ANEXO IV
ESTUDIO HIDROMETEOROLÓGICO E HIDROGRÁFICO

DE LAS CUENCAS AFECTADAS POR EL PROYECTO URBANIZACIÓN DE LA MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD. TORREJON DE ARDOZ

ZONAS: RL.INF.VG.2/ RL.ZV.MOD.3/ RL.ZV.MOD.4/ RL.INF.VG.1/ RL.INF.VA.1/ RL.ZV.MOD.2/ RL.INF.VG.3/ RL.ZV.MOD.1/ RL.ZV.MOD.5RL.ZV.MOD.2/ RL.INF.VG.3/ RL.ZV.MOD.1/ RL.ZV.MOD.5/ RG.ZV.12

Promotor:	CARLOTTA IBERIA S.L
Fecha:	MARZO 2018
Ingeniero:	Eduardo Sendín Moreno

Comentario Nº	Comentario de CHT	Respuesta C&S
	Alcance del estudio	Al no existir un estudio post-operacional del último tramo del arroyo por el paso del sector SUNP.T2 (tramo ya encauzado anteriormente), se ha ampliado el alcance de este estudio para estudiar las posibles repercusiones sobre la dinámica y comportamiento hidrológico del arroyo Ardoz en la totalidad del tramo al paso por el sector SUNP.T2.
1	Fuente de la que se obtienen los datos para la creación del modelo geométrico de secciones de cauce.	(Punto 4.1) Cuadrícula cartográfica oficial del MTN25, hoja 0560 cuarto 1, obtenida del Instituto Geográfico Nacional.
2	Condiciones de contorno establecidas en los modelos.	(Punto 4.2.5.3) Se ha definido como condición de contorno el calado normal tanto aguas arriba (pendiente s=0.005) como aguas abajo (pendiente s = 0.006).
3	Régimen de flujo de la modelización.	(Punto 4.2.5.3) Se ha realizado el cálculo tanto en régimen mixto como rápido, siendo el cálculo en régimen mixto el más desfavorable. Así pues, el informe y planos se basan en los resultados obtenidos en el cálculo en régimen mixto.
4	El estudio hidráulico no incluye la representación de las láminas de agua en las secciones transversales, ni resultados en formato numérico.	Consulte los anexos del nuevo informe.
5	Justificar adecuadamente las condiciones de contorno elegidas tanto aguas arriba como aguas abajo.	Dado que no tenemos información sobre controles de calado o caudal de la sección, no podemos definir el nivel de agua o caudal. Por lo tanto, se ha considerado como condiciones de contorno un calado normal con pendientes de s = 0.005 aguas arriba y s = 0.006 aguas abajo (datos obtenidos de la cartografía).
6	Clarifique el número de Manning utilizado.	(Punto 5.2) Tras observar que existen inundaciones en la situación actual, se ha realizado un segundo modelo teniendo en cuenta que el cauce del río se limpiara y se incrementará la mota existente mediante un talud acabado con bloques (consulte planos adjuntos). Así pues, se han considerado los siguientes números de Manning: - Base granular → n = 0.05 (valor ligeramente superior a las condiciones de la sección y aconsejado por tablas del manual del programa; así se podrá estimar una franja mojada con cierto exceso y baja capacidad de desagüe) - Paredes revestidas → n = 0.035 (valor superior al recomendado

		por manuales del programa para este tipo de acabados)
7	Estimación de la Zona de Flujo Preferente	(Punto 4) Conservadoramente, entendemos que la zona de flujo preferente se encuentra dentro de la zona de inundación de la máxima avenida para un retorno de 100 años. Al encontrarse la zona de flujo para T100 dentro de las motas propuestas, consideramos que no se producirán daños graves sobre personas y los bienes durante dicha avenida.
8	Se deben presentar planos de delimitación de las zonas de servidumbre y policía, así como la zona inundada por el caudal asociado a la máxima crecida extraordinaria para 500 años.	Consulten los planos adjuntos.
9	Será necesaria la presentación de los datos numéricos correspondientes tanto a los resultados como a los datos geométricos de partida de cada una de las secciones transversales y de las estructuras modeladas.	Consulte los anexos del nuevo informe.
10	El estudio hidrológico hidráulico presentado no contempla las posibles afecciones provocadas por la incorporación de aguas pluviales.	Se han tenido en cuenta los vertido de aguas pluviales según el apartado 4.2.5

Contenido

1. Introducción

Es objeto de este estudio el arroyo Ardoz a su paso entre la Base Aérea de Torrejón y el núcleo urbano de Torrejón de Ardoz. En el citado núcleo urbano y Base Aérea, el arroyo se encuentra canalizado y soterrado, sin embargo, a su paso por el sector SUNP.T2, dicha canalización es inexistente. El presente estudio tiene por objetivo el estudio de la cuenca existente y posible repercusiones sobre la dinámica y comportamiento hidrológico del arroyo Ardoz en este tramo. No se ha modelado el paso por debajo de la autovía A-2 por ser un amplio puente con capacidad suficiente para el caudal transportado y sin efectos hidráulicos aguas arriba del mismo.

También se pretende determinar el Dominio Público Hidráulico del arroyo Ardoz, la Zona de Servidumbre (5 m. de ancho) y la Zona de Policía (100 m. de anchura).

Por último, para prevenir el efecto de posibles avenidas, se calcula la zona de inundación del arroyo Ardoz para un periodo de retorno de 500 años y se propone el incremento de la mota bajo la justificación de los cálculos aportados a continuación.

2. Marco legal y terminología utilizada

2.1 Marco legal

2.1.1 Legislación autonómica

- Ley 9/2001, de 17 de julio, del Suelo de la Comunidad de Madrid

2.1.2 Legislación estatal

- Real Decreto Legislativo 1/2001, de 20 de julio, por el que se aprueba el texto refundido de la Ley de Aguas.
- Real Decreto 1664/98, de 24 de julio, por el que se aprueban los Planes Hidrológicos de Cuenca

2.2 Definiciones

Las siguientes definiciones han sido extraídas de la Ley de Aguas y el Reglamento del Dominio Público Hidráulico.

Dominio Público Hidráulico. Constituyen el Dominio Público Hidráulico del Estado:

a) Las aguas continentales, tanto las superficiales como las subterráneas renovables con independencia del tiempo de renovación.
b) Los cauces de corrientes naturales, continuas o discontinuas.
c) Los lechos de los lagos y lagunas y los de los embalses superficiales en cauces públicos.
d) Los acuíferos, a los efectos de los actos de disposición o de afección de los recursos hidráulicos.
e) Las aguas procedentes de la desalación de agua de mar una vez que, fuera de la planta de producción, se incorporen a cualquiera de los elementos señalados en los apartados anteriores.

Cauce. Álveo o cauce natural de una corriente continua o discontinua es el terreno cubierto por las aguas en las máximas crecidas ordinarias.

Máxima crecida ordinaria. Se considerará como caudal de la máxima crecida ordinaria la medida de los máximos caudales anuales, en su régimen natural producidos durante diez años consecutivos, que sean representativos del comportamiento hidráulico de la corriente.

Márgenes. Los márgenes son los terrenos que lindan con los cauces.

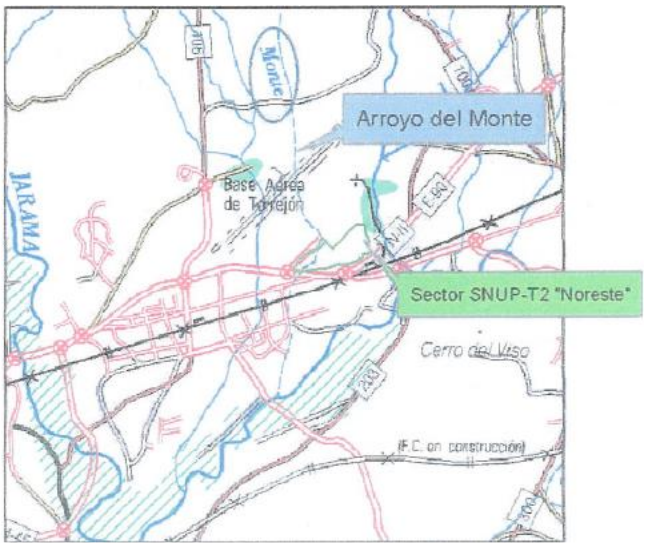
Zona de Servidumbre y Zona de Policía. Las márgenes están sujetas, en toda su extensión longitudinal:

- A una zona de servidumbre de cinco metros de anchura para uso público.
- A una zona de policía de 100 metros de anchura en la que se condicionará el uso del suelo y las actividades que se desarrollen.

Periodo de retorno de una avenida o precipitación. Intervalo de N años en el que se espera que se presente una sola vez la avenida o precipitación que se considera.

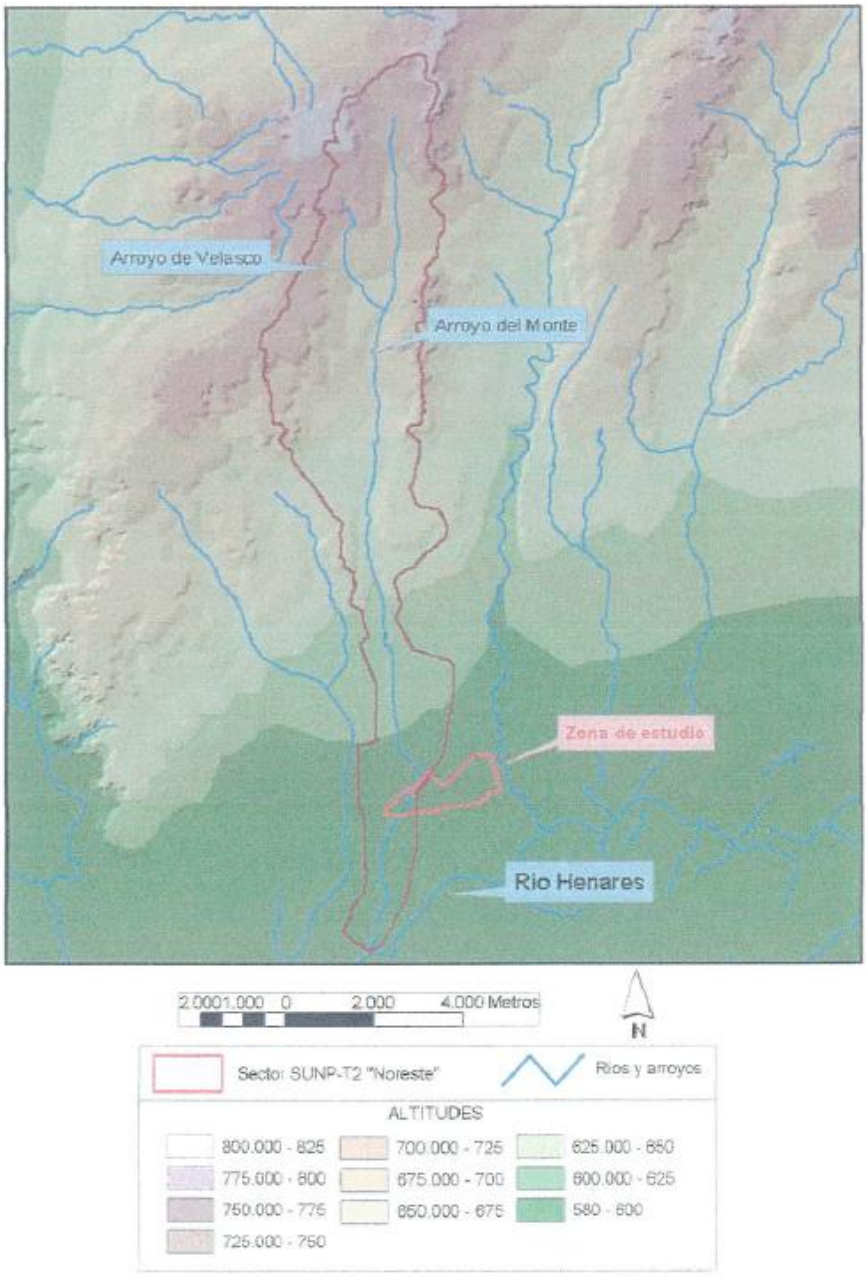
3. Arroyo Ardoz o Arroyo del Monte

Este arroyo, de tipo estacional, figura frecuentemente en los mapas topográficos bajo el nombre de Arroyo del Monte.



3.1 Cuenca y trazado original del Arroyo Ardoz (o arroyo del Monte)

El arroyo del Monte nace en la intersección de los términos municipales de Daganzo de Arriba, Algete y Valdeolmos. La mayor parte de su recorrido discurre por el término de Daganzo de Arriba, donde se le une el Arroyo de Velasco, corta ligeramente, en su extremo suroccidental en el término de Ajalvir, introduciéndose posteriormente en el municipio de Torrejón de Ardoz, donde desemboca en el río Henares. En total recorre unos 19 Km, avenando una cuenca de unas 3500 has.


Arroyo de Velasco
Arroyo del Monte
Zona de estudio
Rio Henares
2.000 1.000 0 2.000 4.000 Metros
N
Sector SUNP-T2 "Noreste"
Rios y arroyos
ALTITUDES
800.000 - 825
775.000 - 800
750.000 - 775
725.000 - 750
700.000 - 725
675.000 - 700
650.000 - 675
625.000 - 650
600.000 - 625
580 - 600

3.2 Situación actual del arroyo

3.2.1 Aguas arriba de la zona de estudio

Aguas arriba de la zona de estudio, la alteración de origen antrópico más importante que sufre el arroyo es su desvío a su entrada al municipio de Torrejón por medio de una acequia que desvía el caudal transportado hacia el río Torote.

Aproximadamente 30 km² de los 35 que originariamente formaban la cuenca del arroyo del Monte (o Ardoz) pasan a formar parte de la cuenca del río Torote.

Ya dentro de la base aérea del arroyo del Monte, prácticamente sin caudal es entubado por debajo de las pistas, saliendo al exterior algo antes del límite de esta con el sector SNUP.T2 (zona de estudio).

3.2.2 Zona de estudio

Tras la entubación del arroyo Ardoz por debajo de las pistas de la Base Aérea de Torrejón, sale al exterior poco antes del límite con el sector SNUP.T2, esta es la zona de estudio.

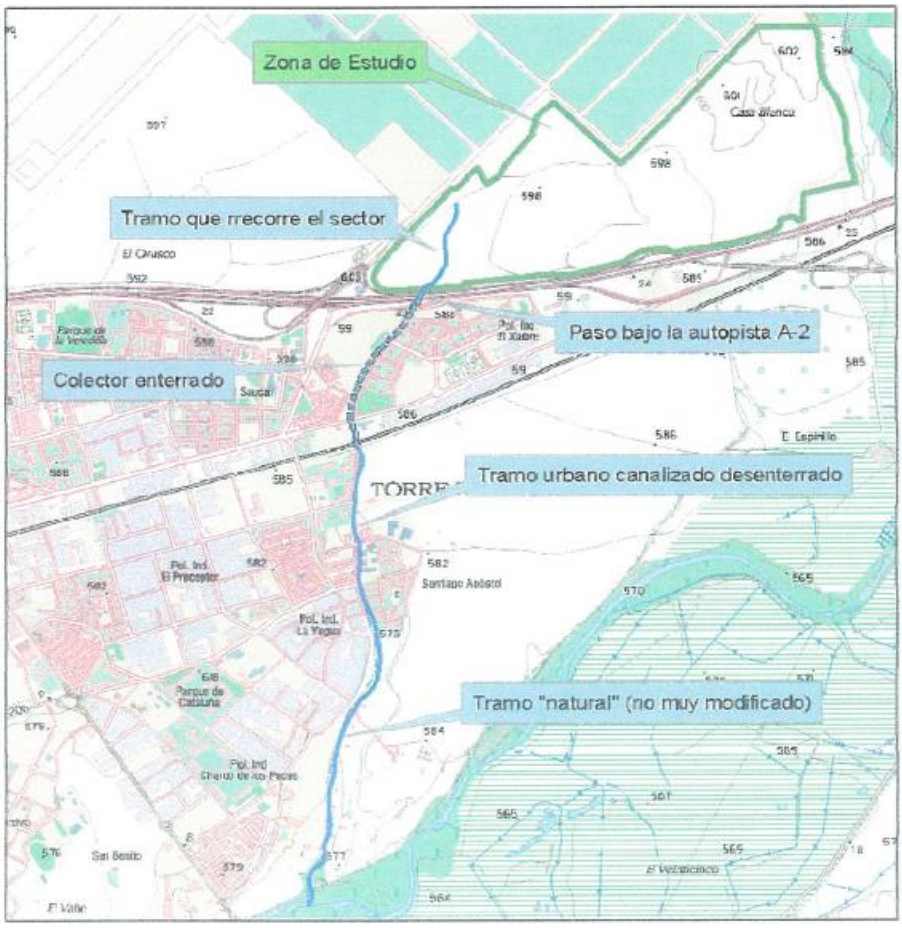
A su paso por la zona de estudio, el arroyo se encuentra flanqueado en ambas márgenes por sendas motas que delimitan el cauce. Estas motas, de origen antrópico, fueron construidas con toda probabilidad para mantener fijo el cauce del arroyo, ya que, debido a lo plano del terreno y a la estacionalidad del arroyo, sería frecuente que no tuviese en esta zona un cauce fijo.

A lo largo del trazado del Arroyo Ardoz por el sector SNUP.T2 y debido al plan de sectorización, la mota ya ha sido elevada en ambos márgenes. Sin embargo, el Arroyo ha sido modelado y estudiado hasta su paso por debajo de la Nacional II.

3.2.3 Aguas debajo de la zona de estudio

Tras el sector SNUP.T2, el arroyo abandona cruzando la carretera Nacional II a través de un amplio puente. No se ha modelado el paso por debajo de la Nacional II por ser un amplio puente con capacidad suficiente para el caudal transportado y sin efectos hidráulicos aguas arriba del mismo.

Tras cruzar la Nacional II, el Arroyo Ardoz se introduce en una canalización subterránea por la que discurre debajo del barrio de El Saucar de Torrejón de Ardoz. Sale justo al sur de la línea férrea C-2 y discurre canalizado en forma de acequia por el barrio de Santiago Apostol. Según nos acercamos a su desembocadura en el río Henares, el cauce se hace más amplio, ya que muy probablemente el cauce esté poco modificado por el hombre en esta zona, y se corresponda al original cuando el arroyo del Monto no era desviado hacia el río Torote.



4 Determinación de los caudales de avenida

A continuación, se desarrollan los cálculos que permitan determinar en primer lugar la zona de flujo permanente y a partir de él las zonas de servidumbre para uso público y la zona de policía. También se calculará el caudal máximo de avenida para un periodo de retorno de 500 años, con el fin de establecer el área inundable.

Conservadoramente, entendemos que la zona de flujo preferente se encuentra dentro de la zona de inundación de la máxima avenida para un retorno de 100 años. Para el estado post-operacional, al encontrarse la zona de flujo para T100 dentro de las motas propuestas, consideramos que no se producirán daños graves sobre personas y los bienes durante dicha avenida.

4.1 Metodología empleada

Los caudales asociados a los distintos periodos de retorno se han estimado a partir de la cuenca del arroyo. Para la estimación de dichos caudales se han seguido los siguientes pasos:

1º Determinación de las cuencas mediante planos topográficos a diferentes escalas. Se ha tomado como fuente la cuadrícula cartográfica oficial del MTN25, hoja 0560 cuarto 1, obtenida del Instituto Geográfico Nacional. Se han interpolado curvas de nivel cada 10cm para mayor precisión.

2º Estimación de la intensidad media de precipitación para los periodos de retorno considerados.

3º Estimación mediante métodos hidrometeorológicos, de los caudales asociados a distintos períodos de retorno que se obtendrán en la cuenca vertiente al arroyo Ardoz.

Se ha seguido el método de *"Cálculo hidrometeorológico de caudales máximos en pequeñas cuencas naturales"*. En este método, ampliamente utilizado, ofrece buenos resultados para cuencas de hasta 75 Km².

Se basa en la aplicación de una intensidad media de precipitación a la superficie de la cuenca a través de la estimación de su escorrentía. Se asume que la única componente de esta precipitación que interviene en la generación de caudales máximos es la que escurre superficialmente.

Por lo tanto el caudal máximo como consecuencia de un episodio de precipitación constante es proporcional al coeficiente de escorrentía, la intensidad de precipitación y el Área de cuenca.

Medido el caudal en m³/s, la intensidad de precipitación en mm/h y el área en km², la ecuación que liga estas variables queda como sigue:

$$Q = \frac{C\ x\ I\ x\ A}{3.6}$$

A esta fórmula se le añade un coeficiente k que provoca en la fórmula un aumento del 20% en el cauce para tener en cuenta el efecto de las puntas de precipitación. Multiplicando la fórmula anterior por k = 1.2 queda:

$$Q = \frac{C\ x\ I\ x\ A}{3.0}$$

Siendo,

C: Coeficiente medio de escorrentía de la cuenca o superficie drenada

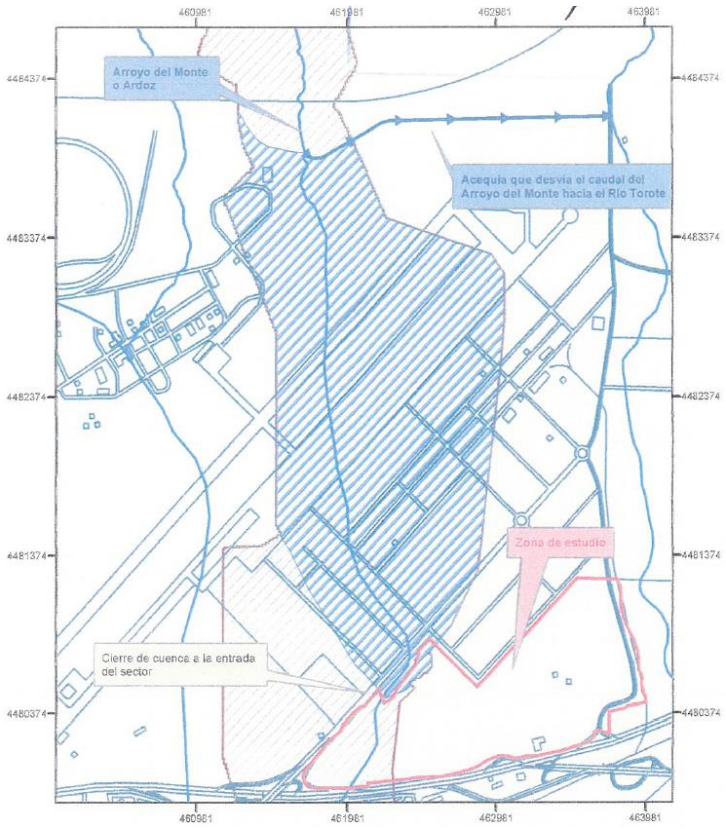
A: Área de la cuenca

I: Intensidad media de precipitación correspondiente al periodo de retorno considerado y a un intervalo igual al tiempo de concentración.

4.2 Cálculos

4.2.1 Cuenca del arroyo Ardoz hasta la zona de estudio

La cuenca hidrográfica vertiente en el Arroyo Ardoz ha sido definida sobre la cartografía topográfica, contando con una superficie de 4.19 km².



4.2.2 Intensidad media de precipitación para los periodos de retorno considerados

4.2.2.1 Precipitación máxima

Mediante el procedimiento informático "Máximas lluvias diarias en la España peninsular", publicada por la Dirección General de Carreteras del Ministerio de Fomento. Este método se basa en un Sistema de Información Geográfica que, apoyándose en la aplicación informática MAXPLU nos permite estimar los cuantiles para distintos periodos de retorno.

En la aplicación informática MAXPLU se ha introducen las coordenadas de la zona de estudio y se obtienen los siguientes valores:

- Estimación del valor medio P de la máxima precipitación diaria anual en mm/día.
- Estimación del coeficiente de variación Cv.

• Estimación, para cada período retorno, de la precipitación máxima diaria de cálculo en mm/día.

Los resultados obtenidos para la zona de supresión de pasos a nivel son los siguientes:

Período de retorno	P media (mm/día)	Cv	Pt (mm/día)
10	37	0.338	52
100	37	0338	80
500	37	0.338	102

4.2.2.2 Tiempo de concentración

El tiempo de concentración es el necesario para que las precipitaciones caídas en las zonas más alejadas de la cuenca puedan llegar al punto de desagüe.

Este tiempo es independiente de la configuración y magnitudes de aguacero y sólo depende de las características morfológicas de la cuenca.

Para estimarlo se empleará la fórmula:

$$T_c = 0{,}3\left(\frac{L}{J^{1/4}}\right)^{0{,}76}$$

En la que:

Tc = tiempo de concentración, en horas.

L = longitud del curso principal, en kilómetros.

J = pendiente media del curso principal, en tanto por uno.

La siguiente tabla se ha calculado la anterior formulación:

Longitud (m)	Cota máx (m)	Cota mín (m)	Pendiente (m/m)	T conentración (h)
3.725	610	589	0.0056	2.2

4.2.2.3 Intensidad de lluvia

A la hora de obtener la intensidad de lluvia para el período de retorno considerado se estima que el caso más desfavorable es aquél cuyo aguacero tiene una duración igual a la del tiempo de concentración.

Al contar sólo con datos de precipitaciones máximas diarias, no se puede extrapolar los valores de las intensidades de aguaceros de distinta duración, por lo que para determinarlos se recurre a las curvas intensidad-duración elaboradas para un conjunto de estaciones españolas. Consultando el mapa de isolínea de los valores I1/Id para España, (I1 = intensidad máxima horaria, Id = intensidad máxima diaria), correspondiente a la figura 1 que se adjunta a continuación, en la zona en estudio se toma:

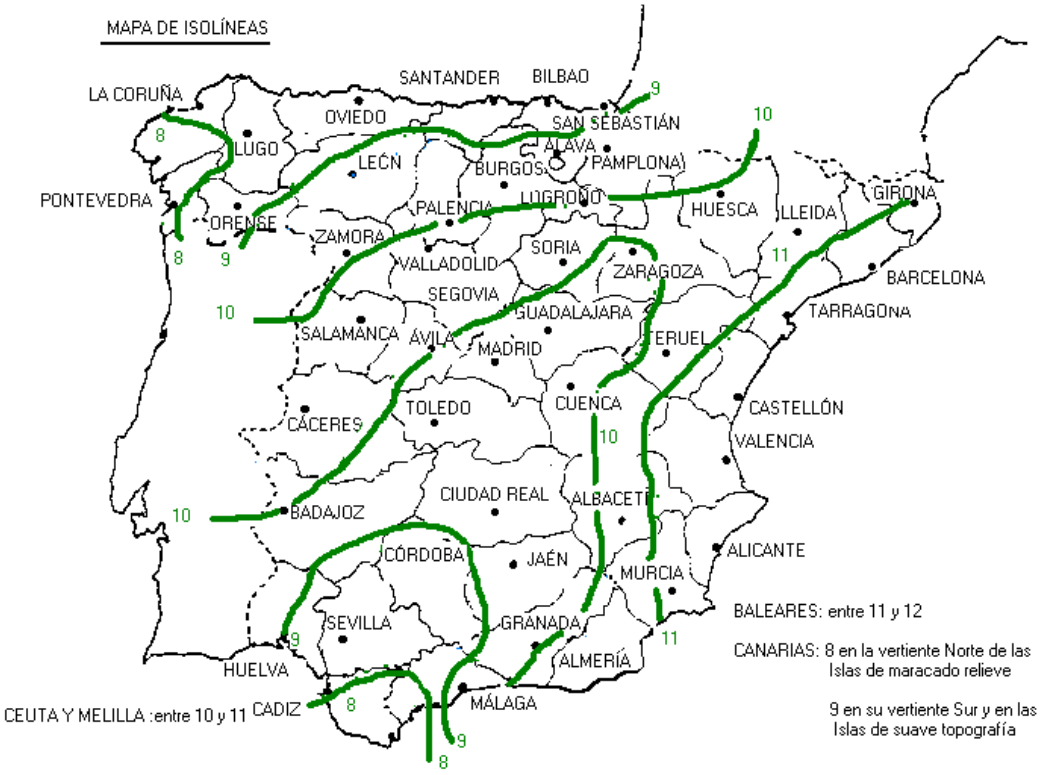


Figura 1

Para calcular la intensidad correspondiente a un aguacero de duración igual al tiempo de concentración se partirá de la expresión general de las curvas intensidad-duración:

$$\frac{I_t}{I_d} = \left(\frac{I_1}{I_d}\right)^{\left(\frac{28^{0,1} - T_c^{0,1}}{28^{0,1} - 1}\right)}$$

Siendo,

I_t = intensidad del aguacero a considerar.

I_d = intensidad media diaria de precipitación correspondiente al período de retorno estudiado, calculada como:

$$I_d = \frac{P_d}{24}$$

Siendo Pd la máxima precipitación diaria correspondiente ha dicho período de retorno. Por tanto la intensidad media diaria para los periodos de retorno correspondiente es:

$$I_{d,10} = \frac{52}{24} = 2.17\ mm/h$$

$$\mathrm{I_{d,100}} = \frac{80}{24} = 3.33\ \mathrm{mm/h}$$

$$I_{d,500} = \frac{102}{24} = 4.25\ mm/h$$

Según el mapa de isolíneas, $I_1/I_d = 10$ y teniendo en cuenta el tiempo de duración del aguacero igual al tiempo de concentración calculado en el apartado *4.2.2.2*, el valor de la intensidad de lluvia necesario para calcular el caudal es:

Período de retorno	I media diaria (mm/h)	I para T (mm/h)
10	2.17	13.54
100	3.33	20.80
500	4.25	26.51

4.2.3 Cálculo de la escorrentía

El coeficiente de escorrentía es el porcentaje de agua que un aguacero no es absorbido por el terreno, sino que discurre por la superficie. Se han considerado los valores mostrados en la siguiente tabla:

NATURALEZA DE LA SUPERFICIE		VALORES DE C* MINIMO	VALORES DE C* MAXIMO	VALORES RECOMENDADOS DE C MINIMO	VALORES RECOMENDADOS DE C MAXIMO
CUBIERTAS DE EDIFICIOS		0,70	0,95	0,90	1,00
PAVIMENTOS	Hormigón o asfalto	0,85	1,00	0,90	0,95
	Macadam bituminoso	0,70	0,90	0,70	0,90
	Macadam ordinario	0,25	0,60	0,35	0,70
	Gravas gruesas	0,30	0,65	0,40	0,65
	Adoquines	0,50	0,85	0,60	0,85
SUPERFICIES SIN PAVIMENTACION, PATIOS		0,10	0,30	0,10	0,30
SUPERFICIES MIXTAS	Zona industrial de una ciudad pavimentada	0,60	0,85	0,60	0,85
	Zona residencial en bloques aislados de una ciudad	0,40	0,60	0,50	0,65
	Zonas residenciales unifamiliares en el extrarradio	0,30	0,50	0,35	0,55
	Zonas rurales	0,10	0,25	0,10	0,25
	Parques	0,05	0,25	0,10	0,35
TERRENO GRANULAR	Pradera vegetal densa	0,05	0,35	0,10	0,35
	Vegetación tipo medio	0,10	0,50	0,10	0,50
TERRENO ARCILLOSO	Pradera vegetal densa	0,15	0,50	0,30	0,55
	Vegetación tipo medio	0,30	0,75	0,30	0,75
SUPERFICIES EN TIERRA	Arenas sin vegetación	0,01	0,55	0,15	0,50
	Arenas con vegetación ligera	0,01	0,55	0,10	0,40
	Arenas con vegetación densa	0,01	0,55	0,05	0,30
	Margas o barros sin vegetación			0,20	0,60
	Margas o barros con vegetación ligera			0,10	0,45
	Margas o barros con vegetación densa			0,05	0,35
	Gravas sin vegetación			0,25	0,65
	Gravas con vegetación ligera			0,15	0,50
	Gravas con vegetación densa			0,10	0,40
	Arcillas sin vegetación	0,10	0,70	0,30	0,75
	Arcillas con vegetación ligera	0,10	0,70	0,20	0,60
	Arcillas con vegetación densa	0,10	0,70	0,15	0,50

* Valores según distintos autores

Teniendo en cuenta que 1.05 km² (25.1%) de la superficie de la cuenca está formada por pavimentos de hormigón o asfalto con un coeficiente de escorrentía de C = 0.85. Y los 3.14 km² (74.9%) restantes están formados por praderas vegetales sobre terreno granular, con un coeficiente de escorrentía de C = 0.10.

Ponderando los coeficientes de escorrentía anteriores, se obtiene un valor de ***C = 0.29***

4.2.4 Caudal de pluviales producidos

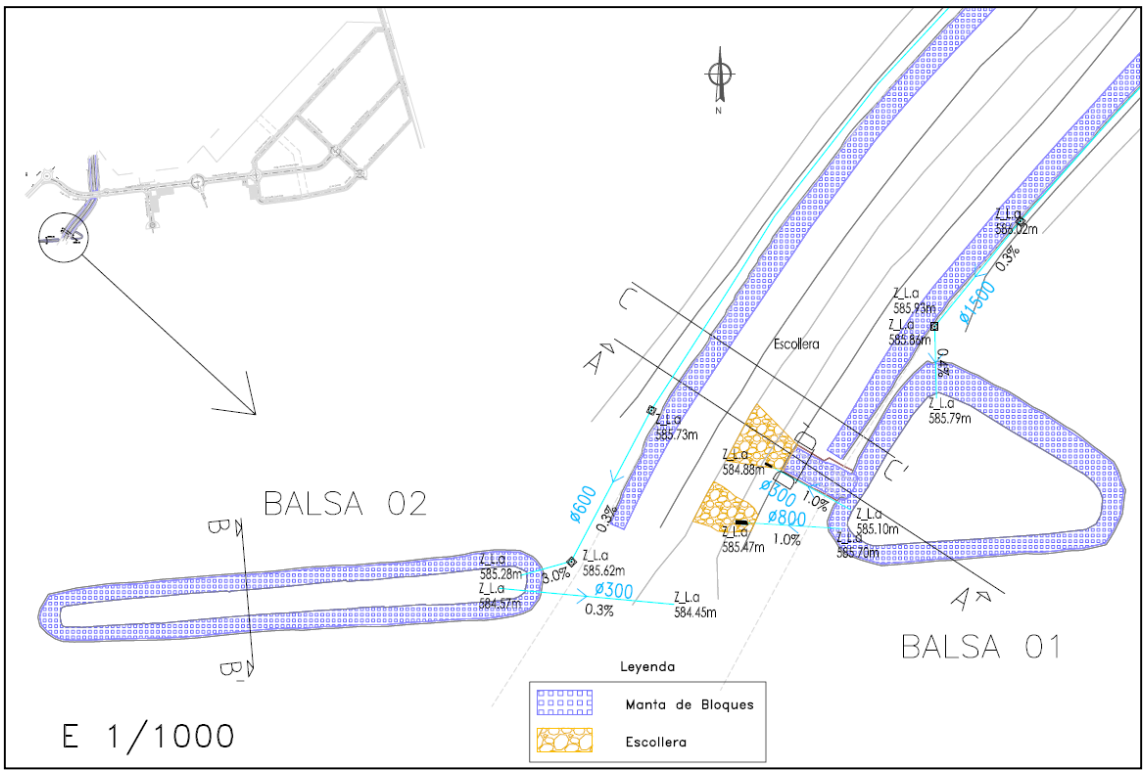
Como se ha detallado la formulación en el punto 4.1, el caudal para los periodos de retorno considerados es:

Período de retorno	A (Km²)	C	I (mm/h)	Q (m³/s)
10	4.19	0.29	13.54	5.48
100	4.19	0.29	20.80	8.42
500	4.19	0.29	26.51	10.74

4.2.5 Vertidos de aguas pluviales

La totalidad de los vertidos de aguas pluviales del Sector T2 son recogidos por la red ejecutada y descargan al arroyo de Ardoz al suroeste del ámbito, previa laminación en los dos tanques de tormentas ejecutados para limitar el caudal vertido al arroyo Ardoz en caso de tormentas. Además, estos dos tanques permiten separar el agua durante la primera fase del evento lluvioso que es donde se concentra la mayor parte de la contaminación.

Se calcula el caudal máximo vertido por estos tanques de tormentas mediante el caudal máximo que pueden transportar los colectores que conectan estas balsas con el cauce del arroyo Ardoz. En concreto la balsa 01 dispone de dos colectores de diámetros 300 mm y 800 mm con pendiente 1% y la balsa 02 tiene un colector de diámetro 300 mm y pendiente 0,3%.



La velocidad media del agua en el interior y en la salida del conducto en las secciones hidráulicas calculadas no superan el máximo admisible de 4.5 a 6.0 m/s preconizado por la 5.2-IC para obras de hormigón. Además dicha velocidad no es lo suficientemente baja como para que se produzcan sedimentaciones en la solera

El cálculo del caudal máximo de estos colectores es el siguiente:

IDENTIFICACION DE LA SECCION ------ 300MM BALSA 01

```
Nombre sección                      : C
Tipo sección                        : CIRCULAR
Tamaño del conducto (Altura)    (m):     0,300

DATOS DEL RAMAL -------------------
Pendiente del ramal             (%):     1,000
Coeficiente rugosidad de Manning   :     0,0130

PARA EL CAUDAL CIRCULANTE ---------
Caudal circulante            (m3/s):     0,1039
Velocidad caudal circulante   (m/s):     1,521
Calado caudal circulante        (m):     0,278
Grado llenado caudal circulante (%):    92,62

SECCION LLENA ---------------------
Caudal sección llena         (m3/s):     0,0967
Velocidad para sección llena  (m/s):     1,368
Calado máximo                   (m):     0,300

CAUDAL MAXIMO ---------------------
Caudal máximo                (m3/s):     0,1040
Velocidad para caudal máximo  (m/s):     1,509
Calado para el caudal máximo    (m):     0,282
Grado llenado caudal máximo     (%):    94,00

VELOCIDADES CARACTERISTICAS ------
Velocidad para Qll              (m/s):     1,368
Velocidad para Qll/10           (m/s):     0,875
Velocidad para Qll/100          (m/s):     0,439

CARACTERISTICAS HIDRAULICAS PARA DISTINTAS ALTURAS
```

Calado (m)	Llenado(%)	Q (m3/s)	V (m/s)
0,000	0,000	0,0000	0,000
0,015	5,000	0,0005	0,350
0,030	10,000	0,0020	0,548
0,045	14,999	0,0047	0,707
0,060	20,000	0,0085	0,841
0,075	25,000	0,0132	0,958
0,090	29,999	0,0189	1,061
0,105	35,000	0,0254	1,153
0,120	40,000	0,0326	1,234
0,135	45,000	0,0403	1,306
0,150	50,000	0,0483	1,368
0,165	55,000	0,0566	1,422
0,180	59,999	0,0650	1,467
0,195	65,000	0,0731	1,504
0,210	70,000	0,0810	1,532
0,225	75,000	0,0882	1,551
0,240	80,000	0,0945	1,559
0,255	84,999	0,0996	1,556
0,270	90,000	0,1031	1,538
0,285	95,000	0,1039	1,498
0,300	100,000	0,0967	1,368

IDENTIFICACION DE LA SECCION ------ 800MM BALSA 01

Nombre sección : C
Tipo sección : CIRCULAR
Tamaño del conducto (Altura) (m): 0,800

DATOS DEL RAMAL ----------
Pendiente del ramal (%): 1,000
Coeficiente rugosidad de Manning : 0,0130

PARA EL CAUDAL CIRCULANTE ---------
Caudal circulante (m3/s): 1,4217
Velocidad caudal circulante (m/s): 2,919
Calado caudal circulante (m): 0,744
Grado llenado caudal circulante (%): 92,97

SECCION LLENA ----------
Caudal sección llena (m3/s): 1,3223
Velocidad para sección llena (m/s): 2,631
Calado máximo (m): 0,800

CAUDAL MAXIMO ----------
Caudal máximo (m3/s): 1,4224
Velocidad para caudal máximo (m/s): 2,901
Calado para el caudal máximo (m): 0,752
Grado llenado caudal máximo (%): 94,00

VELOCIDADES CARACTERISTICAS ------
Velocidad para Qll (m/s): 2,631
Velocidad para Qll/10 (m/s): 1,682
Velocidad para Qll/100 (m/s): 0,845

CARACTERISTICAS HIDRAULICAS PARA DISTINTAS ALTURAS

Calado (m)	Llenado(%)	Q (m3/s)	V (m/s)
0,000	0,000	0,0000	0,000
0,040	5,000	0,0063	0,673
0,080	10,000	0,0276	1,054
0,120	14,999	0,0642	1,359
0,160	20,000	0,1157	1,618
0,200	25,000	0,1810	1,843
0,240	29,999	0,2587	2,041
0,280	35,000	0,3478	2,218
0,320	40,000	0,4456	2,373
0,360	45,000	0,5508	2,511
0,400	50,000	0,6612	2,631
0,440	55,000	0,7745	2,734
0,480	59,999	0,8884	2,821
0,520	65,000	1,0000	2,892
0,560	70,000	1,1074	2,946
0,600	75,000	1,2059	2,982
0,640	80,000	1,2925	2,998
0,680	84,999	1,3626	2,992
0,720	90,000	1,4093	2,958
0,760	95,000	1,4209	2,881
0,800	100,000	1,3223	2,631

IDENTIFICACION DE LA SECCION ------ 300MM BALSA 02

Nombre sección : C
Tipo sección : CIRCULAR
Tamaño del conducto (Altura) (m): 0,300

DATOS DEL RAMAL ----------
Pendiente del ramal (%): 0,300
Coeficiente rugosidad de Manning : 0,0130

PARA EL CAUDAL CIRCULANTE ---------
Caudal circulante (m3/s): 0,0057
Velocidad caudal circulante (m/s): 0,489
Calado caudal circulante (m): 0,066
Grado llenado caudal circulante (%): 22,13

SECCION LLENA ----------
Caudal sección llena (m3/s): 0,0530
Velocidad para sección llena (m/s): 0,749
Calado máximo (m): 0,300

CAUDAL MAXIMO ----------
Caudal máximo (m3/s): 0,0570
Velocidad para caudal máximo (m/s): 0,826
Calado para el caudal máximo (m): 0,282
Grado llenado caudal máximo (%): 94,00

VELOCIDADES CARACTERISTICAS ------
Velocidad para Qll (m/s): 0,749
Velocidad para Qll/10 (m/s): 0,479
Velocidad para Qll/100 (m/s): 0,241

CARACTERISTICAS HIDRAULICAS PARA DISTINTAS ALTURAS

Calado (m)	Llenado(%)	Q (m3/s)	V (m/s)
0,000	0,000	0,0000	0,000
0,015	5,000	0,0003	0,192
0,030	10,000	0,0011	0,300
0,045	14,999	0,0026	0,387
0,060	20,000	0,0046	0,461
0,075	25,000	0,0073	0,525
0,090	29,999	0,0104	0,581
0,105	35,000	0,0139	0,632
0,120	40,000	0,0178	0,676
0,135	45,000	0,0221	0,715
0,150	50,000	0,0265	0,749
0,165	55,000	0,0310	0,779
0,180	59,999	0,0356	0,804
0,195	65,000	0,0401	0,824
0,210	70,000	0,0444	0,839
0,225	75,000	0,0483	0,849
0,240	80,000	0,0518	0,854
0,255	84,999	0,0546	0,852
0,270	90,000	0,0564	0,842
0,285	95,000	0,0569	0,820
0,300	100,000	0,0530	0,749

Por tanto, los caudales máximos de pluviales vertidos a cauce serán los siguientes:

BALSA	COLECTOR		Qmax (m^3/s)
	Diámetro	Pendiente	
Balsa 01 – 1	300 mm	1.00%	0.1040
Balsa 01 – 2	800 mm	1.00%	1.4224
TOTAL BALSA 01			**1.5264**
Balsa 02	300 mm	0.30%	0.0570
TOTAL BALSA 02			**0.0570**
TOTAL BALSAS			**1.5834**

Dichos caudales serán aportados al final del tramo, justo al paso por la Nacional II. Como se ha explicado anteriormente, dicho paso está formado por un amplio puente con capacidad suficiente para el caudal transportado por el arroyo Ardoz más el aporte de pluviales vertidos y no tendrá ningún efecto hidráulico aguas arriba.

4.2.6 Cálculo de la cota de la lámina de agua

4.2.6.1 Metodología empleada

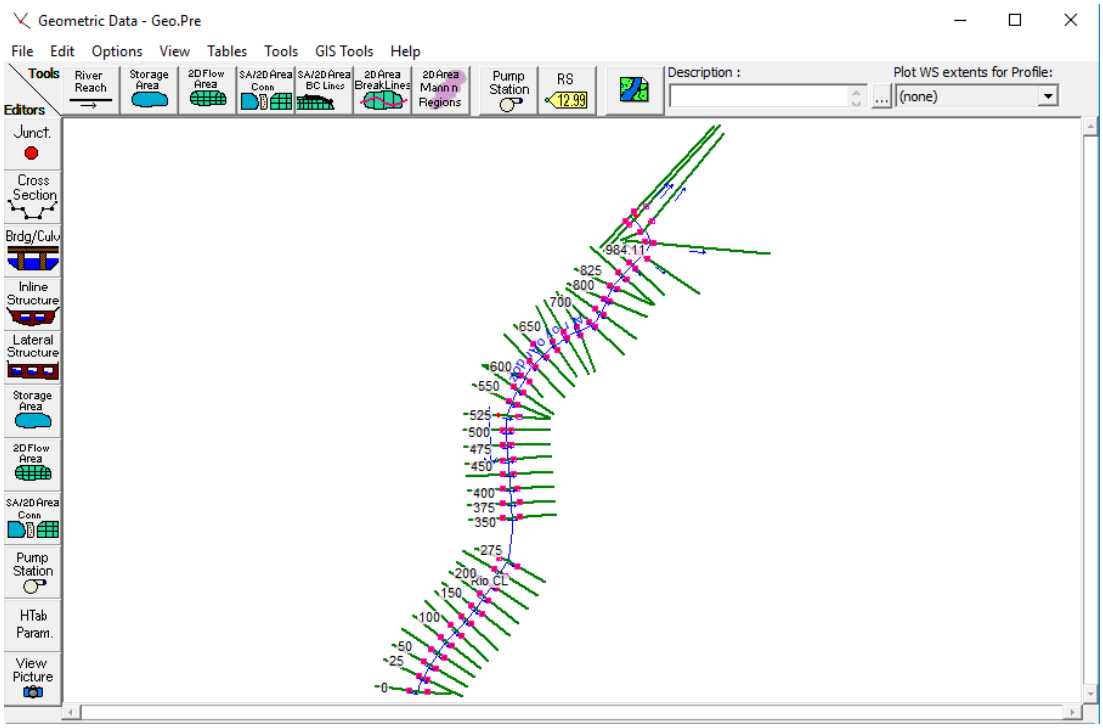
Se han realizado las secciones transversales del Arroyo Ardoz en el tramo correspondiente a la zona de estudio a partir de la información topográfica disponible para posteriormente calcular la relación caudal/calado utilizando el programa informático HEC-RAS.

Se ha considerado un coeficiente de rugosidad para el cauce de n = 0.05 que representa las condiciones de la sección y estima una franja mojada adecuada a la situación actual. De esta manera se podrán observar situaciones locales anómalas en el modelo. Los márgenes susceptibles de ser inundados se han modelado con un coeficiente de rugosidad de n = 0.035.

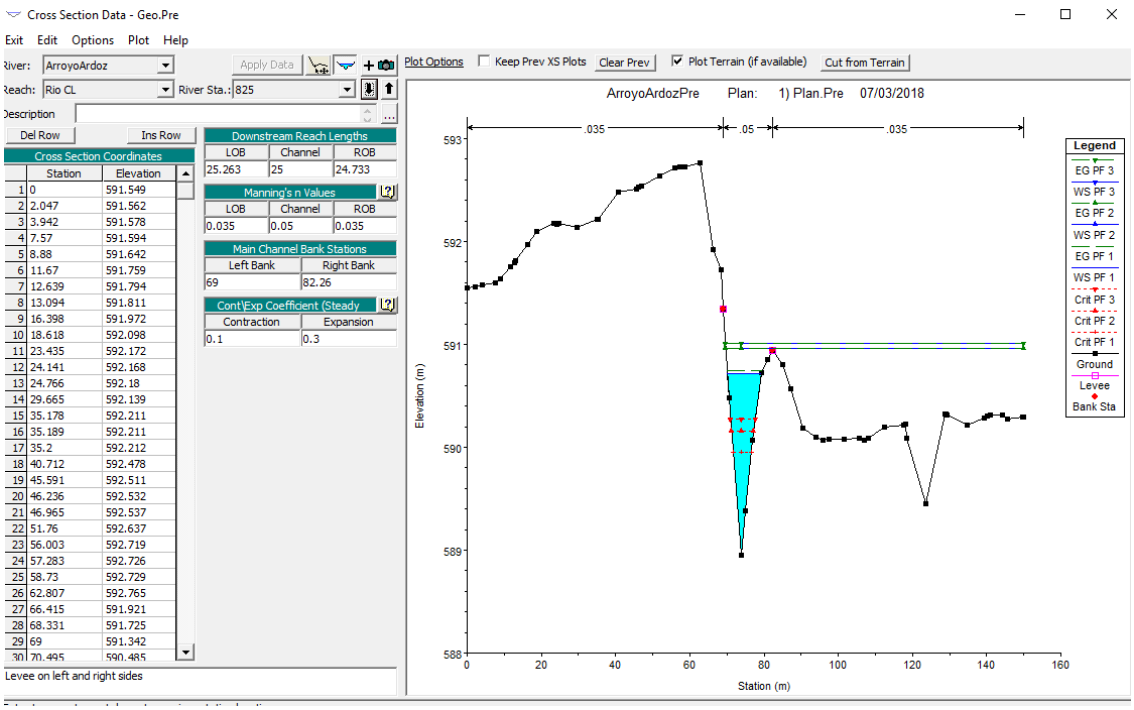
4.2.6.2 Datos geométricos

En el programa informático HEC-RAS se han introducido los datos geométricos del arroyo Ardoz y sus secciones en la zona de estudio.

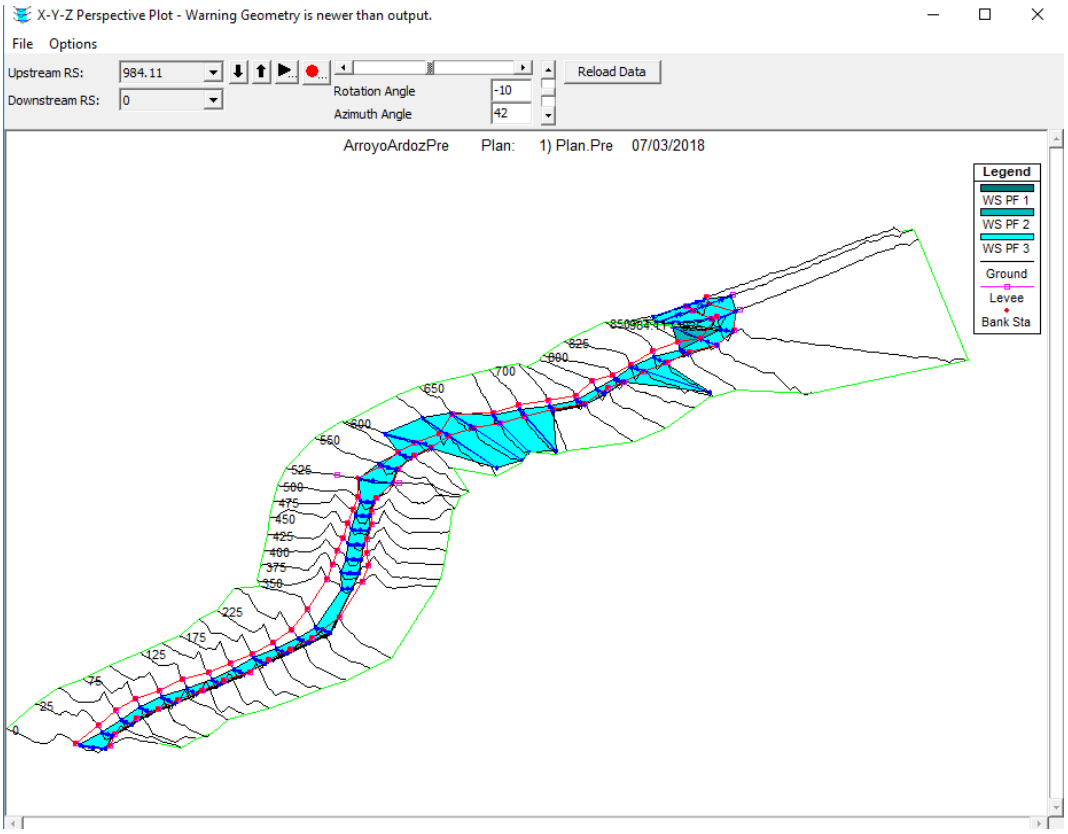
Planta Arroyo Ardoz – Modelo HEC-RAS (Situación pre-operacional)



Sección Arroyo Ardoz – Modelo HEC-RAS (Situación pre-operacional)



Vista en perspectiva Arroyo Ardoz – Modelo HEC-RAS (Situación pre-operacional)



4.2.6.3 Caudales para las avenidas de cálculo

Tras haber definido en el modelo los datos geométricos y los coeficientes de rozamiento de las distintas zonas de flujo, a continuación se detallan los datos del caudal obtenido anteriormente para cada periodo de retorno considerado.

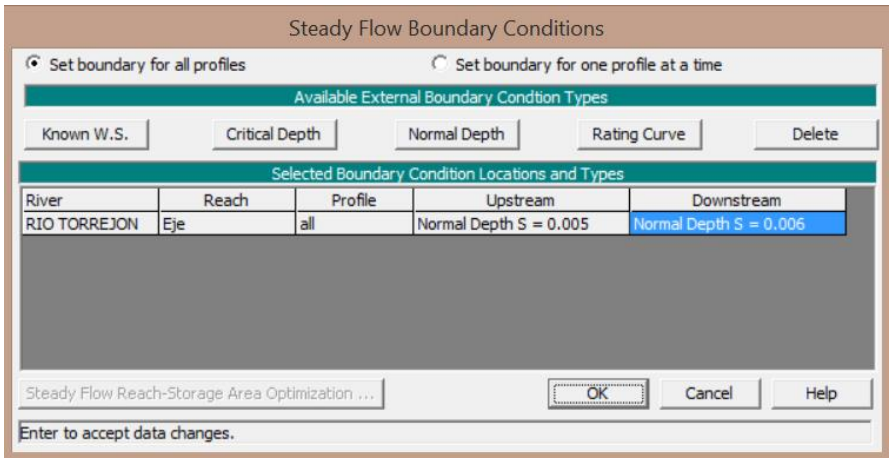
Con el fin de simplificar el modelo, y dado que la zona de estudio se encuentra una topografía sensiblemente llana y la mota existente impide que escurra agua de los terrenos colindantes al arroyo, se ha considerado que el caudal que circula por el tramo del arroyo es el que se ha calculado en los apartados anteriores.

Q_{10} = 5.48 m³/s

Q_{100} = 8.42 m³/s

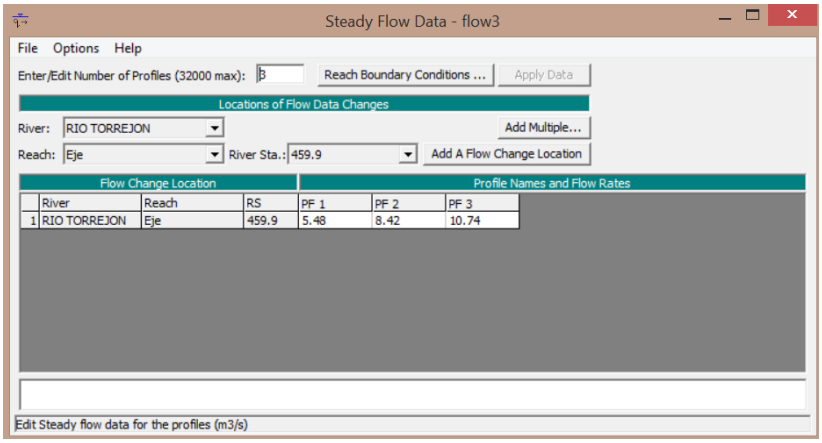
Q_{500} = 10.74 m³/s

Se han definido como condición de contorno el calado normal tanto aguas arriba (pendiente s = 0.005), como aguas abajo (pendiente s = 0.006) y se ha realizado un cálculo tanto en régimen mixto como rápido, siendo el régimen mixto más desfavorable.



A partir de los caudales para las avenidas de cálculo se obtiene el cauce para los periodos de retorno considerados, en las imágenes a continuación se pueden apreciar perspectivas para todos los periodos.

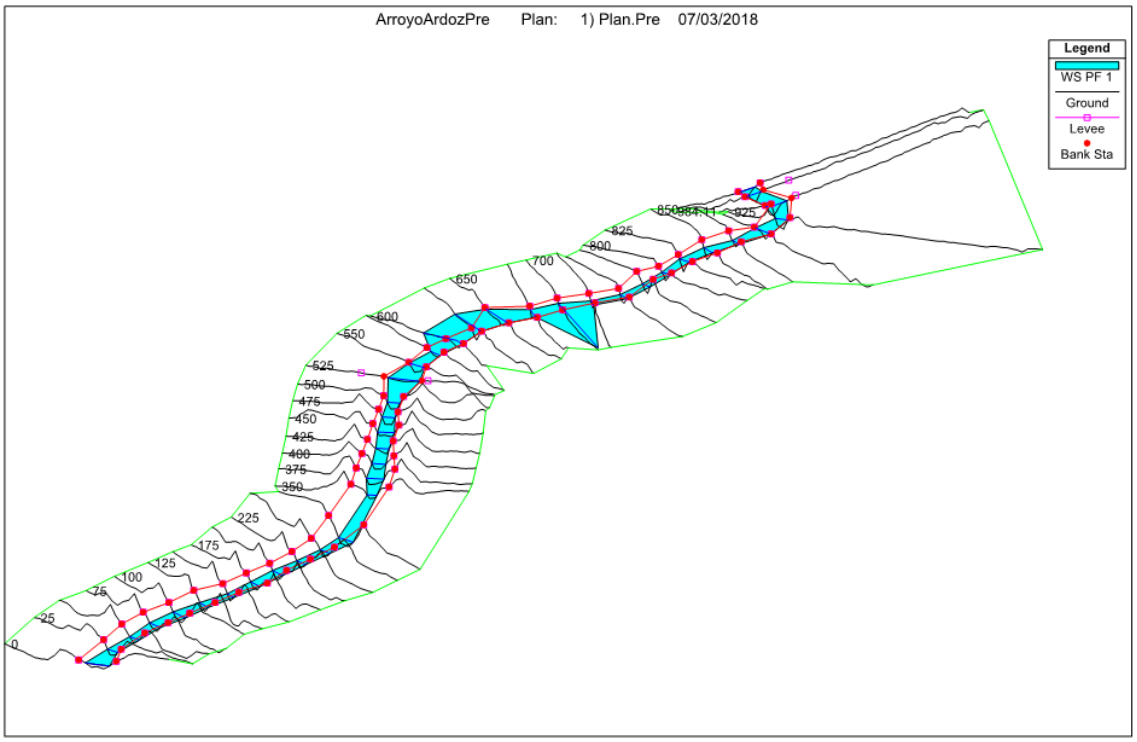
Introducción del dato caudal en el modelo HEC-RAS



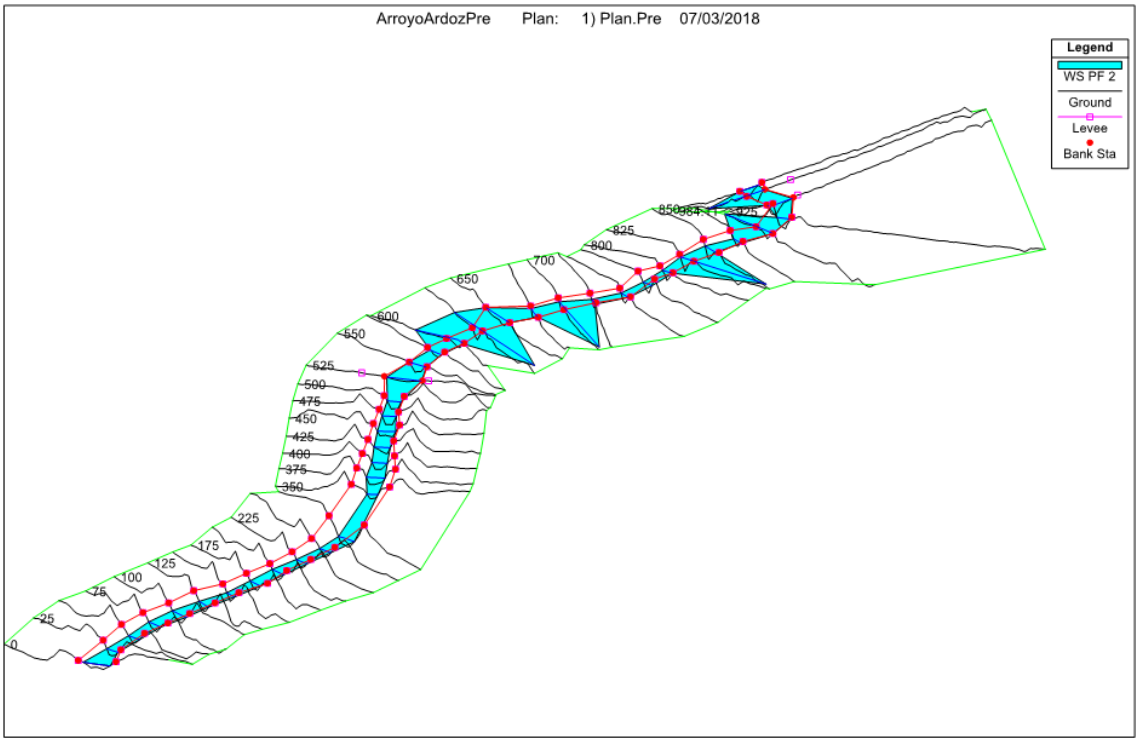
A partir del periodo de retorno de 100 años se delimita la zona de flujo permanente, que se ha importado directamente del modelo HEC-RAS, y de la cual se obtienen las zonas de Servidumbre y de Policía.

Como se puede apreciar en la imagen correspondiente al periodo de retorno de 500 años, existe un rebose de la mota existente en varios puntos. La zona inundable está representada en los planos adjuntos.

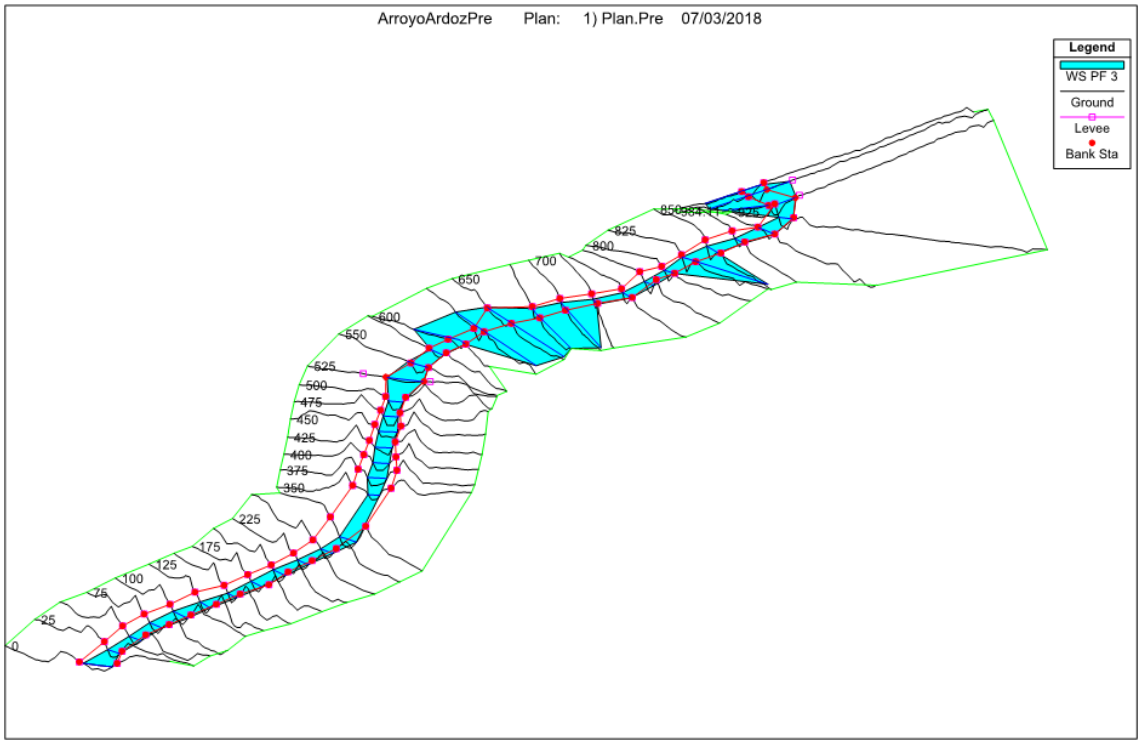
Perspectiva del resultado obtenido para el periodo de retorno de 10 años



Perspectiva del resultado obtenido para el periodo de retorno de 100 años



Perspectiva del resultado obtenido para el periodo de retorno de 500 años



4.2.7 Obra de fábrica bajo Av. de los Premios Nobel

Al paso por la Avenida de los Premios Nobel, el arroyo es conducido por un paso inferior formado por dos canales de 3.0x3.0m con una longitud de 50m aproximadamente y 0.5% de pendiente.

El caudal máximo de la obra de fábrica es:

$$Q = \frac{1}{n} S R^{2/3} J^{1/2} = \frac{1}{0.015}\ x\ (3.0\ x\ 3.0)\ x\ 0.75^{2/3}\ x\ 0.005^{1/2} = 35.0\ \text{m/s}^3$$

Siendo,

n → Número de Maning

S → Area de la sección

R = S / perímetro

J → Pendiente

Como hay dos canales, la capacidad total será de 70.0 m/s³.

Al disponer de una capacidad considerablemente superior al caudal de avenida para el periodo de retorno de 500 años, no se producirán efectos hidráulicos negativos aguas arriba de la obra de fábrica.

5 Medidas para evitar daños producidos por inundaciones

Aunque es bastante limitado el efecto de las inundaciones en la zona de estudio, se propone la aplicación de dos medidas complementarias para evitar que el agua rebase el cauce del arroyo.

Con respecto al saneamiento propuesto en la Modificación Puntual del P.G.O.U. del Equipamiento Red General RG-EQ-AD se establece red separativa para las aguas pluviales y fecales (esta red se encuentra ya ejecutada). Las parcelas establecidas verterán sus fluidos a las redes existentes, tanto para residuales como para pluviales, pues la red ejecutada está diseñada para el suelo urbano ya existente. Por ello no se produce un vertido directo sobre el Arroyo Ardoz incorporándose todos los vertidos a la red de saneamiento ya existente y con capacidad suficiente para las necesidades requeridas.

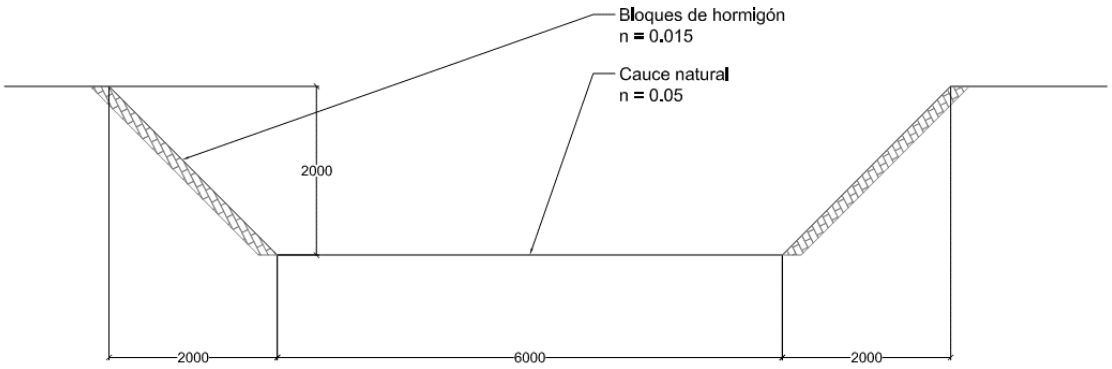
5.1 Medida nº1

Limpieza del cauce del río. Consiste en la limpieza y desbroce periódico del cauce del arroyo, lo que disminuye la resistencia por fricción del agua, aumentando la velocidad de la misma y por tanto, el calado.

5.2 Medida nº2

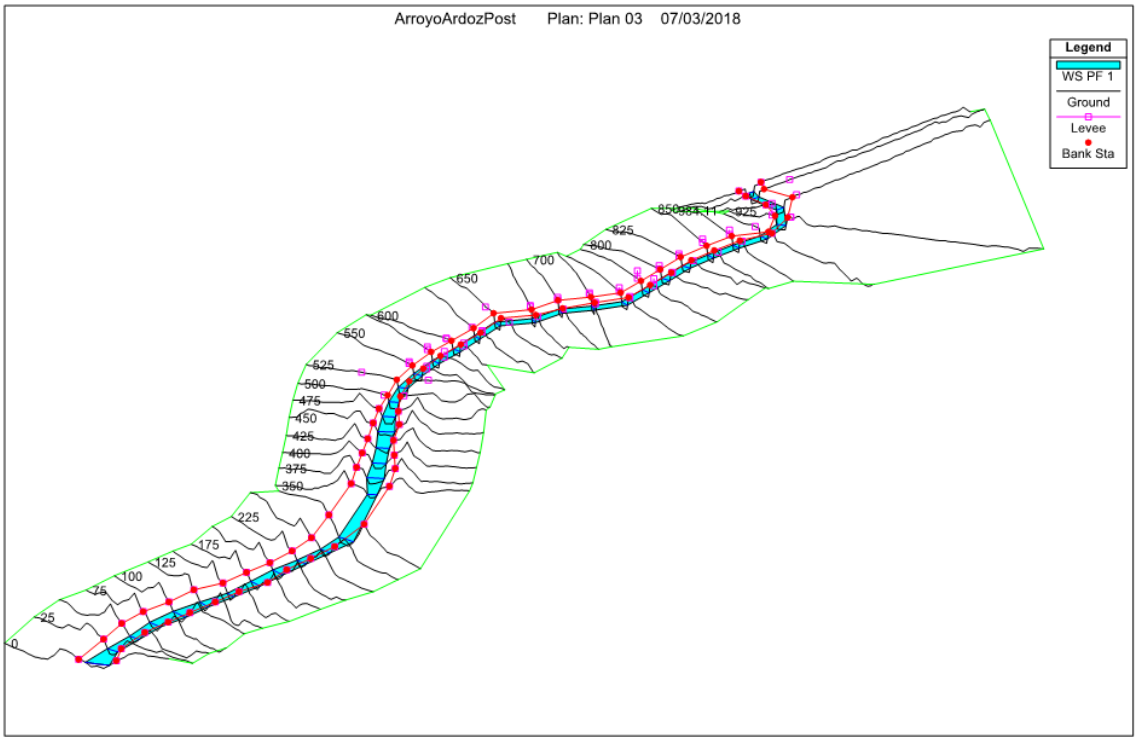
Aumento de la mota existente en las zonas donde se prevé la ocurrencia de los desbordamientos (PK 0+515 a 0+984). Se trata de elevar la cota de la mota existente en las zonas donde se ha previsto que se puede desbordar el arroyo mediante un talud de pendiente 1:1 construido mediante el empleo de tierra compactada, grava, hormigón y acabado con bloques como se indica en los planos adjuntos.

Un nuevo modelo ha sido realizado con los mismos datos de caudal y avenida, condiciones de contorno y régimen del flujo que los considerados para el cálculo de la situación actual o pre-operacional. Sin embargo, se ha considerado una sección como la de figura siguiente:

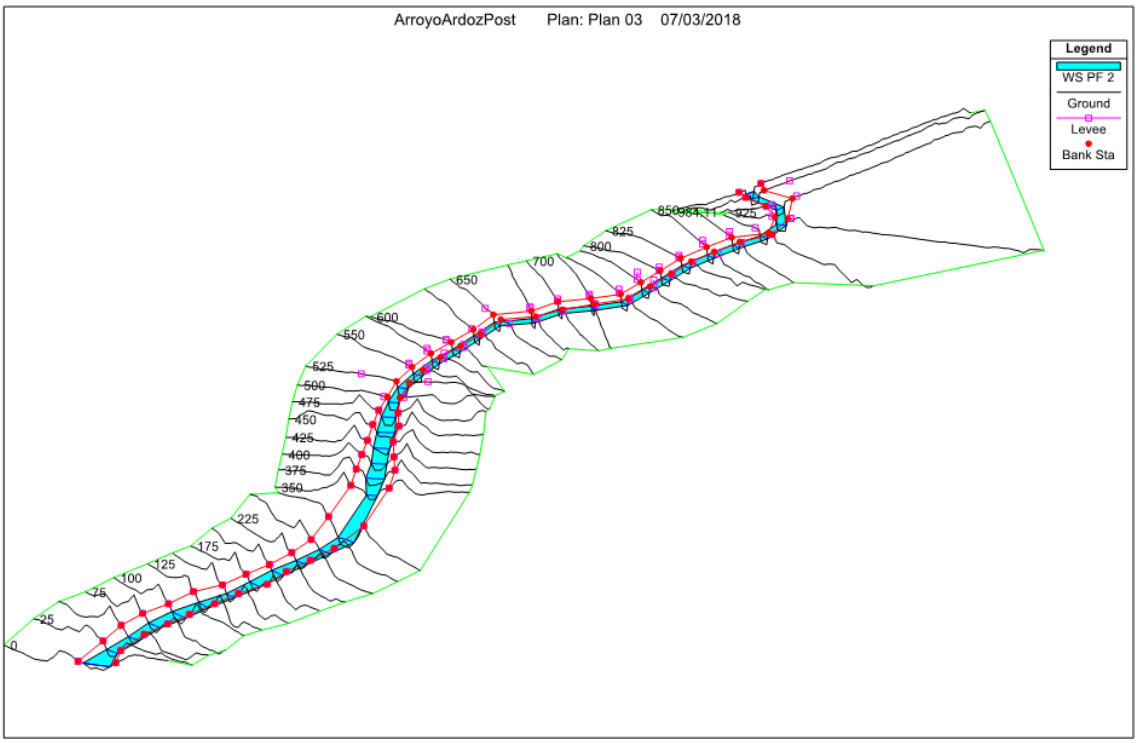


Se obtiene, como se puede ver en las imágenes a continuación, que no existe desbordamiento y el caudal queda contenido para la avenida de 500 años.

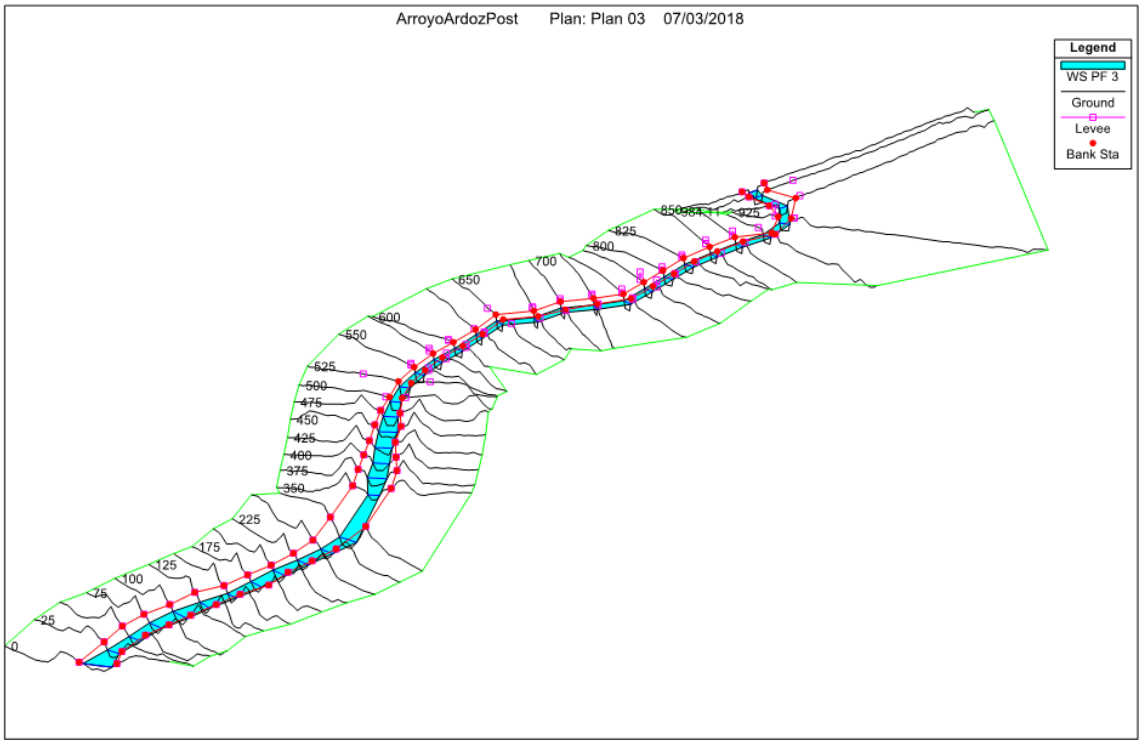
Perspectiva del resultado obtenido para el periodo de retorno de 10 años



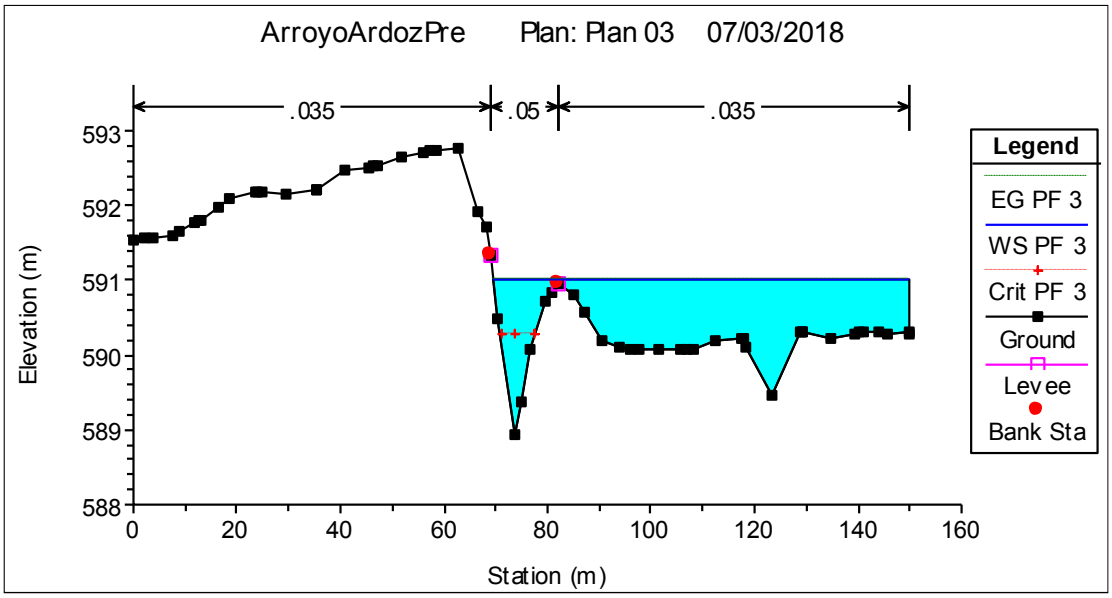
Perspectiva del resultado obtenido para el periodo de retorno de 100 años



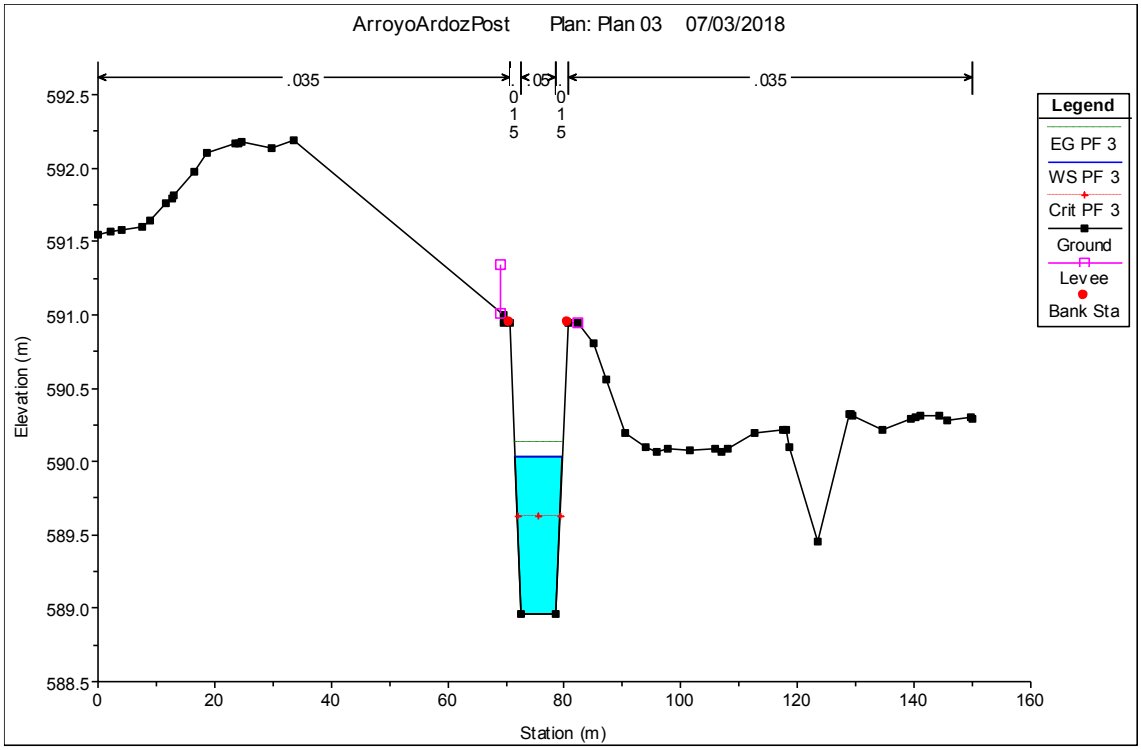
Perspectiva del resultado obtenido para el periodo de retorno de 500 años



Sección Sta. 300 en situación actual (T = 500 años)

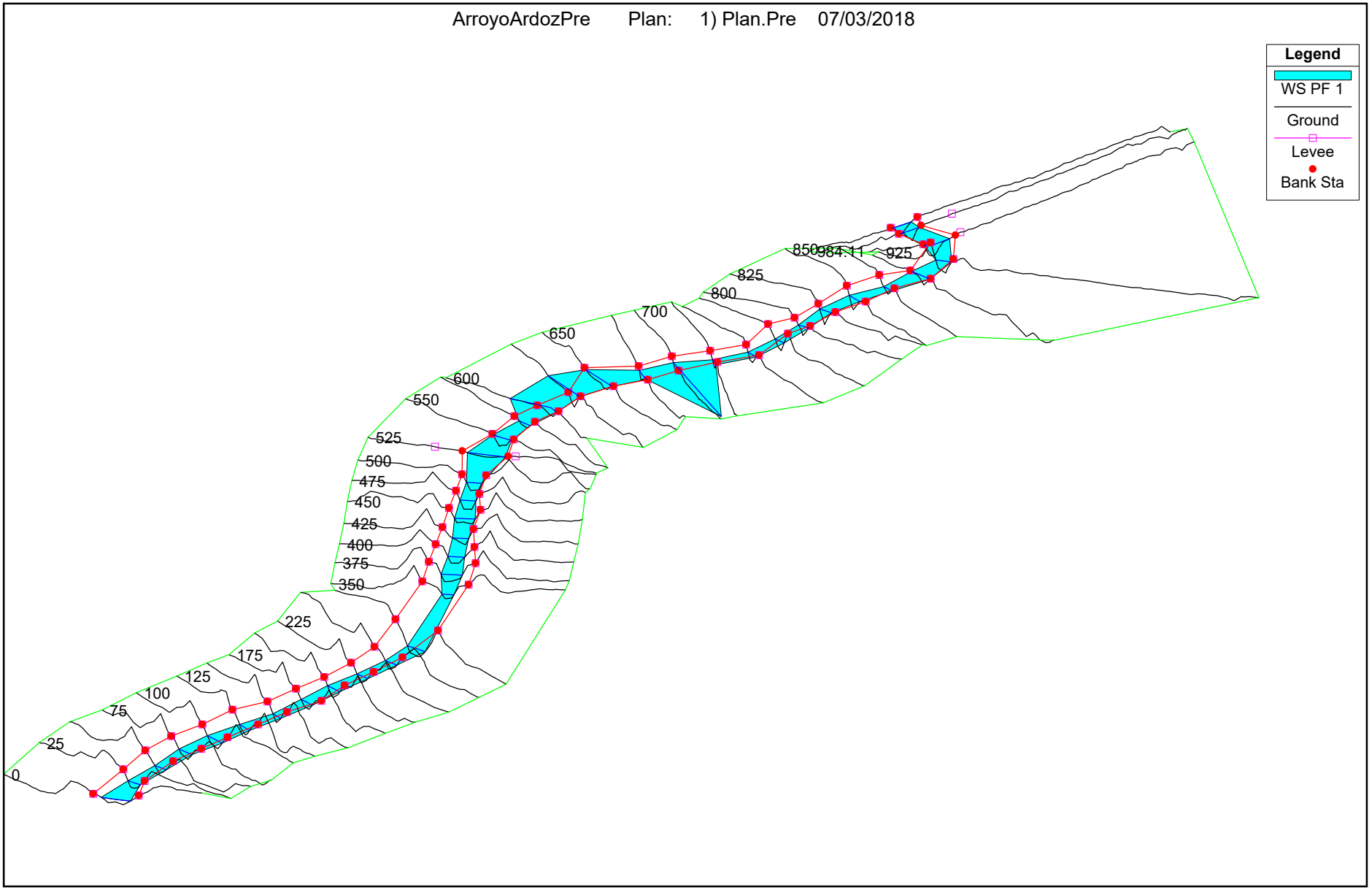


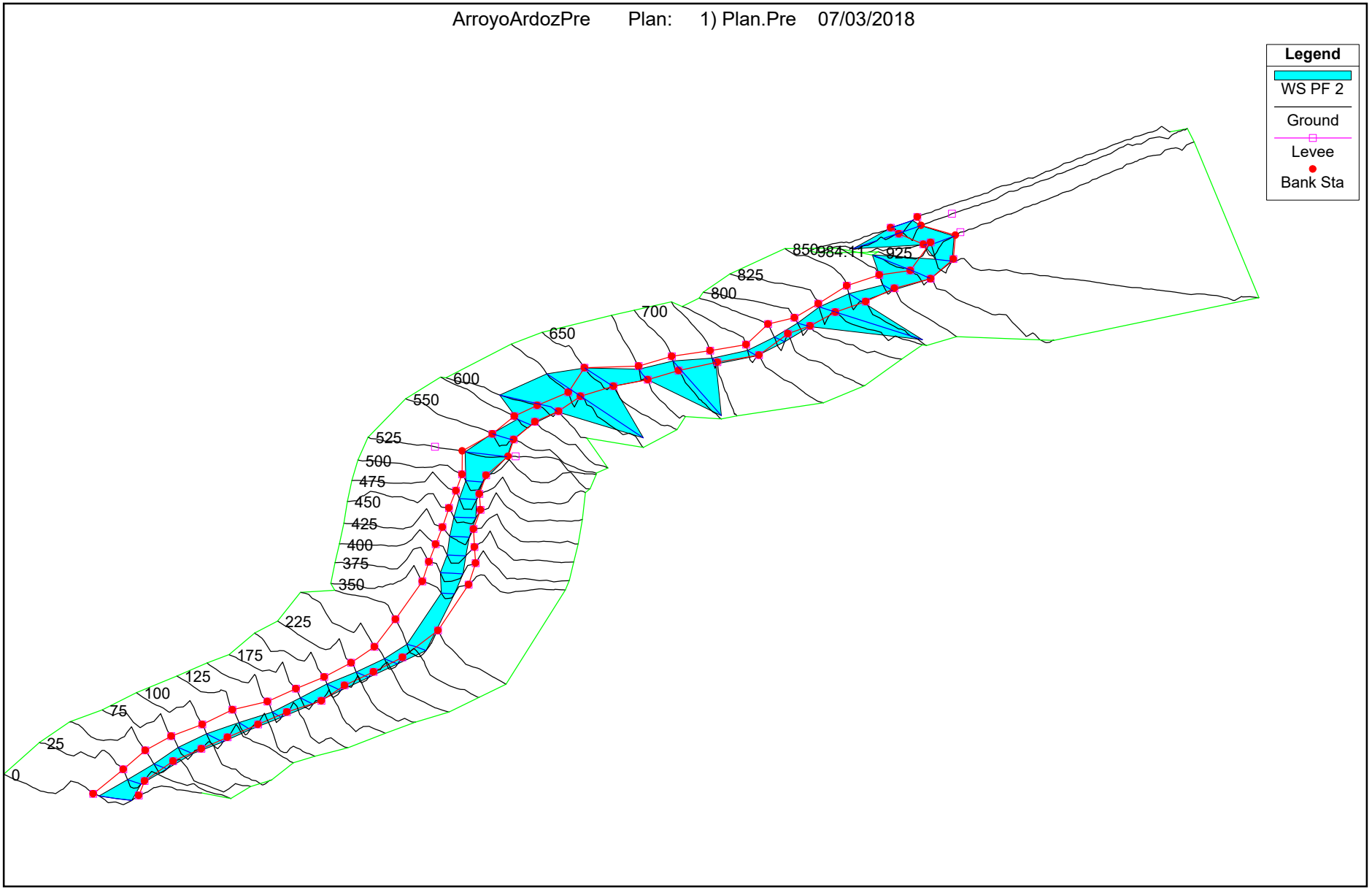
Sección Sta. 825 en situación modificada (T = 500 años)

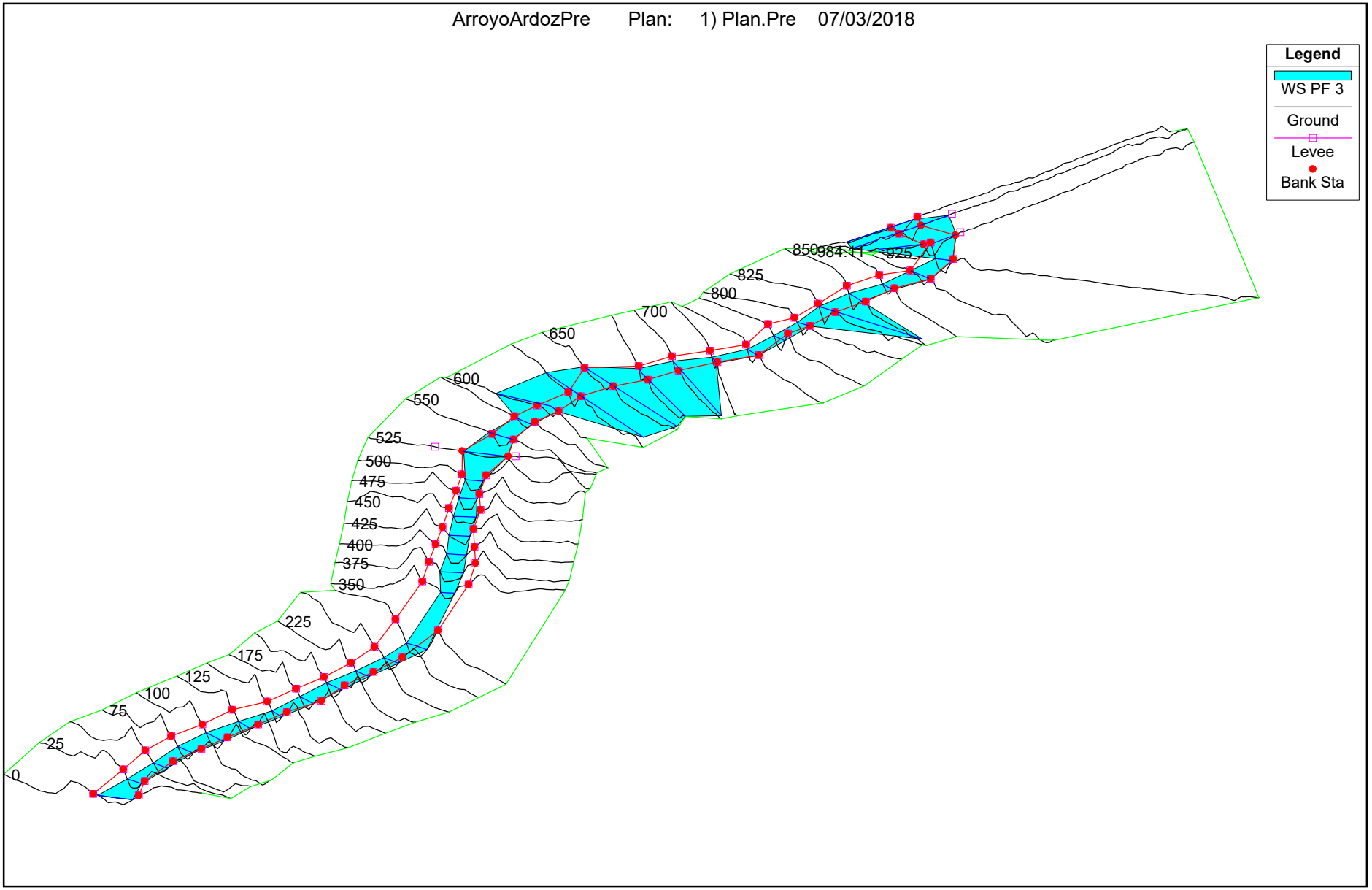


ANEXOS

PRE-OPERACIONAL


ArroyoArdozPre Plan: 1) Plan.Pre 07/03/2018
Legend
WS PF 1
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0


ArroyoArdozPre Plan: 1) Plan.Pre 07/03/2018
Legend
WS PF 2
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0


ArroyoArdozPre Plan: 1) Plan.Pre 07/03/2018
Legend
WS PF 3
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0

Plan:

E.G. Elev (m)	591.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	591.42	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	590.78	Flow Area (m2)		9.38	
E.G. Slope (m/m)	0.001633	Area (m2)		9.38	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	14.92	Top Width (m)		14.92	
Vel Total (m/s)	0.58	Avg. Vel. (m/s)		0.58	
Max Chl Dpth (m)	1.43	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	135.6	Conv. (m3/s)		135.6	
Length Wtd. (m)	9.11	Wetted Per. (m)		15.26	
Min Ch El (m)	589.99	Shear (N/m2)		9.84	
Alpha	1.00	Stream Power (N/m s)		5.75	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.16	6.64	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	11.96	1.79

Plan:

E.G. Elev (m)	591.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	591.54	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	590.92	Flow Area (m2)		11.41	
E.G. Slope (m/m)	0.002418	Area (m2)		11.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	17.23	Top Width (m)		17.23	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	1.55	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	171.2	Conv. (m3/s)		171.2	
Length Wtd. (m)	9.11	Wetted Per. (m)		17.57	
Min Ch El (m)	589.99	Shear (N/m2)		15.40	
Alpha	1.00	Stream Power (N/m s)		11.36	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.47	8.52	4.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.58	13.40	5.21

Plan:

E.G. Elev (m)	591.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	591.62	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	591.02	Flow Area (m2)	4.91	12.84	
E.G. Slope (m/m)	0.002074	Area (m2)	4.91	12.84	
Q Total (m3/s)	10.74	Flow (m3/s)	1.72	9.02	
Top Width (m)	53.69	Top Width (m)	35.08	18.61	
Vel Total (m/s)	0.61	Avg. Vel. (m/s)	0.35	0.70	
Max Chl Dpth (m)	1.63	Hydr. Depth (m)	0.14	0.69	
Conv. Total (m3/s)	235.8	Conv. (m3/s)	37.8	198.1	
Length Wtd. (m)	9.11	Wetted Per. (m)	35.11	18.96	
Min Ch El (m)	589.99	Shear (N/m2)	2.84	13.77	
Alpha	1.19	Stream Power (N/m s)	1.00	9.68	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.66	9.72	7.47
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.94	14.10	8.67

Plan:

E.G. Elev (m)	591.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	591.39	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	590.82	Flow Area (m2)		8.38	
E.G. Slope (m/m)	0.002423	Area (m2)		8.38	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: (Continued)

Top Width (m)	15.18	Top Width (m)		15.18	
Vel Total (m/s)	0.65	Avg. Vel. (m/s)		0.65	
Max Chl Dpth (m)	1.38	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	111.3	Conv. (m3/s)		111.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.50	
Min Ch El (m)	590.01	Shear (N/m2)		12.85	
Alpha	1.00	Stream Power (N/m s)		8.40	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.16	6.56	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	11.82	1.79

Plan:

E.G. Elev (m)	591.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	591.53	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	590.97	Flow Area (m2)	3.89	10.60	
E.G. Slope (m/m)	0.002251	Area (m2)	3.89	10.60	
Q Total (m3/s)	8.42	Flow (m3/s)	1.31	7.11	
Top Width (m)	48.94	Top Width (m)	31.42	17.52	
Vel Total (m/s)	0.58	Avg. Vel. (m/s)	0.34	0.67	
Max Chl Dpth (m)	1.51	Hydr. Depth (m)	0.12	0.61	
Conv. Total (m3/s)	177.5	Conv. (m3/s)	27.6	149.9	
Length Wtd. (m)	24.80	Wetted Per. (m)	31.46	17.85	
Min Ch El (m)	590.01	Shear (N/m2)	2.73	13.11	
Alpha	1.18	Stream Power (N/m s)	0.92	8.79	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.46	8.42	4.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.44	13.25	5.21

Plan:

E.G. Elev (m)	591.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	0.035
W.S. Elev (m)	591.61	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	591.06	Flow Area (m2)	6.50	12.02	0.52
E.G. Slope (m/m)	0.001884	Area (m2)	6.50	12.02	0.52
Q Total (m3/s)	10.74	Flow (m3/s)	2.70	7.97	0.07
Top Width (m)	69.99	Top Width (m)	33.57	17.69	18.73
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.42	0.66	0.13
Max Chl Dpth (m)	1.59	Hydr. Depth (m)	0.19	0.68	0.03
Conv. Total (m3/s)	247.4	Conv. (m3/s)	62.2	183.6	1.6
Length Wtd. (m)	24.49	Wetted Per. (m)	33.62	18.02	18.73
Min Ch El (m)	590.01	Shear (N/m2)	3.57	12.33	0.51
Alpha	1.16	Stream Power (N/m s)	1.48	8.17	0.07
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.61	9.61	7.47
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	13.93	8.58

Plan:

E.G. Elev (m)	591.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.050	
W.S. Elev (m)	591.37	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.50	Flow Area (m2)		12.70	
E.G. Slope (m/m)	0.000843	Area (m2)		12.70	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	19.44	Top Width (m)		19.44	
Vel Total (m/s)	0.43	Avg. Vel. (m/s)		0.43	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	188.8	Conv. (m3/s)		188.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		19.80	
Min Ch El (m)	589.97	Shear (N/m2)		5.30	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		2.29	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.16	6.30	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	11.39	1.79

Plan:

E.G. Elev (m)	591.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	591.49	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.64	Flow Area (m2)		15.23	
E.G. Slope (m/m)	0.001390	Area (m2)		15.23	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	23.49	Top Width (m)		23.49	
Vel Total (m/s)	0.55	Avg. Vel. (m/s)		0.55	
Max Chl Dpth (m)	1.52	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	225.8	Conv. (m3/s)		225.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		23.87	
Min Ch El (m)	589.97	Shear (N/m2)		8.70	
Alpha	1.00	Stream Power (N/m s)		4.81	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.41	8.10	4.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.09	12.73	5.21

Plan:

E.G. Elev (m)	591.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.035	0.050	0.035
W.S. Elev (m)	591.58	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.73	Flow Area (m2)	5.33	17.41	0.02
E.G. Slope (m/m)	0.001144	Area (m2)	5.33	17.41	0.02
Q Total (m3/s)	10.74	Flow (m3/s)	1.52	9.22	0.00
Top Width (m)	58.76	Top Width (m)	33.11	24.75	0.90
Vel Total (m/s)	0.47	Avg. Vel. (m/s)	0.28	0.53	0.08
Max Chl Dpth (m)	1.61	Hydr. Depth (m)	0.16	0.70	0.02
Conv. Total (m3/s)	317.5	Conv. (m3/s)	44.9	272.6	0.1
Length Wtd. (m)	24.79	Wetted Per. (m)	33.37	25.14	0.90
Min Ch El (m)	589.97	Shear (N/m2)	1.79	7.77	0.27
Alpha	1.13	Stream Power (N/m s)	0.51	4.12	0.02
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.48	9.24	7.46
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.88	13.40	8.34

Plan:

E.G. Elev (m)	591.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	591.34	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.51	Flow Area (m2)		9.85	
E.G. Slope (m/m)	0.000907	Area (m2)		9.85	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.48	Top Width (m)		10.48	
Vel Total (m/s)	0.56	Avg. Vel. (m/s)		0.56	
Max Chl Dpth (m)	1.51	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	182.0	Conv. (m3/s)		182.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.10	
Min Ch El (m)	589.83	Shear (N/m2)		7.89	
Alpha	1.00	Stream Power (N/m s)		4.39	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.16	6.02	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	11.02	1.79

Plan:

E.G. Elev (m)	591.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	591.43	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.66	Flow Area (m2)		10.84	
E.G. Slope (m/m)	0.001644	Area (m2)		10.84	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.90	Top Width (m)		10.90	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	1.61	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	207.7	Conv. (m3/s)		207.7	
Length Wtd. (m)	24.61	Wetted Per. (m)		11.57	
Min Ch El (m)	589.83	Shear (N/m2)		15.11	
Alpha	1.00	Stream Power (N/m s)		11.74	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.41	7.77	4.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.09	12.30	5.21

Plan:

E.G. Elev (m)	591.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	591.50	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.76	Flow Area (m2)		11.63	
E.G. Slope (m/m)	0.002203	Area (m2)		11.63	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.23	Top Width (m)		11.23	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	1.68	Hydr. Depth (m)		1.04	
Conv. Total (m3/s)	228.8	Conv. (m3/s)		228.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.93	
Min Ch El (m)	589.83	Shear (N/m2)		21.07	
Alpha	1.00	Stream Power (N/m s)		19.45	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.42	8.88	7.46
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.51	12.95	8.33

Plan:

E.G. Elev (m)	591.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	591.27	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	590.95	Flow Area (m2)		6.68	
E.G. Slope (m/m)	0.005611	Area (m2)		6.68	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	16.28	Top Width (m)		16.28	
Vel Total (m/s)	0.82	Avg. Vel. (m/s)		0.82	
Max Chl Dpth (m)	1.90	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	73.2	Conv. (m3/s)		73.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		16.46	
Min Ch El (m)	590.21	Shear (N/m2)		22.31	
Alpha	1.00	Stream Power (N/m s)		18.31	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)	0.16	5.81	1.23
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.01	10.68	1.79

Plan:

E.G. Elev (m)	591.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	591.38	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	591.08	Flow Area (m2)	4.63	8.53	
E.G. Slope (m/m)	0.003657	Area (m2)	4.63	8.53	
Q Total (m3/s)	8.42	Flow (m3/s)	2.18	6.24	

Plan: (Continued)

Top Width (m)	50.38	Top Width (m)	32.45	17.93	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)	0.47	0.73	
Max Chl Dpth (m)	2.00	Hydr. Depth (m)	0.14	0.48	
Conv. Total (m3/s)	139.2	Conv. (m3/s)	36.1	103.1	
Length Wtd. (m)	24.92	Wetted Per. (m)	32.52	18.13	
Min Ch El (m)	590.21	Shear (N/m2)	5.11	16.87	
Alpha	1.11	Stream Power (N/m s)	2.41	12.34	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	0.36	7.53	4.32
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.73	11.94	5.21

Plan:

E.G. Elev (m)	591.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.050	
W.S. Elev (m)	591.31	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	591.20	Flow Area (m2)		7.31	
E.G. Slope (m/m)	0.017235	Area (m2)		7.31	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	17.26	Top Width (m)		17.26	
Vel Total (m/s)	1.47	Avg. Vel. (m/s)		1.47	
Max Chl Dpth (m)	1.94	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	81.8	Conv. (m3/s)		81.8	
Length Wtd. (m)	25.49	Wetted Per. (m)		17.45	
Min Ch El (m)	590.21	Shear (N/m2)		70.78	
Alpha	1.00	Stream Power (N/m s)		104.03	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	8.64	7.46
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.51	12.60	8.33

Plan:

E.G. Elev (m)	591.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.050	
W.S. Elev (m)	590.83	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	590.83	Flow Area (m2)		2.91	
E.G. Slope (m/m)	0.035149	Area (m2)		2.91	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.03	Top Width (m)		8.03	
Vel Total (m/s)	1.88	Avg. Vel. (m/s)		1.88	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	29.2	Conv. (m3/s)		29.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.16	
Min Ch El (m)	590.12	Shear (N/m2)		122.86	
Alpha	1.00	Stream Power (N/m s)		231.59	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.16	5.69	1.23
C & E Loss (m)	0.05	Cum SA (1000 m2)	1.01	10.38	1.79

Plan:

E.G. Elev (m)	591.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.050	
W.S. Elev (m)	590.96	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	590.96	Flow Area (m2)		4.11	
E.G. Slope (m/m)	0.032938	Area (m2)		4.11	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.54	Top Width (m)		9.54	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)		2.05	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	46.4	Conv. (m3/s)		46.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.69	
Min Ch El (m)	590.12	Shear (N/m2)		136.96	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		280.59	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.30	7.37	4.32
C & E Loss (m)	0.06	Cum SA (1000 m2)	1.34	11.60	5.21

Plan:

E.G. Elev (m)	591.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.050	
W.S. Elev (m)	591.05	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	591.05	Flow Area (m2)		4.98	
E.G. Slope (m/m)	0.032100	Area (m2)		4.98	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	10.50	Top Width (m)		10.50	
Vel Total (m/s)	2.16	Avg. Vel. (m/s)		2.16	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	59.9	Conv. (m3/s)		59.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.67	
Min Ch El (m)	590.12	Shear (N/m2)		146.96	
Alpha	1.00	Stream Power (N/m s)		316.91	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)	0.42	8.49	7.46
C & E Loss (m)	0.06	Cum SA (1000 m2)	1.51	12.25	8.33

Plan:

E.G. Elev (m)	590.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	590.76	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	590.02	Flow Area (m2)		8.95	
E.G. Slope (m/m)	0.001327	Area (m2)		8.95	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	11.14	Top Width (m)		11.14	
Vel Total (m/s)	0.61	Avg. Vel. (m/s)		0.61	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	150.5	Conv. (m3/s)		150.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.60	
Min Ch El (m)	589.23	Shear (N/m2)		10.03	
Alpha	1.00	Stream Power (N/m s)		6.14	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.16	5.54	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	10.14	1.79

Plan:

E.G. Elev (m)	590.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	590.94	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	590.19	Flow Area (m2)		11.12	
E.G. Slope (m/m)	0.002003	Area (m2)		11.12	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	13.79	Top Width (m)		13.79	
Vel Total (m/s)	0.76	Avg. Vel. (m/s)		0.76	
Max Chl Dpth (m)	1.71	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	188.2	Conv. (m3/s)		188.2	
Length Wtd. (m)	24.17	Wetted Per. (m)		14.30	
Min Ch El (m)	589.23	Shear (N/m2)		15.28	
Alpha	1.00	Stream Power (N/m s)		11.56	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.30	7.18	4.32
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.34	11.31	5.21

Plan:

E.G. Elev (m)	591.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	590.98	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	590.29	Flow Area (m2)		11.76	
E.G. Slope (m/m)	0.002894	Area (m2)		11.76	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	14.52	Top Width (m)		14.52	
Vel Total (m/s)	0.91	Avg. Vel. (m/s)		0.91	
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	199.6	Conv. (m3/s)		199.6	
Length Wtd. (m)	24.16	Wetted Per. (m)		15.03	
Min Ch El (m)	589.23	Shear (N/m2)		22.20	
Alpha	1.00	Stream Power (N/m s)		20.28	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	8.28	7.46
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.51	11.94	8.33

Plan:

E.G. Elev (m)	590.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	590.72	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	589.96	Flow Area (m2)		7.84	
E.G. Slope (m/m)	0.001681	Area (m2)		7.84	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.28	Top Width (m)		9.28	
Vel Total (m/s)	0.70	Avg. Vel. (m/s)		0.70	
Max Chl Dpth (m)	1.77	Hydr. Depth (m)		0.85	
Conv. Total (m3/s)	133.7	Conv. (m3/s)		133.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.96	
Min Ch El (m)	588.95	Shear (N/m2)		12.97	
Alpha	1.00	Stream Power (N/m s)		9.07	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.16	5.33	1.23
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.01	9.88	1.79

Plan:

E.G. Elev (m)	590.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	590.96	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	590.15	Flow Area (m2)		10.43	51.96
E.G. Slope (m/m)	0.000036	Area (m2)		10.43	51.96
Q Total (m3/s)	8.42	Flow (m3/s)		1.06	7.36
Top Width (m)	80.33	Top Width (m)		12.59	67.74
Vel Total (m/s)	0.13	Avg. Vel. (m/s)		0.10	0.14
Max Chl Dpth (m)	2.01	Hydr. Depth (m)		0.83	0.77
Conv. Total (m3/s)	1411.1	Conv. (m3/s)		177.1	1234.0
Length Wtd. (m)	24.88	Wetted Per. (m)		13.34	68.57
Min Ch El (m)	588.95	Shear (N/m2)		0.27	0.26
Alpha	1.03	Stream Power (N/m s)		0.03	0.04
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.30	6.91	3.72
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.34	10.98	4.42

Plan:

E.G. Elev (m)	591.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	591.01	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	590.27	Flow Area (m2)		11.10	55.55
E.G. Slope (m/m)	0.000047	Area (m2)		11.10	55.55
Q Total (m3/s)	10.74	Flow (m3/s)		1.33	9.41

Plan: (Continued)

Top Width (m)	80.42	Top Width (m)		12.68	67.74
Vel Total (m/s)	0.16	Avg. Vel. (m/s)		0.12	0.17
Max Chl Dpth (m)	2.06	Hydr. Depth (m)		0.88	0.82
Conv. Total (m3/s)	1573.9	Conv. (m3/s)		195.4	1378.4
Length Wtd. (m)	24.88	Wetted Per. (m)		13.45	68.63
Min Ch El (m)	588.95	Shear (N/m2)		0.38	0.37
Alpha	1.04	Stream Power (N/m s)		0.05	0.06
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	8.00	6.82
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.51	11.60	7.55

Plan:

E.G. Elev (m)	590.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	590.58	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	590.31	Flow Area (m2)		4.44	
E.G. Slope (m/m)	0.008386	Area (m2)		4.44	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.68	Top Width (m)		7.68	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	59.8	Conv. (m3/s)		59.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.05	
Min Ch El (m)	589.41	Shear (N/m2)		45.42	
Alpha	1.00	Stream Power (N/m s)		56.00	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.16	5.18	1.23
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.01	9.67	1.79

Plan:

E.G. Elev (m)	590.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.79	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	590.48	Flow Area (m2)		6.19	
E.G. Slope (m/m)	0.008238	Area (m2)		6.19	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.10	Top Width (m)		9.10	
Vel Total (m/s)	1.36	Avg. Vel. (m/s)		1.36	
Max Chl Dpth (m)	1.38	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	92.8	Conv. (m3/s)		92.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.54	
Min Ch El (m)	589.41	Shear (N/m2)		52.43	
Alpha	1.00	Stream Power (N/m s)		71.34	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.30	6.70	3.07
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.34	10.71	3.59

Plan:

E.G. Elev (m)	590.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.050	
W.S. Elev (m)	590.87	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	590.59	Flow Area (m2)		6.97	
E.G. Slope (m/m)	0.009760	Area (m2)		6.97	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	9.68	Top Width (m)		9.68	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	108.7	Conv. (m3/s)		108.7	
Length Wtd. (m)	25.62	Wetted Per. (m)		10.14	
Min Ch El (m)	589.41	Shear (N/m2)		65.86	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		101.42	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	7.77	6.13
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.51	11.32	6.71

Plan:

E.G. Elev (m)	590.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	590.45	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	590.05	Flow Area (m2)		5.55	
E.G. Slope (m/m)	0.004376	Area (m2)		5.55	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.24	Top Width (m)		8.24	
Vel Total (m/s)	0.99	Avg. Vel. (m/s)		0.99	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	82.8	Conv. (m3/s)		82.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	589.32	Shear (N/m2)		27.65	
Alpha	1.00	Stream Power (N/m s)		27.29	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.16	5.05	1.23
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	9.47	1.79

Plan:

E.G. Elev (m)	590.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.65	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	590.21	Flow Area (m2)		7.28	
E.G. Slope (m/m)	0.004951	Area (m2)		7.28	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.31	Top Width (m)		9.31	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		0.78	
Conv. Total (m3/s)	119.7	Conv. (m3/s)		119.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.76	
Min Ch El (m)	589.32	Shear (N/m2)		36.19	
Alpha	1.00	Stream Power (N/m s)		41.87	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.30	6.54	3.07
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.34	10.48	3.59

Plan:

E.G. Elev (m)	590.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	590.78	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	590.31	Flow Area (m2)		8.57	
E.G. Slope (m/m)	0.005269	Area (m2)		8.57	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	10.20	Top Width (m)		10.20	
Vel Total (m/s)	1.25	Avg. Vel. (m/s)		1.25	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	148.0	Conv. (m3/s)		148.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.70	
Min Ch El (m)	589.32	Shear (N/m2)		41.41	
Alpha	1.00	Stream Power (N/m s)		51.87	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.42	7.57	6.13
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.51	11.07	6.71

Plan:

E.G. Elev (m)	590.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	590.33	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	589.99	Flow Area (m2)		5.30	
E.G. Slope (m/m)	0.005439	Area (m2)		5.30	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.74	Top Width (m)		8.74	
Vel Total (m/s)	1.03	Avg. Vel. (m/s)		1.03	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	74.3	Conv. (m3/s)		74.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	589.34	Shear (N/m2)		31.32	
Alpha	1.00	Stream Power (N/m s)		32.39	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)	0.16	4.92	1.23
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.01	9.26	1.79

Plan:

E.G. Elev (m)	590.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.51	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	590.14	Flow Area (m2)		6.99	
E.G. Slope (m/m)	0.006061	Area (m2)		6.99	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.91	Top Width (m)		9.91	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	108.2	Conv. (m3/s)		108.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.26	
Min Ch El (m)	589.34	Shear (N/m2)		40.48	
Alpha	1.00	Stream Power (N/m s)		48.78	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)	0.30	6.36	3.07
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.34	10.24	3.59

Plan:

E.G. Elev (m)	590.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.63	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	590.24	Flow Area (m2)		8.28	
E.G. Slope (m/m)	0.006569	Area (m2)		8.28	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.20	Top Width (m)		11.20	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		1.30	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	132.5	Conv. (m3/s)		132.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.58	
Min Ch El (m)	589.34	Shear (N/m2)		46.09	
Alpha	1.00	Stream Power (N/m s)		59.77	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)	0.42	7.36	6.13
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.51	10.80	6.71

Plan:

E.G. Elev (m)	590.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.050	
W.S. Elev (m)	589.90	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	589.90	Flow Area (m2)		2.84	
E.G. Slope (m/m)	0.034120	Area (m2)		2.84	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: (Continued)

Top Width (m)	7.37	Top Width (m)		7.37	
Vel Total (m/s)	1.93	Avg. Vel. (m/s)		1.93	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	29.7	Conv. (m3/s)		29.7	
Length Wtd. (m)	24.44	Wetted Per. (m)		7.52	
Min Ch El (m)	589.20	Shear (N/m2)		126.35	
Alpha	1.00	Stream Power (N/m s)		243.88	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.16	4.82	1.23
C & E Loss (m)	0.06	Cum SA (1000 m2)	1.01	9.06	1.79

Plan:

E.G. Elev (m)	590.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.050	
W.S. Elev (m)	590.04	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	590.04	Flow Area (m2)		3.97	
E.G. Slope (m/m)	0.032273	Area (m2)		3.97	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.55	Top Width (m)		8.55	
Vel Total (m/s)	2.12	Avg. Vel. (m/s)		2.12	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	46.9	Conv. (m3/s)		46.9	
Length Wtd. (m)	24.44	Wetted Per. (m)		8.73	
Min Ch El (m)	589.20	Shear (N/m2)		143.78	
Alpha	1.00	Stream Power (N/m s)		305.27	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.30	6.22	3.07
C & E Loss (m)	0.07	Cum SA (1000 m2)	1.34	10.01	3.59

Plan:

E.G. Elev (m)	590.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.050	
W.S. Elev (m)	590.13	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	590.13	Flow Area (m2)		4.79	
E.G. Slope (m/m)	0.031420	Area (m2)		4.79	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	9.30	Top Width (m)		9.30	
Vel Total (m/s)	2.24	Avg. Vel. (m/s)		2.24	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	60.6	Conv. (m3/s)		60.6	
Length Wtd. (m)	24.44	Wetted Per. (m)		9.51	
Min Ch El (m)	589.20	Shear (N/m2)		155.15	
Alpha	1.00	Stream Power (N/m s)		348.13	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	7.20	6.13
C & E Loss (m)	0.08	Cum SA (1000 m2)	1.51	10.55	6.71

Plan:

E.G. Elev (m)	589.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	589.96	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	589.70	Flow Area (m2)		4.29	50.64
E.G. Slope (m/m)	0.000022	Area (m2)		4.29	50.64
Q Total (m3/s)	5.48	Flow (m3/s)		0.24	5.24
Top Width (m)	82.53	Top Width (m)		8.92	73.61
Vel Total (m/s)	0.10	Avg. Vel. (m/s)		0.06	0.10
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.48	0.69
Conv. Total (m3/s)	1176.3	Conv. (m3/s)		52.2	1124.1
Length Wtd. (m)	24.85	Wetted Per. (m)		9.02	73.95
Min Ch El (m)	589.30	Shear (N/m2)		0.10	0.15

Plan: (Continued)

Alpha	1.04	Stream Power (N/m s)		0.01	0.02
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.16	4.73	0.63
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	8.86	0.91

Plan:

E.G. Elev (m)	590.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	590.10	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	589.70	Flow Area (m2)		5.51	60.43
E.G. Slope (m/m)	0.000028	Area (m2)		5.51	60.43
Q Total (m3/s)	8.42	Flow (m3/s)		0.40	8.02
Top Width (m)	83.14	Top Width (m)		9.53	73.61
Vel Total (m/s)	0.13	Avg. Vel. (m/s)		0.07	0.13
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.58	0.82
Conv. Total (m3/s)	1583.1	Conv. (m3/s)		76.0	1507.1
Length Wtd. (m)	24.85	Wetted Per. (m)		9.64	74.08
Min Ch El (m)	589.30	Shear (N/m2)		0.16	0.23
Alpha	1.04	Stream Power (N/m s)		0.01	0.03
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.30	6.10	2.35
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.34	9.78	2.71

Plan:

E.G. Elev (m)	590.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	590.08	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	589.70	Flow Area (m2)		5.34	59.12
E.G. Slope (m/m)	0.000050	Area (m2)		5.34	59.12
Q Total (m3/s)	10.74	Flow (m3/s)		0.51	10.23
Top Width (m)	83.05	Top Width (m)		9.45	73.61
Vel Total (m/s)	0.17	Avg. Vel. (m/s)		0.10	0.17
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.57	0.80
Conv. Total (m3/s)	1526.2	Conv. (m3/s)		72.6	1453.7
Length Wtd. (m)	24.71	Wetted Per. (m)		9.56	74.07
Min Ch El (m)	589.30	Shear (N/m2)		0.27	0.39
Alpha	1.04	Stream Power (N/m s)		0.03	0.07
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	7.07	5.43
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.51	10.31	5.83

Plan:

E.G. Elev (m)	589.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	589.91	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	589.67	Flow Area (m2)		5.75	
E.G. Slope (m/m)	0.007311	Area (m2)		5.75	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.69	Top Width (m)		13.69	
Vel Total (m/s)	0.95	Avg. Vel. (m/s)		0.95	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	64.1	Conv. (m3/s)		64.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.83	
Min Ch El (m)	589.01	Shear (N/m2)		29.81	
Alpha	1.00	Stream Power (N/m s)		28.40	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.16	4.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.01	8.57	

Plan:

E.G. Elev (m)	590.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.02	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	589.80	Flow Area (m2)		7.38	
E.G. Slope (m/m)	0.009077	Area (m2)		7.38	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	15.77	Top Width (m)		15.77	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	88.4	Conv. (m3/s)		88.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.94	
Min Ch El (m)	589.01	Shear (N/m2)		41.22	
Alpha	1.00	Stream Power (N/m s)		47.02	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.30	5.94	1.61
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.34	9.46	1.80

Plan:

E.G. Elev (m)	590.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.050	0.035
W.S. Elev (m)	590.08	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	589.88	Flow Area (m2)		8.28	51.52
E.G. Slope (m/m)	0.000054	Area (m2)		8.28	51.52
Q Total (m3/s)	10.74	Flow (m3/s)		0.76	9.98
Top Width (m)	74.12	Top Width (m)		16.36	57.76
Vel Total (m/s)	0.18	Avg. Vel. (m/s)		0.09	0.19
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		0.51	0.89
Conv. Total (m3/s)	1465.8	Conv. (m3/s)		104.3	1361.5
Length Wtd. (m)	23.94	Wetted Per. (m)		16.53	57.93
Min Ch El (m)	589.01	Shear (N/m2)		0.26	0.47
Alpha	1.10	Stream Power (N/m s)		0.02	0.09
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	6.90	4.06
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.51	9.99	4.21

Plan:

E.G. Elev (m)	589.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.050	
W.S. Elev (m)	589.88	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	589.48	Flow Area (m2)		14.12	
E.G. Slope (m/m)	0.001005	Area (m2)		14.12	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	29.38	Top Width (m)		29.38	
Vel Total (m/s)	0.39	Avg. Vel. (m/s)		0.39	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	172.8	Conv. (m3/s)		172.8	
Length Wtd. (m)	24.99	Wetted Per. (m)		29.48	
Min Ch El (m)	589.01	Shear (N/m2)		4.72	
Alpha	1.00	Stream Power (N/m s)		1.83	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.16	4.35	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	8.04	

Plan:

E.G. Elev (m)	590.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.050	
W.S. Elev (m)	589.99	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	589.55	Flow Area (m2)		17.35	
E.G. Slope (m/m)	0.001314	Area (m2)		17.35	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: (Continued)

Top Width (m)	31.57	Top Width (m)		31.57	
Vel Total (m/s)	0.49	Avg. Vel. (m/s)		0.49	
Max Chl Dpth (m)	1.21	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	232.3	Conv. (m3/s)		232.3	
Length Wtd. (m)	25.03	Wetted Per. (m)		31.68	
Min Ch El (m)	589.01	Shear (N/m2)		7.06	
Alpha	1.00	Stream Power (N/m s)		3.42	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.30	5.63	1.61
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.34	8.87	1.80

Plan:

E.G. Elev (m)	590.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.035	0.050	0.035
W.S. Elev (m)	590.08	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	589.60	Flow Area (m2)	0.02	20.12	69.40
E.G. Slope (m/m)	0.000023	Area (m2)	0.02	20.12	69.40
Q Total (m3/s)	10.74	Flow (m3/s)	0.00	1.40	9.34
Top Width (m)	103.29	Top Width (m)	0.73	32.24	70.31
Vel Total (m/s)	0.12	Avg. Vel. (m/s)	0.01	0.07	0.13
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.03	0.62	0.99
Conv. Total (m3/s)	2249.3	Conv. (m3/s)	0.1	293.2	1956.1
Length Wtd. (m)	25.07	Wetted Per. (m)	0.73	32.36	70.84
Min Ch El (m)	589.01	Shear (N/m2)	0.01	0.14	0.22
Alpha	1.14	Stream Power (N/m s)	0.00	0.01	0.03
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.42	6.55	2.62
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.50	9.38	2.68

Plan:

E.G. Elev (m)	589.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	589.87	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	588.79	Flow Area (m2)	5.22	14.20	
E.G. Slope (m/m)	0.000252	Area (m2)	5.22	14.20	
Q Total (m3/s)	5.48	Flow (m3/s)	0.89	4.59	
Top Width (m)	36.12	Top Width (m)	22.67	13.46	
Vel Total (m/s)	0.28	Avg. Vel. (m/s)	0.17	0.32	
Max Chl Dpth (m)	1.78	Hydr. Depth (m)	0.23	1.06	
Conv. Total (m3/s)	344.9	Conv. (m3/s)	56.0	288.9	
Length Wtd. (m)	25.28	Wetted Per. (m)	22.68	13.85	
Min Ch El (m)	588.09	Shear (N/m2)	0.57	2.54	
Alpha	1.16	Stream Power (N/m s)	0.10	0.82	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.09	4.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.73	7.50	

Plan:

E.G. Elev (m)	590.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.035	0.050	0.035
W.S. Elev (m)	590.00	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	588.94	Flow Area (m2)	8.08	15.88	63.63
E.G. Slope (m/m)	0.000016	Area (m2)	8.08	15.88	63.63
Q Total (m3/s)	8.42	Flow (m3/s)	0.44	1.35	6.63
Top Width (m)	109.51	Top Width (m)	24.31	13.93	71.27
Vel Total (m/s)	0.10	Avg. Vel. (m/s)	0.05	0.09	0.10
Max Chl Dpth (m)	1.90	Hydr. Depth (m)	0.33	1.14	0.89
Conv. Total (m3/s)	2114.4	Conv. (m3/s)	110.8	339.9	1663.8
Length Wtd. (m)	25.48	Wetted Per. (m)	24.32	14.34	72.68
Min Ch El (m)	588.09	Shear (N/m2)	0.05	0.17	0.14

Plan: (Continued)

Alpha	1.07	Stream Power (N/m s)	0.00	0.01	0.01
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.20	5.22	0.81
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.03	8.30	0.91

Plan:

E.G. Elev (m)	590.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.035	0.050	0.035
W.S. Elev (m)	590.08	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	589.04	Flow Area (m2)	10.04	16.98	69.27
E.G. Slope (m/m)	0.000019	Area (m2)	10.04	16.98	69.27
Q Total (m3/s)	10.74	Flow (m3/s)	0.68	1.67	8.39
Top Width (m)	110.40	Top Width (m)	25.20	13.93	71.27
Vel Total (m/s)	0.11	Avg. Vel. (m/s)	0.07	0.10	0.12
Max Chl Dpth (m)	1.98	Hydr. Depth (m)	0.40	1.22	0.97
Conv. Total (m3/s)	2450.5	Conv. (m3/s)	155.3	380.0	1915.2
Length Wtd. (m)	25.62	Wetted Per. (m)	25.22	14.34	72.76
Min Ch El (m)	588.09	Shear (N/m2)	0.08	0.22	0.18
Alpha	1.07	Stream Power (N/m s)	0.01	0.02	0.02
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.29	6.09	0.88
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.18	8.80	0.91

Plan:

E.G. Elev (m)	589.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	589.84	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	589.41	Flow Area (m2)	0.67	8.66	
E.G. Slope (m/m)	0.002420	Area (m2)	0.67	8.66	
Q Total (m3/s)	5.48	Flow (m3/s)	0.12	5.36	
Top Width (m)	33.25	Top Width (m)	16.02	17.23	
Vel Total (m/s)	0.59	Avg. Vel. (m/s)	0.18	0.62	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.04	0.50	
Conv. Total (m3/s)	111.4	Conv. (m3/s)	2.4	109.0	
Length Wtd. (m)	24.98	Wetted Per. (m)	16.02	17.37	
Min Ch El (m)	588.91	Shear (N/m2)	0.99	11.84	
Alpha	1.09	Stream Power (N/m s)	0.18	7.33	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.01	3.71	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	7.12	

Plan:

E.G. Elev (m)	589.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	589.97	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	589.53	Flow Area (m2)	3.56	10.96	
E.G. Slope (m/m)	0.002133	Area (m2)	3.56	10.96	
Q Total (m3/s)	8.42	Flow (m3/s)	1.22	7.20	
Top Width (m)	45.01	Top Width (m)	26.85	18.16	
Vel Total (m/s)	0.58	Avg. Vel. (m/s)	0.34	0.66	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)	0.13	0.60	
Conv. Total (m3/s)	182.3	Conv. (m3/s)	26.5	155.8	
Length Wtd. (m)	24.86	Wetted Per. (m)	26.85	18.31	
Min Ch El (m)	588.91	Shear (N/m2)	2.78	12.53	
Alpha	1.15	Stream Power (N/m s)	0.95	8.22	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.04	4.88	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.32	7.90	

Plan:

E.G. Elev (m)	590.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	590.05	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	589.61	Flow Area (m2)	5.81	12.42	
E.G. Slope (m/m)	0.001934	Area (m2)	5.81	12.42	
Q Total (m3/s)	10.74	Flow (m3/s)	2.47	8.27	
Top Width (m)	48.21	Top Width (m)	29.49	18.72	
Vel Total (m/s)	0.59	Avg. Vel. (m/s)	0.43	0.67	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)	0.20	0.66	
Conv. Total (m3/s)	244.2	Conv. (m3/s)	56.2	188.0	
Length Wtd. (m)	24.78	Wetted Per. (m)	29.50	18.88	
Min Ch El (m)	588.91	Shear (N/m2)	3.74	12.49	
Alpha	1.10	Stream Power (N/m s)	1.59	8.31	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.07	5.72	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.41	8.40	

Plan:

E.G. Elev (m)	589.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.050	
W.S. Elev (m)	589.54	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	589.54	Flow Area (m2)		3.13	
E.G. Slope (m/m)	0.036842	Area (m2)		3.13	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.12	Top Width (m)		10.12	
Vel Total (m/s)	1.75	Avg. Vel. (m/s)		1.75	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	28.6	Conv. (m3/s)		28.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.18	
Min Ch El (m)	589.08	Shear (N/m2)		111.13	
Alpha	1.00	Stream Power (N/m s)		194.40	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		3.56	
C & E Loss (m)	0.04	Cum SA (1000 m2)		6.77	

Plan:

E.G. Elev (m)	589.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.050	
W.S. Elev (m)	589.66	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	589.66	Flow Area (m2)		4.45	
E.G. Slope (m/m)	0.034368	Area (m2)		4.45	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.10	Top Width (m)		12.10	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	45.4	Conv. (m3/s)		45.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.18	
Min Ch El (m)	589.08	Shear (N/m2)		123.02	
Alpha	1.00	Stream Power (N/m s)		232.97	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.00	4.69	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	7.52	

Plan:

E.G. Elev (m)	589.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.050	
W.S. Elev (m)	589.76	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	589.73	Flow Area (m2)		5.69	
E.G. Slope (m/m)	0.029042	Area (m2)		5.69	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: (Continued)

Top Width (m)	13.68	Top Width (m)		13.68	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	63.0	Conv. (m3/s)		63.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.78	
Min Ch El (m)	589.08	Shear (N/m2)		117.51	
Alpha	1.00	Stream Power (N/m s)		221.97	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)	0.00	5.49	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.07	7.99	

Plan:

E.G. Elev (m)	589.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	589.50	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	588.94	Flow Area (m2)		9.25	
E.G. Slope (m/m)	0.001593	Area (m2)		9.25	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	14.23	Top Width (m)		14.23	
Vel Total (m/s)	0.59	Avg. Vel. (m/s)		0.59	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	137.3	Conv. (m3/s)		137.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.48	
Min Ch El (m)	588.31	Shear (N/m2)		9.98	
Alpha	1.00	Stream Power (N/m s)		5.91	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		3.41	
C & E Loss (m)	0.01	Cum SA (1000 m2)		6.47	

Plan:

E.G. Elev (m)	589.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	589.61	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	589.06	Flow Area (m2)	0.00	10.95	
E.G. Slope (m/m)	0.002426	Area (m2)	0.00	10.95	
Q Total (m3/s)	8.42	Flow (m3/s)	0.00	8.42	
Top Width (m)	15.85	Top Width (m)	0.24	15.60	
Vel Total (m/s)	0.77	Avg. Vel. (m/s)	0.03	0.77	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)	0.00	0.70	
Conv. Total (m3/s)	171.0	Conv. (m3/s)	0.0	171.0	
Length Wtd. (m)	25.00	Wetted Per. (m)	0.24	15.87	
Min Ch El (m)	588.31	Shear (N/m2)	0.08	16.41	
Alpha	1.00	Stream Power (N/m s)	0.00	12.62	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.00	4.50	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.00	7.18	

Plan:

E.G. Elev (m)	589.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.035	0.050	
W.S. Elev (m)	589.68	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	589.14	Flow Area (m2)	0.11	12.08	
E.G. Slope (m/m)	0.002970	Area (m2)	0.11	12.08	
Q Total (m3/s)	10.74	Flow (m3/s)	0.02	10.72	
Top Width (m)	18.88	Top Width (m)	2.70	16.18	
Vel Total (m/s)	0.88	Avg. Vel. (m/s)	0.18	0.89	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)	0.04	0.75	
Conv. Total (m3/s)	197.1	Conv. (m3/s)	0.3	196.7	
Length Wtd. (m)	25.00	Wetted Per. (m)	2.70	16.45	
Min Ch El (m)	588.31	Shear (N/m2)	1.14	21.39	

Plan: (Continued)

Alpha	1.01	Stream Power (N/m s)	0.21	18.98	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	0.00	5.27	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.04	7.62	

Plan:

E.G. Elev (m)	589.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	589.31	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	589.31	Flow Area (m2)		4.27	
E.G. Slope (m/m)	0.043644	Area (m2)		4.27	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	25.14	Top Width (m)		25.14	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)		1.28	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	26.2	Conv. (m3/s)		26.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		25.15	
Min Ch El (m)	589.00	Shear (N/m2)		72.75	
Alpha	1.00	Stream Power (N/m s)		93.27	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		3.24	
C & E Loss (m)	0.02	Cum SA (1000 m2)		5.98	

Plan:

E.G. Elev (m)	589.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.37	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	589.37	Flow Area (m2)		5.87	
E.G. Slope (m/m)	0.040697	Area (m2)		5.87	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	27.65	Top Width (m)		27.65	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	41.7	Conv. (m3/s)		41.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		27.67	
Min Ch El (m)	589.00	Shear (N/m2)		84.64	
Alpha	1.00	Stream Power (N/m s)		121.46	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		4.28	
C & E Loss (m)	0.02	Cum SA (1000 m2)		6.64	

Plan:

E.G. Elev (m)	589.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.050	
W.S. Elev (m)	589.41	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	589.41	Flow Area (m2)		6.98	
E.G. Slope (m/m)	0.039325	Area (m2)		6.98	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	28.86	Top Width (m)		28.86	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	54.2	Conv. (m3/s)		54.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		28.88	
Min Ch El (m)	589.00	Shear (N/m2)		93.20	
Alpha	1.00	Stream Power (N/m s)		143.43	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		5.03	
C & E Loss (m)	0.02	Cum SA (1000 m2)		7.06	

Plan:

E.G. Elev (m)	587.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.88	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.39	Flow Area (m2)		7.08	
E.G. Slope (m/m)	0.002461	Area (m2)		7.08	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.91	Top Width (m)		9.91	
Vel Total (m/s)	0.77	Avg. Vel. (m/s)		0.77	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	110.5	Conv. (m3/s)		110.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.26	
Min Ch El (m)	586.87	Shear (N/m2)		16.64	
Alpha	1.00	Stream Power (N/m s)		12.89	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		3.10	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.54	

Plan:

E.G. Elev (m)	588.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	588.06	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.53	Flow Area (m2)		8.95	
E.G. Slope (m/m)	0.003003	Area (m2)		8.95	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.84	Top Width (m)		10.84	
Vel Total (m/s)	0.94	Avg. Vel. (m/s)		0.94	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	153.7	Conv. (m3/s)		153.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.26	
Min Ch El (m)	586.87	Shear (N/m2)		23.41	
Alpha	1.00	Stream Power (N/m s)		22.02	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		4.10	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.16	

Plan:

E.G. Elev (m)	588.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.18	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.62	Flow Area (m2)		10.27	
E.G. Slope (m/m)	0.003331	Area (m2)		10.27	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.45	Top Width (m)		11.45	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	1.31	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	186.1	Conv. (m3/s)		186.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.91	
Min Ch El (m)	586.87	Shear (N/m2)		28.17	
Alpha	1.00	Stream Power (N/m s)		29.46	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		4.82	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.55	

Plan:

E.G. Elev (m)	587.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	587.84	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.18	Flow Area (m2)		8.57	
E.G. Slope (m/m)	0.001380	Area (m2)		8.57	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: (Continued)

Top Width (m)	10.26	Top Width (m)		10.26	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)		0.64	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	147.5	Conv. (m3/s)		147.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.73	
Min Ch El (m)	586.71	Shear (N/m2)		10.81	
Alpha	1.00	Stream Power (N/m s)		6.91	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		2.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.29	

Plan:

E.G. Elev (m)	588.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	588.01	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.31	Flow Area (m2)		10.36	
E.G. Slope (m/m)	0.001917	Area (m2)		10.36	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	11.04	Top Width (m)		11.04	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	192.3	Conv. (m3/s)		192.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.58	
Min Ch El (m)	586.71	Shear (N/m2)		16.82	
Alpha	1.00	Stream Power (N/m s)		13.67	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		3.86	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.88	

Plan:

E.G. Elev (m)	588.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	588.12	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.41	Flow Area (m2)		11.60	
E.G. Slope (m/m)	0.002277	Area (m2)		11.60	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.55	Top Width (m)		11.55	
Vel Total (m/s)	0.93	Avg. Vel. (m/s)		0.93	
Max Chl Dpth (m)	1.41	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	225.1	Conv. (m3/s)		225.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.13	
Min Ch El (m)	586.71	Shear (N/m2)		21.35	
Alpha	1.00	Stream Power (N/m s)		19.77	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		4.54	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.26	

Plan:

E.G. Elev (m)	587.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	587.76	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.53	Flow Area (m2)		6.09	
E.G. Slope (m/m)	0.005767	Area (m2)		6.09	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.15	Top Width (m)		13.15	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	72.2	Conv. (m3/s)		72.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.35	
Min Ch El (m)	587.12	Shear (N/m2)		25.80	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		23.22	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		2.72	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.00	

Plan:

E.G. Elev (m)	587.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	587.91	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.63	Flow Area (m2)		8.19	
E.G. Slope (m/m)	0.005553	Area (m2)		8.19	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	14.03	Top Width (m)		14.03	
Vel Total (m/s)	1.03	Avg. Vel. (m/s)		1.03	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	113.0	Conv. (m3/s)		113.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.28	
Min Ch El (m)	587.12	Shear (N/m2)		31.22	
Alpha	1.00	Stream Power (N/m s)		32.12	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		3.63	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.57	

Plan:

E.G. Elev (m)	588.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.01	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.70	Flow Area (m2)		9.65	
E.G. Slope (m/m)	0.005520	Area (m2)		9.65	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	14.61	Top Width (m)		14.61	
Vel Total (m/s)	1.11	Avg. Vel. (m/s)		1.11	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	144.6	Conv. (m3/s)		144.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.89	
Min Ch El (m)	587.12	Shear (N/m2)		35.08	
Alpha	1.00	Stream Power (N/m s)		39.04	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		4.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.94	

Plan:

E.G. Elev (m)	587.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	587.50	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.36	Flow Area (m2)		4.31	
E.G. Slope (m/m)	0.013339	Area (m2)		4.31	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.36	Top Width (m)		10.36	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)		1.27	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	47.4	Conv. (m3/s)		47.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.55	
Min Ch El (m)	586.74	Shear (N/m2)		53.45	
Alpha	1.00	Stream Power (N/m s)		67.97	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		2.59	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.70	

Plan:

E.G. Elev (m)	587.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	587.69	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.49	Flow Area (m2)		6.43	
E.G. Slope (m/m)	0.010701	Area (m2)		6.43	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.53	Top Width (m)		12.53	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	81.4	Conv. (m3/s)		81.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.76	
Min Ch El (m)	586.74	Shear (N/m2)		52.86	
Alpha	1.00	Stream Power (N/m s)		69.23	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		3.44	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.24	

Plan:

E.G. Elev (m)	587.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	587.80	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.57	Flow Area (m2)		7.97	
E.G. Slope (m/m)	0.009270	Area (m2)		7.97	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.33	Top Width (m)		13.33	
Vel Total (m/s)	1.35	Avg. Vel. (m/s)		1.35	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	111.5	Conv. (m3/s)		111.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.61	
Min Ch El (m)	586.74	Shear (N/m2)		53.24	
Alpha	1.00	Stream Power (N/m s)		71.76	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		4.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.59	

Plan:

E.G. Elev (m)	587.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	587.37	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.01	Flow Area (m2)		6.44	
E.G. Slope (m/m)	0.003700	Area (m2)		6.44	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.77	Top Width (m)		10.77	
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		0.85	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	90.1	Conv. (m3/s)		90.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.02	
Min Ch El (m)	586.54	Shear (N/m2)		21.22	
Alpha	1.00	Stream Power (N/m s)		18.05	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		2.46	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.44	

Plan:

E.G. Elev (m)	587.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	587.56	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.13	Flow Area (m2)		8.55	
E.G. Slope (m/m)	0.003926	Area (m2)		8.55	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: (Continued)

Top Width (m)	11.97	Top Width (m)		11.97	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	134.4	Conv. (m3/s)		134.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.28	
Min Ch El (m)	586.54	Shear (N/m2)		26.81	
Alpha	1.00	Stream Power (N/m s)		26.39	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		3.26	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.93	

Plan:

E.G. Elev (m)	587.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	587.68	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.22	Flow Area (m2)		10.06	
E.G. Slope (m/m)	0.004042	Area (m2)		10.06	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	12.73	Top Width (m)		12.73	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	168.9	Conv. (m3/s)		168.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.08	
Min Ch El (m)	586.54	Shear (N/m2)		30.48	
Alpha	1.00	Stream Power (N/m s)		32.54	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		3.83	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.26	

Plan:

E.G. Elev (m)	587.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	587.33	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	586.86	Flow Area (m2)		8.96	
E.G. Slope (m/m)	0.001677	Area (m2)		8.96	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.59	Top Width (m)		13.59	
Vel Total (m/s)	0.61	Avg. Vel. (m/s)		0.61	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	133.8	Conv. (m3/s)		133.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.87	
Min Ch El (m)	586.39	Shear (N/m2)		10.62	
Alpha	1.00	Stream Power (N/m s)		6.50	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		2.26	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.13	

Plan:

E.G. Elev (m)	587.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.51	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	586.97	Flow Area (m2)		11.52	
E.G. Slope (m/m)	0.001872	Area (m2)		11.52	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	14.49	Top Width (m)		14.49	
Vel Total (m/s)	0.73	Avg. Vel. (m/s)		0.73	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	194.6	Conv. (m3/s)		194.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.85	
Min Ch El (m)	586.39	Shear (N/m2)		14.25	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		10.41	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		3.01	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.60	

Plan:

E.G. Elev (m)	587.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.63	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	587.03	Flow Area (m2)		13.31	
E.G. Slope (m/m)	0.001993	Area (m2)		13.31	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	15.09	Top Width (m)		15.09	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	240.6	Conv. (m3/s)		240.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.49	
Min Ch El (m)	586.39	Shear (N/m2)		16.79	
Alpha	1.00	Stream Power (N/m s)		13.55	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		3.54	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.91	

Plan:

E.G. Elev (m)	587.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.050	
W.S. Elev (m)	587.03	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.03	Flow Area (m2)		2.85	
E.G. Slope (m/m)	0.035050	Area (m2)		2.85	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.63	Top Width (m)		7.63	
Vel Total (m/s)	1.92	Avg. Vel. (m/s)		1.92	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	29.3	Conv. (m3/s)		29.3	
Length Wtd. (m)	75.00	Wetted Per. (m)		7.76	
Min Ch El (m)	586.50	Shear (N/m2)		126.34	
Alpha	1.00	Stream Power (N/m s)		242.72	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		2.12	
C & E Loss (m)	0.05	Cum SA (1000 m2)		3.87	

Plan:

E.G. Elev (m)	587.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.050	
W.S. Elev (m)	587.16	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.16	Flow Area (m2)		3.96	
E.G. Slope (m/m)	0.032189	Area (m2)		3.96	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.52	Top Width (m)		8.52	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	46.9	Conv. (m3/s)		46.9	
Length Wtd. (m)	75.00	Wetted Per. (m)		8.69	
Min Ch El (m)	586.50	Shear (N/m2)		143.86	
Alpha	1.00	Stream Power (N/m s)		305.72	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		2.81	
C & E Loss (m)	0.06	Cum SA (1000 m2)		4.31	

Plan:

E.G. Elev (m)	587.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.050	
W.S. Elev (m)	587.26	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.26	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.030761	Area (m2)		4.78	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	9.13	Top Width (m)		9.13	
Vel Total (m/s)	2.25	Avg. Vel. (m/s)		2.25	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	61.2	Conv. (m3/s)		61.2	
Length Wtd. (m)	75.00	Wetted Per. (m)		9.32	
Min Ch El (m)	586.50	Shear (N/m2)		154.65	
Alpha	1.00	Stream Power (N/m s)		347.50	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		3.31	
C & E Loss (m)	0.07	Cum SA (1000 m2)		4.61	

Plan:

E.G. Elev (m)	586.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.64	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.11	Flow Area (m2)		9.61	
E.G. Slope (m/m)	0.001368	Area (m2)		9.61	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.96	Top Width (m)		13.96	
Vel Total (m/s)	0.57	Avg. Vel. (m/s)		0.57	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	148.2	Conv. (m3/s)		148.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.22	
Min Ch El (m)	585.62	Shear (N/m2)		9.07	
Alpha	1.00	Stream Power (N/m s)		5.17	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		1.65	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.06	

Plan:

E.G. Elev (m)	586.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.84	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.21	Flow Area (m2)		12.53	
E.G. Slope (m/m)	0.001504	Area (m2)		12.53	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	15.23	Top Width (m)		15.23	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)		0.67	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	217.1	Conv. (m3/s)		217.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.55	
Min Ch El (m)	585.62	Shear (N/m2)		11.89	
Alpha	1.00	Stream Power (N/m s)		7.99	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		2.19	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.42	

Plan:

E.G. Elev (m)	587.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	586.97	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.29	Flow Area (m2)		14.58	
E.G. Slope (m/m)	0.001590	Area (m2)		14.58	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: (Continued)

Top Width (m)	16.06	Top Width (m)		16.06	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	269.4	Conv. (m3/s)		269.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		16.42	
Min Ch El (m)	585.62	Shear (N/m2)		13.84	
Alpha	1.00	Stream Power (N/m s)		10.20	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		2.59	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.67	

Plan:

E.G. Elev (m)	586.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	586.53	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.25	Flow Area (m2)		5.35	
E.G. Slope (m/m)	0.006002	Area (m2)		5.35	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.73	Top Width (m)		9.73	
Vel Total (m/s)	1.02	Avg. Vel. (m/s)		1.02	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	70.7	Conv. (m3/s)		70.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.96	
Min Ch El (m)	585.62	Shear (N/m2)		31.62	
Alpha	1.00	Stream Power (N/m s)		32.38	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		1.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.76	

Plan:

E.G. Elev (m)	586.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.72	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.39	Flow Area (m2)		7.31	
E.G. Slope (m/m)	0.006039	Area (m2)		7.31	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	11.18	Top Width (m)		11.18	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	108.3	Conv. (m3/s)		108.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.45	
Min Ch El (m)	585.62	Shear (N/m2)		37.79	
Alpha	1.00	Stream Power (N/m s)		43.53	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		1.95	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.09	

Plan:

E.G. Elev (m)	586.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	586.84	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.48	Flow Area (m2)		8.74	
E.G. Slope (m/m)	0.006034	Area (m2)		8.74	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	12.13	Top Width (m)		12.13	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	138.3	Conv. (m3/s)		138.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.44	
Min Ch El (m)	585.62	Shear (N/m2)		41.60	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		51.10	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		2.29	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.32	

Plan:

E.G. Elev (m)	586.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	586.37	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.11	Flow Area (m2)		5.14	
E.G. Slope (m/m)	0.006779	Area (m2)		5.14	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.66	Top Width (m)		9.66	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	66.6	Conv. (m3/s)		66.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.86	
Min Ch El (m)	585.49	Shear (N/m2)		34.64	
Alpha	1.00	Stream Power (N/m s)		36.94	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.52	

Plan:

E.G. Elev (m)	586.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.56	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.25	Flow Area (m2)		7.12	
E.G. Slope (m/m)	0.006432	Area (m2)		7.12	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.97	Top Width (m)		10.97	
Vel Total (m/s)	1.18	Avg. Vel. (m/s)		1.18	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	105.0	Conv. (m3/s)		105.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.23	
Min Ch El (m)	585.49	Shear (N/m2)		39.97	
Alpha	1.00	Stream Power (N/m s)		47.29	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.77	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.81	

Plan:

E.G. Elev (m)	586.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	586.69	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.34	Flow Area (m2)		8.53	
E.G. Slope (m/m)	0.006325	Area (m2)		8.53	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.83	Top Width (m)		11.83	
Vel Total (m/s)	1.26	Avg. Vel. (m/s)		1.26	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	135.0	Conv. (m3/s)		135.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.13	
Min Ch El (m)	585.49	Shear (N/m2)		43.65	
Alpha	1.00	Stream Power (N/m s)		54.94	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		2.08	
C & E Loss (m)	0.01	Cum SA (1000 m2)		3.02	

Plan:

E.G. Elev (m)	586.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.31	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	585.78	Flow Area (m2)		8.04	
E.G. Slope (m/m)	0.001946	Area (m2)		8.04	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	11.58	Top Width (m)		11.58	
Vel Total (m/s)	0.68	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	1.16	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	124.2	Conv. (m3/s)		124.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.85	
Min Ch El (m)	585.15	Shear (N/m2)		12.95	
Alpha	1.00	Stream Power (N/m s)		8.82	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.17	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.25	

Plan:

E.G. Elev (m)	586.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	586.50	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	585.92	Flow Area (m2)		10.32	
E.G. Slope (m/m)	0.002312	Area (m2)		10.32	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.86	Top Width (m)		12.86	
Vel Total (m/s)	0.82	Avg. Vel. (m/s)		0.82	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	175.1	Conv. (m3/s)		175.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.19	
Min Ch El (m)	585.15	Shear (N/m2)		17.73	
Alpha	1.00	Stream Power (N/m s)		14.47	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.52	

Plan:

E.G. Elev (m)	586.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	586.62	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	586.01	Flow Area (m2)		11.93	
E.G. Slope (m/m)	0.002526	Area (m2)		11.93	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.70	Top Width (m)		13.70	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	213.7	Conv. (m3/s)		213.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.07	
Min Ch El (m)	585.15	Shear (N/m2)		21.00	
Alpha	1.00	Stream Power (N/m s)		18.91	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.82	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.70	

Plan:

E.G. Elev (m)	586.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	586.20	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	585.93	Flow Area (m2)		5.50	
E.G. Slope (m/m)	0.006145	Area (m2)		5.50	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: (Continued)

Top Width (m)	10.69	Top Width (m)		10.69	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)		1.00	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	69.9	Conv. (m3/s)		69.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.86	
Min Ch El (m)	585.46	Shear (N/m2)		30.53	
Alpha	1.00	Stream Power (N/m s)		30.42	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.98	

Plan:

E.G. Elev (m)	586.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	586.37	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	586.06	Flow Area (m2)		7.46	
E.G. Slope (m/m)	0.006238	Area (m2)		7.46	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.16	Top Width (m)		12.16	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.13	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	106.6	Conv. (m3/s)		106.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.37	
Min Ch El (m)	585.46	Shear (N/m2)		36.92	
Alpha	1.00	Stream Power (N/m s)		41.65	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.20	

Plan:

E.G. Elev (m)	586.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.49	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	586.15	Flow Area (m2)		8.91	
E.G. Slope (m/m)	0.006256	Area (m2)		8.91	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.16	Top Width (m)		13.16	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	135.8	Conv. (m3/s)		135.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.39	
Min Ch El (m)	585.46	Shear (N/m2)		40.82	
Alpha	1.00	Stream Power (N/m s)		49.21	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.56	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.36	

Plan:

E.G. Elev (m)	586.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.050	
W.S. Elev (m)	585.91	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	585.79	Flow Area (m2)		3.77	
E.G. Slope (m/m)	0.015641	Area (m2)		3.77	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.32	Top Width (m)		8.32	
Vel Total (m/s)	1.45	Avg. Vel. (m/s)		1.45	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	43.8	Conv. (m3/s)		43.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.51	
Min Ch El (m)	585.04	Shear (N/m2)		67.94	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		98.75	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.88	
C & E Loss (m)	0.02	Cum SA (1000 m2)		1.74	

Plan:

E.G. Elev (m)	586.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	586.07	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	585.93	Flow Area (m2)		5.25	
E.G. Slope (m/m)	0.014658	Area (m2)		5.25	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.49	Top Width (m)		9.49	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		1.61	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	69.5	Conv. (m3/s)		69.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.72	
Min Ch El (m)	585.04	Shear (N/m2)		77.58	
Alpha	1.00	Stream Power (N/m s)		124.52	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		1.17	
C & E Loss (m)	0.02	Cum SA (1000 m2)		1.93	

Plan:

E.G. Elev (m)	586.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.050	
W.S. Elev (m)	586.18	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	586.02	Flow Area (m2)		6.35	
E.G. Slope (m/m)	0.014052	Area (m2)		6.35	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	10.27	Top Width (m)		10.27	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	90.6	Conv. (m3/s)		90.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.53	
Min Ch El (m)	585.04	Shear (N/m2)		83.05	
Alpha	1.00	Stream Power (N/m s)		140.48	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		1.37	
C & E Loss (m)	0.02	Cum SA (1000 m2)		2.07	

Plan:

E.G. Elev (m)	585.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	585.73	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.46	Flow Area (m2)		5.73	
E.G. Slope (m/m)	0.005448	Area (m2)		5.73	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.81	Top Width (m)		10.81	
Vel Total (m/s)	0.96	Avg. Vel. (m/s)		0.96	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	74.2	Conv. (m3/s)		74.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.98	
Min Ch El (m)	584.84	Shear (N/m2)		27.86	
Alpha	1.00	Stream Power (N/m s)		26.65	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.76	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.50	

Plan:

E.G. Elev (m)	585.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	585.91	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.58	Flow Area (m2)		7.79	
E.G. Slope (m/m)	0.005390	Area (m2)		7.79	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.10	Top Width (m)		12.10	
Vel Total (m/s)	1.08	Avg. Vel. (m/s)		1.08	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	114.7	Conv. (m3/s)		114.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.33	
Min Ch El (m)	584.84	Shear (N/m2)		33.39	
Alpha	1.00	Stream Power (N/m s)		36.10	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		1.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.66	

Plan:

E.G. Elev (m)	586.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.03	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.66	Flow Area (m2)		9.27	
E.G. Slope (m/m)	0.005415	Area (m2)		9.27	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.03	Top Width (m)		13.03	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	146.0	Conv. (m3/s)		146.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.29	
Min Ch El (m)	584.84	Shear (N/m2)		37.06	
Alpha	1.00	Stream Power (N/m s)		42.91	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.18	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.78	

Plan:

E.G. Elev (m)	585.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	585.69	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.18	Flow Area (m2)		9.31	
E.G. Slope (m/m)	0.001555	Area (m2)		9.31	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	14.22	Top Width (m)		14.22	
Vel Total (m/s)	0.59	Avg. Vel. (m/s)		0.59	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	139.0	Conv. (m3/s)		139.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.42	
Min Ch El (m)	584.69	Shear (N/m2)		9.84	
Alpha	1.00	Stream Power (N/m s)		5.79	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		0.57	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.19	

Plan:

E.G. Elev (m)	585.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	585.86	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.29	Flow Area (m2)		11.94	
E.G. Slope (m/m)	0.001801	Area (m2)		11.94	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: (Continued)

Top Width (m)	15.53	Top Width (m)		15.53	
Vel Total (m/s)	0.71	Avg. Vel. (m/s)		0.71	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	198.4	Conv. (m3/s)		198.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.78	
Min Ch El (m)	584.69	Shear (N/m2)		13.37	
Alpha	1.00	Stream Power (N/m s)		9.43	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.32	

Plan:

E.G. Elev (m)	586.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	585.98	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.37	Flow Area (m2)		13.81	
E.G. Slope (m/m)	0.001938	Area (m2)		13.81	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	16.36	Top Width (m)		16.36	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	244.0	Conv. (m3/s)		244.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		16.64	
Min Ch El (m)	584.69	Shear (N/m2)		15.77	
Alpha	1.00	Stream Power (N/m s)		12.26	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		0.89	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.41	

Plan:

E.G. Elev (m)	585.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	585.60	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.31	Flow Area (m2)		6.01	
E.G. Slope (m/m)	0.005079	Area (m2)		6.01	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	11.56	Top Width (m)		11.56	
Vel Total (m/s)	0.91	Avg. Vel. (m/s)		0.91	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	76.9	Conv. (m3/s)		76.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.73	
Min Ch El (m)	584.77	Shear (N/m2)		25.51	
Alpha	1.00	Stream Power (N/m s)		23.28	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.38	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.86	

Plan:

E.G. Elev (m)	585.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	585.76	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.43	Flow Area (m2)		7.98	
E.G. Slope (m/m)	0.005329	Area (m2)		7.98	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.79	Top Width (m)		12.79	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	115.3	Conv. (m3/s)		115.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.99	
Min Ch El (m)	584.77	Shear (N/m2)		32.10	

Plan: (Continued)

Alpha	1.00	Stream Power (N/m s)		33.86	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.51	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.96	

Plan:

E.G. Elev (m)	585.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	585.87	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.51	Flow Area (m2)		9.42	
E.G. Slope (m/m)	0.005433	Area (m2)		9.42	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.61	Top Width (m)		13.61	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	145.7	Conv. (m3/s)		145.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.85	
Min Ch El (m)	584.77	Shear (N/m2)		36.24	
Alpha	1.00	Stream Power (N/m s)		41.33	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.03	

Plan:

E.G. Elev (m)	585.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	585.33	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.21	Flow Area (m2)		4.00	
E.G. Slope (m/m)	0.015055	Area (m2)		4.00	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.42	Top Width (m)		9.42	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	44.7	Conv. (m3/s)		44.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.57	
Min Ch El (m)	584.53	Shear (N/m2)		61.66	
Alpha	1.00	Stream Power (N/m s)		84.55	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		0.26	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.60	

Plan:

E.G. Elev (m)	585.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.050	
W.S. Elev (m)	585.49	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.34	Flow Area (m2)		5.58	
E.G. Slope (m/m)	0.014081	Area (m2)		5.58	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.82	Top Width (m)		10.82	
Vel Total (m/s)	1.51	Avg. Vel. (m/s)		1.51	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	71.0	Conv. (m3/s)		71.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.99	
Min Ch El (m)	584.53	Shear (N/m2)		70.05	
Alpha	1.00	Stream Power (N/m s)		105.75	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		0.34	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.67	

Plan:

E.G. Elev (m)	585.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	585.59	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.43	Flow Area (m2)		6.77	
E.G. Slope (m/m)	0.013745	Area (m2)		6.77	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.95	Top Width (m)		11.95	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)		1.59	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	91.6	Conv. (m3/s)		91.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.15	
Min Ch El (m)	584.53	Shear (N/m2)		75.07	
Alpha	1.00	Stream Power (N/m s)		119.15	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.72	

Plan:

E.G. Elev (m)	585.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	585.07	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	584.87	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.008581	Area (m2)		4.78	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.64	Top Width (m)		9.64	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	59.2	Conv. (m3/s)		59.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.82	
Min Ch El (m)	584.36	Shear (N/m2)		40.95	
Alpha	1.00	Stream Power (N/m s)		46.95	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.15	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.36	

Plan:

E.G. Elev (m)	585.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	585.20	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	584.99	Flow Area (m2)		6.00	
E.G. Slope (m/m)	0.010686	Area (m2)		6.00	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.51	Top Width (m)		10.51	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	81.5	Conv. (m3/s)		81.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.73	
Min Ch El (m)	584.36	Shear (N/m2)		58.60	
Alpha	1.00	Stream Power (N/m s)		82.24	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.40	

Plan:

E.G. Elev (m)	585.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	585.27	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	585.08	Flow Area (m2)		6.82	
E.G. Slope (m/m)	0.012216	Area (m2)		6.82	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: (Continued)

Top Width (m)	11.12	Top Width (m)		11.12	
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.57	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	97.2	Conv. (m3/s)		97.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.36	
Min Ch El (m)	584.36	Shear (N/m2)		71.97	
Alpha	1.00	Stream Power (N/m s)		113.26	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.43	

Plan:

E.G. Elev (m)	584.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	584.92	Reach Len. (m)			
Crit W.S. (m)	584.73	Flow Area (m2)		7.00	
E.G. Slope (m/m)	0.006002	Area (m2)		7.00	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	19.43	Top Width (m)		19.43	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	70.7	Conv. (m3/s)		70.7	
Length Wtd. (m)		Wetted Per. (m)		19.51	
Min Ch El (m)	584.35	Shear (N/m2)		21.12	
Alpha	1.00	Stream Power (N/m s)		16.53	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan:

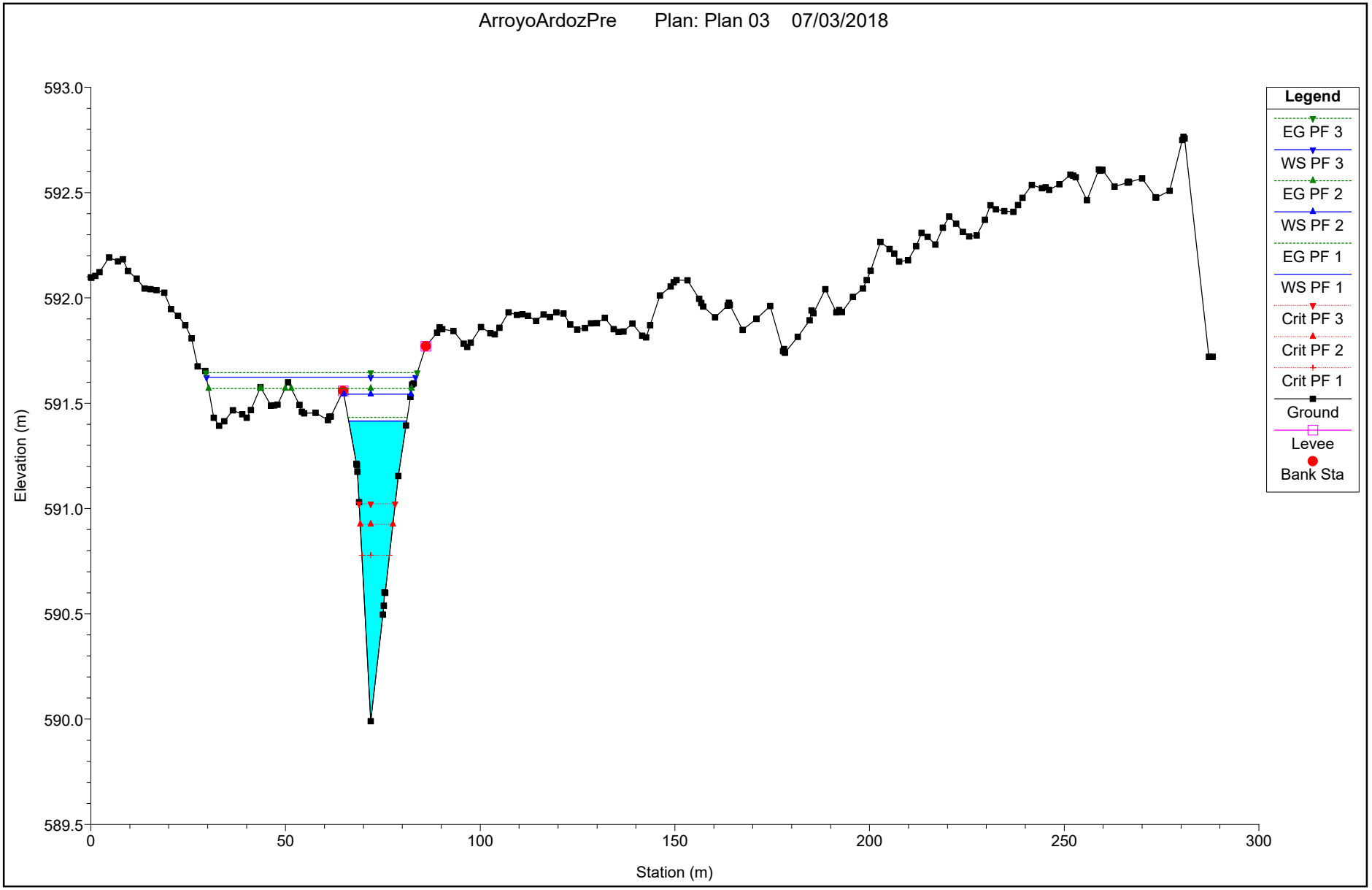
E.G. Elev (m)	585.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	585.04	Reach Len. (m)			
Crit W.S. (m)	584.82	Flow Area (m2)		9.47	
E.G. Slope (m/m)	0.006004	Area (m2)		9.47	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	21.67	Top Width (m)		21.67	
Vel Total (m/s)	0.89	Avg. Vel. (m/s)		0.89	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	108.7	Conv. (m3/s)		108.7	
Length Wtd. (m)		Wetted Per. (m)		21.77	
Min Ch El (m)	584.35	Shear (N/m2)		25.60	
Alpha	1.00	Stream Power (N/m s)		22.77	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

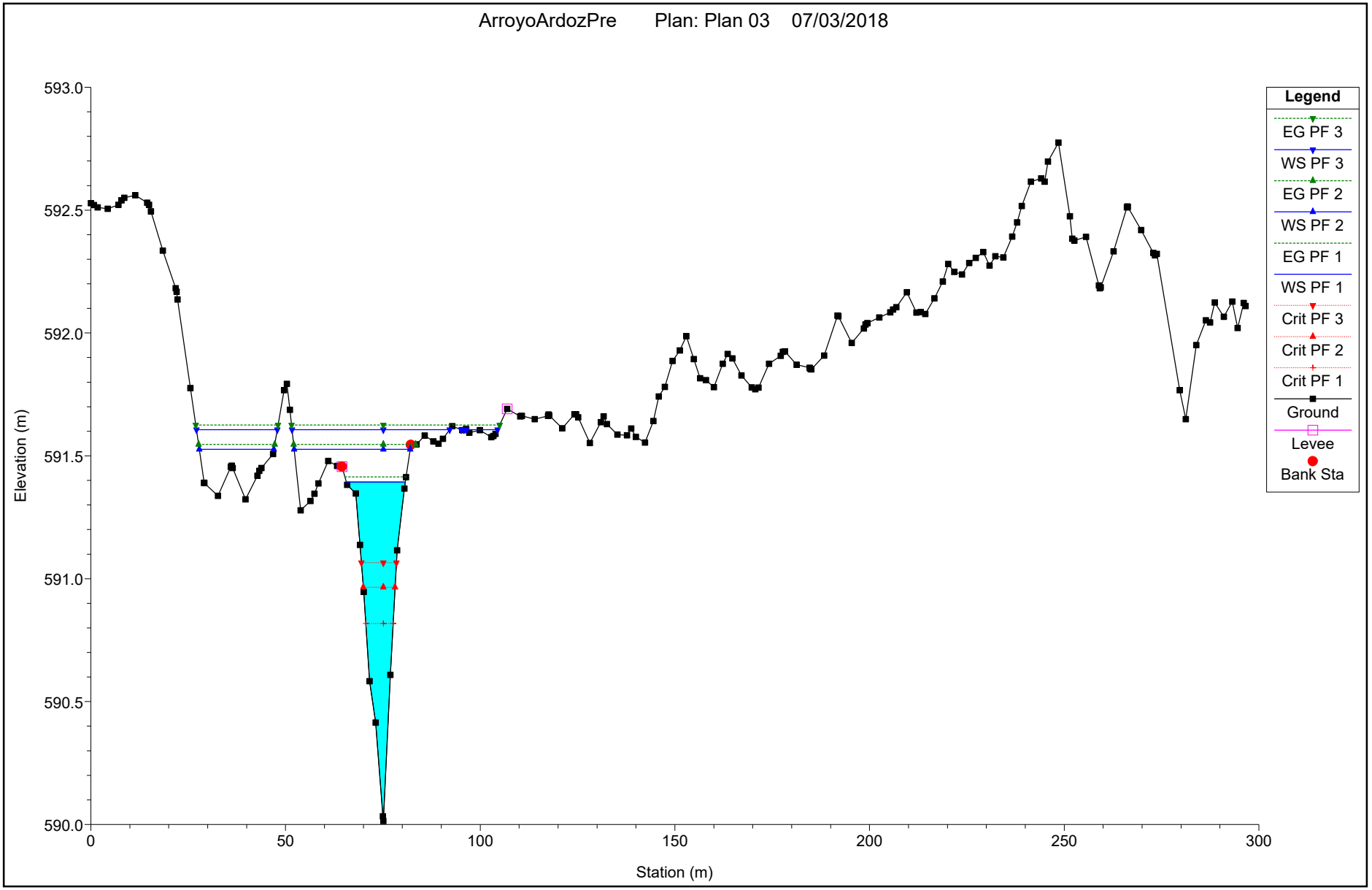
Plan:

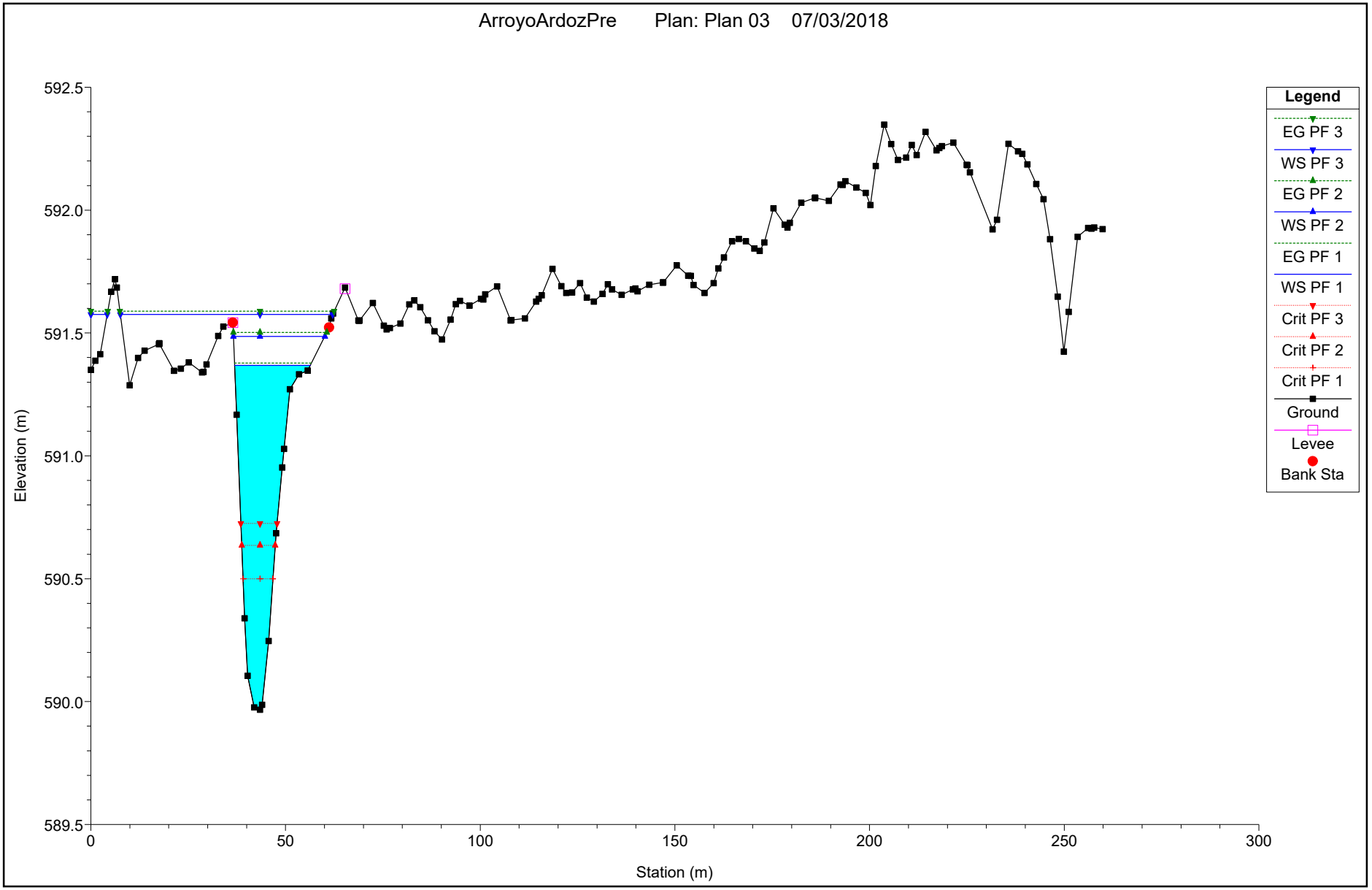
E.G. Elev (m)	585.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	585.12	Reach Len. (m)			
Crit W.S. (m)	584.87	Flow Area (m2)		11.22	
E.G. Slope (m/m)	0.006001	Area (m2)		11.22	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	23.01	Top Width (m)		23.01	
Vel Total (m/s)	0.96	Avg. Vel. (m/s)		0.96	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	138.6	Conv. (m3/s)		138.6	
Length Wtd. (m)		Wetted Per. (m)		23.12	
Min Ch El (m)	584.35	Shear (N/m2)		28.57	

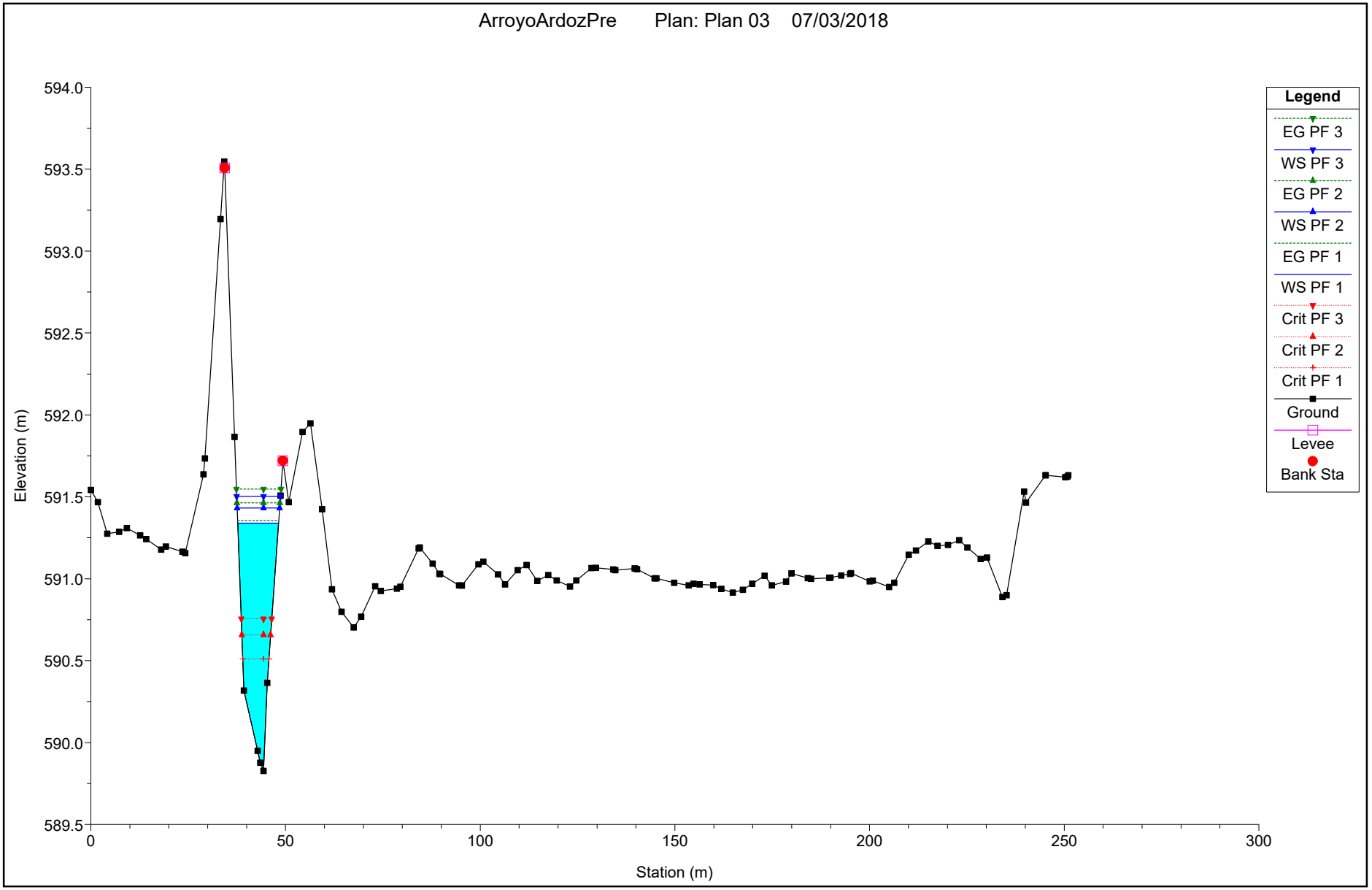
Plan: (Continued)

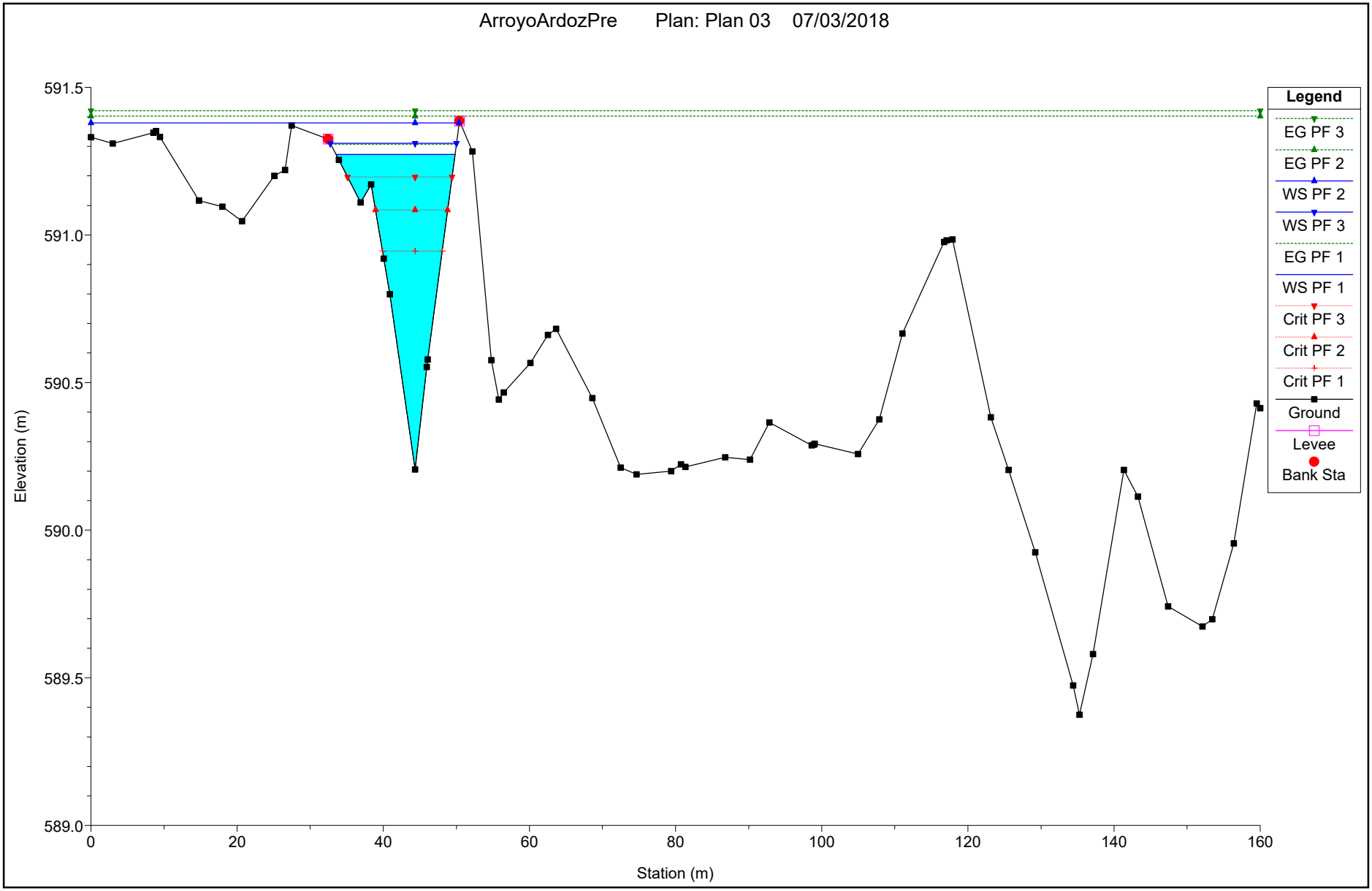
Alpha	1.00	Stream Power (N/m s)		27.34	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

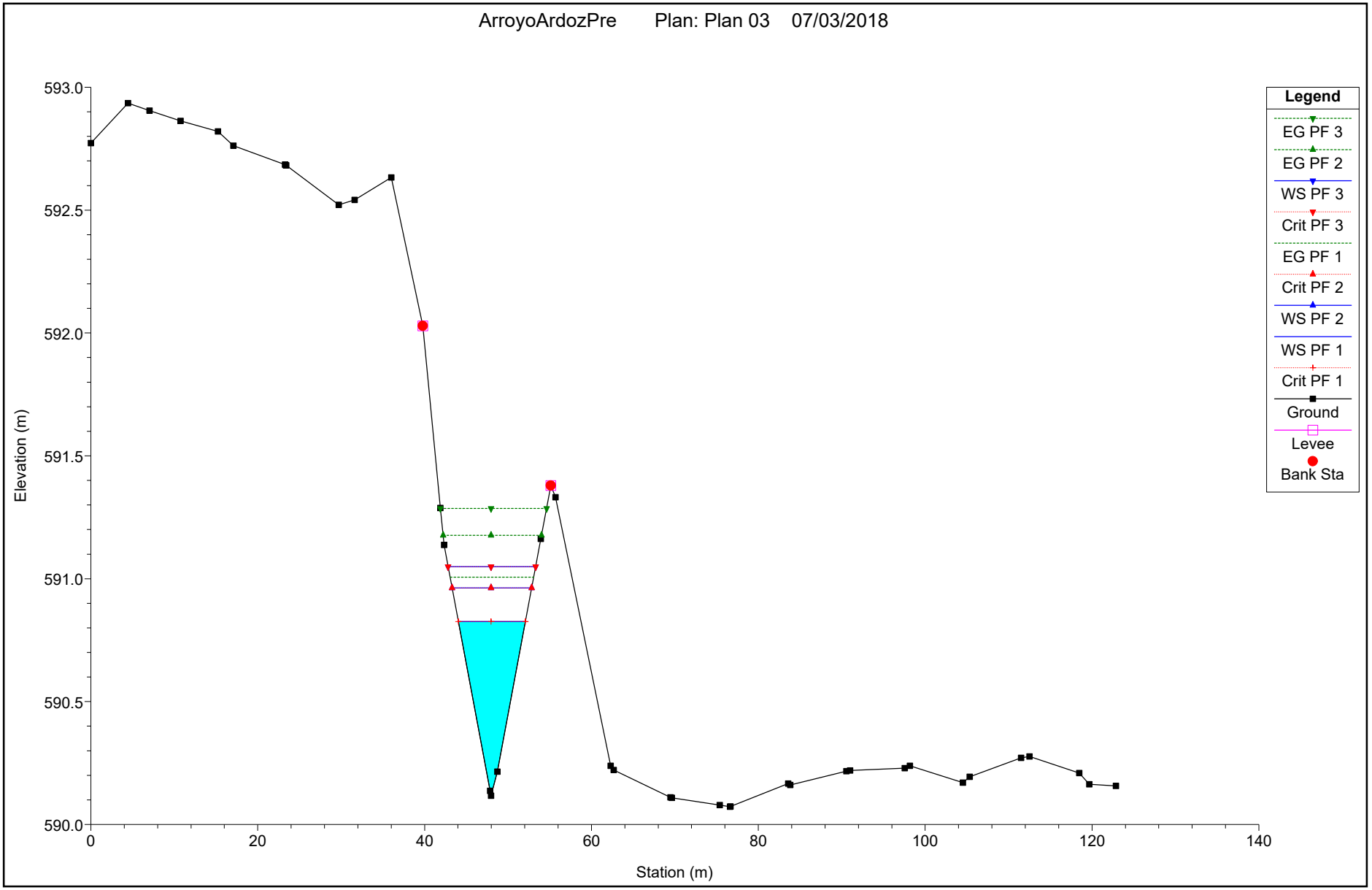

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

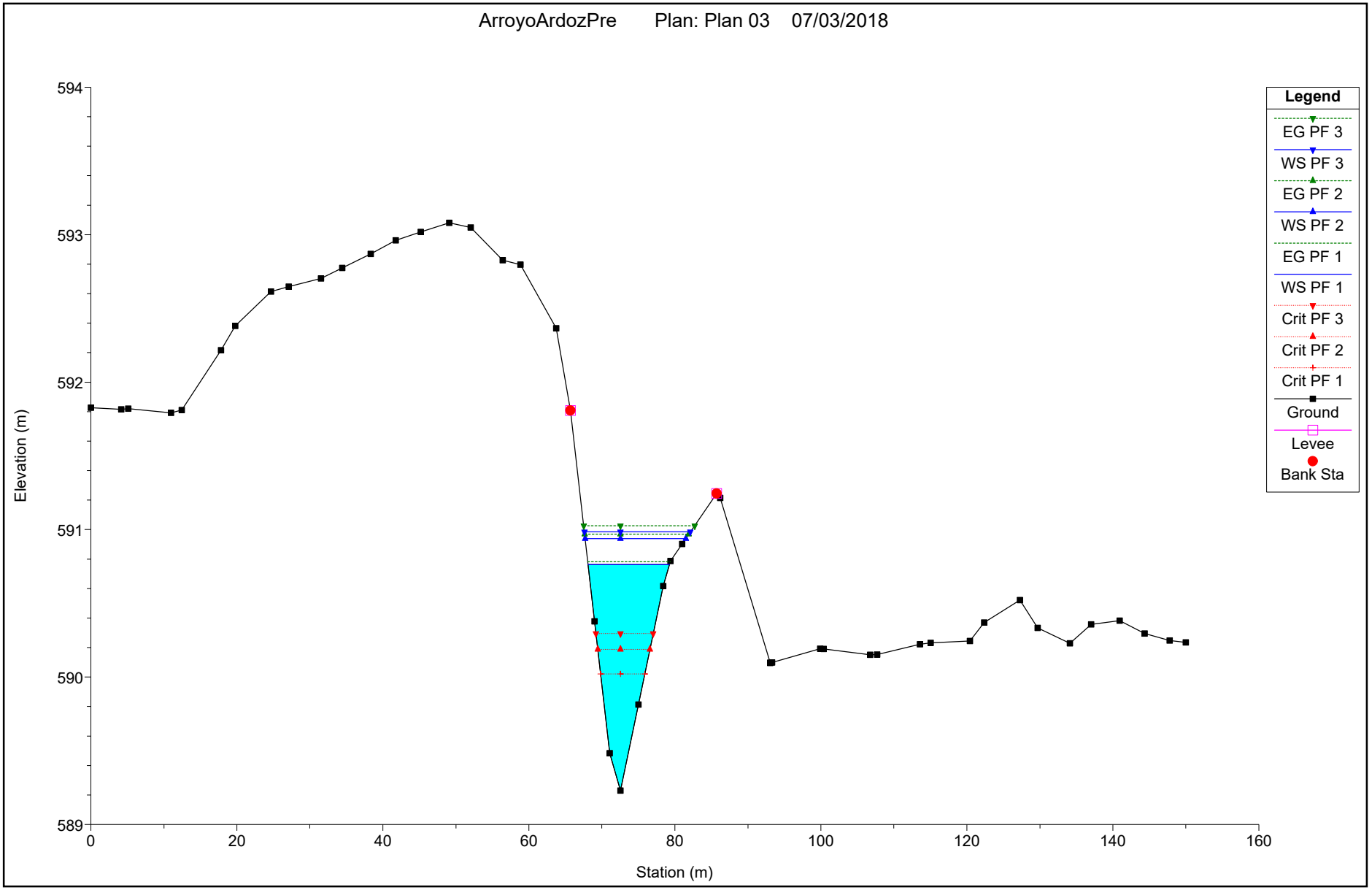

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

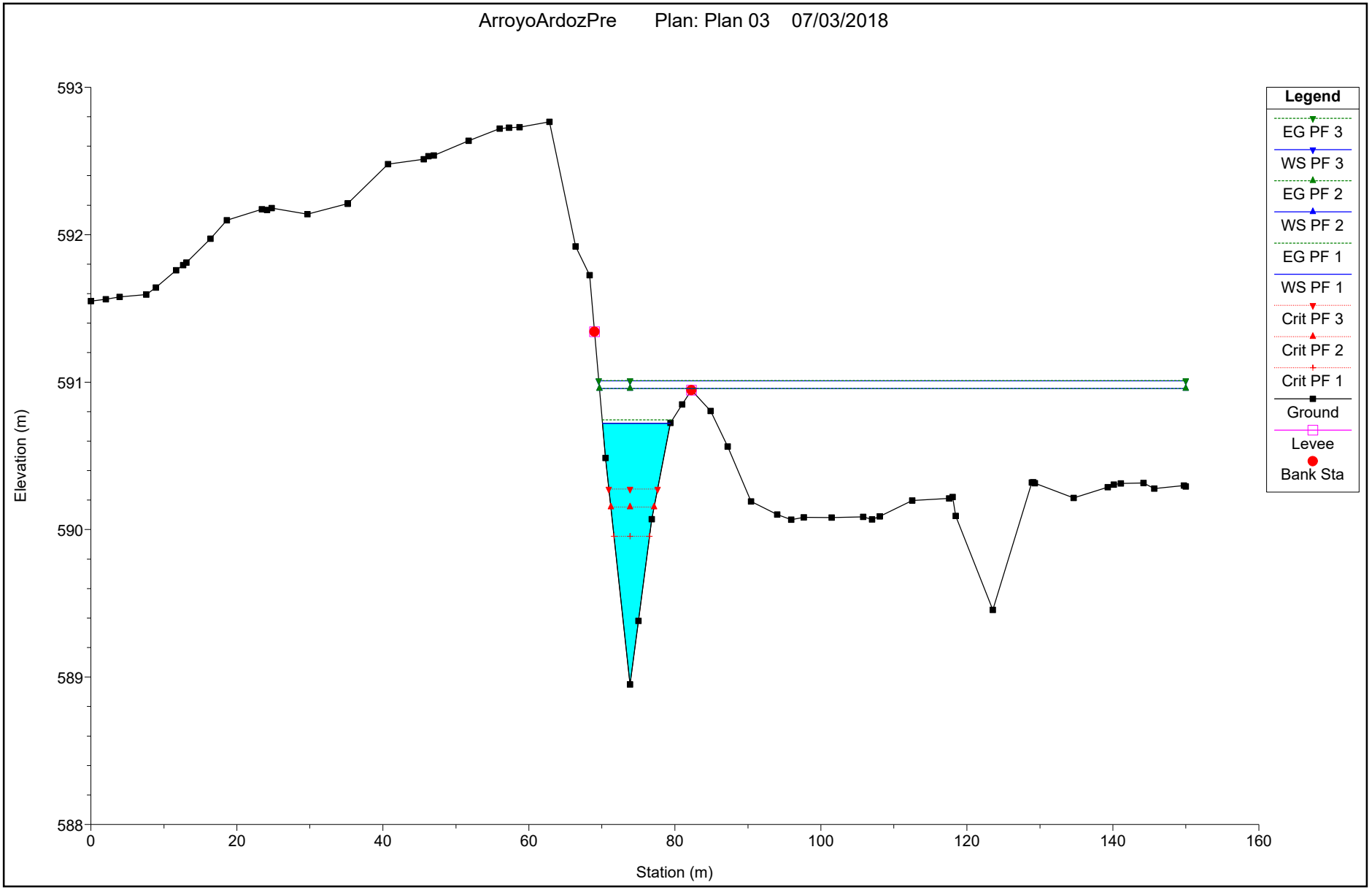

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

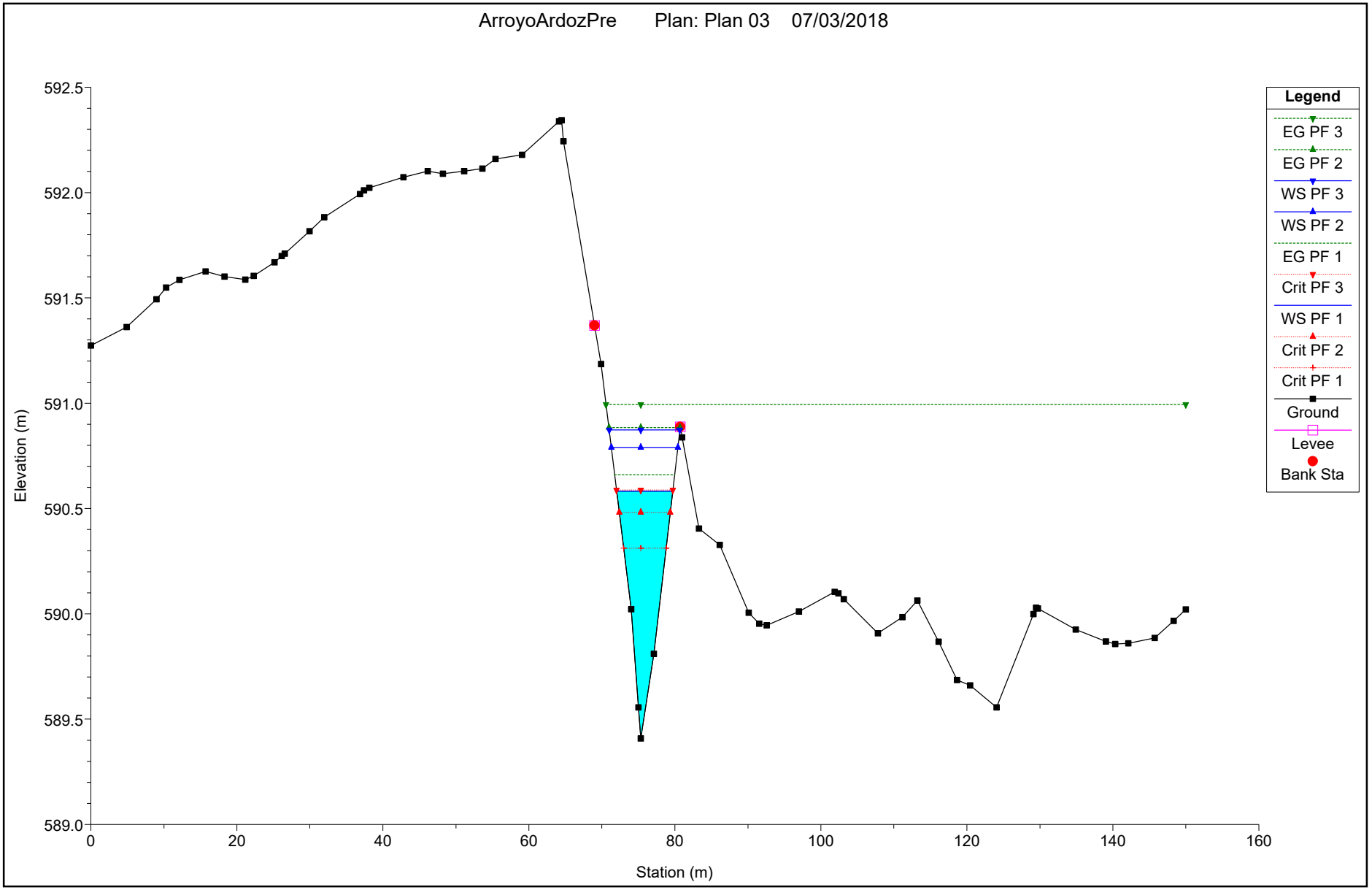

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
594.0
593.5
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

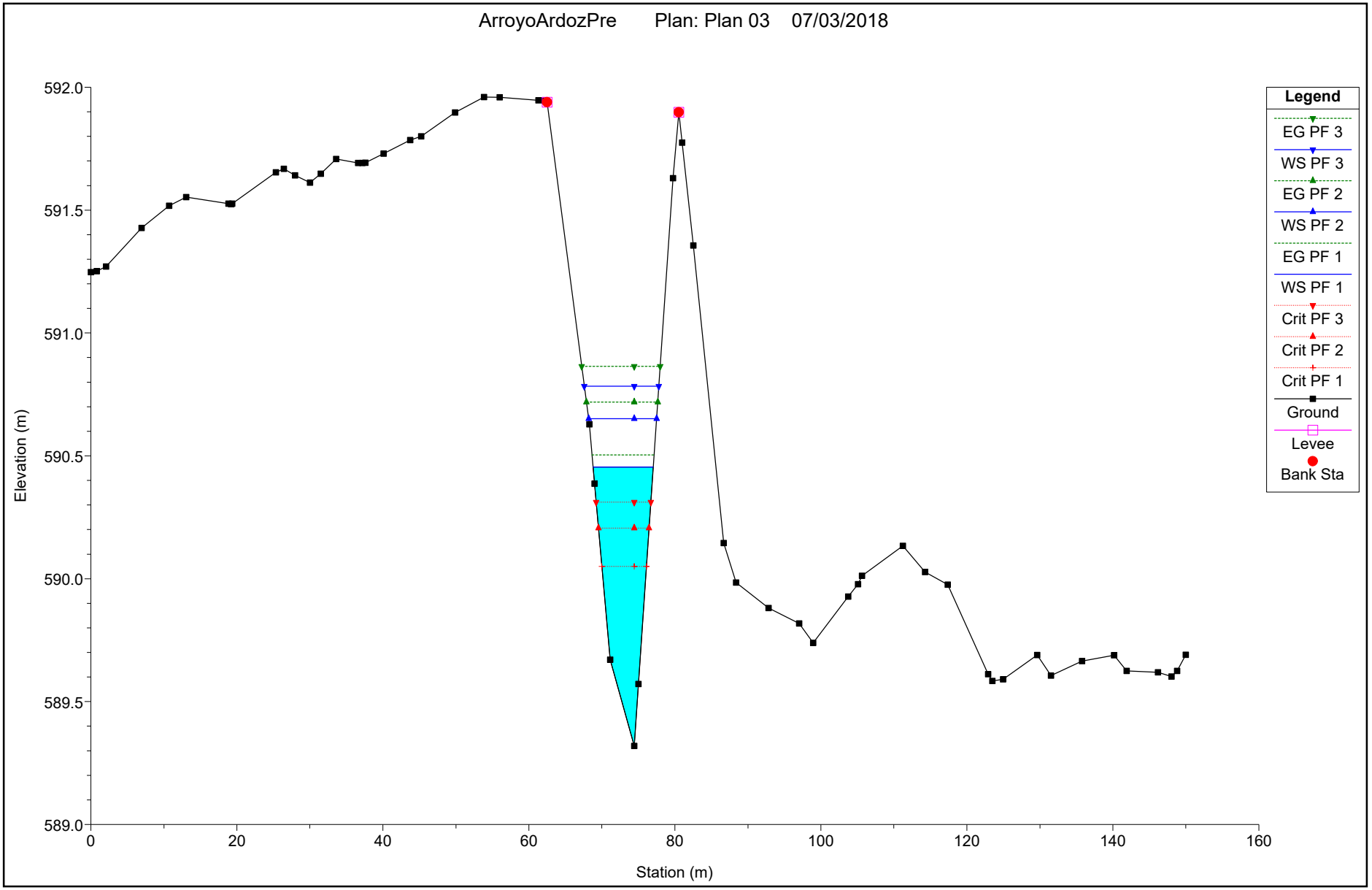

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 2
WS PF 3
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

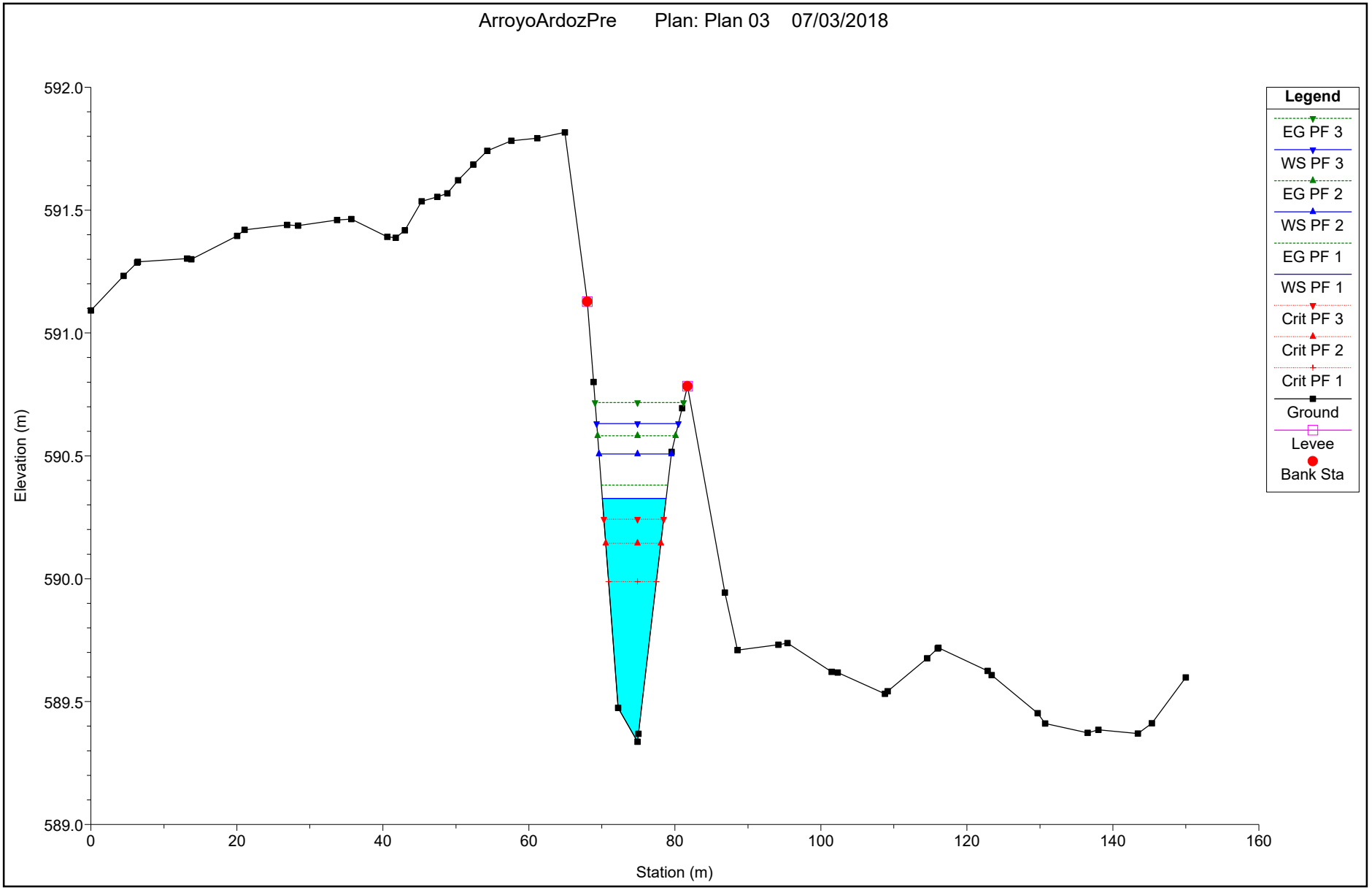

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
0
20
40
60
80
100
120
140
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
Crit PF 2
WS PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

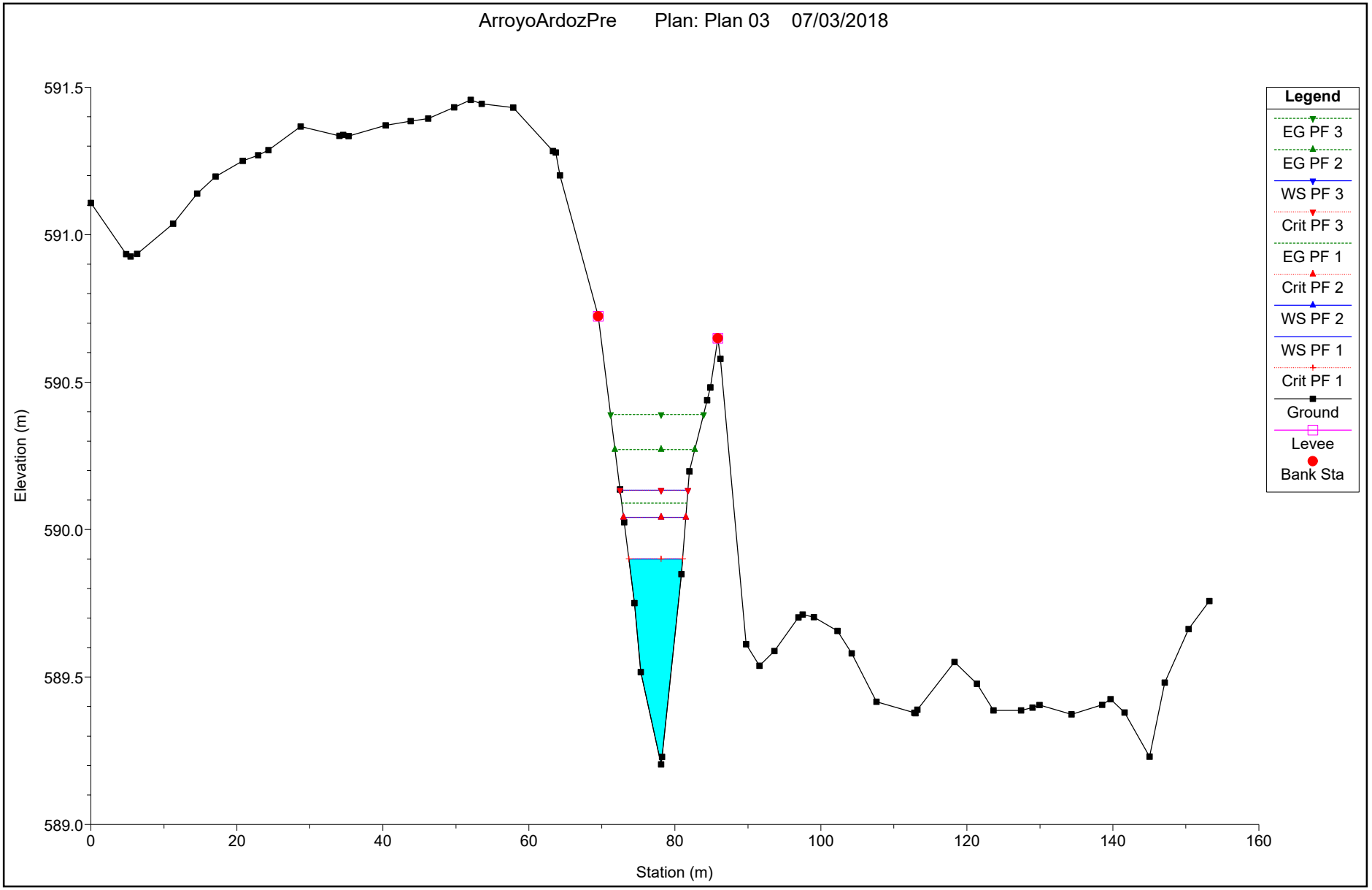

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
594
593
592
591
590
589
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

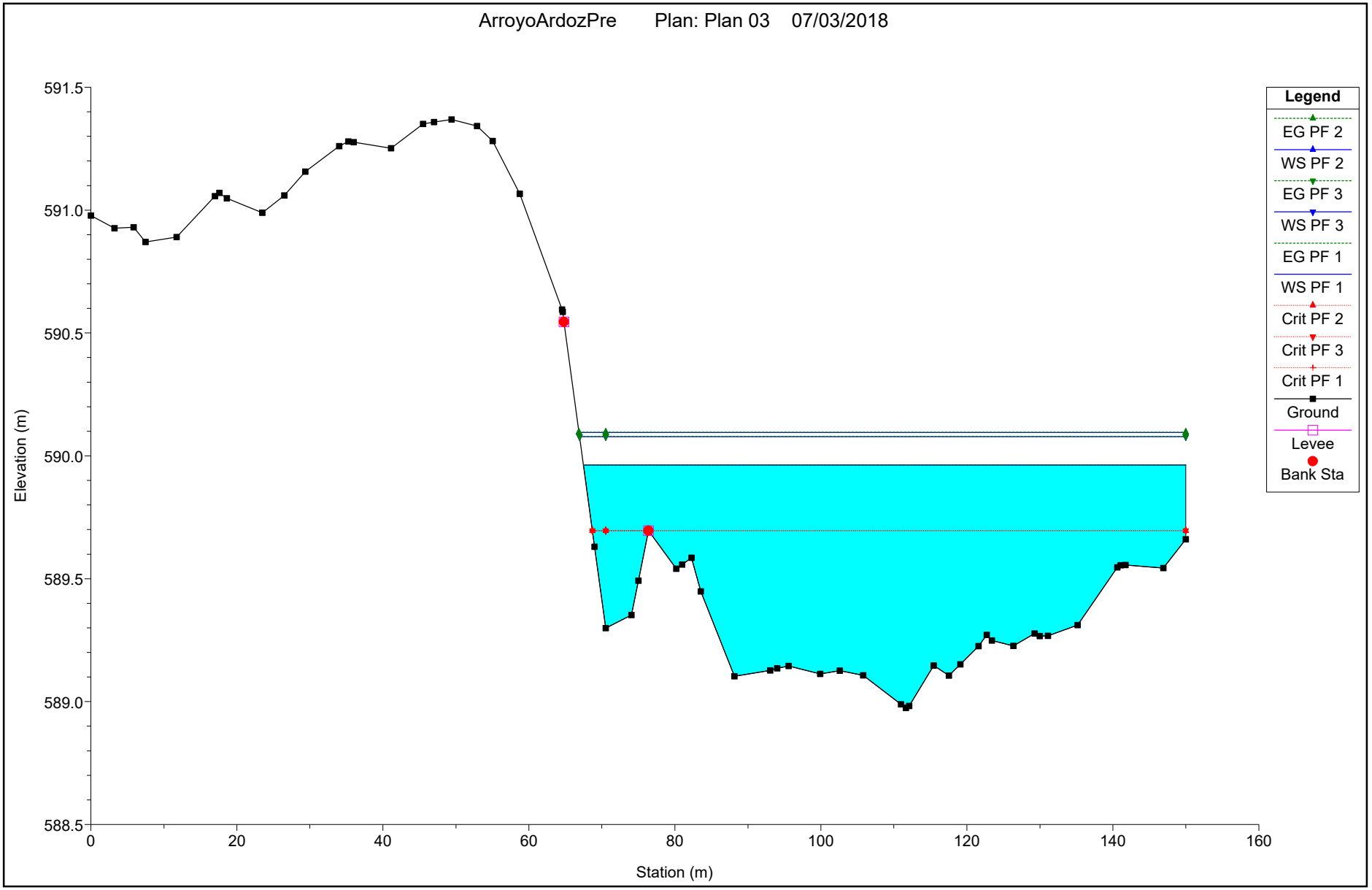

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
593
592
591
590
589
588
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

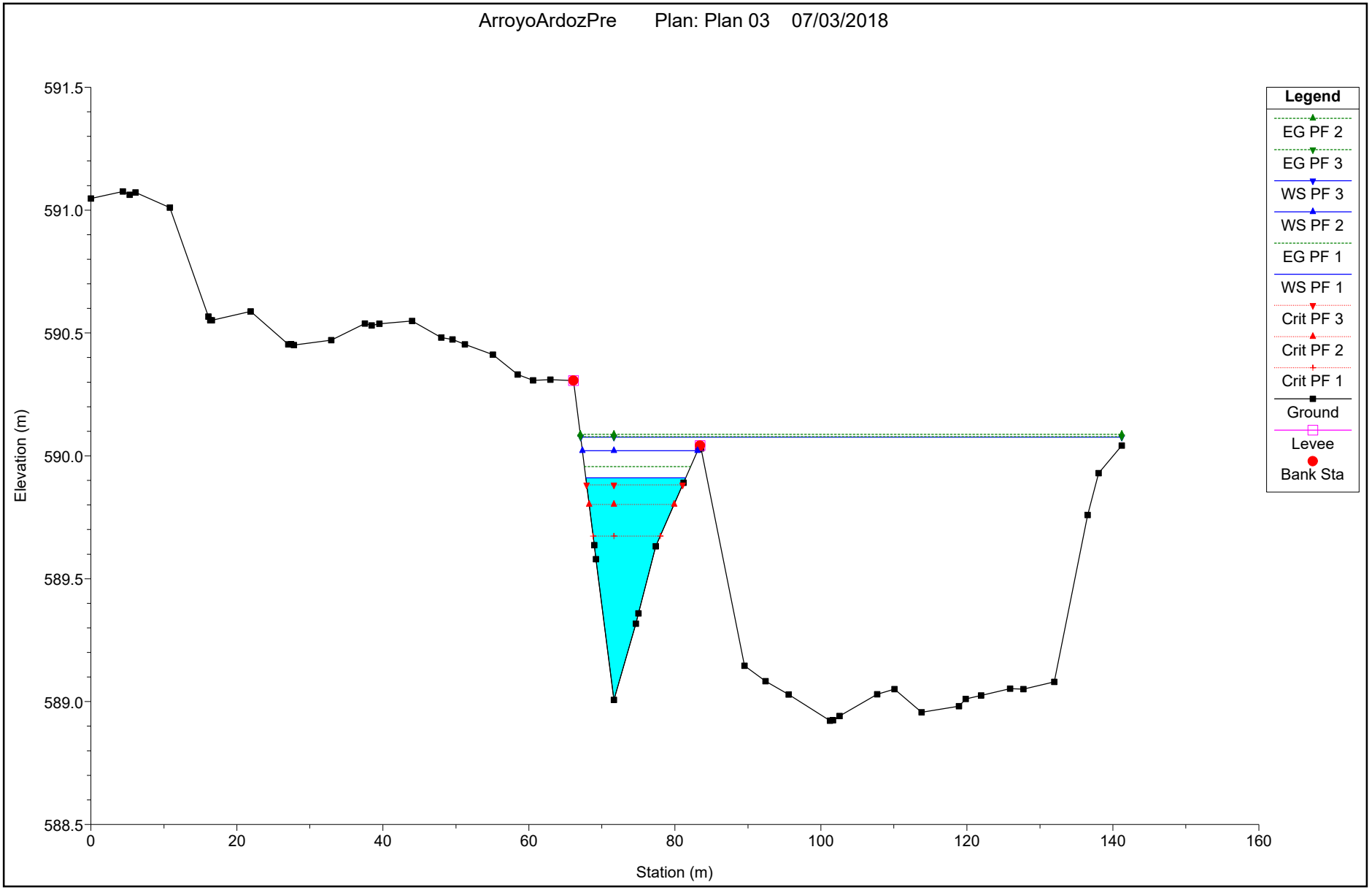

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
EG PF 1
Crit PF 3
WS PF 1
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
592.5
592.0
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Station (m)

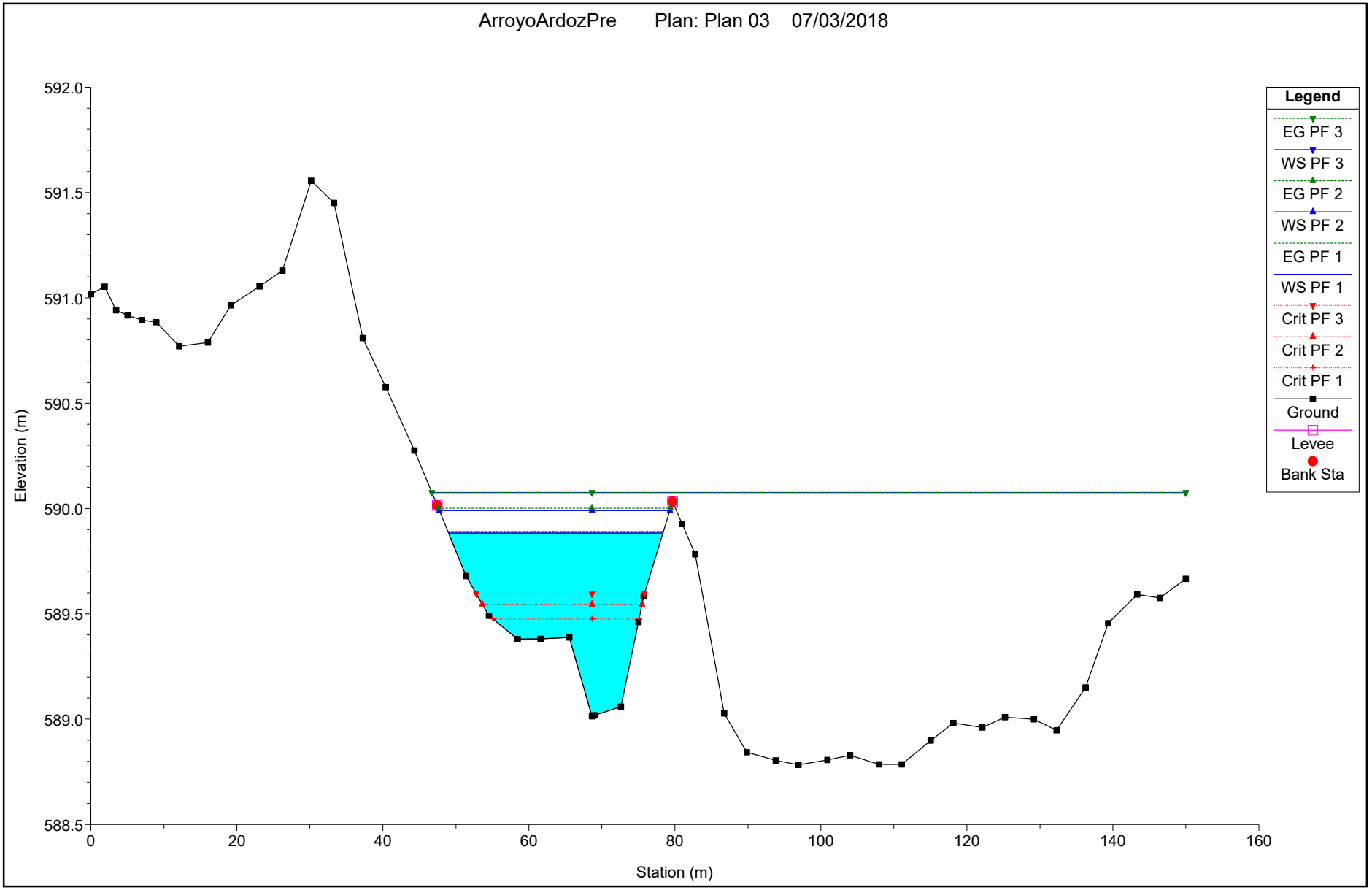

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.0
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

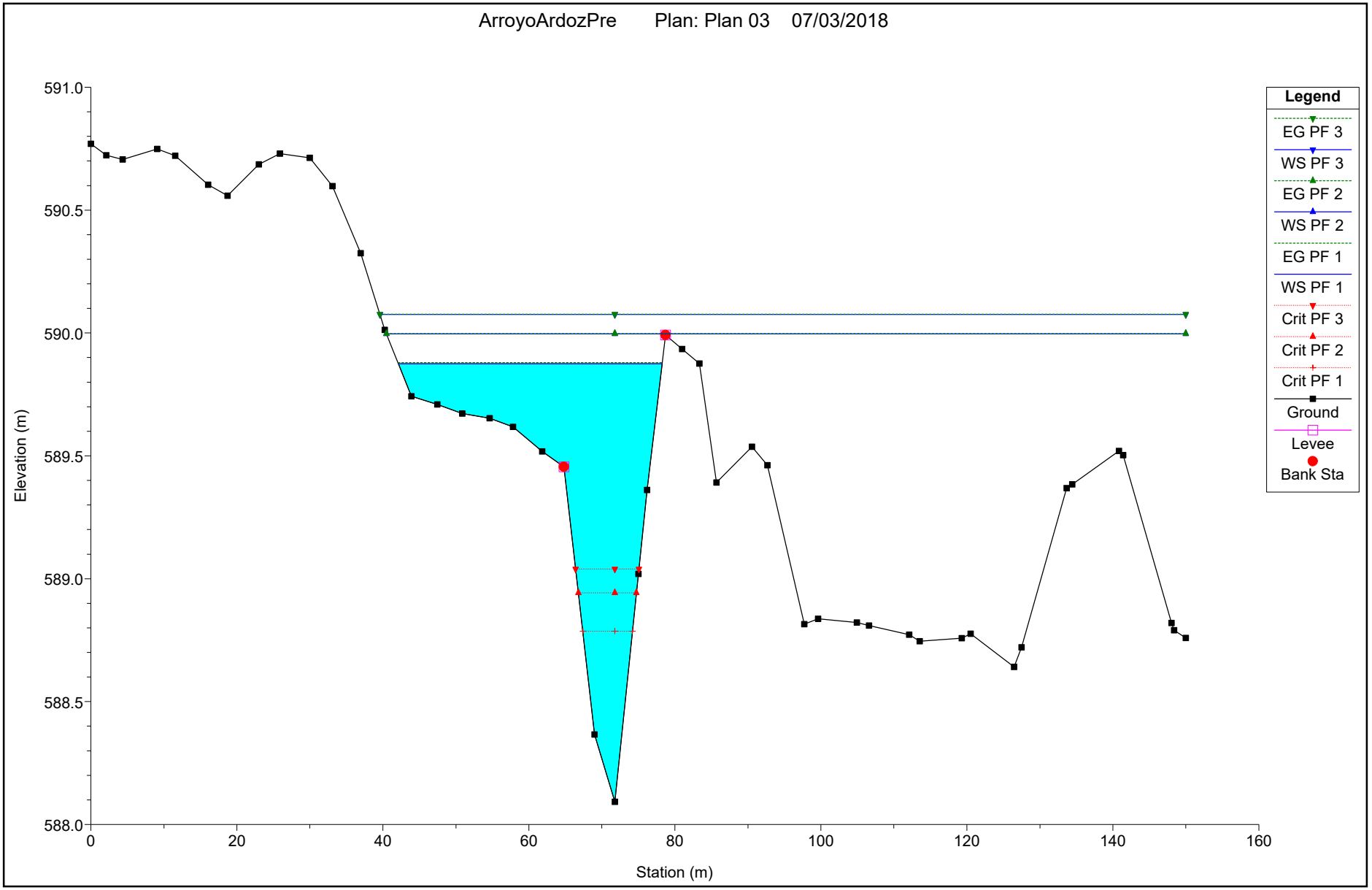

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.0
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

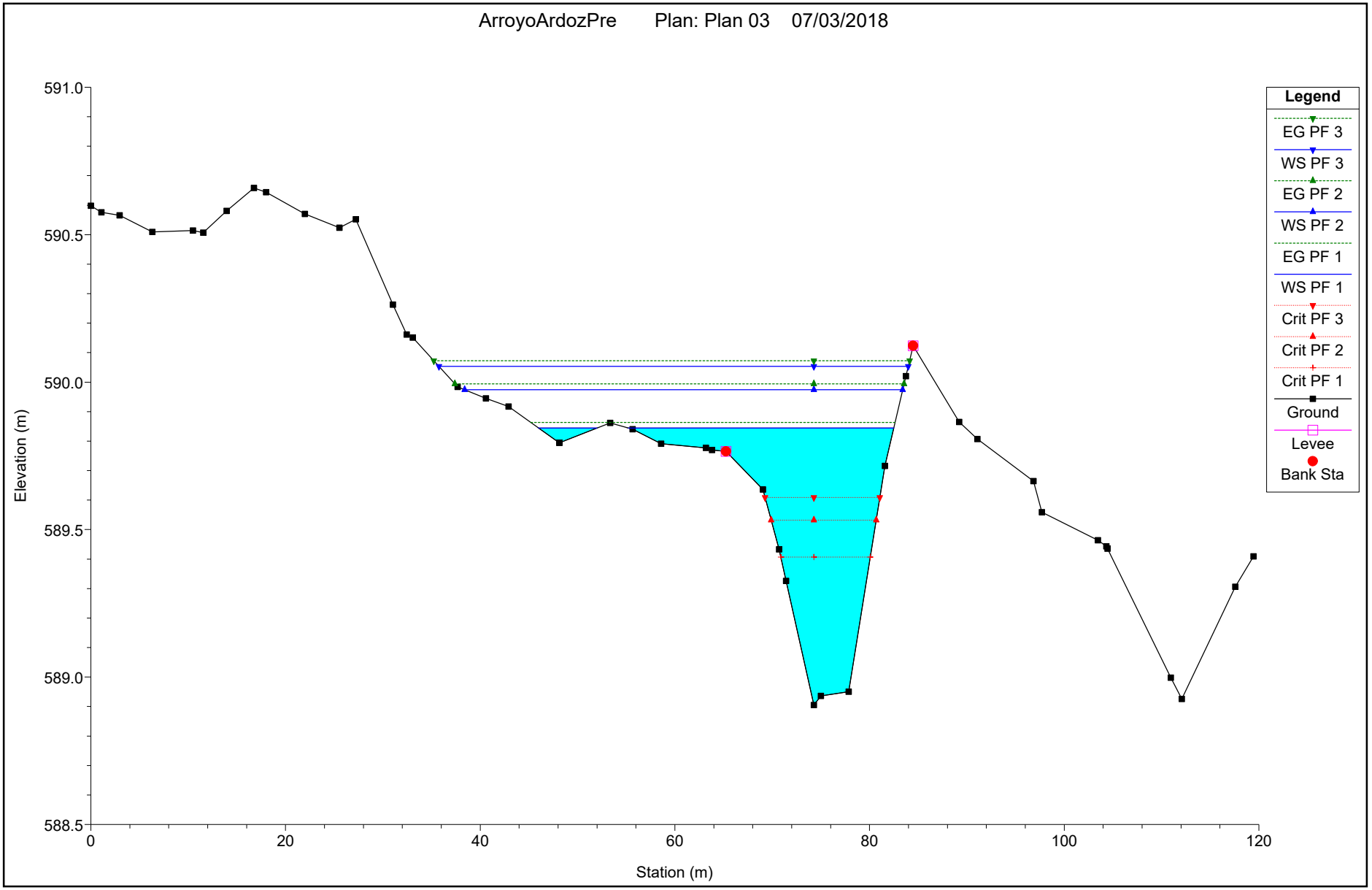

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
Crit PF 2
WS PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Station (m)

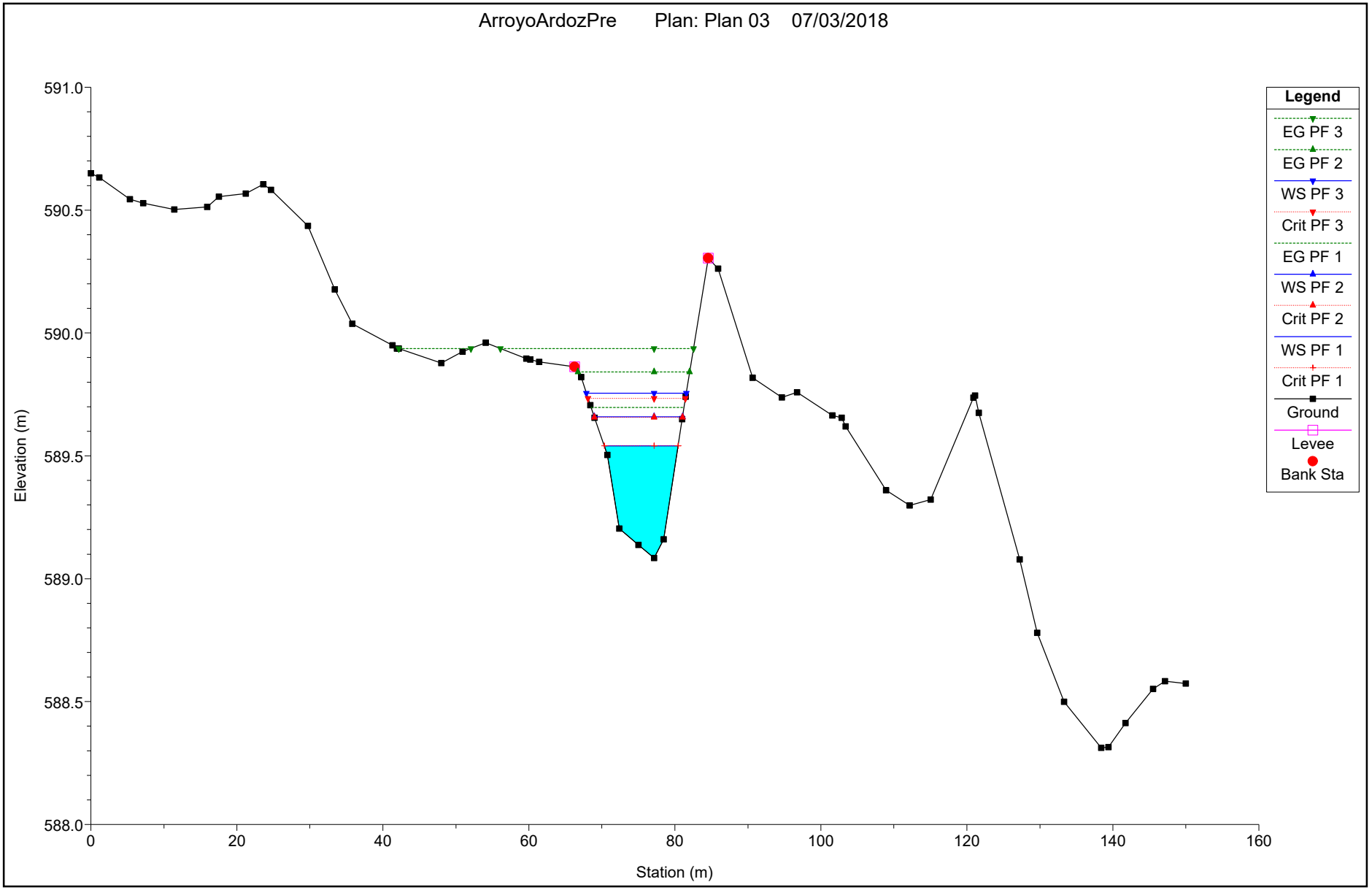

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 2
WS PF 2
EG PF 3
WS PF 3
EG PF 1
WS PF 1
Crit PF 2
Crit PF 3
Crit PF 1
Ground
Levee
Bank Sta

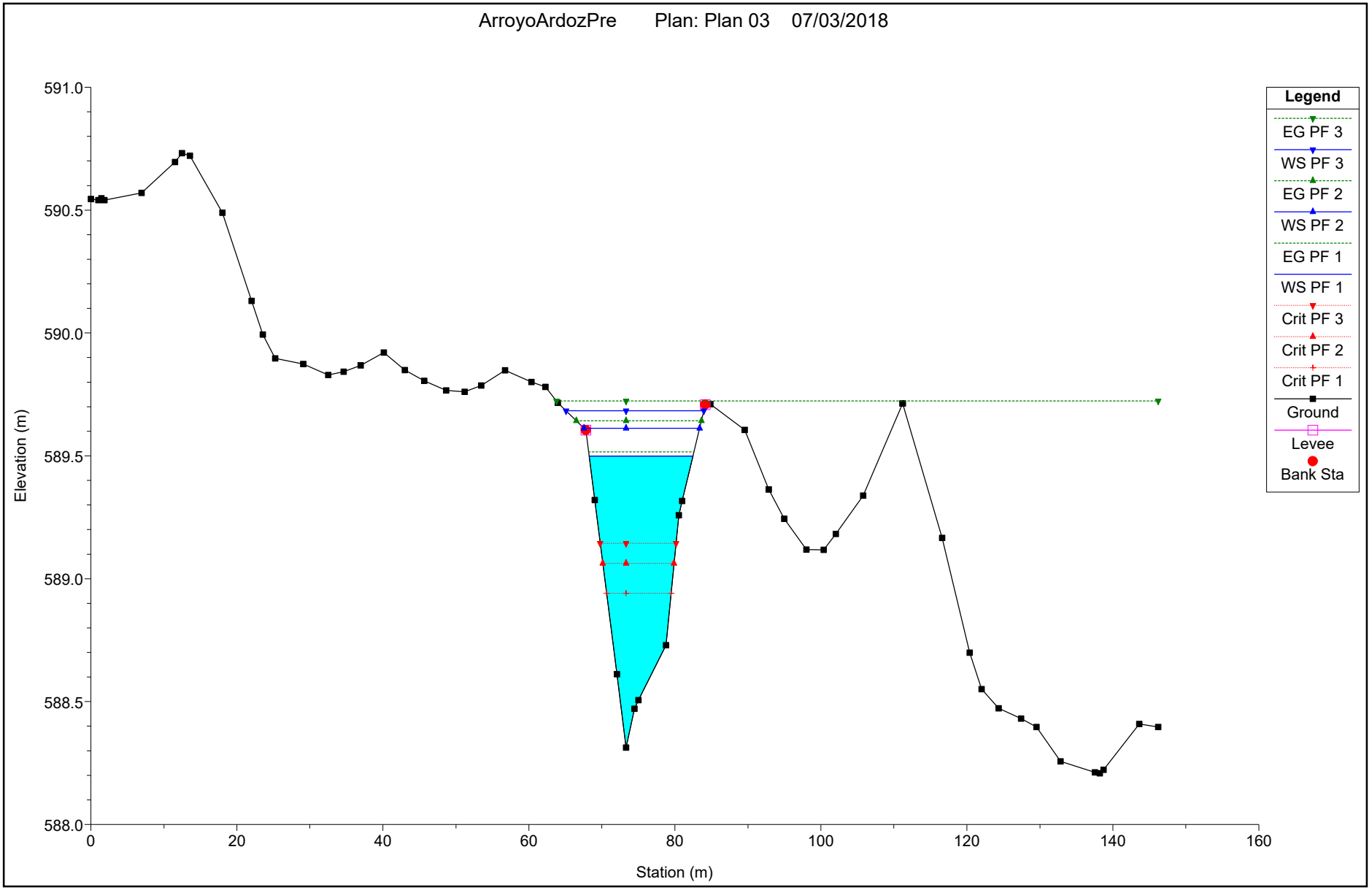

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 2
EG PF 3
WS PF 3
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

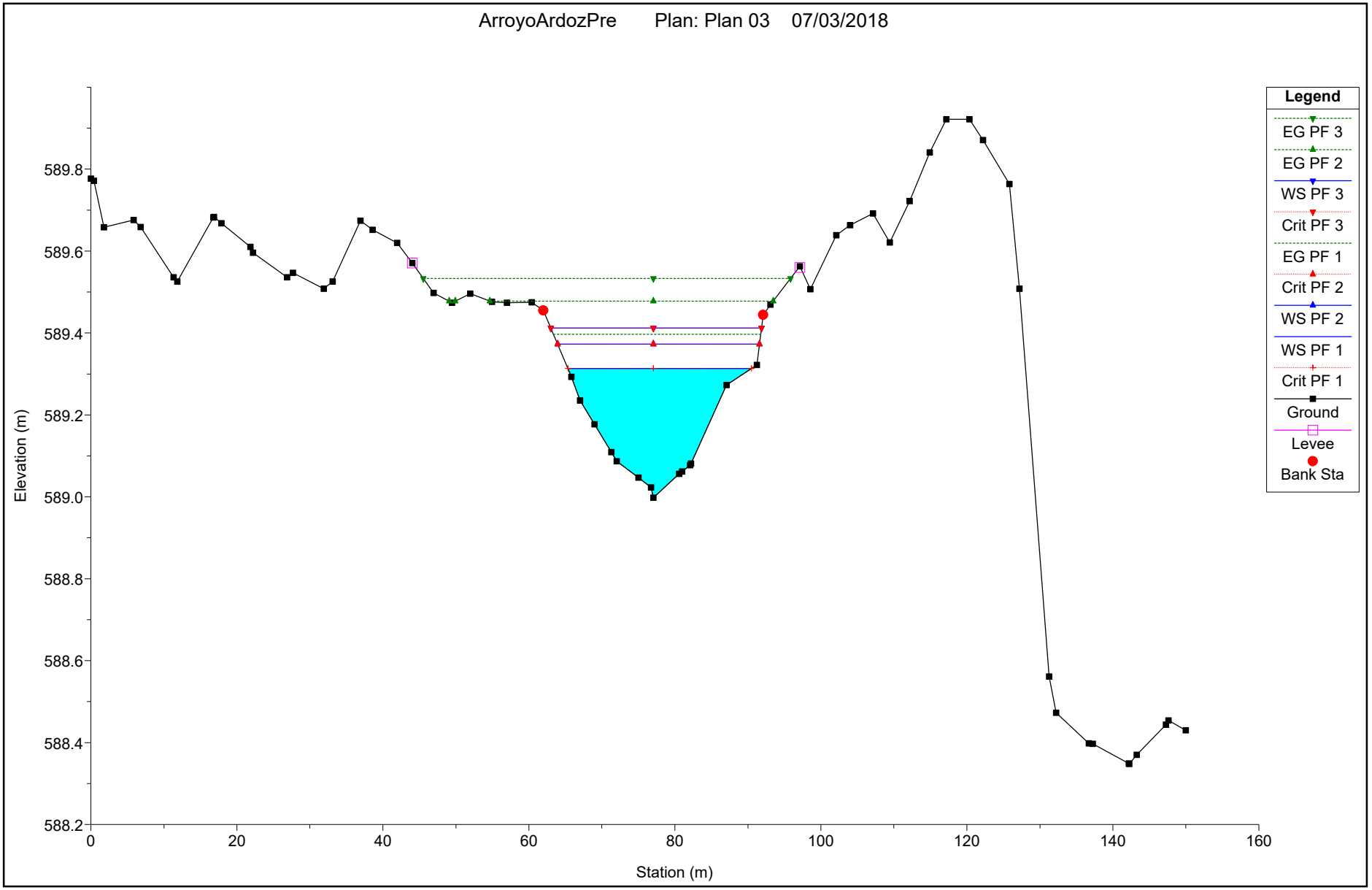

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.0
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

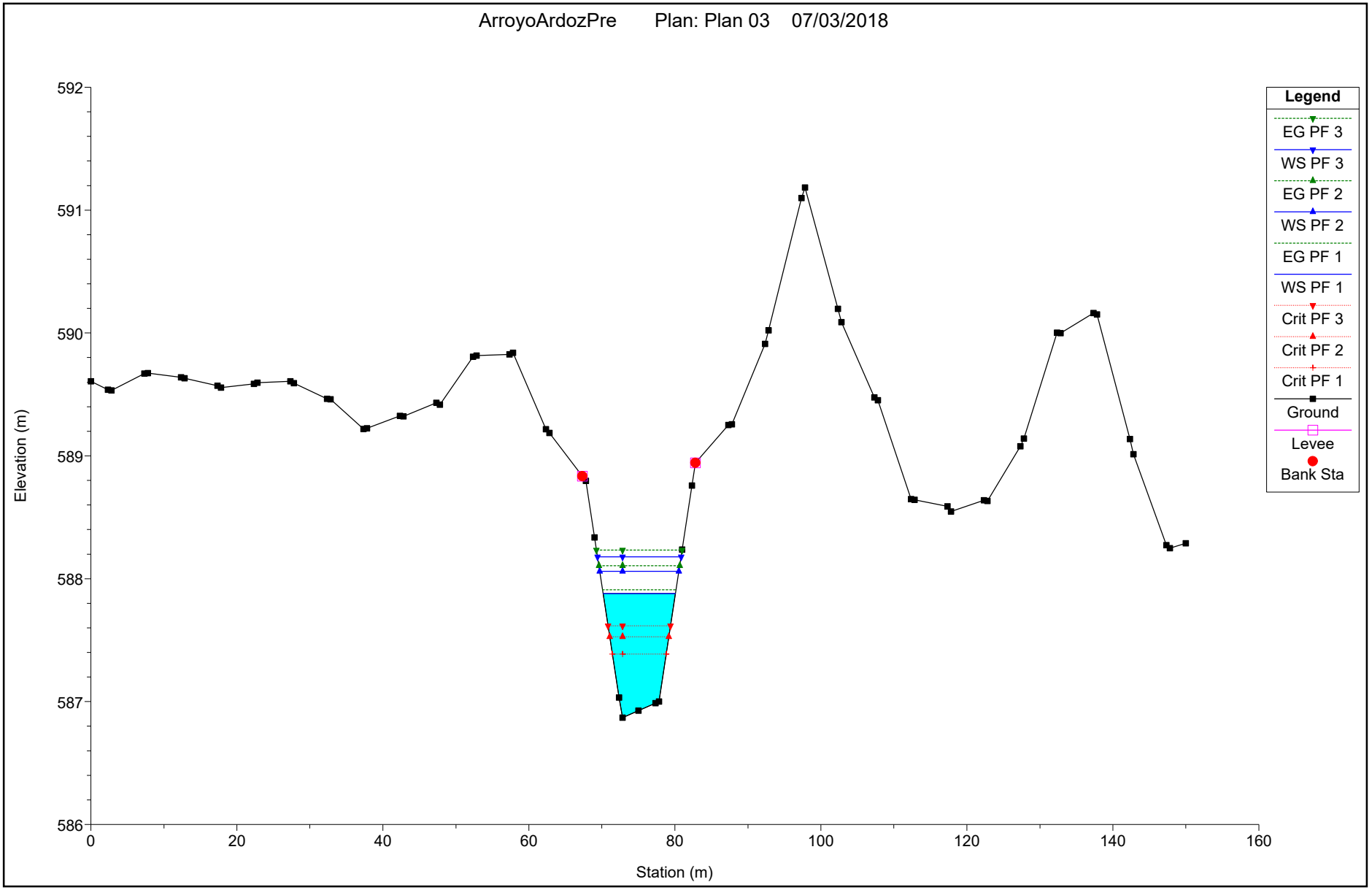

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

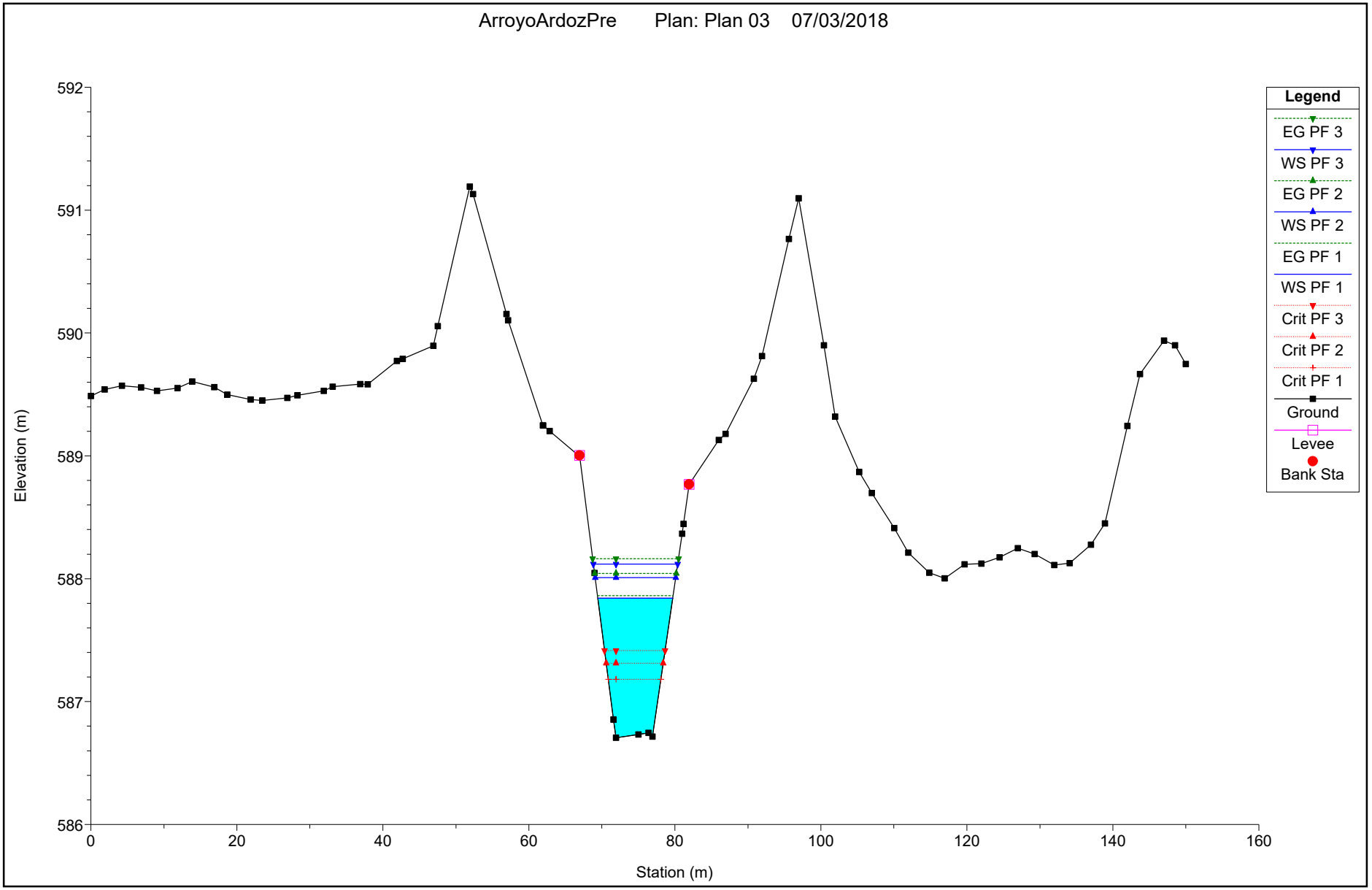

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

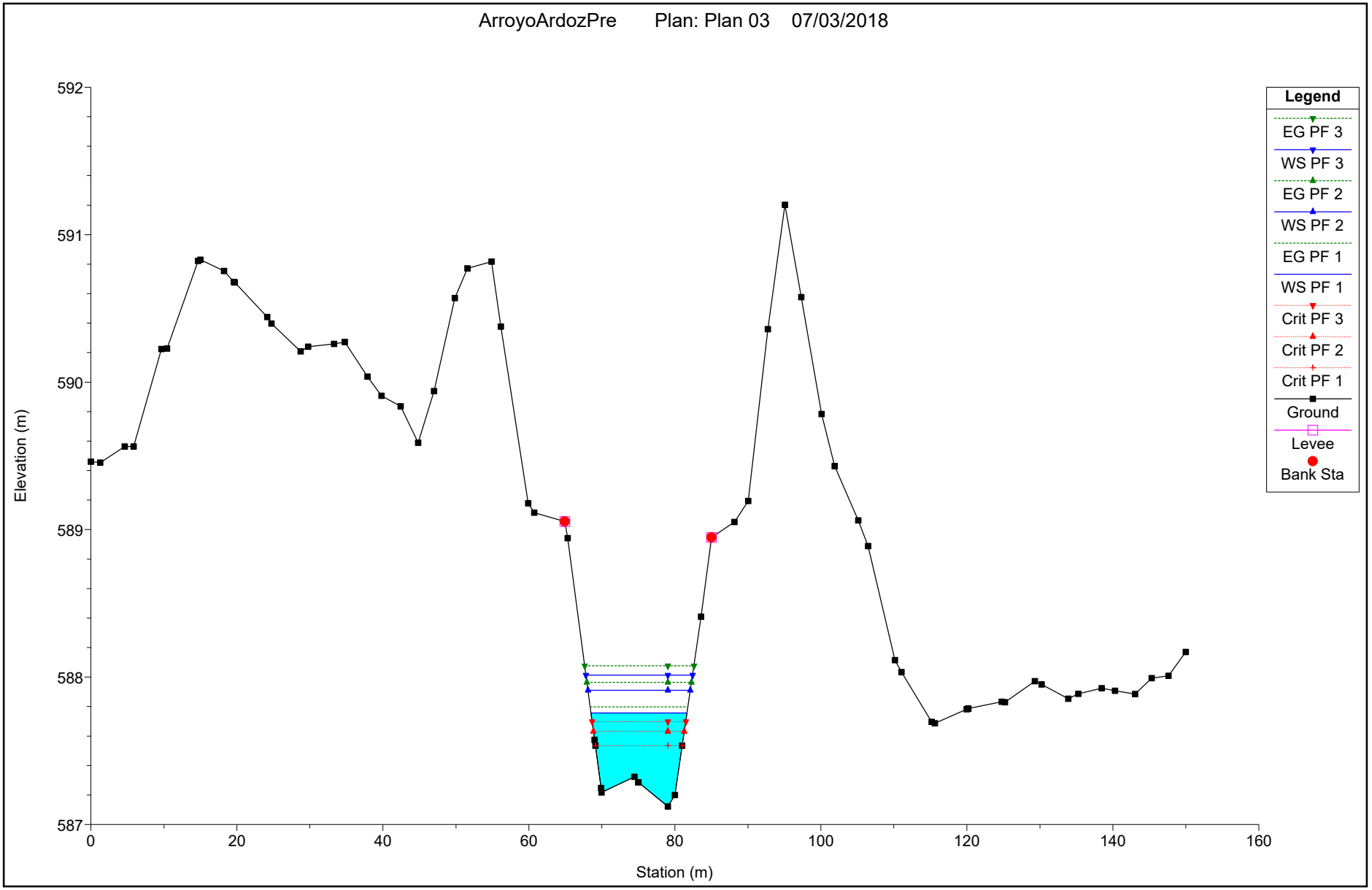

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
WS PF 2
Crit PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

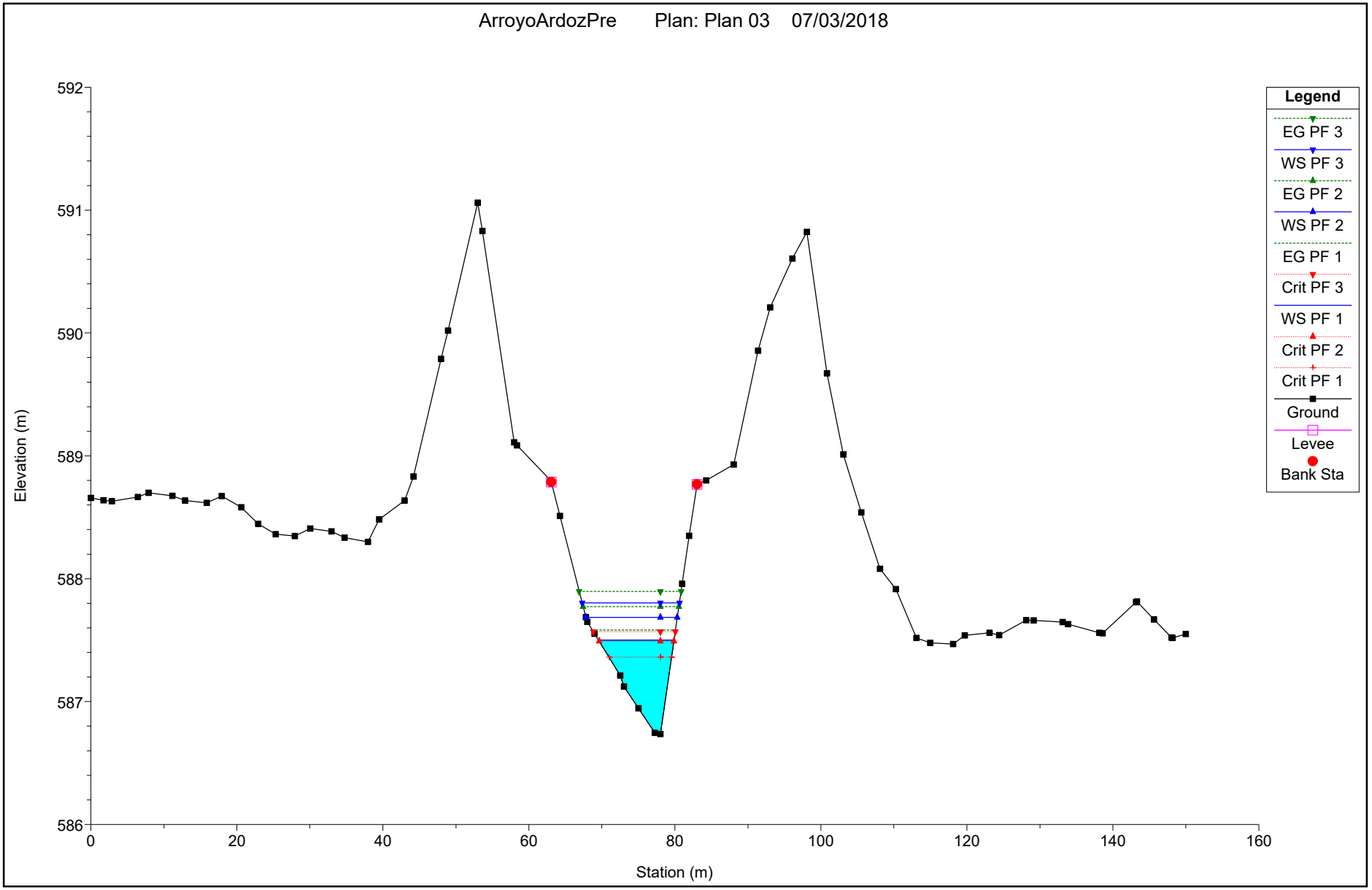

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

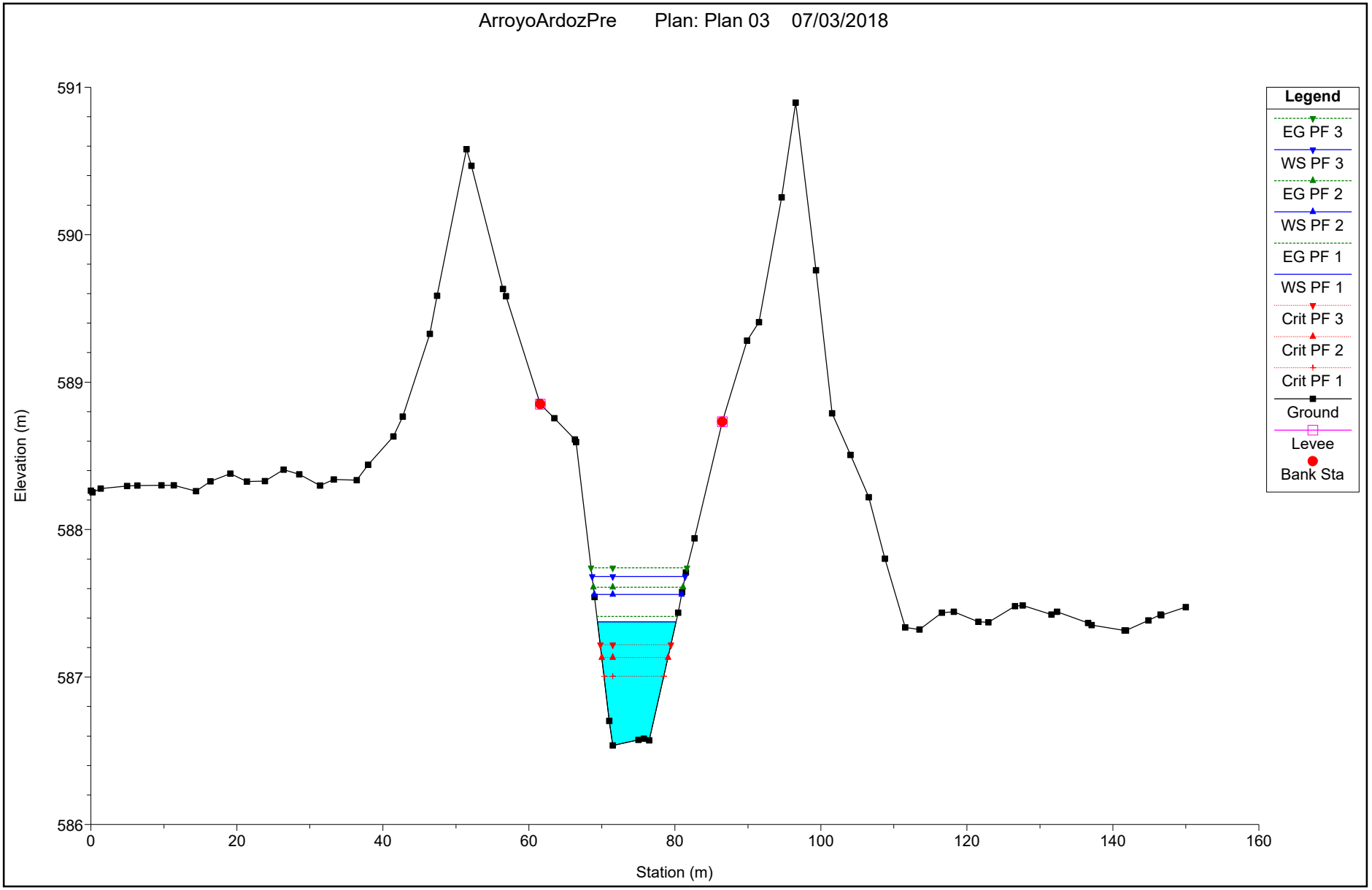

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
Crit PF 2
WS PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
589.8
589.6
589.4
589.2
589.0
588.8
588.6
588.4
588.2
0
20
40
60
80
100
120
140
160
Station (m)

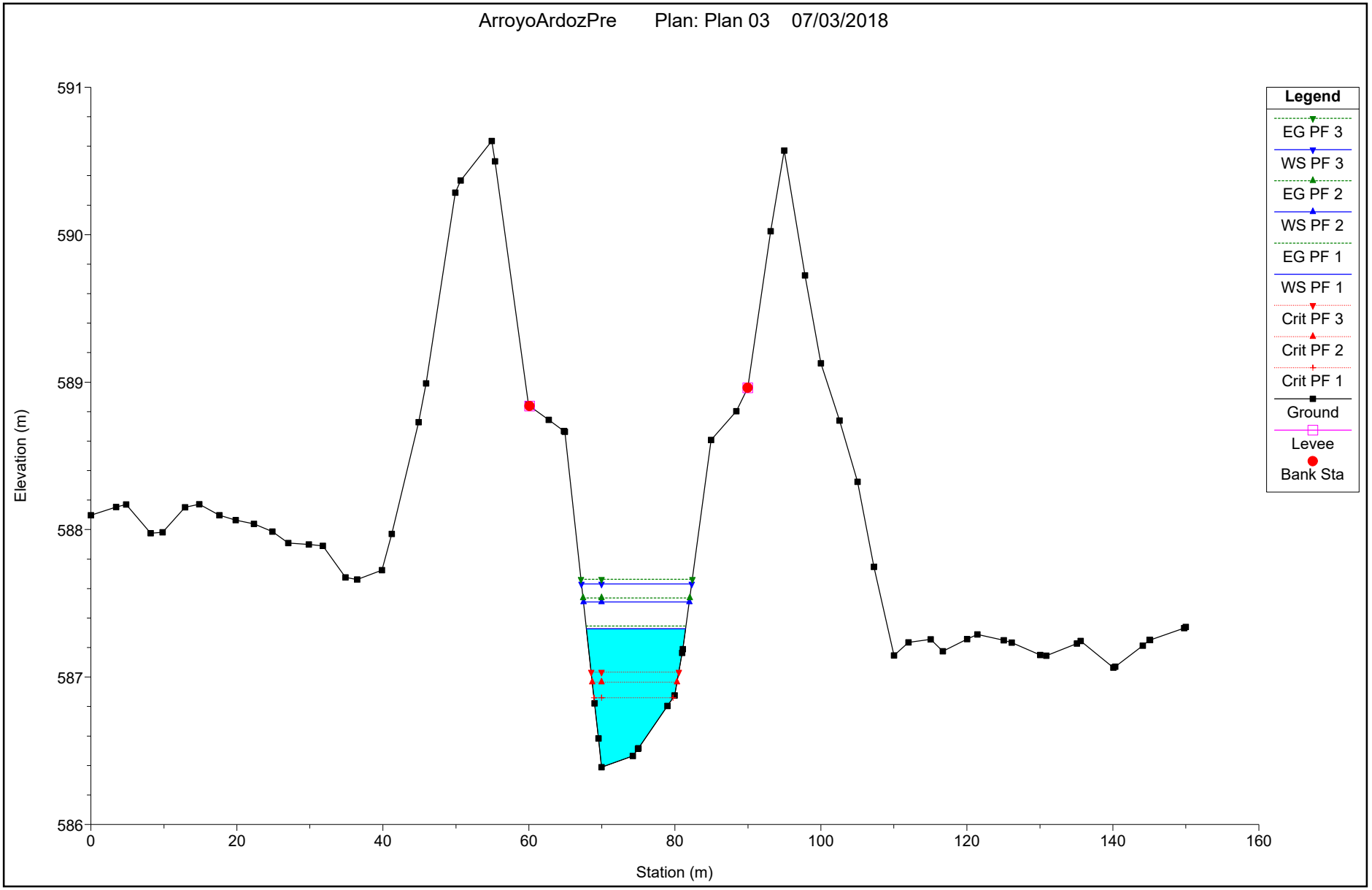

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

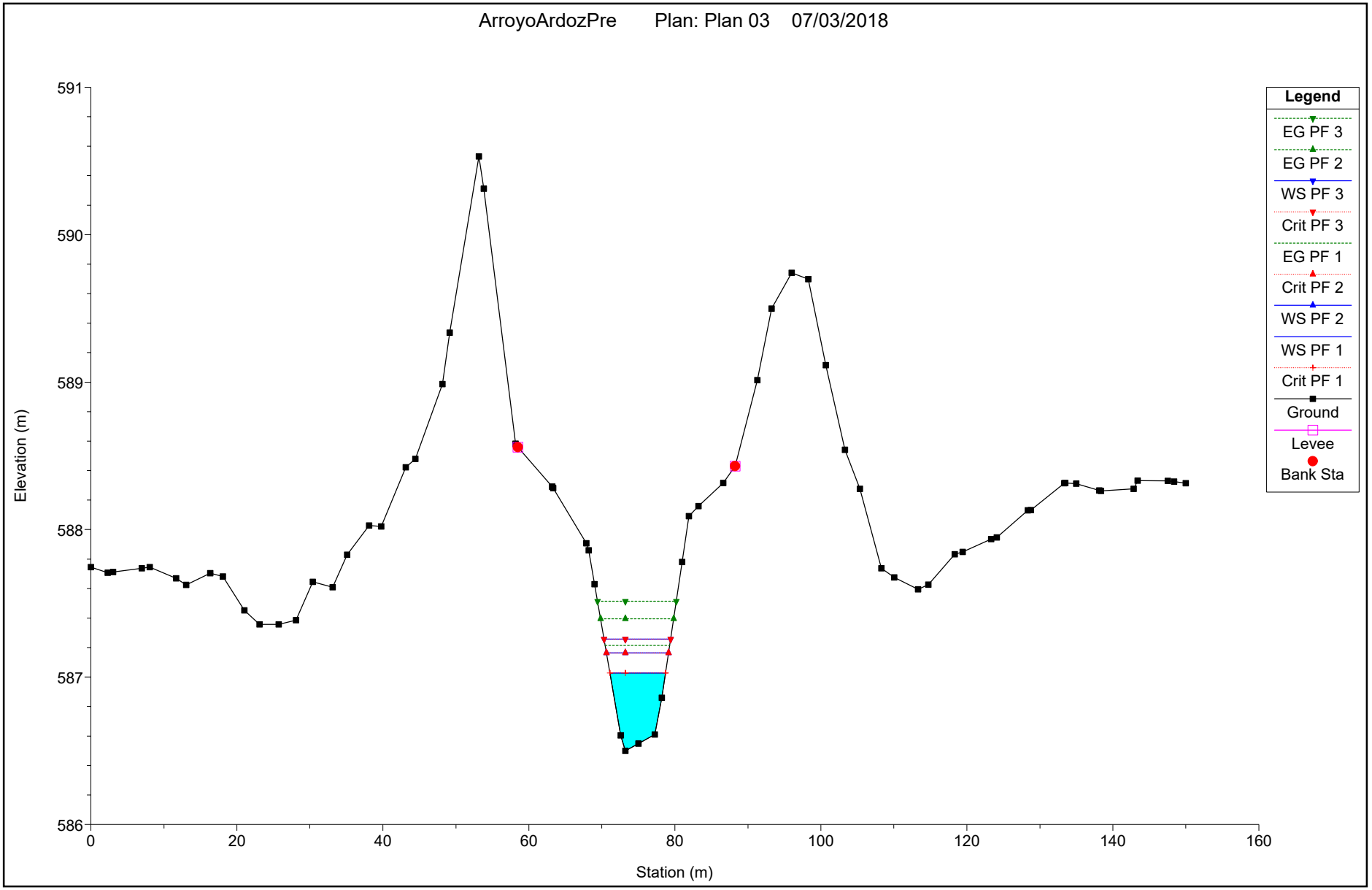

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

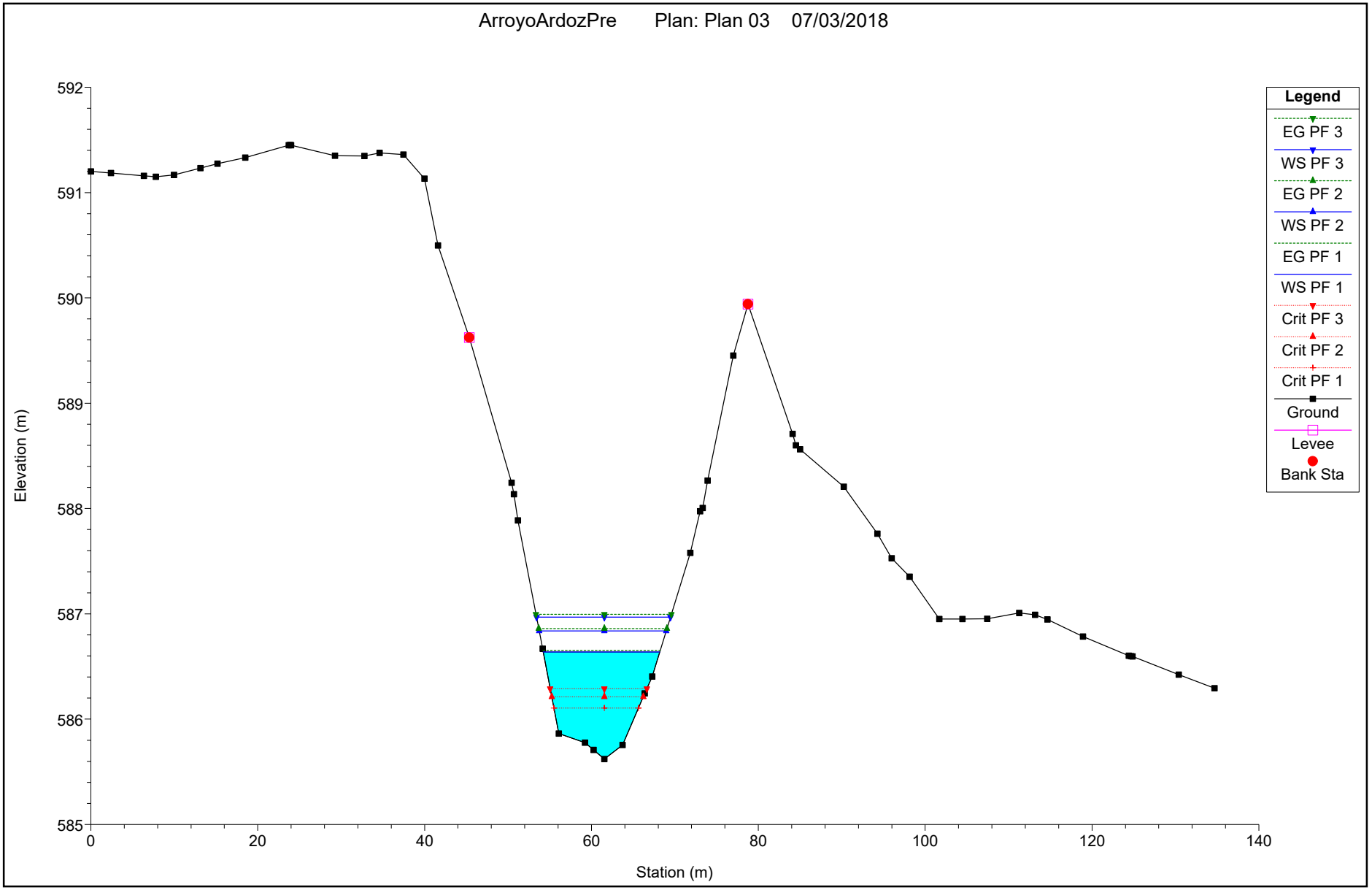

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

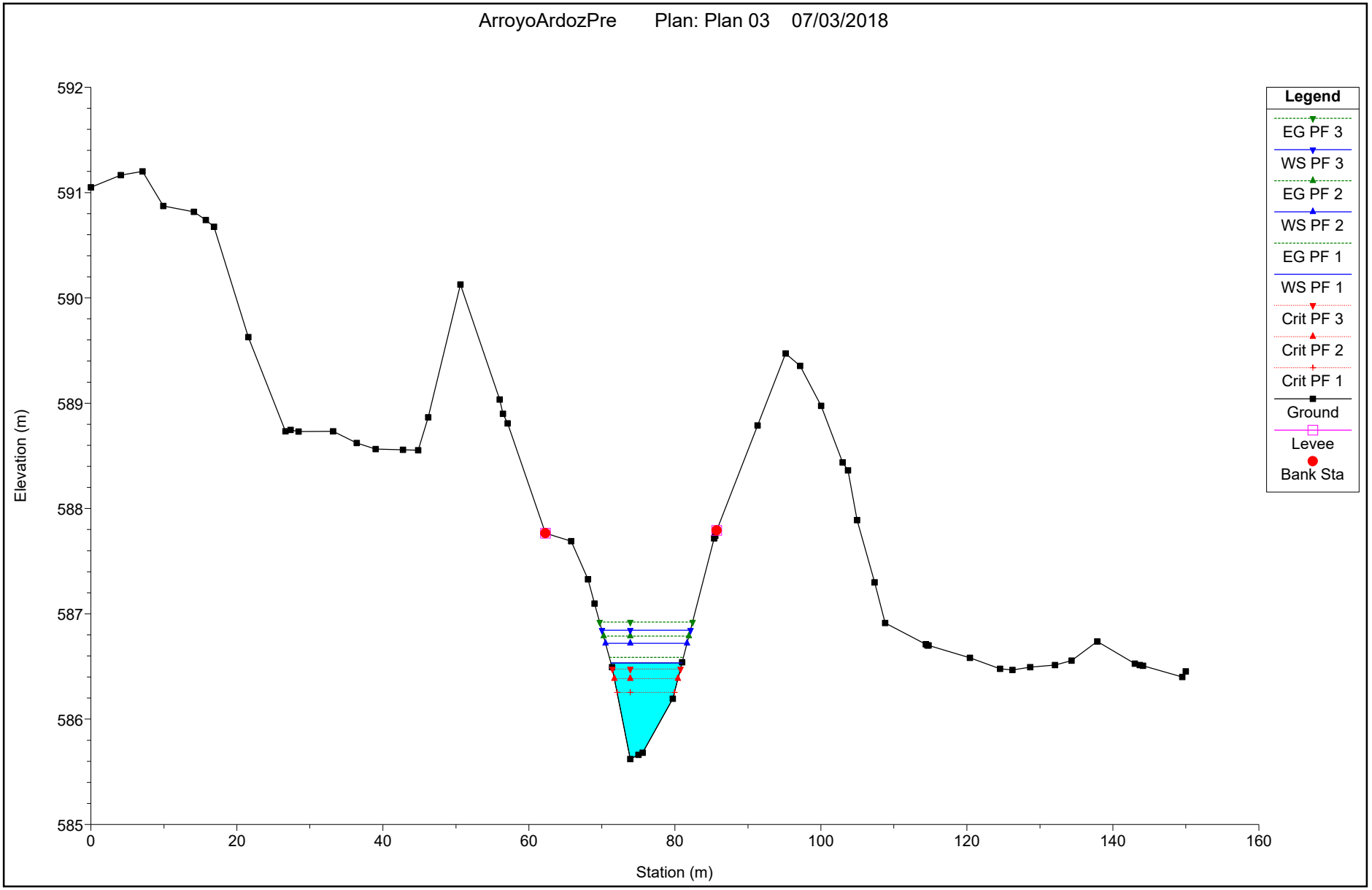

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
Crit PF 3
WS PF 1
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

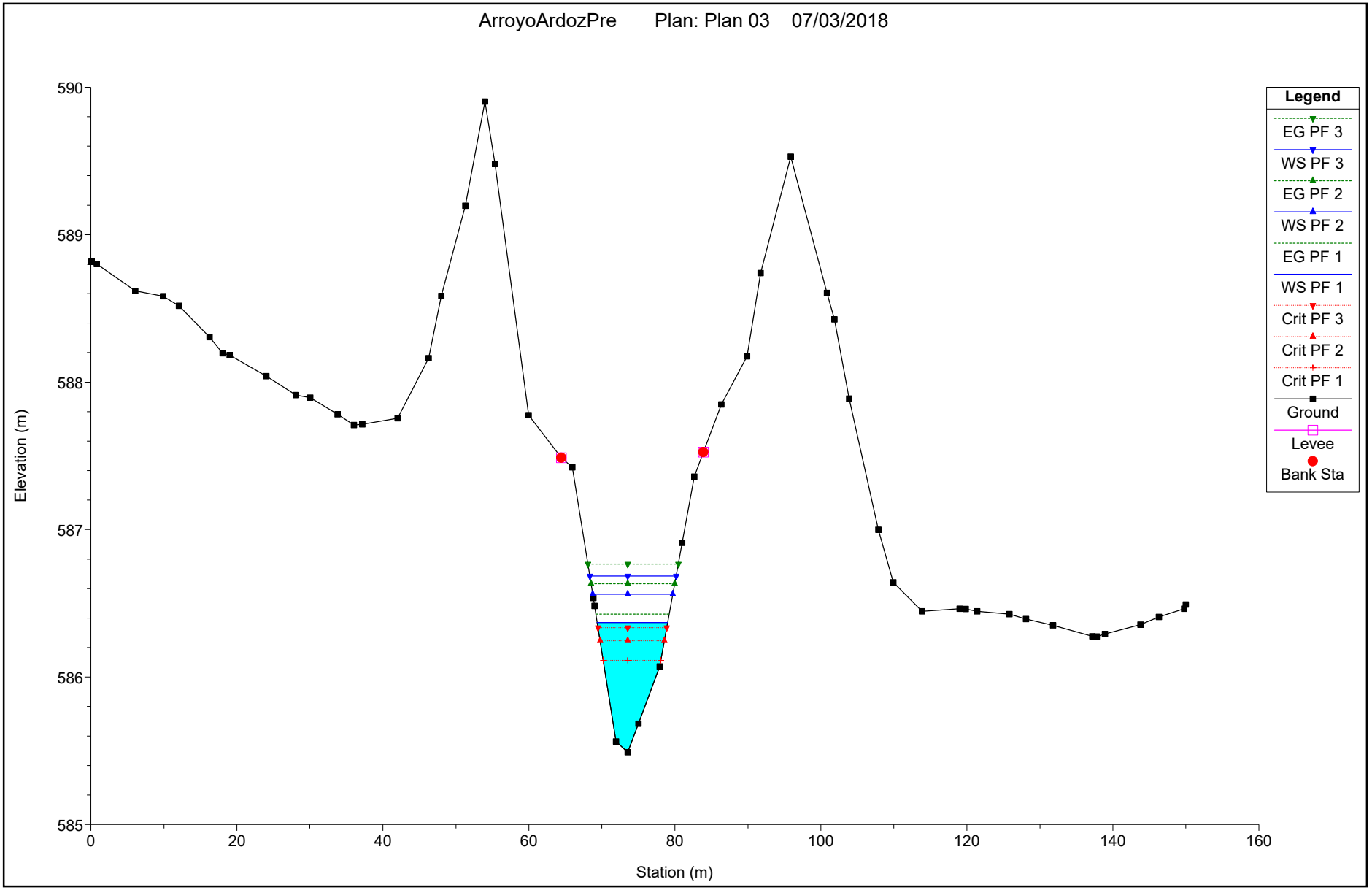

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

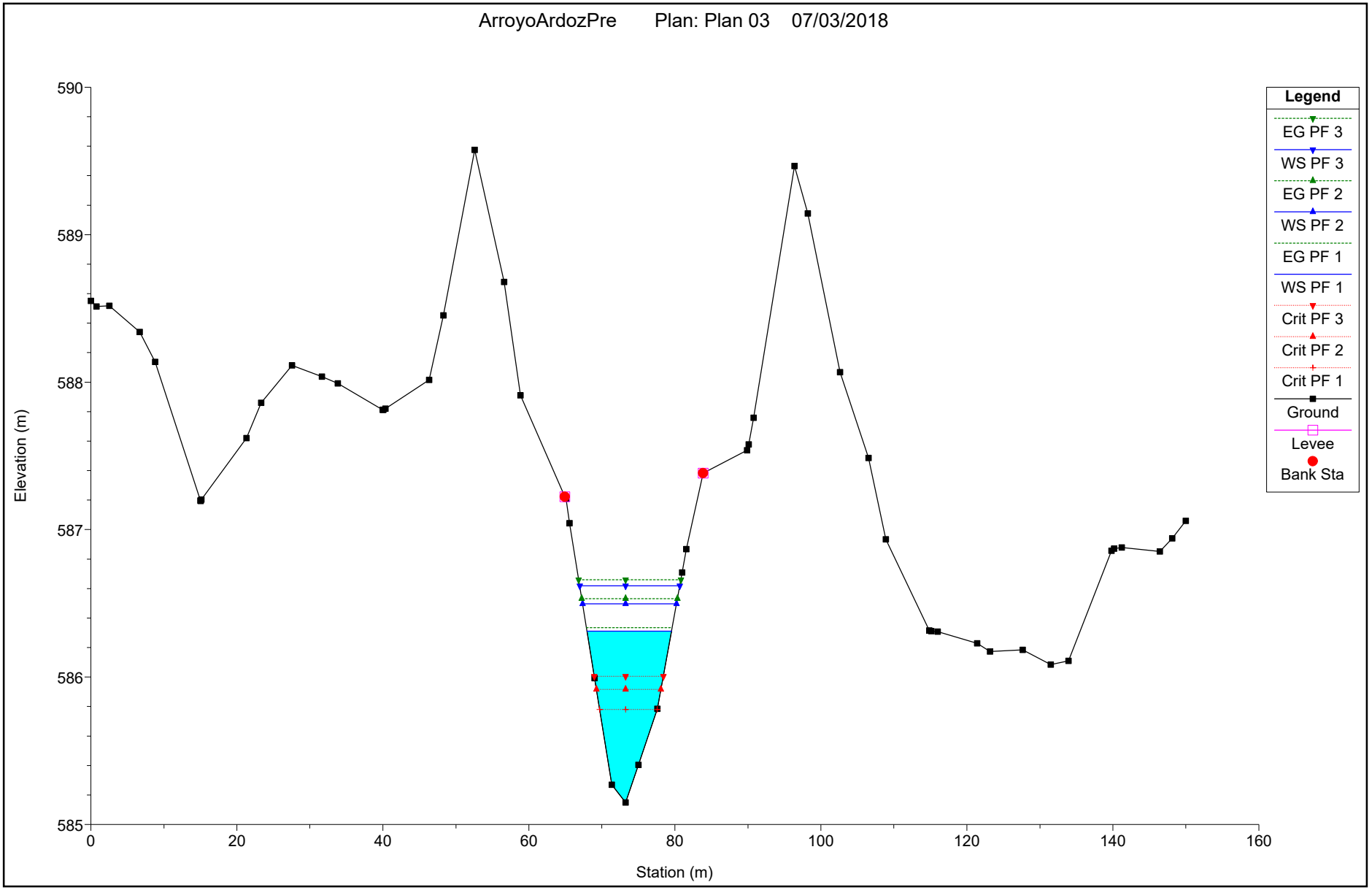

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Station (m)

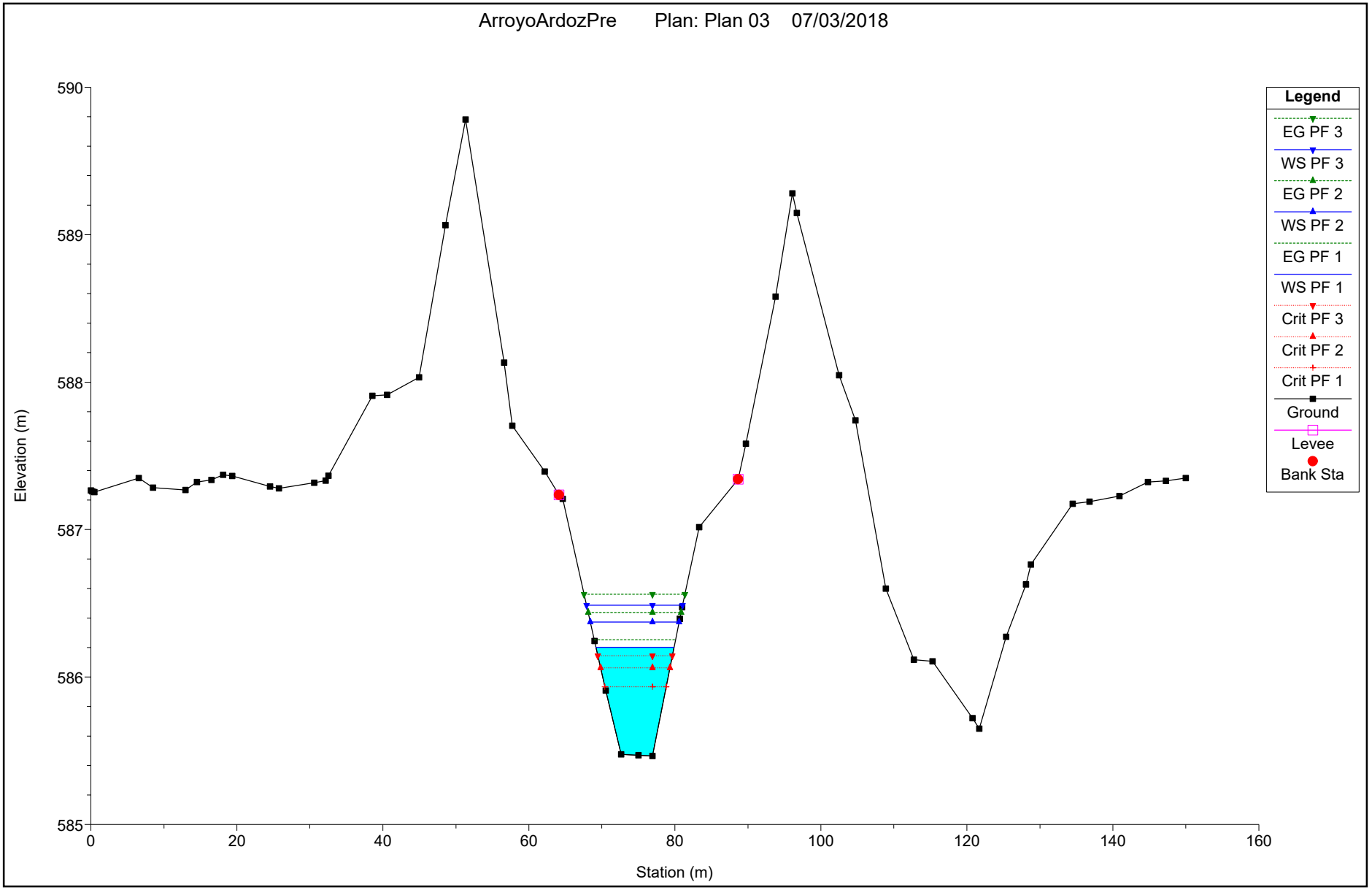

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
Crit PF 2
WS PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591
590
589
588
587
586
Station (m)
0
20
40
60
80
100
120
140
160

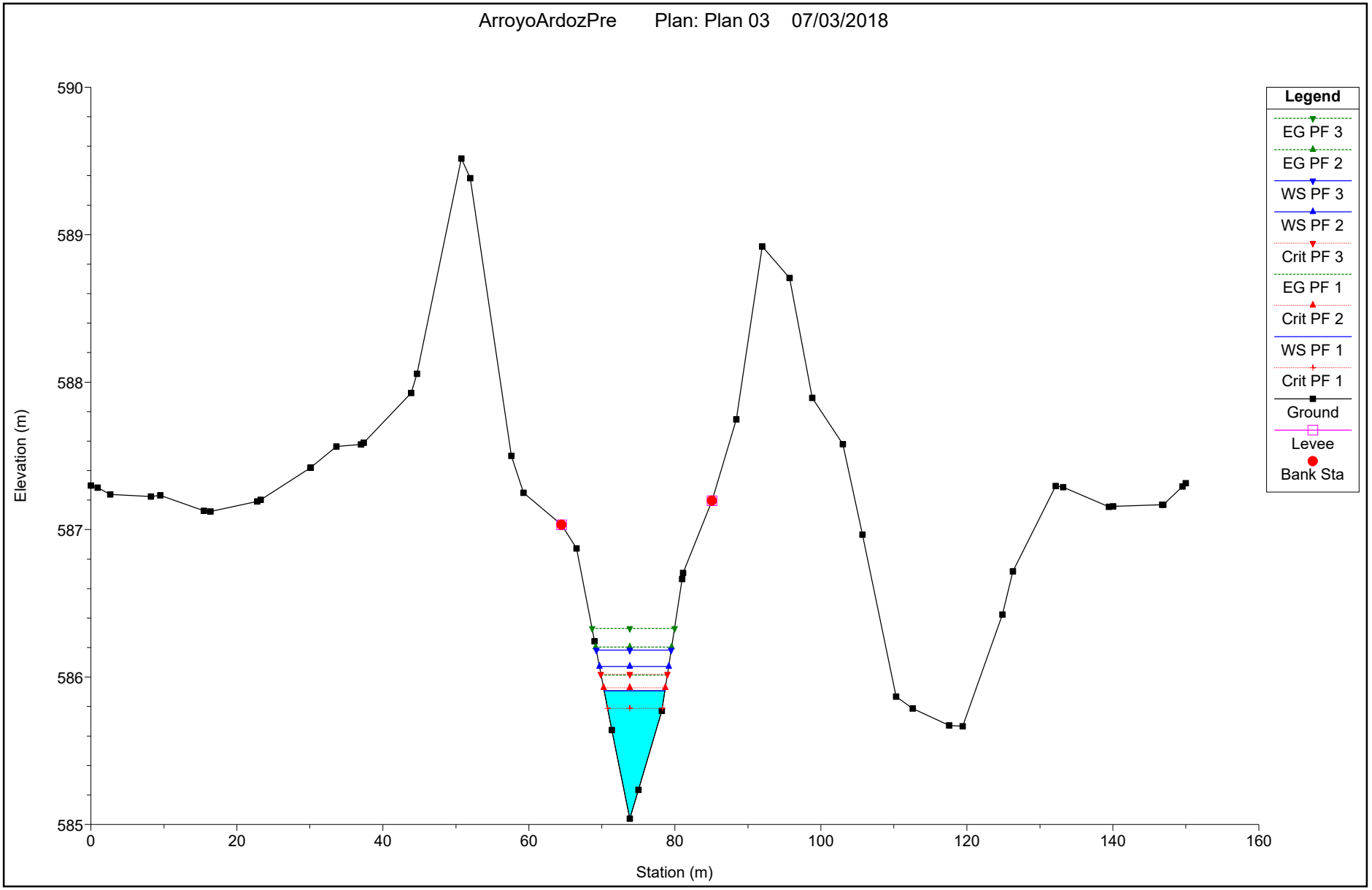

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
585
0
20
40
60
80
100
120
140
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

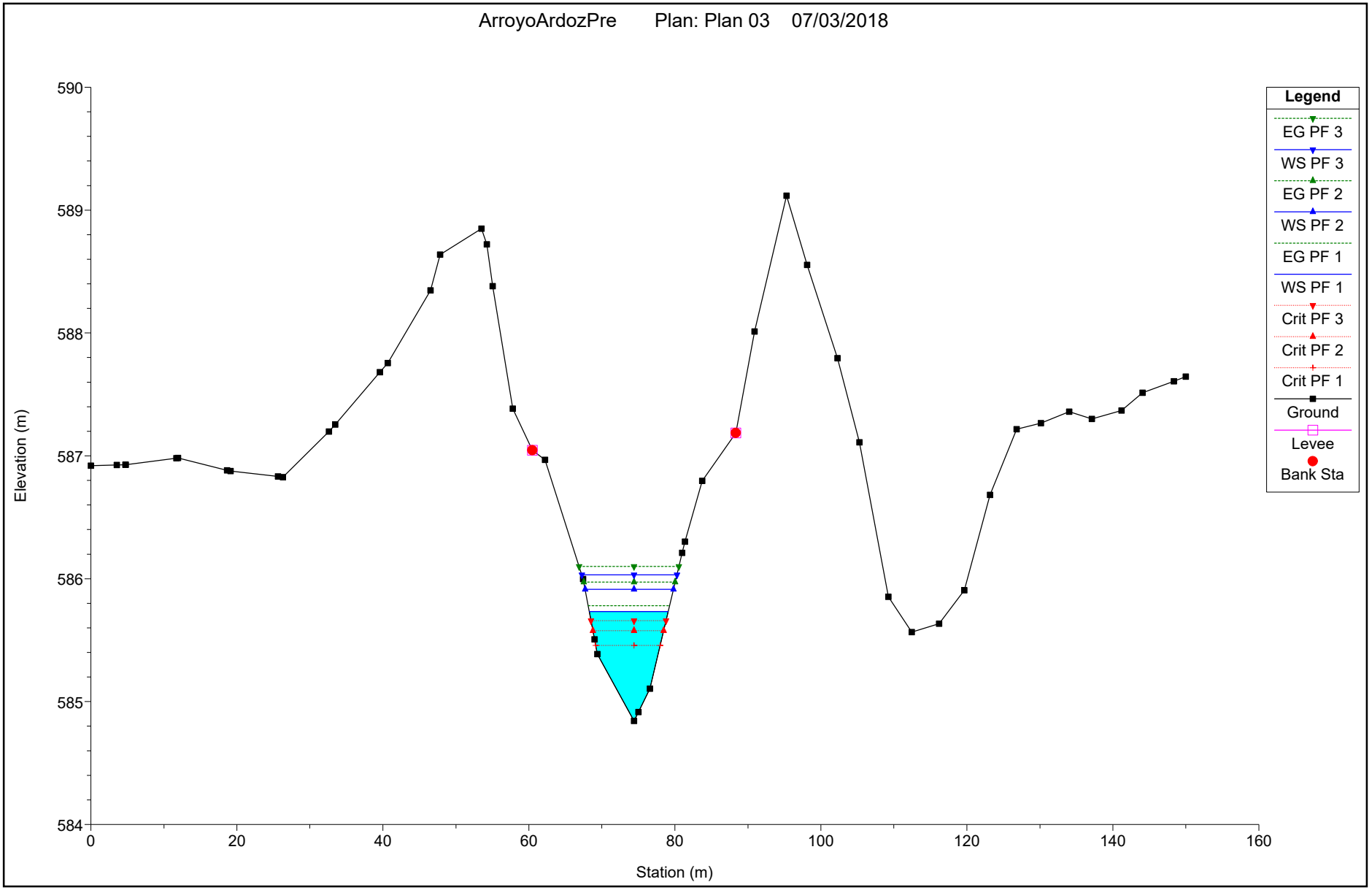

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
592
591
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160

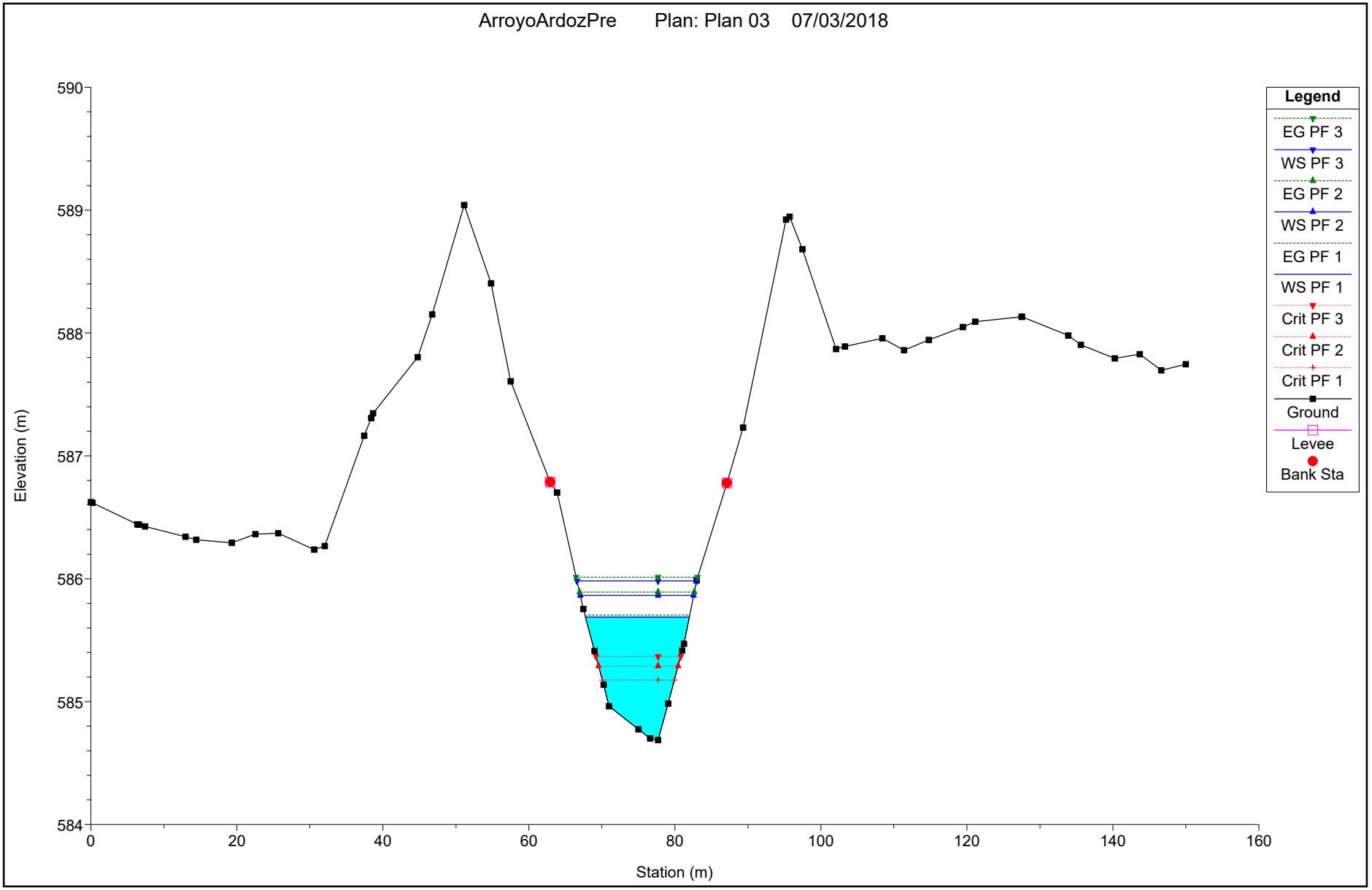

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

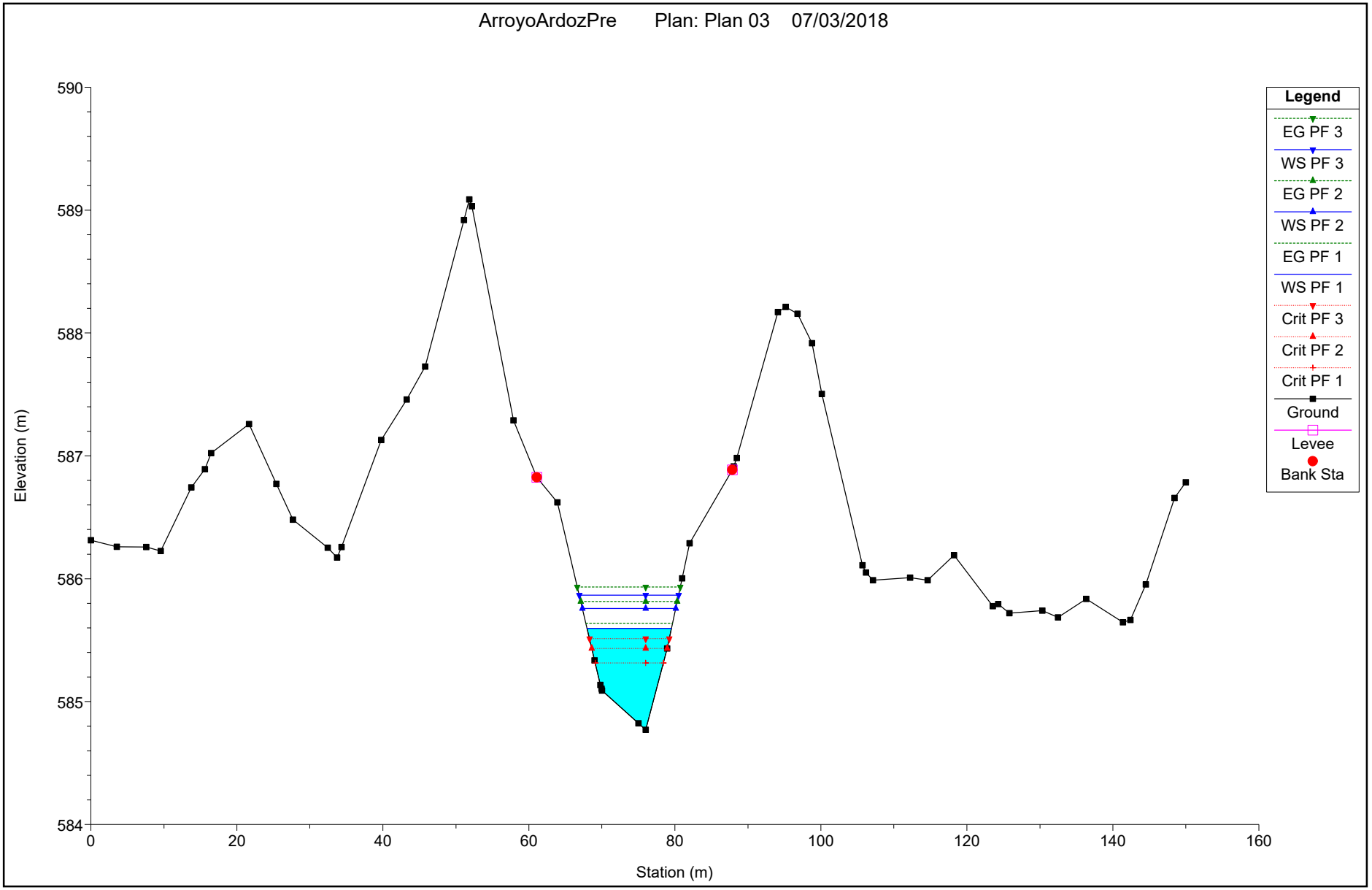

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

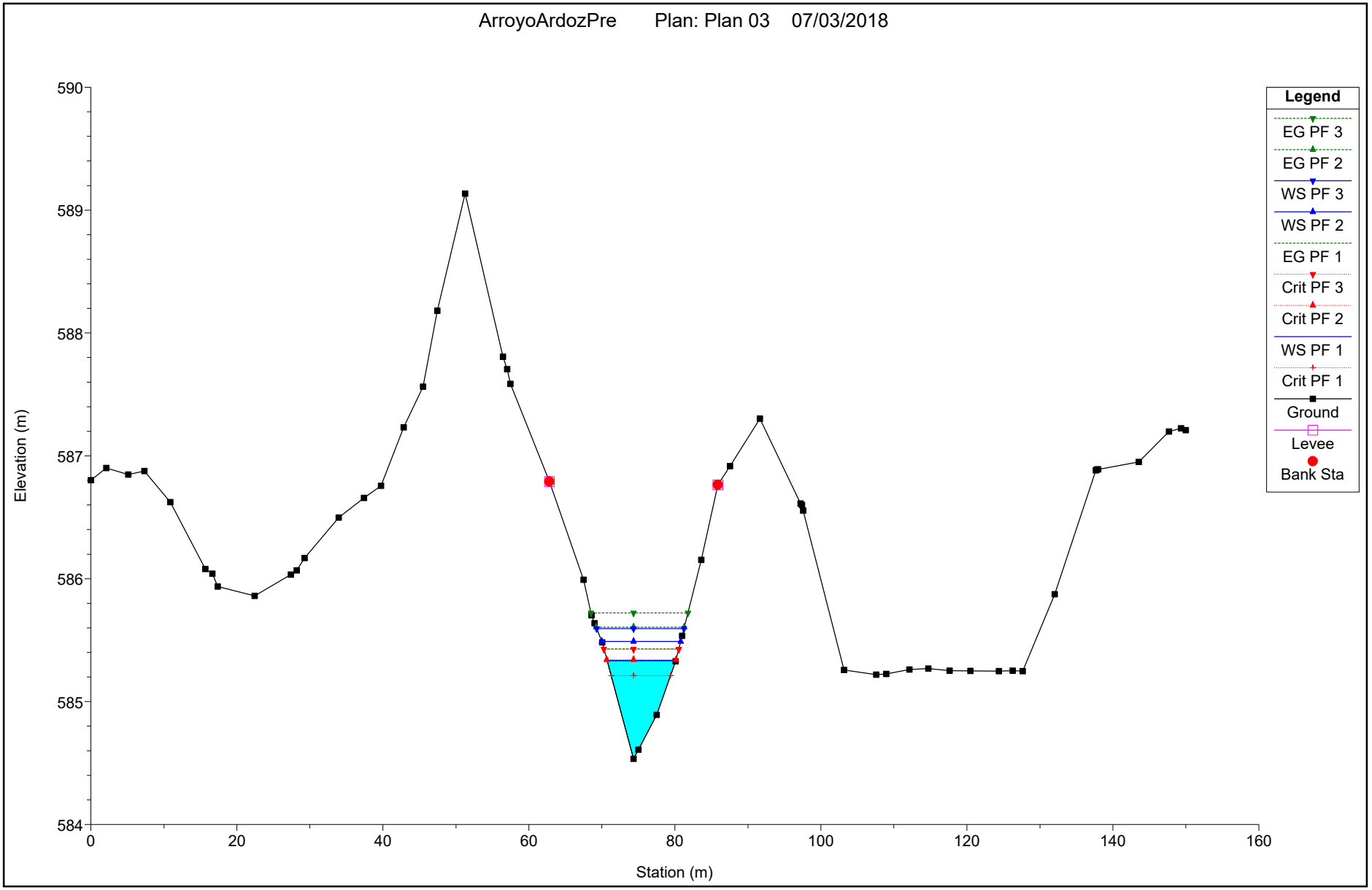

ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)

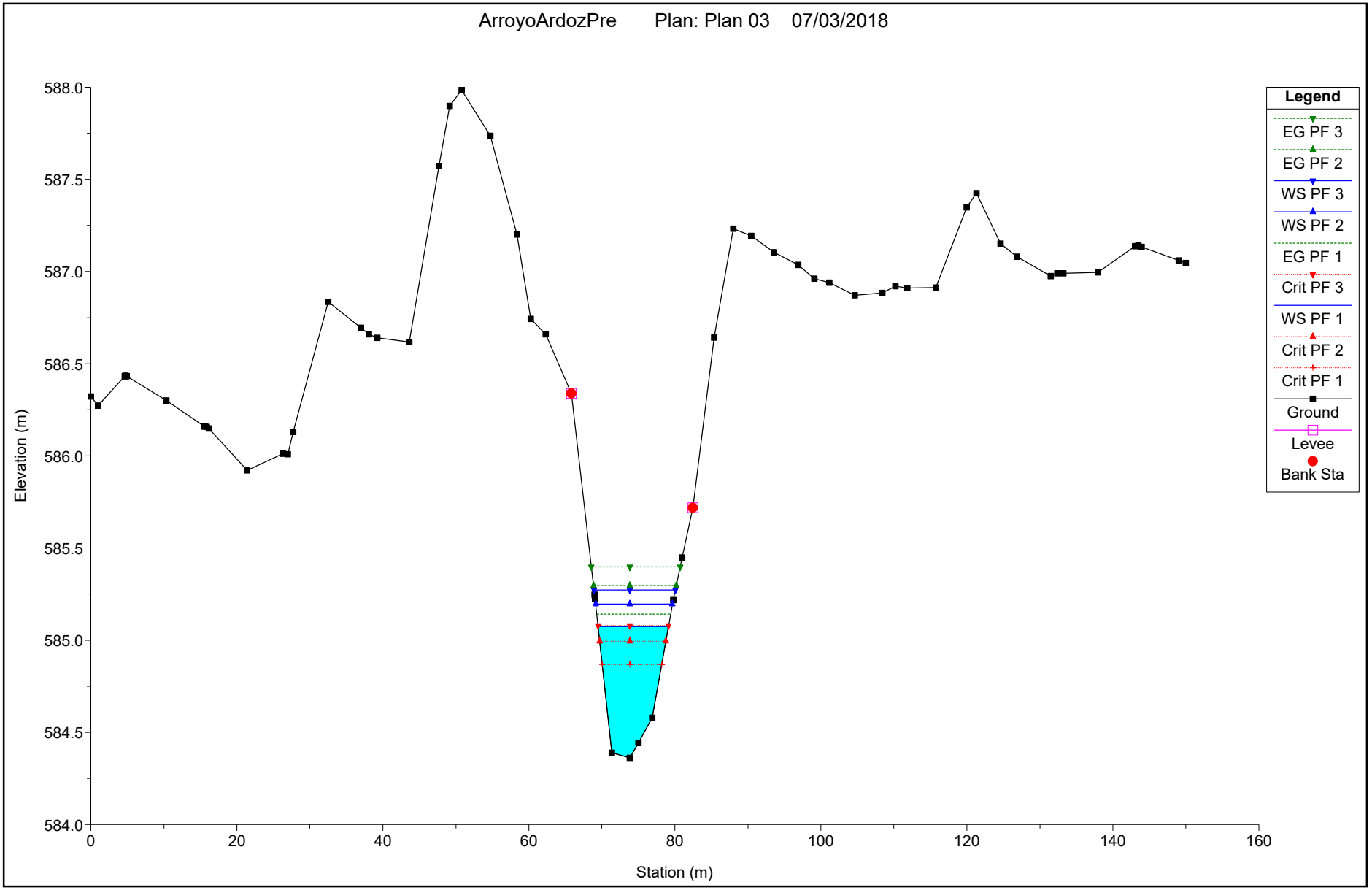

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
Crit PF 3
EG PF 1
Crit PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

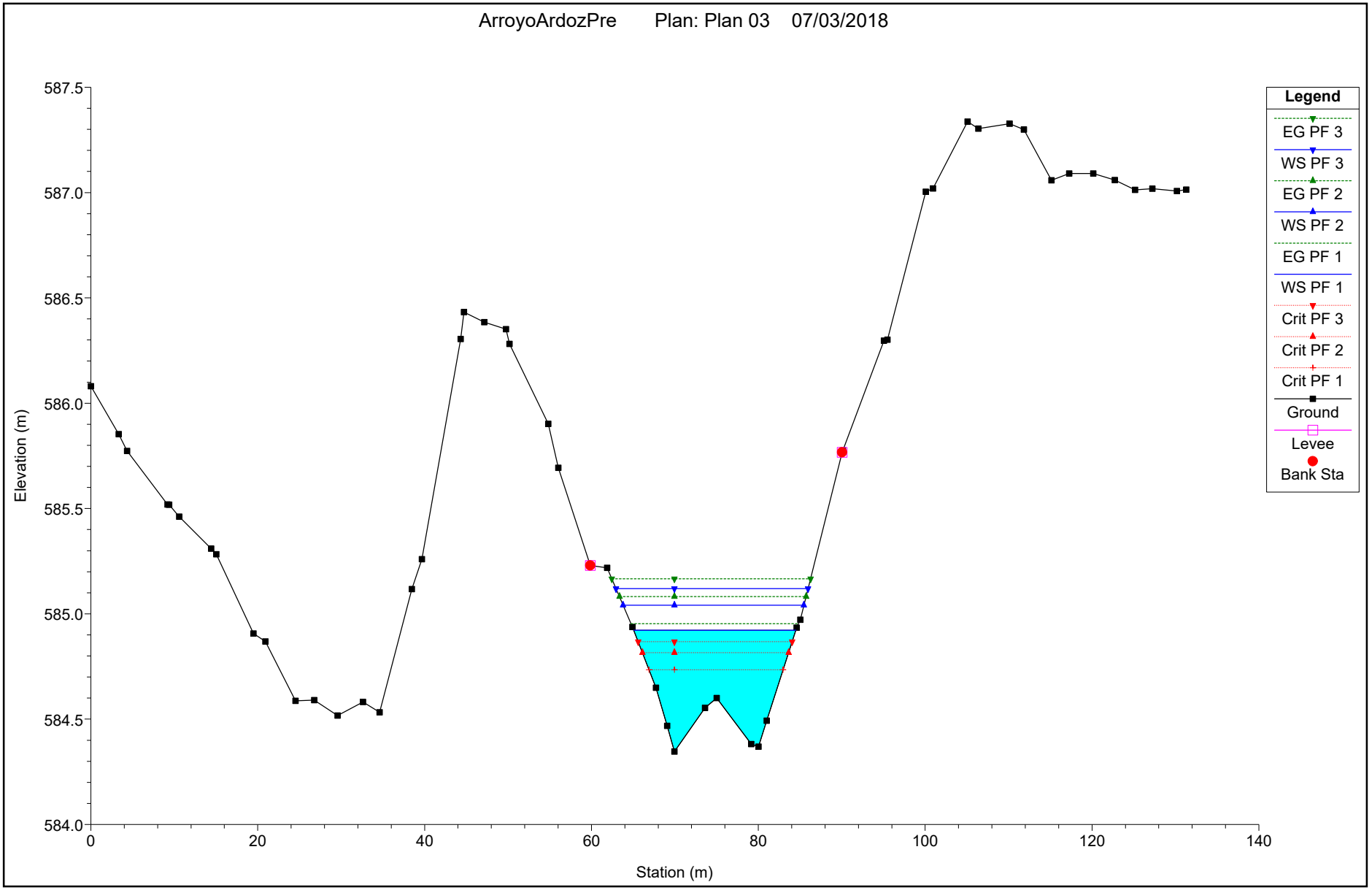

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPre Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)


ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
EG PF 1
Crit PF 3
Crit PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
588.0
587.5
587.0
586.5
586.0
585.5
585.0
584.5
584.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
EG PF 1
Crit PF 3
WS PF 1
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

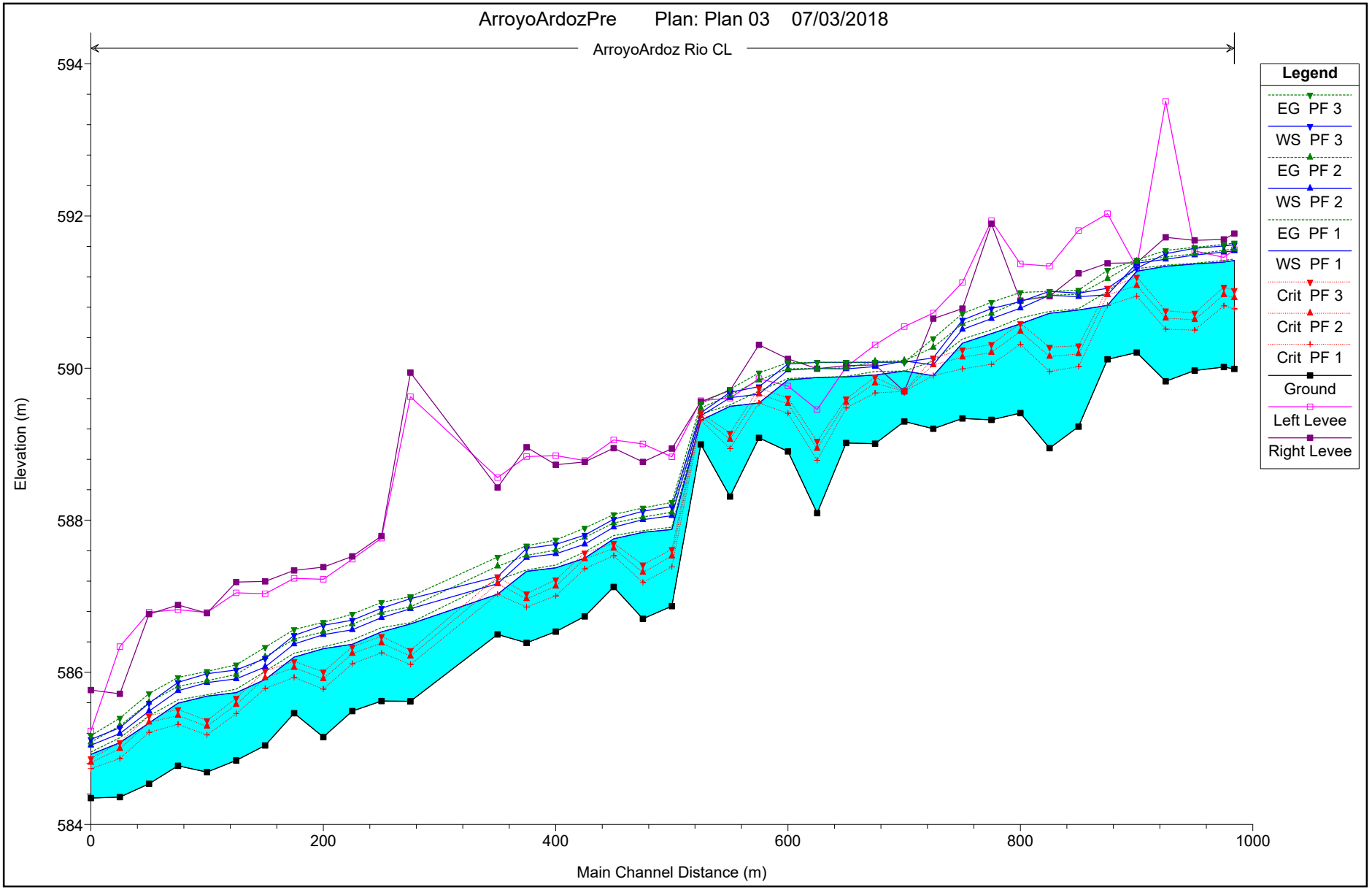

ArroyoArdozPre Plan: Plan 03 07/03/2018
Elevation (m)
587.5
587.0
586.5
586.0
585.5
585.0
584.5
584.0
0
20
40
60
80
100
120
140
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

HEC-RAS Plan:

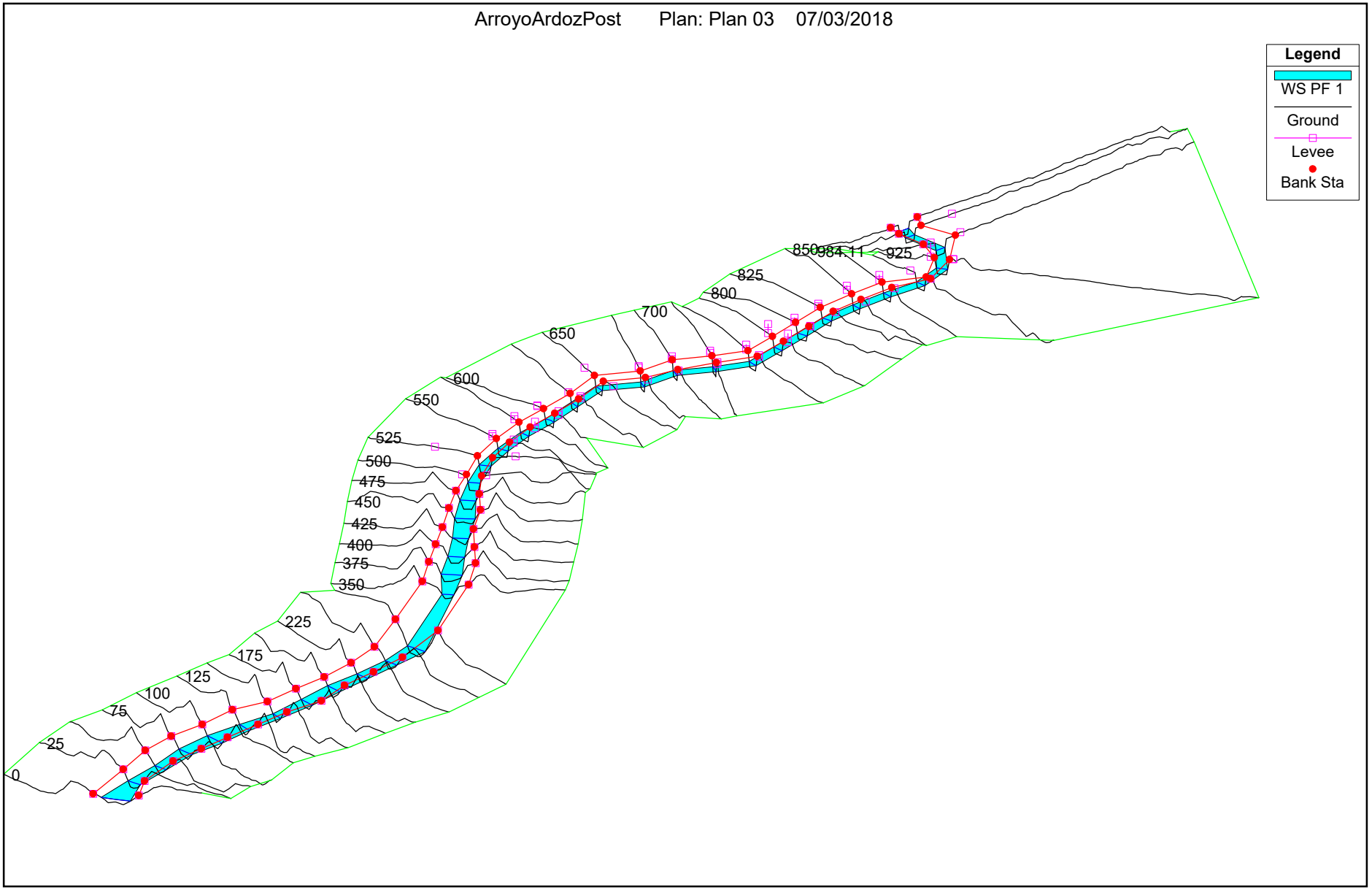
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Rio CL	984.11	PF 1	5.48	589.99	591.42	590.78	591.43	0.001633	0.58	9.38	14.92	0.24
Rio CL	984.11	PF 2	8.42	589.99	591.54	590.92	591.57	0.002418	0.74	11.41	17.23	0.29
Rio CL	984.11	PF 3	10.74	589.99	591.62	591.02	591.64	0.002074	0.70	17.75	53.69	0.27
Rio CL	975	PF 1	5.48	590.01	591.39	590.82	591.41	0.002423	0.65	8.38	15.18	0.28
Rio CL	975	PF 2	8.42	590.01	591.53	590.97	591.55	0.002251	0.67	14.49	48.94	0.28
Rio CL	975	PF 3	10.74	590.01	591.61	591.06	591.63	0.001884	0.66	19.05	69.99	0.26
Rio CL	950	PF 1	5.48	589.97	591.37	590.50	591.38	0.000843	0.43	12.70	19.44	0.17
Rio CL	950	PF 2	8.42	589.97	591.49	590.64	591.50	0.001390	0.55	15.23	23.49	0.22
Rio CL	950	PF 3	10.74	589.97	591.58	590.73	591.59	0.001144	0.53	22.76	58.76	0.20
Rio CL	925	PF 1	5.48	589.83	591.34	590.51	591.36	0.000907	0.56	9.85	10.48	0.18
Rio CL	925	PF 2	8.42	589.83	591.43	590.66	591.46	0.001644	0.78	10.84	10.90	0.25
Rio CL	925	PF 3	10.74	589.83	591.50	590.76	591.55	0.002203	0.92	11.63	11.23	0.29
Rio CL	900	PF 1	5.48	590.21	591.27	590.95	591.31	0.005611	0.82	6.68	16.28	0.41
Rio CL	900	PF 2	8.42	590.21	591.38	591.08	591.40	0.003657	0.73	13.16	50.38	0.34
Rio CL	900	PF 3	10.74	590.21	591.31	591.20	591.42	0.017235	1.47	7.31	17.26	0.72
Rio CL	875	PF 1	5.48	590.12	590.83	590.83	591.01	0.035149	1.88	2.91	8.03	1.00
Rio CL	875	PF 2	8.42	590.12	590.96	590.96	591.18	0.032938	2.05	4.11	9.54	1.00
Rio CL	875	PF 3	10.74	590.12	591.05	591.05	591.29	0.032100	2.16	4.98	10.50	1.00
Rio CL	850	PF 1	5.48	589.23	590.76	590.02	590.78	0.001327	0.61	8.95	11.14	0.22
Rio CL	850	PF 2	8.42	589.23	590.94	590.19	590.97	0.002003	0.76	11.12	13.79	0.27
Rio CL	850	PF 3	10.74	589.23	590.98	590.29	591.03	0.002894	0.91	11.76	14.52	0.32
Rio CL	825	PF 1	5.48	588.95	590.72	589.96	590.74	0.001681	0.70	7.84	9.28	0.24
Rio CL	825	PF 2	8.42	588.95	590.96	590.15	590.96	0.000036	0.10	62.40	80.33	0.04
Rio CL	825	PF 3	10.74	588.95	591.01	590.27	591.01	0.000047	0.12	66.65	80.42	0.04
Rio CL	800	PF 1	5.48	589.41	590.58	590.31	590.66	0.008386	1.23	4.44	7.68	0.52
Rio CL	800	PF 2	8.42	589.41	590.79	590.48	590.88	0.008238	1.36	6.19	9.10	0.53
Rio CL	800	PF 3	10.74	589.41	590.87	590.59	590.99	0.009760	1.54	6.97	9.68	0.58
Rio CL	775	PF 1	5.48	589.32	590.45	590.05	590.50	0.004376	0.99	5.55	8.24	0.38
Rio CL	775	PF 2	8.42	589.32	590.65	590.21	590.72	0.004951	1.16	7.28	9.31	0.42
Rio CL	775	PF 3	10.74	589.32	590.78	590.31	590.86	0.005269	1.25	8.57	10.20	0.44
Rio CL	750	PF 1	5.48	589.34	590.33	589.99	590.38	0.005439	1.03	5.30	8.74	0.42
Rio CL	750	PF 2	8.42	589.34	590.51	590.14	590.58	0.006061	1.21	6.99	9.91	0.46
Rio CL	750	PF 3	10.74	589.34	590.63	590.24	590.72	0.006569	1.30	8.28	11.20	0.48
Rio CL	725	PF 1	5.48	589.20	589.90	589.90	590.09	0.034120	1.93	2.84	7.37	0.99
Rio CL	725	PF 2	8.42	589.20	590.04	590.04	590.27	0.032273	2.12	3.97	8.55	1.00
Rio CL	725	PF 3	10.74	589.20	590.13	590.13	590.39	0.031420	2.24	4.79	9.30	1.00
Rio CL	700	PF 1	5.48	589.30	589.96	589.70	589.96	0.000022	0.06	54.93	82.53	0.03
Rio CL	700	PF 2	8.42	589.30	590.10	589.70	590.10	0.000028	0.07	65.94	83.14	0.03
Rio CL	700	PF 3	10.74	589.30	590.08	589.70	590.08	0.000050	0.10	64.47	83.05	0.04
Rio CL	675	PF 1	5.48	589.01	589.91	589.67	589.96	0.007311	0.95	5.75	13.69	0.47
Rio CL	675	PF 2	8.42	589.01	590.02	589.80	590.09	0.009077	1.14	7.38	15.77	0.53
Rio CL	675	PF 3	10.74	589.01	590.08	589.88	590.08	0.000054	0.09	59.80	74.12	0.04
Rio CL	650	PF 1	5.48	589.01	589.88	589.48	589.89	0.001005	0.39	14.12	29.38	0.18
Rio CL	650	PF 2	8.42	589.01	589.99	589.55	590.00	0.001314	0.49	17.35	31.57	0.21
Rio CL	650	PF 3	10.74	589.01	590.08	589.60	590.08	0.000023	0.07	89.55	103.29	0.03
Rio CL	625	PF 1	5.48	588.09	589.87	588.79	589.88	0.000252	0.32	19.42	36.12	0.10
Rio CL	625	PF 2	8.42	588.09	590.00	588.94	590.00	0.000016	0.09	87.59	109.51	0.03
Rio CL	625	PF 3	10.74	588.09	590.08	589.04	590.08	0.000019	0.10	96.28	110.40	0.03
Rio CL	600	PF 1	5.48	588.91	589.84	589.41	589.86	0.002420	0.62	9.33	33.25	0.28
Rio CL	600	PF 2	8.42	588.91	589.97	589.53	589.99	0.002133	0.66	14.53	45.01	0.27
Rio CL	600	PF 3	10.74	588.91	590.05	589.61	590.07	0.001934	0.67	18.23	48.21	0.26
Rio CL	575	PF 1	5.48	589.08	589.54	589.54	589.70	0.036842	1.75	3.13	10.12	1.00
Rio CL	575	PF 2	8.42	589.08	589.66	589.66	589.84	0.034368	1.89	4.45	12.10	1.00
Rio CL	575	PF 3	10.74	589.08	589.76	589.73	589.94	0.029042	1.89	5.69	13.68	0.94
Rio CL	550	PF 1	5.48	588.31	589.50	588.94	589.52	0.001593	0.59	9.25	14.23	0.23
Rio CL	550	PF 2	8.42	588.31	589.61	589.06	589.64	0.002426	0.77	10.95	15.85	0.29
Rio CL	550	PF 3	10.74	588.31	589.68	589.14	589.72	0.002970	0.89	12.19	18.88	0.33
Rio CL	525	PF 1	5.48	589.00	589.31	589.31	589.40	0.043644	1.28	4.27	25.14	0.99
Rio CL	525	PF 2	8.42	589.00	589.37	589.37	589.48	0.040697	1.43	5.87	27.65	0.99
Rio CL	525	PF 3	10.74	589.00	589.41	589.41	589.53	0.039325	1.54	6.98	28.86	1.00
Rio CL	500	PF 1	5.48	586.87	587.88	587.39	587.91	0.002461	0.77	7.08	9.91	0.29
Rio CL	500	PF 2	8.42	586.87	588.06	587.53	588.11	0.003003	0.94	8.95	10.84	0.33
Rio CL	500	PF 3	10.74	586.87	588.18	587.62	588.23	0.003331	1.05	10.27	11.45	0.35

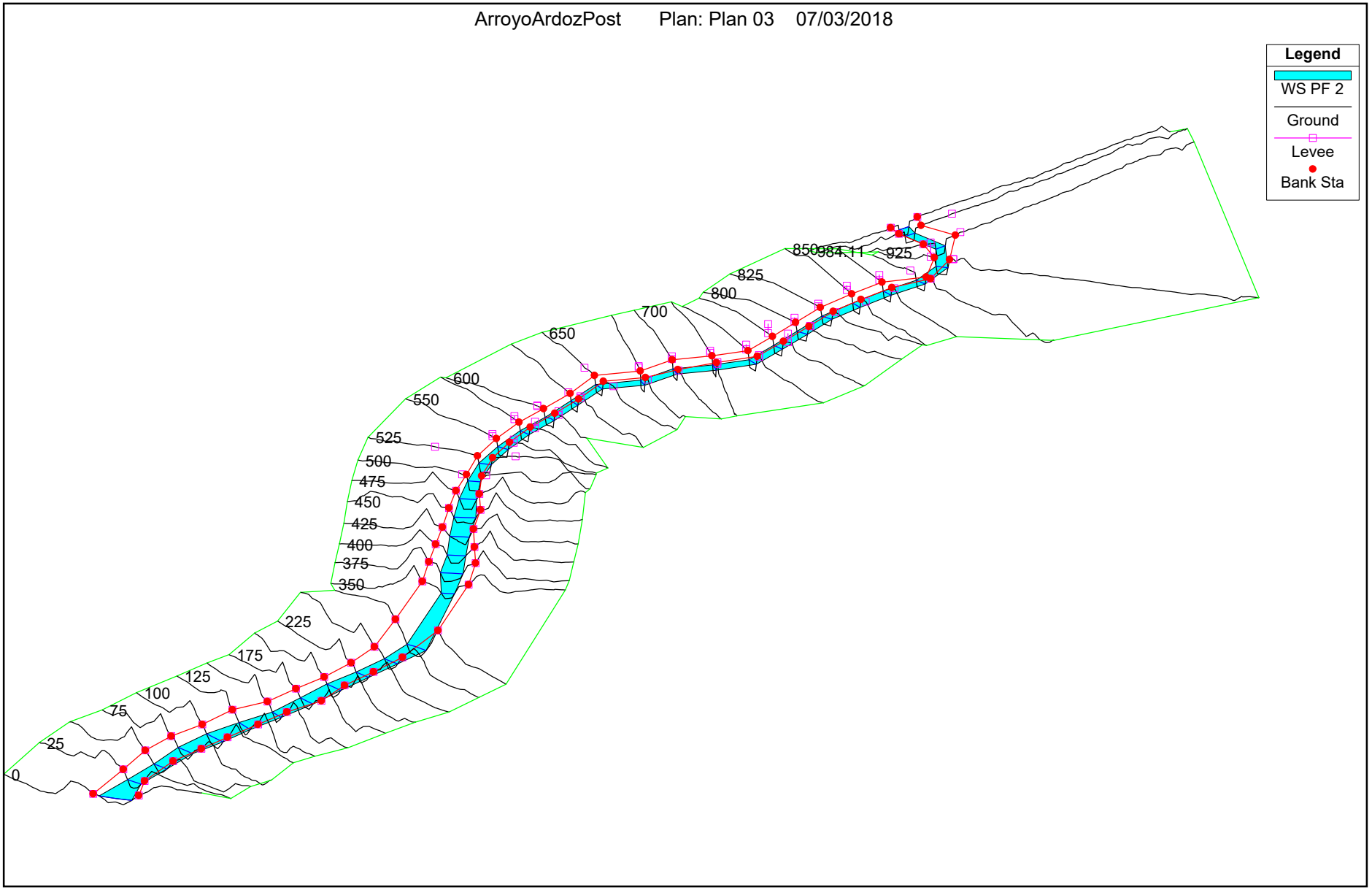
HEC-RAS Plan: (Continued)

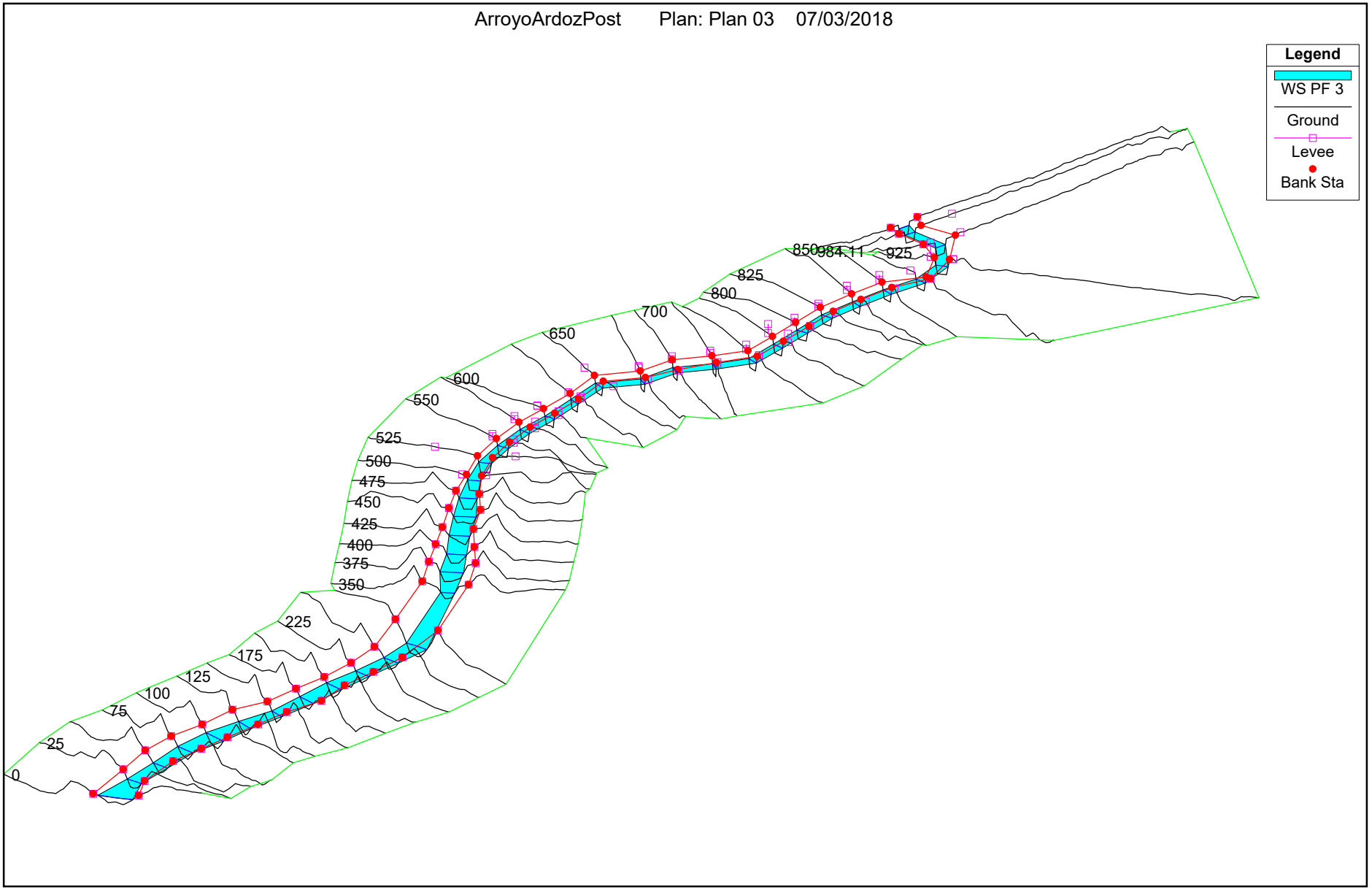
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Rio CL	475	PF 1	5.48	586.71	587.84	587.18	587.86	0.001380	0.64	8.57	10.26	0.22
Rio CL	475	PF 2	8.42	586.71	588.01	587.31	588.04	0.001917	0.81	10.36	11.04	0.27
Rio CL	475	PF 3	10.74	586.71	588.12	587.41	588.16	0.002277	0.93	11.60	11.55	0.30
Rio CL	450	PF 1	5.48	587.12	587.76	587.53	587.80	0.005767	0.90	6.09	13.15	0.42
Rio CL	450	PF 2	8.42	587.12	587.91	587.63	587.96	0.005553	1.03	8.19	14.03	0.43
Rio CL	450	PF 3	10.74	587.12	588.01	587.70	588.08	0.005520	1.11	9.65	14.61	0.44
Rio CL	425	PF 1	5.48	586.74	587.50	587.36	587.58	0.013339	1.27	4.31	10.36	0.63
Rio CL	425	PF 2	8.42	586.74	587.69	587.49	587.77	0.010701	1.31	6.43	12.53	0.58
Rio CL	425	PF 3	10.74	586.74	587.80	587.57	587.90	0.009270	1.35	7.97	13.33	0.56
Rio CL	400	PF 1	5.48	586.54	587.37	587.01	587.41	0.003700	0.85	6.44	10.77	0.35
Rio CL	400	PF 2	8.42	586.54	587.56	587.13	587.61	0.003926	0.98	8.55	11.97	0.37
Rio CL	400	PF 3	10.74	586.54	587.68	587.22	587.74	0.004042	1.07	10.06	12.73	0.38
Rio CL	375	PF 1	5.48	586.39	587.33	586.86	587.35	0.001677	0.61	8.96	13.59	0.24
Rio CL	375	PF 2	8.42	586.39	587.51	586.97	587.54	0.001872	0.73	11.52	14.49	0.26
Rio CL	375	PF 3	10.74	586.39	587.63	587.03	587.66	0.001993	0.81	13.31	15.09	0.27
Rio CL	350	PF 1	5.48	586.50	587.03	587.03	587.22	0.035050	1.92	2.85	7.63	1.00
Rio CL	350	PF 2	8.42	586.50	587.16	587.16	587.39	0.032189	2.13	3.96	8.52	1.00
Rio CL	350	PF 3	10.74	586.50	587.26	587.26	587.51	0.030761	2.25	4.78	9.13	0.99
Rio CL	275	PF 1	5.48	585.62	586.64	586.11	586.65	0.001368	0.57	9.61	13.96	0.22
Rio CL	275	PF 2	8.42	585.62	586.84	586.21	586.86	0.001504	0.67	12.53	15.23	0.24
Rio CL	275	PF 3	10.74	585.62	586.97	586.29	587.00	0.001590	0.74	14.58	16.06	0.25
Rio CL	250	PF 1	5.48	585.62	586.53	586.25	586.59	0.006002	1.02	5.35	9.73	0.44
Rio CL	250	PF 2	8.42	585.62	586.72	586.39	586.79	0.006039	1.15	7.31	11.18	0.45
Rio CL	250	PF 3	10.74	585.62	586.84	586.48	586.92	0.006034	1.23	8.74	12.13	0.46
Rio CL	225	PF 1	5.48	585.49	586.37	586.11	586.43	0.006779	1.07	5.14	9.66	0.47
Rio CL	225	PF 2	8.42	585.49	586.56	586.25	586.63	0.006432	1.18	7.12	10.97	0.47
Rio CL	225	PF 3	10.74	585.49	586.69	586.34	586.77	0.006325	1.26	8.53	11.83	0.47
Rio CL	200	PF 1	5.48	585.15	586.31	585.78	586.33	0.001946	0.68	8.04	11.58	0.26
Rio CL	200	PF 2	8.42	585.15	586.50	585.92	586.53	0.002312	0.82	10.32	12.86	0.29
Rio CL	200	PF 3	10.74	585.15	586.62	586.01	586.66	0.002526	0.90	11.93	13.70	0.31
Rio CL	175	PF 1	5.48	585.46	586.20	585.93	586.25	0.006145	1.00	5.50	10.69	0.44
Rio CL	175	PF 2	8.42	585.46	586.37	586.06	586.44	0.006238	1.13	7.46	12.16	0.46
Rio CL	175	PF 3	10.74	585.46	586.49	586.15	586.56	0.006256	1.21	8.91	13.16	0.47
Rio CL	150	PF 1	5.48	585.04	585.91	585.79	586.01	0.015641	1.45	3.77	8.32	0.69
Rio CL	150	PF 2	8.42	585.04	586.07	585.93	586.20	0.014658	1.61	5.25	9.49	0.69
Rio CL	150	PF 3	10.74	585.04	586.18	586.02	586.33	0.014052	1.69	6.35	10.27	0.69
Rio CL	125	PF 1	5.48	584.84	585.73	585.46	585.78	0.005448	0.96	5.73	10.81	0.42
Rio CL	125	PF 2	8.42	584.84	585.91	585.58	585.97	0.005390	1.08	7.79	12.10	0.43
Rio CL	125	PF 3	10.74	584.84	586.03	585.66	586.10	0.005415	1.16	9.27	13.03	0.44
Rio CL	100	PF 1	5.48	584.69	585.69	585.18	585.71	0.001555	0.59	9.31	14.22	0.23
Rio CL	100	PF 2	8.42	584.69	585.86	585.29	585.89	0.001801	0.71	11.94	15.53	0.26
Rio CL	100	PF 3	10.74	584.69	585.98	585.37	586.01	0.001938	0.78	13.81	16.36	0.27
Rio CL	75	PF 1	5.48	584.77	585.60	585.31	585.64	0.005079	0.91	6.01	11.56	0.40
Rio CL	75	PF 2	8.42	584.77	585.76	585.43	585.81	0.005329	1.05	7.98	12.79	0.43
Rio CL	75	PF 3	10.74	584.77	585.87	585.51	585.93	0.005433	1.14	9.42	13.61	0.44
Rio CL	50	PF 1	5.48	584.53	585.33	585.21	585.43	0.015055	1.37	4.00	9.42	0.67
Rio CL	50	PF 2	8.42	584.53	585.49	585.34	585.61	0.014081	1.51	5.58	10.82	0.67
Rio CL	50	PF 3	10.74	584.53	585.59	585.43	585.72	0.013745	1.59	6.77	11.95	0.67
Rio CL	25	PF 1	5.48	584.36	585.07	584.87	585.14	0.008581	1.15	4.78	9.64	0.52
Rio CL	25	PF 2	8.42	584.36	585.20	584.99	585.30	0.010686	1.40	6.00	10.51	0.59
Rio CL	25	PF 3	10.74	584.36	585.27	585.08	585.40	0.012216	1.57	6.82	11.12	0.64
Rio CL	0	PF 1	5.48	584.35	584.92	584.73	584.95	0.006002	0.78	7.00	19.43	0.42
Rio CL	0	PF 2	8.42	584.35	585.04	584.82	585.08	0.006004	0.89	9.47	21.67	0.43
Rio CL	0	PF 3	10.74	584.35	585.12	584.87	585.17	0.006001	0.96	11.22	23.01	0.44

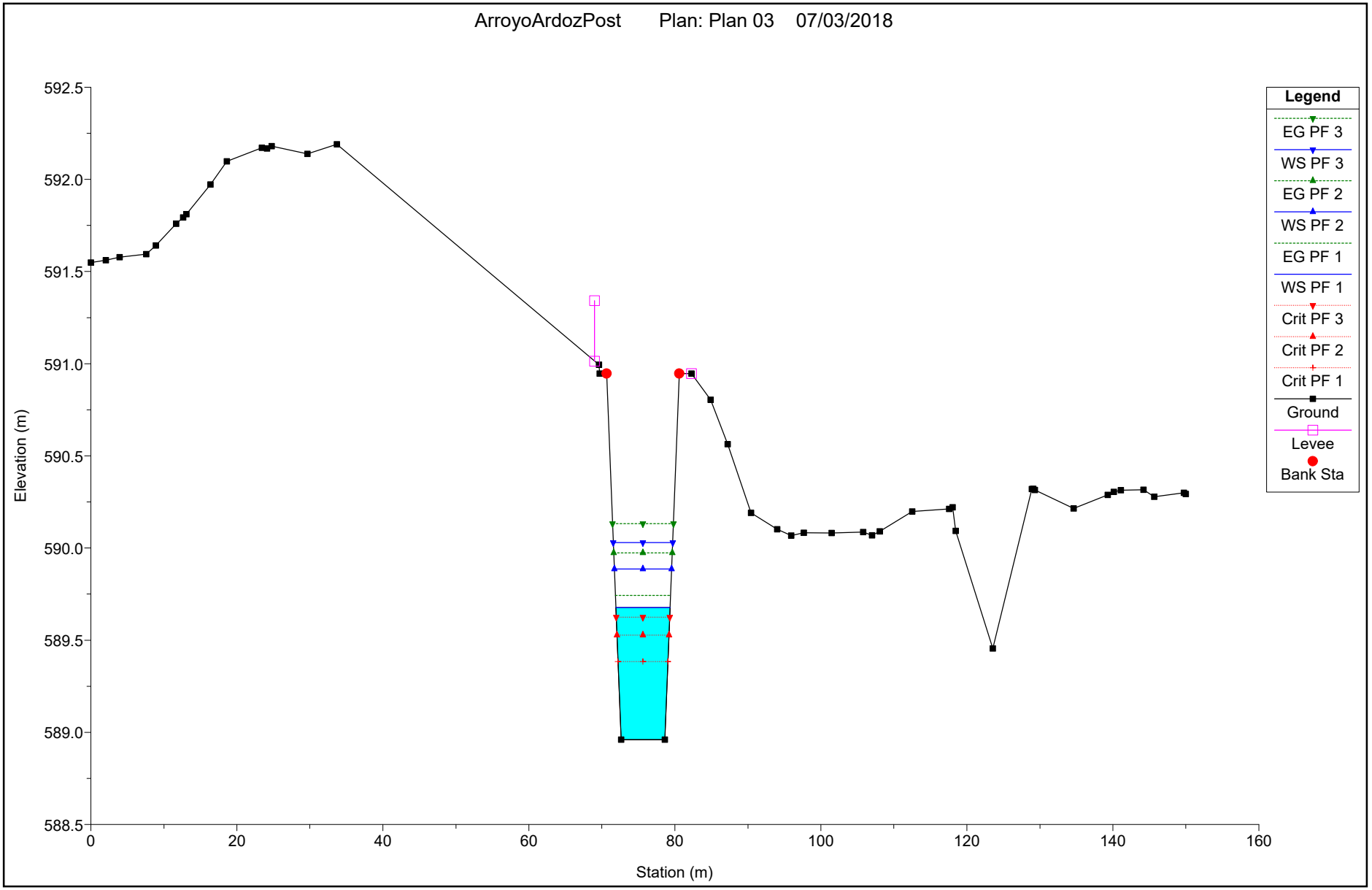

ArroyoArdozPre Plan: Plan 03 07/03/2018
ArroyoArdoz Rio CL
Elevation (m)
Main Channel Distance (m)
594
592
590
588
586
584
0
200
400
600
800
1000
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Left Levee
Right Levee

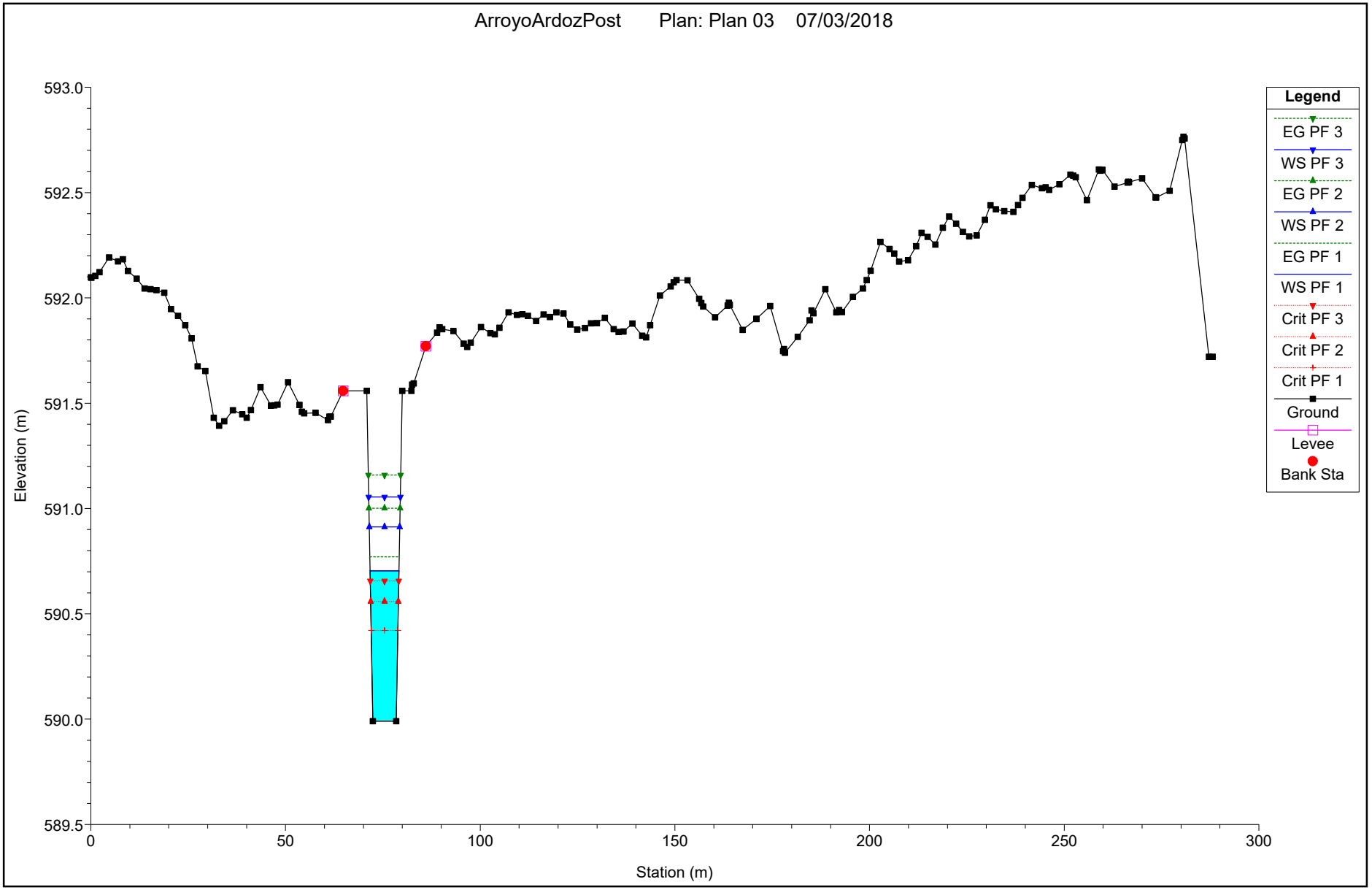
POST-OPERACIONAL

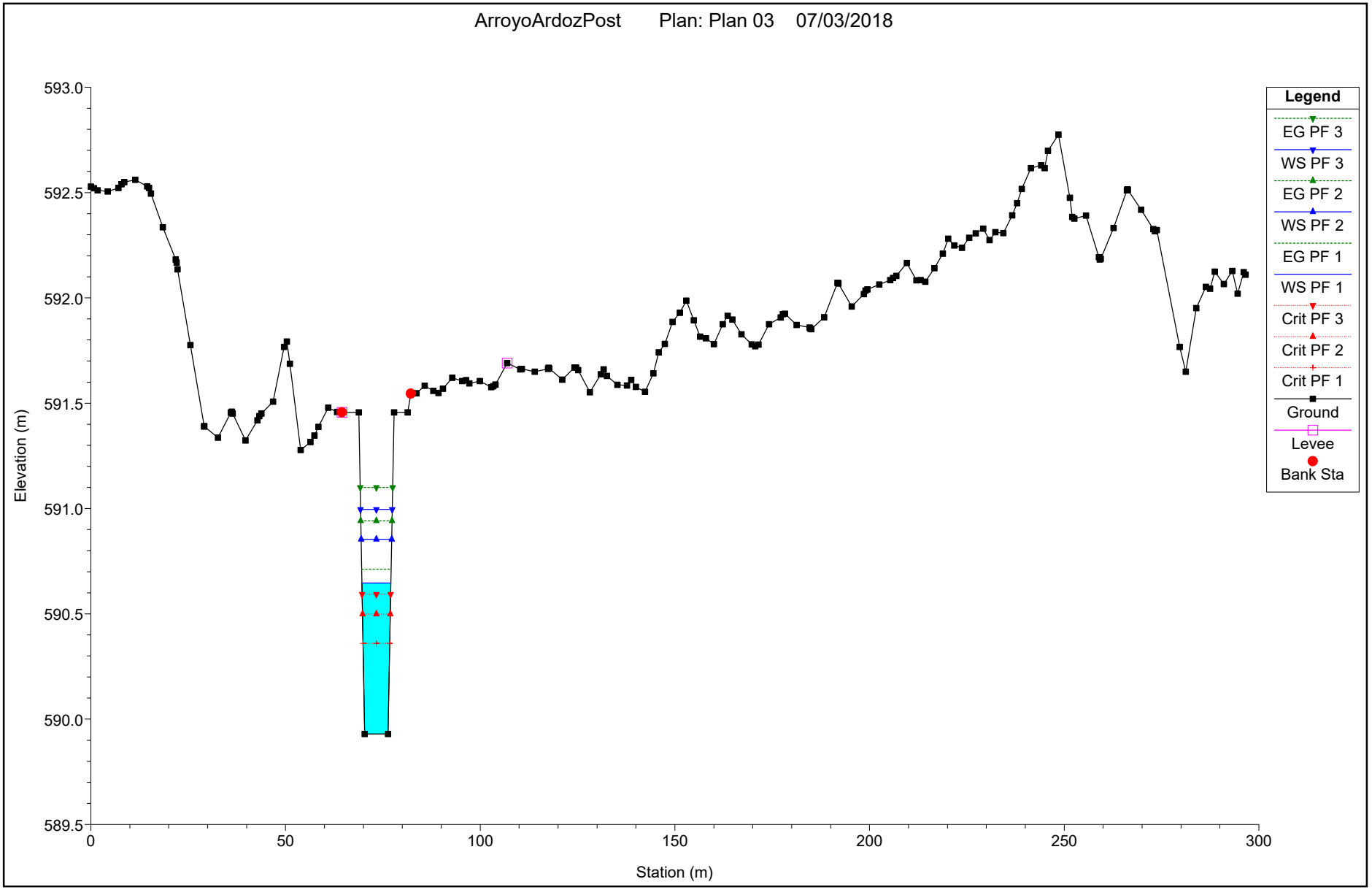

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
WS PF 1
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0

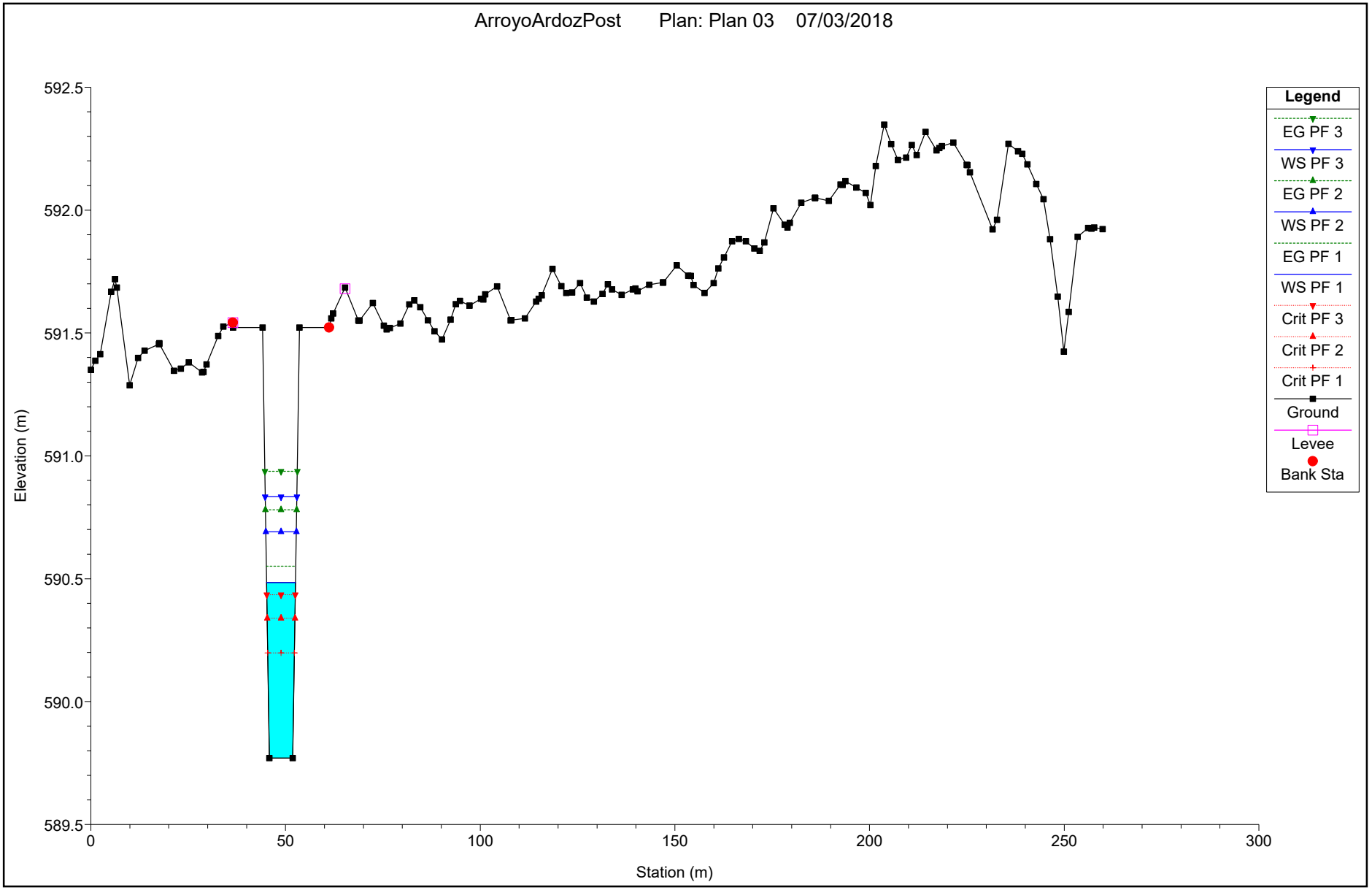

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
WS PF 2
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0

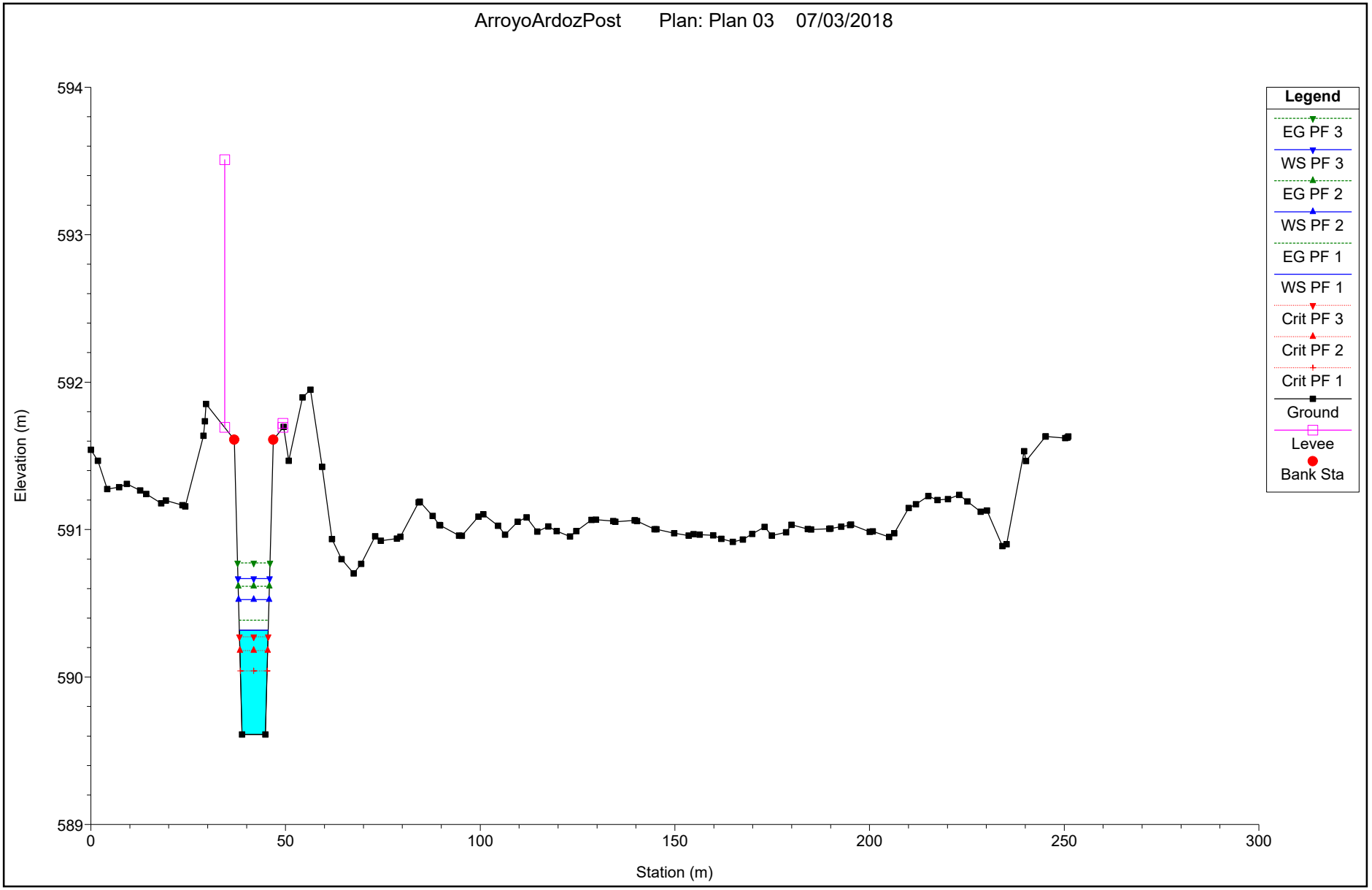

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
WS PF 3
Ground
Levee
Bank Sta
850984.11
925
825
800
700
650
600
550
525
500
475
450
425
400
375
350
225
175
125
100
75
25
0

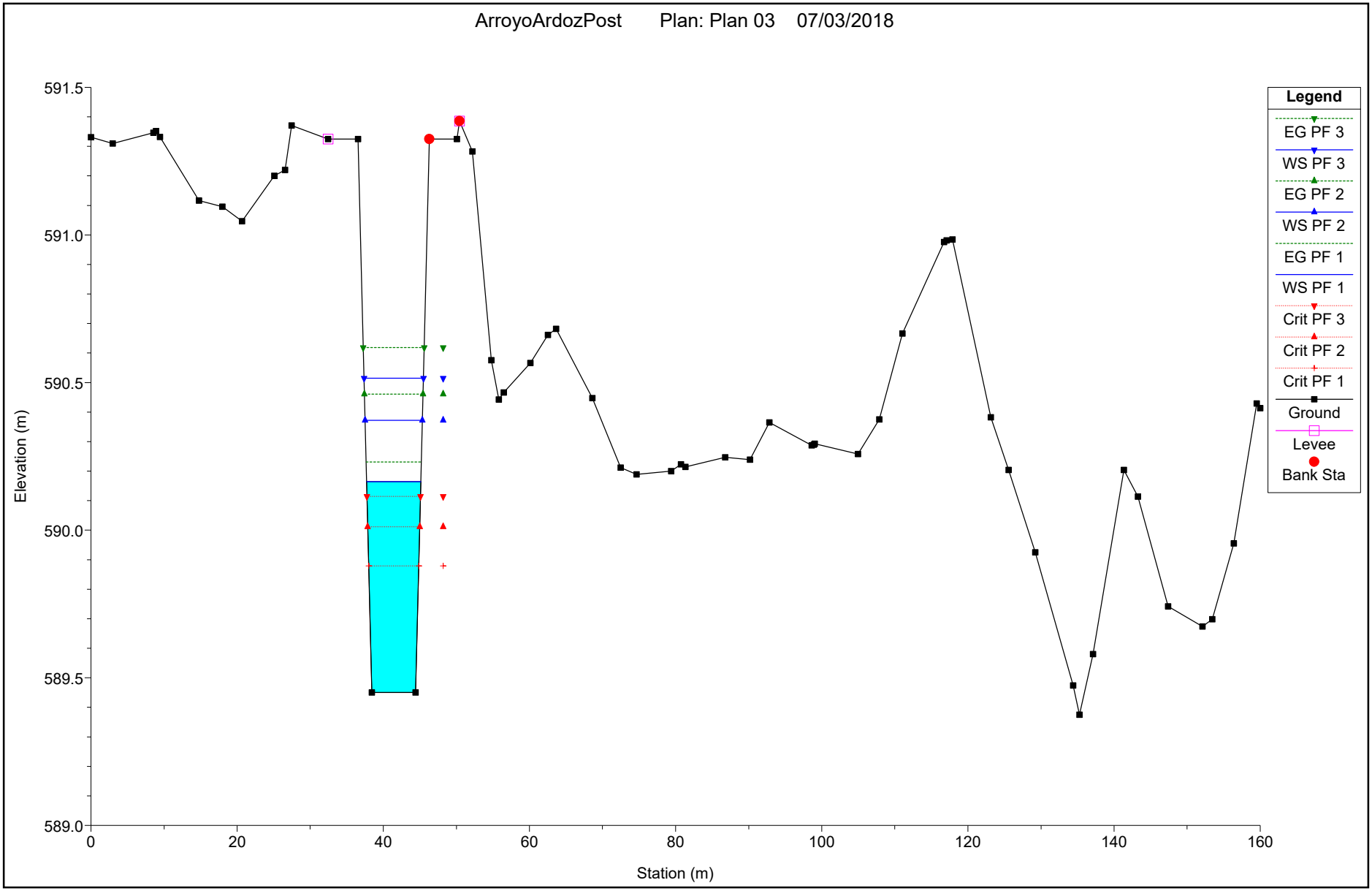

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.5
592.0
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

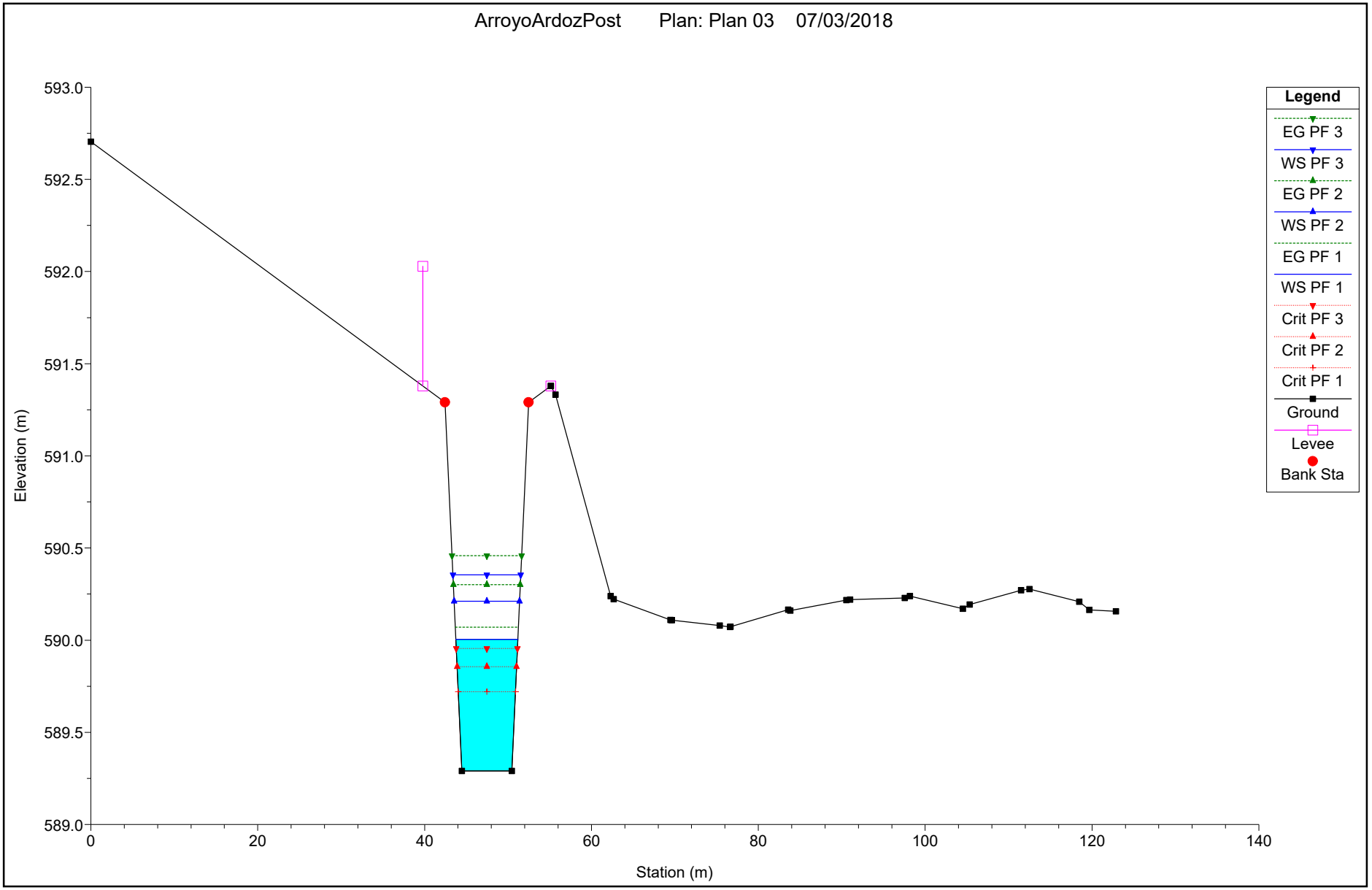

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

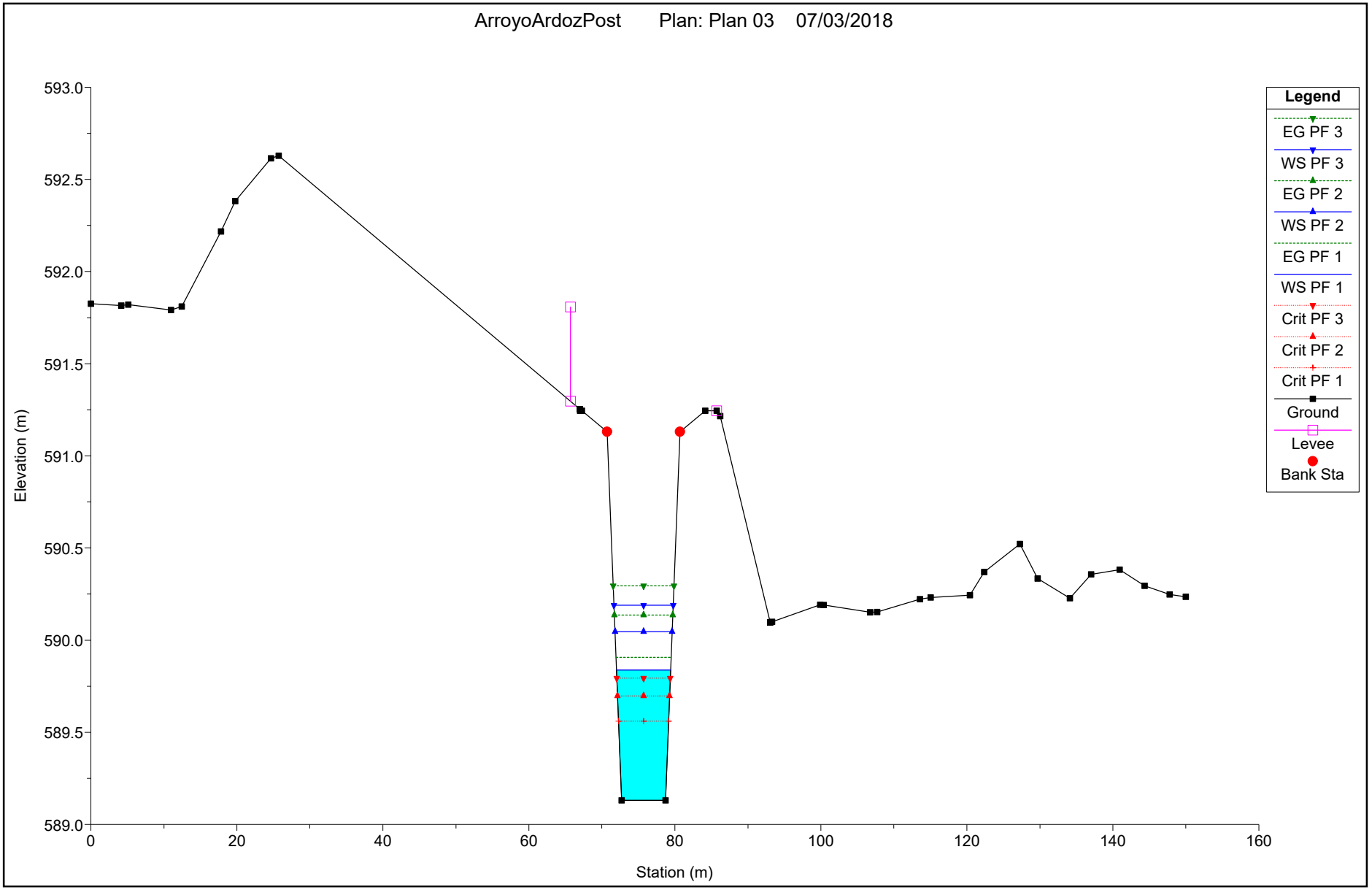

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

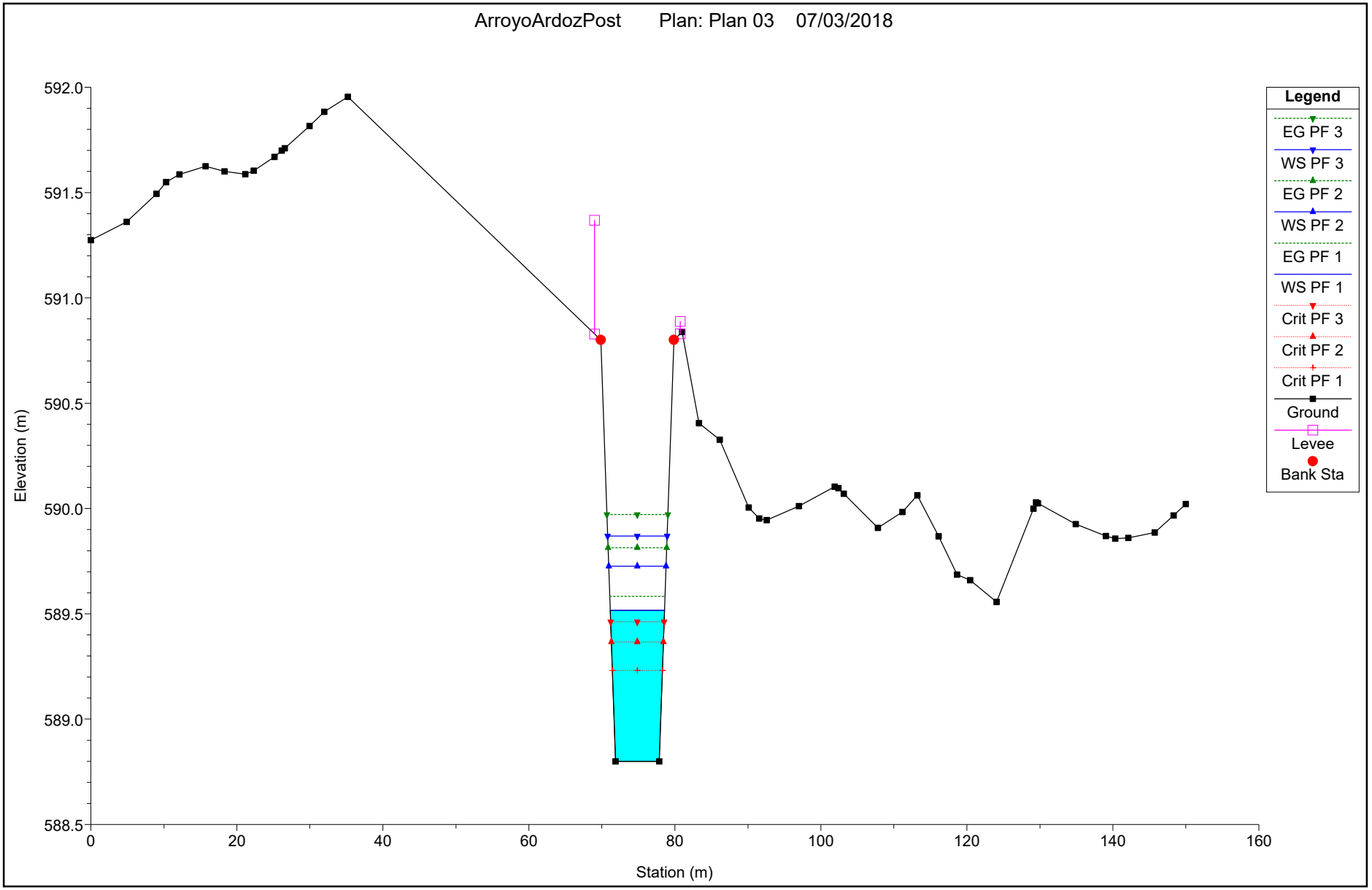

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
592.5
592.0
591.5
591.0
590.5
590.0
589.5
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

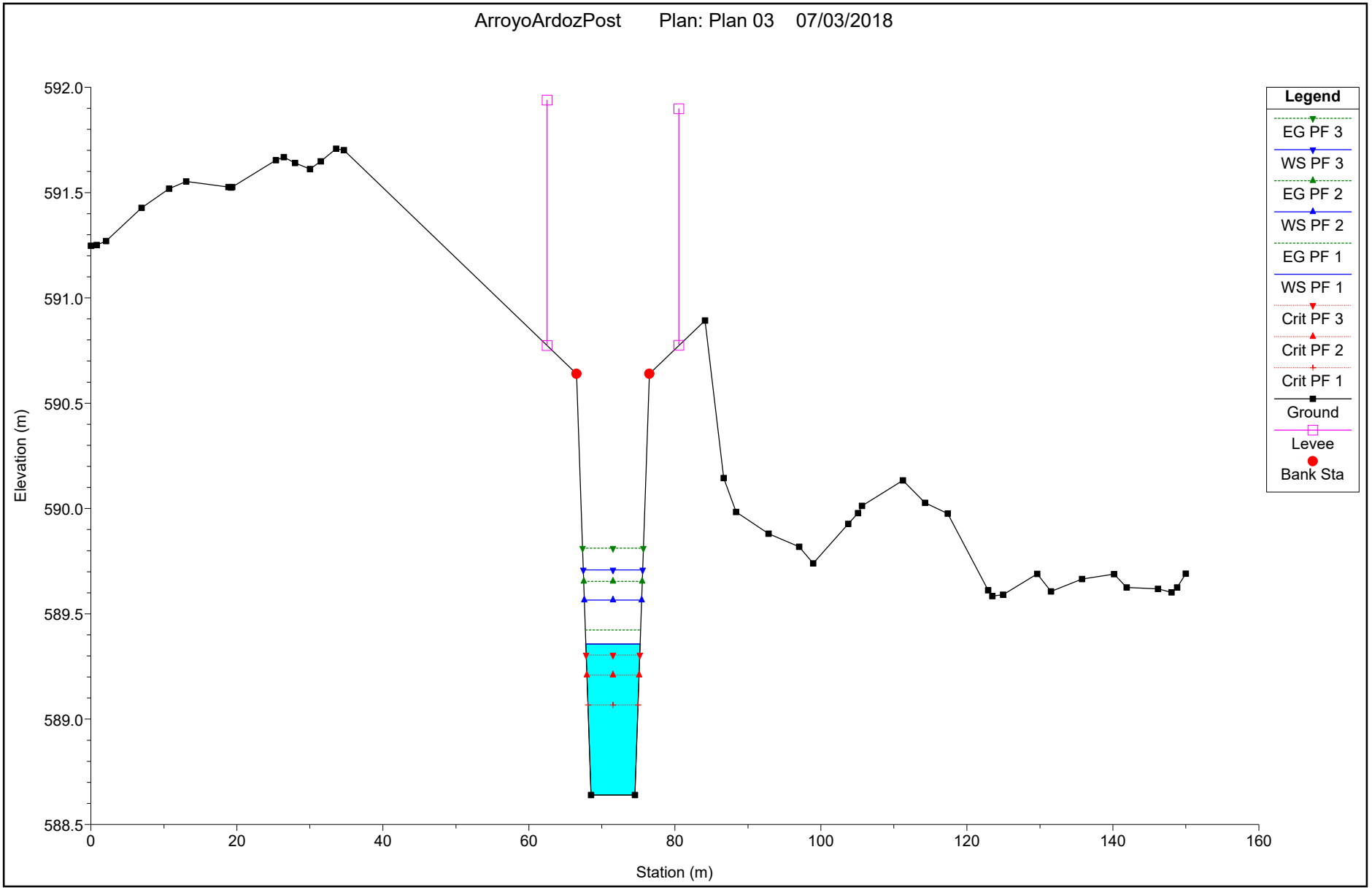

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
594
593
592
591
590
589
0
50
100
150
200
250
300
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

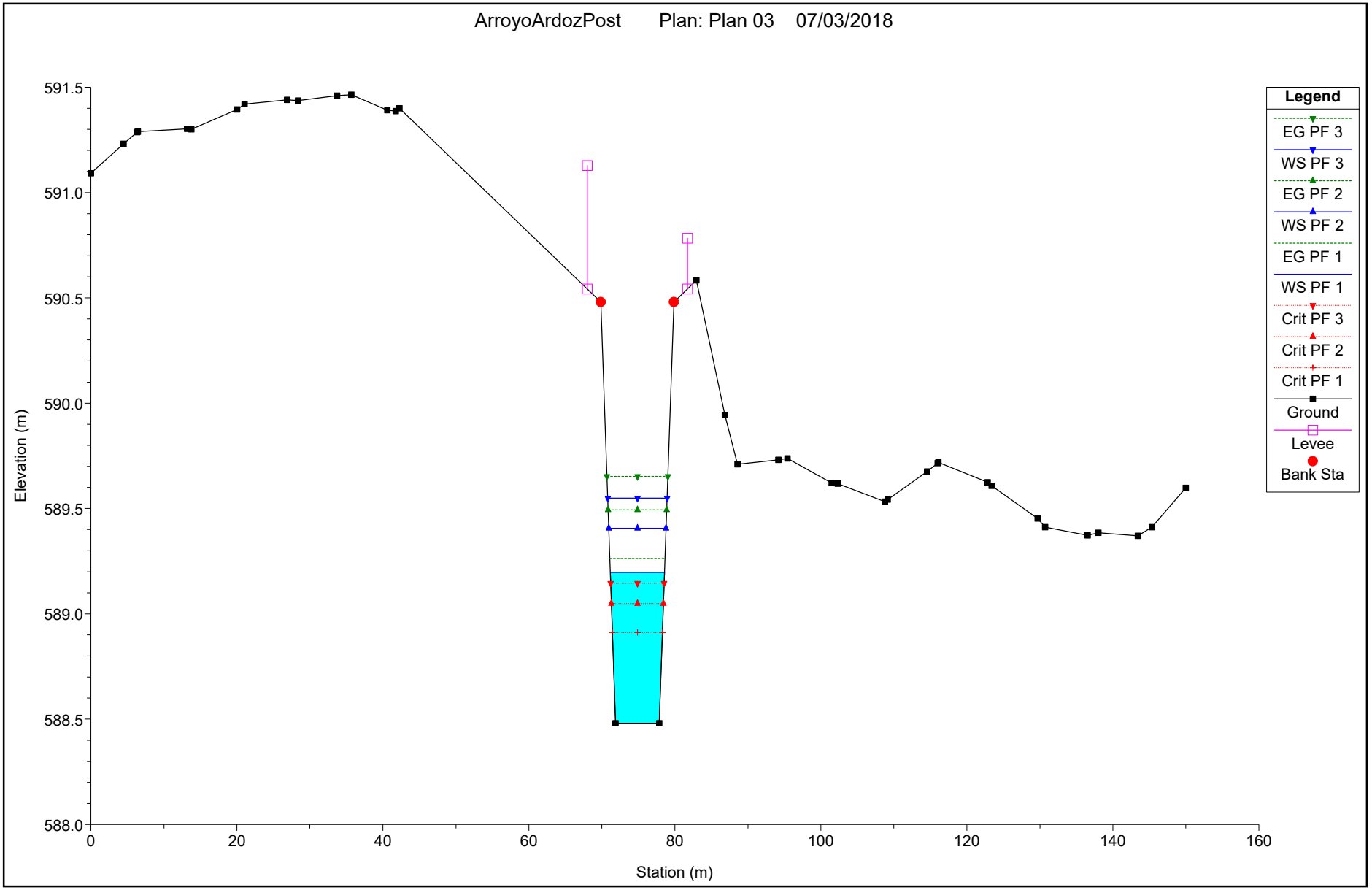

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

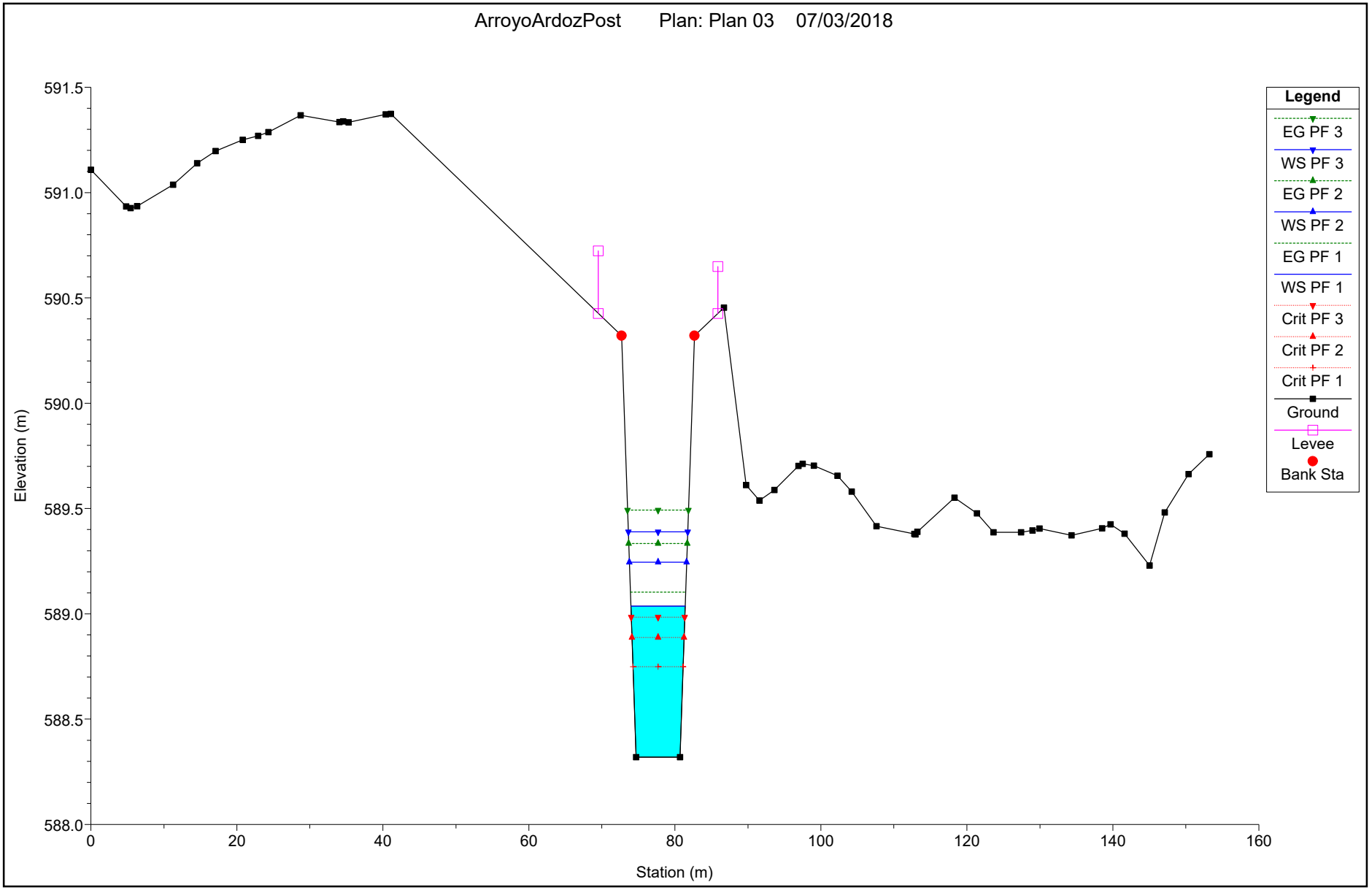

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140

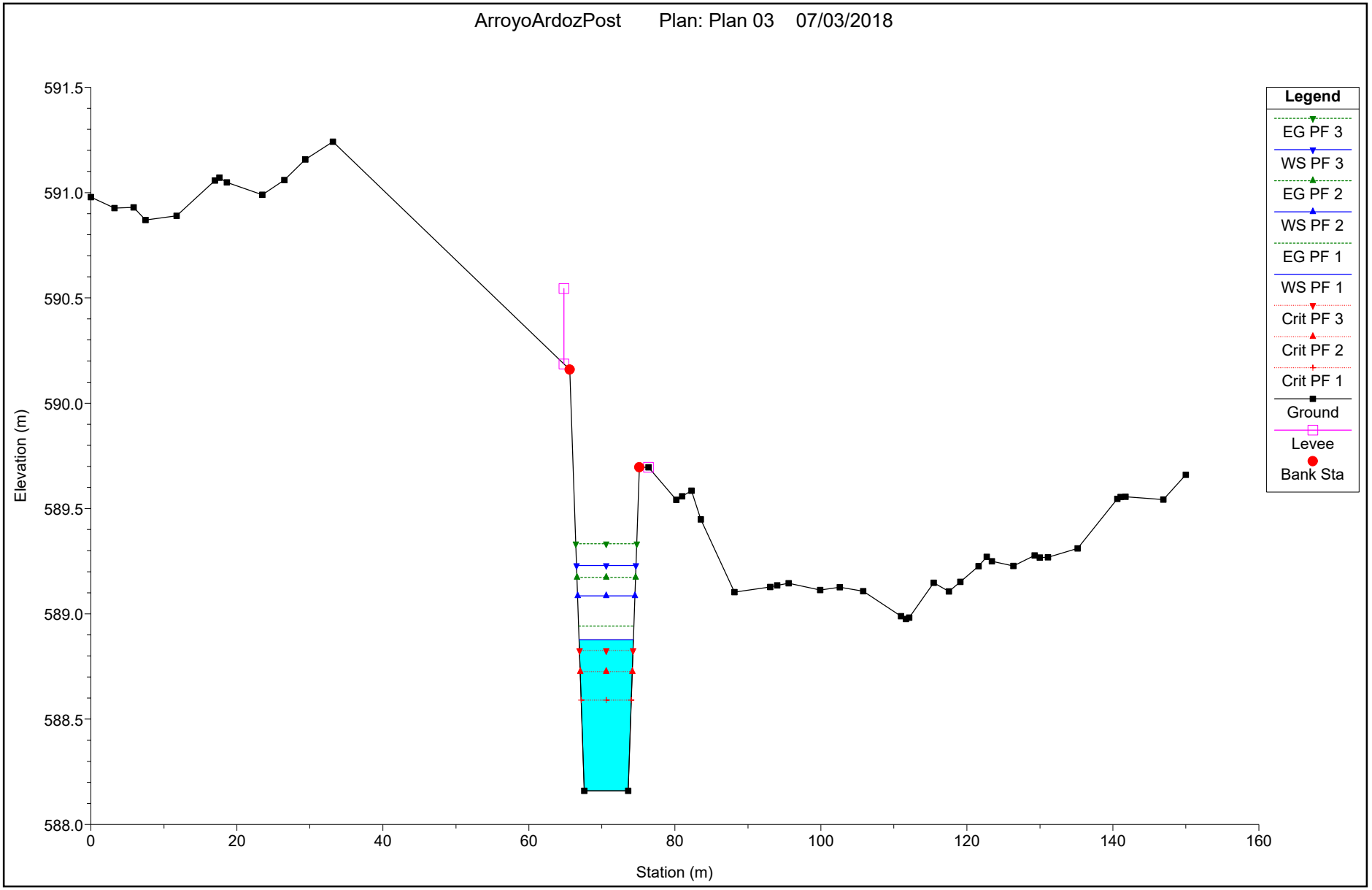

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
593.0
592.5
592.0
591.5
591.0
590.5
590.0
589.5
589.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

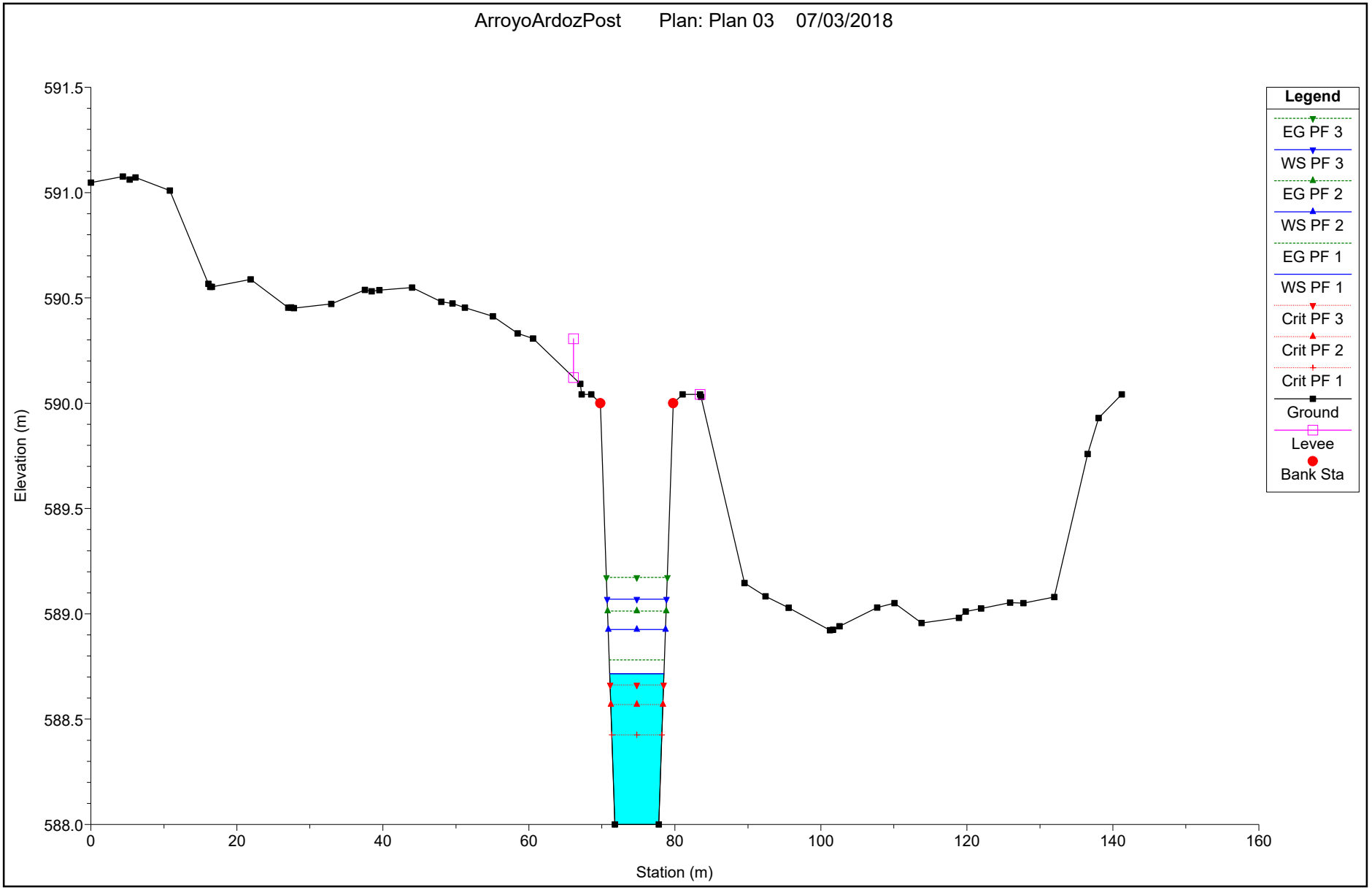

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.0
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

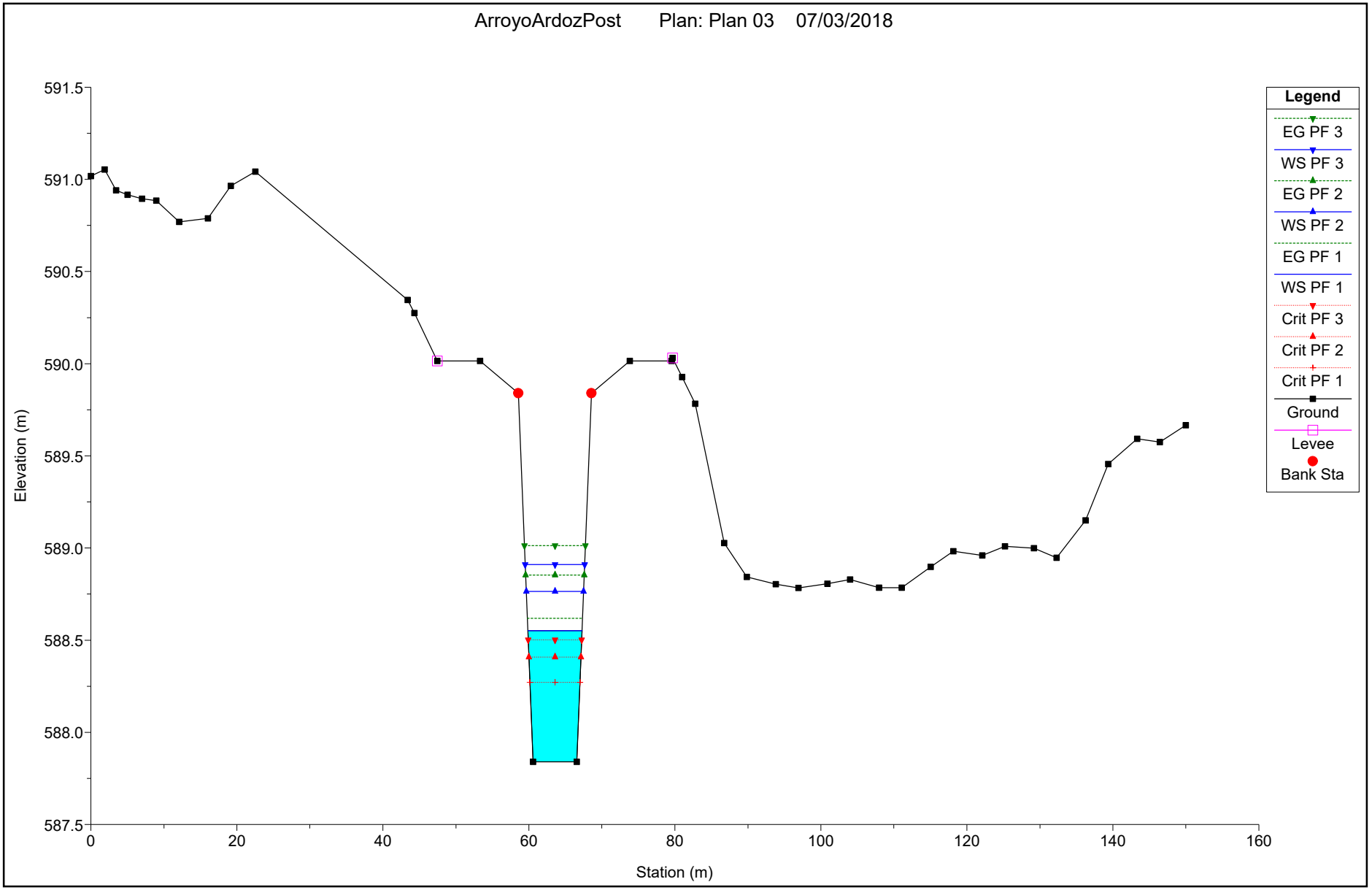

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592.0
591.5
591.0
590.5
590.0
589.5
589.0
588.5
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

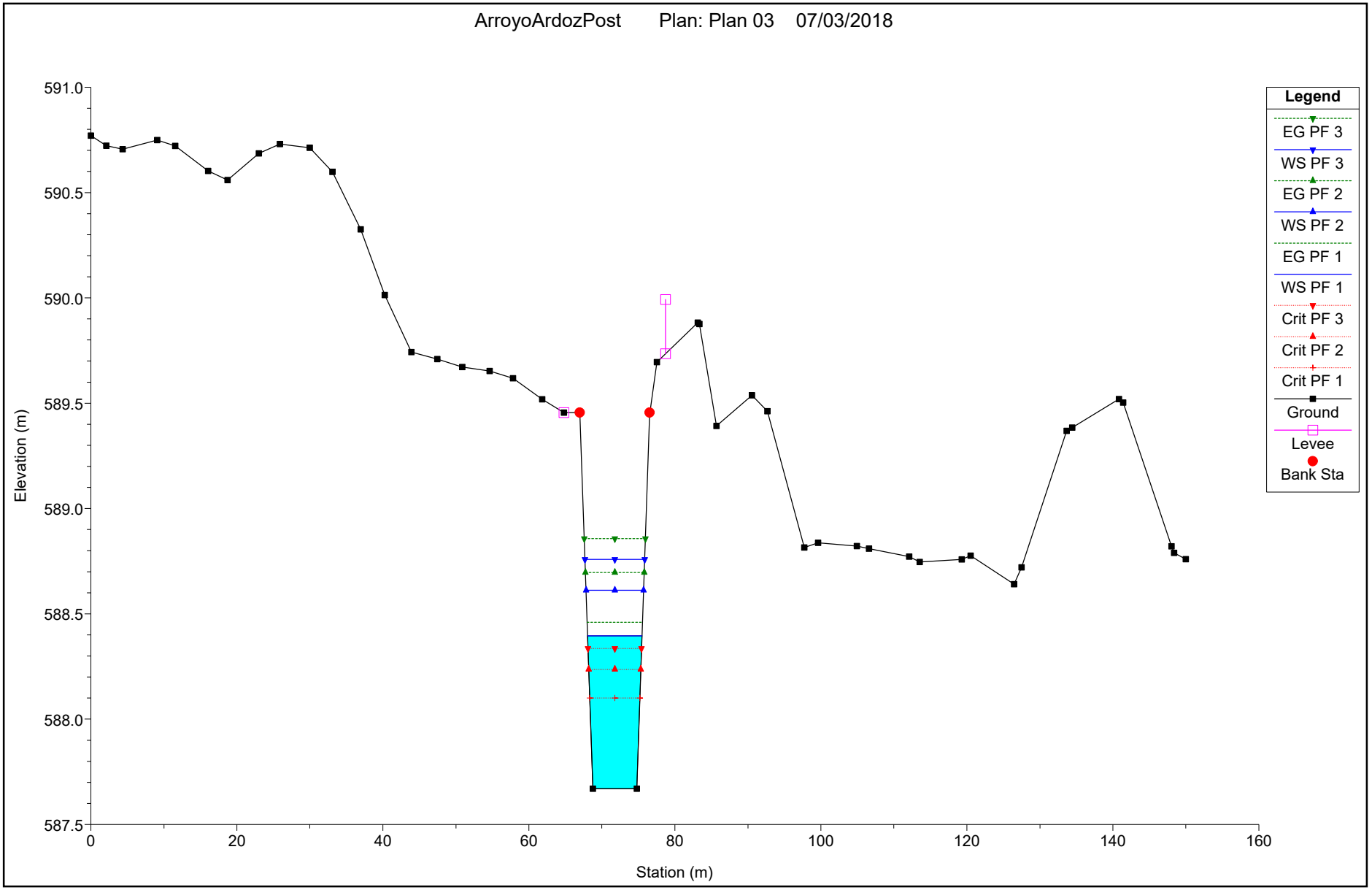

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

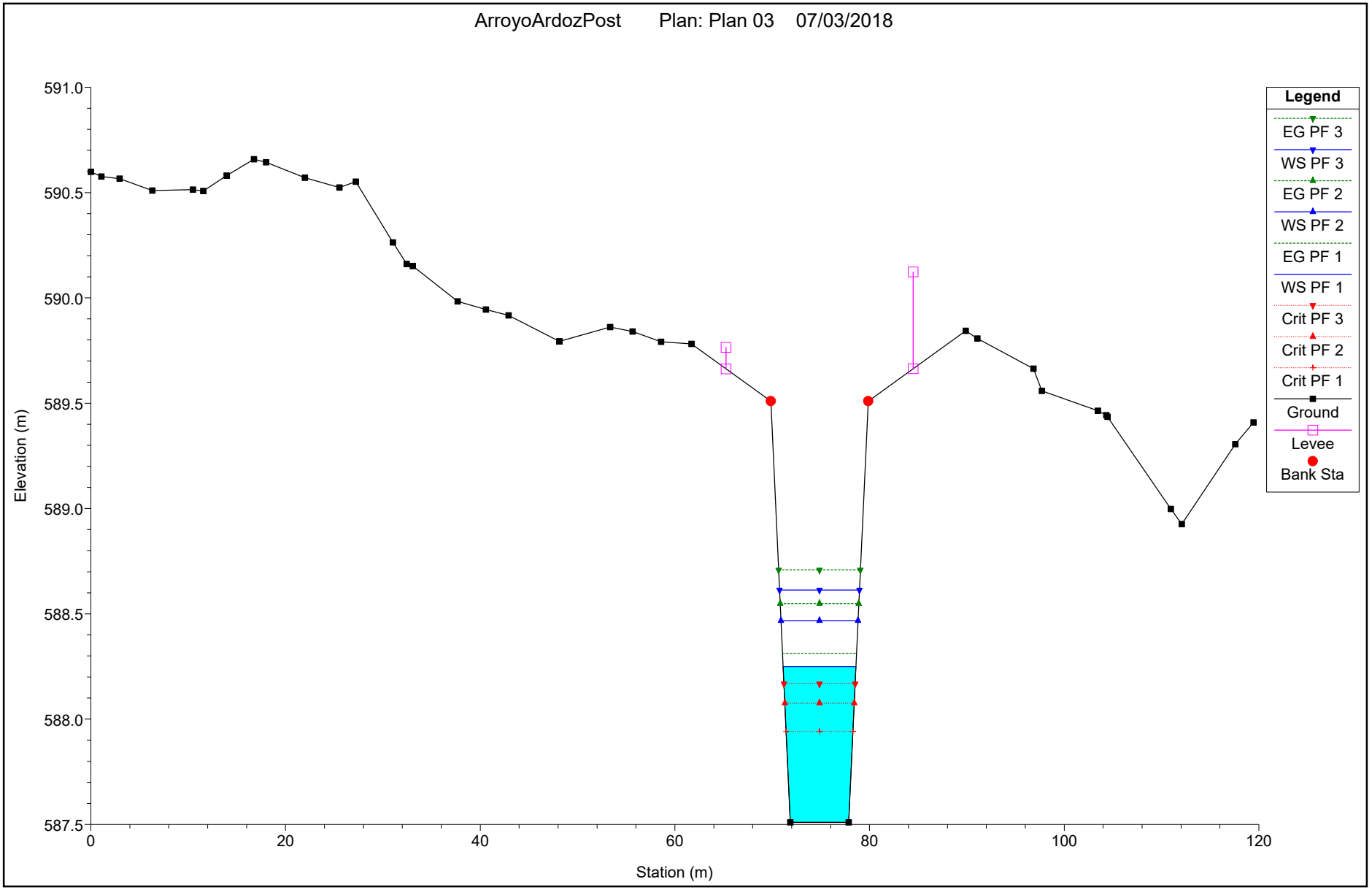

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Station (m)

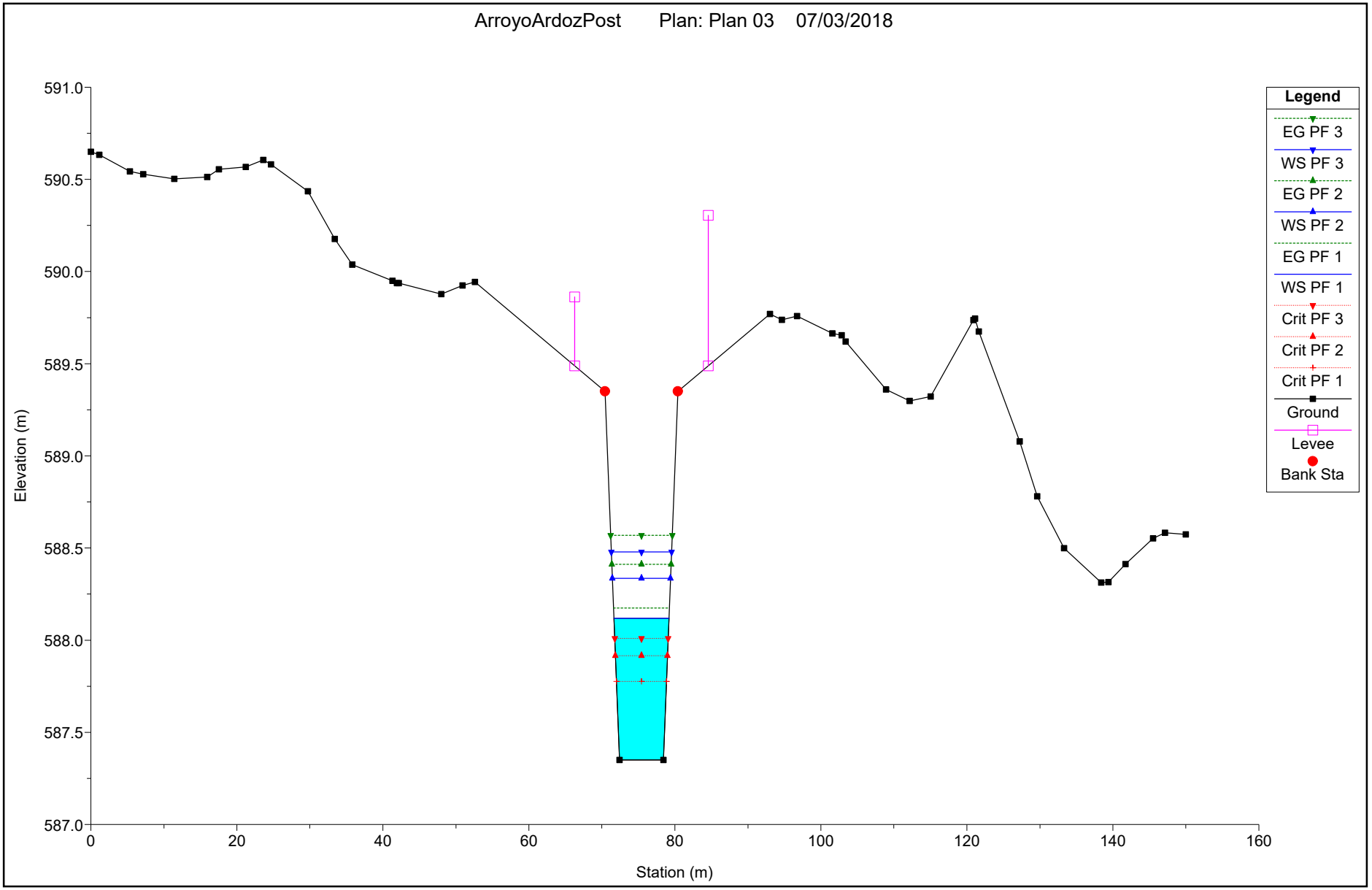

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Station (m)

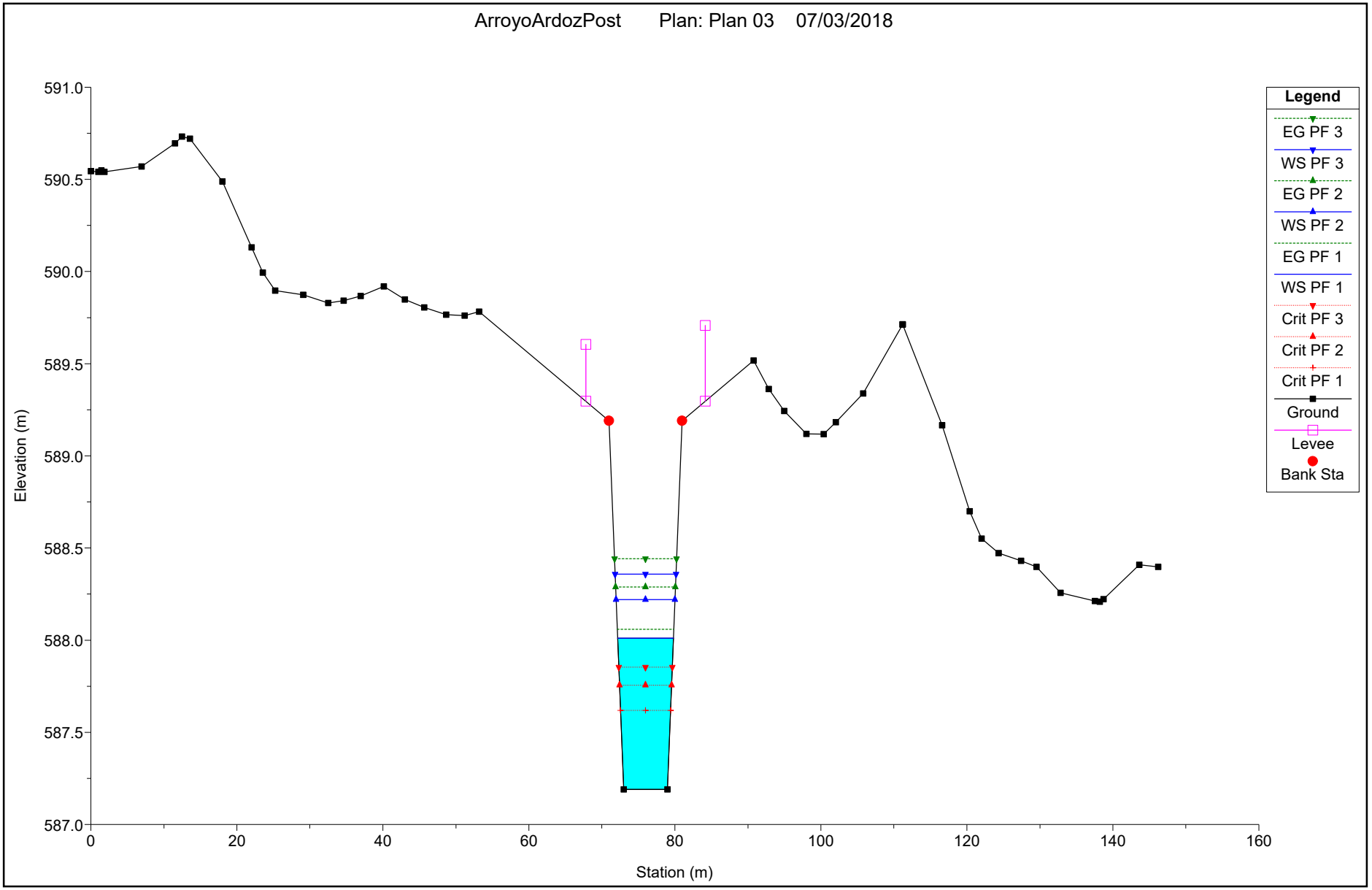

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
588.0
0
20
40
60
80
100
120
140
160
Station (m)

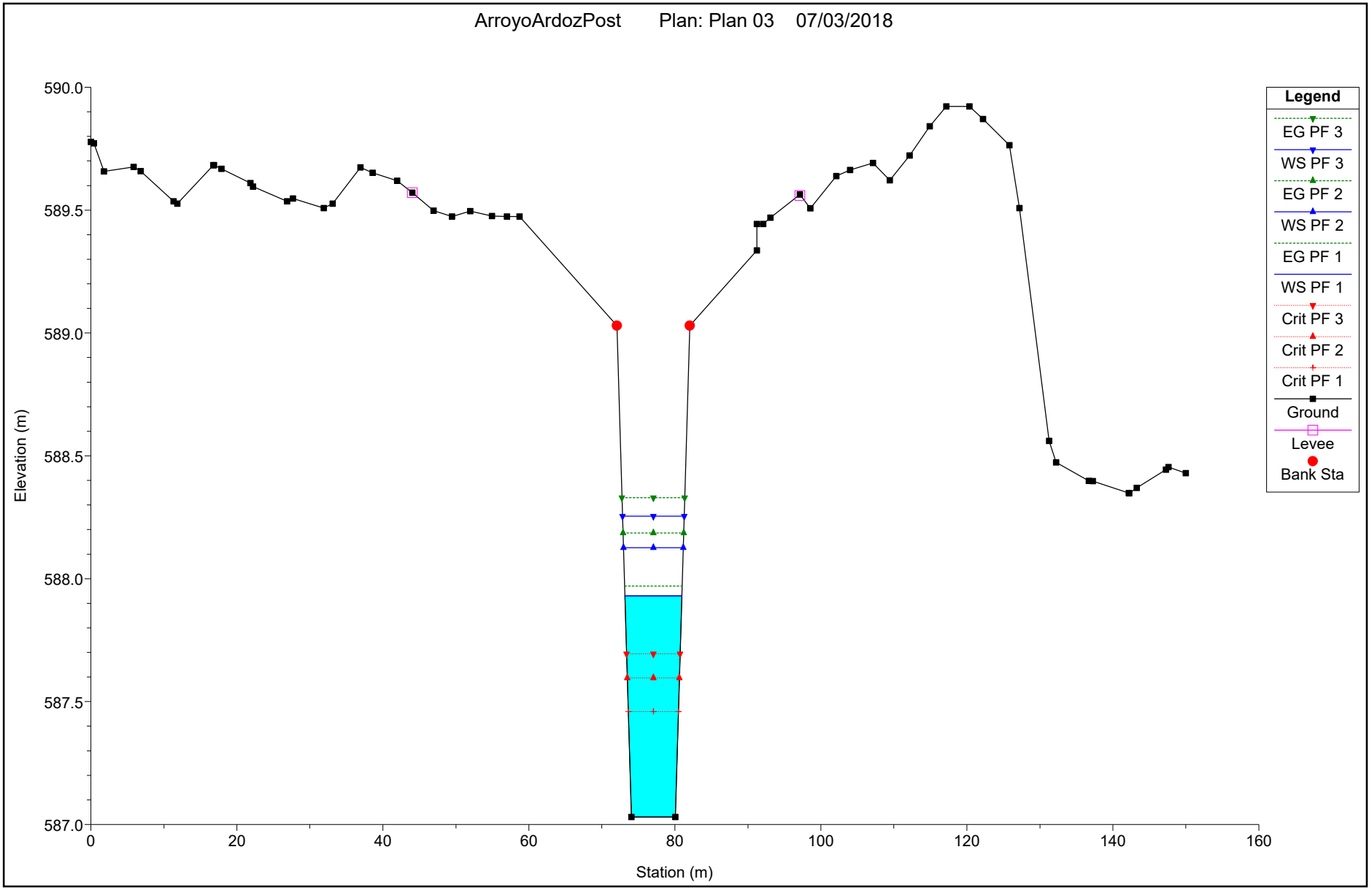

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.5
591.0
590.5
590.0
589.5
589.0
588.5
588.0
587.5
0
20
40
60
80
100
120
140
160
Station (m)

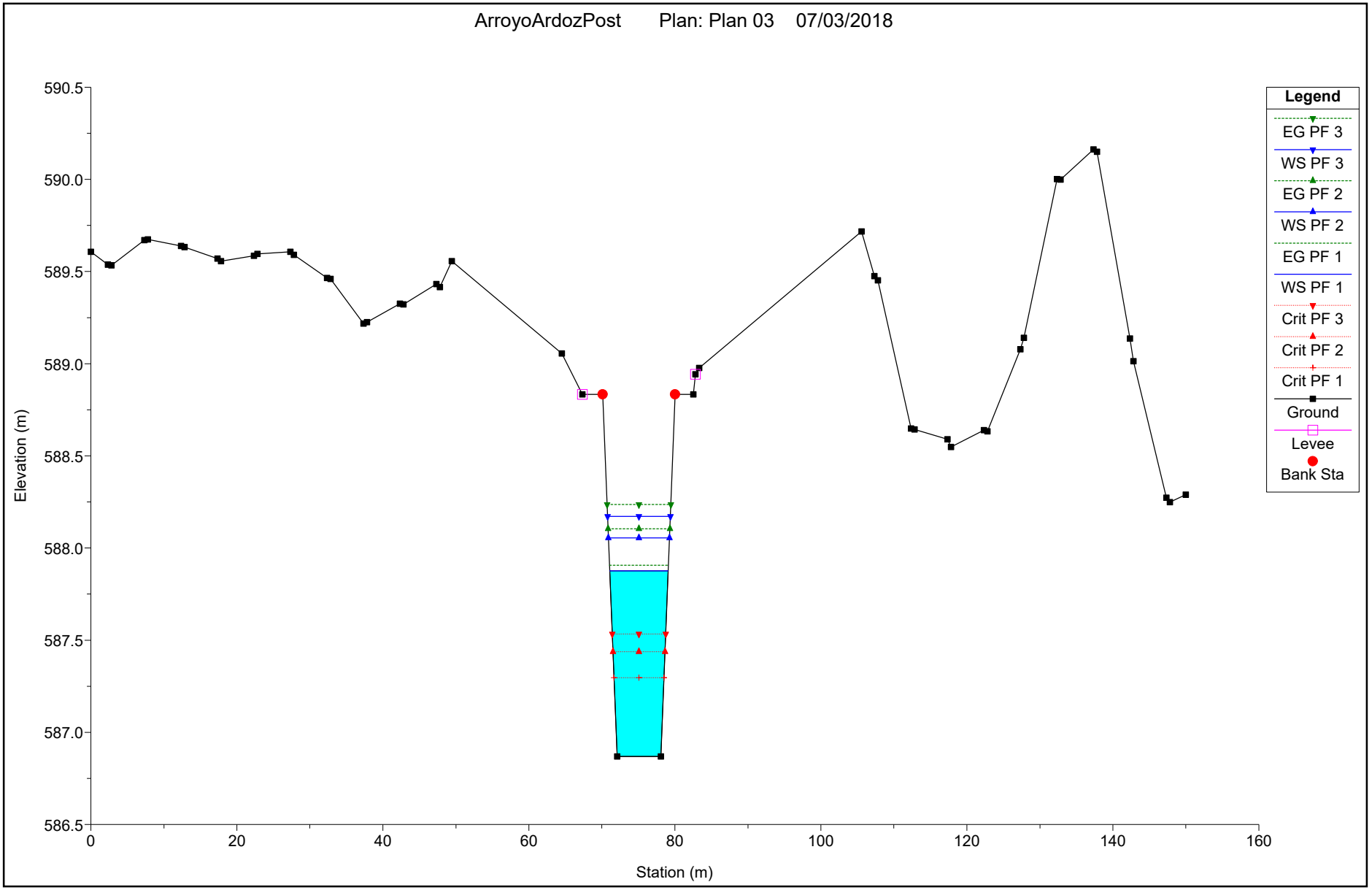

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
587.5
0
20
40
60
80
100
120
140
160
Station (m)

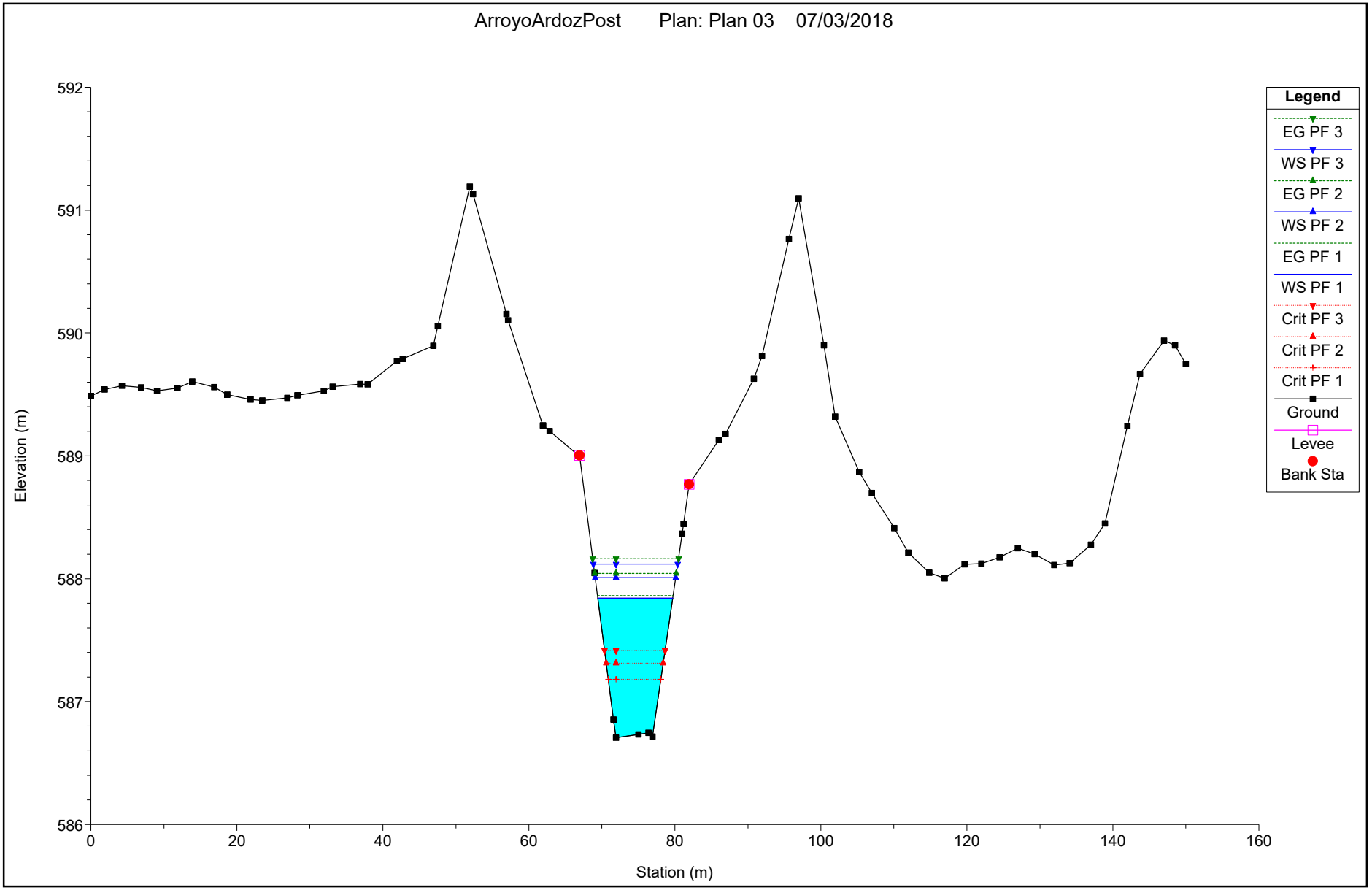

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
587.5
0
20
40
60
80
100
120
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

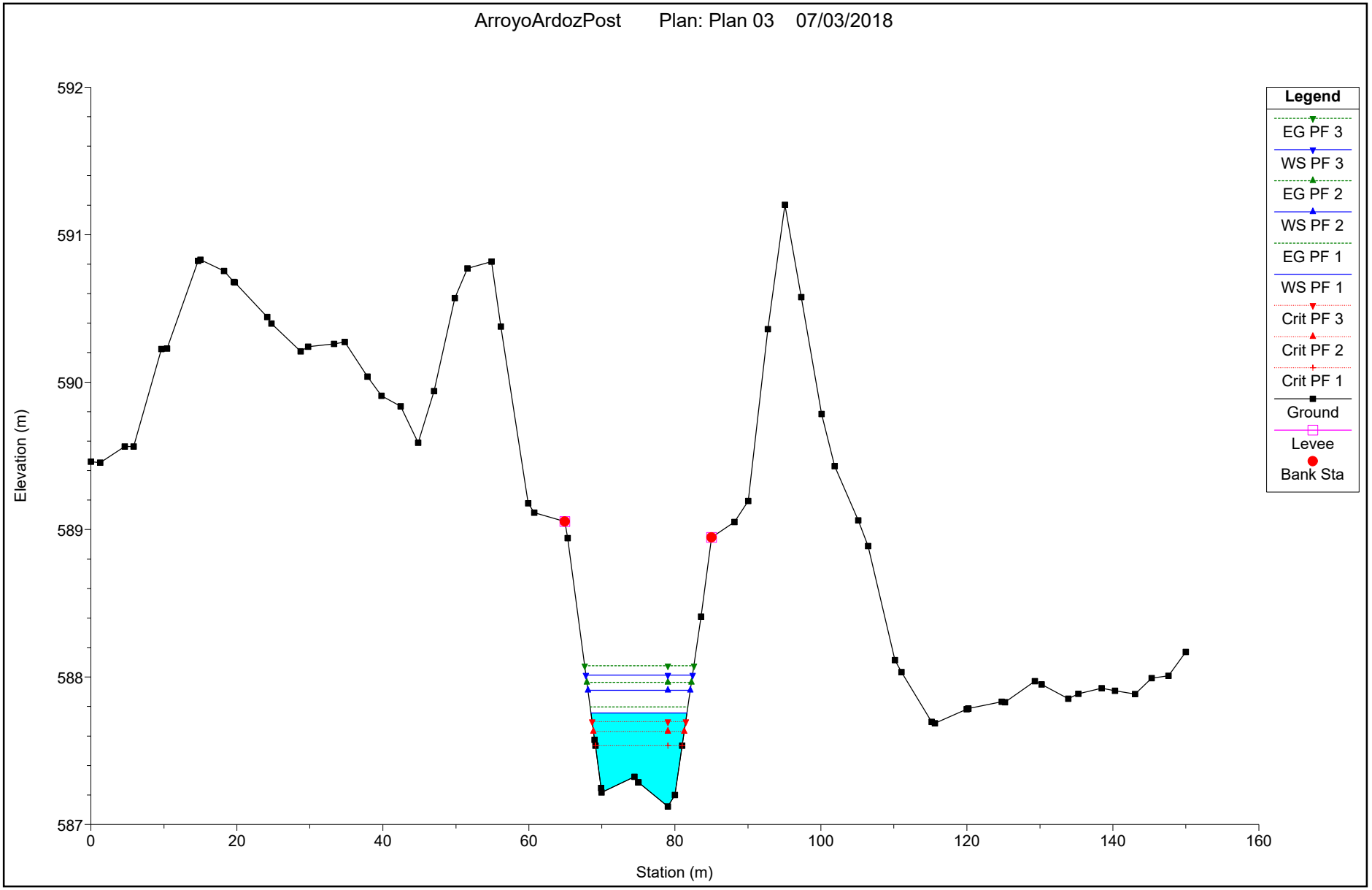

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
587.5
587.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

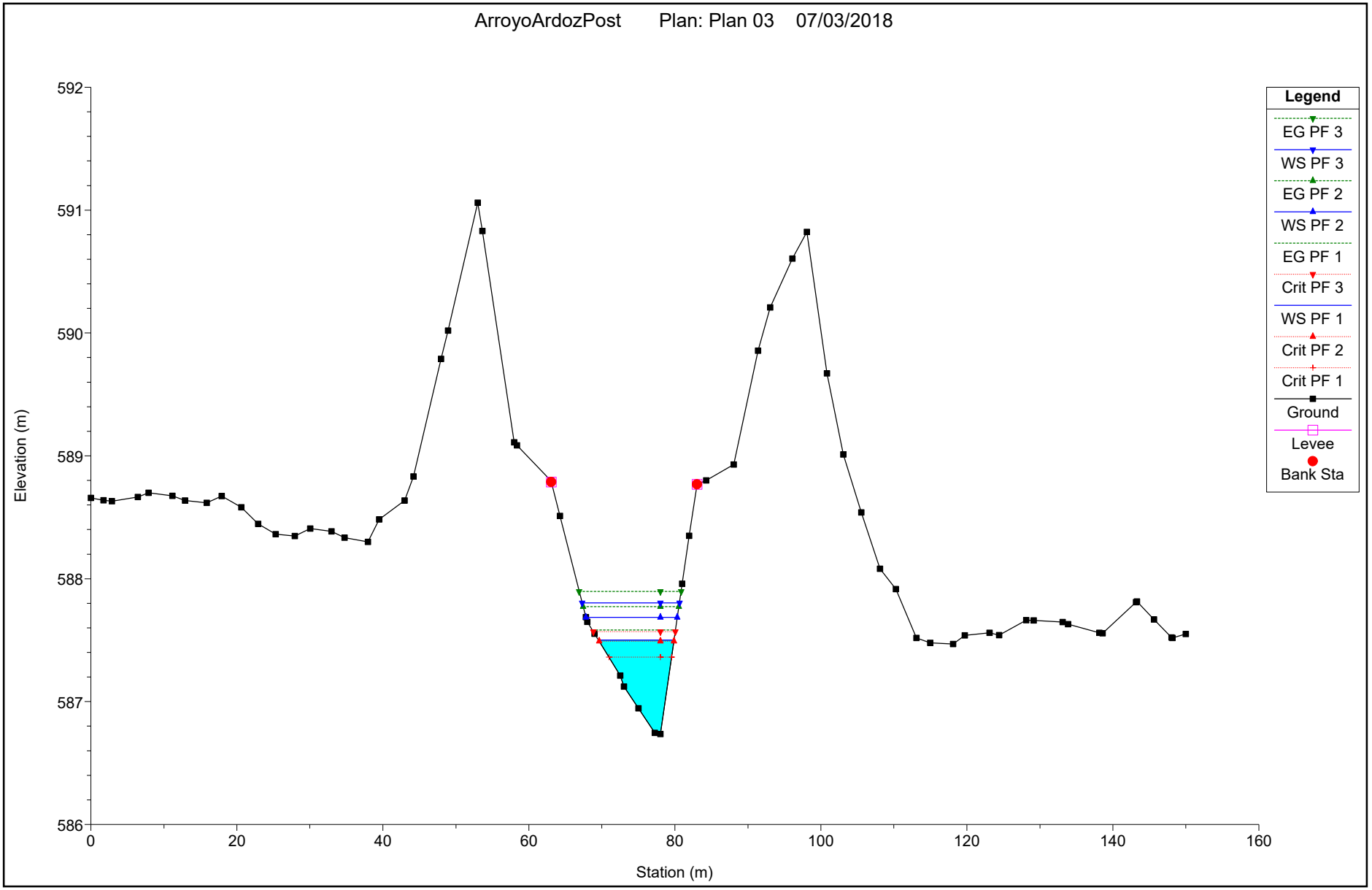

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591.0
590.5
590.0
589.5
589.0
588.5
588.0
587.5
587.0
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

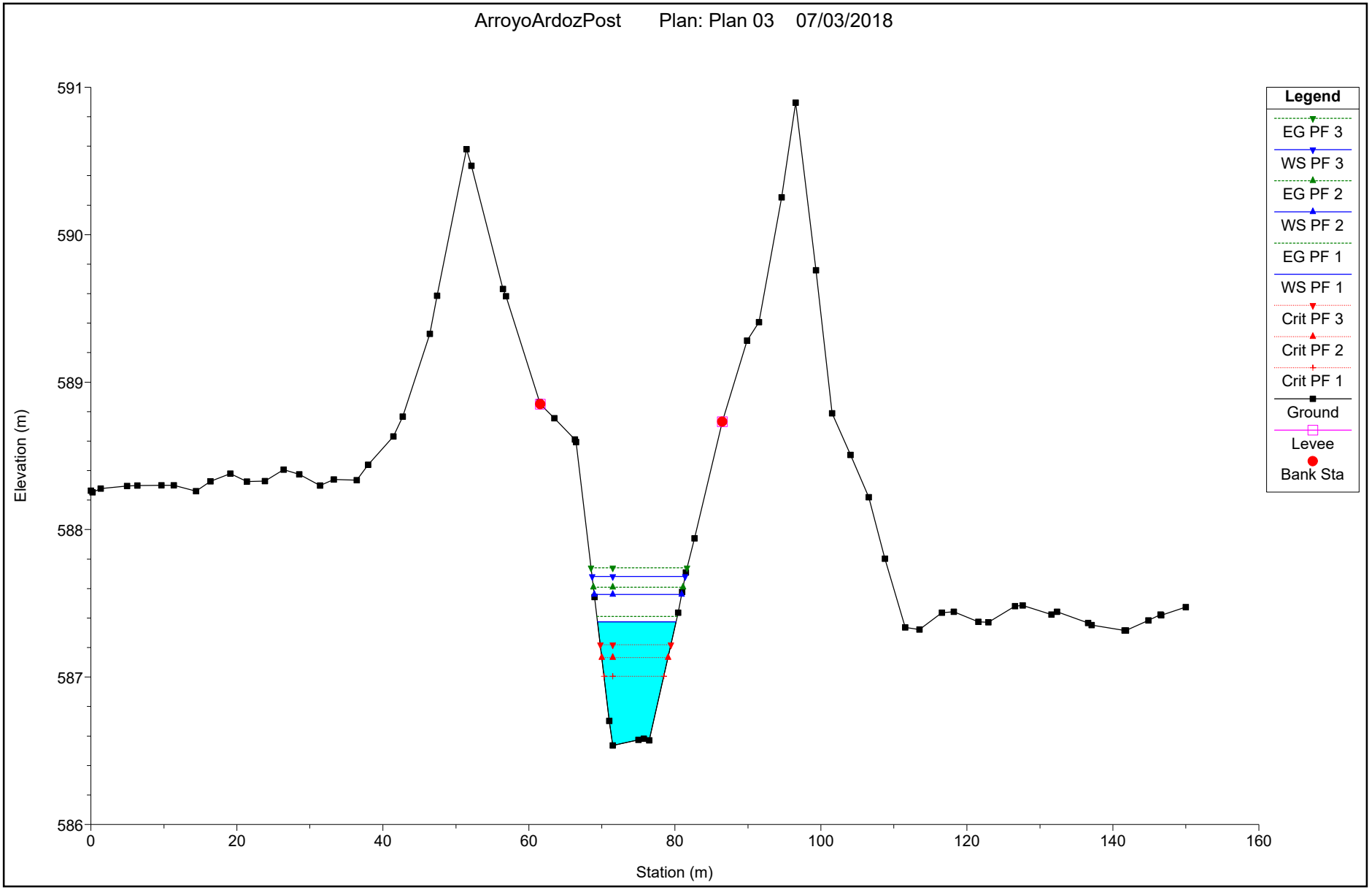

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590.0
589.5
589.0
588.5
588.0
587.5
587.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

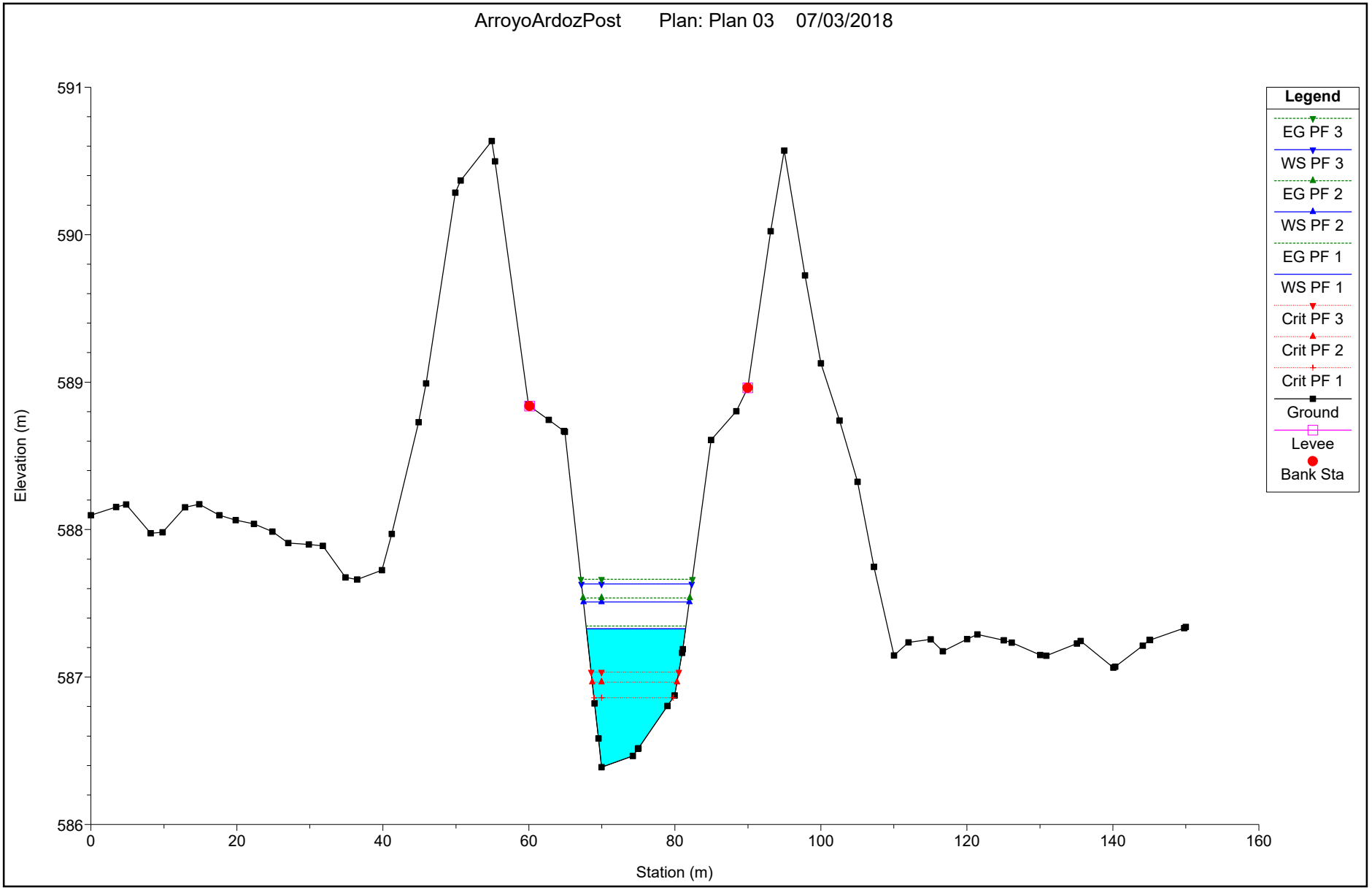

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590.5
590.0
589.5
589.0
588.5
588.0
587.5
587.0
586.5
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

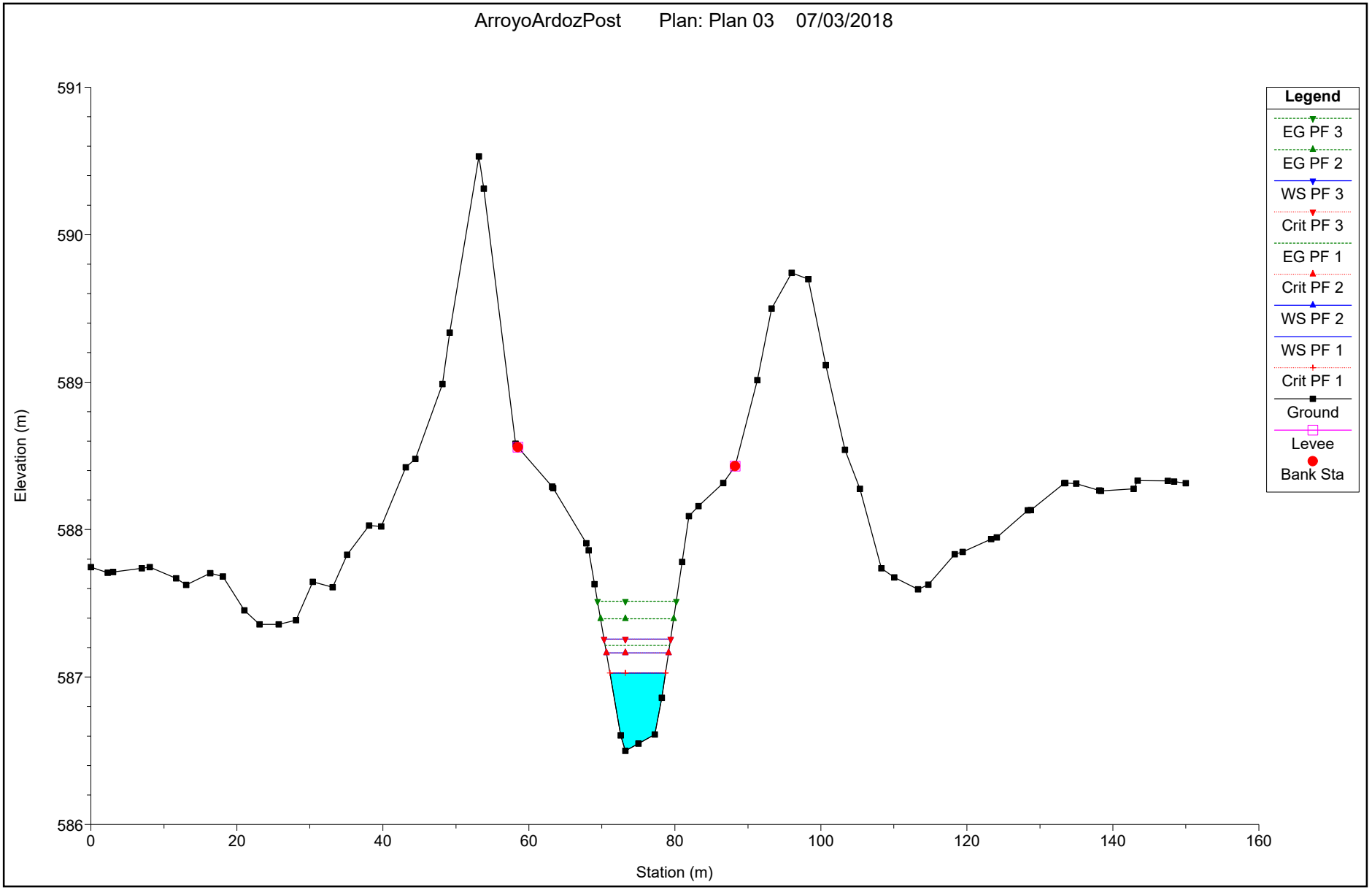

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

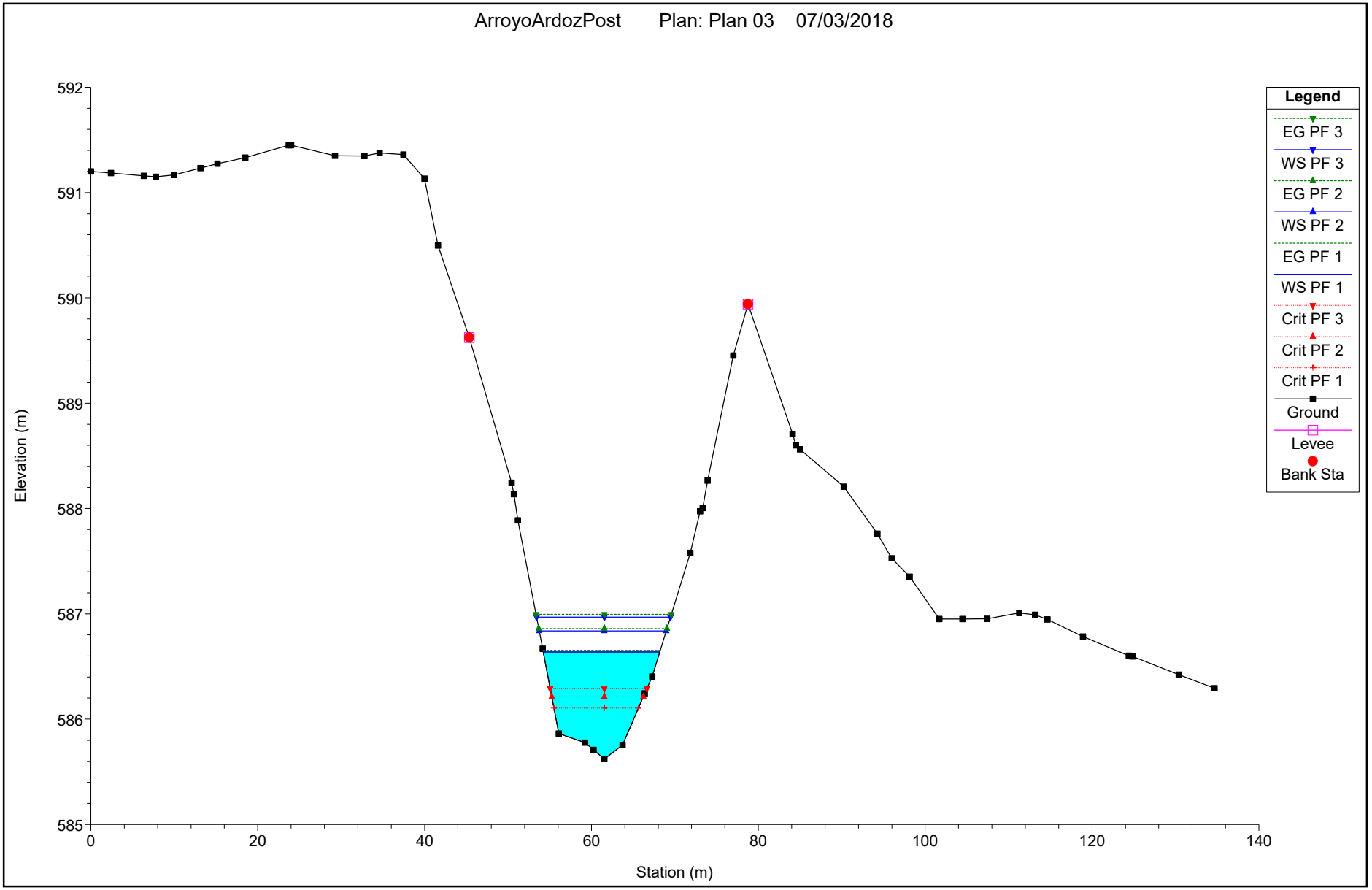

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

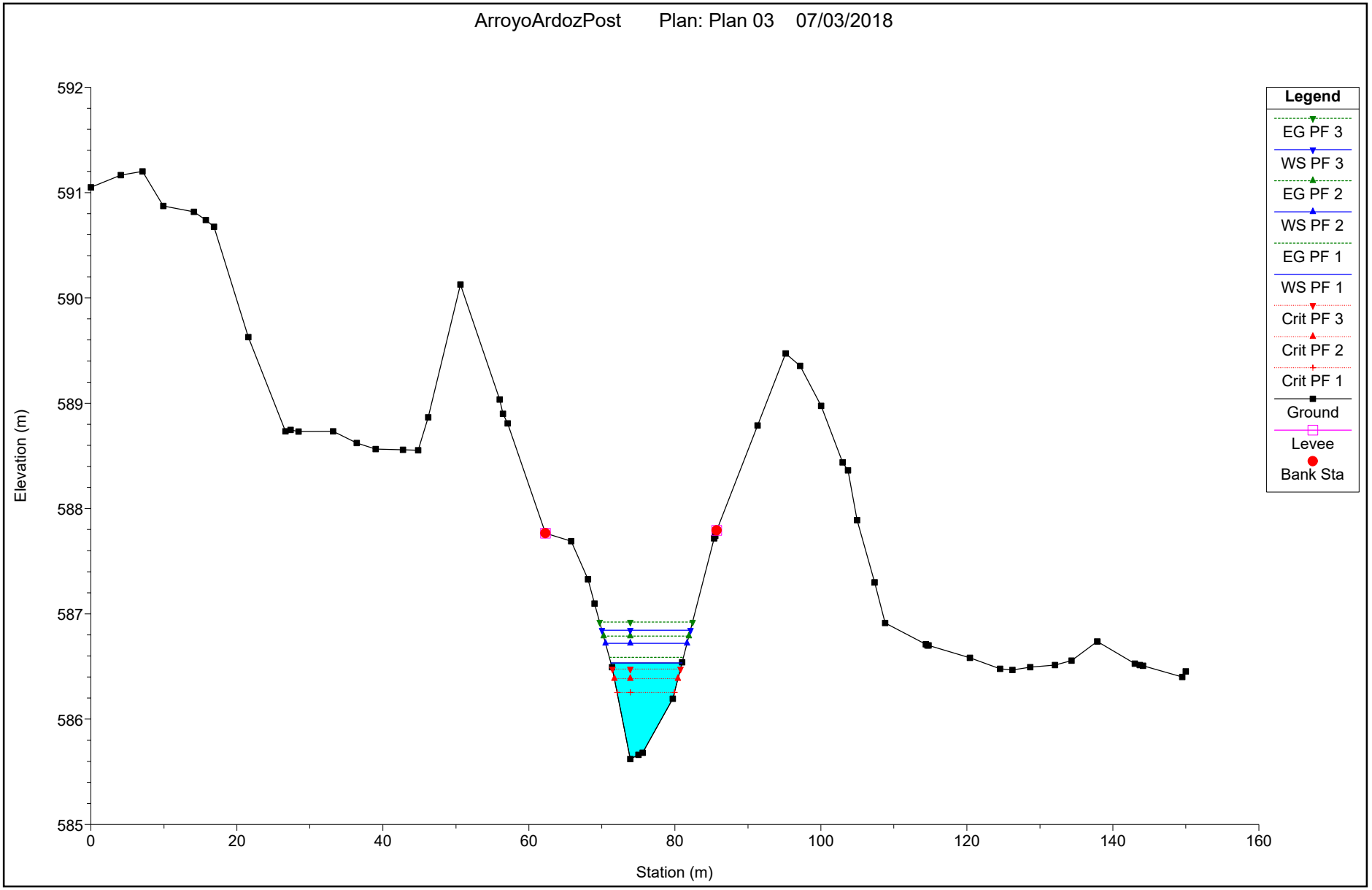

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
Crit PF 3
WS PF 1
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

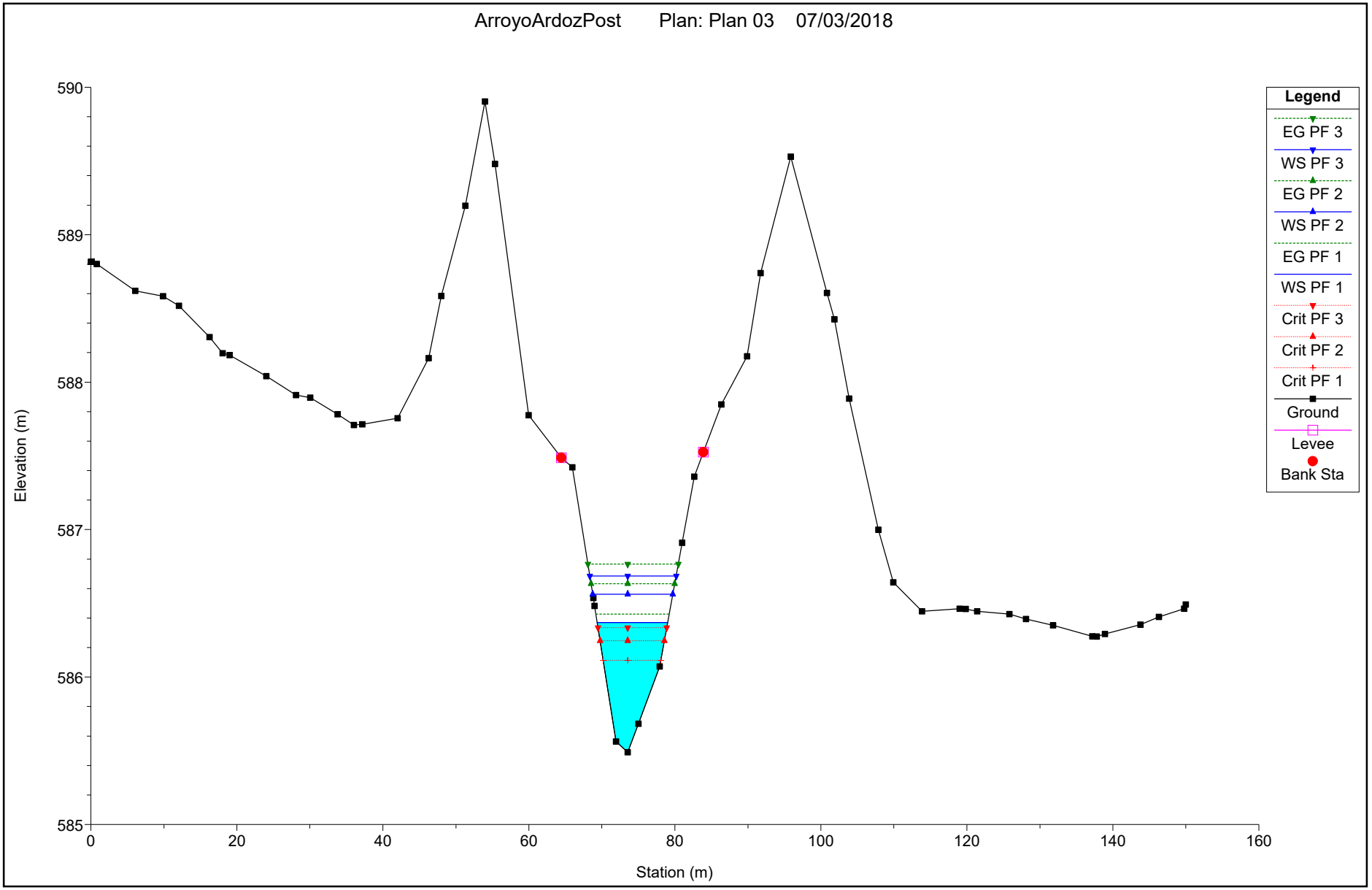

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

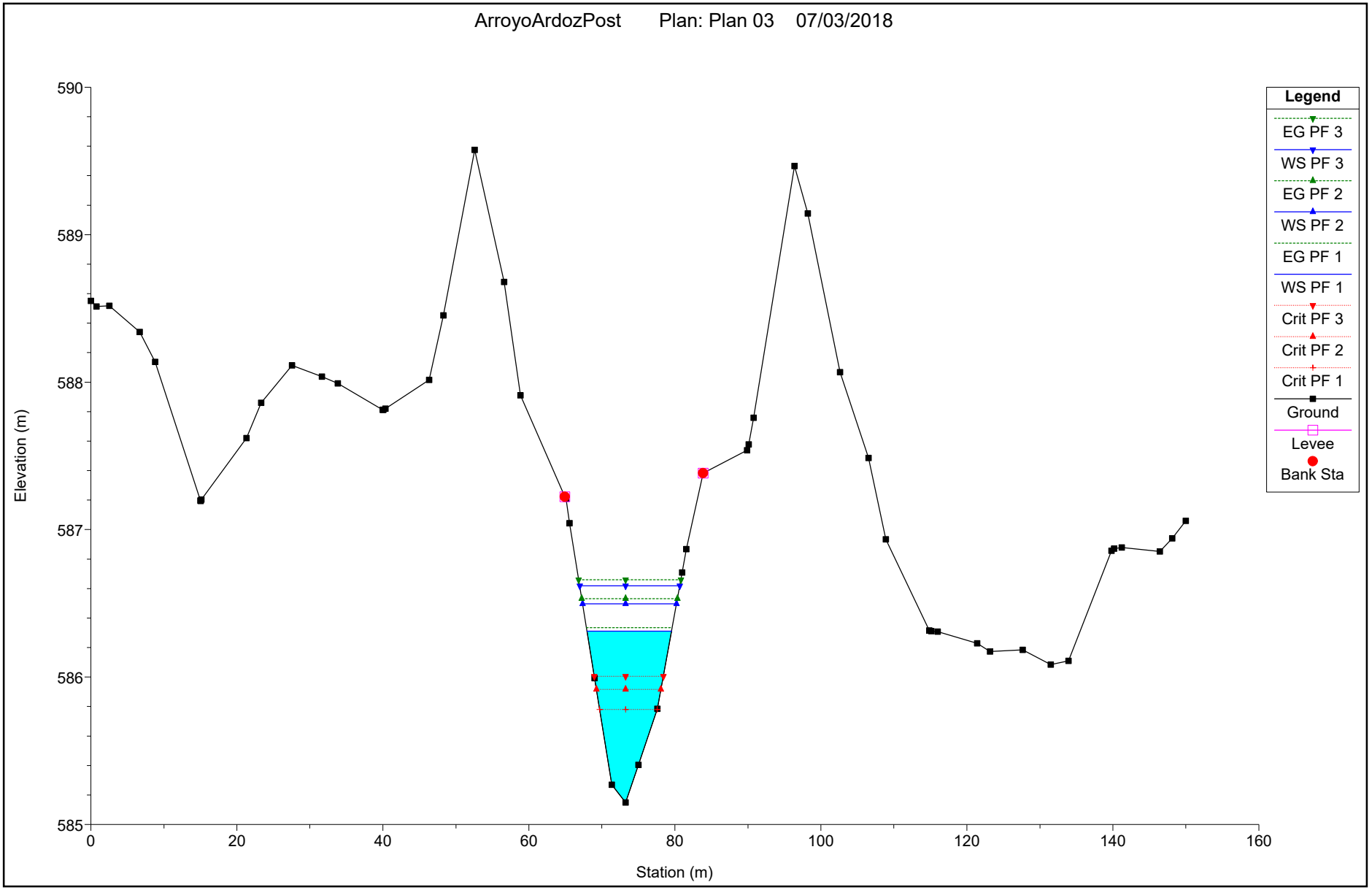

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
591
590
589
588
587
586
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

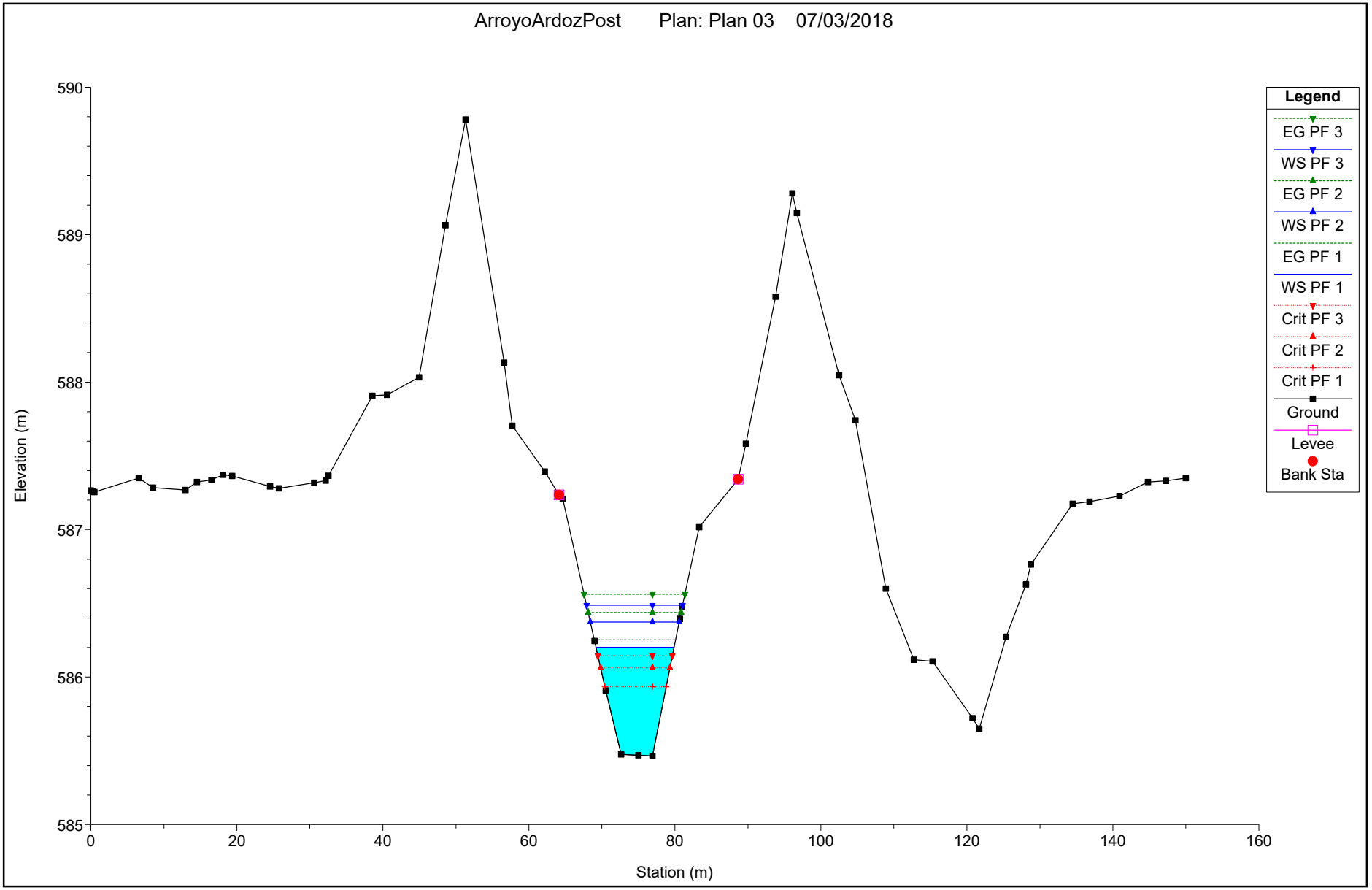

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
Crit PF 3
EG PF 1
Crit PF 2
WS PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
591
590
589
588
587
586
Station (m)
0
20
40
60
80
100
120
140
160

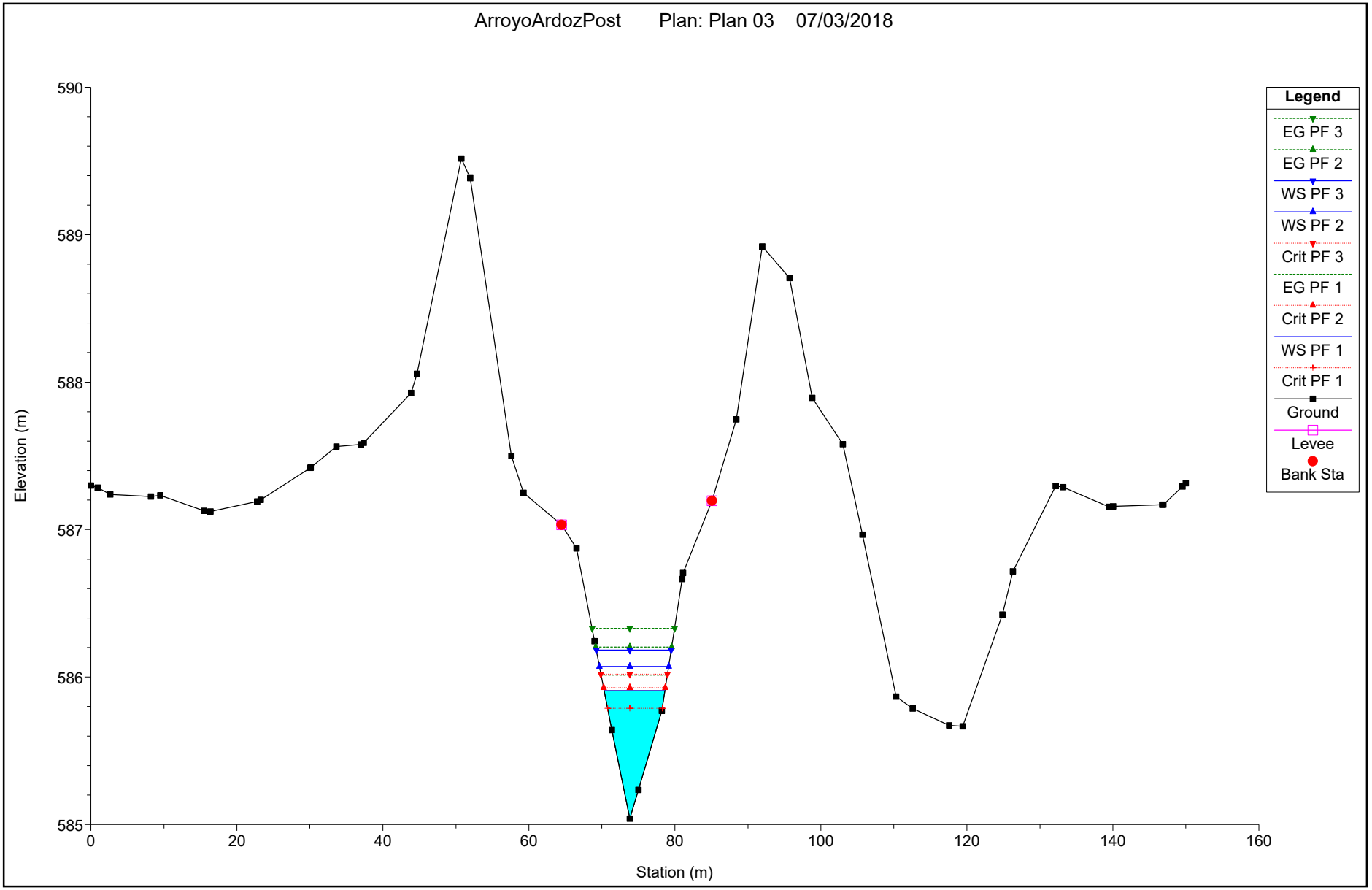

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
592
591
590
589
588
587
586
585
Station (m)
0
20
40
60
80
100
120
140

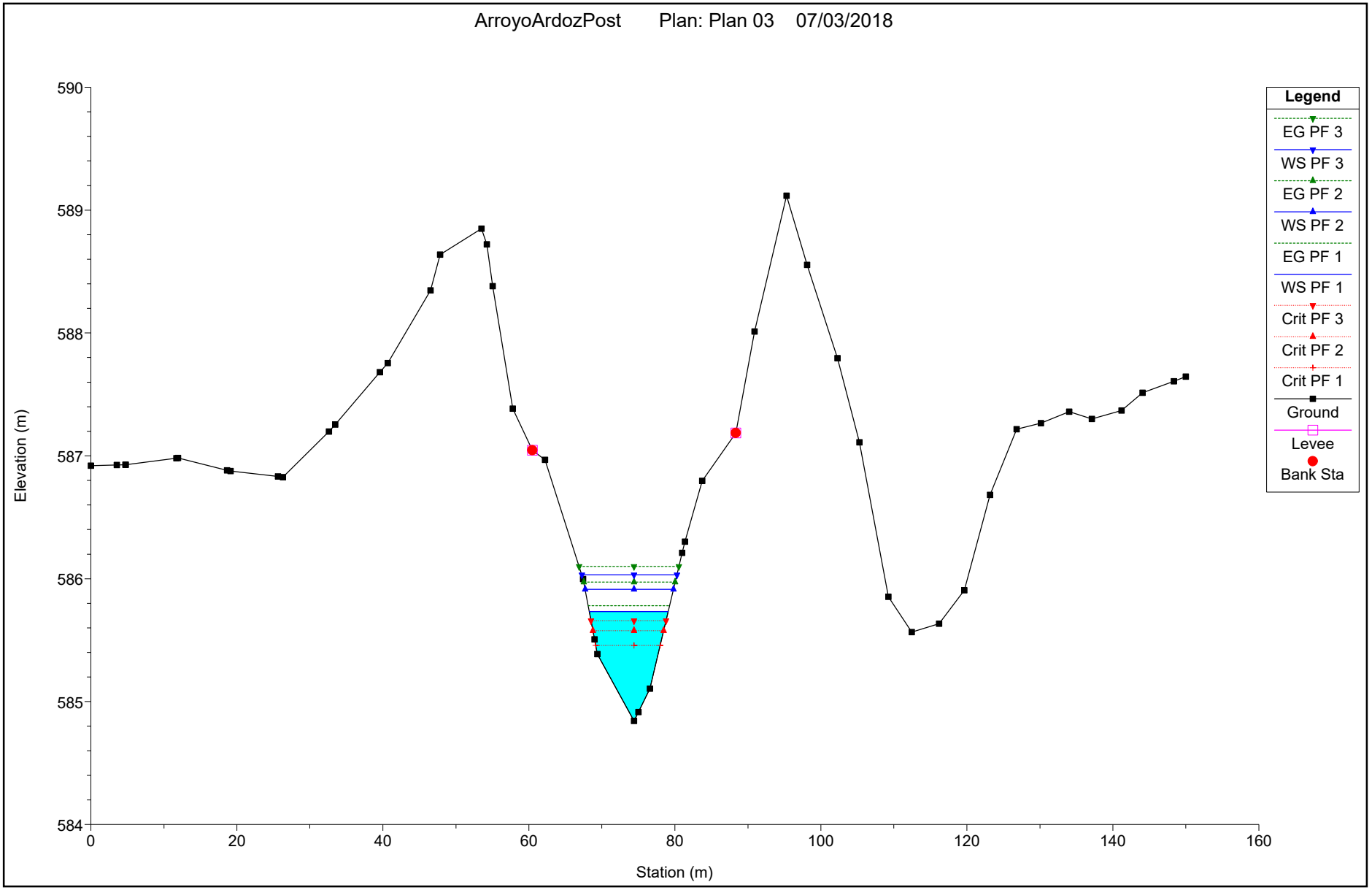

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
Station (m)
592
591
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

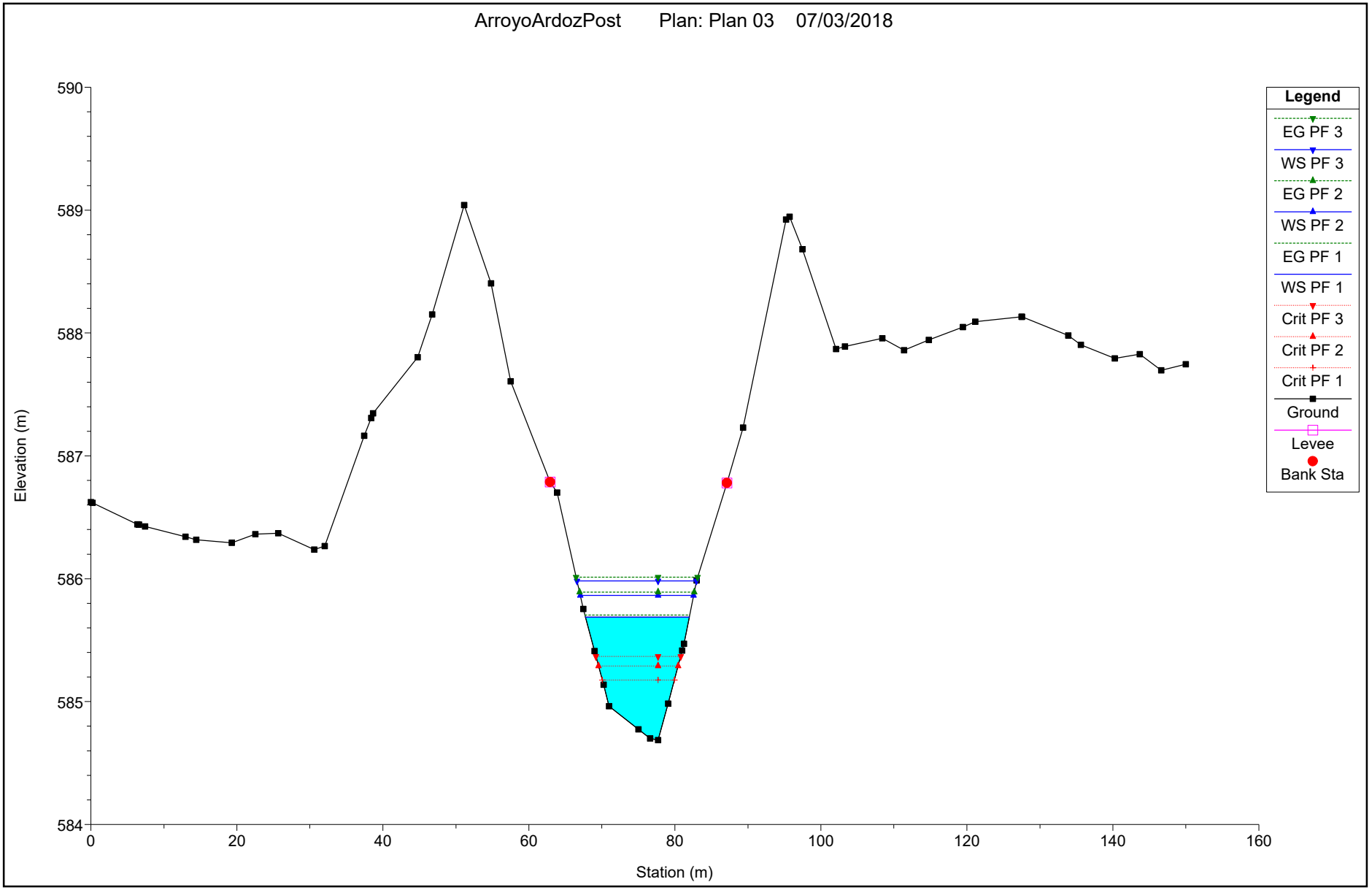

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

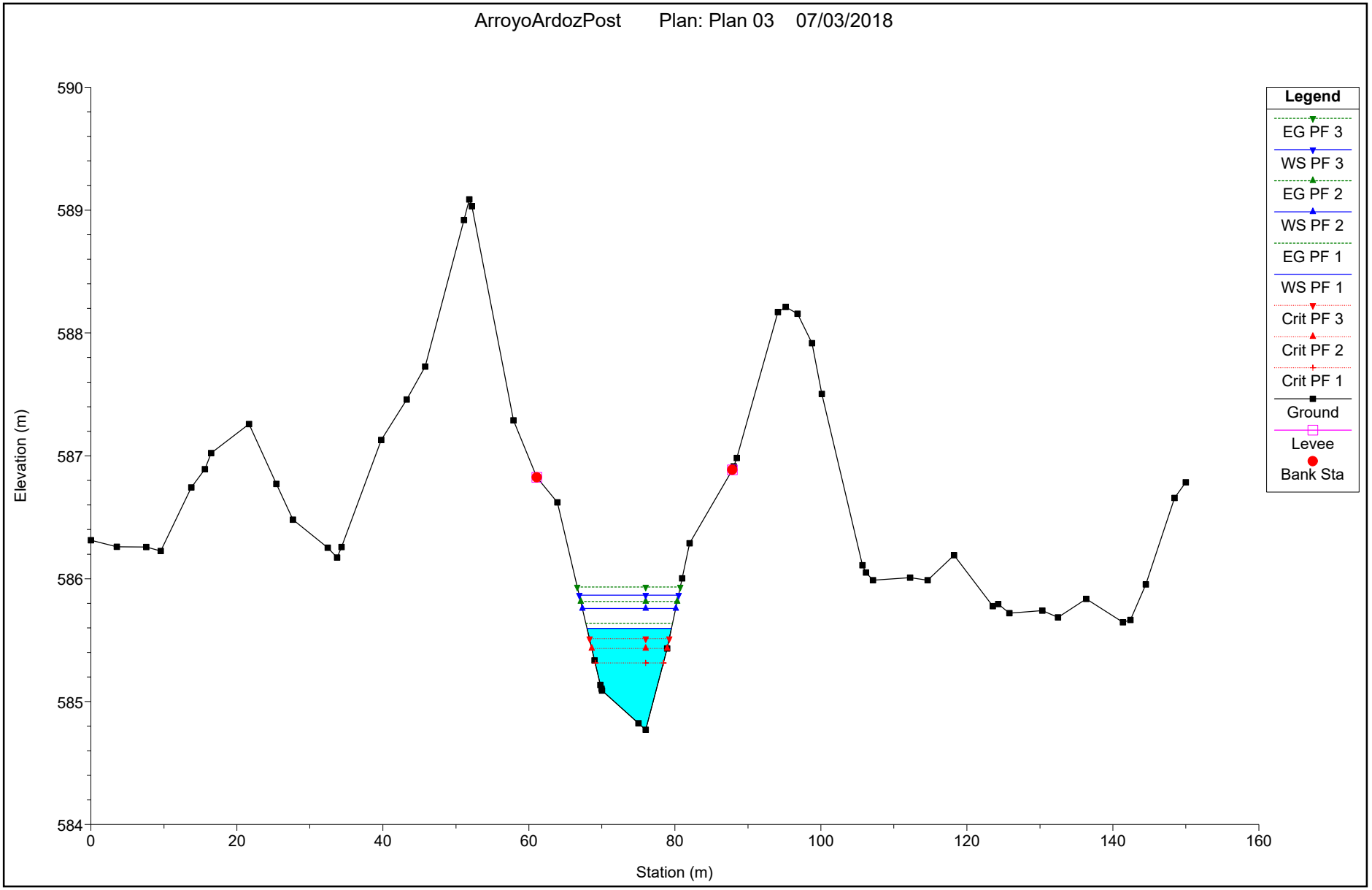

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

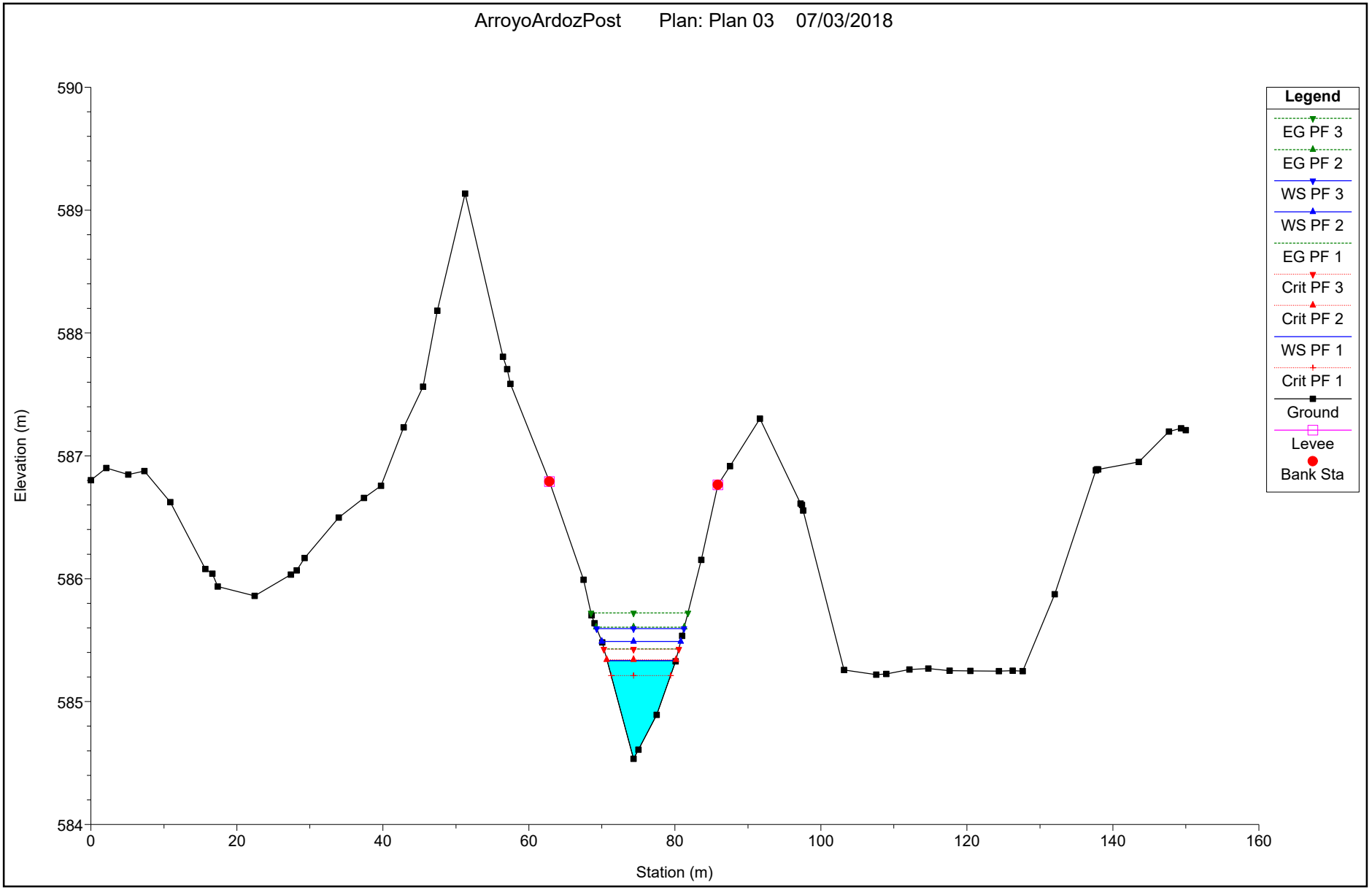

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)

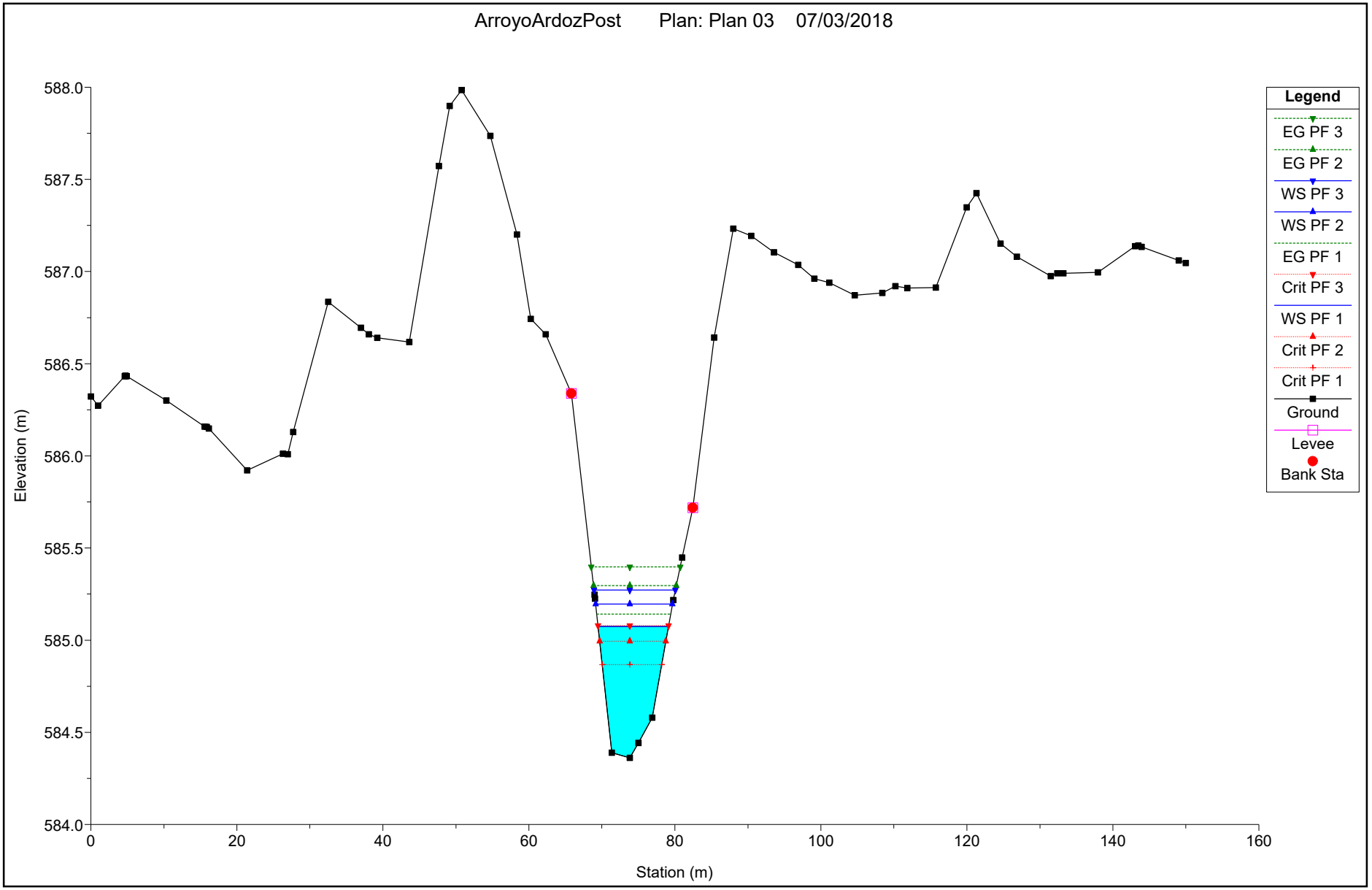

ArroyoArdozPost Plan: Plan 03 07/03/2018
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
Crit PF 3
EG PF 1
Crit PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
590
589
588
587
586
585
0
20
40
60
80
100
120
140
160
Station (m)

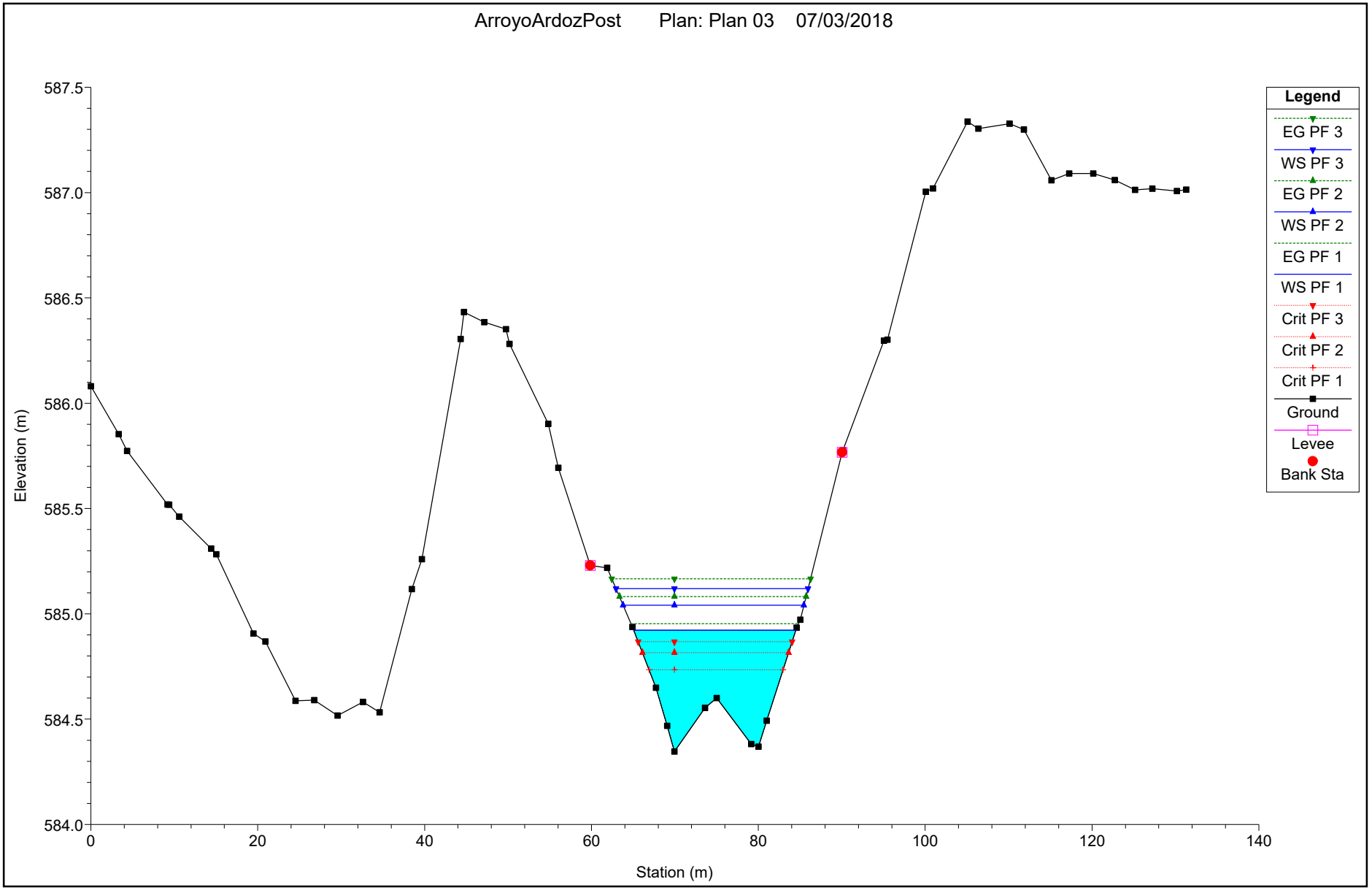

ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
590
589
588
587
586
585
584
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
EG PF 1
Crit PF 3
Crit PF 2
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
588.0
587.5
587.0
586.5
586.0
585.5
585.0
584.5
584.0
0
20
40
60
80
100
120
140
160
Station (m)
Legend
EG PF 3
EG PF 2
WS PF 3
WS PF 2
EG PF 1
Crit PF 3
WS PF 1
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta


ArroyoArdozPost Plan: Plan 03 07/03/2018
Elevation (m)
587.5
587.0
586.5
586.0
585.5
585.0
584.5
584.0
0
20
40
60
80
100
120
140
Station (m)
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Levee
Bank Sta

Plan: Plan 03 ArroyoArdoz Rio CL RS: 984.11 Profile: PF 1

E.G. Elev (m)	590.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.70	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	590.42	Flow Area (m2)		4.80	
E.G. Slope (m/m)	0.006475	Area (m2)		4.80	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.1	Conv. (m3/s)		68.1	
Length Wtd. (m)	9.11	Wetted Per. (m)		8.02	
Min Ch El (m)	589.99	Shear (N/m2)		37.98	
Alpha	1.00	Stream Power (N/m s)		43.38	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.11	5.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.17	8.95	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 984.11 Profile: PF 2

E.G. Elev (m)	591.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.91	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	590.56	Flow Area (m2)		6.38	
E.G. Slope (m/m)	0.006478	Area (m2)		6.38	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.84	Top Width (m)		7.84	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	104.6	Conv. (m3/s)		104.6	
Length Wtd. (m)	9.11	Wetted Per. (m)		8.61	
Min Ch El (m)	589.99	Shear (N/m2)		47.11	
Alpha	1.00	Stream Power (N/m s)		62.14	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.15	7.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.18	9.75	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 984.11 Profile: PF 3

E.G. Elev (m)	591.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	591.06	Reach Len. (m)	9.11	9.11	9.04
Crit W.S. (m)	590.66	Flow Area (m2)		7.52	
E.G. Slope (m/m)	0.006481	Area (m2)		7.52	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.13	Top Width (m)		8.13	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	133.4	Conv. (m3/s)		133.4	
Length Wtd. (m)	9.11	Wetted Per. (m)		9.01	
Min Ch El (m)	589.99	Shear (N/m2)		53.06	
Alpha	1.00	Stream Power (N/m s)		75.74	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.17	8.37	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.19	10.27	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 975 Profile: PF 1

E.G. Elev (m)	590.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.65	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	590.36	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006431	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 975 Profile: PF 1 (Continued)

Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.3	Conv. (m3/s)		68.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	589.93	Shear (N/m2)		37.78	
Alpha	1.00	Stream Power (N/m s)		43.06	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.11	5.36	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.17	8.89	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 975 Profile: PF 2

E.G. Elev (m)	590.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.85	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	590.50	Flow Area (m2)		6.39	
E.G. Slope (m/m)	0.006447	Area (m2)		6.39	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	104.9	Conv. (m3/s)		104.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.61	
Min Ch El (m)	589.93	Shear (N/m2)		46.94	
Alpha	1.00	Stream Power (N/m s)		61.81	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.15	7.08	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.18	9.68	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 975 Profile: PF 3

E.G. Elev (m)	591.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	591.00	Reach Len. (m)	22.42	25.00	24.74
Crit W.S. (m)	590.59	Flow Area (m2)		7.53	
E.G. Slope (m/m)	0.006455	Area (m2)		7.53	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.13	Top Width (m)		8.13	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	133.7	Conv. (m3/s)		133.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	589.93	Shear (N/m2)		52.89	
Alpha	1.00	Stream Power (N/m s)		75.40	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.17	8.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.19	10.20	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 950 Profile: PF 1

E.G. Elev (m)	590.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.48	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.20	Flow Area (m2)		4.79	
E.G. Slope (m/m)	0.006484	Area (m2)		4.79	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.1	Conv. (m3/s)		68.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.02	
Min Ch El (m)	589.77	Shear (N/m2)		38.01	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 950 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		43.44	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.11	5.24	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.17	8.70	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 950 Profile: PF 2

E.G. Elev (m)	590.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.69	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.34	Flow Area (m2)		6.38	
E.G. Slope (m/m)	0.006503	Area (m2)		6.38	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.84	Top Width (m)		7.84	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	104.4	Conv. (m3/s)		104.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.61	
Min Ch El (m)	589.77	Shear (N/m2)		47.25	
Alpha	1.00	Stream Power (N/m s)		62.39	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.15	6.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.18	9.49	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 950 Profile: PF 3

E.G. Elev (m)	590.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	590.83	Reach Len. (m)	22.08	25.00	30.76
Crit W.S. (m)	590.44	Flow Area (m2)		7.51	
E.G. Slope (m/m)	0.006511	Area (m2)		7.51	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.13	Top Width (m)		8.13	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	133.1	Conv. (m3/s)		133.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.01	
Min Ch El (m)	589.77	Shear (N/m2)		53.24	
Alpha	1.00	Stream Power (N/m s)		76.12	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.17	8.11	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.19	10.00	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 925 Profile: PF 1

E.G. Elev (m)	590.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.32	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.04	Flow Area (m2)		4.75	
E.G. Slope (m/m)	0.006672	Area (m2)		4.75	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.42	Top Width (m)		7.42	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	67.1	Conv. (m3/s)		67.1	
Length Wtd. (m)	23.51	Wetted Per. (m)		8.00	
Min Ch El (m)	589.61	Shear (N/m2)		38.84	
Alpha	1.00	Stream Power (N/m s)		44.81	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.11	5.12	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.17	8.51	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 925 Profile: PF 2

E.G. Elev (m)	590.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.53	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.18	Flow Area (m2)		6.33	
E.G. Slope (m/m)	0.006645	Area (m2)		6.33	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.83	Top Width (m)		7.83	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	103.3	Conv. (m3/s)		103.3	
Length Wtd. (m)	23.51	Wetted Per. (m)		8.59	
Min Ch El (m)	589.61	Shear (N/m2)		48.03	
Alpha	1.00	Stream Power (N/m s)		63.89	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.15	6.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.18	9.29	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 925 Profile: PF 3

E.G. Elev (m)	590.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.050	
W.S. Elev (m)	590.67	Reach Len. (m)	22.03	25.00	27.98
Crit W.S. (m)	590.27	Flow Area (m2)		7.47	
E.G. Slope (m/m)	0.006630	Area (m2)		7.47	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.12	Top Width (m)		8.12	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)		1.44	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	131.9	Conv. (m3/s)		131.9	
Length Wtd. (m)	23.51	Wetted Per. (m)		8.99	
Min Ch El (m)	589.61	Shear (N/m2)		53.98	
Alpha	1.00	Stream Power (N/m s)		77.66	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.17	7.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.19	9.79	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 900 Profile: PF 1

E.G. Elev (m)	590.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.050		
W.S. Elev (m)	590.16	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	589.88	Flow Area (m2)	4.80		
E.G. Slope (m/m)	0.006482	Area (m2)	4.80		
Q Total (m3/s)	5.48	Flow (m3/s)	5.48		
Top Width (m)	7.43	Top Width (m)	7.43		
Vel Total (m/s)	1.14	Avg. Vel. (m/s)	1.14		
Max Chl Dpth (m)	0.79	Hydr. Depth (m)	0.65		
Conv. Total (m3/s)	68.1	Conv. (m3/s)	68.1		
Length Wtd. (m)	24.70	Wetted Per. (m)	8.02		
Min Ch El (m)	591.33	Shear (N/m2)	38.01		
Alpha	1.00	Stream Power (N/m s)	43.44		
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.06	5.06	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.09	8.42	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 900 Profile: PF 2

E.G. Elev (m)	590.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.050		
W.S. Elev (m)	590.37	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	590.01	Flow Area (m2)	6.38		
E.G. Slope (m/m)	0.006485	Area (m2)	6.38		
Q Total (m3/s)	8.42	Flow (m3/s)	8.42		

Plan: Plan 03 ArroyoArdoz Rio CL RS: 900 Profile: PF 2 (Continued)

Top Width (m)	7.84	Top Width (m)	7.84		
Vel Total (m/s)	1.32	Avg. Vel. (m/s)	1.32		
Max Chl Dpth (m)	1.00	Hydr. Depth (m)	0.81		
Conv. Total (m3/s)	104.6	Conv. (m3/s)	104.6		
Length Wtd. (m)	24.70	Wetted Per. (m)	8.61		
Min Ch El (m)	591.33	Shear (N/m2)	47.15		
Alpha	1.00	Stream Power (N/m s)	62.21		
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.08	6.68	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.10	9.19	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 900 Profile: PF 3

E.G. Elev (m)	590.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.050		
W.S. Elev (m)	590.51	Reach Len. (m)	24.39	25.00	26.03
Crit W.S. (m)	590.11	Flow Area (m2)	7.52		
E.G. Slope (m/m)	0.006486	Area (m2)	7.52		
Q Total (m3/s)	10.74	Flow (m3/s)	10.74		
Top Width (m)	8.13	Top Width (m)	8.13		
Vel Total (m/s)	1.43	Avg. Vel. (m/s)	1.43		
Max Chl Dpth (m)	1.14	Hydr. Depth (m)	0.93		
Conv. Total (m3/s)	133.4	Conv. (m3/s)	133.4		
Length Wtd. (m)	24.70	Wetted Per. (m)	9.01		
Min Ch El (m)	591.33	Shear (N/m2)	53.09		
Alpha	1.00	Stream Power (N/m s)	75.81		
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.09	7.83	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.10	9.69	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 875 Profile: PF 1

E.G. Elev (m)	590.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	590.00	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	589.72	Flow Area (m2)		4.80	
E.G. Slope (m/m)	0.006474	Area (m2)		4.80	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.1	Conv. (m3/s)		68.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.02	
Min Ch El (m)	589.29	Shear (N/m2)		37.97	
Alpha	1.00	Stream Power (N/m s)		43.38	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.33	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 875 Profile: PF 2

E.G. Elev (m)	590.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.21	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	589.86	Flow Area (m2)		6.38	
E.G. Slope (m/m)	0.006488	Area (m2)		6.38	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.84	Top Width (m)		7.84	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	104.5	Conv. (m3/s)		104.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.61	
Min Ch El (m)	589.29	Shear (N/m2)		47.17	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 875 Profile: PF 2 (Continued)

Alpha	1.00	Stream Power (N/m s)		62.24	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.60	
C & E Loss (m)	0.00	Cum SA (1000 m2)		9.09	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 875 Profile: PF 3

E.G. Elev (m)	590.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	590.35	Reach Len. (m)	24.43	25.00	24.88
Crit W.S. (m)	589.95	Flow Area (m2)		7.52	
E.G. Slope (m/m)	0.006491	Area (m2)		7.52	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.13	Top Width (m)		8.13	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	133.3	Conv. (m3/s)		133.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.01	
Min Ch El (m)	589.29	Shear (N/m2)		53.12	
Alpha	1.00	Stream Power (N/m s)		75.87	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		7.74	
C & E Loss (m)	0.00	Cum SA (1000 m2)		9.59	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 850 Profile: PF 1

E.G. Elev (m)	589.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.84	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	589.56	Flow Area (m2)		4.75	
E.G. Slope (m/m)	0.006651	Area (m2)		4.75	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.42	Top Width (m)		7.42	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	67.2	Conv. (m3/s)		67.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.00	
Min Ch El (m)	589.13	Shear (N/m2)		38.74	
Alpha	1.00	Stream Power (N/m s)		44.65	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.88	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.14	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 850 Profile: PF 2

E.G. Elev (m)	590.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	590.05	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	589.70	Flow Area (m2)		6.34	
E.G. Slope (m/m)	0.006610	Area (m2)		6.34	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.83	Top Width (m)		7.83	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	103.6	Conv. (m3/s)		103.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.59	
Min Ch El (m)	589.13	Shear (N/m2)		47.83	
Alpha	1.00	Stream Power (N/m s)		63.51	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.44	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.90	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 850 Profile: PF 3

E.G. Elev (m)	590.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.050	
W.S. Elev (m)	590.19	Reach Len. (m)	26.86	25.00	23.09
Crit W.S. (m)	589.79	Flow Area (m2)		7.48	
E.G. Slope (m/m)	0.006588	Area (m2)		7.48	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.12	Top Width (m)		8.12	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)		1.44	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	132.3	Conv. (m3/s)		132.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.00	
Min Ch El (m)	589.13	Shear (N/m2)		53.72	
Alpha	1.00	Stream Power (N/m s)		77.12	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		7.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		9.39	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 825 Profile: PF 1

E.G. Elev (m)	589.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.68	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	589.38	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006402	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.5	Conv. (m3/s)		68.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.96	Shear (N/m2)		37.66	
Alpha	1.00	Stream Power (N/m s)		42.86	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.96	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 825 Profile: PF 2

E.G. Elev (m)	589.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.89	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	589.53	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006401	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.96	Shear (N/m2)		46.69	
Alpha	1.00	Stream Power (N/m s)		61.33	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.70	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 825 Profile: PF 3

E.G. Elev (m)	590.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	590.03	Reach Len. (m)	25.26	25.00	24.73
Crit W.S. (m)	589.62	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006401	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 825 Profile: PF 3 (Continued)

Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.2	Conv. (m3/s)		134.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.96	Shear (N/m2)		52.56	
Alpha	1.00	Stream Power (N/m s)		74.72	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		7.36	
C & E Loss (m)	0.00	Cum SA (1000 m2)		9.19	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 800 Profile: PF 1

E.G. Elev (m)	589.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.52	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	589.23	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006402	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.5	Conv. (m3/s)		68.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.80	Shear (N/m2)		37.66	
Alpha	1.00	Stream Power (N/m s)		42.86	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.64	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.77	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 800 Profile: PF 2

E.G. Elev (m)	589.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.73	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	589.37	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006401	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.80	Shear (N/m2)		46.69	
Alpha	1.00	Stream Power (N/m s)		61.33	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.12	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.51	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 800 Profile: PF 3

E.G. Elev (m)	589.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.87	Reach Len. (m)	23.60	25.00	26.31
Crit W.S. (m)	589.46	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006401	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.2	Conv. (m3/s)		134.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.80	Shear (N/m2)		52.56	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 800 Profile: PF 3 (Continued)

Alpha	1.00	Stream Power (N/m s)		74.71	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		7.17	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.98	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 775 Profile: PF 1

E.G. Elev (m)	589.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.36	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	589.07	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006402	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.5	Conv. (m3/s)		68.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.64	Shear (N/m2)		37.66	
Alpha	1.00	Stream Power (N/m s)		42.86	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.52	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.59	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 775 Profile: PF 2

E.G. Elev (m)	589.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.57	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	589.21	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006401	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.64	Shear (N/m2)		46.69	
Alpha	1.00	Stream Power (N/m s)		61.33	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.96	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.31	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 775 Profile: PF 3

E.G. Elev (m)	589.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.71	Reach Len. (m)	24.19	25.00	25.81
Crit W.S. (m)	589.31	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006400	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.2	Conv. (m3/s)		134.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.64	Shear (N/m2)		52.55	
Alpha	1.00	Stream Power (N/m s)		74.70	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.98	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.78	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 750 Profile: PF 1

E.G. Elev (m)	589.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.20	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	588.91	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006406	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.5	Conv. (m3/s)		68.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.48	Shear (N/m2)		37.67	
Alpha	1.00	Stream Power (N/m s)		42.88	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.40	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 750 Profile: PF 2

E.G. Elev (m)	589.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.41	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	589.05	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006401	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.48	Shear (N/m2)		46.69	
Alpha	1.00	Stream Power (N/m s)		61.33	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.80	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.11	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 750 Profile: PF 3

E.G. Elev (m)	589.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.55	Reach Len. (m)	23.24	25.00	27.71
Crit W.S. (m)	589.15	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006399	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.3	Conv. (m3/s)		134.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.48	Shear (N/m2)		52.55	
Alpha	1.00	Stream Power (N/m s)		74.69	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.80	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.57	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 725 Profile: PF 1

E.G. Elev (m)	589.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	589.04	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	588.75	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006410	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 725 Profile: PF 1 (Continued)

Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.4	Conv. (m3/s)		68.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.32	Shear (N/m2)		37.69	
Alpha	1.00	Stream Power (N/m s)		42.91	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.21	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 725 Profile: PF 2

E.G. Elev (m)	589.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.25	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	588.89	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006402	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.32	Shear (N/m2)		46.70	
Alpha	1.00	Stream Power (N/m s)		61.34	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.64	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.92	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 725 Profile: PF 3

E.G. Elev (m)	589.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.39	Reach Len. (m)	25.07	25.00	23.83
Crit W.S. (m)	588.98	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006397	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.3	Conv. (m3/s)		134.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.32	Shear (N/m2)		52.54	
Alpha	1.00	Stream Power (N/m s)		74.67	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.61	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.37	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 700 Profile: PF 1

E.G. Elev (m)	588.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	588.88	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	588.59	Flow Area (m2)		4.81	
E.G. Slope (m/m)	0.006425	Area (m2)		4.81	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.4	Conv. (m3/s)		68.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.03	
Min Ch El (m)	588.16	Shear (N/m2)		37.75	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 700 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		43.02	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.03	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 700 Profile: PF 2

E.G. Elev (m)	589.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	589.09	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	588.73	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006405	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.16	Shear (N/m2)		46.71	
Alpha	1.00	Stream Power (N/m s)		61.37	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.48	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.72	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 700 Profile: PF 3

E.G. Elev (m)	589.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.23	Reach Len. (m)	24.30	25.00	24.69
Crit W.S. (m)	588.83	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006394	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.3	Conv. (m3/s)		134.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.02	
Min Ch El (m)	588.16	Shear (N/m2)		52.52	
Alpha	1.00	Stream Power (N/m s)		74.63	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.42	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.17	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 675 Profile: PF 1

E.G. Elev (m)	588.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	588.72	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	588.43	Flow Area (m2)		4.80	
E.G. Slope (m/m)	0.006450	Area (m2)		4.80	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.43	Top Width (m)		7.43	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	68.2	Conv. (m3/s)		68.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.02	
Min Ch El (m)	588.00	Shear (N/m2)		37.87	
Alpha	1.00	Stream Power (N/m s)		43.20	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		4.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.84	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 675 Profile: PF 2

E.G. Elev (m)	589.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	588.93	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	588.57	Flow Area (m2)		6.41	
E.G. Slope (m/m)	0.006408	Area (m2)		6.41	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.2	Conv. (m3/s)		105.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	588.00	Shear (N/m2)		46.73	
Alpha	1.00	Stream Power (N/m s)		61.40	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.32	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.52	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 675 Profile: PF 3

E.G. Elev (m)	589.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	589.07	Reach Len. (m)	27.04	25.00	23.82
Crit W.S. (m)	588.66	Flow Area (m2)		7.56	
E.G. Slope (m/m)	0.006387	Area (m2)		7.56	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.4	Conv. (m3/s)		134.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.03	
Min Ch El (m)	588.00	Shear (N/m2)		52.48	
Alpha	1.00	Stream Power (N/m s)		74.54	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		6.23	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.96	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 650 Profile: PF 1

E.G. Elev (m)	588.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	588.55	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	588.27	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.006552	Area (m2)		4.78	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.42	Top Width (m)		7.42	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	67.7	Conv. (m3/s)		67.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.01	
Min Ch El (m)	587.84	Shear (N/m2)		38.31	
Alpha	1.00	Stream Power (N/m s)		43.94	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		3.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.66	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 650 Profile: PF 2

E.G. Elev (m)	588.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	588.76	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	588.41	Flow Area (m2)		6.40	
E.G. Slope (m/m)	0.006418	Area (m2)		6.40	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 650 Profile: PF 2 (Continued)

Top Width (m)	7.85	Top Width (m)		7.85	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	105.1	Conv. (m3/s)		105.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.62	
Min Ch El (m)	587.84	Shear (N/m2)		46.78	
Alpha	1.00	Stream Power (N/m s)		61.50	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		5.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.33	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 650 Profile: PF 3

E.G. Elev (m)	589.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	588.91	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	588.50	Flow Area (m2)		7.57	
E.G. Slope (m/m)	0.006373	Area (m2)		7.57	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	134.5	Conv. (m3/s)		134.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.03	
Min Ch El (m)	587.84	Shear (N/m2)		52.39	
Alpha	1.00	Stream Power (N/m s)		74.36	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		6.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.76	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 625 Profile: PF 1

E.G. Elev (m)	588.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.40	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	588.10	Flow Area (m2)		4.88	
E.G. Slope (m/m)	0.006135	Area (m2)		4.88	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.45	Top Width (m)		7.45	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	70.0	Conv. (m3/s)		70.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.05	
Min Ch El (m)	587.67	Shear (N/m2)		36.48	
Alpha	1.00	Stream Power (N/m s)		40.94	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		3.80	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.47	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 625 Profile: PF 2

E.G. Elev (m)	588.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	588.61	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	588.24	Flow Area (m2)		6.54	
E.G. Slope (m/m)	0.006034	Area (m2)		6.54	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.88	Top Width (m)		7.88	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	108.4	Conv. (m3/s)		108.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.66	
Min Ch El (m)	587.67	Shear (N/m2)		44.66	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 625 Profile: PF 2 (Continued)

Alpha	1.00	Stream Power (N/m s)		57.51	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		5.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.13	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 625 Profile: PF 3

E.G. Elev (m)	588.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	588.76	Reach Len. (m)	28.00	25.00	25.45
Crit W.S. (m)	588.34	Flow Area (m2)		7.71	
E.G. Slope (m/m)	0.006024	Area (m2)		7.71	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.18	Top Width (m)		8.18	
Vel Total (m/s)	1.39	Avg. Vel. (m/s)		1.39	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	138.4	Conv. (m3/s)		138.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.08	
Min Ch El (m)	587.67	Shear (N/m2)		50.19	
Alpha	1.00	Stream Power (N/m s)		69.90	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		5.85	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.56	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 600 Profile: PF 1

E.G. Elev (m)	588.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.25	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	587.94	Flow Area (m2)		4.99	
E.G. Slope (m/m)	0.005759	Area (m2)		4.99	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.48	Top Width (m)		7.48	
Vel Total (m/s)	1.10	Avg. Vel. (m/s)		1.10	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	72.2	Conv. (m3/s)		72.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.09	
Min Ch El (m)	587.51	Shear (N/m2)		34.80	
Alpha	1.00	Stream Power (N/m s)		38.24	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		3.67	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.28	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 600 Profile: PF 2

E.G. Elev (m)	588.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	588.47	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	588.08	Flow Area (m2)		6.66	
E.G. Slope (m/m)	0.005711	Area (m2)		6.66	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.91	Top Width (m)		7.91	
Vel Total (m/s)	1.26	Avg. Vel. (m/s)		1.26	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	111.4	Conv. (m3/s)		111.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.71	
Min Ch El (m)	587.51	Shear (N/m2)		42.84	
Alpha	1.00	Stream Power (N/m s)		54.16	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)		4.83	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.93	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 600 Profile: PF 3

E.G. Elev (m)	588.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	588.61	Reach Len. (m)	23.06	25.00	23.27
Crit W.S. (m)	588.17	Flow Area (m2)		7.84	
E.G. Slope (m/m)	0.005749	Area (m2)		7.84	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.21	Top Width (m)		8.21	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.95	
Conv. Total (m3/s)	141.6	Conv. (m3/s)		141.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.12	
Min Ch El (m)	587.51	Shear (N/m2)		48.44	
Alpha	1.00	Stream Power (N/m s)		66.39	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)		5.65	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.35	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 575 Profile: PF 1

E.G. Elev (m)	588.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.12	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	587.78	Flow Area (m2)		5.20	
E.G. Slope (m/m)	0.005073	Area (m2)		5.20	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.54	Top Width (m)		7.54	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	76.9	Conv. (m3/s)		76.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.17	
Min Ch El (m)	587.35	Shear (N/m2)		31.65	
Alpha	1.00	Stream Power (N/m s)		33.36	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		3.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.10	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 575 Profile: PF 2

E.G. Elev (m)	588.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	588.33	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	587.92	Flow Area (m2)		6.88	
E.G. Slope (m/m)	0.005189	Area (m2)		6.88	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	7.97	Top Width (m)		7.97	
Vel Total (m/s)	1.22	Avg. Vel. (m/s)		1.22	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.86	
Conv. Total (m3/s)	116.9	Conv. (m3/s)		116.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.79	
Min Ch El (m)	587.35	Shear (N/m2)		39.85	
Alpha	1.00	Stream Power (N/m s)		48.77	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		4.66	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 575 Profile: PF 3

E.G. Elev (m)	588.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	588.48	Reach Len. (m)	25.98	25.00	23.66
Crit W.S. (m)	588.01	Flow Area (m2)		8.04	
E.G. Slope (m/m)	0.005326	Area (m2)		8.04	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 575 Profile: PF 3 (Continued)

Top Width (m)	8.26	Top Width (m)		8.26	
Vel Total (m/s)	1.34	Avg. Vel. (m/s)		1.34	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	147.2	Conv. (m3/s)		147.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.19	
Min Ch El (m)	587.35	Shear (N/m2)		45.70	
Alpha	1.00	Stream Power (N/m s)		61.03	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		5.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)		7.15	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 550 Profile: PF 1

E.G. Elev (m)	588.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	588.01	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	587.62	Flow Area (m2)		5.60	
E.G. Slope (m/m)	0.004067	Area (m2)		5.60	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.64	Top Width (m)		7.64	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	85.9	Conv. (m3/s)		85.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.32	
Min Ch El (m)	587.19	Shear (N/m2)		26.83	
Alpha	1.00	Stream Power (N/m s)		26.27	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		3.41	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.91	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 550 Profile: PF 2

E.G. Elev (m)	588.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	588.22	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	587.76	Flow Area (m2)		7.24	
E.G. Slope (m/m)	0.004459	Area (m2)		7.24	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.06	Top Width (m)		8.06	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	126.1	Conv. (m3/s)		126.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.91	
Min Ch El (m)	587.19	Shear (N/m2)		35.53	
Alpha	1.00	Stream Power (N/m s)		41.31	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		4.49	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.53	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 550 Profile: PF 3

E.G. Elev (m)	588.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	588.36	Reach Len. (m)	27.15	25.00	23.12
Crit W.S. (m)	587.85	Flow Area (m2)		8.37	
E.G. Slope (m/m)	0.004738	Area (m2)		8.37	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.34	Top Width (m)		8.34	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)		1.28	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	156.0	Conv. (m3/s)		156.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.30	
Min Ch El (m)	587.19	Shear (N/m2)		41.81	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 550 Profile: PF 3 (Continued)

Alpha	1.00	Stream Power (N/m s)		53.65	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		5.25	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.94	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 525 Profile: PF 1

E.G. Elev (m)	587.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	587.93	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	587.46	Flow Area (m2)		6.21	
E.G. Slope (m/m)	0.002977	Area (m2)		6.21	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.80	Top Width (m)		7.80	
Vel Total (m/s)	0.88	Avg. Vel. (m/s)		0.88	
Max Chl Dpth (m)	0.90	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	100.4	Conv. (m3/s)		100.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.55	
Min Ch El (m)	587.03	Shear (N/m2)		21.22	
Alpha	1.00	Stream Power (N/m s)		18.72	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		3.26	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.71	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 525 Profile: PF 2

E.G. Elev (m)	588.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.13	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	587.60	Flow Area (m2)		7.78	
E.G. Slope (m/m)	0.003612	Area (m2)		7.78	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.19	Top Width (m)		8.19	
Vel Total (m/s)	1.08	Avg. Vel. (m/s)		1.08	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.95	
Conv. Total (m3/s)	140.1	Conv. (m3/s)		140.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.10	
Min Ch El (m)	587.03	Shear (N/m2)		30.27	
Alpha	1.00	Stream Power (N/m s)		32.77	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		4.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.33	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 525 Profile: PF 3

E.G. Elev (m)	588.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	588.25	Reach Len. (m)	25.48	25.00	24.52
Crit W.S. (m)	587.69	Flow Area (m2)		8.85	
E.G. Slope (m/m)	0.004031	Area (m2)		8.85	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.45	Top Width (m)		8.45	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		1.05	
Conv. Total (m3/s)	169.2	Conv. (m3/s)		169.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.46	
Min Ch El (m)	587.03	Shear (N/m2)		36.95	
Alpha	1.00	Stream Power (N/m s)		44.86	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		5.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.73	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 500 Profile: PF 1

E.G. Elev (m)	587.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.88	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.30	Flow Area (m2)		7.05	
E.G. Slope (m/m)	0.002042	Area (m2)		7.05	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.01	Top Width (m)		8.01	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	121.3	Conv. (m3/s)		121.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.85	
Min Ch El (m)	586.87	Shear (N/m2)		15.96	
Alpha	1.00	Stream Power (N/m s)		12.40	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		3.10	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.52	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 500 Profile: PF 2

E.G. Elev (m)	588.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	588.05	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.44	Flow Area (m2)		8.52	
E.G. Slope (m/m)	0.002765	Area (m2)		8.52	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.37	Top Width (m)		8.37	
Vel Total (m/s)	0.99	Avg. Vel. (m/s)		0.99	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		1.02	
Conv. Total (m3/s)	160.1	Conv. (m3/s)		160.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.35	
Min Ch El (m)	586.87	Shear (N/m2)		24.70	
Alpha	1.00	Stream Power (N/m s)		24.41	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		4.09	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.12	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 500 Profile: PF 3

E.G. Elev (m)	588.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	588.17	Reach Len. (m)	25.24	25.00	24.76
Crit W.S. (m)	587.53	Flow Area (m2)		9.51	
E.G. Slope (m/m)	0.003265	Area (m2)		9.51	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	8.60	Top Width (m)		8.60	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.13	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)		1.11	
Conv. Total (m3/s)	187.9	Conv. (m3/s)		187.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.68	
Min Ch El (m)	586.87	Shear (N/m2)		31.45	
Alpha	1.00	Stream Power (N/m s)		35.51	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		4.81	
C & E Loss (m)	0.01	Cum SA (1000 m2)		6.52	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 475 Profile: PF 1

E.G. Elev (m)	587.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	587.84	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.18	Flow Area (m2)		8.57	
E.G. Slope (m/m)	0.001380	Area (m2)		8.57	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 475 Profile: PF 1 (Continued)

Top Width (m)	10.26	Top Width (m)		10.26	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)		0.64	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	147.5	Conv. (m3/s)		147.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.73	
Min Ch El (m)	586.71	Shear (N/m2)		10.81	
Alpha	1.00	Stream Power (N/m s)		6.91	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		2.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.29	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 475 Profile: PF 2

E.G. Elev (m)	588.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	588.01	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.31	Flow Area (m2)		10.36	
E.G. Slope (m/m)	0.001917	Area (m2)		10.36	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	11.04	Top Width (m)		11.04	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	192.3	Conv. (m3/s)		192.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.58	
Min Ch El (m)	586.71	Shear (N/m2)		16.82	
Alpha	1.00	Stream Power (N/m s)		13.67	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		3.86	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.88	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 475 Profile: PF 3

E.G. Elev (m)	588.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	588.12	Reach Len. (m)	25.35	25.00	24.65
Crit W.S. (m)	587.41	Flow Area (m2)		11.60	
E.G. Slope (m/m)	0.002277	Area (m2)		11.60	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.55	Top Width (m)		11.55	
Vel Total (m/s)	0.93	Avg. Vel. (m/s)		0.93	
Max Chl Dpth (m)	1.41	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	225.1	Conv. (m3/s)		225.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.13	
Min Ch El (m)	586.71	Shear (N/m2)		21.35	
Alpha	1.00	Stream Power (N/m s)		19.77	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		4.54	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.26	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 450 Profile: PF 1

E.G. Elev (m)	587.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	587.76	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.53	Flow Area (m2)		6.09	
E.G. Slope (m/m)	0.005767	Area (m2)		6.09	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.15	Top Width (m)		13.15	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	72.2	Conv. (m3/s)		72.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.35	
Min Ch El (m)	587.12	Shear (N/m2)		25.80	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 450 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		23.22	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		2.72	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.00	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 450 Profile: PF 2

E.G. Elev (m)	587.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	587.91	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.63	Flow Area (m2)		8.19	
E.G. Slope (m/m)	0.005553	Area (m2)		8.19	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	14.03	Top Width (m)		14.03	
Vel Total (m/s)	1.03	Avg. Vel. (m/s)		1.03	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	113.0	Conv. (m3/s)		113.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.28	
Min Ch El (m)	587.12	Shear (N/m2)		31.22	
Alpha	1.00	Stream Power (N/m s)		32.12	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		3.63	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.57	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 450 Profile: PF 3

E.G. Elev (m)	588.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	588.01	Reach Len. (m)	24.78	25.00	25.22
Crit W.S. (m)	587.70	Flow Area (m2)		9.65	
E.G. Slope (m/m)	0.005520	Area (m2)		9.65	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	14.61	Top Width (m)		14.61	
Vel Total (m/s)	1.11	Avg. Vel. (m/s)		1.11	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	144.6	Conv. (m3/s)		144.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.89	
Min Ch El (m)	587.12	Shear (N/m2)		35.08	
Alpha	1.00	Stream Power (N/m s)		39.04	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		4.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		5.94	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 425 Profile: PF 1

E.G. Elev (m)	587.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	587.50	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.36	Flow Area (m2)		4.31	
E.G. Slope (m/m)	0.013339	Area (m2)		4.31	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.36	Top Width (m)		10.36	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)		1.27	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	47.4	Conv. (m3/s)		47.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.55	
Min Ch El (m)	586.74	Shear (N/m2)		53.45	
Alpha	1.00	Stream Power (N/m s)		67.97	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		2.59	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.70	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 425 Profile: PF 2

E.G. Elev (m)	587.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	587.69	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.49	Flow Area (m2)		6.43	
E.G. Slope (m/m)	0.010701	Area (m2)		6.43	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.53	Top Width (m)		12.53	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	81.4	Conv. (m3/s)		81.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.76	
Min Ch El (m)	586.74	Shear (N/m2)		52.86	
Alpha	1.00	Stream Power (N/m s)		69.23	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		3.44	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.24	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 425 Profile: PF 3

E.G. Elev (m)	587.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.050	
W.S. Elev (m)	587.80	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.57	Flow Area (m2)		7.97	
E.G. Slope (m/m)	0.009270	Area (m2)		7.97	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.33	Top Width (m)		13.33	
Vel Total (m/s)	1.35	Avg. Vel. (m/s)		1.35	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	111.5	Conv. (m3/s)		111.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.61	
Min Ch El (m)	586.74	Shear (N/m2)		53.24	
Alpha	1.00	Stream Power (N/m s)		71.76	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		4.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.59	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 400 Profile: PF 1

E.G. Elev (m)	587.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	587.37	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.01	Flow Area (m2)		6.44	
E.G. Slope (m/m)	0.003700	Area (m2)		6.44	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.77	Top Width (m)		10.77	
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		0.85	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	90.1	Conv. (m3/s)		90.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.02	
Min Ch El (m)	586.54	Shear (N/m2)		21.22	
Alpha	1.00	Stream Power (N/m s)		18.05	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		2.46	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.44	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 400 Profile: PF 2

E.G. Elev (m)	587.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	587.56	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.13	Flow Area (m2)		8.55	
E.G. Slope (m/m)	0.003926	Area (m2)		8.55	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 400 Profile: PF 2 (Continued)

Top Width (m)	11.97	Top Width (m)		11.97	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	134.4	Conv. (m3/s)		134.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.28	
Min Ch El (m)	586.54	Shear (N/m2)		26.81	
Alpha	1.00	Stream Power (N/m s)		26.39	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		3.26	
C & E Loss (m)	0.01	Cum SA (1000 m2)		4.93	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 400 Profile: PF 3

E.G. Elev (m)	587.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	587.68	Reach Len. (m)	25.00	25.00	25.00
Crit W.S. (m)	587.22	Flow Area (m2)		10.06	
E.G. Slope (m/m)	0.004042	Area (m2)		10.06	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	12.73	Top Width (m)		12.73	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	168.9	Conv. (m3/s)		168.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.08	
Min Ch El (m)	586.54	Shear (N/m2)		30.48	
Alpha	1.00	Stream Power (N/m s)		32.54	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		3.83	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.26	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 375 Profile: PF 1

E.G. Elev (m)	587.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	587.33	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	586.86	Flow Area (m2)		8.96	
E.G. Slope (m/m)	0.001677	Area (m2)		8.96	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.59	Top Width (m)		13.59	
Vel Total (m/s)	0.61	Avg. Vel. (m/s)		0.61	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	133.8	Conv. (m3/s)		133.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.87	
Min Ch El (m)	586.39	Shear (N/m2)		10.62	
Alpha	1.00	Stream Power (N/m s)		6.50	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		2.26	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.13	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 375 Profile: PF 2

E.G. Elev (m)	587.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.51	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	586.97	Flow Area (m2)		11.52	
E.G. Slope (m/m)	0.001872	Area (m2)		11.52	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	14.49	Top Width (m)		14.49	
Vel Total (m/s)	0.73	Avg. Vel. (m/s)		0.73	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	194.6	Conv. (m3/s)		194.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.85	
Min Ch El (m)	586.39	Shear (N/m2)		14.25	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 375 Profile: PF 2 (Continued)

Alpha	1.00	Stream Power (N/m s)		10.41	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		3.01	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.60	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 375 Profile: PF 3

E.G. Elev (m)	587.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	587.63	Reach Len. (m)	25.05	25.00	24.95
Crit W.S. (m)	587.03	Flow Area (m2)		13.31	
E.G. Slope (m/m)	0.001993	Area (m2)		13.31	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	15.09	Top Width (m)		15.09	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	240.6	Conv. (m3/s)		240.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.49	
Min Ch El (m)	586.39	Shear (N/m2)		16.79	
Alpha	1.00	Stream Power (N/m s)		13.55	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		3.54	
C & E Loss (m)	0.02	Cum SA (1000 m2)		4.91	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 350 Profile: PF 1

E.G. Elev (m)	587.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.050	
W.S. Elev (m)	587.03	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.03	Flow Area (m2)		2.85	
E.G. Slope (m/m)	0.035050	Area (m2)		2.85	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	7.63	Top Width (m)		7.63	
Vel Total (m/s)	1.92	Avg. Vel. (m/s)		1.92	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	29.3	Conv. (m3/s)		29.3	
Length Wtd. (m)	75.00	Wetted Per. (m)		7.76	
Min Ch El (m)	586.50	Shear (N/m2)		126.34	
Alpha	1.00	Stream Power (N/m s)		242.72	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		2.12	
C & E Loss (m)	0.05	Cum SA (1000 m2)		3.87	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 350 Profile: PF 2

E.G. Elev (m)	587.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.050	
W.S. Elev (m)	587.16	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.16	Flow Area (m2)		3.96	
E.G. Slope (m/m)	0.032189	Area (m2)		3.96	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	8.52	Top Width (m)		8.52	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	46.9	Conv. (m3/s)		46.9	
Length Wtd. (m)	75.00	Wetted Per. (m)		8.69	
Min Ch El (m)	586.50	Shear (N/m2)		143.86	
Alpha	1.00	Stream Power (N/m s)		305.72	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		2.81	
C & E Loss (m)	0.06	Cum SA (1000 m2)		4.31	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 350 Profile: PF 3

E.G. Elev (m)	587.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.050	
W.S. Elev (m)	587.26	Reach Len. (m)	72.13	75.00	78.38
Crit W.S. (m)	587.26	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.030761	Area (m2)		4.78	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	9.13	Top Width (m)		9.13	
Vel Total (m/s)	2.25	Avg. Vel. (m/s)		2.25	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	61.2	Conv. (m3/s)		61.2	
Length Wtd. (m)	75.00	Wetted Per. (m)		9.32	
Min Ch El (m)	586.50	Shear (N/m2)		154.65	
Alpha	1.00	Stream Power (N/m s)		347.50	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		3.31	
C & E Loss (m)	0.07	Cum SA (1000 m2)		4.61	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 275 Profile: PF 1

E.G. Elev (m)	586.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.64	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.11	Flow Area (m2)		9.61	
E.G. Slope (m/m)	0.001368	Area (m2)		9.61	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	13.96	Top Width (m)		13.96	
Vel Total (m/s)	0.57	Avg. Vel. (m/s)		0.57	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	148.2	Conv. (m3/s)		148.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.22	
Min Ch El (m)	585.62	Shear (N/m2)		9.07	
Alpha	1.00	Stream Power (N/m s)		5.17	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		1.65	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.06	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 275 Profile: PF 2

E.G. Elev (m)	586.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.84	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.21	Flow Area (m2)		12.53	
E.G. Slope (m/m)	0.001504	Area (m2)		12.53	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	15.23	Top Width (m)		15.23	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)		0.67	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	217.1	Conv. (m3/s)		217.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.55	
Min Ch El (m)	585.62	Shear (N/m2)		11.89	
Alpha	1.00	Stream Power (N/m s)		7.99	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		2.19	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.42	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 275 Profile: PF 3

E.G. Elev (m)	587.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	586.97	Reach Len. (m)	23.99	25.00	25.14
Crit W.S. (m)	586.29	Flow Area (m2)		14.58	
E.G. Slope (m/m)	0.001590	Area (m2)		14.58	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 275 Profile: PF 3 (Continued)

Top Width (m)	16.06	Top Width (m)		16.06	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	269.4	Conv. (m3/s)		269.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		16.42	
Min Ch El (m)	585.62	Shear (N/m2)		13.84	
Alpha	1.00	Stream Power (N/m s)		10.20	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		2.59	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.67	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 250 Profile: PF 1

E.G. Elev (m)	586.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	586.53	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.25	Flow Area (m2)		5.35	
E.G. Slope (m/m)	0.006002	Area (m2)		5.35	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.73	Top Width (m)		9.73	
Vel Total (m/s)	1.02	Avg. Vel. (m/s)		1.02	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	70.7	Conv. (m3/s)		70.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.96	
Min Ch El (m)	585.62	Shear (N/m2)		31.62	
Alpha	1.00	Stream Power (N/m s)		32.38	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		1.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.76	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 250 Profile: PF 2

E.G. Elev (m)	586.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.72	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.39	Flow Area (m2)		7.31	
E.G. Slope (m/m)	0.006039	Area (m2)		7.31	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	11.18	Top Width (m)		11.18	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	108.3	Conv. (m3/s)		108.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.45	
Min Ch El (m)	585.62	Shear (N/m2)		37.79	
Alpha	1.00	Stream Power (N/m s)		43.53	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		1.95	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.09	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 250 Profile: PF 3

E.G. Elev (m)	586.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	586.84	Reach Len. (m)	24.72	25.00	25.28
Crit W.S. (m)	586.48	Flow Area (m2)		8.74	
E.G. Slope (m/m)	0.006034	Area (m2)		8.74	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	12.13	Top Width (m)		12.13	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	138.3	Conv. (m3/s)		138.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.44	
Min Ch El (m)	585.62	Shear (N/m2)		41.60	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 250 Profile: PF 3 (Continued)

Alpha	1.00	Stream Power (N/m s)		51.10	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		2.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.32	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 225 Profile: PF 1

E.G. Elev (m)	586.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	586.37	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.11	Flow Area (m2)		5.14	
E.G. Slope (m/m)	0.006779	Area (m2)		5.14	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.66	Top Width (m)		9.66	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	66.6	Conv. (m3/s)		66.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.86	
Min Ch El (m)	585.49	Shear (N/m2)		34.64	
Alpha	1.00	Stream Power (N/m s)		36.94	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.52	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 225 Profile: PF 2

E.G. Elev (m)	586.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.56	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.25	Flow Area (m2)		7.12	
E.G. Slope (m/m)	0.006432	Area (m2)		7.12	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.97	Top Width (m)		10.97	
Vel Total (m/s)	1.18	Avg. Vel. (m/s)		1.18	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	105.0	Conv. (m3/s)		105.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.23	
Min Ch El (m)	585.49	Shear (N/m2)		39.97	
Alpha	1.00	Stream Power (N/m s)		47.29	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.77	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.81	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 225 Profile: PF 3

E.G. Elev (m)	586.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.050	
W.S. Elev (m)	586.69	Reach Len. (m)	24.62	25.00	25.37
Crit W.S. (m)	586.34	Flow Area (m2)		8.53	
E.G. Slope (m/m)	0.006325	Area (m2)		8.53	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.83	Top Width (m)		11.83	
Vel Total (m/s)	1.26	Avg. Vel. (m/s)		1.26	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	135.0	Conv. (m3/s)		135.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.13	
Min Ch El (m)	585.49	Shear (N/m2)		43.65	
Alpha	1.00	Stream Power (N/m s)		54.94	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		2.08	
C & E Loss (m)	0.01	Cum SA (1000 m2)		3.02	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 200 Profile: PF 1

E.G. Elev (m)	586.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	586.31	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	585.78	Flow Area (m2)		8.04	
E.G. Slope (m/m)	0.001946	Area (m2)		8.04	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	11.58	Top Width (m)		11.58	
Vel Total (m/s)	0.68	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	1.16	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	124.2	Conv. (m3/s)		124.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.85	
Min Ch El (m)	585.15	Shear (N/m2)		12.95	
Alpha	1.00	Stream Power (N/m s)		8.82	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.17	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.25	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 200 Profile: PF 2

E.G. Elev (m)	586.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	586.50	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	585.92	Flow Area (m2)		10.32	
E.G. Slope (m/m)	0.002312	Area (m2)		10.32	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.86	Top Width (m)		12.86	
Vel Total (m/s)	0.82	Avg. Vel. (m/s)		0.82	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	175.1	Conv. (m3/s)		175.1	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.19	
Min Ch El (m)	585.15	Shear (N/m2)		17.73	
Alpha	1.00	Stream Power (N/m s)		14.47	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.52	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 200 Profile: PF 3

E.G. Elev (m)	586.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	586.62	Reach Len. (m)	24.83	25.00	25.17
Crit W.S. (m)	586.01	Flow Area (m2)		11.93	
E.G. Slope (m/m)	0.002526	Area (m2)		11.93	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.70	Top Width (m)		13.70	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	213.7	Conv. (m3/s)		213.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.07	
Min Ch El (m)	585.15	Shear (N/m2)		21.00	
Alpha	1.00	Stream Power (N/m s)		18.91	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		1.82	
C & E Loss (m)	0.00	Cum SA (1000 m2)		2.70	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 175 Profile: PF 1

E.G. Elev (m)	586.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	586.20	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	585.93	Flow Area (m2)		5.50	
E.G. Slope (m/m)	0.006145	Area (m2)		5.50	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 175 Profile: PF 1 (Continued)

Top Width (m)	10.69	Top Width (m)		10.69	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)		1.00	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	69.9	Conv. (m3/s)		69.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.86	
Min Ch El (m)	585.46	Shear (N/m2)		30.53	
Alpha	1.00	Stream Power (N/m s)		30.42	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.98	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 175 Profile: PF 2

E.G. Elev (m)	586.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	586.37	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	586.06	Flow Area (m2)		7.46	
E.G. Slope (m/m)	0.006238	Area (m2)		7.46	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.16	Top Width (m)		12.16	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.13	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	106.6	Conv. (m3/s)		106.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.37	
Min Ch El (m)	585.46	Shear (N/m2)		36.92	
Alpha	1.00	Stream Power (N/m s)		41.65	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.20	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 175 Profile: PF 3

E.G. Elev (m)	586.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.49	Reach Len. (m)	24.50	25.00	25.49
Crit W.S. (m)	586.15	Flow Area (m2)		8.91	
E.G. Slope (m/m)	0.006256	Area (m2)		8.91	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.16	Top Width (m)		13.16	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	135.8	Conv. (m3/s)		135.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.39	
Min Ch El (m)	585.46	Shear (N/m2)		40.82	
Alpha	1.00	Stream Power (N/m s)		49.21	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		1.56	
C & E Loss (m)	0.01	Cum SA (1000 m2)		2.36	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 150 Profile: PF 1

E.G. Elev (m)	586.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.050	
W.S. Elev (m)	585.91	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	585.79	Flow Area (m2)		3.77	
E.G. Slope (m/m)	0.015641	Area (m2)		3.77	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	8.32	Top Width (m)		8.32	
Vel Total (m/s)	1.45	Avg. Vel. (m/s)		1.45	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	43.8	Conv. (m3/s)		43.8	
Length Wtd. (m)	25.00	Wetted Per. (m)		8.51	
Min Ch El (m)	585.04	Shear (N/m2)		67.94	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 150 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		98.75	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.88	
C & E Loss (m)	0.02	Cum SA (1000 m2)		1.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 150 Profile: PF 2

E.G. Elev (m)	586.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	586.07	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	585.93	Flow Area (m2)		5.25	
E.G. Slope (m/m)	0.014658	Area (m2)		5.25	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	9.49	Top Width (m)		9.49	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		1.61	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	69.5	Conv. (m3/s)		69.5	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.72	
Min Ch El (m)	585.04	Shear (N/m2)		77.58	
Alpha	1.00	Stream Power (N/m s)		124.52	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		1.17	
C & E Loss (m)	0.02	Cum SA (1000 m2)		1.93	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 150 Profile: PF 3

E.G. Elev (m)	586.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.050	
W.S. Elev (m)	586.18	Reach Len. (m)	24.91	25.00	25.09
Crit W.S. (m)	586.02	Flow Area (m2)		6.35	
E.G. Slope (m/m)	0.014052	Area (m2)		6.35	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	10.27	Top Width (m)		10.27	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	90.6	Conv. (m3/s)		90.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.53	
Min Ch El (m)	585.04	Shear (N/m2)		83.05	
Alpha	1.00	Stream Power (N/m s)		140.48	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		1.37	
C & E Loss (m)	0.02	Cum SA (1000 m2)		2.07	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 125 Profile: PF 1

E.G. Elev (m)	585.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	585.73	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.46	Flow Area (m2)		5.73	
E.G. Slope (m/m)	0.005448	Area (m2)		5.73	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	10.81	Top Width (m)		10.81	
Vel Total (m/s)	0.96	Avg. Vel. (m/s)		0.96	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	74.2	Conv. (m3/s)		74.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.98	
Min Ch El (m)	584.84	Shear (N/m2)		27.86	
Alpha	1.00	Stream Power (N/m s)		26.65	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.76	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.50	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 125 Profile: PF 2

E.G. Elev (m)	585.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	585.91	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.58	Flow Area (m2)		7.79	
E.G. Slope (m/m)	0.005390	Area (m2)		7.79	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.10	Top Width (m)		12.10	
Vel Total (m/s)	1.08	Avg. Vel. (m/s)		1.08	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	114.7	Conv. (m3/s)		114.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.33	
Min Ch El (m)	584.84	Shear (N/m2)		33.39	
Alpha	1.00	Stream Power (N/m s)		36.10	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		1.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.66	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 125 Profile: PF 3

E.G. Elev (m)	586.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	586.03	Reach Len. (m)	25.62	25.00	24.38
Crit W.S. (m)	585.66	Flow Area (m2)		9.27	
E.G. Slope (m/m)	0.005415	Area (m2)		9.27	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.03	Top Width (m)		13.03	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	146.0	Conv. (m3/s)		146.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.29	
Min Ch El (m)	584.84	Shear (N/m2)		37.06	
Alpha	1.00	Stream Power (N/m s)		42.91	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		1.18	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.78	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 100 Profile: PF 1

E.G. Elev (m)	585.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.050	
W.S. Elev (m)	585.69	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.18	Flow Area (m2)		9.31	
E.G. Slope (m/m)	0.001555	Area (m2)		9.31	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	14.22	Top Width (m)		14.22	
Vel Total (m/s)	0.59	Avg. Vel. (m/s)		0.59	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	139.0	Conv. (m3/s)		139.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		14.42	
Min Ch El (m)	584.69	Shear (N/m2)		9.84	
Alpha	1.00	Stream Power (N/m s)		5.79	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		0.57	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.19	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 100 Profile: PF 2

E.G. Elev (m)	585.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	585.86	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.29	Flow Area (m2)		11.94	
E.G. Slope (m/m)	0.001801	Area (m2)		11.94	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 100 Profile: PF 2 (Continued)

Top Width (m)	15.53	Top Width (m)		15.53	
Vel Total (m/s)	0.71	Avg. Vel. (m/s)		0.71	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	198.4	Conv. (m3/s)		198.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		15.78	
Min Ch El (m)	584.69	Shear (N/m2)		13.37	
Alpha	1.00	Stream Power (N/m s)		9.43	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.32	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 100 Profile: PF 3

E.G. Elev (m)	586.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	585.98	Reach Len. (m)	25.43	25.00	24.57
Crit W.S. (m)	585.37	Flow Area (m2)		13.81	
E.G. Slope (m/m)	0.001938	Area (m2)		13.81	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	16.36	Top Width (m)		16.36	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	244.0	Conv. (m3/s)		244.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		16.64	
Min Ch El (m)	584.69	Shear (N/m2)		15.77	
Alpha	1.00	Stream Power (N/m s)		12.26	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		0.89	
C & E Loss (m)	0.00	Cum SA (1000 m2)		1.41	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 75 Profile: PF 1

E.G. Elev (m)	585.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	585.60	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.31	Flow Area (m2)		6.01	
E.G. Slope (m/m)	0.005079	Area (m2)		6.01	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	11.56	Top Width (m)		11.56	
Vel Total (m/s)	0.91	Avg. Vel. (m/s)		0.91	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	76.9	Conv. (m3/s)		76.9	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.73	
Min Ch El (m)	584.77	Shear (N/m2)		25.51	
Alpha	1.00	Stream Power (N/m s)		23.28	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.38	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.86	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 75 Profile: PF 2

E.G. Elev (m)	585.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.050	
W.S. Elev (m)	585.76	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.43	Flow Area (m2)		7.98	
E.G. Slope (m/m)	0.005329	Area (m2)		7.98	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	12.79	Top Width (m)		12.79	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	115.3	Conv. (m3/s)		115.3	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.99	
Min Ch El (m)	584.77	Shear (N/m2)		32.10	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 75 Profile: PF 2 (Continued)

Alpha	1.00	Stream Power (N/m s)		33.86	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.51	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.96	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 75 Profile: PF 3

E.G. Elev (m)	585.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	585.87	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.51	Flow Area (m2)		9.42	
E.G. Slope (m/m)	0.005433	Area (m2)		9.42	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	13.61	Top Width (m)		13.61	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	145.7	Conv. (m3/s)		145.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		13.85	
Min Ch El (m)	584.77	Shear (N/m2)		36.24	
Alpha	1.00	Stream Power (N/m s)		41.33	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)		1.03	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 50 Profile: PF 1

E.G. Elev (m)	585.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	585.33	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.21	Flow Area (m2)		4.00	
E.G. Slope (m/m)	0.015055	Area (m2)		4.00	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.42	Top Width (m)		9.42	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	44.7	Conv. (m3/s)		44.7	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.57	
Min Ch El (m)	584.53	Shear (N/m2)		61.66	
Alpha	1.00	Stream Power (N/m s)		84.55	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		0.26	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.60	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 50 Profile: PF 2

E.G. Elev (m)	585.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.050	
W.S. Elev (m)	585.49	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.34	Flow Area (m2)		5.58	
E.G. Slope (m/m)	0.014084	Area (m2)		5.58	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.82	Top Width (m)		10.82	
Vel Total (m/s)	1.51	Avg. Vel. (m/s)		1.51	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	71.0	Conv. (m3/s)		71.0	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.99	
Min Ch El (m)	584.53	Shear (N/m2)		70.06	
Alpha	1.00	Stream Power (N/m s)		105.77	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		0.34	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.67	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 50 Profile: PF 3

E.G. Elev (m)	585.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	585.59	Reach Len. (m)	25.44	25.00	24.56
Crit W.S. (m)	585.43	Flow Area (m2)		6.77	
E.G. Slope (m/m)	0.013745	Area (m2)		6.77	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	11.95	Top Width (m)		11.95	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)		1.59	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	91.6	Conv. (m3/s)		91.6	
Length Wtd. (m)	25.00	Wetted Per. (m)		12.15	
Min Ch El (m)	584.53	Shear (N/m2)		75.07	
Alpha	1.00	Stream Power (N/m s)		119.15	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.72	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 25 Profile: PF 1

E.G. Elev (m)	585.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.050	
W.S. Elev (m)	585.07	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	584.87	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.008581	Area (m2)		4.78	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	9.64	Top Width (m)		9.64	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	59.2	Conv. (m3/s)		59.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		9.82	
Min Ch El (m)	584.36	Shear (N/m2)		40.95	
Alpha	1.00	Stream Power (N/m s)		46.95	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.15	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.36	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 25 Profile: PF 2

E.G. Elev (m)	585.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.050	
W.S. Elev (m)	585.20	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	584.99	Flow Area (m2)		6.00	
E.G. Slope (m/m)	0.010688	Area (m2)		6.00	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	10.51	Top Width (m)		10.51	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	81.4	Conv. (m3/s)		81.4	
Length Wtd. (m)	25.00	Wetted Per. (m)		10.73	
Min Ch El (m)	584.36	Shear (N/m2)		58.61	
Alpha	1.00	Stream Power (N/m s)		82.26	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.40	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 25 Profile: PF 3

E.G. Elev (m)	585.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.050	
W.S. Elev (m)	585.27	Reach Len. (m)	26.82	25.00	22.72
Crit W.S. (m)	585.08	Flow Area (m2)		6.83	
E.G. Slope (m/m)	0.012210	Area (m2)		6.83	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 25 Profile: PF 3 (Continued)

Top Width (m)	11.12	Top Width (m)		11.12	
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.57	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	97.2	Conv. (m3/s)		97.2	
Length Wtd. (m)	25.00	Wetted Per. (m)		11.36	
Min Ch El (m)	584.36	Shear (N/m2)		71.94	
Alpha	1.00	Stream Power (N/m s)		113.20	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.43	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 0 Profile: PF 1

E.G. Elev (m)	584.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.050	
W.S. Elev (m)	584.92	Reach Len. (m)			
Crit W.S. (m)	584.73	Flow Area (m2)		7.00	
E.G. Slope (m/m)	0.006002	Area (m2)		7.00	
Q Total (m3/s)	5.48	Flow (m3/s)		5.48	
Top Width (m)	19.43	Top Width (m)		19.43	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	70.7	Conv. (m3/s)		70.7	
Length Wtd. (m)		Wetted Per. (m)		19.51	
Min Ch El (m)	584.35	Shear (N/m2)		21.12	
Alpha	1.00	Stream Power (N/m s)		16.53	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoArdoz Rio CL RS: 0 Profile: PF 2

E.G. Elev (m)	585.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.050	
W.S. Elev (m)	585.04	Reach Len. (m)			
Crit W.S. (m)	584.82	Flow Area (m2)		9.47	
E.G. Slope (m/m)	0.006004	Area (m2)		9.47	
Q Total (m3/s)	8.42	Flow (m3/s)		8.42	
Top Width (m)	21.67	Top Width (m)		21.67	
Vel Total (m/s)	0.89	Avg. Vel. (m/s)		0.89	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	108.7	Conv. (m3/s)		108.7	
Length Wtd. (m)		Wetted Per. (m)		21.77	
Min Ch El (m)	584.35	Shear (N/m2)		25.60	
Alpha	1.00	Stream Power (N/m s)		22.77	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoArdoz Rio CL RS: 0 Profile: PF 3

E.G. Elev (m)	585.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.050	
W.S. Elev (m)	585.12	Reach Len. (m)			
Crit W.S. (m)	584.87	Flow Area (m2)		11.22	
E.G. Slope (m/m)	0.006001	Area (m2)		11.22	
Q Total (m3/s)	10.74	Flow (m3/s)		10.74	
Top Width (m)	23.01	Top Width (m)		23.01	
Vel Total (m/s)	0.96	Avg. Vel. (m/s)		0.96	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	138.6	Conv. (m3/s)		138.6	
Length Wtd. (m)		Wetted Per. (m)		23.12	
Min Ch El (m)	584.35	Shear (N/m2)		28.57	

Plan: Plan 03 ArroyoArdoz Rio CL RS: 0 Profile: PF 3 (Continued)

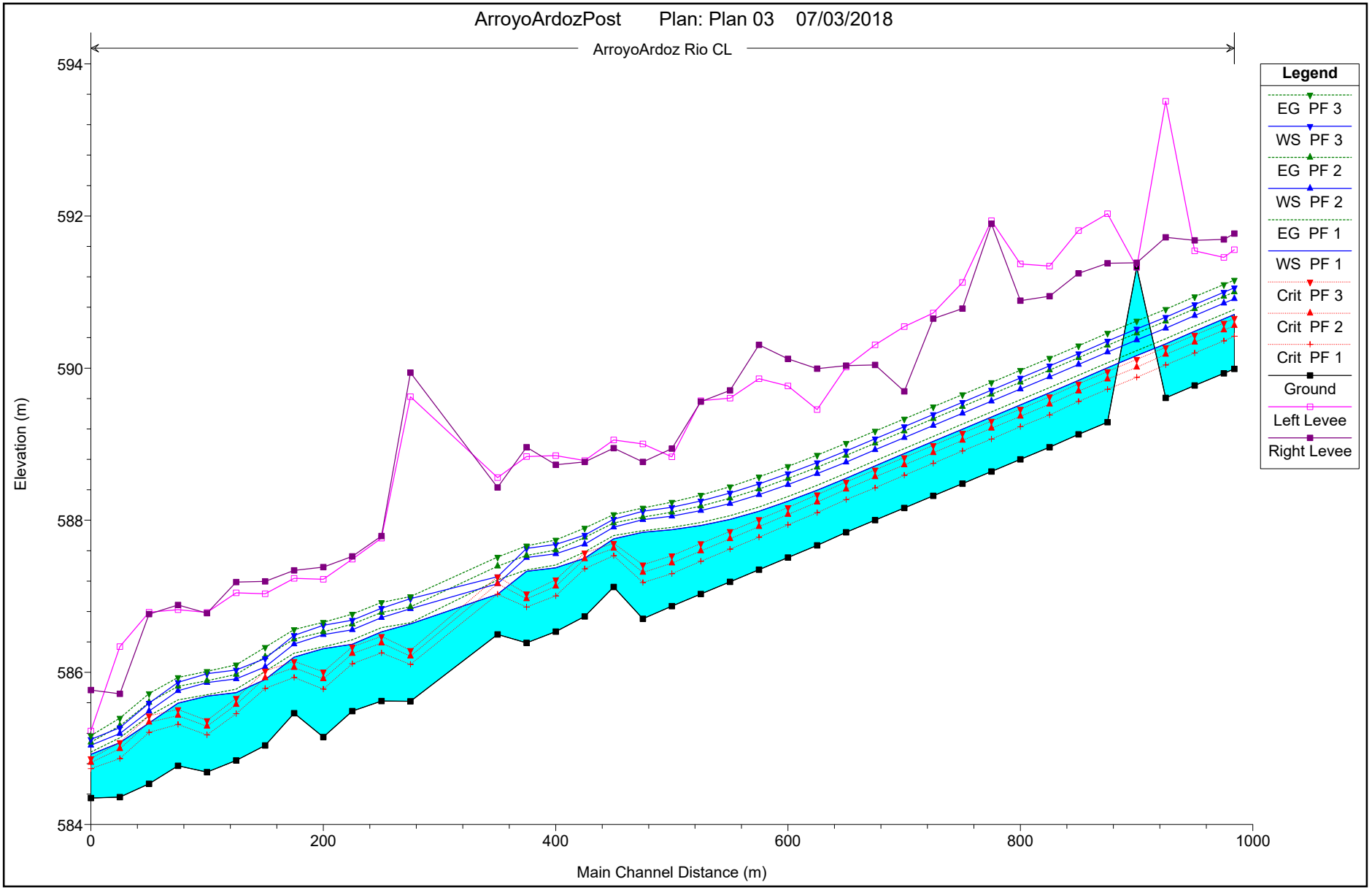
Alpha	1.00	Stream Power (N/m s)		27.34	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

HEC-RAS Plan: Plan 03 River: ArroyoArdoz Reach: Rio CL

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Rio CL	984.11	PF 1	5.48	589.99	590.70	590.42	590.77	0.006475	1.14	4.80	7.43	0.45
Rio CL	984.11	PF 2	8.42	589.99	590.91	590.56	591.00	0.006478	1.32	6.38	7.84	0.47
Rio CL	984.11	PF 3	10.74	589.99	591.06	590.66	591.16	0.006481	1.43	7.52	8.13	0.47
Rio CL	975	PF 1	5.48	589.93	590.65	590.36	590.71	0.006431	1.14	4.81	7.43	0.45
Rio CL	975	PF 2	8.42	589.93	590.85	590.50	590.94	0.006447	1.32	6.39	7.85	0.47
Rio CL	975	PF 3	10.74	589.93	591.00	590.59	591.10	0.006455	1.43	7.53	8.13	0.47
Rio CL	950	PF 1	5.48	589.77	590.48	590.20	590.55	0.006484	1.14	4.79	7.43	0.45
Rio CL	950	PF 2	8.42	589.77	590.69	590.34	590.78	0.006503	1.32	6.38	7.84	0.47
Rio CL	950	PF 3	10.74	589.77	590.83	590.44	590.94	0.006511	1.43	7.51	8.13	0.47
Rio CL	925	PF 1	5.48	589.61	590.32	590.04	590.39	0.006672	1.15	4.75	7.42	0.46
Rio CL	925	PF 2	8.42	589.61	590.53	590.18	590.62	0.006645	1.33	6.33	7.83	0.47
Rio CL	925	PF 3	10.74	589.61	590.67	590.27	590.77	0.006630	1.44	7.47	8.12	0.48
Rio CL	900	PF 1	5.48	591.33	590.16	589.88	590.23	0.006482		4.80	7.43	0.00
Rio CL	900	PF 2	8.42	591.33	590.37	590.01	590.46	0.006485		6.38	7.84	0.00
Rio CL	900	PF 3	10.74	591.33	590.51	590.11	590.62	0.006486		7.52	8.13	0.00
Rio CL	875	PF 1	5.48	589.29	590.00	589.72	590.07	0.006474	1.14	4.80	7.43	0.45
Rio CL	875	PF 2	8.42	589.29	590.21	589.86	590.30	0.006488	1.32	6.38	7.84	0.47
Rio CL	875	PF 3	10.74	589.29	590.35	589.95	590.46	0.006491	1.43	7.52	8.13	0.47
Rio CL	850	PF 1	5.48	589.13	589.84	589.56	589.91	0.006651	1.15	4.75	7.42	0.46
Rio CL	850	PF 2	8.42	589.13	590.05	589.70	590.14	0.006610	1.33	6.34	7.83	0.47
Rio CL	850	PF 3	10.74	589.13	590.19	589.79	590.29	0.006588	1.44	7.48	8.12	0.48
Rio CL	825	PF 1	5.48	588.96	589.68	589.38	589.74	0.006402	1.14	4.81	7.43	0.45
Rio CL	825	PF 2	8.42	588.96	589.89	589.53	589.97	0.006401	1.31	6.41	7.85	0.46
Rio CL	825	PF 3	10.74	588.96	590.03	589.62	590.13	0.006401	1.42	7.56	8.14	0.47
Rio CL	800	PF 1	5.48	588.80	589.52	589.23	589.58	0.006402	1.14	4.81	7.43	0.45
Rio CL	800	PF 2	8.42	588.80	589.73	589.37	589.81	0.006401	1.31	6.41	7.85	0.46
Rio CL	800	PF 3	10.74	588.80	589.87	589.46	589.97	0.006401	1.42	7.56	8.14	0.47
Rio CL	775	PF 1	5.48	588.64	589.36	589.07	589.42	0.006402	1.14	4.81	7.43	0.45
Rio CL	775	PF 2	8.42	588.64	589.57	589.21	589.65	0.006401	1.31	6.41	7.85	0.46
Rio CL	775	PF 3	10.74	588.64	589.71	589.31	589.81	0.006400	1.42	7.56	8.14	0.47
Rio CL	750	PF 1	5.48	588.48	589.20	588.91	589.26	0.006406	1.14	4.81	7.43	0.45
Rio CL	750	PF 2	8.42	588.48	589.41	589.05	589.49	0.006401	1.31	6.41	7.85	0.46
Rio CL	750	PF 3	10.74	588.48	589.55	589.15	589.65	0.006399	1.42	7.56	8.14	0.47
Rio CL	725	PF 1	5.48	588.32	589.04	588.75	589.10	0.006410	1.14	4.81	7.43	0.45
Rio CL	725	PF 2	8.42	588.32	589.25	588.89	589.33	0.006402	1.31	6.41	7.85	0.46
Rio CL	725	PF 3	10.74	588.32	589.39	588.98	589.49	0.006397	1.42	7.56	8.14	0.47
Rio CL	700	PF 1	5.48	588.16	588.88	588.59	588.94	0.006425	1.14	4.81	7.43	0.45
Rio CL	700	PF 2	8.42	588.16	589.09	588.73	589.17	0.006405	1.31	6.41	7.85	0.46
Rio CL	700	PF 3	10.74	588.16	589.23	588.83	589.33	0.006394	1.42	7.56	8.14	0.47
Rio CL	675	PF 1	5.48	588.00	588.72	588.43	588.78	0.006450	1.14	4.80	7.43	0.45
Rio CL	675	PF 2	8.42	588.00	588.93	588.57	589.01	0.006408	1.31	6.41	7.85	0.46
Rio CL	675	PF 3	10.74	588.00	589.07	588.66	589.17	0.006387	1.42	7.56	8.14	0.47
Rio CL	650	PF 1	5.48	587.84	588.55	588.27	588.62	0.006552	1.15	4.78	7.42	0.46
Rio CL	650	PF 2	8.42	587.84	588.76	588.41	588.85	0.006418	1.31	6.40	7.85	0.46
Rio CL	650	PF 3	10.74	587.84	588.91	588.50	589.01	0.006373	1.42	7.57	8.14	0.47
Rio CL	625	PF 1	5.48	587.67	588.40	588.10	588.46	0.006135	1.12	4.88	7.45	0.44
Rio CL	625	PF 2	8.42	587.67	588.61	588.24	588.70	0.006034	1.29	6.54	7.88	0.45
Rio CL	625	PF 3	10.74	587.67	588.76	588.34	588.86	0.006024	1.39	7.71	8.18	0.46
Rio CL	600	PF 1	5.48	587.51	588.25	587.94	588.31	0.005759	1.10	4.99	7.48	0.43
Rio CL	600	PF 2	8.42	587.51	588.47	588.08	588.55	0.005711	1.26	6.66	7.91	0.44
Rio CL	600	PF 3	10.74	587.51	588.61	588.17	588.71	0.005749	1.37	7.84	8.21	0.45
Rio CL	575	PF 1	5.48	587.35	588.12	587.78	588.17	0.005073	1.05	5.20	7.54	0.41
Rio CL	575	PF 2	8.42	587.35	588.33	587.92	588.41	0.005189	1.22	6.88	7.97	0.42
Rio CL	575	PF 3	10.74	587.35	588.48	588.01	588.57	0.005326	1.34	8.04	8.26	0.43
Rio CL	550	PF 1	5.48	587.19	588.01	587.62	588.06	0.004067	0.98	5.60	7.64	0.37
Rio CL	550	PF 2	8.42	587.19	588.22	587.76	588.29	0.004459	1.16	7.24	8.06	0.39
Rio CL	550	PF 3	10.74	587.19	588.36	587.85	588.44	0.004738	1.28	8.37	8.34	0.41
Rio CL	525	PF 1	5.48	587.03	587.93	587.46	587.97	0.002977	0.88	6.21	7.80	0.32
Rio CL	525	PF 2	8.42	587.03	588.13	587.60	588.19	0.003612	1.08	7.78	8.19	0.35
Rio CL	525	PF 3	10.74	587.03	588.25	587.69	588.33	0.004031	1.21	8.85	8.45	0.38
Rio CL	500	PF 1	5.48	586.87	587.88	587.30	587.91	0.002042	0.78	7.05	8.01	0.26
Rio CL	500	PF 2	8.42	586.87	588.05	587.44	588.10	0.002765	0.99	8.52	8.37	0.31
Rio CL	500	PF 3	10.74	586.87	588.17	587.53	588.24	0.003265	1.13	9.51	8.60	0.34

HEC-RAS Plan: Plan 03 River: ArroyoArdoz Reach: Rio CL (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Rio CL	475	PF 1	5.48	586.71	587.84	587.18	587.86	0.001380	0.64	8.57	10.26	0.22
Rio CL	475	PF 2	8.42	586.71	588.01	587.31	588.04	0.001917	0.81	10.36	11.04	0.27
Rio CL	475	PF 3	10.74	586.71	588.12	587.41	588.16	0.002277	0.93	11.60	11.55	0.30
Rio CL	450	PF 1	5.48	587.12	587.76	587.53	587.80	0.005767	0.90	6.09	13.15	0.42
Rio CL	450	PF 2	8.42	587.12	587.91	587.63	587.96	0.005553	1.03	8.19	14.03	0.43
Rio CL	450	PF 3	10.74	587.12	588.01	587.70	588.08	0.005520	1.11	9.65	14.61	0.44
Rio CL	425	PF 1	5.48	586.74	587.50	587.36	587.58	0.013339	1.27	4.31	10.36	0.63
Rio CL	425	PF 2	8.42	586.74	587.69	587.49	587.77	0.010701	1.31	6.43	12.53	0.58
Rio CL	425	PF 3	10.74	586.74	587.80	587.57	587.90	0.009270	1.35	7.97	13.33	0.56
Rio CL	400	PF 1	5.48	586.54	587.37	587.01	587.41	0.003700	0.85	6.44	10.77	0.35
Rio CL	400	PF 2	8.42	586.54	587.56	587.13	587.61	0.003926	0.98	8.55	11.97	0.37
Rio CL	400	PF 3	10.74	586.54	587.68	587.22	587.74	0.004042	1.07	10.06	12.73	0.38
Rio CL	375	PF 1	5.48	586.39	587.33	586.86	587.35	0.001677	0.61	8.96	13.59	0.24
Rio CL	375	PF 2	8.42	586.39	587.51	586.97	587.54	0.001872	0.73	11.52	14.49	0.26
Rio CL	375	PF 3	10.74	586.39	587.63	587.03	587.66	0.001993	0.81	13.31	15.09	0.27
Rio CL	350	PF 1	5.48	586.50	587.03	587.03	587.22	0.035050	1.92	2.85	7.63	1.00
Rio CL	350	PF 2	8.42	586.50	587.16	587.16	587.39	0.032189	2.13	3.96	8.52	1.00
Rio CL	350	PF 3	10.74	586.50	587.26	587.26	587.51	0.030761	2.25	4.78	9.13	0.99
Rio CL	275	PF 1	5.48	585.62	586.64	586.11	586.65	0.001368	0.57	9.61	13.96	0.22
Rio CL	275	PF 2	8.42	585.62	586.84	586.21	586.86	0.001504	0.67	12.53	15.23	0.24
Rio CL	275	PF 3	10.74	585.62	586.97	586.29	587.00	0.001590	0.74	14.58	16.06	0.25
Rio CL	250	PF 1	5.48	585.62	586.53	586.25	586.59	0.006002	1.02	5.35	9.73	0.44
Rio CL	250	PF 2	8.42	585.62	586.72	586.39	586.79	0.006039	1.15	7.31	11.18	0.45
Rio CL	250	PF 3	10.74	585.62	586.84	586.48	586.92	0.006034	1.23	8.74	12.13	0.46
Rio CL	225	PF 1	5.48	585.49	586.37	586.11	586.43	0.006779	1.07	5.14	9.66	0.47
Rio CL	225	PF 2	8.42	585.49	586.56	586.25	586.63	0.006432	1.18	7.12	10.97	0.47
Rio CL	225	PF 3	10.74	585.49	586.69	586.34	586.77	0.006325	1.26	8.53	11.83	0.47
Rio CL	200	PF 1	5.48	585.15	586.31	585.78	586.33	0.001946	0.68	8.04	11.58	0.26
Rio CL	200	PF 2	8.42	585.15	586.50	585.92	586.53	0.002312	0.82	10.32	12.86	0.29
Rio CL	200	PF 3	10.74	585.15	586.62	586.01	586.66	0.002526	0.90	11.93	13.70	0.31
Rio CL	175	PF 1	5.48	585.46	586.20	585.93	586.25	0.006145	1.00	5.50	10.69	0.44
Rio CL	175	PF 2	8.42	585.46	586.37	586.06	586.44	0.006238	1.13	7.46	12.16	0.46
Rio CL	175	PF 3	10.74	585.46	586.49	586.15	586.56	0.006256	1.21	8.91	13.16	0.47
Rio CL	150	PF 1	5.48	585.04	585.91	585.79	586.01	0.015641	1.45	3.77	8.32	0.69
Rio CL	150	PF 2	8.42	585.04	586.07	585.93	586.20	0.014658	1.61	5.25	9.49	0.69
Rio CL	150	PF 3	10.74	585.04	586.18	586.02	586.33	0.014052	1.69	6.35	10.27	0.69
Rio CL	125	PF 1	5.48	584.84	585.73	585.46	585.78	0.005448	0.96	5.73	10.81	0.42
Rio CL	125	PF 2	8.42	584.84	585.91	585.58	585.97	0.005390	1.08	7.79	12.10	0.43
Rio CL	125	PF 3	10.74	584.84	586.03	585.66	586.10	0.005415	1.16	9.27	13.03	0.44
Rio CL	100	PF 1	5.48	584.69	585.69	585.18	585.71	0.001555	0.59	9.31	14.22	0.23
Rio CL	100	PF 2	8.42	584.69	585.86	585.29	585.89	0.001801	0.71	11.94	15.53	0.26
Rio CL	100	PF 3	10.74	584.69	585.98	585.37	586.01	0.001938	0.78	13.81	16.36	0.27
Rio CL	75	PF 1	5.48	584.77	585.60	585.31	585.64	0.005079	0.91	6.01	11.56	0.40
Rio CL	75	PF 2	8.42	584.77	585.76	585.43	585.81	0.005329	1.05	7.98	12.79	0.43
Rio CL	75	PF 3	10.74	584.77	585.87	585.51	585.93	0.005433	1.14	9.42	13.61	0.44
Rio CL	50	PF 1	5.48	584.53	585.33	585.21	585.43	0.015055	1.37	4.00	9.42	0.67
Rio CL	50	PF 2	8.42	584.53	585.49	585.34	585.61	0.014084	1.51	5.58	10.82	0.67
Rio CL	50	PF 3	10.74	584.53	585.59	585.43	585.72	0.013745	1.59	6.77	11.95	0.67
Rio CL	25	PF 1	5.48	584.36	585.07	584.87	585.14	0.008581	1.15	4.78	9.64	0.52
Rio CL	25	PF 2	8.42	584.36	585.20	584.99	585.30	0.010688	1.40	6.00	10.51	0.59
Rio CL	25	PF 3	10.74	584.36	585.27	585.08	585.40	0.012210	1.57	6.83	11.12	0.64
Rio CL	0	PF 1	5.48	584.35	584.92	584.73	584.95	0.006002	0.78	7.00	19.43	0.42
Rio CL	0	PF 2	8.42	584.35	585.04	584.82	585.08	0.006004	0.89	9.47	21.67	0.43
Rio CL	0	PF 3	10.74	584.35	585.12	584.87	585.17	0.006001	0.96	11.22	23.01	0.44


ArroyoArdozPost Plan: Plan 03 07/03/2018
ArroyoArdoz Rio CL
Elevation (m)
Main Channel Distance (m)
594
592
590
588
586
584
0
200
400
600
800
1000
Legend
EG PF 3
WS PF 3
EG PF 2
WS PF 2
EG PF 1
WS PF 1
Crit PF 3
Crit PF 2
Crit PF 1
Ground
Left Levee
Right Levee

PLANOS

ESTUDIO HIDROMETEOLÓGICO E HIDROGRÁFICO

Promotor:	CARLOTTA IBERIA S.L
Fecha:	MARZO 2018
Ingeniero:	Eduardo Sendín Moreno

Listado de plano

645_EH_01 Situación pre-operacional. Dominio Público Hidráulicos y Zonas de Servidumbre y Policía

645_EH_02 Situación pre-operacional. Zonas inundables. Periodo de retorno de 10 años

645_EH_03 Situación pre-operacional. Zonas inundables. Periodo de retorno de 100 años

645_EH_04 Situación pre-operacional. Zonas inundables. Periodo de retorno de 500 años

645_EH_05 Situación post-operacional. Dominio Público Hidráulicos y Zonas de Servidumbre y Policía

645_EH_06 Situación post-operacional. Zonas inundables. Periodo de retorno de 10 años

645_EH_07 Situación post-operacional. Zonas inundables. Periodo de retorno de 100 años

645_EH_08 Situación post-operacional. Zonas inundables. Periodo de retorno de 500 años

645_EH_09 Situación post-operacional. Movimientos de tierra

645_EH_10 Situación post-operacional. Perfil longitudinal y sección típica

645_EH_11 Situación post-operacional. Secciones transversales (1 de 2)

645_EH_11 Situación post-operacional. Secciones transversales (2 de 2)

C&S CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 T 915 797 322 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL. ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDÍN MORENO

ESTUDIO HIDROLOGICO

Situación pre-operacional
Dominio Público Hidráulico
Zonas de Servidumbre y Policía

DIN A1 – A3	ES	ES	MAR 18
FORMATO	DIBUJADO	REVISADO	FECHA

1: 2000 1: 4000	645	EH	01	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018

CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 T 915 797 322 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDÍN MORENO

ESTUDIO HIDROLOGICO

Situación pre-operacional
Zonas inundables
Período de retorno de 10 años

DIN A1 - A3	ES	ES	MAR 18
FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA

1: 2000 1: 4000	645	EH	02	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018

CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 T 915 797 322 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDÍN MORENO

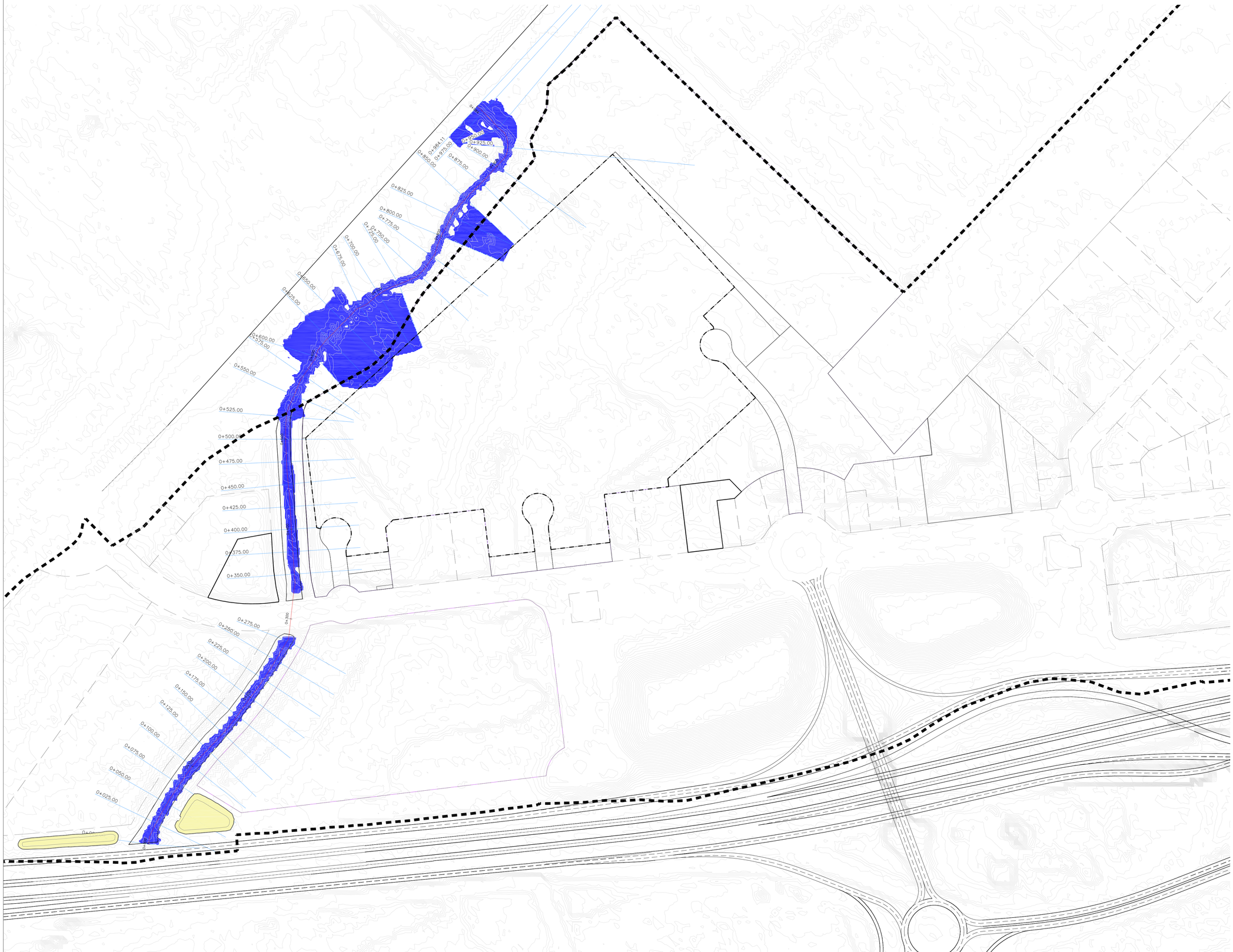
ESTUDIO HIDROLOGICO

Situación pre-operacional
Zonas inundables
Periodo de retorno de 100 años

DIN A1 - A3	ES	ES	MAR 18
FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA

1: 2000 1: 4000	645	EH	03	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018



CABEZA SASTRE
Félix Boix, 7, 2º 28036 Madrid
T 915 797 252 · T 915 797 222 estudio@cabezasastre.es

PROYECTO:
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG,EQ,AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDÍN MORENO

ESTUDIO HIDROLOGICO

Situación pre-operacional
Zonas inundables
Período de retorno de 500 años

DIN A1 - A3	ES	ES	MAR 18
FORMATO	DIBUJADO	REVISADO	FECHA

1: 2000 1: 4000	645	EH	04	0
ESCALA	CÓDIGO	SERIE	PLANO Nº	REVISIÓN

MARZO 2018

Leyenda:

- Avenida T10
- Flujo Preferente
- Avenida T500
- Zona de policía
- Zona de servidumbre

CABEZA SASTRE

PROYECTO
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

Situación post-operacional
Dominio Público Hidráulico
Zonas de Servidumbre y Policía

FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA
DIN A1 – A3		ES	ES	MAR 18

ESCALA	CODIGO	SERIE	PLANO Nº	REVISION
1:2000 1:4000	645	EH	05	0

MARZO 2018

CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 T 915 797 322 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

Situación post-operacional
Zonas inundables
Período de retorno 10 años

DIN A1 – A3	ES	ES	MAR 18
FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA

1: 2000 1: 4000	645	EH	06	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018

CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 T 915 797 322 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

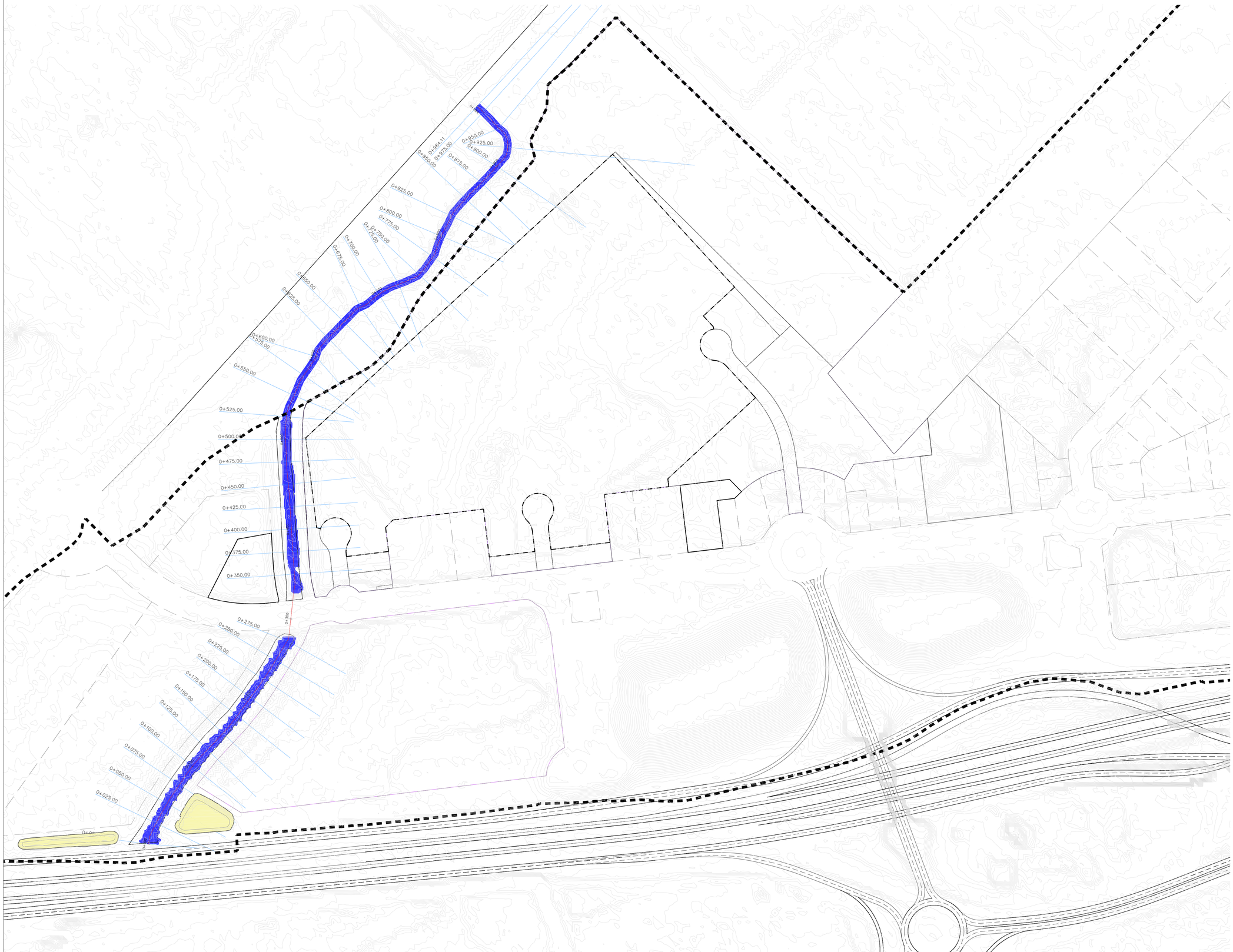
ESTUDIO HIDROLOGICO

Situación post-operacional
Zonas inundables
Período de retorno 100 años

FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA
DIN A1 – A3		ES	ES	MAR 18

ESCALA	CODIGO	SERIE	PLANO Nº	REVISION
1: 2000 1: 4000	645	EH	07	0

MARZO 2018



CABEZA SASTRE G&S
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 · F 915 797 222 estudio@cabezasastre.es

PROYECTO:
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG,EQ,AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

Situación post-operacional
Zonas inundables
Período de retorno 500 años

FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA
DIN A1 - A3		ES	ES	MAR 18

ESCALA	CODIGO	SERIE	PLANO Nº	REVISIÓN
1: 2000 1: 4000	645	EH	08	0

MARZO 2018

G&S CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 232 F 915 797 222 estudio@cabezasastre.es

PROYECTO
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1./RL.ING.VG.2./RL.INF.VG.3./RL.VA1./RG.ZV.2
RL.ZV.MOD.1./RL.ZV.MPD.2./RL.ZV.MOD.3./RL.ZV.MOD.4./RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

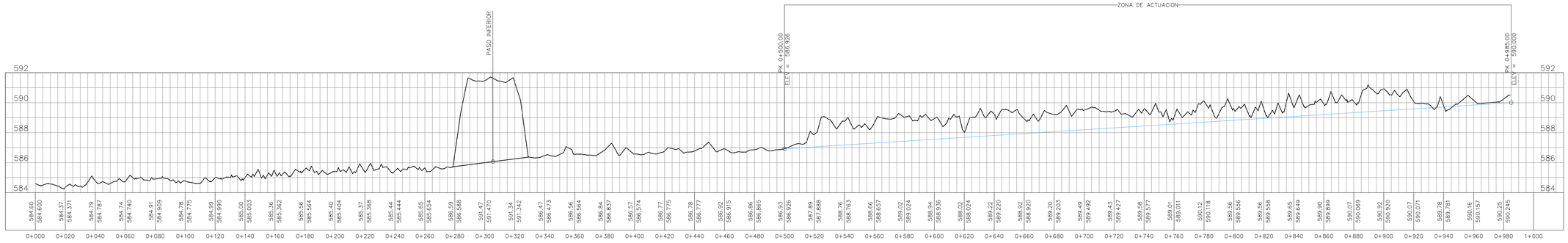
ESTUDIO HIDROLOGICO

Situación post-operacional
Movimientos de tierra
Planta

DIN A1 – A3	ES	ES	MAR 18
FORMATO	DIBUJADO	REVISADO	FECHA

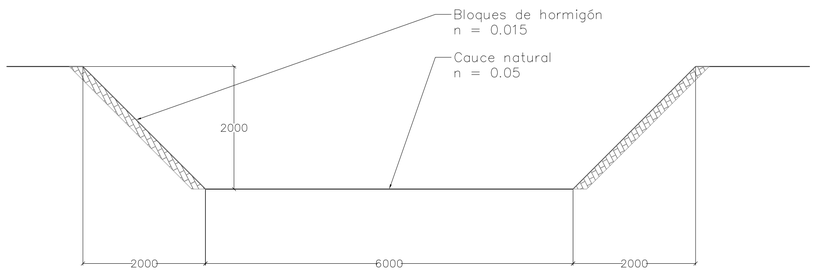
1: 2000 1: 4000	645	EH	09	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018



Arroyo Ardoz CL PERFIL LONGITUDINAL

Movimientos de tierra						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
0+500.00	2.94	0.92	36.71	11.48	36.71	11.48
0+525.00	0.00	18.23	36.74	238.98	73.45	250.47
0+550.00	0.05	11.28	0.64	367.28	74.09	617.75
0+575.00	0.00	15.80	0.59	338.62	74.68	956.37
0+600.00	0.00	14.52	0.01	379.01	74.69	1335.38
0+625.00	3.07	11.60	42.29	322.13	116.98	1657.51
0+650.00	1.33	13.68	54.96	315.94	171.94	1973.45
0+675.00	0.23	11.83	20.90	315.14	192.84	2288.59
0+700.00	2.53	10.41	34.75	278.79	227.59	2567.38
0+725.00	0.34	13.12	35.29	295.54	262.89	2862.92
0+750.00	0.21	17.11	7.05	349.74	269.94	3212.66
0+775.00	2.37	14.76	30.89	390.79	300.82	3603.45
0+800.00	3.59	11.76	75.40	329.53	376.22	3932.98
0+825.00	5.16	7.15	107.90	236.47	484.12	4169.44
0+850.00	4.57	10.32	118.11	223.88	602.23	4393.33
0+875.00	0.43	40.06	62.69	635.92	664.92	5029.24
0+900.00	2.59	16.71	37.57	698.56	702.49	5727.80
0+925.00	0.91	11.11	36.99	270.47	739.48	5998.28
0+950.00	2.73	9.16	18.60	112.76	758.08	6111.04
0+975.00	2.27	7.24	64.15	210.57	822.23	6321.61
0+984.11	3.40	4.44	25.83	53.22	848.06	6374.83



SECCION TIPICA

CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 232 F 915 797 222 estudio@cabezasastre.es

PROYECTO
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ
MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG.EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

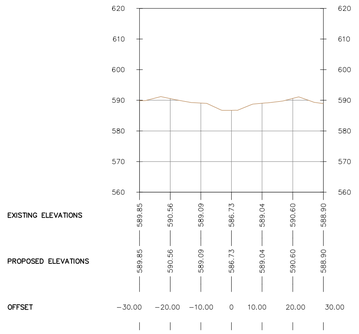
Situación post-operacional
Perfil longitudinal
Sección típica

FORMATO	ARCHIVO	DIBUJADO	REVISADO	FECHA
DIN A1 - A3		ES	ES	MAR 18

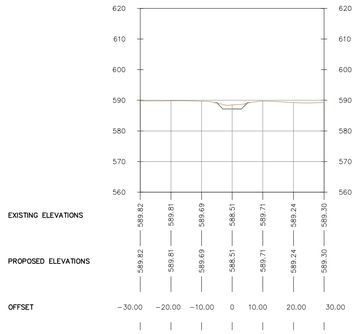
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION
1:50 1:100	645	EH	10	0

MARZO 2018

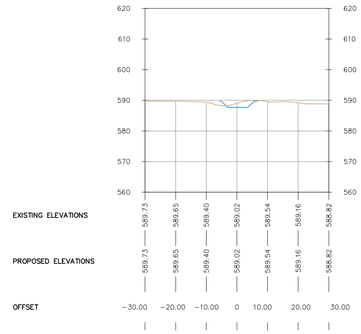
0+475.00



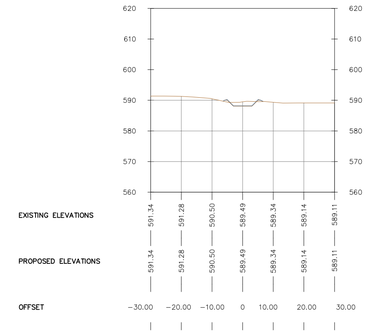
0+550.00



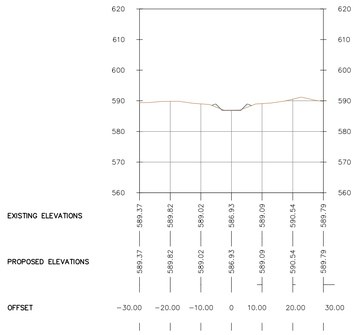
0+625.00



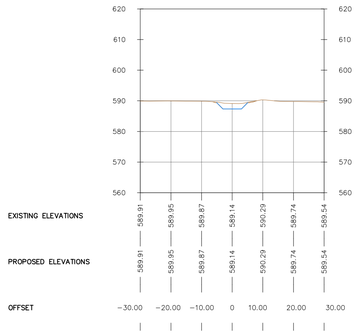
0+700.00



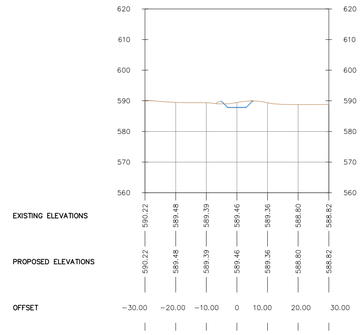
0+500.00



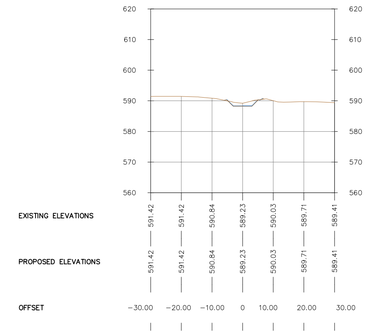
0+575.00



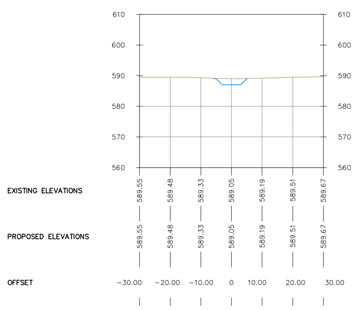
0+650.00



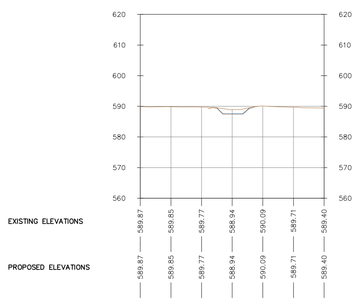
0+725.00



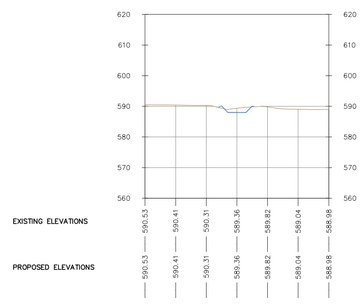
0+525.00



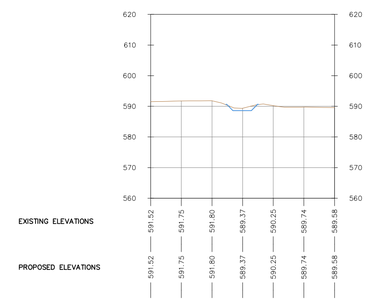
0+600.00



0+675.00



0+750.00



C&S CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 F 915 797 222 estudio@cabezasastre.es

PROYECTO

PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG;EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

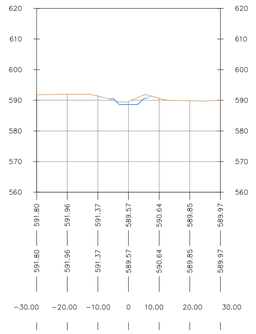
Situación post−operacional
Secciones transversales
(1 de 2)

DIN A1 − A3	ES	ES	MAR 18
FORMATO	DIBUJADO	REVISADO	FECHA

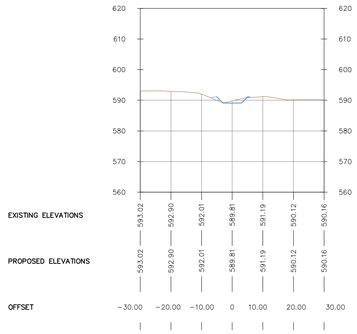
1:1000 1:2000	645	EH	11	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018

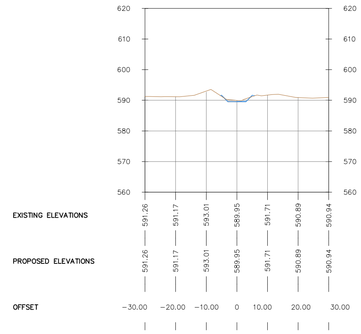
0+775.00



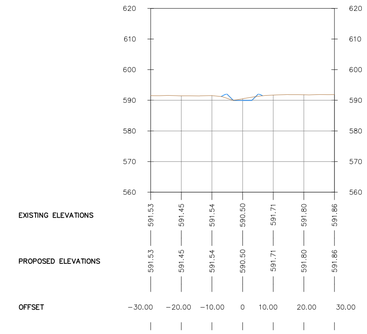
0+850.00



0+925.00



0+984.11



0+800.00

0+875.00

0+950.00

0+825.00

0+900.00

0+975.00

C&S CABEZA SASTRE
Félix Boix 7, 2º 28036 Madrid
T 915 797 252 F 915 797 222 estudio@cabezasastre.es

PROYECTO
PROYECTO URBANIZACIÓN TORREJÓN DE ARDOZ

MOD. PUNTUAL PGOU DEL EQUIPAMIENTO RG;EQ.AD
ZONAS: RL.INF.VG.1/RL.ING.VG.2/RL.INF.VG.3/RL.VA1/RG.ZV.2
RL.ZV.MOD.1/RL.ZV.MPD.2/RL.ZV.MOD.3/RL.ZV.MOD.4/RL.ZV.MOD.5

CLIENTE
CARLOTTA IBERIA S.L.

INGENIERO
EDUARDO SENDIN MORENO

ESTUDIO HIDROLOGICO

Situación post-operacional
Secciones transversales
(2 de 2)

DIN A1 – A3	ES	ES	MAR 18
FORMATO	DIBUJADO	REVISADO	FECHA

1:1000 1:2000	645	EH	12	0
ESCALA	CODIGO	SERIE	PLANO Nº	REVISION

MARZO 2018