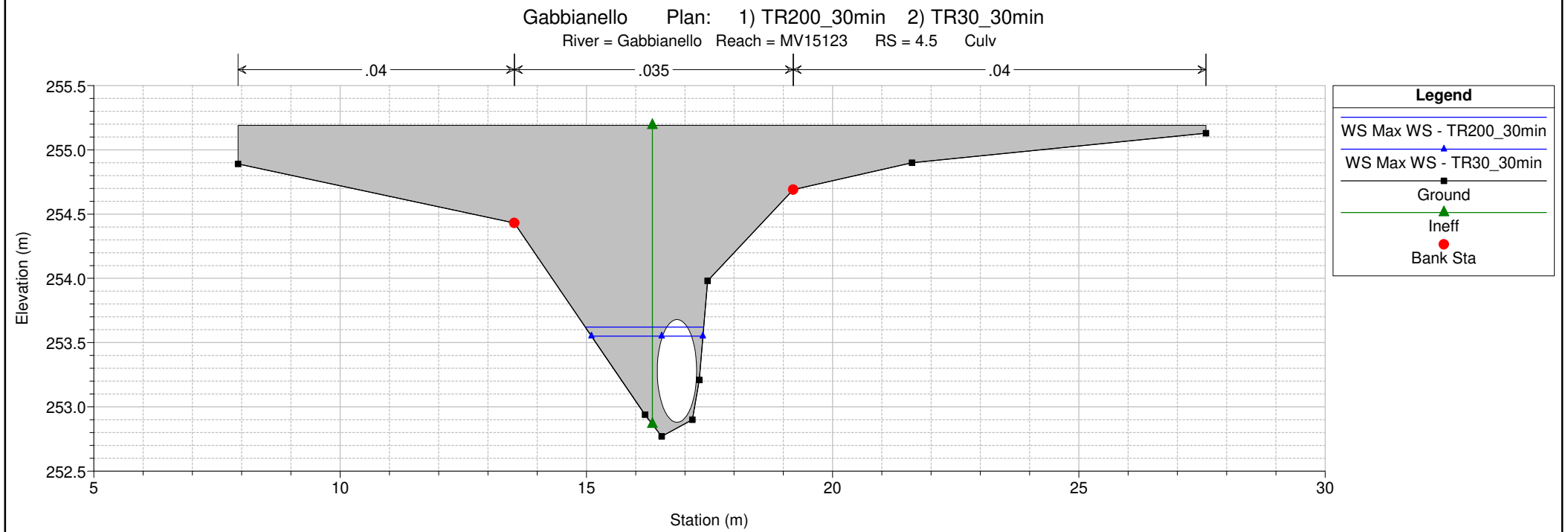
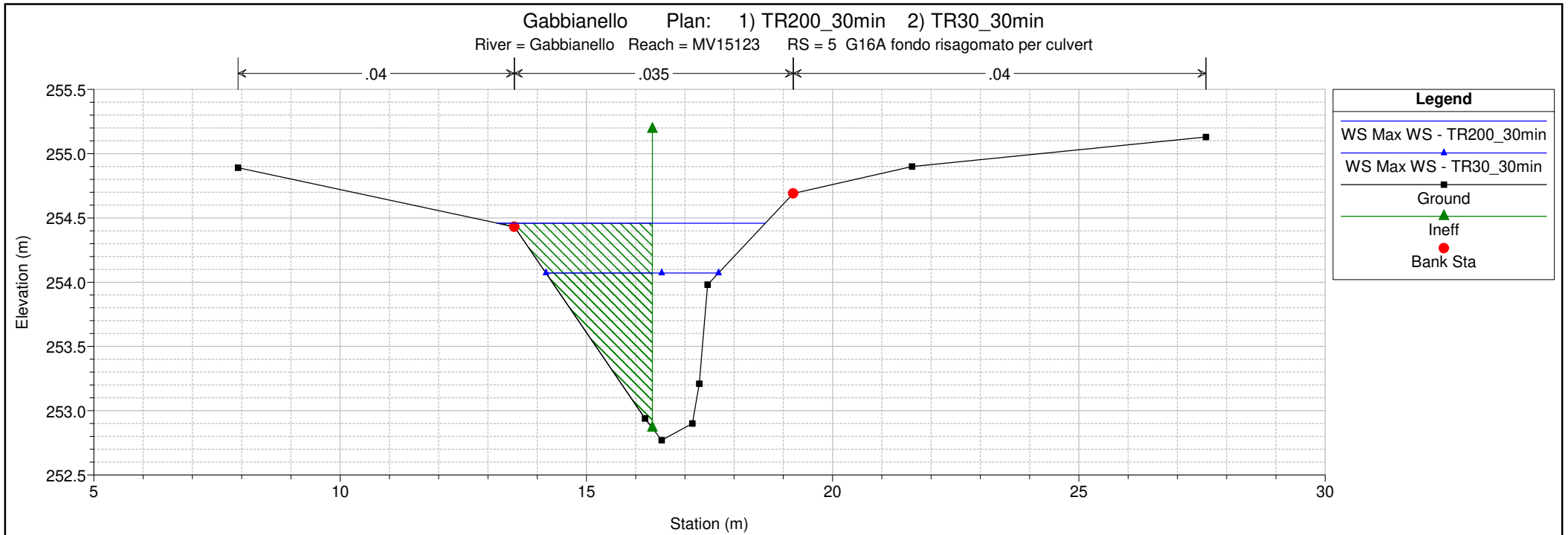
River = Gabbianello Reach = MV15123 RS = 6 G15



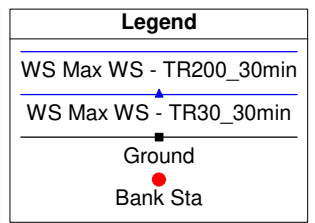
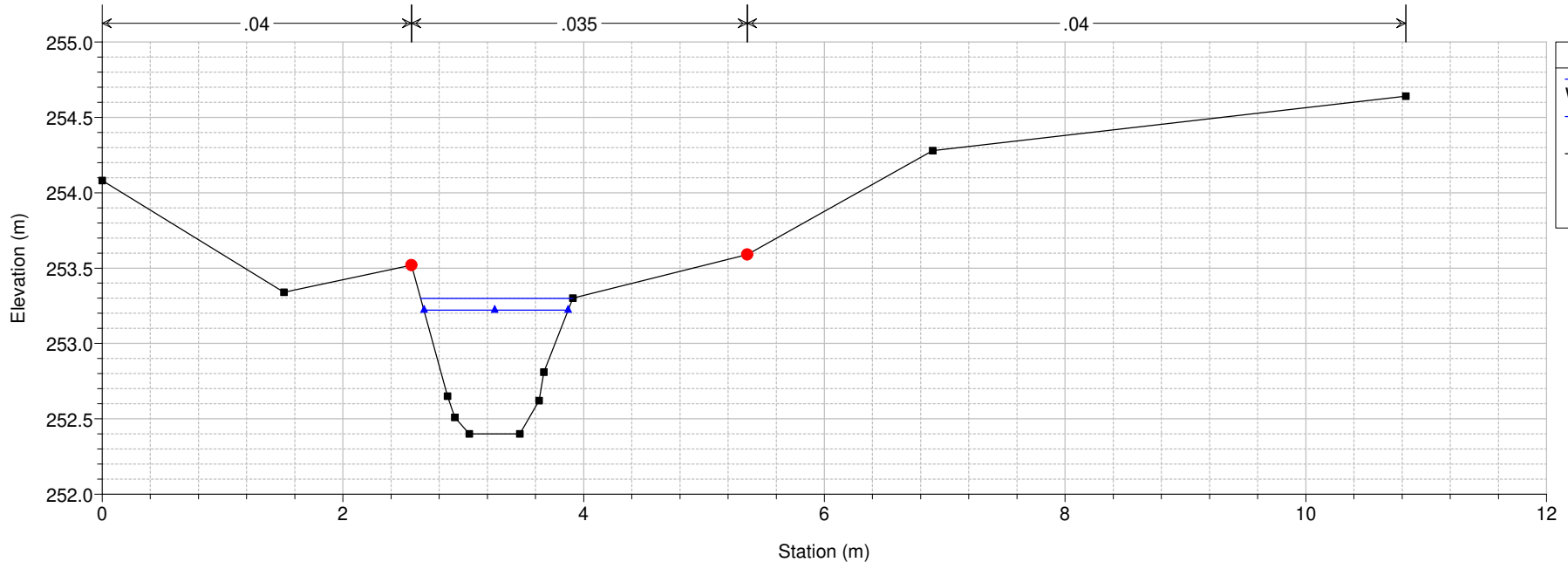
Gabbianello Plan: 1) TR200_30min 2) TR30_30min

River = Gabbianello Reach = MV15123 RS = 5.1 copia G16A monte BR

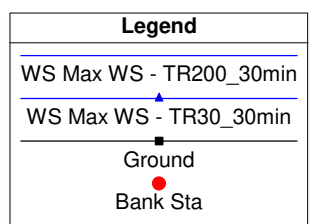
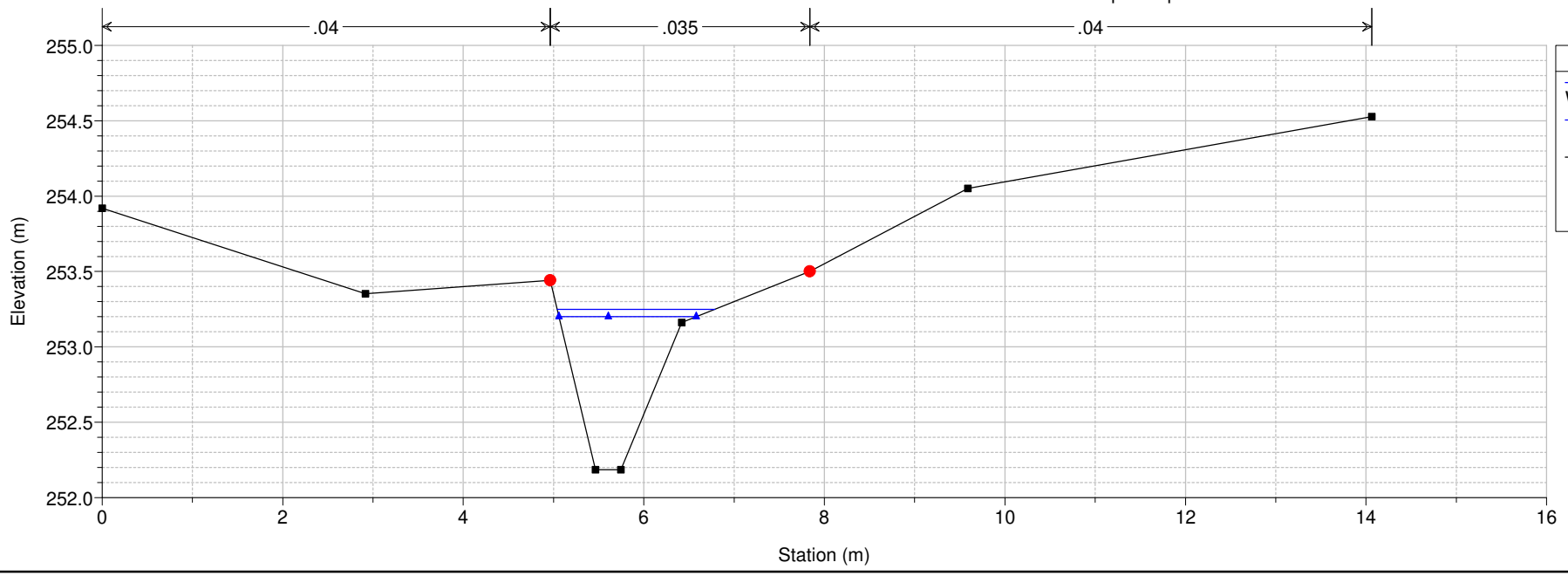




Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 River = Gabbianello Reach = MV15123 RS = 4 G16B fondo risagomato per culvert



Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 River = Gabbianello Reach = MV15123 RS = 3.72 interpolata per J



Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15123	9	Max WS	TR200_30min	1.80	254.65	255.51	255.17	255.52	0.000496	0.49	5.48	16.01	0.19
MV15123	9	Max WS	TR200_45min	1.53	254.65	255.48	255.13	255.49	0.000448	0.45	5.03	15.61	0.18
MV15123	9	Max WS	TR200_1H	1.30	254.65	255.42	255.09	255.43	0.000552	0.47	4.08	14.74	0.19
MV15123	9	Max WS	TR200_2H	0.88	254.65	255.13	255.01	255.17	0.004791	0.89	1.08	5.65	0.51
MV15123	9	Max WS	TR30_30min	1.24	254.65	255.37	255.08	255.39	0.000757	0.52	3.44	13.63	0.22
MV15123	9	Max WS	TR30_45min	1.09	254.65	255.26	255.05	255.28	0.001701	0.67	2.12	9.98	0.32
MV15123	9	Max WS	TR30_1H	0.96	254.65	255.17	255.03	255.20	0.003483	0.83	1.34	7.01	0.44
MV15123	9	Max WS	TR30_2H	0.64	254.65	255.02	254.96	255.07	0.010240	1.03	0.62	2.83	0.70
MV15123	8.99			Lat Struct									
MV15123	8.98			Lat Struct									
MV15123	8.1	Max WS	TR200_30min	1.70	254.22	255.50	254.85	255.51	0.000478	0.50	4.47	11.22	0.17
MV15123	8.1	Max WS	TR200_45min	1.48	254.22	255.47	254.81	255.48	0.000421	0.46	4.17	10.66	0.15
MV15123	8.1	Max WS	TR200_1H	1.30	254.22	255.41	254.78	255.42	0.000458	0.46	3.53	9.39	0.16
MV15123	8.1	Max WS	TR200_2H	0.88	254.22	255.08	254.68	255.10	0.001430	0.61	1.53	3.85	0.27
MV15123	8.1	Max WS	TR30_30min	1.24	254.22	255.36	254.77	255.37	0.000548	0.48	3.10	8.44	0.17
MV15123	8.1	Max WS	TR30_45min	1.09	254.22	255.24	254.73	255.25	0.000849	0.54	2.23	6.03	0.21
MV15123	8.1	Max WS	TR30_1H	0.96	254.22	255.13	254.70	255.15	0.001187	0.58	1.75	4.02	0.24
MV15123	8.1	Max WS	TR30_2H	0.64	254.22	254.89	254.62	254.91	0.002409	0.67	0.95	2.33	0.34
MV15123	8	Max WS	TR200_30min	1.70	254.12	255.50		255.51	0.000453	0.49	4.57	11.22	0.16
MV15123	8	Max WS	TR200_45min	1.48	254.12	255.47		255.48	0.000398	0.45	4.27	10.67	0.15
MV15123	8	Max WS	TR200_1H	1.30	254.12	255.41		255.42	0.000428	0.45	3.63	9.40	0.15
MV15123	8	Max WS	TR200_2H	0.88	254.12	255.08		255.10	0.001213	0.57	1.63	3.85	0.24
MV15123	8	Max WS	TR30_30min	1.24	254.12	255.36		255.37	0.000507	0.47	3.20	8.45	0.16
MV15123	8	Max WS	TR30_45min	1.09	254.12	255.24		255.25	0.000761	0.52	2.33	6.05	0.19
MV15123	8	Max WS	TR30_1H	0.96	254.12	255.13		255.15	0.001029	0.55	1.85	4.03	0.22
MV15123	8	Max WS	TR30_2H	0.64	254.12	254.89		254.91	0.001839	0.61	1.06	2.34	0.29
MV15123	7.5			Culvert									
MV15123	7.1	Max WS	TR200_30min	1.70	253.93	254.80	254.67	254.88	0.008273	1.27	1.34	3.37	0.64
MV15123	7.1	Max WS	TR200_45min	1.48	253.93	254.76	254.63	254.84	0.008132	1.22	1.22	3.19	0.63
MV15123	7.1	Max WS	TR200_1H	1.30	253.93	254.73	254.59	254.80	0.007900	1.17	1.11	3.04	0.62
MV15123	7.1	Max WS	TR200_2H	0.88	253.93	254.65	254.50	254.70	0.006806	1.01	0.88	2.65	0.56
MV15123	7.1	Max WS	TR30_30min	1.24	253.93	254.72	254.58	254.79	0.007817	1.15	1.08	2.98	0.61
MV15123	7.1	Max WS	TR30_45min	1.09	253.93	254.69	254.55	254.75	0.007519	1.10	0.99	2.85	0.59
MV15123	7.1	Max WS	TR30_1H	0.96	253.93	254.66	254.52	254.72	0.007221	1.05	0.91	2.71	0.58
MV15123	7.1	Max WS	TR30_2H	0.64	253.93	254.58	254.43	254.62	0.006198	0.90	0.71	2.33	0.52
MV15123	7.09			Lat Struct									
MV15123	7.08			Lat Struct									
MV15123	7	Max WS	TR200_30min	1.70	254.11	254.79	254.72	254.90	0.011837	1.47	1.16	3.31	0.79
MV15123	7	Max WS	TR200_45min	1.48	254.11	254.75	254.69	254.85	0.012224	1.43	1.03	3.13	0.80
MV15123	7	Max WS	TR200_1H	1.30	254.11	254.71	254.66	254.81	0.012406	1.39	0.93	2.97	0.79
MV15123	7	Max WS	TR200_2H	0.88	254.11	254.63	254.58	254.71	0.012246	1.26	0.70	2.58	0.77
MV15123	7	Max WS	TR30_30min	1.24	254.11	254.70	254.65	254.80	0.012488	1.38	0.90	2.91	0.80
MV15123	7	Max WS	TR30_45min	1.09	254.11	254.67	254.62	254.77	0.012571	1.34	0.81	2.78	0.79
MV15123	7	Max WS	TR30_1H	0.96	254.11	254.64	254.59	254.73	0.012695	1.30	0.73	2.64	0.79
MV15123	7	Max WS	TR30_2H	0.64	254.11	254.56	254.52	254.64	0.013007	1.19	0.54	2.26	0.78
MV15123	6	Max WS	TR200_30min	1.64	253.65	254.49	254.24	254.54	0.004265	1.05	1.57	3.28	0.48
MV15123	6	Max WS	TR200_45min	1.47	253.65	254.33	254.21	254.42	0.008748	1.33	1.10	2.76	0.67
MV15123	6	Max WS	TR200_1H	1.29	253.65	254.23	254.18	254.35	0.014399	1.55	0.83	2.41	0.84
MV15123	6	Max WS	TR200_2H	0.87	253.65	254.40	254.09	254.42	0.002005	0.67	1.30	2.99	0.33
MV15123	6	Max WS	TR30_30min	1.23	253.65	254.20	254.17	254.33	0.016364	1.61	0.77	2.32	0.89
MV15123	6	Max WS	TR30_45min	1.09	253.65	254.14	254.14	254.29	0.020036	1.68	0.65	2.14	0.98
MV15123	6	Max WS	TR30_1H	0.96	253.65	254.10	254.11	254.25	0.022521	1.70	0.56	2.01	1.02
MV15123	6	Max WS	TR30_2H	0.63	253.65	254.02	254.02	254.14	0.023348	1.54	0.41	1.73	1.02
MV15123	5.1	Max WS	TR200_30min	1.64	252.77	254.48	253.57	254.49	0.000374	0.41	4.03	5.80	0.15
MV15123	5.1	Max WS	TR200_45min	1.46	252.77	254.31	253.53	254.32	0.000564	0.46	3.15	4.50	0.18
MV15123	5.1	Max WS	TR200_1H	1.29	252.77	254.15	253.49	254.17	0.000775	0.51	2.52	3.86	0.20
MV15123	5.1	Max WS	TR200_2H	1.47	252.77	254.38	253.53	254.39	0.000443	0.42	3.48	4.80	0.16
MV15123	5.1	Max WS	TR30_30min	1.23	252.77	254.10	253.47	254.12	0.000858	0.53	2.32	3.64	0.21
MV15123	5.1	Max WS	TR30_45min	1.09	252.77	253.99	253.44	254.01	0.001042	0.56	1.94	3.16	0.23
MV15123	5.1	Max WS	TR30_1H	0.95	252.77	253.89	253.41	253.90	0.001266	0.59	1.63	2.88	0.25
MV15123	5.1	Max WS	TR30_2H	0.84	252.77	253.83	253.37	253.85	0.001292	0.57	1.46	2.73	0.25
MV15123	5	Max WS	TR200_30min	1.64	252.77	254.46		254.50	0.001734	0.85	1.94	5.45	0.29
MV15123	5	Max WS	TR200_45min	1.46	252.77	254.28		254.32	0.002274	0.93	1.57	4.38	0.32
MV15123	5	Max WS	TR200_1H	1.29	252.77	254.12		254.17	0.002596	0.99	1.31	3.72	0.33
MV15123	5	Max WS	TR200_2H	1.54	252.77	254.35		254.39	0.002068	0.90	1.70	4.68	0.31
MV15123	5	Max WS	TR30_30min	1.23	252.77	254.07		254.12	0.002632	0.99	1.24	3.50	0.33
MV15123	5	Max WS	TR30_45min	1.09	252.77	253.96		254.01	0.002561	0.99	1.10	3.08	0.32
MV15123	5	Max WS	TR30_1H	0.95	252.77	253.86		253.91	0.002603	0.96	0.99	2.88	0.32
MV15123	5	Max WS	TR30_2H	0.87	252.77	253.80		253.84	0.002603	0.94	0.93	2.76	0.32
MV15123	4.5			Culvert									
MV15123	4	Max WS	TR200_30min	1.64	252.40	253.30	253.21	253.51	0.022459	2.05	0.80	1.26	0.82
MV15123	4	Max WS	TR200_45min	1.46	252.40	253.27	253.16	253.46	0.019725	1.90	0.77	1.24	0.77
MV15123	4	Max WS	TR200_1H	1.29	252.40	253.25	253.10	253.41	0.016995	1.74	0.74	1.22	0.71
MV15123	4	Max WS	TR200_2H	1.54	252.40	253.29	253.17	253.48	0.020001	1.93	0.80	1.26	0.77

HEC-RAS River: Gabbianello Reach: MV15123 Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
MV15123	4	Max WS	TR30_30min	1.21	252.40	253.22	253.08	253.37	0.017011	1.72	0.71	1.20	0.71
MV15123	4	Max WS	TR30_45min	1.08	252.40	253.21	253.04	253.33	0.014150	1.56	0.69	1.19	0.65
MV15123	4	Max WS	TR30_1H	0.95	252.40	253.19	252.99	253.29	0.011727	1.41	0.67	1.18	0.59
MV15123	4	Max WS	TR30_2H	0.84	252.40	253.18	252.95	253.26	0.009815	1.28	0.66	1.16	0.54
MV15123	3.72	Max WS	TR200_30min	1.64	252.19	253.25	253.09	253.41	0.018087	1.76	0.93	1.75	0.77
MV15123	3.72	Max WS	TR200_45min	1.46	252.19	253.24	253.04	253.37	0.014850	1.60	0.92	1.71	0.70
MV15123	3.72	Max WS	TR200_1H	0.89	252.19	253.24	252.86	253.29	0.005481	0.97	0.92	1.72	0.42
MV15123	3.72	Max WS	TR200_2H	1.52	252.19	253.26	253.06	253.39	0.015016	1.61	0.95	1.79	0.71
MV15123	3.72	Max WS	TR30_30min	1.16	252.19	253.20	252.95	253.30	0.010846	1.37	0.85	1.52	0.58
MV15123	3.72	Max WS	TR30_45min	1.07	252.19	253.20	252.92	253.28	0.009260	1.26	0.85	1.51	0.54
MV15123	3.72	Max WS	TR30_1H	0.94	252.19	253.19	252.87	253.25	0.007418	1.13	0.83	1.46	0.48
MV15123	3.72	Max WS	TR30_2H	0.82	252.19	253.18	252.83	253.23	0.005767	1.00	0.82	1.41	0.42

Reach	River Sta	Profile	Plan	Q US (m3/s)	Q Leaving Total (m3/s)	Q DS (m3/s)	Q Weir (m3/s)	Q Gates (m3/s)	Wr Top Width (m)	Weir Max Depth (m)	Weir Avg Depth (m)	Min El Weir Flow (m)	E.G. US. (m)	W.S. US. (m)	E.G. DS (m)	W.S. DS (m)
MV15123	8.99	Max WS	TR200_30min	1.80	0.00	1.70	0.00					255.54	255.52	255.51	255.51	255.50
MV15123	8.99	Max WS	TR200_45min	1.53	0.00	1.48	0.00					255.54	255.49	255.48	255.48	255.47
MV15123	8.99	Max WS	TR200_1H	1.30	0.00	1.30	0.00					255.54	255.43	255.42	255.42	255.41
MV15123	8.99	Max WS	TR200_2H	0.88	0.00	0.88	0.00					255.54	255.17	255.13	255.10	255.08
MV15123	8.99	Max WS	TR30_30min	1.24	0.00	1.24	0.00					255.54	255.39	255.37	255.37	255.36
MV15123	8.99	Max WS	TR30_45min	1.09	0.00	1.09	0.00					255.54	255.28	255.26	255.25	255.24
MV15123	8.99	Max WS	TR30_1H	0.96	0.00	0.96	0.00					255.54	255.20	255.17	255.15	255.13
MV15123	8.99	Max WS	TR30_2H	0.64	0.00	0.64	0.00					255.54	255.07	255.02	254.91	254.89
MV15123	8.98	Max WS	TR200_30min	1.80	0.09	1.70	0.09		21.88	0.11	0.06	255.40	255.52	255.51	255.51	255.50
MV15123	8.98	Max WS	TR200_45min	1.53	0.04	1.48	0.04		16.37	0.08	0.04	255.40	255.49	255.48	255.48	255.47
MV15123	8.98	Max WS	TR200_1H	1.30	0.00	1.30	0.00		3.92	0.02	0.01	255.40	255.43	255.42	255.42	255.41
MV15123	8.98	Max WS	TR200_2H	0.88	0.00	0.88	0.00					255.40	255.17	255.13	255.10	255.08
MV15123	8.98	Max WS	TR30_30min	1.24	0.00	1.24	0.00					255.40	255.39	255.37	255.37	255.36
MV15123	8.98	Max WS	TR30_45min	1.09	0.00	1.09	0.00					255.40	255.28	255.26	255.25	255.24
MV15123	8.98	Max WS	TR30_1H	0.96	0.00	0.96	0.00					255.40	255.20	255.17	255.15	255.13
MV15123	8.98	Max WS	TR30_2H	0.64	0.00	0.64	0.00					255.40	255.07	255.02	254.91	254.89
MV15123	7.09	Max WS	TR200_30min	1.70	0.00	1.64	0.00					255.13	254.88	254.80	254.50	254.46
MV15123	7.09	Max WS	TR200_45min	1.48	0.00	1.46	0.00					255.13	254.84	254.76	254.32	254.28
MV15123	7.09	Max WS	TR200_1H	1.30	0.00	1.29	0.00					255.13	254.80	254.73	254.17	254.12
MV15123	7.09	Max WS	TR200_2H	0.88	0.00	1.54	0.00					255.13	254.70	254.65	254.39	254.35
MV15123	7.09	Max WS	TR30_30min	1.24	0.00	1.23	0.00					255.13	254.79	254.72	254.12	254.07
MV15123	7.09	Max WS	TR30_45min	1.09	0.00	1.09	0.00					255.13	254.75	254.69	254.01	253.96
MV15123	7.09	Max WS	TR30_1H	0.96	0.00	0.95	0.00					255.13	254.72	254.66	253.91	253.86
MV15123	7.09	Max WS	TR30_2H	0.64	0.00	0.87	0.00					255.13	254.62	254.58	253.84	253.80
MV15123	7.08	Max WS	TR200_30min	1.70	-0.64	1.64	-0.64		34.79	0.28	0.15	254.89	254.88	254.80	254.50	254.46
MV15123	7.08	Max WS	TR200_45min	1.48	-0.75	1.46	-0.75		36.81	0.30	0.16	254.89	254.84	254.76	254.32	254.28
MV15123	7.08	Max WS	TR200_1H	1.30	-0.79	1.29	-0.79		40.12	0.30	0.15	254.89	254.80	254.73	254.17	254.12
MV15123	7.08	Max WS	TR200_2H	0.88	-0.73	1.54	-0.73		36.43	0.29	0.16	254.89	254.70	254.65	254.39	254.35
MV15123	7.08	Max WS	TR30_30min	1.24	-0.36	1.23	-0.36		31.03	0.22	0.11	254.89	254.79	254.72	254.12	254.07
MV15123	7.08	Max WS	TR30_45min	1.09	-0.47	1.09	-0.47		31.96	0.24	0.13	254.89	254.75	254.69	254.01	253.96
MV15123	7.08	Max WS	TR30_1H	0.96	-0.52	0.95	-0.52		32.78	0.25	0.14	254.89	254.72	254.66	253.91	253.86
MV15123	7.08	Max WS	TR30_2H	0.64	-0.53	0.87	-0.53		32.88	0.26	0.14	254.89	254.62	254.58	253.84	253.80

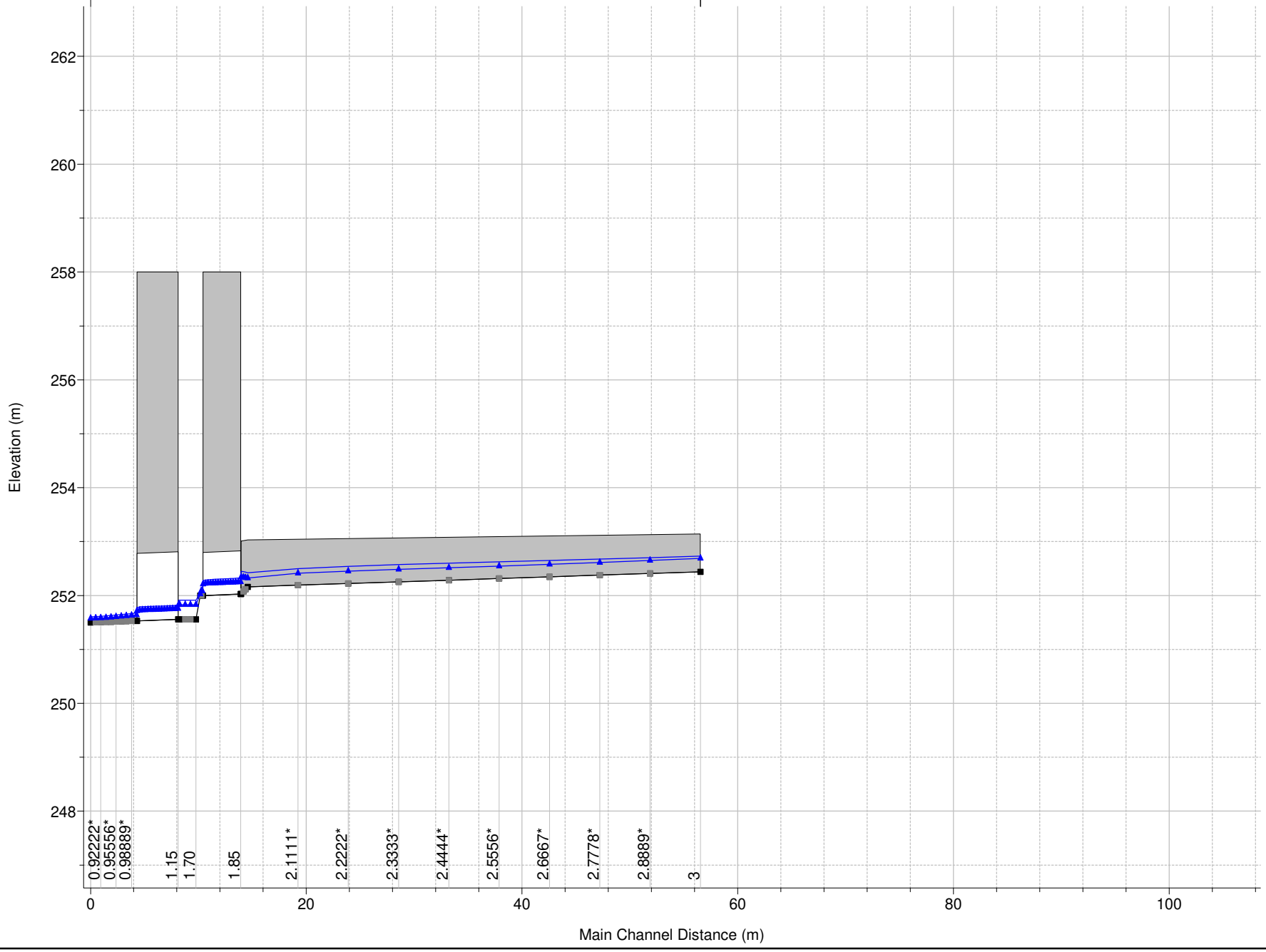
FOSSO

MV15123_bis

Gabbianello Plan: 1) TR200_30min 2) TR30_30min

Strutture LateralI Destra Idraulica

Gabbianello MV15123_bis



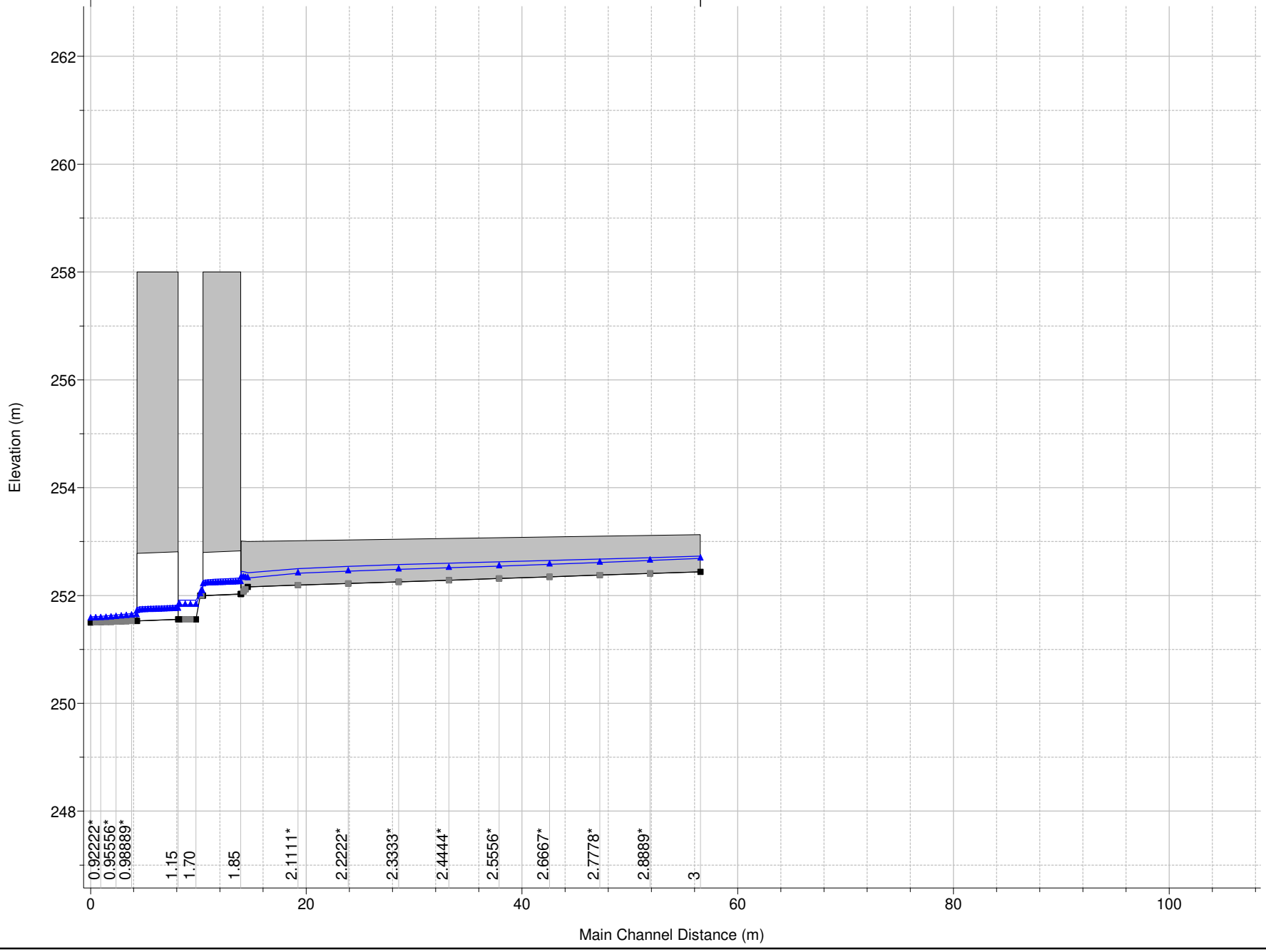
Legend

- WS Max WS - TR200_30min
- WS Max WS - TR30_30min
- Lat Struct
- Ground

1 cm Horiz. = 5 m 1 cm Vert. = 1 m

Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 Strutture Lateral Sinistra Idraulica

Gabbianello MV15123_bis

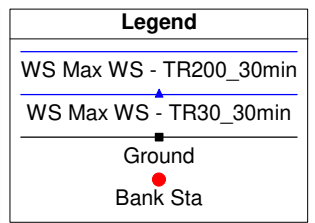
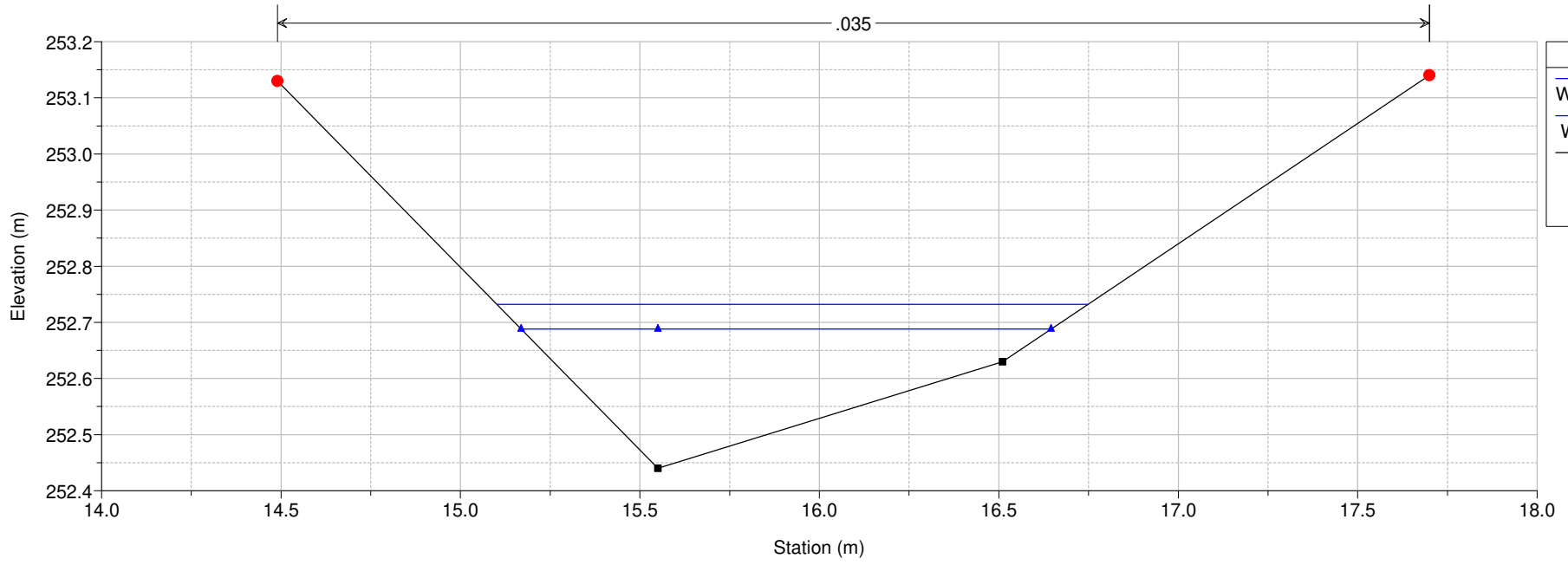


Legend

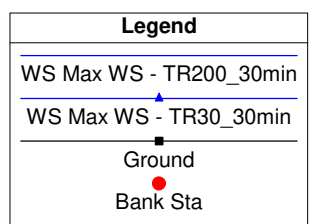
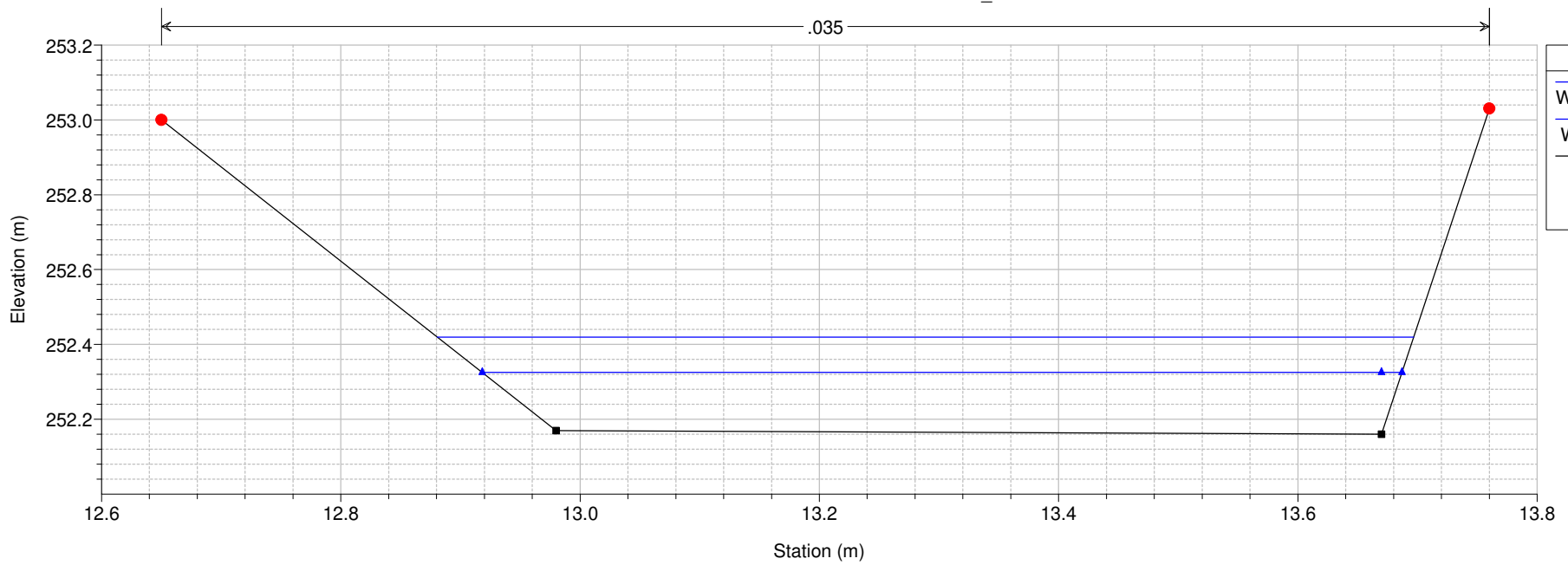
- WS Max WS - TR200_30min
- WS Max WS - TR30_30min
- Lat Struct
- Ground

1 cm Horiz. = 5 m 1 cm Vert. = 1 m

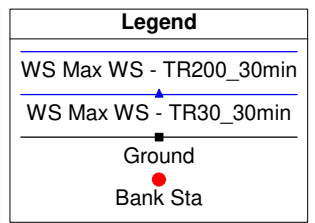
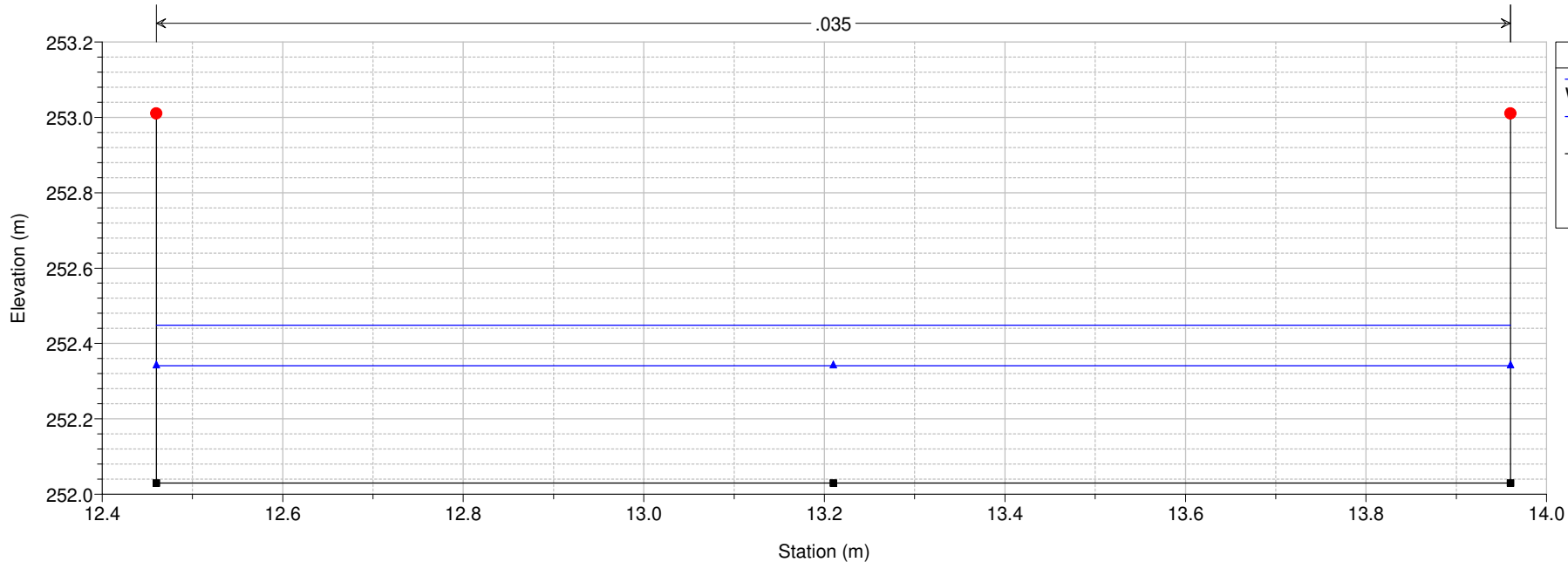
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 3 G17



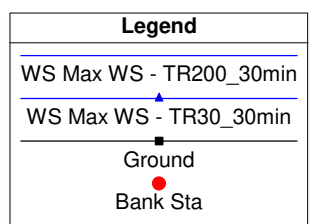
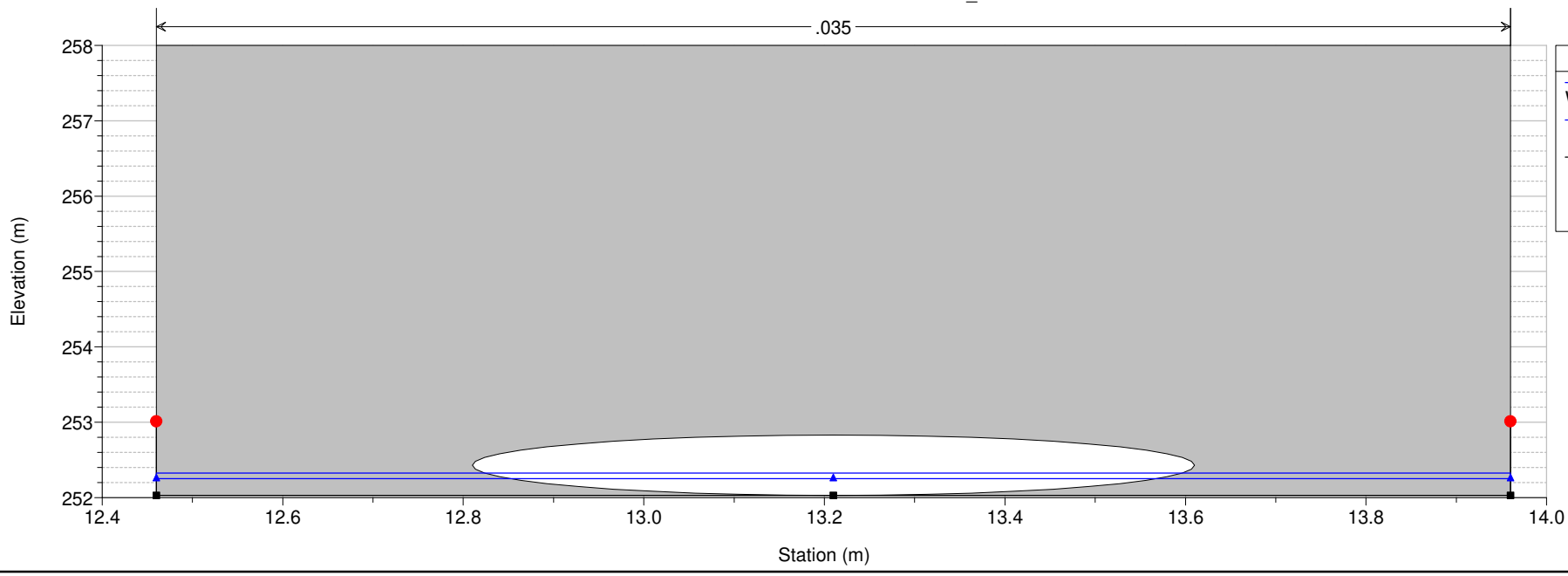
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 2 G18A



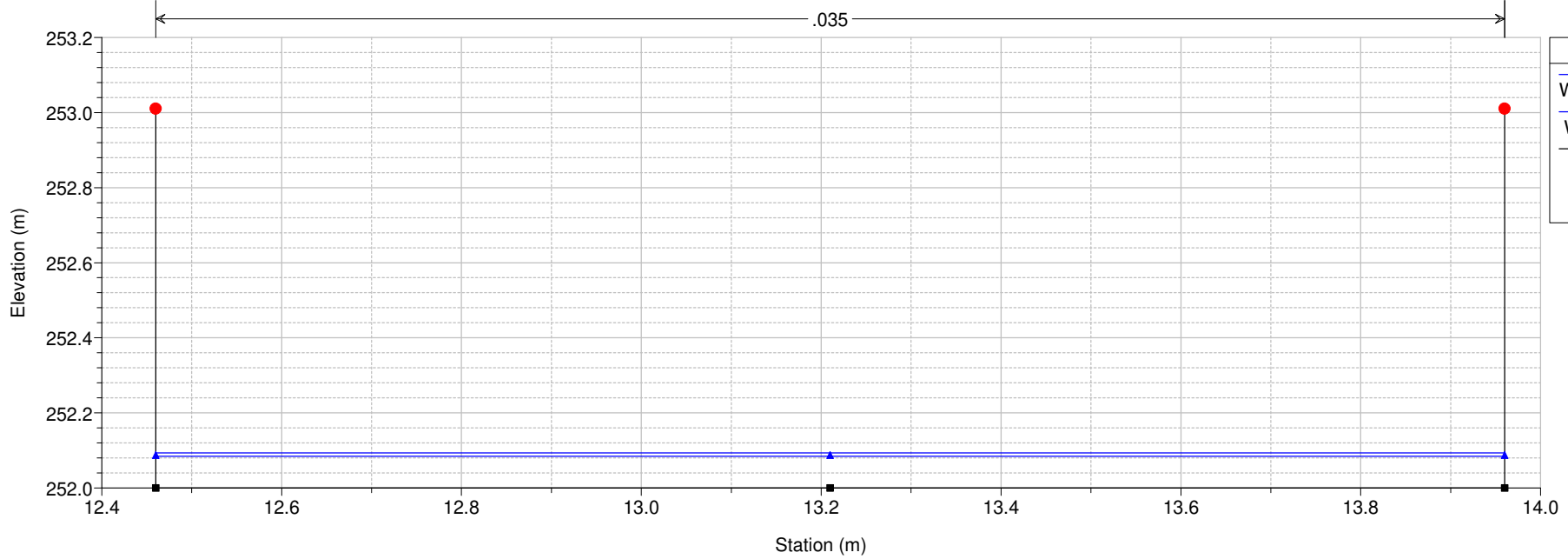
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 River = Gabbianello Reach = MV15123_bis RS = 1.9 copia G18A



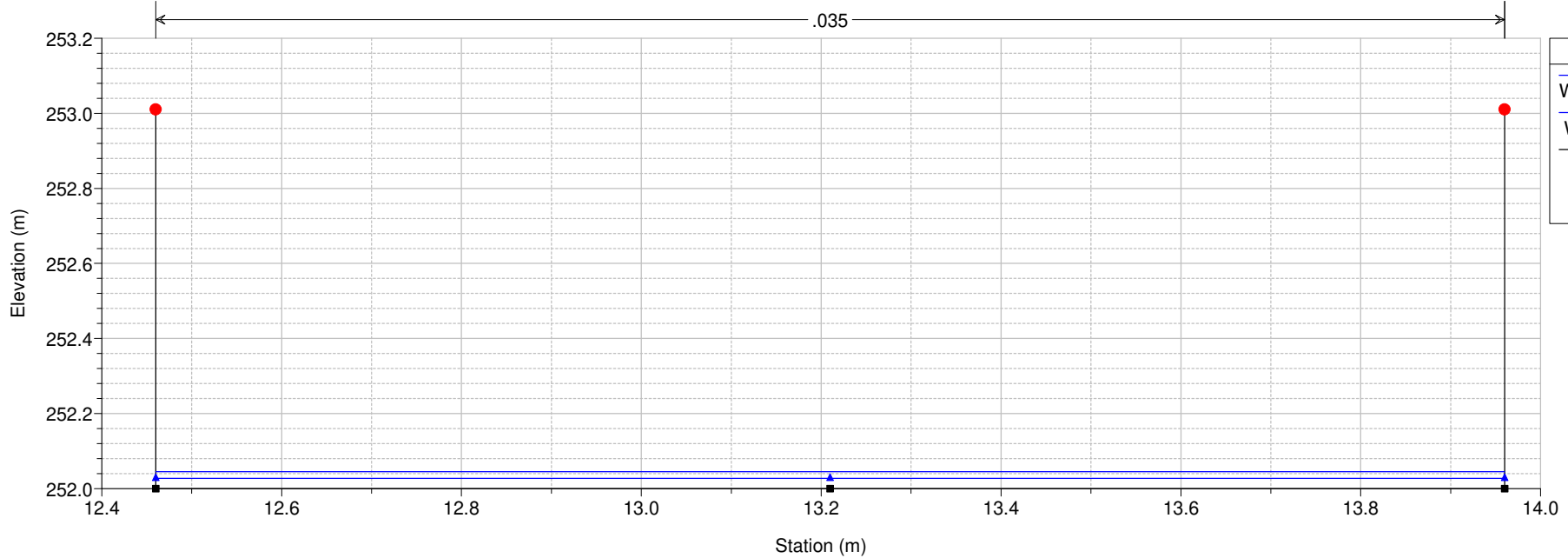
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
 River = Gabbianello Reach = MV15123_bis RS = 1.85 Culv



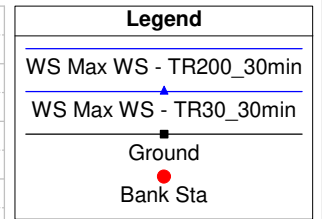
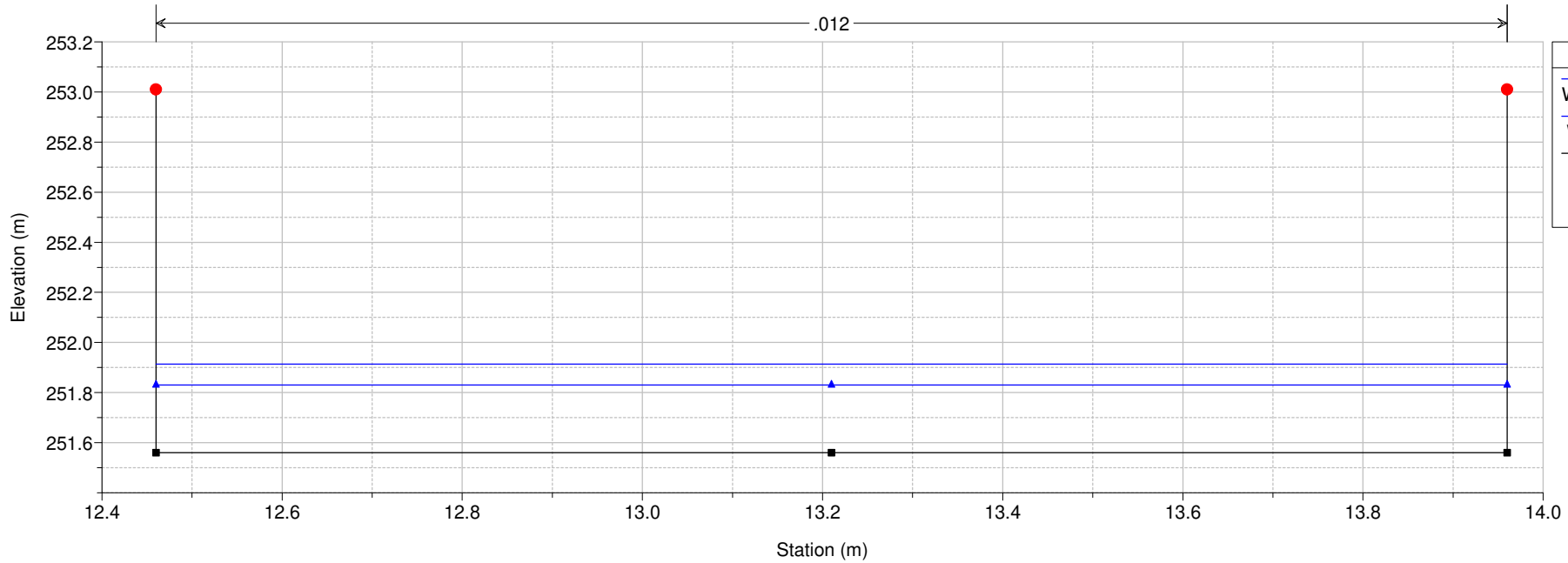
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.8 copia G18A sbocco D800



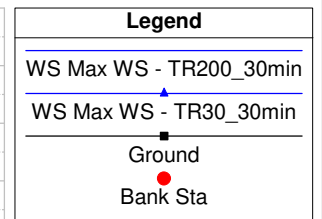
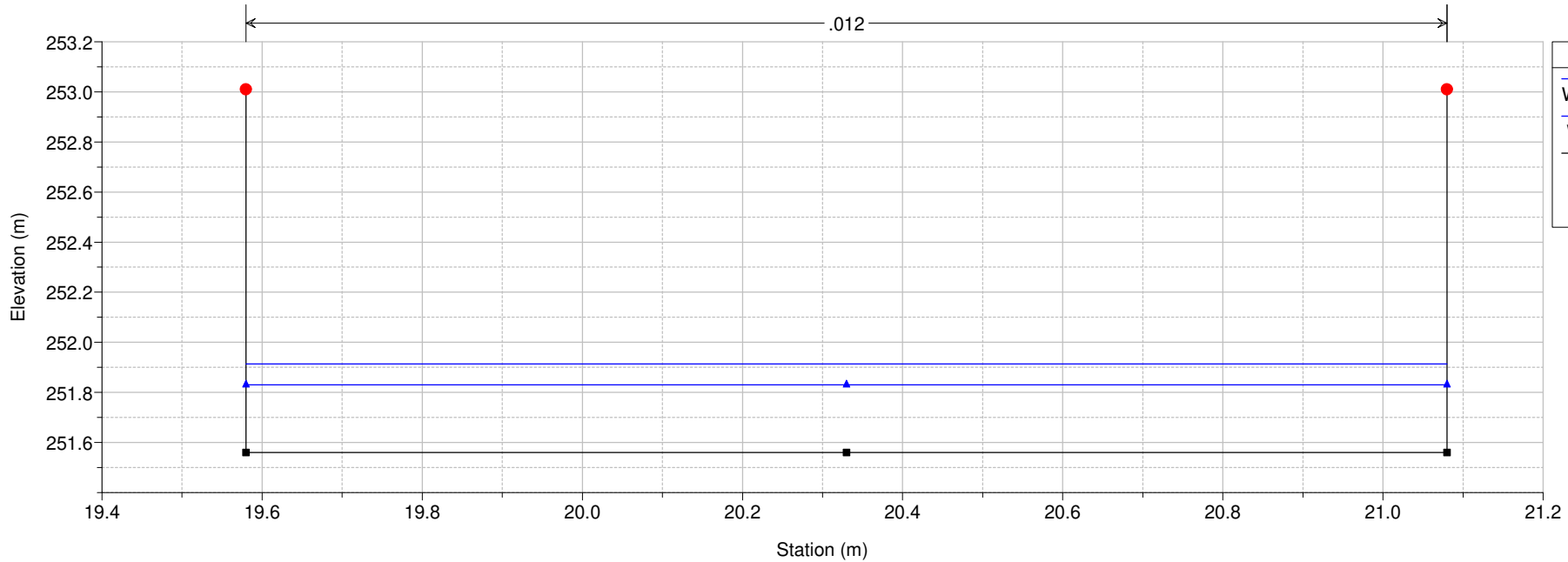
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.76



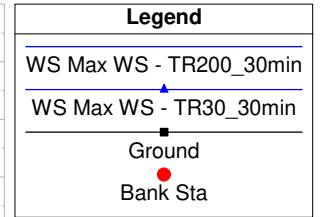
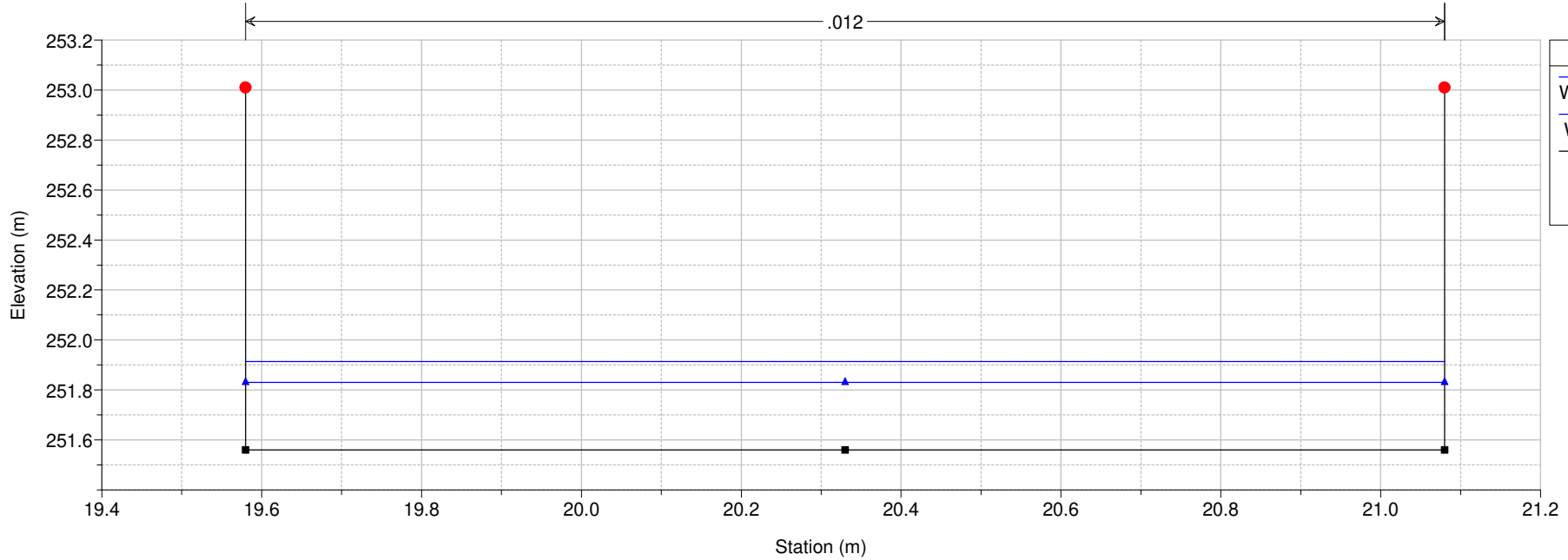
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.70 copia G18A sbocco D800



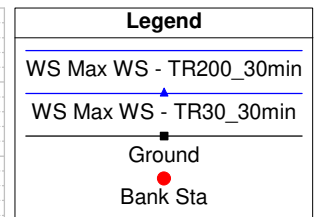
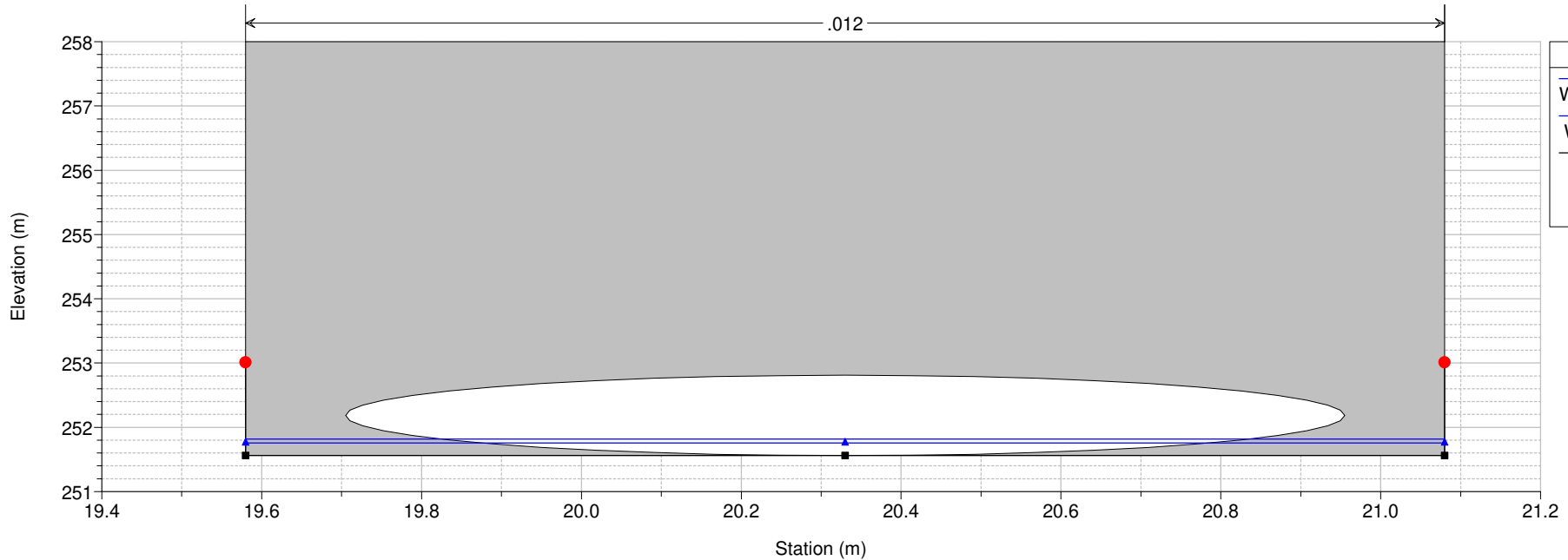
Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.30 copia G19 imbocco D1250



Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.2 copia G19 imbocco D1250

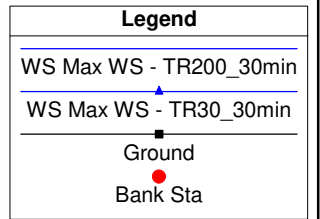
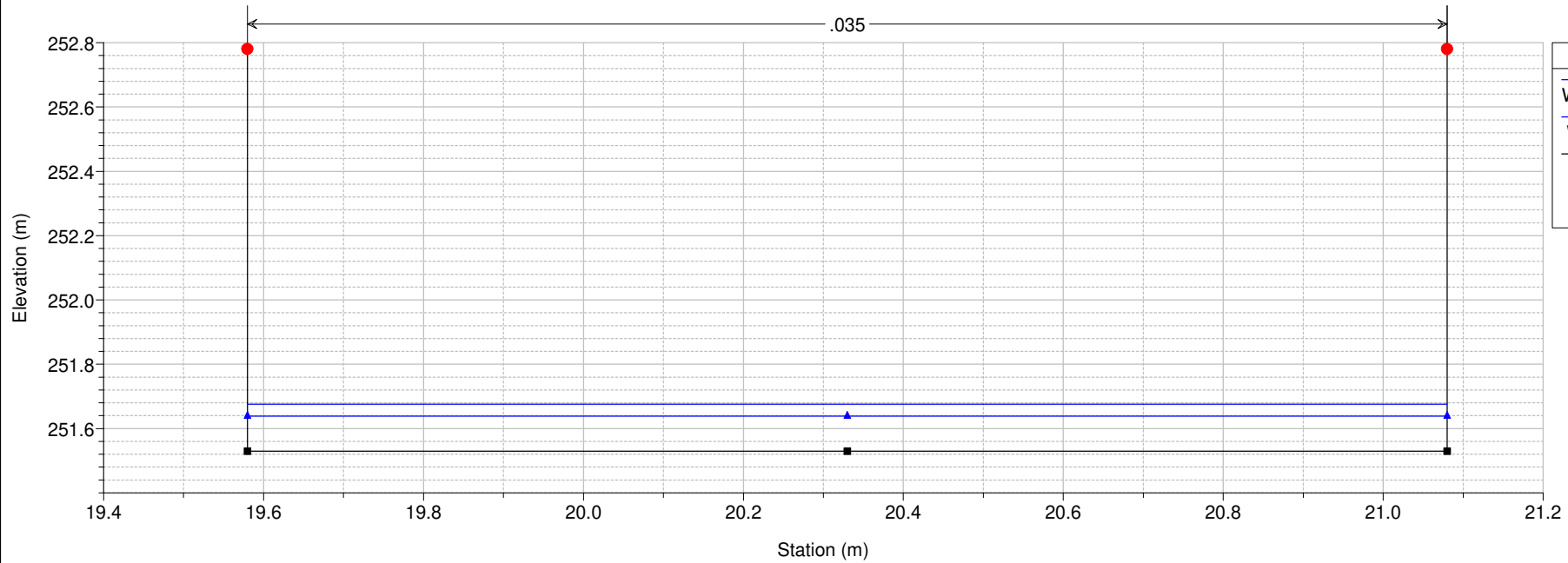


Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 1.15 Culv

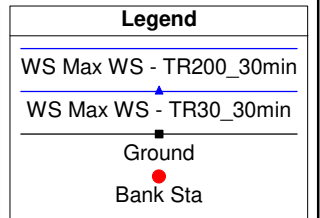
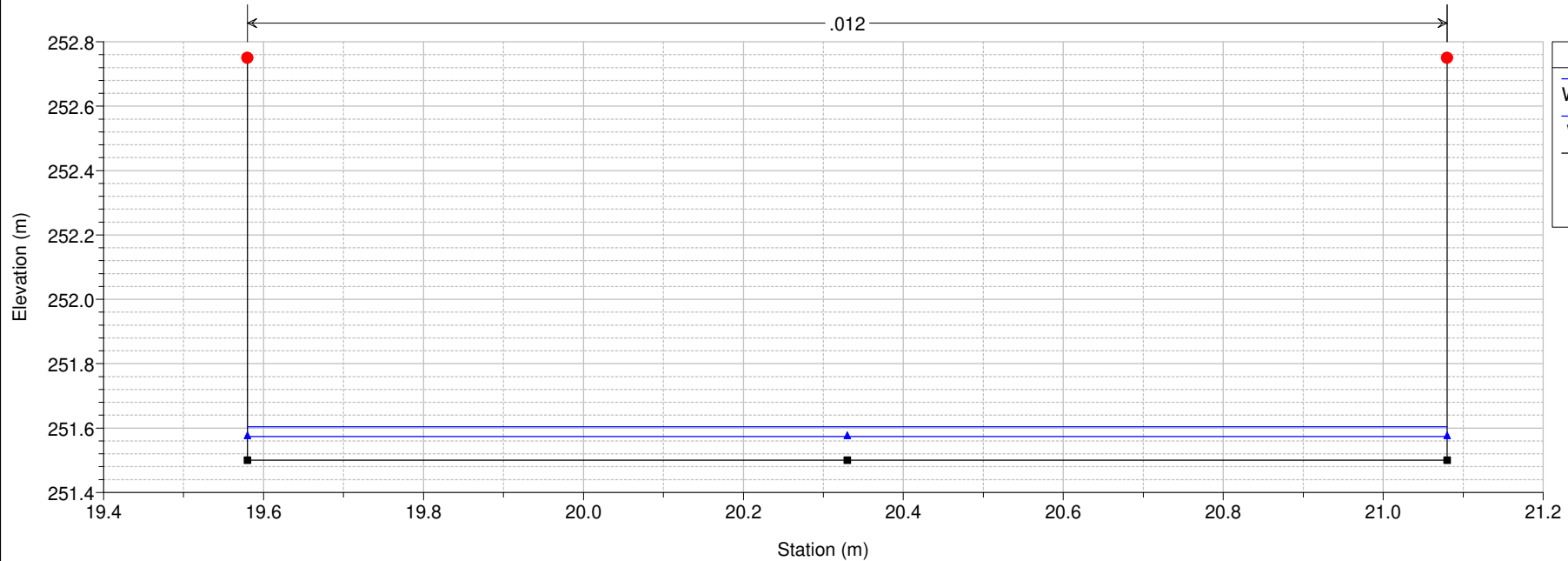


Gabbianello Plan: 1) TR200_30min 2) TR30_30min

River = Gabbianello Reach = MV15123_bis RS = 1 G19 - sbocco



Gabbianello Plan: 1) TR200_30min 2) TR30_30min
River = Gabbianello Reach = MV15123_bis RS = 0.9 copia G19 condizione di valle



River	Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Gabbianello	MV15123_bis	3	Max WS	TR200_30min	0.10	252.44	252.73	252.62	252.74	0.002154	0.38	0.27	1.65	0.30
Gabbianello	MV15123_bis	3	Max WS	TR200_45min	0.10	252.44	252.72	252.62	252.73	0.002476	0.39	0.25	1.62	0.32
Gabbianello	MV15123_bis	3	Max WS	TR200_1H	0.10	252.44	252.73	252.62	252.73	0.002384	0.39	0.26	1.62	0.31
Gabbianello	MV15123_bis	3	Max WS	TR200_2H	0.10	252.44	252.75	252.62	252.75	0.001719	0.35	0.29	1.70	0.27
Gabbianello	MV15123_bis	3	Max WS	TR30_30min	0.10	252.44	252.69	252.62	252.70	0.004977	0.50	0.20	1.48	0.44
Gabbianello	MV15123_bis	3	Max WS	TR30_45min	0.10	252.44	252.69	252.62	252.70	0.005276	0.52	0.19	1.47	0.45
Gabbianello	MV15123_bis	3	Max WS	TR30_1H	0.10	252.44	252.68	252.62	252.69	0.005987	0.54	0.19	1.44	0.48
Gabbianello	MV15123_bis	3	Max WS	TR30_2H	0.10	252.44	252.67	252.62	252.69	0.006631	0.56	0.18	1.43	0.50
Gabbianello	MV15123_bis	2.99												
Gabbianello	MV15123_bis	2.98												
Gabbianello	MV15123_bis	2.8889*	Max WS	TR200_30min	0.15	252.41	252.70	252.61	252.72	0.004334	0.55	0.28	1.58	0.42
Gabbianello	MV15123_bis	2.8889*	Max WS	TR200_45min	0.15	252.41	252.69	252.61	252.71	0.004726	0.57	0.26	1.55	0.44
Gabbianello	MV15123_bis	2.8889*	Max WS	TR200_1H	0.15	252.41	252.70	252.61	252.71	0.004627	0.56	0.26	1.55	0.44
Gabbianello	MV15123_bis	2.8889*	Max WS	TR200_2H	0.16	252.41	252.72	252.61	252.73	0.003743	0.53	0.30	1.63	0.40
Gabbianello	MV15123_bis	2.8889*	Max WS	TR30_30min	0.12	252.41	252.65	252.59	252.67	0.007410	0.63	0.20	1.40	0.54
Gabbianello	MV15123_bis	2.8889*	Max WS	TR30_45min	0.12	252.41	252.65	252.59	252.67	0.007453	0.63	0.19	1.39	0.54
Gabbianello	MV15123_bis	2.8889*	Max WS	TR30_1H	0.12	252.41	252.64	252.59	252.66	0.007889	0.63	0.18	1.37	0.55
Gabbianello	MV15123_bis	2.8889*	Max WS	TR30_2H	0.11	252.41	252.64	252.59	252.66	0.008000	0.63	0.18	1.36	0.55
Gabbianello	MV15123_bis	2.7778*	Max WS	TR200_30min	0.18	252.38	252.67	252.58	252.69	0.005066	0.62	0.28	1.50	0.46
Gabbianello	MV15123_bis	2.7778*	Max WS	TR200_45min	0.17	252.38	252.66	252.58	252.68	0.005421	0.63	0.27	1.47	0.47
Gabbianello	MV15123_bis	2.7778*	Max WS	TR200_1H	0.17	252.38	252.67	252.58	252.69	0.005289	0.63	0.27	1.48	0.47
Gabbianello	MV15123_bis	2.7778*	Max WS	TR200_2H	0.19	252.38	252.69	252.59	252.71	0.004464	0.61	0.31	1.55	0.43
Gabbianello	MV15123_bis	2.7778*	Max WS	TR30_30min	0.13	252.38	252.61	252.56	252.63	0.007877	0.67	0.19	1.33	0.55
Gabbianello	MV15123_bis	2.7778*	Max WS	TR30_45min	0.13	252.38	252.61	252.56	252.63	0.007883	0.66	0.19	1.32	0.55
Gabbianello	MV15123_bis	2.7778*	Max WS	TR30_1H	0.12	252.38	252.60	252.55	252.62	0.008055	0.65	0.18	1.30	0.56
Gabbianello	MV15123_bis	2.7778*	Max WS	TR30_2H	0.11	252.38	252.60	252.55	252.62	0.007990	0.64	0.18	1.29	0.55
Gabbianello	MV15123_bis	2.6667*	Max WS	TR200_30min	0.19	252.35	252.65	252.55	252.67	0.004886	0.64	0.29	1.43	0.45
Gabbianello	MV15123_bis	2.6667*	Max WS	TR200_45min	0.18	252.35	252.64	252.54	252.66	0.005196	0.64	0.28	1.40	0.46
Gabbianello	MV15123_bis	2.6667*	Max WS	TR200_1H	0.18	252.35	252.64	252.54	252.66	0.005049	0.64	0.28	1.41	0.46
Gabbianello	MV15123_bis	2.6667*	Max WS	TR200_2H	0.20	252.35	252.67	252.56	252.69	0.004334	0.62	0.32	1.48	0.43
Gabbianello	MV15123_bis	2.6667*	Max WS	TR30_30min	0.13	252.35	252.58	252.52	252.60	0.007373	0.66	0.20	1.26	0.54
Gabbianello	MV15123_bis	2.6667*	Max WS	TR30_45min	0.13	252.35	252.57	252.52	252.60	0.007379	0.66	0.19	1.25	0.54
Gabbianello	MV15123_bis	2.6667*	Max WS	TR30_1H	0.12	252.35	252.57	252.51	252.59	0.007435	0.65	0.18	1.23	0.54
Gabbianello	MV15123_bis	2.6667*	Max WS	TR30_2H	0.11	252.35	252.56	252.51	252.58	0.007486	0.64	0.18	1.22	0.54
Gabbianello	MV15123_bis	2.5556*	Max WS	TR200_30min	0.19	252.32	252.62	252.52	252.65	0.004707	0.65	0.30	1.35	0.44
Gabbianello	MV15123_bis	2.5556*	Max WS	TR200_45min	0.18	252.32	252.61	252.51	252.63	0.004941	0.65	0.28	1.33	0.45
Gabbianello	MV15123_bis	2.5556*	Max WS	TR200_1H	0.18	252.32	252.62	252.51	252.64	0.004768	0.64	0.29	1.33	0.44
Gabbianello	MV15123_bis	2.5556*	Max WS	TR200_2H	0.21	252.32	252.65	252.52	252.67	0.004212	0.63	0.33	1.39	0.42
Gabbianello	MV15123_bis	2.5556*	Max WS	TR30_30min	0.13	252.32	252.54	252.48	252.57	0.006950	0.66	0.20	1.19	0.52
Gabbianello	MV15123_bis	2.5556*	Max WS	TR30_45min	0.13	252.32	252.54	252.48	252.56	0.006921	0.65	0.19	1.18	0.52
Gabbianello	MV15123_bis	2.5556*	Max WS	TR30_1H	0.12	252.32	252.53	252.47	252.55	0.007005	0.64	0.18	1.17	0.52
Gabbianello	MV15123_bis	2.5556*	Max WS	TR30_2H	0.11	252.32	252.53	252.47	252.55	0.007048	0.64	0.18	1.16	0.52
Gabbianello	MV15123_bis	2.4444*	Max WS	TR200_30min	0.20	252.28	252.60	252.48	252.62	0.004777	0.67	0.30	1.26	0.44
Gabbianello	MV15123_bis	2.4444*	Max WS	TR200_45min	0.19	252.28	252.59	252.48	252.61	0.004938	0.66	0.28	1.24	0.44
Gabbianello	MV15123_bis	2.4444*	Max WS	TR200_1H	0.19	252.28	252.59	252.48	252.61	0.004754	0.66	0.29	1.25	0.44
Gabbianello	MV15123_bis	2.4444*	Max WS	TR200_2H	0.22	252.28	252.62	252.49	252.65	0.004325	0.66	0.33	1.30	0.42
Gabbianello	MV15123_bis	2.4444*	Max WS	TR30_30min	0.13	252.28	252.51	252.44	252.54	0.006494	0.65	0.20	1.12	0.50
Gabbianello	MV15123_bis	2.4444*	Max WS	TR30_45min	0.13	252.28	252.51	252.44	252.53	0.006461	0.65	0.19	1.11	0.50
Gabbianello	MV15123_bis	2.4444*	Max WS	TR30_1H	0.12	252.28	252.50	252.43	252.52	0.006559	0.64	0.18	1.10	0.50
Gabbianello	MV15123_bis	2.4444*	Max WS	TR30_2H	0.11	252.28	252.50	252.43	252.52	0.006584	0.63	0.18	1.09	0.50
Gabbianello	MV15123_bis	2.3333*	Max WS	TR200_30min	0.21	252.25	252.57	252.45	252.60	0.005319	0.71	0.29	1.16	0.45
Gabbianello	MV15123_bis	2.3333*	Max WS	TR200_45min	0.19	252.25	252.56	252.44	252.59	0.005348	0.70	0.28	1.15	0.45
Gabbianello	MV15123_bis	2.3333*	Max WS	TR200_1H	0.20	252.25	252.57	252.45	252.59	0.005182	0.69	0.29	1.16	0.45
Gabbianello	MV15123_bis	2.3333*	Max WS	TR200_2H	0.23	252.25	252.60	252.46	252.62	0.004827	0.70	0.32	1.20	0.43
Gabbianello	MV15123_bis	2.3333*	Max WS	TR30_30min	0.13	252.25	252.48	252.41	252.51	0.006432	0.66	0.19	1.04	0.49
Gabbianello	MV15123_bis	2.3333*	Max WS	TR30_45min	0.13	252.25	252.48	252.40	252.50	0.006397	0.65	0.19	1.04	0.49
Gabbianello	MV15123_bis	2.3333*	Max WS	TR30_1H	0.12	252.25	252.47	252.40	252.49	0.006424	0.64	0.18	1.03	0.49
Gabbianello	MV15123_bis	2.3333*	Max WS	TR30_2H	0.11	252.25	252.47	252.39	252.49	0.006432	0.63	0.18	1.02	0.49
Gabbianello	MV15123_bis	2.2222*	Max WS	TR200_30min	0.21	252.22	252.54	252.43	252.57	0.006447	0.77	0.28	1.06	0.48
Gabbianello	MV15123_bis	2.2222*	Max WS	TR200_45min	0.20	252.22	252.53	252.42	252.56	0.006304	0.75	0.27	1.05	0.48
Gabbianello	MV15123_bis	2.2222*	Max WS	TR200_1H	0.20	252.22	252.54	252.42	252.56	0.006114	0.75	0.27	1.05	0.47
Gabbianello	MV15123_bis	2.2222*	Max WS	TR200_2H	0.24	252.22	252.57	252.44	252.60	0.005891	0.77	0.31	1.09	0.46
Gabbianello	MV15123_bis	2.2222*	Max WS	TR30_30min	0.13	252.22	252.45	252.37	252.48	0.006813	0.68	0.19	0.97	0.49
Gabbianello	MV15123_bis	2.2222*	Max WS	TR30_45min	0.13	252.22	252.45	252.37	252.47	0.006782	0.67	0.19	0.96	0.49
Gabbianello	MV15123_bis	2.2222*	Max WS	TR30_1H	0.12	252.22	252.44	252.36	252.46	0.006776	0.66	0.18	0.95	0.49
Gabbianello	MV15123_bis	2.2222*	Max WS	TR30_2H	0.11	252.22	252.44	252.36	252.46	0.006749	0.65	0.17	0.95	0.49
Gabbianello	MV15123_bis	2.1111*	Max WS	TR200_30min	0.22	252.19	252.50	252.40	252.54	0.008978	0.88	0.25	0.94	0.55
Gabbianello	MV15123_bis	2.1111*	Max WS	TR200_45min	0.20	252.19	252.49	252.39	252.52	0.008611	0.85	0.24	0.94	0.53
Gabbianello	MV15123_bis	2.1111*	Max WS	TR200_1H	0.21	252.19	252.49	252.40	252.53	0.008436	0.85	0.25	0.94	0.53
Gabbianello	MV15123_bis	2.1111*	Max WS	TR200_2H	0.24	252.19	252.53	252.41	252.57	0.008283	0.88	0.28	0.97	0.52
Gabbianello	MV15123_bis	2.1111*	Max WS	TR30_30min	0.13	252.19	252.41	252.34	252.44	0.008621	0.74	0.17	0.88	0.53
Gabbianello	MV15123_bis	2.1111*	Max WS	TR30_45min	0.13	252.19	252.41	252.34	252.44	0.008552	0.73	0.17	0.88	0.53
Gabbianello	MV15123_bis	2.1111*	Max WS	TR30_1H	0.12	252.19	252.40	252.33	252.43	0.008447	0.72	0.16	0.87	0.53
Gabbianello	MV15123_bis	2.1111*	Max WS	TR30_2H	0.11	252.19	252.40	252.33	252.42	0.008383	0.71	0.16	0.87	0.53
Gabbianello	MV15123_bis	2	Max WS	TR200_30min	0.22	252.16	252.42	252.38	252.49	0.019165	1.15	0.19	0.82	0.76
Gabbianello	MV15123_bis	2	Max WS	TR200_45min	0.21	252.16	252.41	252.37	252.48	0.019580	1.14	0.18	0.81	0.77
Gabbianello	MV15123_bis	2	Max WS	TR200_1H	0.22	252.16	252.42	252.38	252.48	0.019130	1.14	0.19	0.81	0.76
Gabbianello	MV15123_bis	2	Max WS	TR200_2H	0.25	252.16	252.45	252.40	252.52	0.017675	1.16	0.22	0.83	0.73

River	Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Ctl
Gabbianello	MV15123_bis	1.9333*	Max WS	TR200_2H	0.25	252.07	252.48	252.24	252.49	0.001927	0.50	0.51	1.29	0.25
Gabbianello	MV15123_bis	1.9333*	Max WS	TR30_30min	0.13	252.07	252.34	252.18	252.35	0.001705	0.39	0.33	1.27	0.24
Gabbianello	MV15123_bis	1.9333*	Max WS	TR30_45min	0.13	252.07	252.33	252.17	252.34	0.001705	0.38	0.33	1.27	0.24
Gabbianello	MV15123_bis	1.9333*	Max WS	TR30_1H	0.12	252.07	252.32	252.17	252.33	0.001706	0.38	0.31	1.27	0.24
Gabbianello	MV15123_bis	1.9333*	Max WS	TR30_2H	0.11	252.07	252.32	252.17	252.32	0.001711	0.37	0.30	1.27	0.24
Gabbianello	MV15123_bis	1.9	Max WS	TR200_30min	0.22	252.03	252.45	252.45	252.46	0.000877	0.35	0.63	1.50	0.17
Gabbianello	MV15123_bis	1.9	Max WS	TR200_45min	0.21	252.03	252.44	252.44	252.44	0.000861	0.34	0.61	1.50	0.17
Gabbianello	MV15123_bis	1.9	Max WS	TR200_1H	0.22	252.03	252.45	252.45	252.45	0.000872	0.35	0.62	1.50	0.17
Gabbianello	MV15123_bis	1.9	Max WS	TR200_2H	0.25	252.03	252.48	252.48	252.49	0.000927	0.37	0.68	1.50	0.18
Gabbianello	MV15123_bis	1.9	Max WS	TR30_30min	0.13	252.03	252.34	252.34	252.35	0.000693	0.27	0.47	1.50	0.16
Gabbianello	MV15123_bis	1.9	Max WS	TR30_45min	0.13	252.03	252.34	252.34	252.34	0.000689	0.27	0.46	1.50	0.16
Gabbianello	MV15123_bis	1.9	Max WS	TR30_1H	0.12	252.03	252.32	252.32	252.33	0.000675	0.26	0.44	1.50	0.16
Gabbianello	MV15123_bis	1.9	Max WS	TR30_2H	0.11	252.03	252.32	252.32	252.32	0.000668	0.26	0.43	1.50	0.15
Gabbianello	MV15123_bis	1.85			Culvert									
Gabbianello	MV15123_bis	1.8	Max WS	TR200_30min	0.22	252.00	252.09	252.13	252.22	0.084738	1.58	0.14	1.50	1.65
Gabbianello	MV15123_bis	1.8	Max WS	TR200_45min	0.21	252.00	252.09	252.13	252.21	0.080908	1.53	0.14	1.50	1.61
Gabbianello	MV15123_bis	1.8	Max WS	TR200_1H	0.22	252.00	252.09	252.13	252.22	0.083897	1.57	0.14	1.50	1.64
Gabbianello	MV15123_bis	1.8	Max WS	TR200_2H	0.25	252.00	252.10	252.14	252.25	0.094007	1.72	0.15	1.50	1.75
Gabbianello	MV15123_bis	1.8	Max WS	TR30_30min	0.10	252.00	252.08	252.08	252.12	0.024043	0.79	0.13	1.50	0.87
Gabbianello	MV15123_bis	1.8	Max WS	TR30_45min	0.10	252.00	252.08	252.08	252.12	0.024043	0.79	0.13	1.50	0.87
Gabbianello	MV15123_bis	1.8	Max WS	TR30_1H	0.10	252.00	252.08	252.08	252.12	0.024043	0.79	0.13	1.50	0.87
Gabbianello	MV15123_bis	1.8	Max WS	TR30_2H	0.10	252.00	252.08	252.08	252.12	0.024043	0.79	0.13	1.50	0.87
Gabbianello	MV15123_bis	1.7833*	Max WS	TR200_30min	0.22	252.00	252.08	252.13	252.24	0.119129	1.76	0.13	1.50	1.94
Gabbianello	MV15123_bis	1.7833*	Max WS	TR200_45min	0.21	252.00	252.08	252.13	252.23	0.113064	1.70	0.12	1.50	1.89
Gabbianello	MV15123_bis	1.7833*	Max WS	TR200_1H	0.22	252.00	252.08	252.13	252.24	0.118275	1.75	0.12	1.50	1.93
Gabbianello	MV15123_bis	1.7833*	Max WS	TR200_2H	0.25	252.00	252.09	252.14	252.28	0.135437	1.93	0.13	1.50	2.08
Gabbianello	MV15123_bis	1.7833*	Max WS	TR30_30min	0.10	252.00	252.08	252.08	252.12	0.026722	0.82	0.12	1.50	0.92
Gabbianello	MV15123_bis	1.7833*	Max WS	TR30_45min	0.10	252.00	252.08	252.08	252.12	0.026722	0.82	0.12	1.50	0.92
Gabbianello	MV15123_bis	1.7833*	Max WS	TR30_1H	0.10	252.00	252.08	252.08	252.12	0.026722	0.82	0.12	1.50	0.92
Gabbianello	MV15123_bis	1.7833*	Max WS	TR30_2H	0.10	252.00	252.08	252.08	252.12	0.026722	0.82	0.12	1.50	0.92
Gabbianello	MV15123_bis	1.76	Max WS	TR200_30min	0.22	252.00	252.05	252.13	252.59	0.882368	3.27	0.07	1.50	4.92
Gabbianello	MV15123_bis	1.76	Max WS	TR200_45min	0.21	252.00	252.04	252.13	252.59	0.935118	3.27	0.06	1.50	5.03
Gabbianello	MV15123_bis	1.76	Max WS	TR200_1H	0.22	252.00	252.04	252.13	252.59	0.892798	3.26	0.07	1.50	4.94
Gabbianello	MV15123_bis	1.76	Max WS	TR200_2H	0.25	252.00	252.05	252.14	252.57	0.673708	3.17	0.08	1.50	4.39
Gabbianello	MV15123_bis	1.76	Max WS	TR30_30min	0.13	252.00	252.03	252.09	252.52	1.500182	3.11	0.04	1.50	5.99
Gabbianello	MV15123_bis	1.76	Max WS	TR30_45min	0.13	252.00	252.03	252.09	252.51	1.491111	3.08	0.04	1.50	5.96
Gabbianello	MV15123_bis	1.76	Max WS	TR30_1H	0.12	252.00	252.03	252.08	252.49	1.558858	3.03	0.04	1.50	6.05
Gabbianello	MV15123_bis	1.76	Max WS	TR30_2H	0.11	252.00	252.03	252.08	252.48	1.575524	3.00	0.04	1.50	6.06
Gabbianello	MV15123_bis	1.70	Max WS	TR200_30min	0.22	251.56	251.91	251.69	251.92	0.000167	0.42	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.70	Max WS	TR200_45min	0.21	251.56	251.91	251.69	251.91	0.000163	0.41	0.52	1.50	0.22
Gabbianello	MV15123_bis	1.70	Max WS	TR200_1H	0.22	251.56	251.91	251.69	251.92	0.000166	0.41	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.70	Max WS	TR200_2H	0.25	251.56	251.94	251.70	251.95	0.000179	0.44	0.57	1.50	0.23
Gabbianello	MV15123_bis	1.70	Max WS	TR30_30min	0.13	251.56	251.83	251.65	251.84	0.000123	0.32	0.41	1.50	0.19
Gabbianello	MV15123_bis	1.70	Max WS	TR30_45min	0.13	251.56	251.83	251.65	251.83	0.000122	0.31	0.40	1.50	0.19
Gabbianello	MV15123_bis	1.70	Max WS	TR30_1H	0.12	251.56	251.82	251.65	251.82	0.000120	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.70	Max WS	TR30_2H	0.11	251.56	251.81	251.64	251.82	0.000119	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.5667*	Max WS	TR200_30min	0.22	251.56	251.91	251.69	251.92	0.000168	0.42	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.5667*	Max WS	TR200_45min	0.21	251.56	251.91	251.69	251.91	0.000163	0.41	0.52	1.50	0.22
Gabbianello	MV15123_bis	1.5667*	Max WS	TR200_1H	0.22	251.56	251.91	251.69	251.92	0.000166	0.41	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.5667*	Max WS	TR200_2H	0.25	251.56	251.94	251.70	251.95	0.000179	0.45	0.57	1.50	0.23
Gabbianello	MV15123_bis	1.5667*	Max WS	TR30_30min	0.13	251.56	251.83	251.65	251.84	0.000123	0.32	0.41	1.50	0.19
Gabbianello	MV15123_bis	1.5667*	Max WS	TR30_45min	0.13	251.56	251.83	251.65	251.83	0.000122	0.31	0.40	1.50	0.19
Gabbianello	MV15123_bis	1.5667*	Max WS	TR30_1H	0.12	251.56	251.82	251.64	251.82	0.000120	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.5667*	Max WS	TR30_2H	0.11	251.56	251.81	251.64	251.82	0.000119	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.4333*	Max WS	TR200_30min	0.22	251.56	251.91	251.69	251.92	0.000168	0.42	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.4333*	Max WS	TR200_45min	0.21	251.56	251.91	251.69	251.91	0.000163	0.41	0.52	1.50	0.22
Gabbianello	MV15123_bis	1.4333*	Max WS	TR200_1H	0.22	251.56	251.91	251.69	251.92	0.000166	0.41	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.4333*	Max WS	TR200_2H	0.25	251.56	251.94	251.70	251.95	0.000179	0.45	0.57	1.50	0.23
Gabbianello	MV15123_bis	1.4333*	Max WS	TR30_30min	0.13	251.56	251.83	251.65	251.84	0.000123	0.31	0.41	1.50	0.19
Gabbianello	MV15123_bis	1.4333*	Max WS	TR30_45min	0.13	251.56	251.83	251.65	251.83	0.000123	0.31	0.40	1.50	0.19
Gabbianello	MV15123_bis	1.4333*	Max WS	TR30_1H	0.12	251.56	251.82	251.65	251.82	0.000120	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.4333*	Max WS	TR30_2H	0.11	251.56	251.81	251.64	251.82	0.000119	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.30	Max WS	TR200_30min	0.22	251.56	251.91	251.69	251.92	0.000168	0.42	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.30	Max WS	TR200_45min	0.21	251.56	251.91	251.69	251.91	0.000163	0.41	0.52	1.50	0.22
Gabbianello	MV15123_bis	1.30	Max WS	TR200_1H	0.22	251.56	251.91	251.69	251.92	0.000167	0.41	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.30	Max WS	TR200_2H	0.25	251.56	251.94	251.70	251.95	0.000179	0.45	0.57	1.50	0.23
Gabbianello	MV15123_bis	1.30	Max WS	TR30_30min	0.13	251.56	251.83	251.65	251.84	0.000123	0.31	0.41	1.50	0.19
Gabbianello	MV15123_bis	1.30	Max WS	TR30_45min	0.13	251.56	251.83	251.65	251.83	0.000123	0.31	0.40	1.50	0.19
Gabbianello	MV15123_bis	1.30	Max WS	TR30_1H	0.12	251.56	251.82	251.65	251.82	0.000120	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.30	Max WS	TR30_2H	0.11	251.56	251.81	251.64	251.82	0.000119	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.2	Max WS	TR200_30min	0.22	251.56	251.91	251.69	251.92	0.000168	0.42	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.2	Max WS	TR200_45min	0.21	251.56	251.91	251.69	251.91	0.000163	0.41	0.52	1.50	0.22
Gabbianello	MV15123_bis	1.2	Max WS	TR200_1H	0.22	251.56	251.91	251.69	251.92	0.000167	0.41	0.53	1.50	0.22
Gabbianello	MV15123_bis	1.2	Max WS	TR200_2H	0.25	251.56	251.94	251.70	251.95	0.000179	0.45	0.57	1.50	0.23
Gabbianello	MV15123_bis	1.2	Max WS	TR30_30min	0.13	251.56	251.83	251.65	251.84	0.000123	0.31	0.41	1.50	0.19
Gabbianello	MV15123_bis	1.2	Max WS	TR30_45min	0.13	251.56	251.83	251.65	251.83	0.000123	0.31	0.40	1.50	0.19
Gabbianello	MV15123_bis	1.2	Max WS	TR30_1H	0.12	251.56	251.82	251.65	251.82	0.000120	0.30	0.38	1.50	0.19
Gabbianello	MV15123_bis	1.2	Max WS	TR30_2H	0.11	251.56	251.81	251.64	251.82	0.000119	0.30	0.38	1.50	

River	Reach	River Sta	Profile	Plan	Q US	Q Leaving Total	Q DS	Q Weir	Q Gates	Wf Top Width	Weir Max Depth	Weir Avg Depth	Min El Weir Flow	E.G. US.	W.S. US.	E.G. DS	W.S. DS
					(m3/s)	(m3/s)	(m3/s)	(m3/s)	(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
Gabbianello	MV15123_bis	2.99	Max WS	TR200_30min	0.10	-0.08	0.22	-0.08		42.77	0.09	0.03	253.01	252.74	252.73	252.46	252.45
Gabbianello	MV15123_bis	2.99	Max WS	TR200_45min	0.10	-0.09	0.21	-0.09		42.77	0.09	0.03	253.01	252.73	252.72	252.44	252.44
Gabbianello	MV15123_bis	2.99	Max WS	TR200_1H	0.10	-0.09	0.22	-0.09		42.77	0.10	0.04	253.01	252.73	252.73	252.45	252.45
Gabbianello	MV15123_bis	2.99	Max WS	TR200_2H	0.10	-0.11	0.25	-0.11		42.77	0.10	0.04	253.01	252.75	252.75	252.49	252.48
Gabbianello	MV15123_bis	2.99	Max WS	TR30_30min	0.10	-0.02	0.13	-0.02		14.91	0.05	0.02	253.01	252.70	252.69	252.35	252.34
Gabbianello	MV15123_bis	2.99	Max WS	TR30_45min	0.10	-0.02	0.13	-0.02		9.71	0.06	0.04	253.01	252.70	252.69	252.34	252.34
Gabbianello	MV15123_bis	2.99	Max WS	TR30_1H	0.10	-0.01	0.12	-0.01		10.27	0.04	0.02	253.01	252.69	252.68	252.33	252.32
Gabbianello	MV15123_bis	2.99	Max WS	TR30_2H	0.10	-0.01	0.11	-0.01		9.69	0.04	0.02	253.01	252.69	252.67	252.32	252.32
Gabbianello	MV15123_bis	2.98	Max WS	TR200_30min	0.10	-0.02	0.22	-0.02		16.85	0.09	0.02	253.00	252.74	252.73	252.46	252.45
Gabbianello	MV15123_bis	2.98	Max WS	TR200_45min	0.10	-0.02	0.21	-0.02		18.89	0.11	0.02	253.00	252.73	252.72	252.44	252.44
Gabbianello	MV15123_bis	2.98	Max WS	TR200_1H	0.10	-0.03	0.22	-0.03		23.31	0.11	0.02	253.00	252.73	252.73	252.45	252.45
Gabbianello	MV15123_bis	2.98	Max WS	TR200_2H	0.10	-0.03	0.25	-0.03		25.56	0.12	0.02	253.00	252.75	252.75	252.49	252.48
Gabbianello	MV15123_bis	2.98	Max WS	TR30_30min	0.10	0.00	0.13	0.00		4.17	0.01	0.01	253.00	252.70	252.69	252.35	252.34
Gabbianello	MV15123_bis	2.98	Max WS	TR30_45min	0.10	-0.01	0.13	-0.01		4.72	0.07	0.03	253.00	252.70	252.69	252.34	252.34
Gabbianello	MV15123_bis	2.98	Max WS	TR30_1H	0.10	-0.01	0.12	-0.01		5.13	0.06	0.02	253.00	252.69	252.68	252.33	252.32
Gabbianello	MV15123_bis	2.98	Max WS	TR30_2H	0.10	-0.01	0.11	-0.01		9.87	0.07	0.01	253.00	252.69	252.67	252.32	252.32
		O-E1	Max WS	TR200_30min	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR200_45min	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR200_1H	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR200_2H	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR30_30min	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR30_45min	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR30_1H	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00
		O-E1	Max WS	TR30_2H	0.00	0.00	0.00	0.00					254.82	0.00	0.00	0.00	0.00