

Project Memorandum

To: Village of Roscoe

From: Arc Design Resources, Inc.

Date: February 14, 2023 (REV. July 10, 2024)

Re: Hawks Pointe Plat 6 Storm Sewer Sizing

The proposed storm sewer system for Hawks Pointe Plat 6 has been designed to accommodate the 100-yr storm to satisfy the requirement of a 100-yr overland flow route since there are several low points throughout the subdivision with grate inlets to capture rear yard runoff. The 5-yr storm event calculations are included to show that the inlet design meets the Village requirement of streets having a minimum of one 9-foot lane in each direction free of stormwater flowing or ponding. A calculation showing that the swale along the southern property limits can accommodate the 100-yr storm event is also included.

The design software that was used to help in the design of the storm sewer system was Hydra-flow. Hydra-flow was used to calculate the flow rate (Q in cfs) and it was also used to size the storm sewer pipes. Hydra-flow also generated the Hydraulic Grade Line (HGL) into a graphical representation. Included in this report is the following:

- Hydraflow Plan View
- Storm Sewer Inventory Report
- Storm Sewer Summary Report
- Storm Sewer Profiles
- Hydraulic Grade Line Computations
- Hydraflow HGL Computation Procedure

The Hydraflow Plan View sheet shows a graphical representation of the network of storm sewer. The pipes have been assigned numbers and those numbers correspond to the data shown in the other sheets. The Storm Sewer Inventory Report is the basic worksheet for Hydra-flow. This is where all of the known values were input. The known values that were input were the runoff coefficient and the inlet time in minutes. The inlet time was assumed to be 5 or 10 minutes and all minor losses were neglected for these calculations.

The Storm Sewer Summary Report shows all solved values. Hydra-flow has also calculated the HGL upstream and downstream elevations as well as the invert elevations for the storm sewer pipes. The Storm Sewer Profiles show graphically the storm sewer pipe lengths and slopes as well as the HGL. It also shows the amount of cover for each pipe length. The Hydraulic Grade Line Computations sheet shows in more detail the calculation of the HGL and the Hydraflow HGL Computation Procedure outlines the procedure used by Hydra-flow.

South Ditch 100-yr Storm

Channel Report

South Ditch 100-yr Storm

Triangular

Side Slopes (z:1) = 3.00, 10.00
Total Depth (ft) = 2.00

Invert Elev (ft) = 826.42
Slope (%) = 0.50
N-Value = 0.150

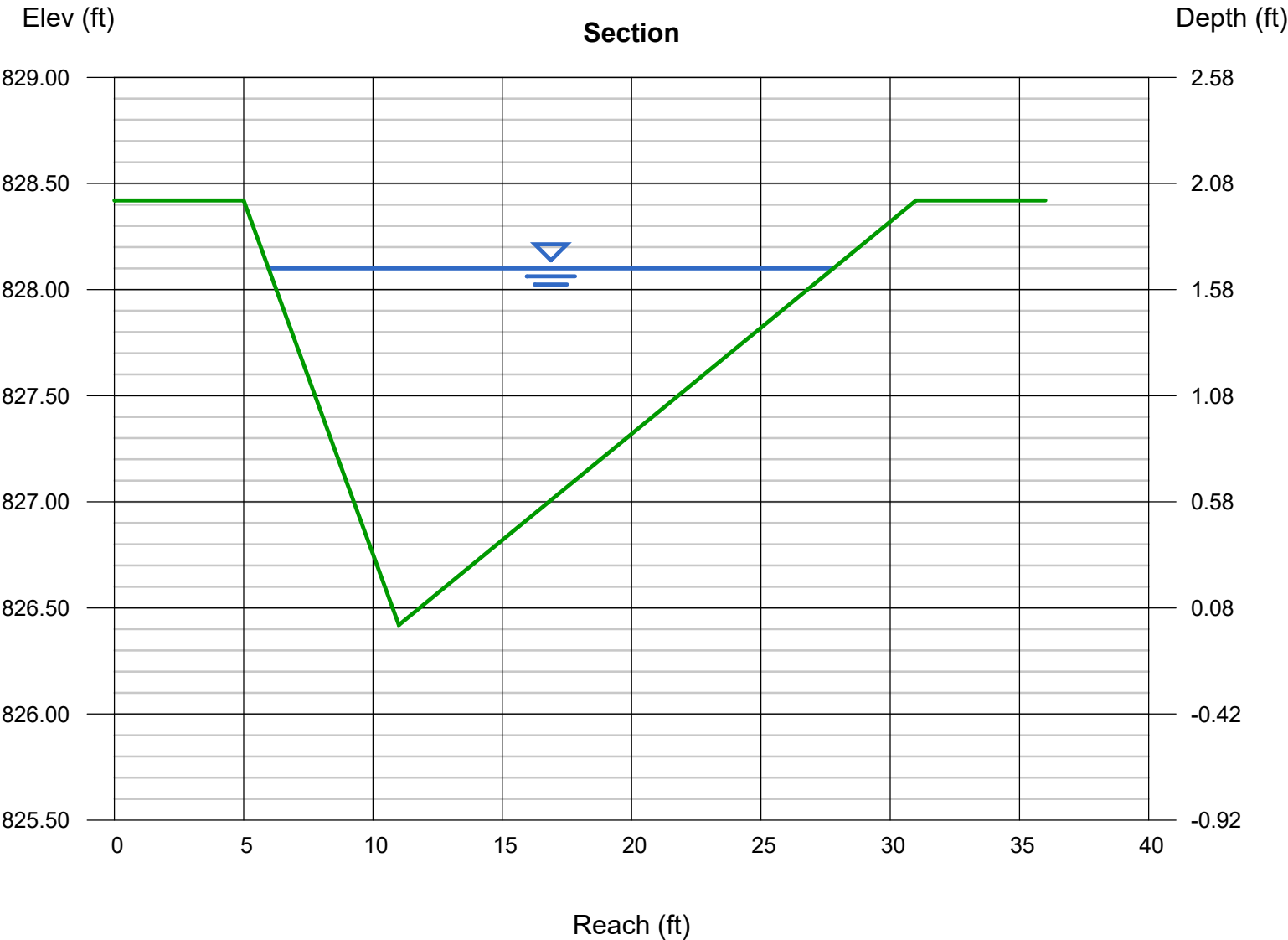
Calculations

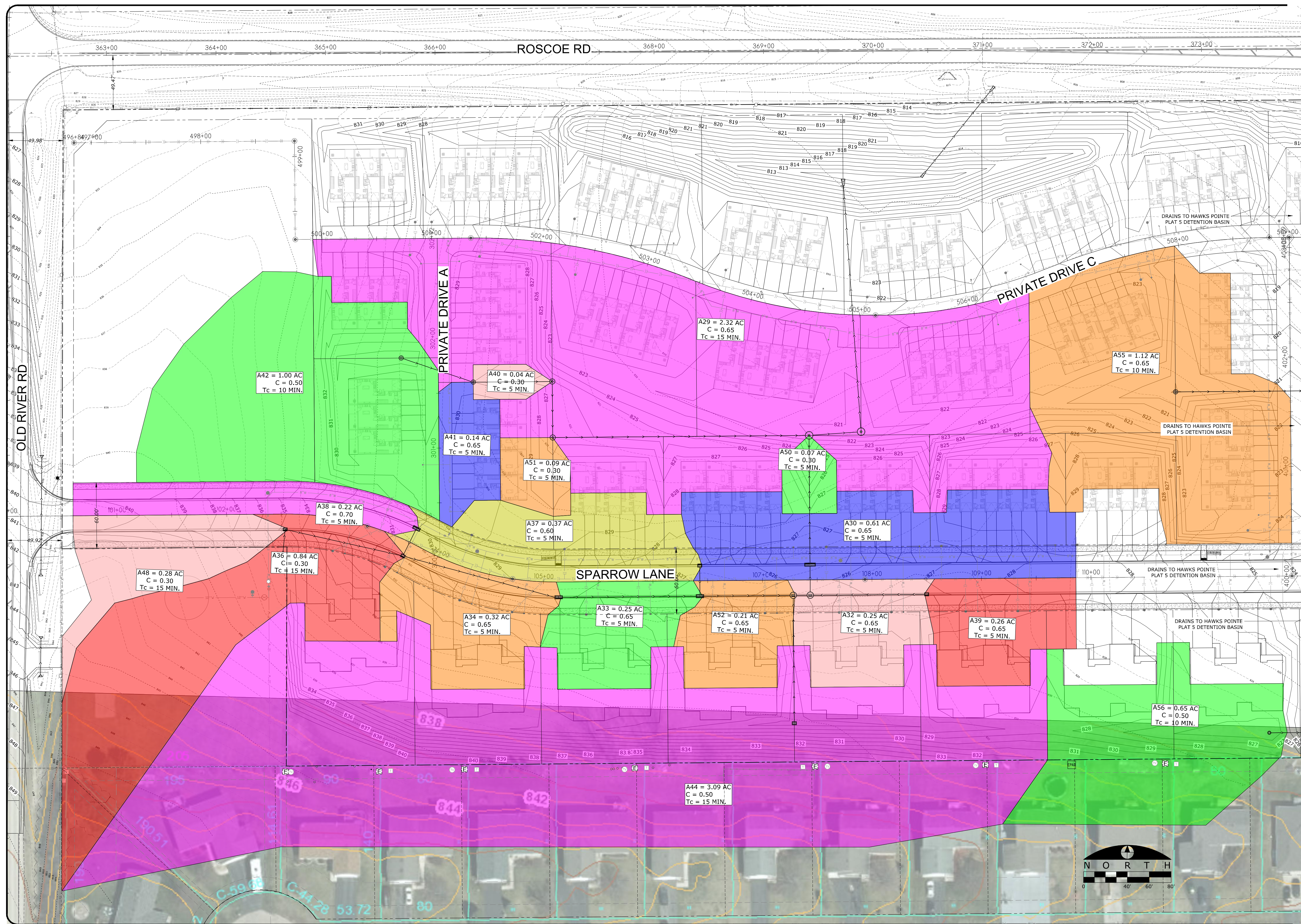
Compute by: Known Q
Known Q (cfs) = 11.18

A = 2.81 AC
C = 0.50
Tc = 15 MIN.
I = 7.96 IN/HR
Q = 11.18 CFS

Highlighted

Depth (ft) = 1.68
Q (cfs) = 11.18
Area (sqft) = 18.35
Velocity (ft/s) = 0.61
Wetted Perim (ft) = 22.20
Crit Depth, Yc (ft) = 0.72
Top Width (ft) = 21.84
EGL (ft) = 1.69





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Illinois Design Firm License No. 184-001334

PROJECT NAME
OWNER'S NAME

**HAWKS POINTE
PLAT 6**

SPARROW LANE
ROSCOE, IL 61073
WINNEBAGO COUNTY

WHITE OAK TRUST
1020 BENBROOK DRIVE
LOVES PARK, IL 61111

CONSULTANTS

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SHEET TITLE

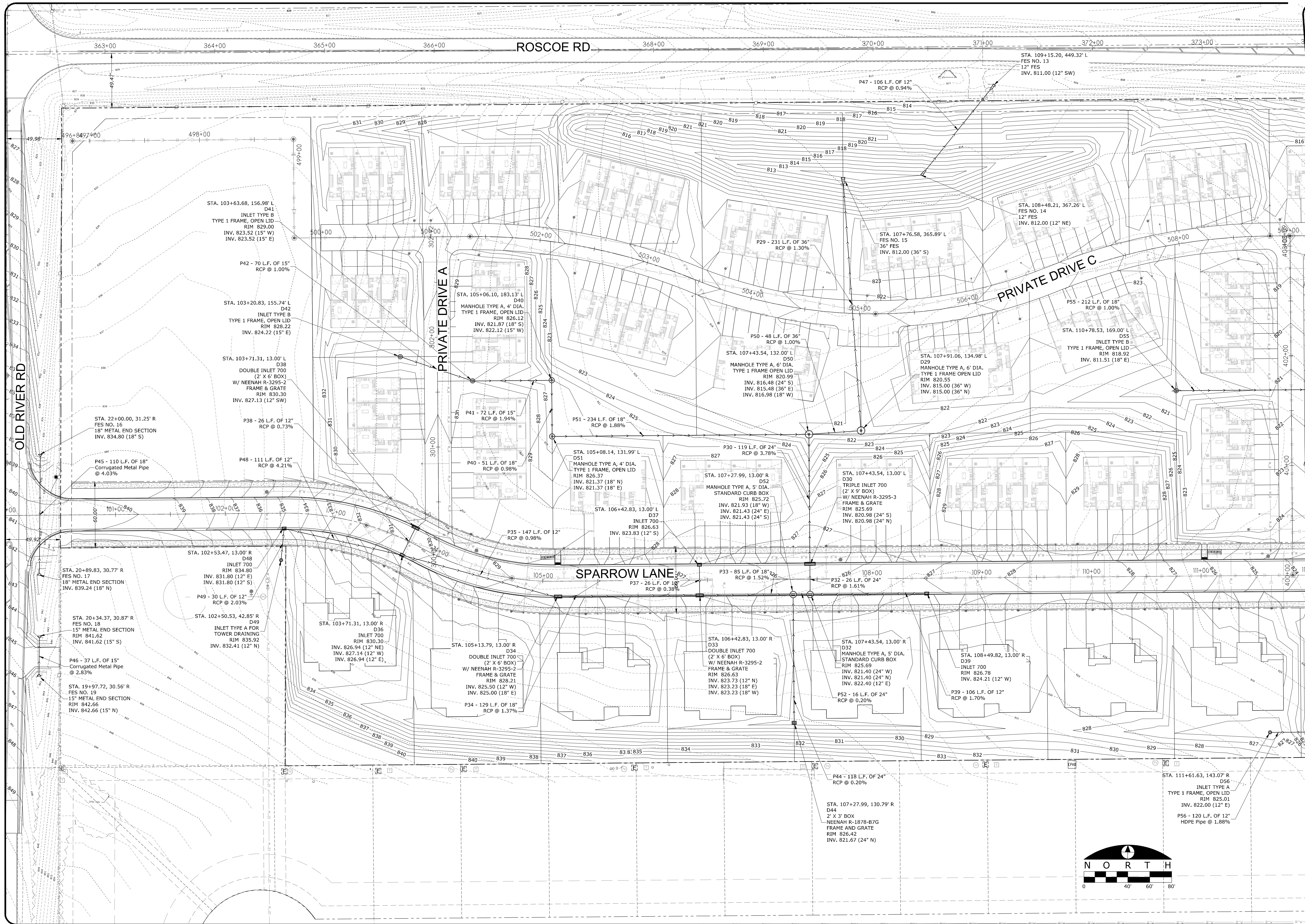
**STORM SEWER
CAPACITY PLAN**

DRAWN M.J.H.
CHECKED J.S.L.
PM J.S.L.

PROJECT NUMBER
SHEET NUMBER

22214

EXHIBIT 1



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1020 BENBROOK DRIVE
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**STORM SEWER
PLAN**

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CHECKED	JSL
PM	JSL

PROJECT NUMBER
SHEET NUMBER

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EXHIBIT 2



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HAWKS POINTE
PLAT 6

SPARROW LANE
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1020 BENBROOK DRIVE
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CONSULTANTS

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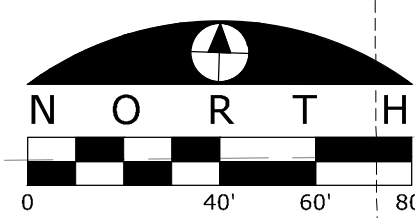
100-YEAR
OVERLAND FLOW
EXHIBIT

DRAWN	MJH
CHECKED	JSL
PM	JSL

PROJECT NUMBER
SHEET NUMBER

22214

EXHIBIT 3



5-Year Storm Calculations

Date: 7/10/2024

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	231.361	84.023	DrGrt	0.00	2.32	0.65	15.0	812.00	1.30	815.00	36	Cir	0.013	1.50	820.55	P29
2	1	47.619	90.000	None	0.00	0.07	0.30	5.0	815.00	1.01	815.48	36	Cir	0.013	1.00	821.00	P50
3	2	119.000	-86.410	Comb	0.00	0.61	0.65	5.0	816.48	3.78	820.98	24	Cir	0.013	0.50	825.69	P30
4	3	26.000	0.000	Comb	0.00	0.25	0.65	5.0	820.98	1.62	821.40	24	Cir	0.013	2.25	825.69	P32
5	4	15.551	90.000	Comb	0.00	0.21	0.65	5.0	821.40	0.19	821.43	24	Cir	0.013	1.50	825.72	P52
6	5	85.160	0.000	Comb	0.00	0.25	0.65	5.0	821.93	1.53	823.23	18	Cir	0.013	1.50	826.63	P33
7	6	129.034	0.000	Comb	0.00	0.32	0.65	5.0	823.23	1.37	825.00	18	Cir	0.013	0.50	828.21	P34
8	7	146.688	15.349	Comb	0.00	0.84	0.30	15.0	825.50	0.98	826.94	12	Cir	0.013	1.50	830.30	P35
9	8	110.755	-2.197	Comb	0.00	0.28	0.30	15.0	827.14	4.21	831.80	12	Cir	0.013	1.00	834.80	P48
10	8	26.000	101.311	Comb	0.00	0.22	0.70	5.0	826.94	0.73	827.13	12	Cir	0.013	1.00	830.30	P38
11	6	26.000	90.000	Comb	0.00	0.37	0.60	5.0	823.73	0.38	823.83	12	Cir	0.013	1.00	826.63	P37
12	2	234.000	3.590	DrGrt	0.00	0.09	0.30	5.0	816.98	1.88	821.37	18	Cir	0.013	1.50	826.37	P51
13	12	51.137	90.000	DrGrt	0.00	0.04	0.30	5.0	821.37	0.98	821.87	18	Cir	0.013	1.50	826.12	P40
14	13	72.100	-90.000	DrGrt	0.00	0.14	0.65	5.0	822.12	1.94	823.52	15	Cir	0.013	0.57	829.00	P41
15	14	69.583	18.980	DrGrt	0.00	1.00	0.50	10.0	823.52	1.01	824.22	15	Cir	0.013	1.00	828.22	P42
16	4	106.282	-90.000	Comb	0.00	0.26	0.65	5.0	822.40	1.70	824.21	12	Cir	0.013	1.00	826.88	P39
17	5	117.793	-90.000	DrGrt	0.00	3.09	0.50	15.0	821.43	0.20	821.67	24	Cir	0.013	1.00	826.42	P44
18	End	119.906	177.646	DrGrt	0.00	0.65	0.50	10.0	819.74	1.88	822.00	12	Cir	0.012	1.00	825.01	P56
19	End	12.985	177.613	MH	0.01	0.00	0.00	0.0	807.80	1.00	807.93	18	Cir	0.013	1.00	819.33	P16
20	19	132.000	90.000	MH	0.01	0.00	0.00	0.0	807.93	1.11	809.39	18	Cir	0.013	1.00	818.80	P54
21	20	212.012	-90.000	DrGrt	0.00	1.12	0.65	10.0	809.39	1.00	811.51	18	Cir	0.013	1.00	818.92	P55
Project File: REVISED HAWKS POINTE PLAT 6 .stm												Number of lines: 21				Date: 7/10/2024	

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	D29	DropGrate	820.55	Rect	0.00	0.00	36	Cir	815.00	36	Cir	815.00
2	D50	None	821.00	n/a	n/a	n/a	36	Cir	815.48	24 18	Cir Cir	816.48 816.98
3	D30	Combination	825.69	Rect	0.00	0.00	24	Cir	820.98	24	Cir	820.98
4	D32	Combination	825.69	Rect	0.00	0.00	24	Cir	821.40	24 12	Cir Cir	821.40 822.40
5	D52	Combination	825.72	Rect	0.00	0.00	24	Cir	821.43	18 24	Cir Cir	821.93 821.43
6	D33	Combination	826.63	Rect	0.00	0.00	18	Cir	823.23	18 12	Cir Cir	823.23 823.73
7	D34	Combination	828.21	Rect	0.00	0.00	18	Cir	825.00	12	Cir	825.50
8	D36	Combination	830.30	Rect	0.00	0.00	12	Cir	826.94	12 12	Cir Cir	827.14 826.94
9	D48	Combination	834.80	Rect	0.00	0.00	12	Cir	831.80			
10	D38	Combination	830.30	Rect	0.00	0.00	12	Cir	827.13			
11	D37	Combination	826.63	Rect	0.00	0.00	12	Cir	823.83			
12	D51	DropGrate	826.37	Rect	0.00	0.00	18	Cir	821.37	18	Cir	821.37
13	D40	DropGrate	826.12	Rect	0.00	0.00	18	Cir	821.87	15	Cir	822.12
14	D41	DropGrate	829.00	Rect	0.00	0.00	15	Cir	823.52	15	Cir	823.52
15	D42	DropGrate	828.22	Rect	0.00	0.00	15	Cir	824.22			
16	D39	Combination	826.88	Rect	0.00	0.00	12	Cir	824.21			
17	D44	DropGrate	826.42	Rect	0.00	0.00	24	Cir	821.67			
18	D56	DropGrate	825.01	Rect	0.00	0.00	12	Cir	822.00			
19	D53	Manhole	819.33	Rect	0.00	0.00	18	Cir	807.93	18	Cir	807.93
20	D54	Manhole	818.80	Rect	0.00	0.00	18	Cir	809.39	18	Cir	809.39
Project File: REVISED HAWKS POINTE PLAT 6 .stm							Number of Structures: 21			Run Date: 7/10/2024		

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
21	D55	DropGrate	818.92	Rect	0.00	0.00	18	Cir	811.51			
Project File: REVISED HAWKS POINTE PLAT 6 .stm							Number of Structures: 21			Run Date: 7/10/2024		

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	P29	20.59	36	Cir	231.361	812.00	815.00	1.297	813.07	816.46	0.85	816.46	End	DropGrate
2	P50	15.21	36	Cir	47.619	815.00	815.48	1.008	816.46	816.72	n/a	816.72 j	1	None
3	P30	12.95	24	Cir	119.000	816.48	820.98	3.782	817.22	822.27	n/a	822.27	2	Combination
4	P32	11.51	24	Cir	26.000	820.98	821.40	1.616	822.27	822.62	n/a	822.62 j	3	Combination
5	P52	10.29	24	Cir	15.551	821.40	821.43	0.193	823.11	823.14	0.30	823.44	4	Combination
6	P33	4.08	18	Cir	85.160	821.93	823.23	1.527	823.44	824.00	n/a	824.00 j	5	Combination
7	P34	2.72	18	Cir	129.034	823.23	825.00	1.372	824.00	825.62	n/a	825.62 j	6	Combination
8	P35	1.95	12	Cir	146.688	825.50	826.94	0.982	826.03	827.54	0.37	827.54	7	Combination
9	P48	0.37	12	Cir	110.755	827.14	831.80	4.207	827.54	832.05	n/a	832.05 j	8	Combination
10	P38	0.94	12	Cir	26.000	826.94	827.13	0.731	827.54	827.54	n/a	827.54 j	8	Combination
11	P37	1.36	12	Cir	26.000	823.73	823.83	0.385	824.30	824.40	0.14	824.53	6	Combination
12	P51	3.07	18	Cir	234.000	816.98	821.37	1.876	817.45	822.04	0.38	822.04	2	DropGrate
13	P40	2.99	18	Cir	51.137	821.37	821.87	0.978	822.04	822.53	n/a	822.53 j	12	DropGrate
14	P41	2.97	15	Cir	72.100	822.12	823.52	1.942	822.61	824.21	0.16	824.21	13	DropGrate
15	P42	2.56	15	Cir	69.583	823.52	824.22	1.006	824.21	824.86	n/a	824.86 j	14	DropGrate
16	P39	1.03	12	Cir	106.282	822.40	824.21	1.703	822.72	824.64	0.16	824.64	4	Combination
17	P44	6.81	24	Cir	117.793	821.43	821.67	0.204	823.44	823.54	0.08	823.62	5	DropGrate
18	P56	1.66	12	Cir	119.906	819.74	822.00	1.885	820.13	822.55	0.22	822.55	End	DropGrate
19	P16	3.44	18	Cir	12.985	807.80	807.93	1.001	808.39	808.64	n/a	808.64	End	Manhole
20	P54	3.55	18	Cir	132.000	807.93	809.39	1.106	808.64	810.11	n/a	810.11	19	Manhole
21	P55	3.73	18	Cir	212.012	809.39	811.51	1.000	810.11	812.25	n/a	812.25	20	DropGrate

Project File: REVISED HAWKS POINTE PLAT 6 .stm

Number of lines: 21

Run Date: 7/10/2024

NOTES: Return period = 5 Yrs. ; j - Line contains hyd. jump.

Inlet Report

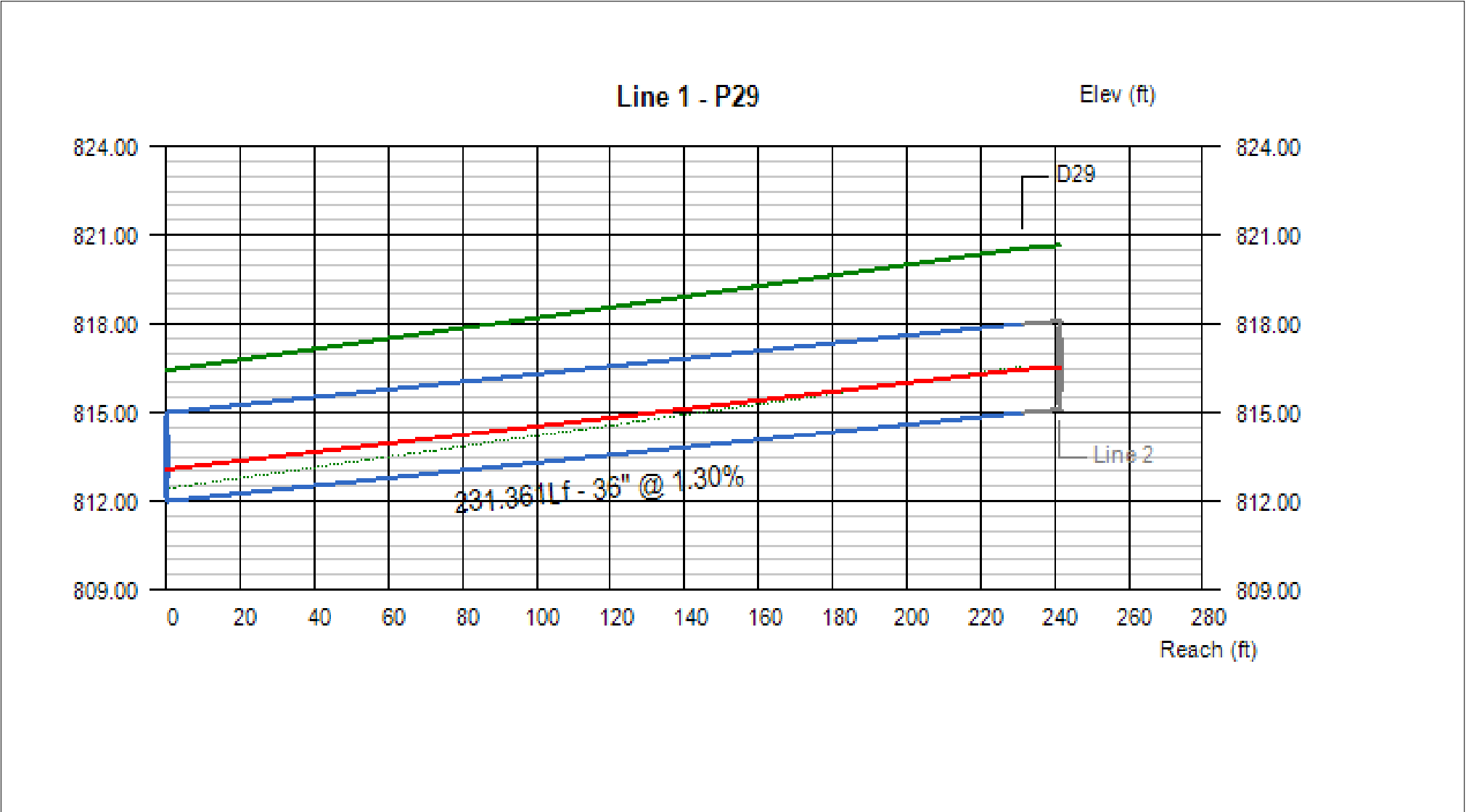
Line No	Inlet ID	Q = CIA	Q carry	Q capt	Q Byp	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
		(cfs)	(cfs)	(cfs)	(cfs)		Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	D29	6.65	0.00	6.65	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.42	10.50	0.42	10.50	0.0	Off
2	D50	0.13	0.00	0.00	0.13	None	0.0	0.83	0.00	0.83	0.83	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
3	D30	2.43	0.51	2.93	0.00	Comb	4.0	9.00	6.00	9.00	1.50	Sag	1.50	0.060	0.020	0.013	0.23	8.65	0.23	8.65	0.0	Off
4	D32	0.99	0.29	1.29	0.00	Comb	4.0	3.00	2.00	3.00	1.50	Sag	1.50	0.060	0.020	0.013	0.22	7.87	0.22	7.87	0.0	Off
5	D52	0.83	0.23	0.77	0.29	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.18	6.02	0.12	3.06	0.0	4
6	D33	0.99	0.32	1.09	0.23	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.19	6.61	0.11	2.55	0.0	5
7	D34	1.27	0.33	1.29	0.32	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.20	7.22	0.12	3.21	0.0	6
8	D36	1.11	0.03	0.81	0.33	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.18	6.22	0.13	3.31	0.0	7
9	D48	0.37	0.00	0.34	0.03	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.13	3.53	0.05	0.89	0.0	8
10	D38	0.94	0.00	0.82	0.12	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.17	5.70	0.09	1.49	0.0	11
11	D37	1.36	0.12	0.98	0.51	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.20	6.98	0.14	4.20	0.0	3
12	D51	0.17	0.00	0.06	0.10	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.04	9.70	0.04	9.70	0.0	Off
13	D40	0.07	0.00	0.03	0.04	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.03	7.70	0.03	7.70	0.0	Off
14	D41	0.56	0.00	0.17	0.38	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.07	15.70	0.07	15.70	0.0	Off
15	D42	2.56	0.00	2.56	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.22	6.50	0.22	6.50	0.0	Off
16	D39	1.03	0.00	0.75	0.29	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.013	0.18	6.17	0.12	3.17	0.0	Off
17	D44	6.81	0.00	6.81	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.43	10.63	0.43	10.63	0.0	Off
18	D56	1.66	0.00	1.66	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.17	5.37	0.17	5.37	0.0	Off
19	D53	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
20	D54	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
21	D55	3.73	0.00	3.73	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.29	7.78	0.29	7.78	0.0	Off

Project File: REVISED HAWKS POINTE PLAT 6 .stm

Number of lines: 21

Run Date: 7/10/2024

NOTES: Inlet N-Values = 0.016; Intensity = 134.14 / (Inlet time + 19.70) ^ 0.96; Return period = 5 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

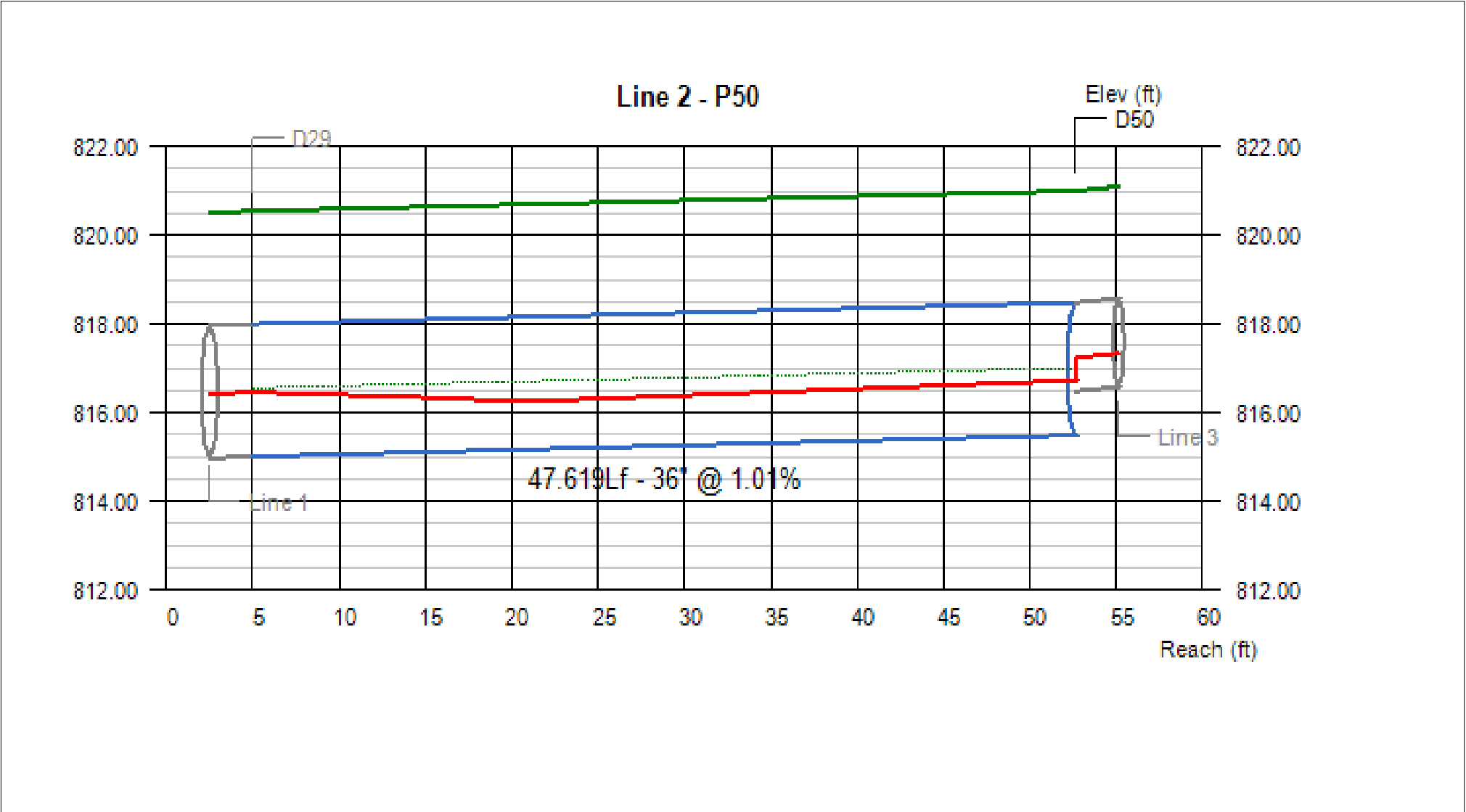


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
1	20.59	812.00	815.00	1.07	1.46	1.46	813.07	816.46	816.46	9.13	6.05	1.42	2.55

Project File:

No. Lines: 21

Run Date: 7/10/2024

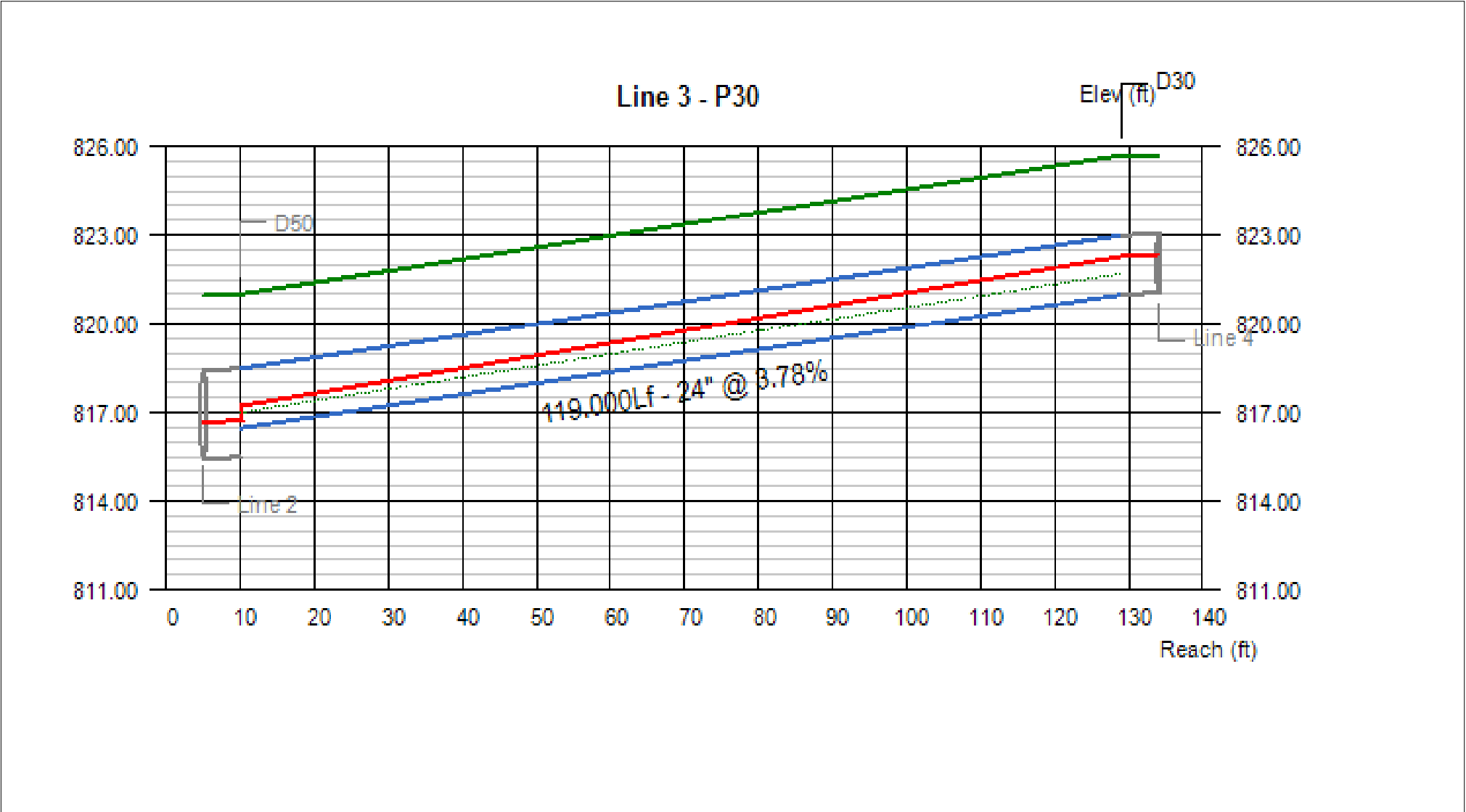


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
2	15.21	815.00	815.48	1.46	1.24	1.24	816.46	816.72 j	816.72	4.47	5.50	2.55	2.52

Project File:

No. Lines: 21

Run Date: 7/10/2024

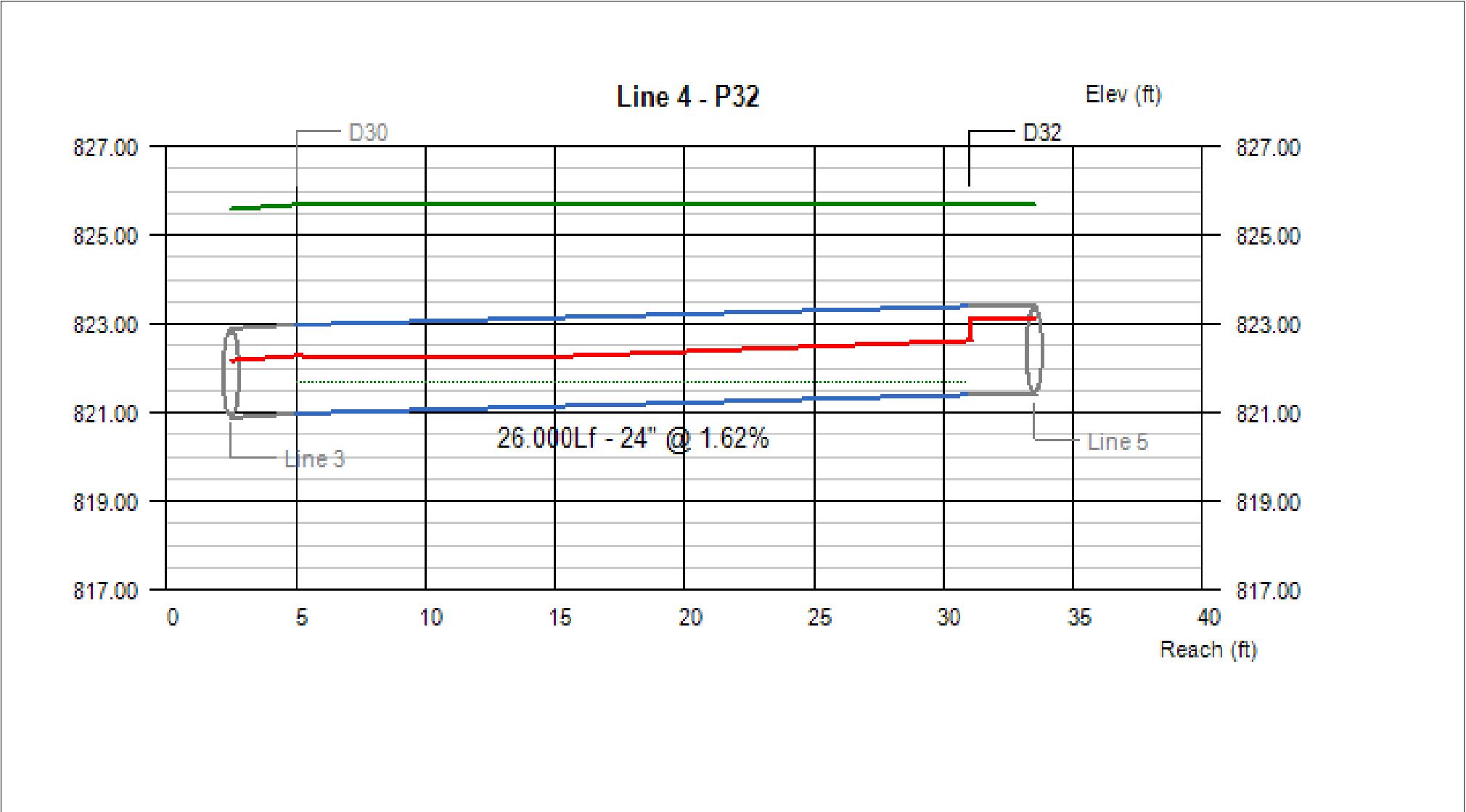


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
3	12.95	816.48	820.98	0.74	1.29	1.29	817.22	822.27	822.27	12.16	6.03	2.52	2.71

Project File:

No. Lines: 21

Run Date: 7/10/2024

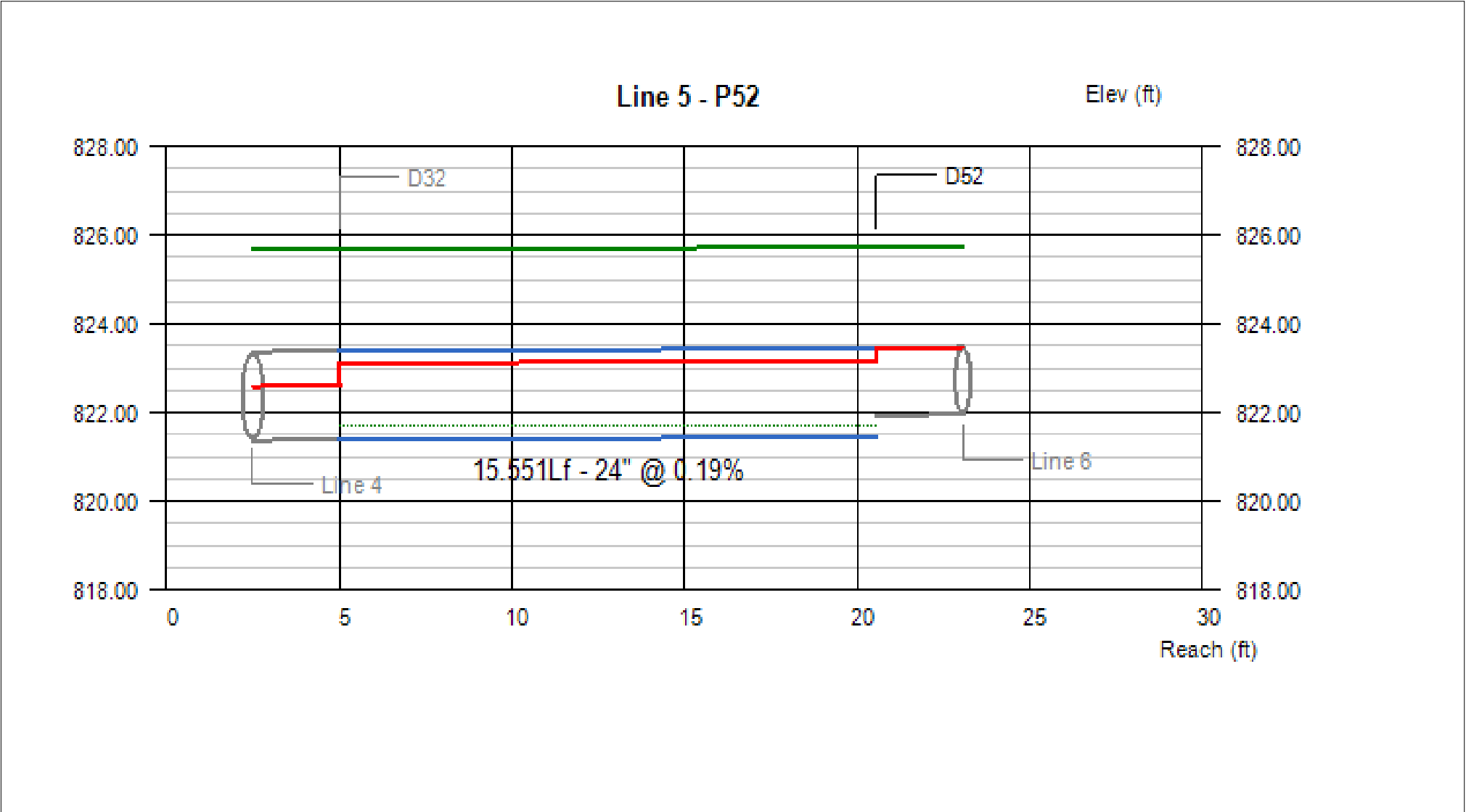


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
4	11.51	820.98	821.40	1.29	1.22	1.22	822.27	822.62 j	822.62	5.36	5.75	2.71	2.29

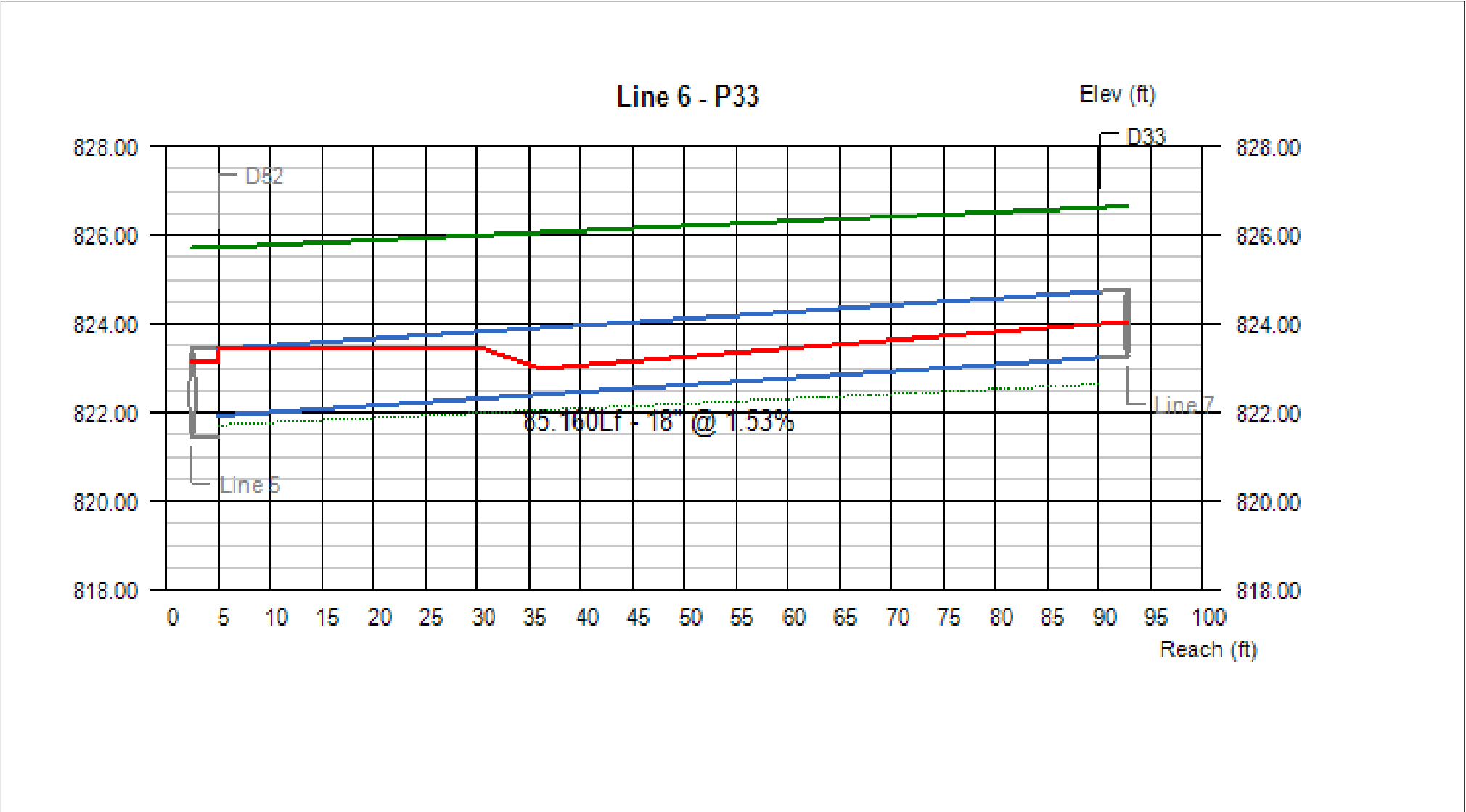
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
5	10.29	821.40	821.43	1.71	1.71	2.01	823.11	823.14	823.44	3.59	3.59	2.29	2.29
Project File:								No. Lines: 21			Run Date: 7/10/2024		

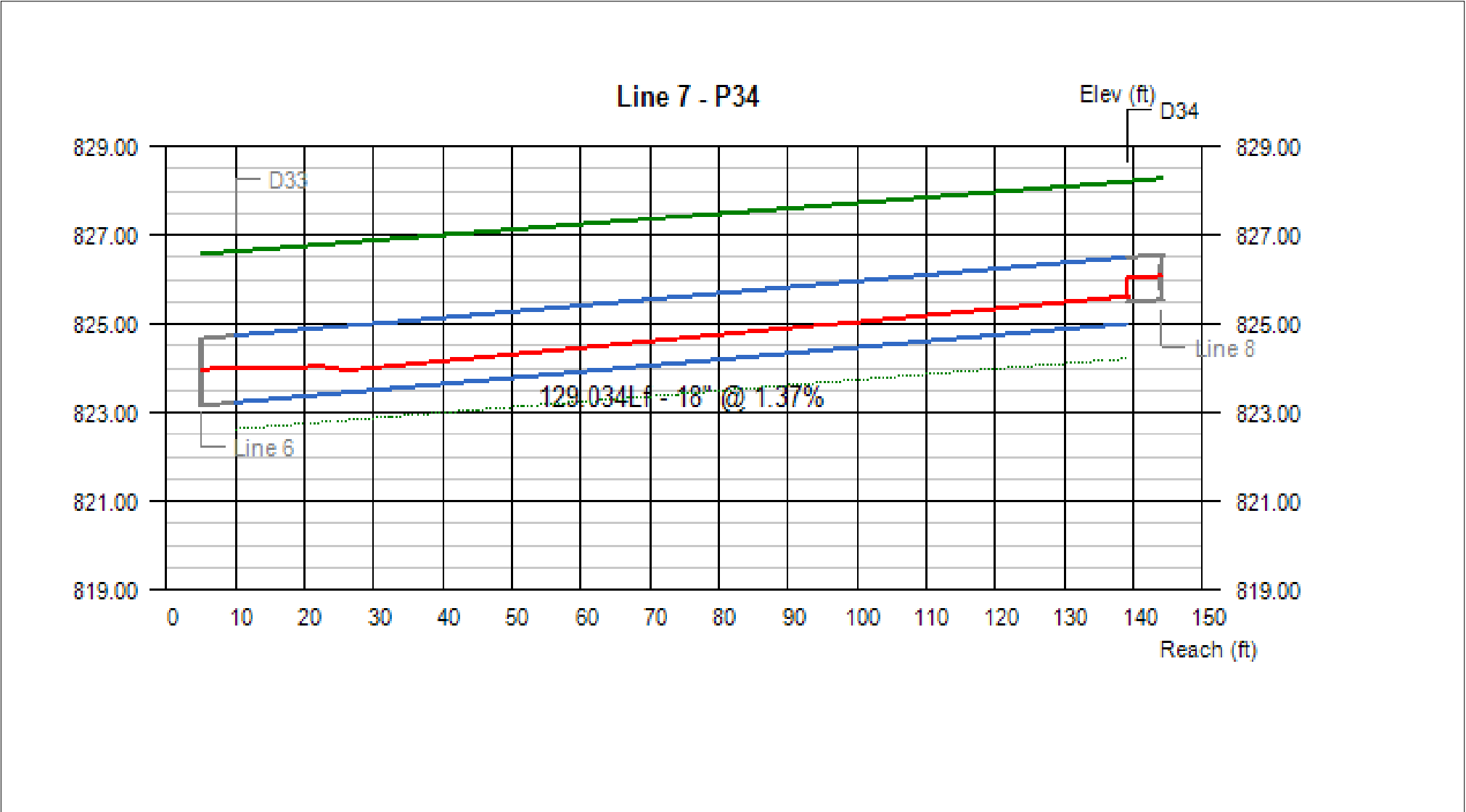


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
6	4.08	821.93	823.23	1.50	0.77	0.77	823.44	824.00 j	824.00	2.31	4.45	2.29	1.90

Project File:

No. Lines: 21

Run Date: 7/10/2024

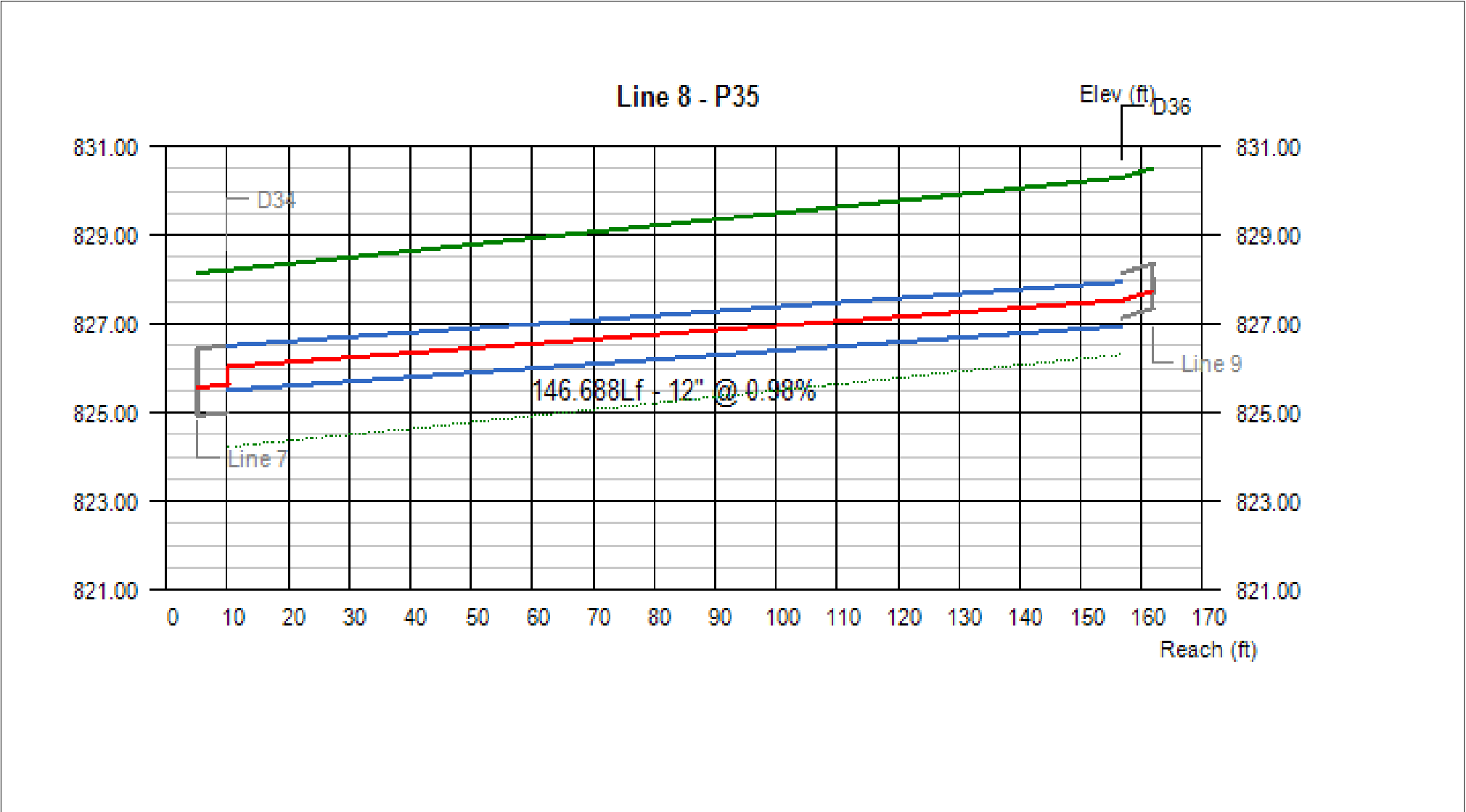


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
7	2.72	823.23	825.00	0.77	0.62	0.62	824.00	825.62 j	825.62	2.96	3.90	1.90	1.71

Project File:

No. Lines: 21

Run Date: 7/10/2024

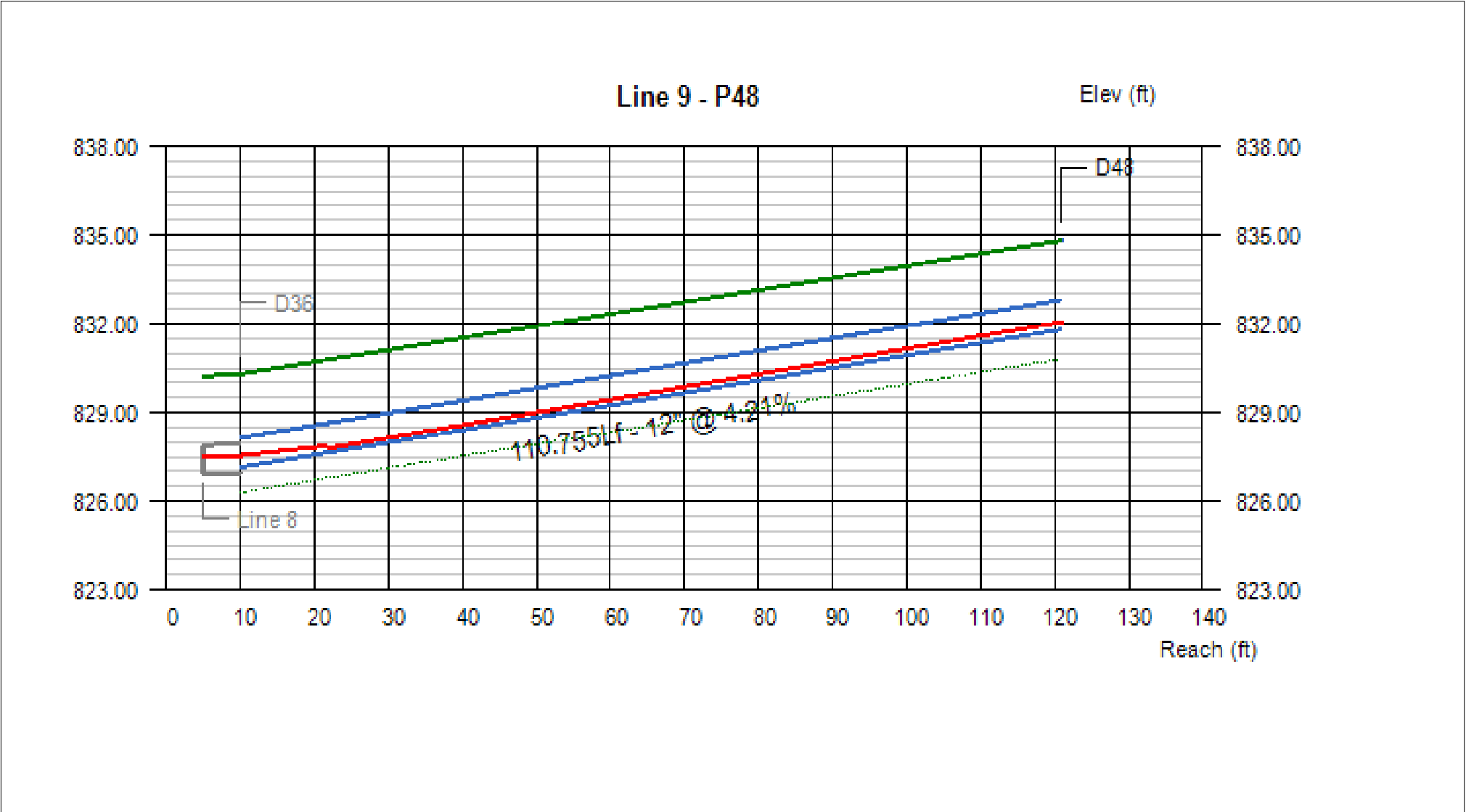


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
8	1.95	825.50	826.94	0.53	0.60	0.60	826.03	827.54	827.54	4.60	4.00	1.71	2.36

Project File:

No. Lines: 21

Run Date: 7/10/2024

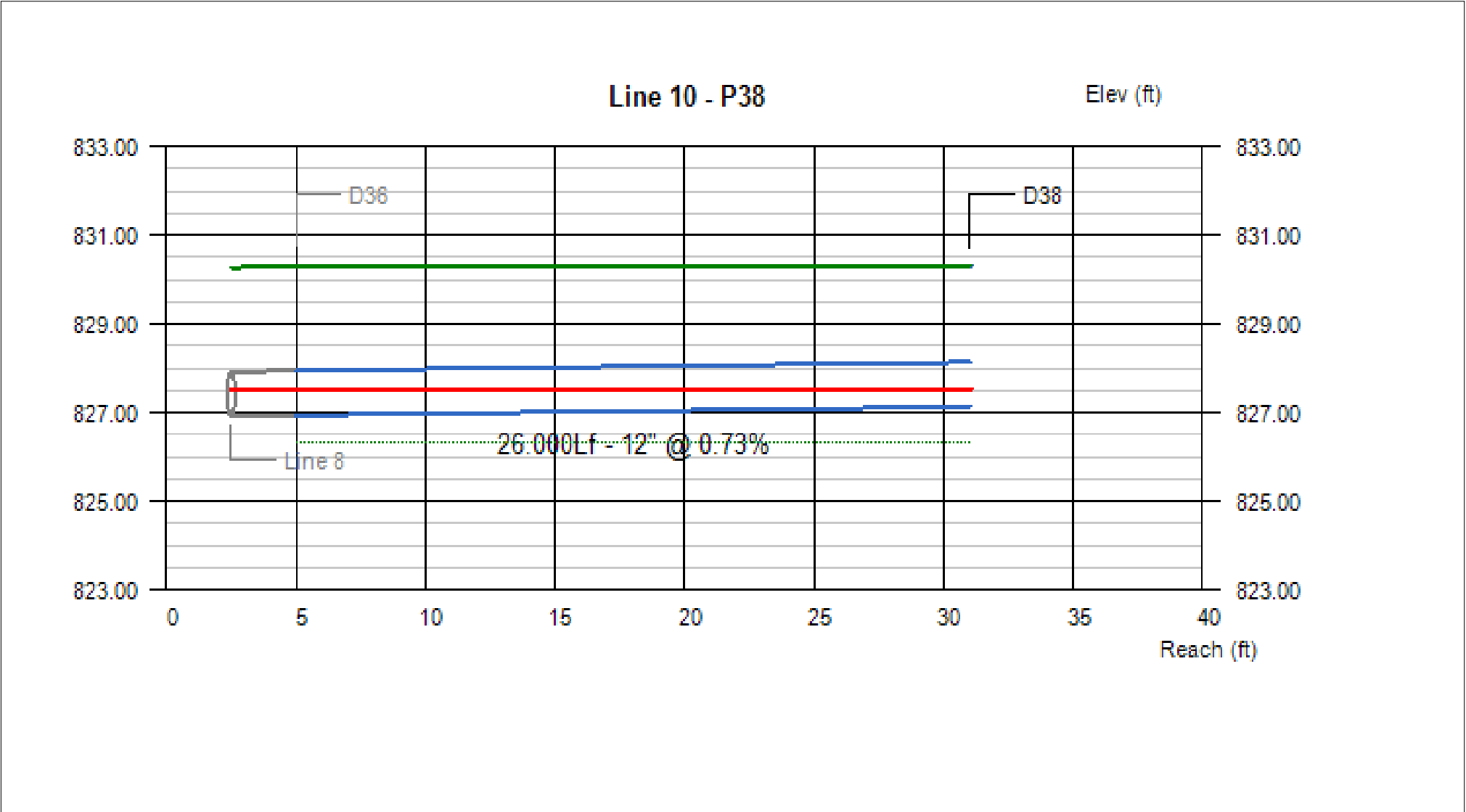


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
9	0.37	827.14	831.80	0.40	0.25	0.25	827.54	832.05 j	832.05	1.28	2.40	2.16	2.00

Project File:

No. Lines: 21

Run Date: 7/10/2024

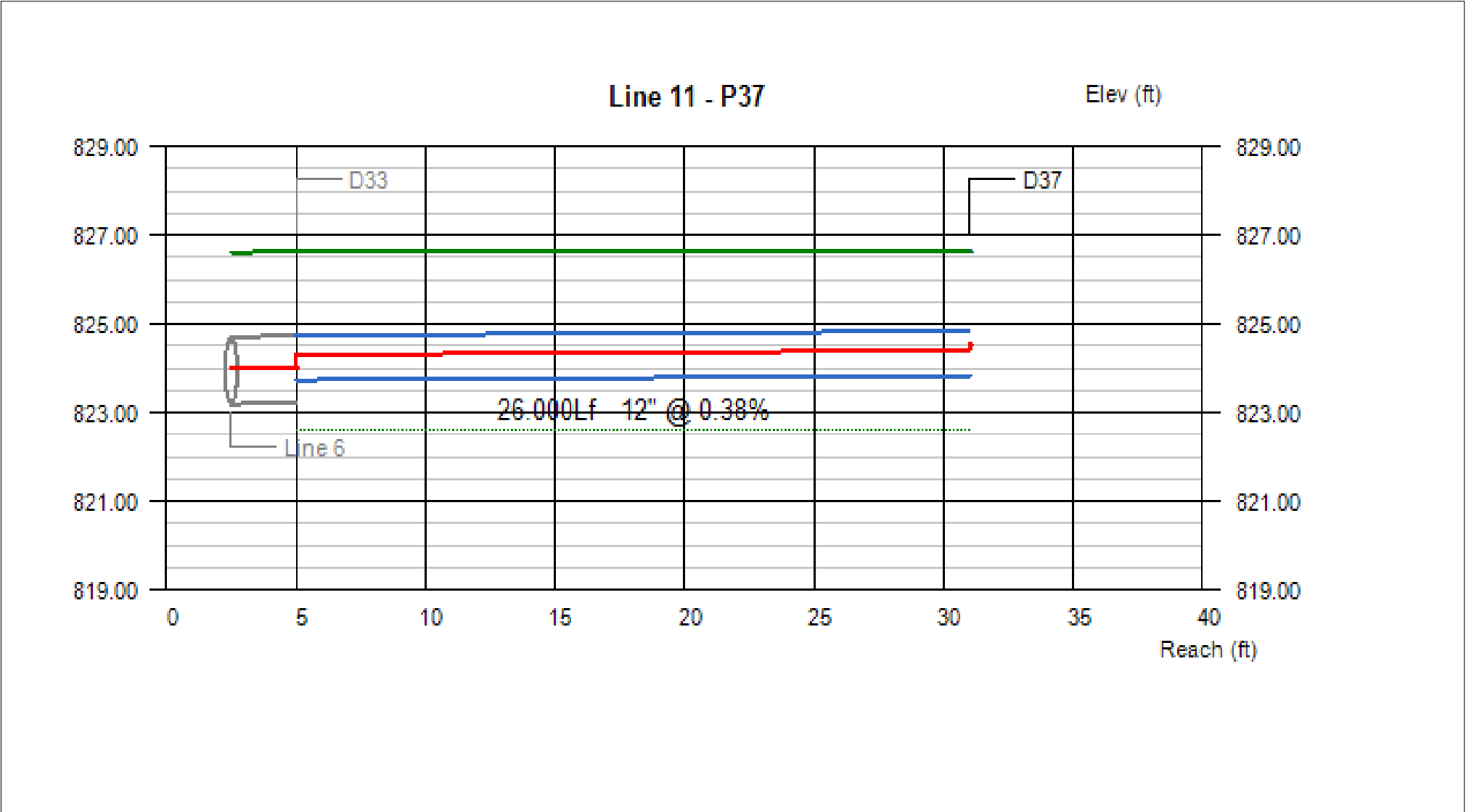


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
10	0.94	826.94	827.13	0.60	0.41	0.41	827.54	827.54 j	827.54	1.93	3.14	2.36	2.17

Project File:

No. Lines: 21

Run Date: 7/10/2024

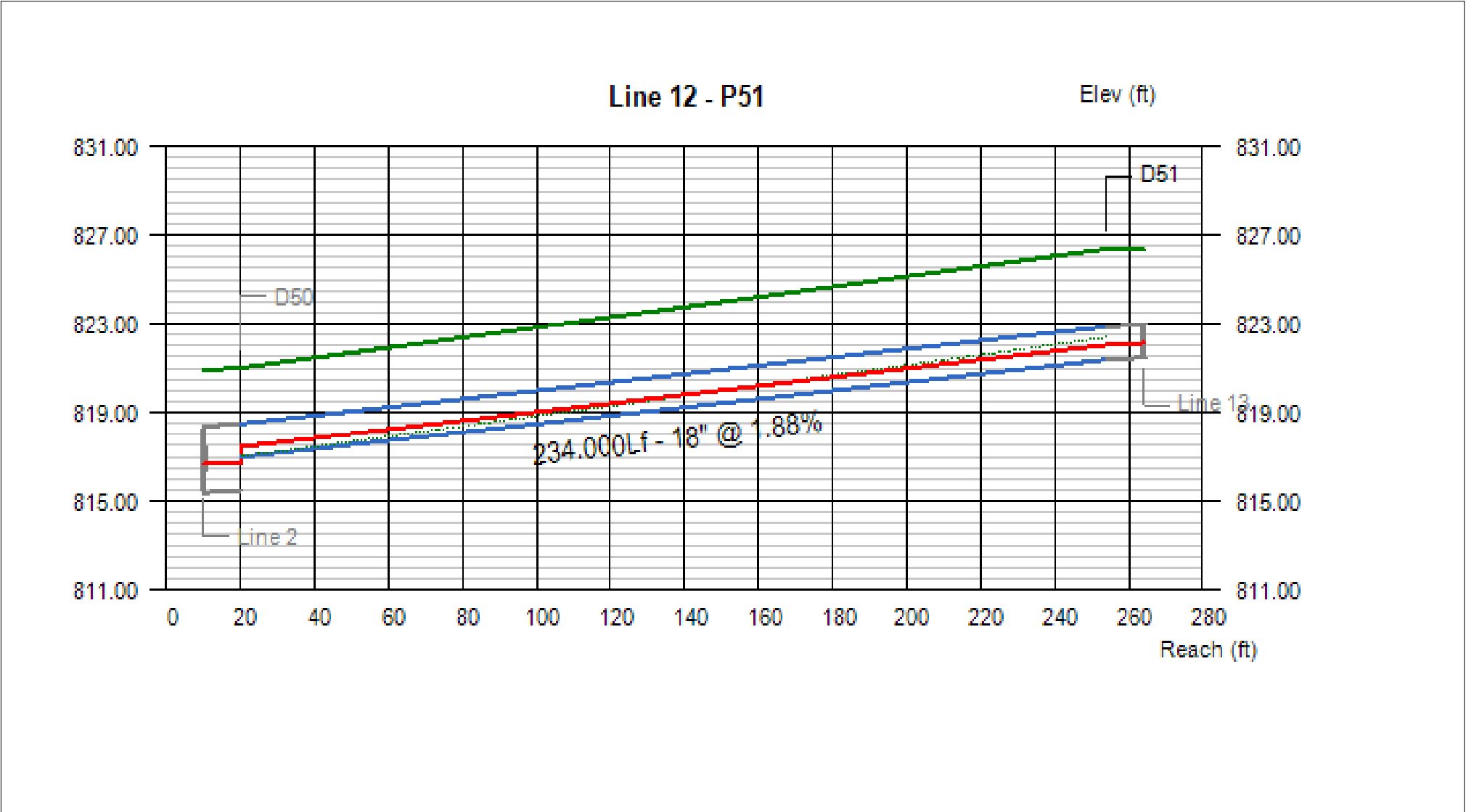


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
11	1.36	823.73	823.83	0.57	0.57	0.70	824.30	824.40	824.53	2.96	2.95	1.90	1.80

Project File:

No. Lines: 21

Run Date: 7/10/2024

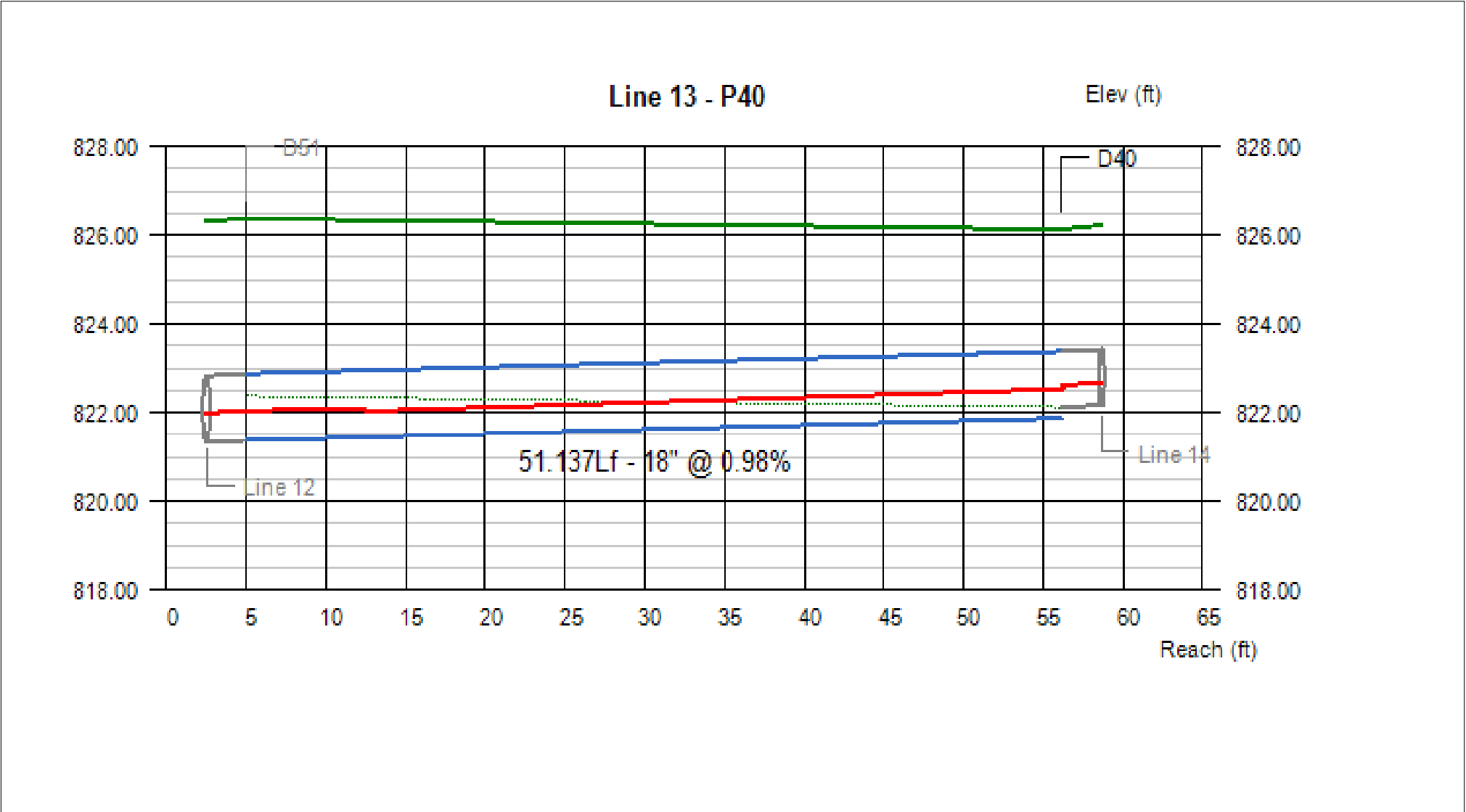


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
12	3.07	816.98	821.37	0.47	0.67	0.67	817.45	822.04	822.04	6.47	4.05	2.52	3.50

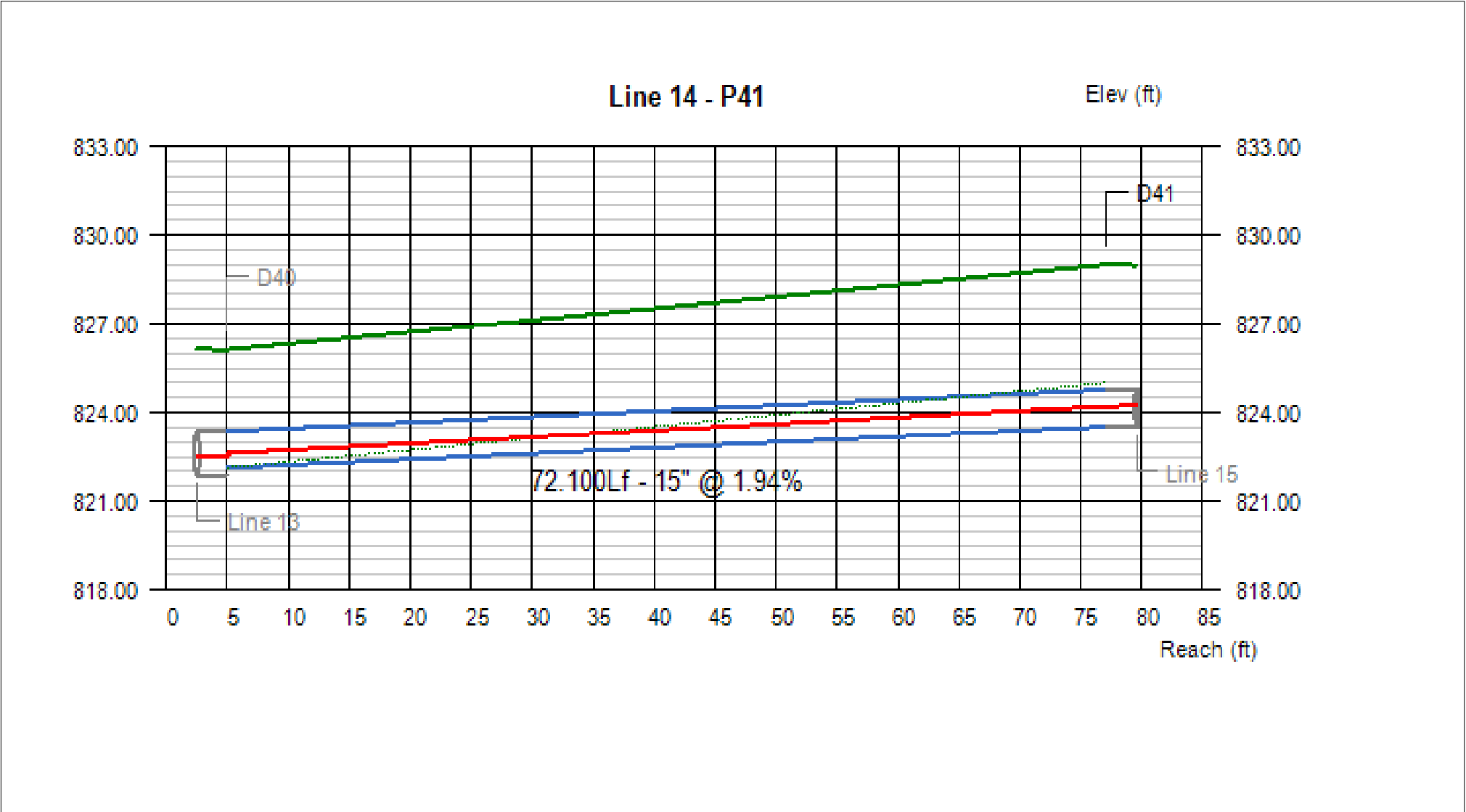
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
13	2.99	821.37	821.87	0.67	0.66	0.66	822.04	822.53 j	822.53	3.94	4.02	3.50	2.75
Project File:								No. Lines: 21			Run Date: 7/10/2024		

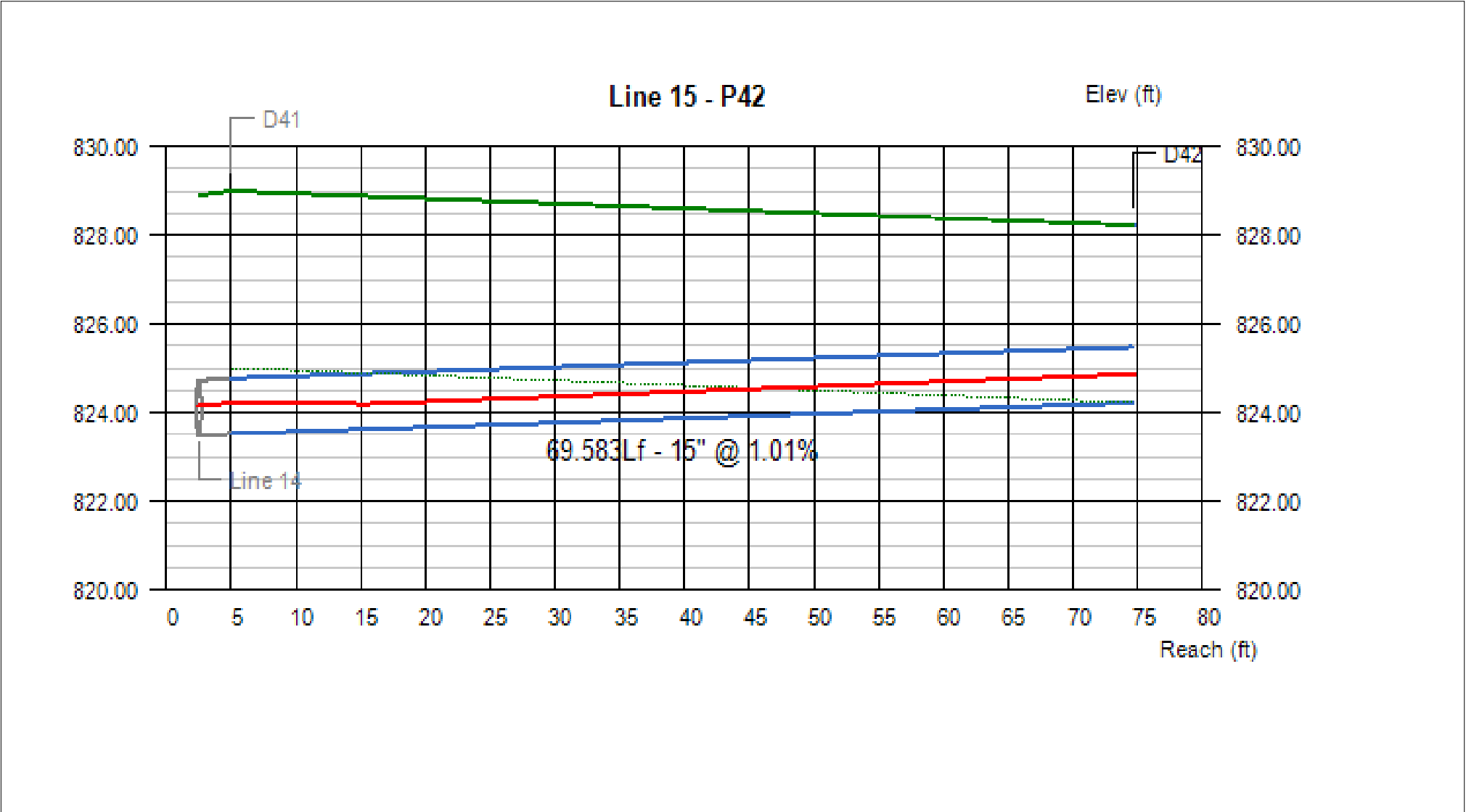


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
14	2.97	822.12	823.52	0.49	0.69	0.69	822.61	824.21	824.21	6.58	4.26	2.75	4.23

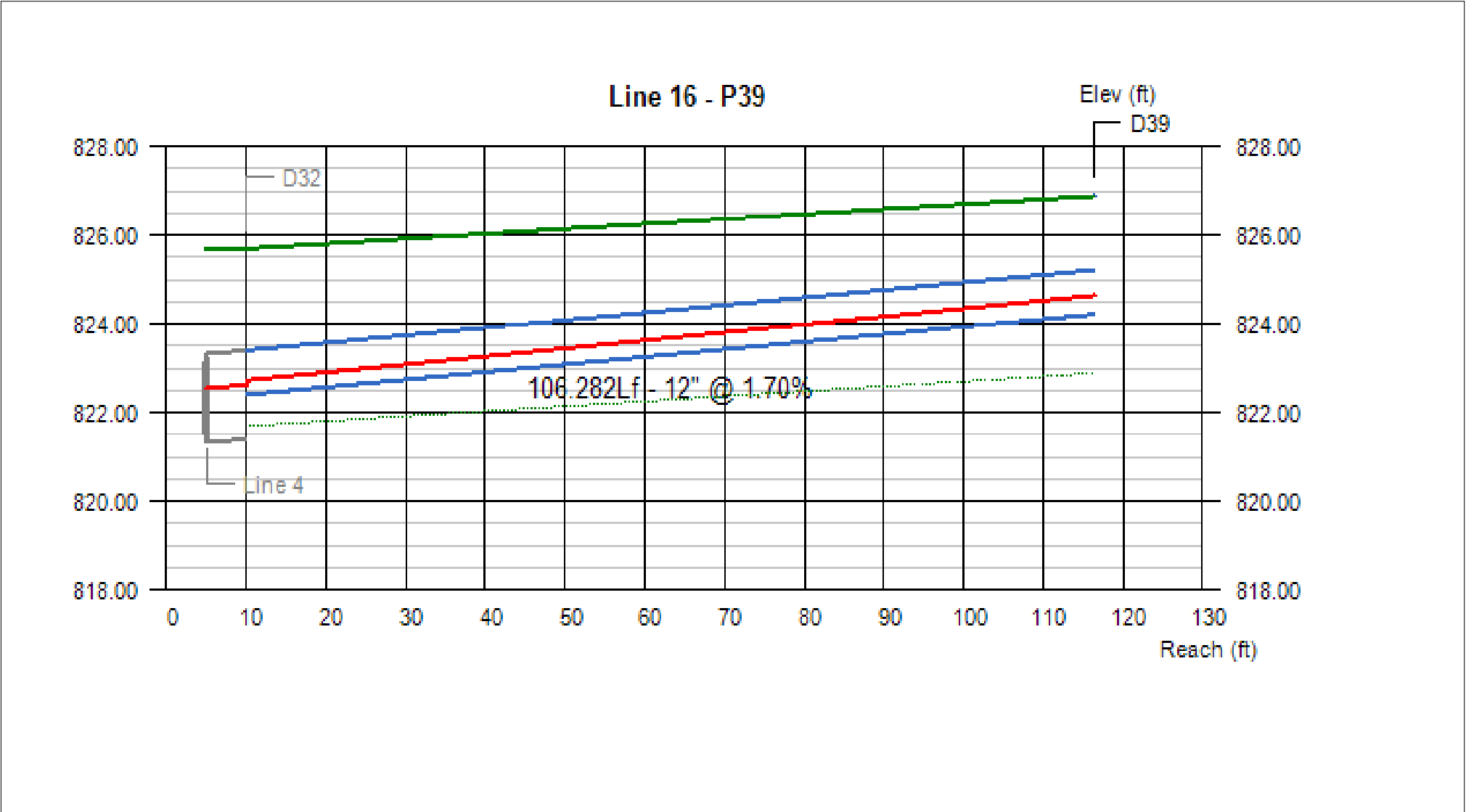
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
15	2.56	823.52	824.22	0.69	0.64	0.64	824.21	824.86 j	824.86	3.67	4.04	4.23	2.75
Project File:								No. Lines: 21			Run Date: 7/10/2024		

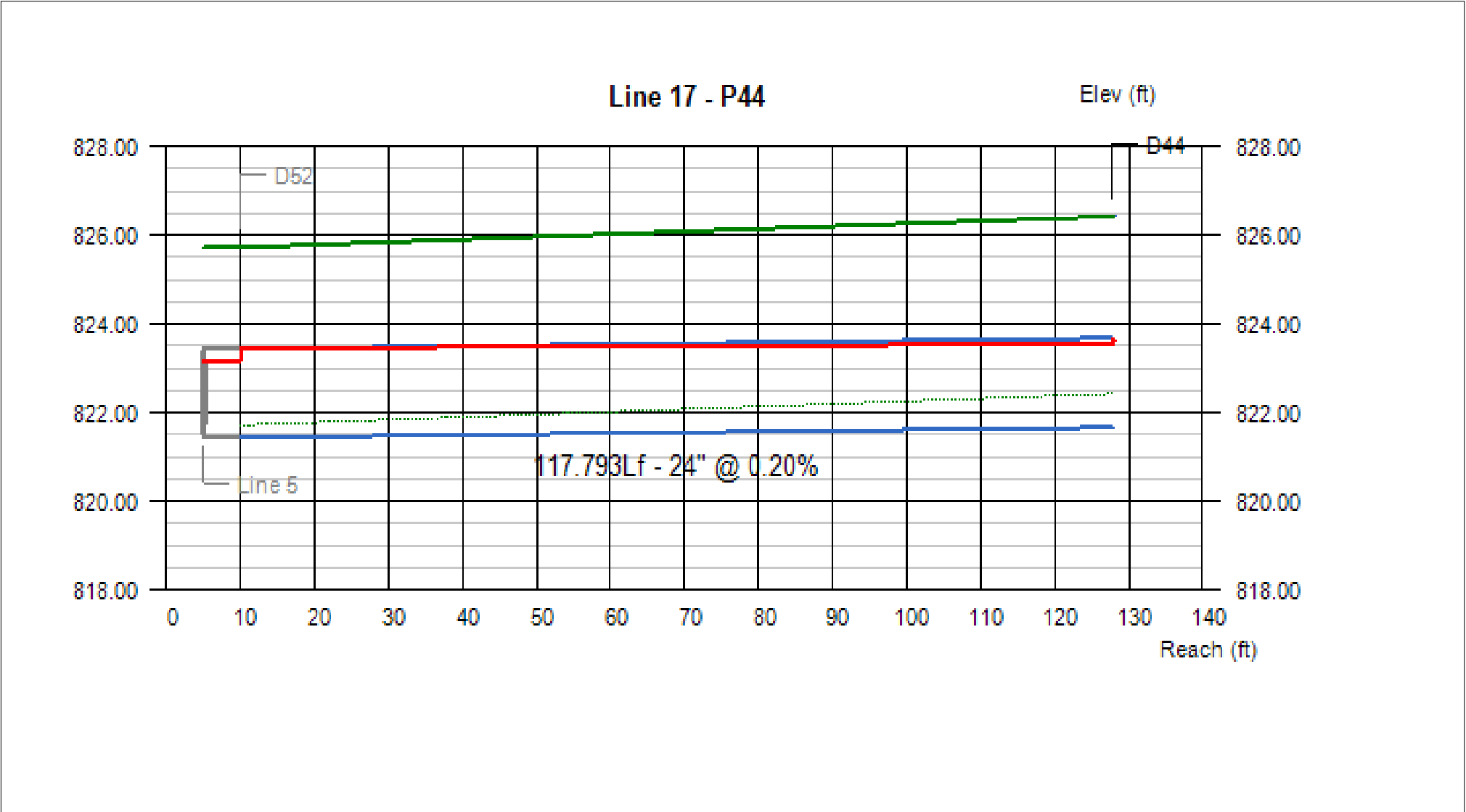


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
16	1.03	822.40	824.21	0.32	0.43	0.43	822.72	824.64	824.64	4.76	3.23	2.29	1.67

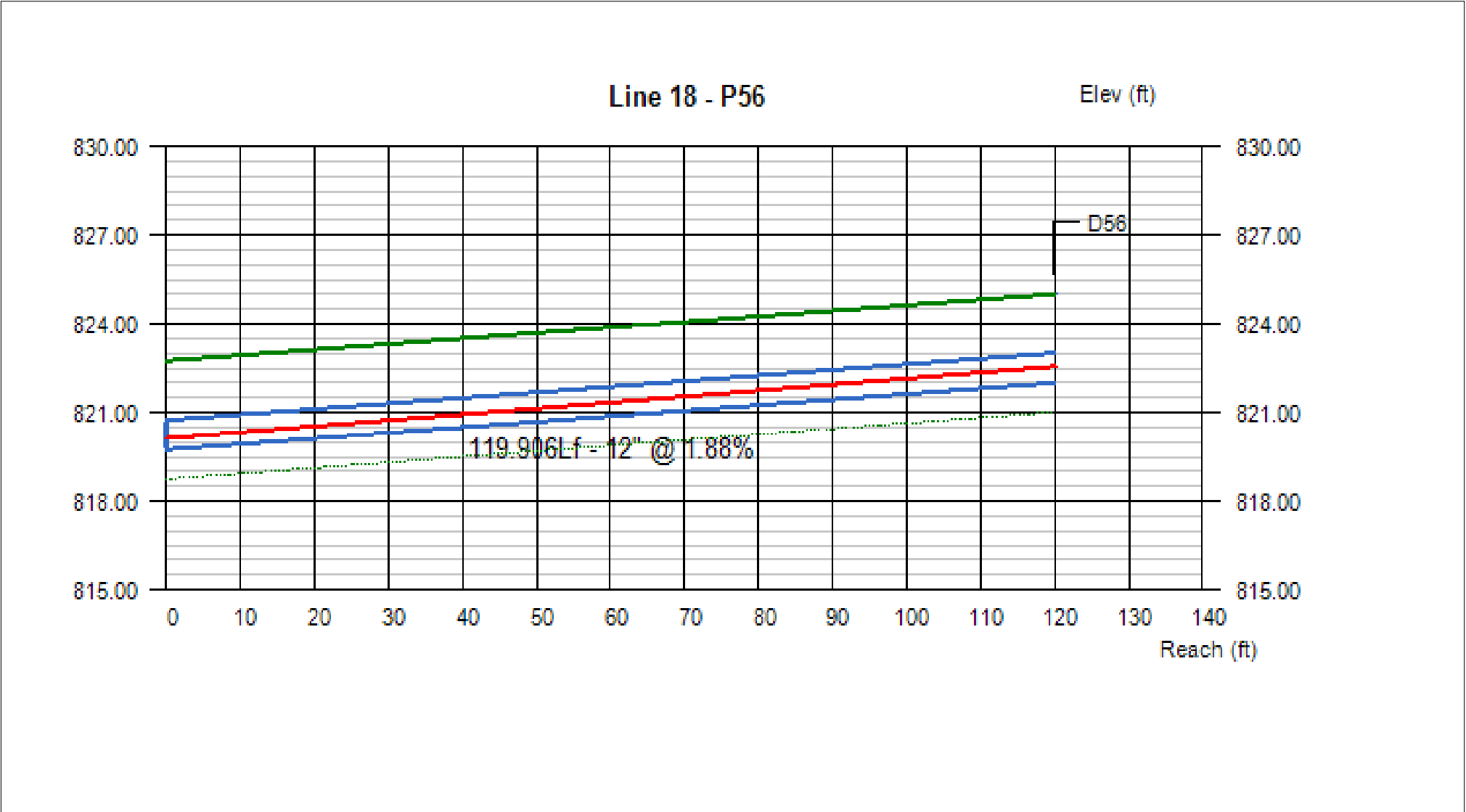
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
17	6.81	821.43	821.67	2.00	1.87	1.95	823.44	823.54	823.62	2.17	2.23	2.29	2.75
Project File:									No. Lines: 21		Run Date: 7/10/2024		

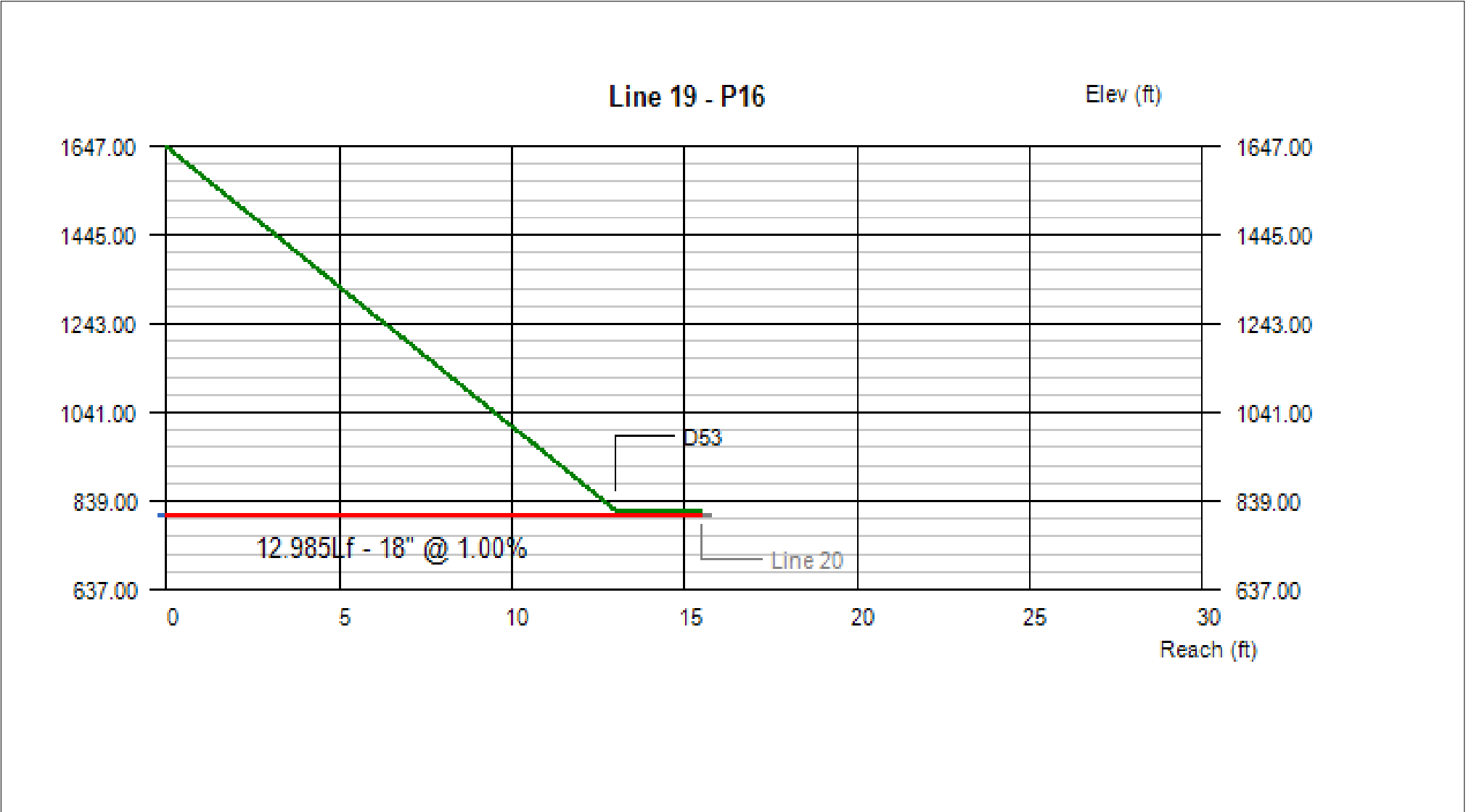


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
18	1.66	819.74	822.00	0.39	0.55	0.55	820.13	822.55	822.55	5.97	3.78	2.00	2.01

Project File:

No. Lines: 21

Run Date: 7/10/2024

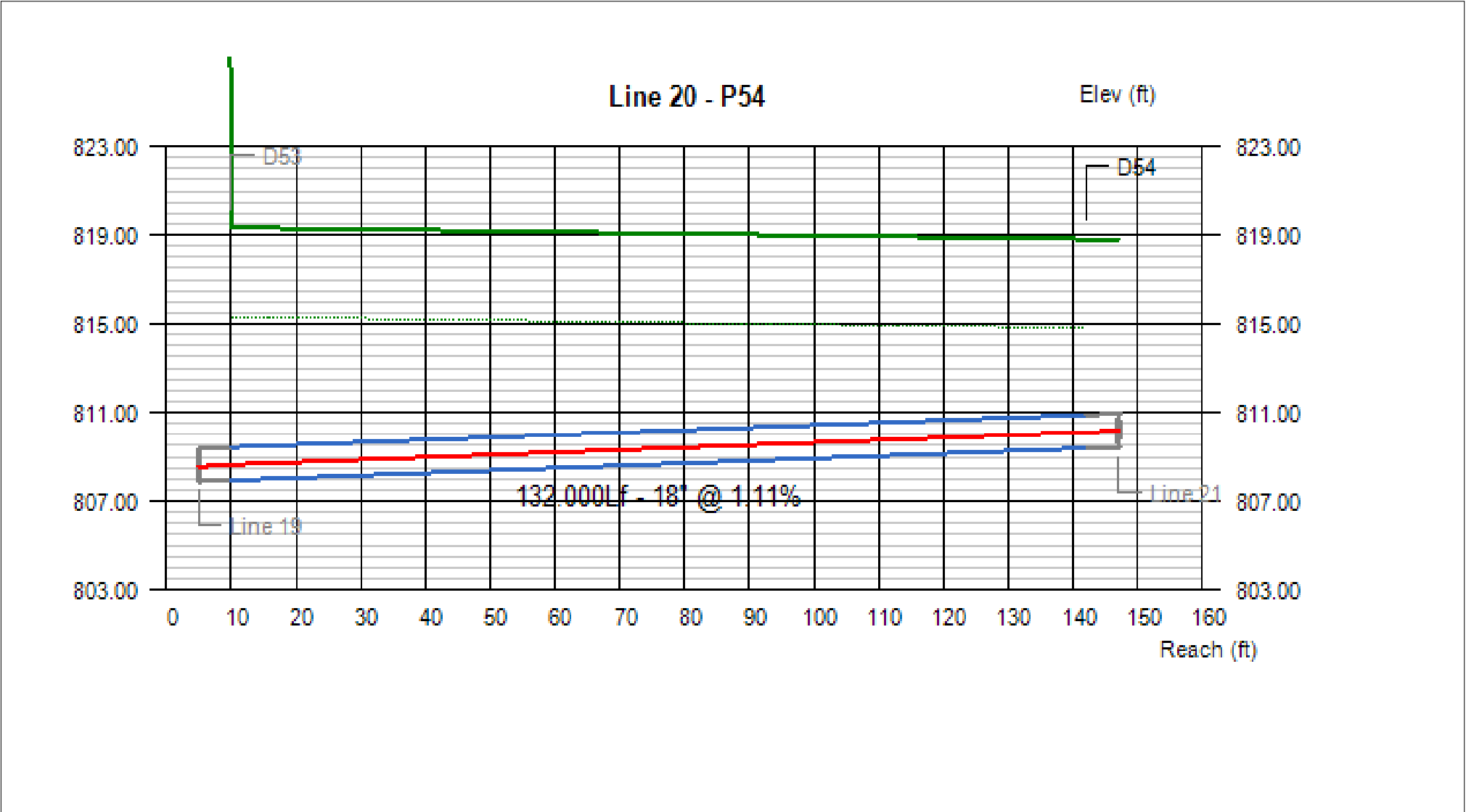


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
19	3.44	807.80	807.93	0.59	0.71	0.71	808.39	808.64	808.64	5.32	4.20	837.00	9.90

Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
20	3.55	807.93	809.39	0.71	0.72	0.72	808.64	810.11	810.11	4.33	4.24	9.90	7.91

Project File:

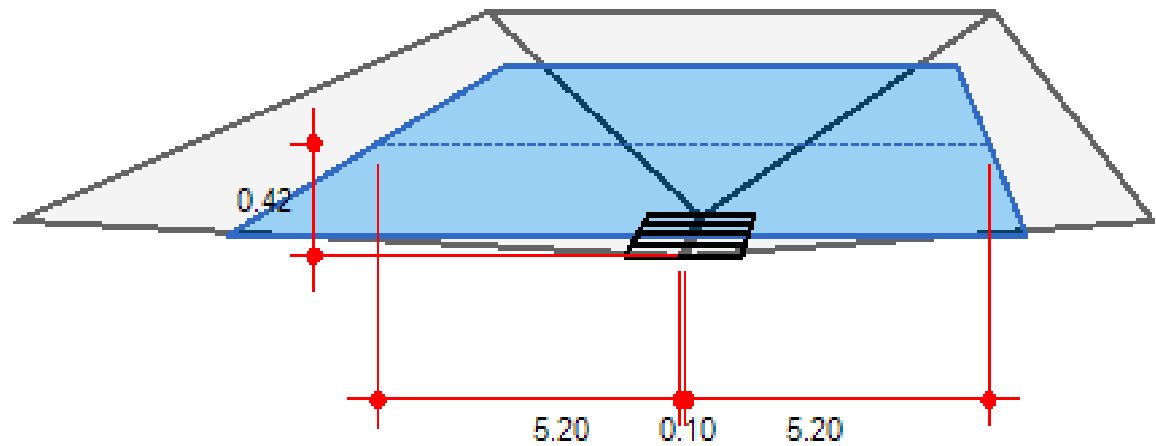
No. Lines: 21

Run Date: 7/10/2024

Inlet Section (Line 1 - Drop Grate Inlet) - D29

All dimensions in feet

Line 1 - Drop Grate Inlet in Sag - D29

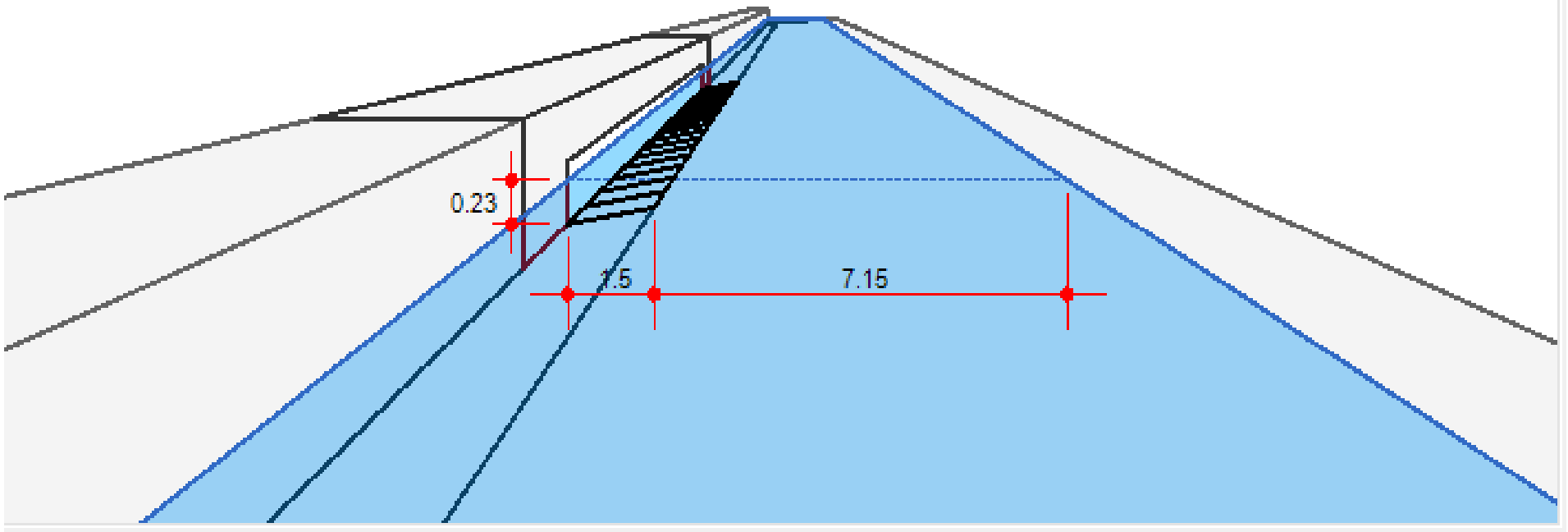


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
1	6.65	0.00	6.65	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.42	10.50	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 3 - Combination Inlet) - D30

All dimensions in feet

Line 3 - Combination Inlet in Sag - D30

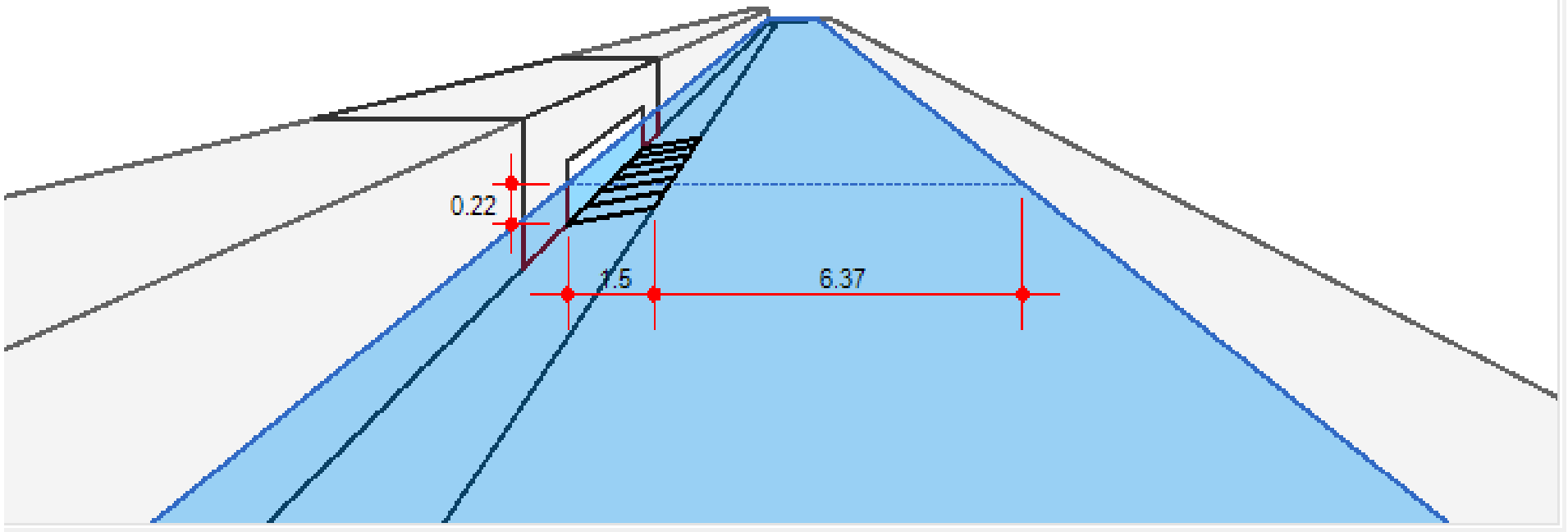


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
3	2.43	0.51	2.93	0.00	9.00	0.0	4.0	1.50	Sag	0.060	0.020	0.23	8.65	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 4 - Combination Inlet) - D32

All dimensions in feet

Line 4 - Combination Inlet in Sag - D32

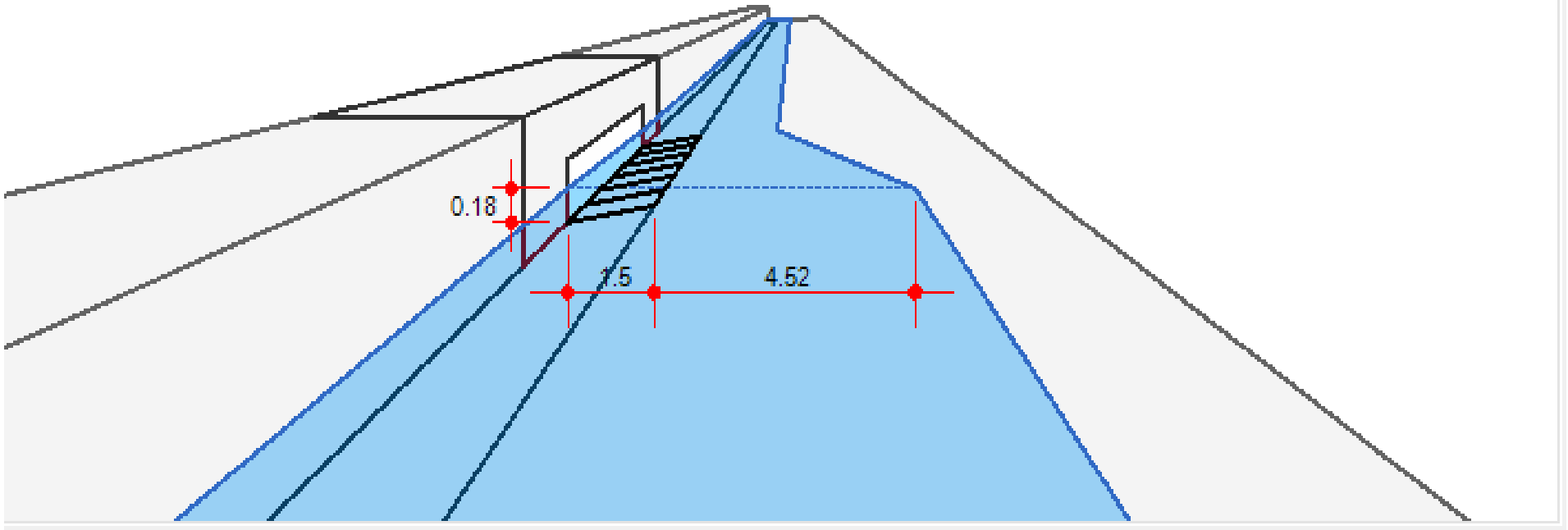


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
4	0.99	0.29	1.29	0.00	3.00	0.0	4.0	1.50	Sag	0.060	0.020	0.22	7.87	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 5 - Combination Inlet) - D52

All dimensions in feet

Line 5 - Combination Inlet on Grade - D52

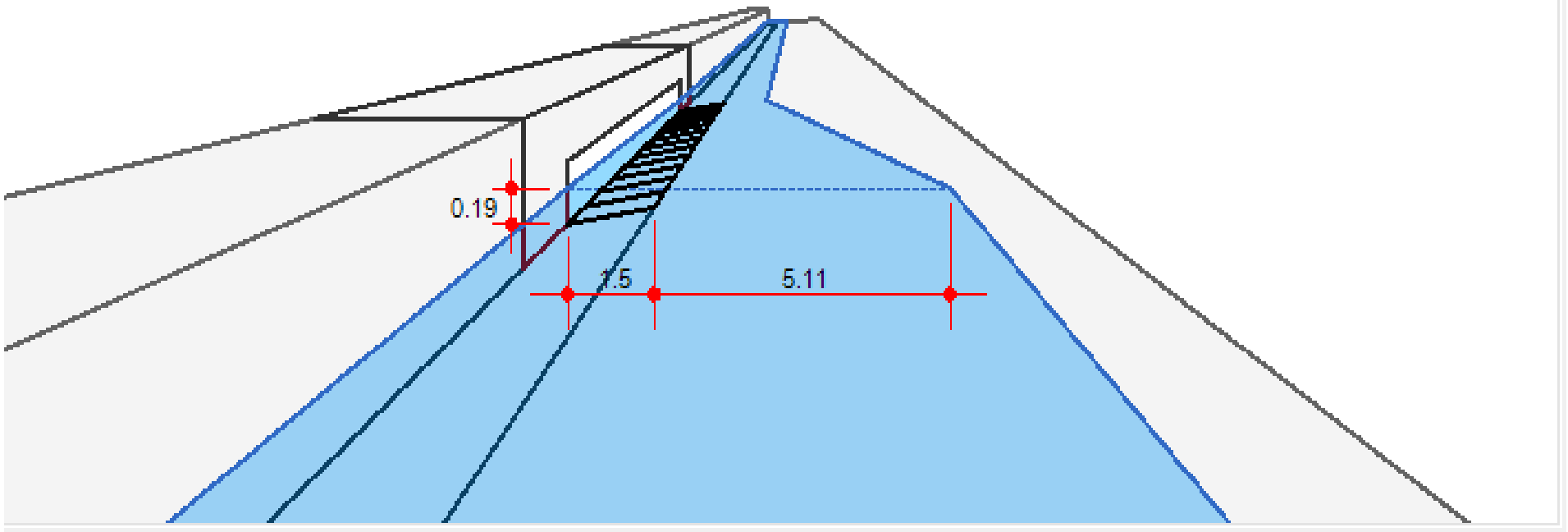


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
5	0.83	0.23	0.77	0.29	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.18	6.02	0.12	3.06	4
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 6 - Combination Inlet) - D33

All dimensions in feet

Line 6 - Combination Inlet on Grade - D33

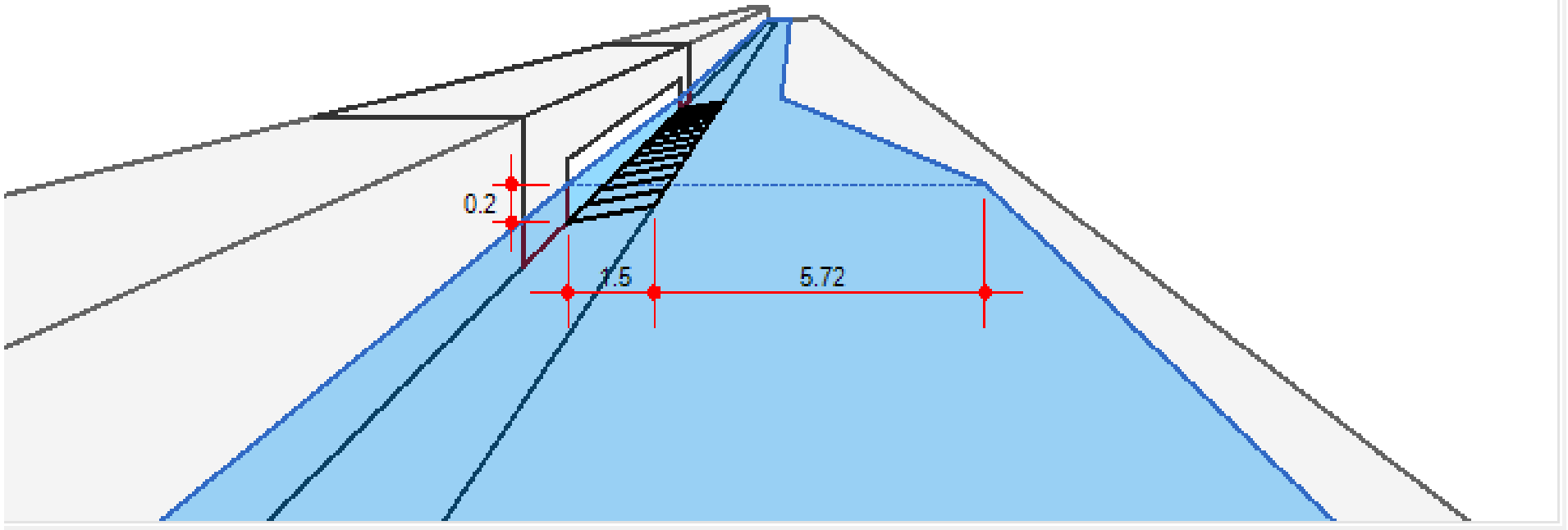


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
6	0.99	0.32	1.09	0.23	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.19	6.61	0.11	2.55	5
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 7 - Combination Inlet) - D34

All dimensions in feet

Line 7 - Combination Inlet on Grade - D34

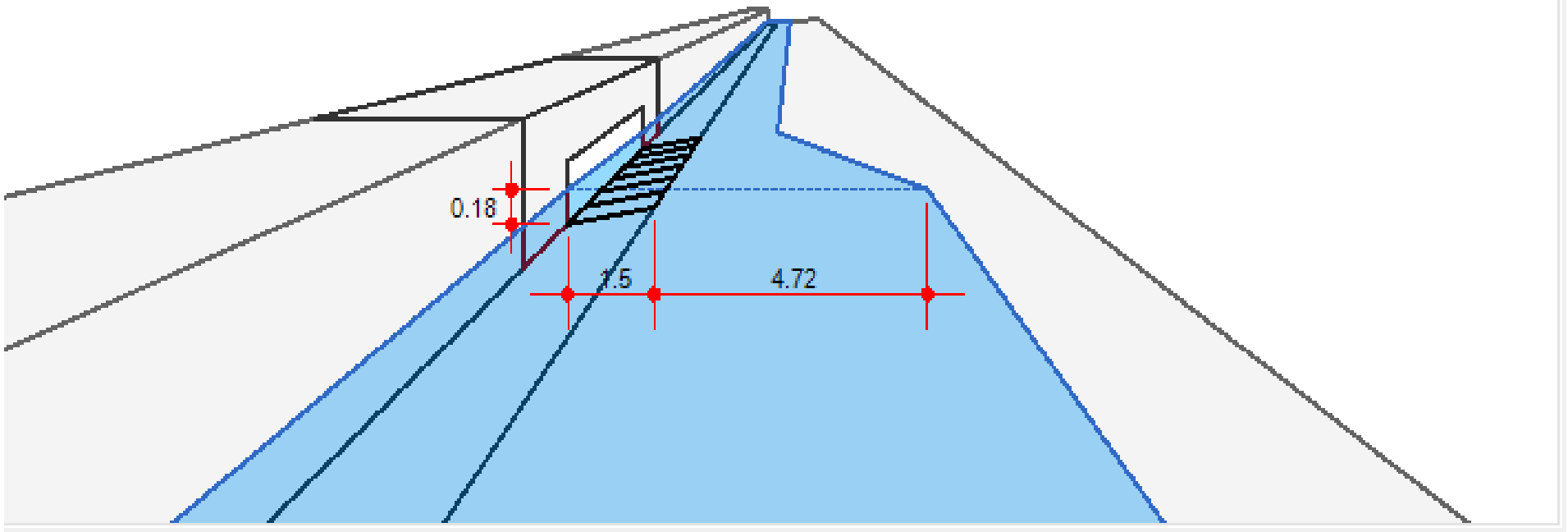


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
7	1.27	0.33	1.29	0.32	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.20	7.22	0.12	3.21	6
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 8 - Combination Inlet) - D36

All dimensions in feet

Line 8 - Combination Inlet on Grade - D36

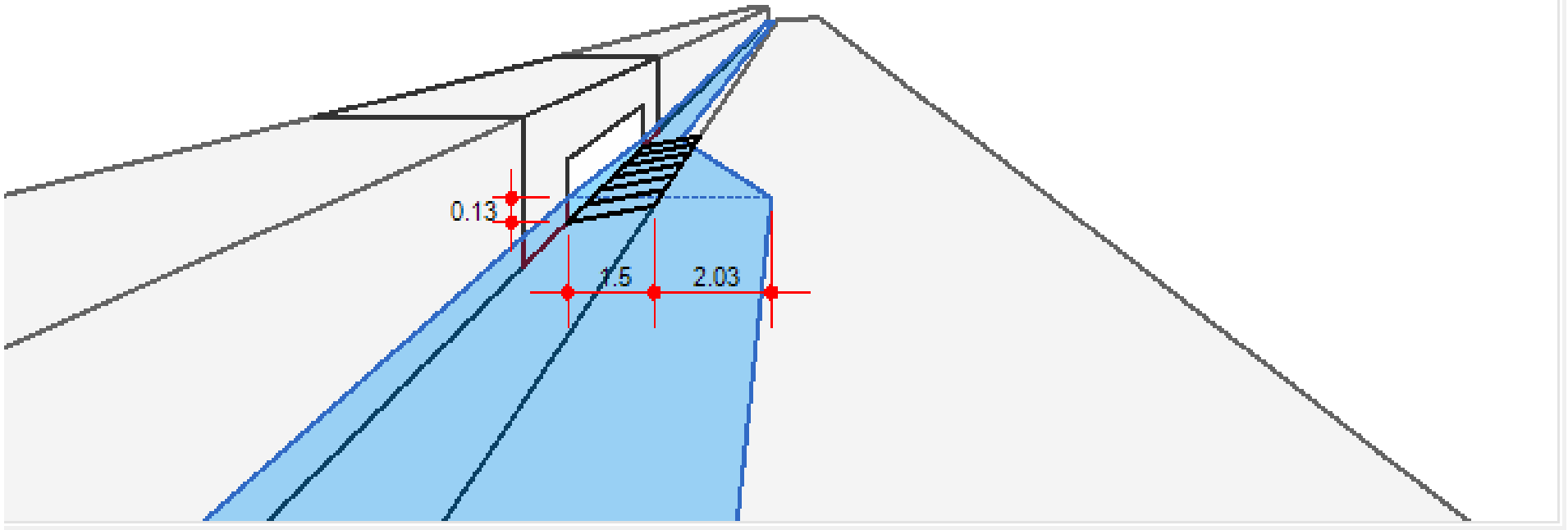


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
8	1.11	0.03	0.81	0.33	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.18	6.22	0.13	3.31	7
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 9 - Combination Inlet) - D48

All dimensions in feet

Line 9 - Combination Inlet on Grade - D48

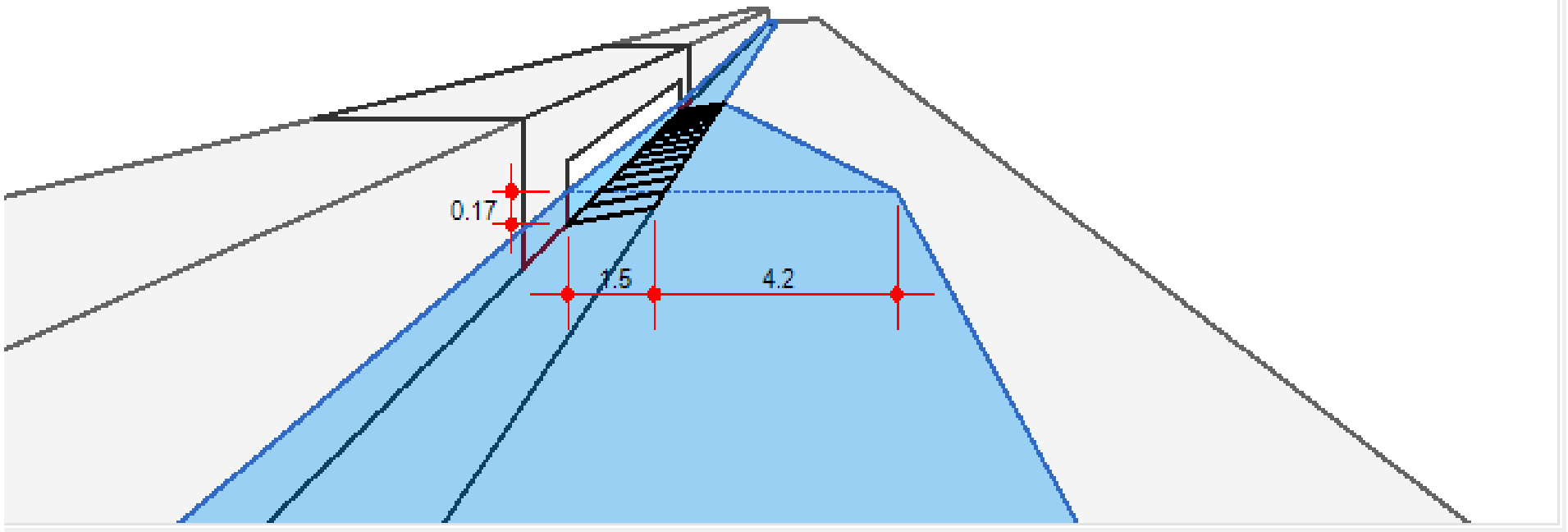


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
9	0.37	0.00	0.34	0.03	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.13	3.53	0.05	0.89	8
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 10 - Combination Inlet) - D38

All dimensions in feet

Line 10 - Combination Inlet on Grade - D38

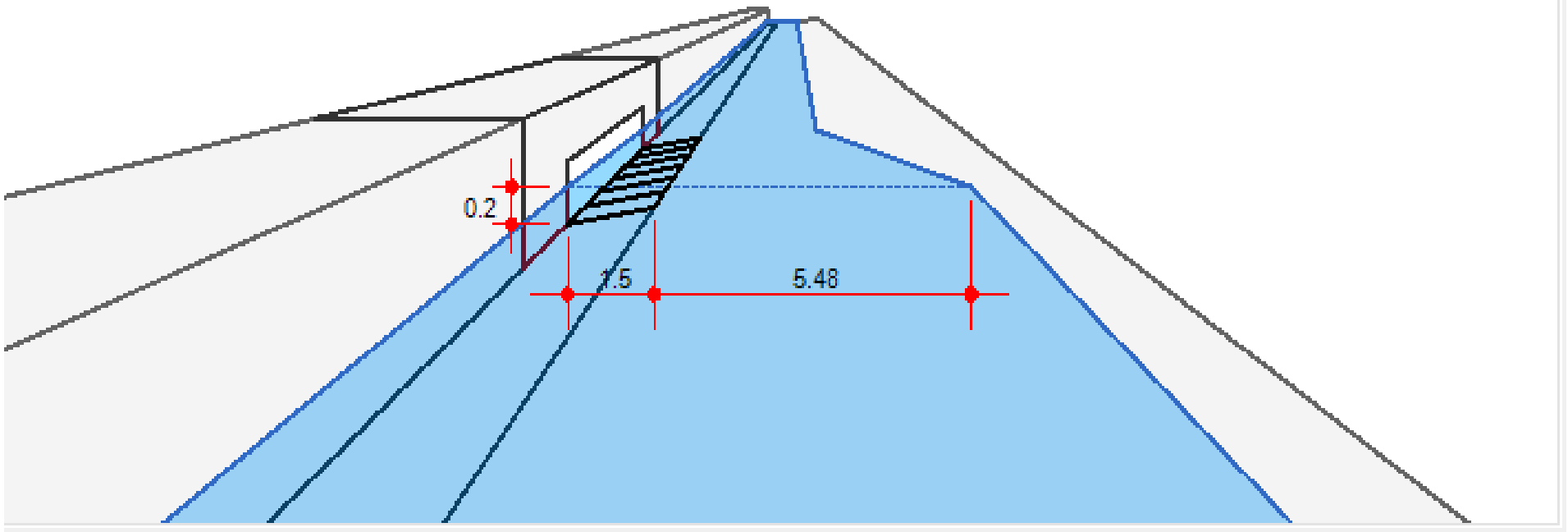


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
10	0.94	0.00	0.82	0.12	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.17	5.70	0.09	1.49	11
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 11 - Combination Inlet) - D37

All dimensions in feet

Line 11 - Combination Inlet on Grade - D37

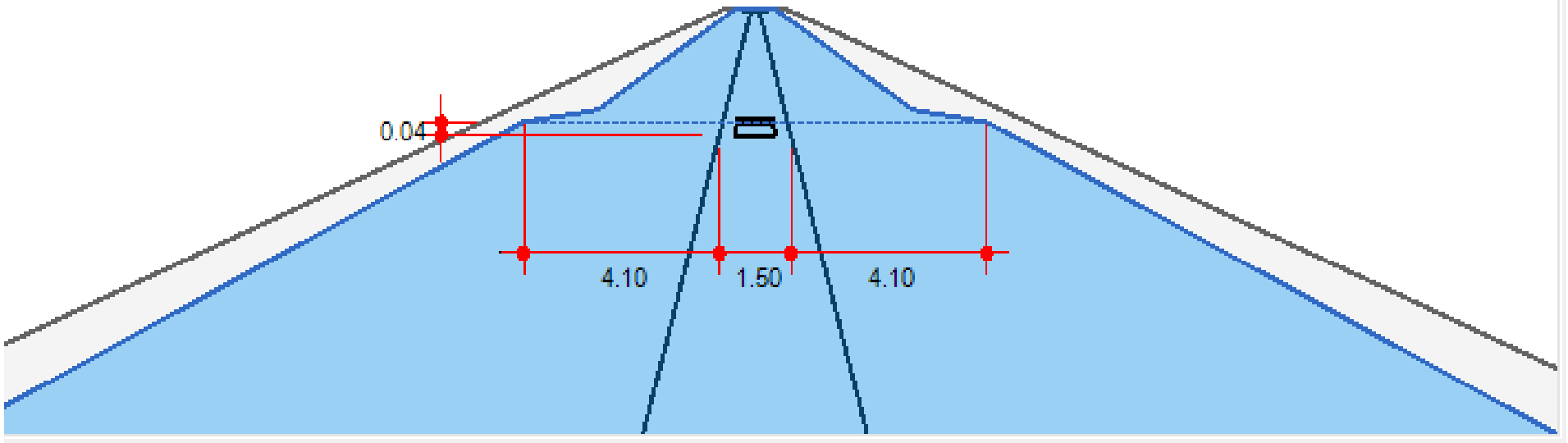


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
11	1.36	0.12	0.98	0.51	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.20	6.98	0.14	4.20	3
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 12 - Drop Grate Inlet) - D51

All dimensions in feet

Line 12 - Drop Grate Inlet on Grade - D51

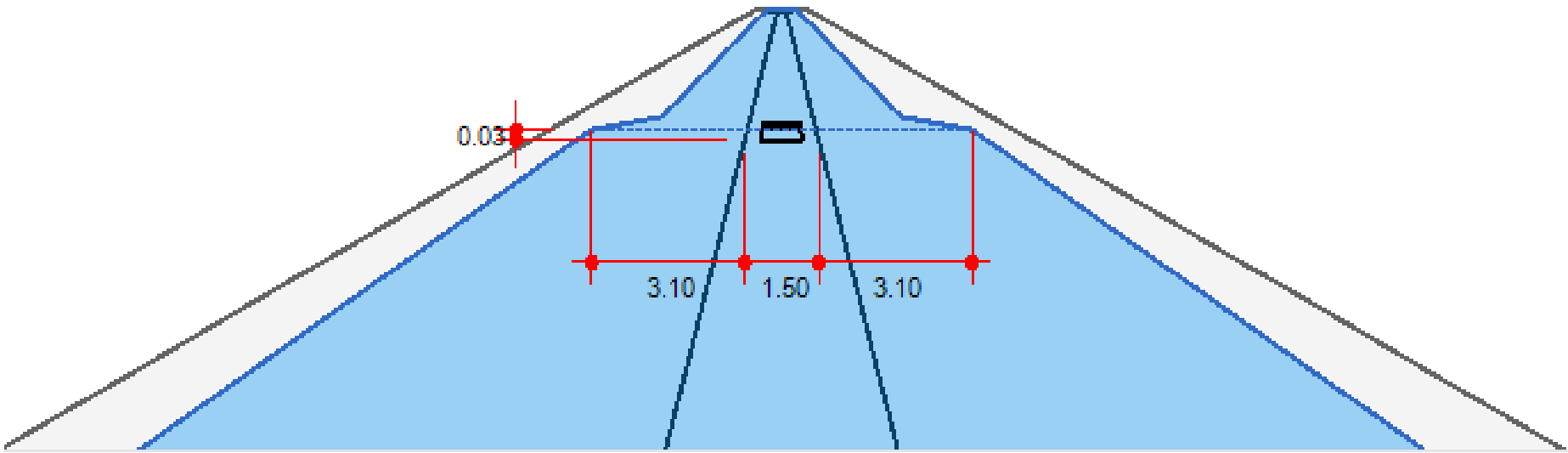


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
12	0.17	0.00	0.06	0.10	0.83	....	0.83	1.50	0.040	0.060	0.010	0.04	9.70	0.04	9.70	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 13 - Drop Grate Inlet) - D40

All dimensions in feet

Line 13 - Drop Grate Inlet on Grade - D40

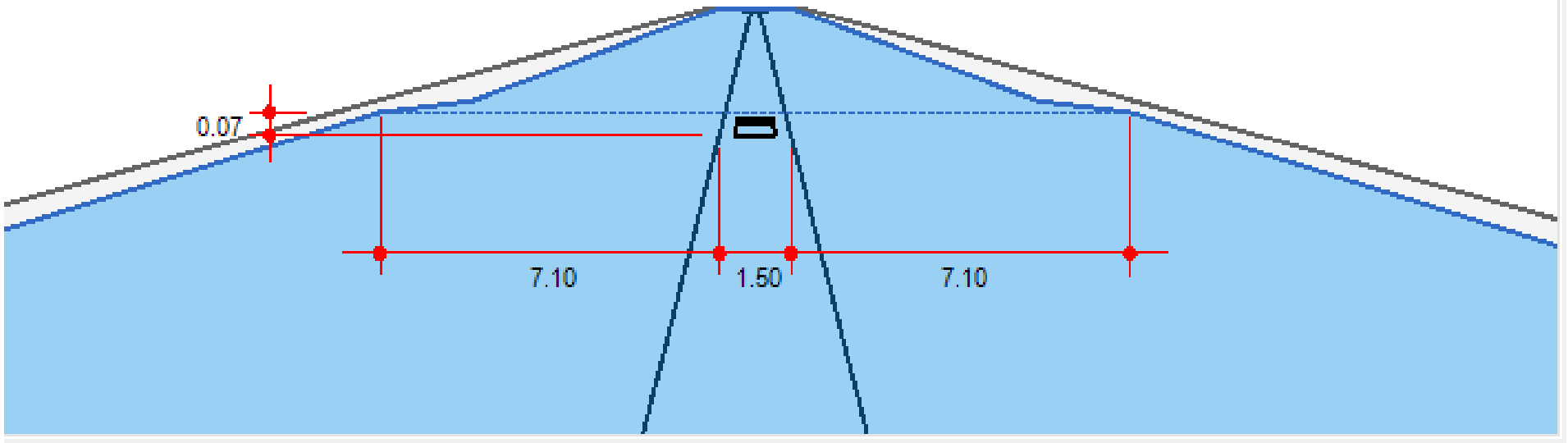


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
13	0.07	0.00	0.03	0.04	0.83	....	0.83	1.50	0.040	0.060	0.010	0.03	7.70	0.03	7.70	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 14 - Drop Grate Inlet) - D41

All dimensions in feet

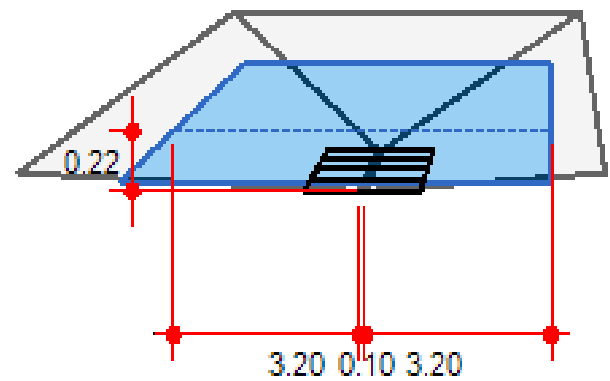
Line 14 - Drop Grate Inlet on Grade - D41



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
14	0.56	0.00	0.17	0.38	0.83	....	0.83	1.50	0.040	0.060	0.010	0.07	15.70	0.07	15.70	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

All dimensions in feet

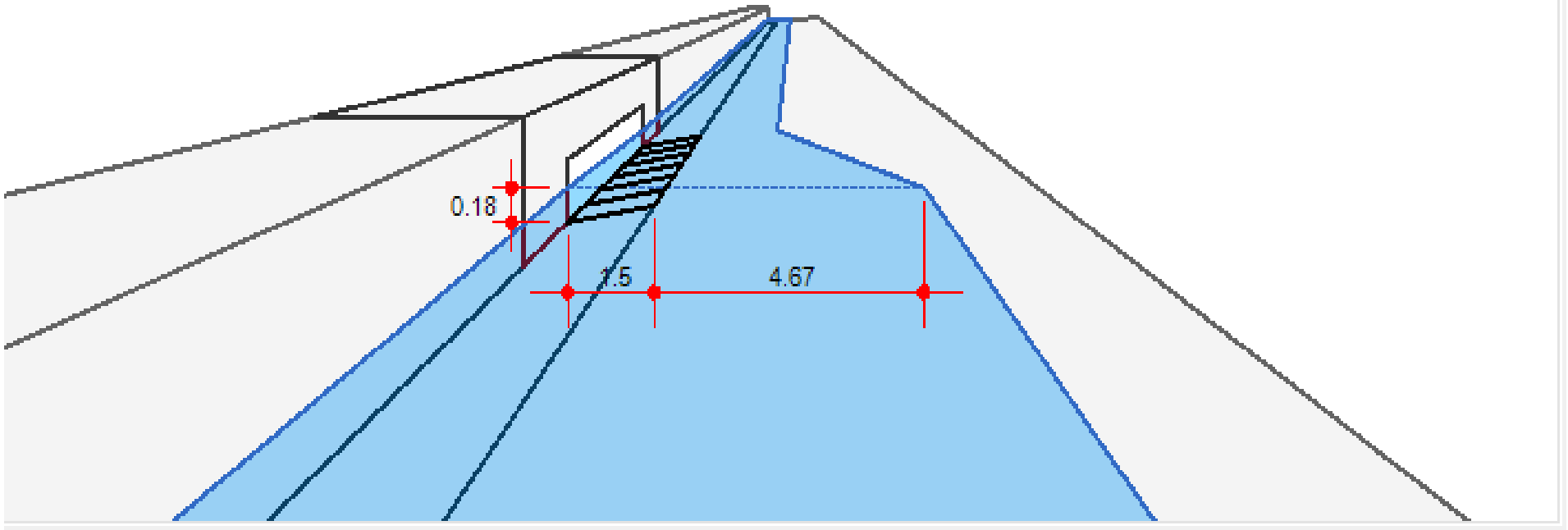
Line 15 - Drop Grate Inlet in Sag - D42



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
15	2.56	0.00	2.56	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.22	6.50	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

All dimensions in feet

Line 16 - Combination Inlet on Grade - D39

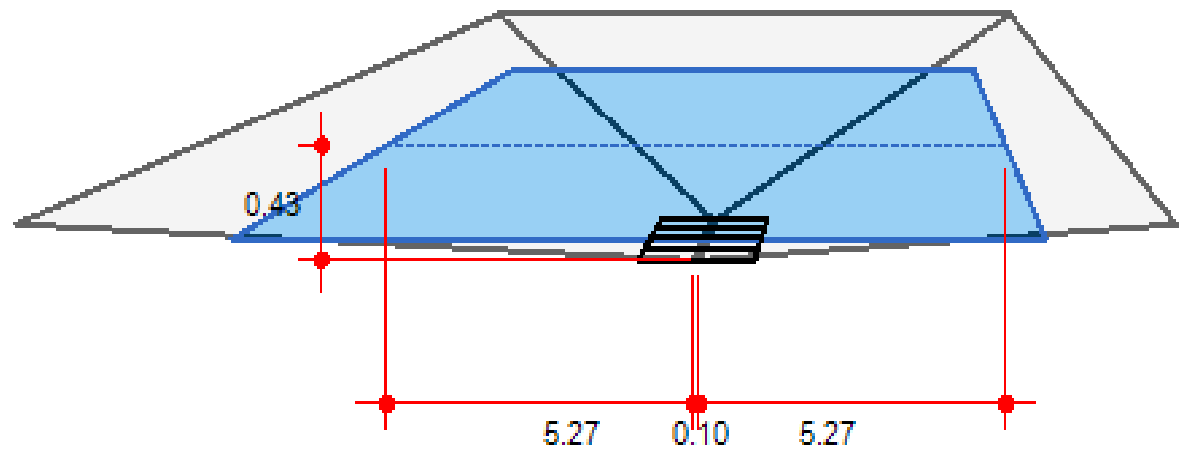


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
16	1.03	0.00	0.75	0.29	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.18	6.17	0.12	3.17	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 17 - Drop Grate Inlet) - D44

All dimensions in feet

Line 17 - Drop Grate Inlet in Sag - D44

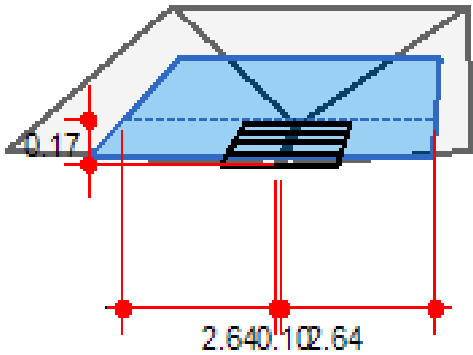


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
17	6.81	0.00	6.81	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.43	10.63	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 18 - Drop Grate Inlet) - D56

All dimensions in feet

Line 18 - Drop Grate Inlet in Sag - D56

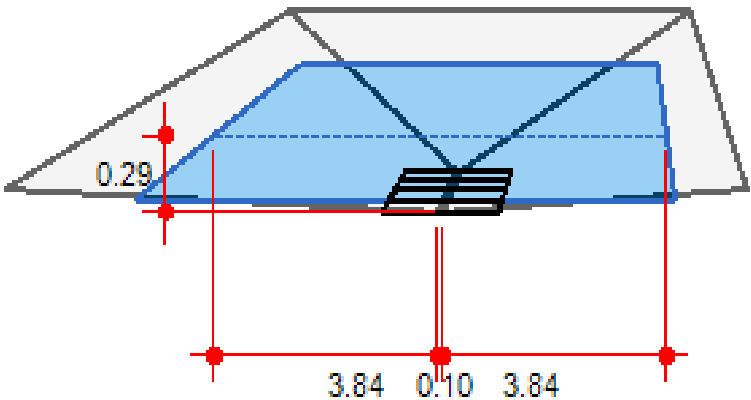


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
18	1.66	0.00	1.66	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.17	5.37	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 21 - Drop Grate Inlet) - D55

All dimensions in feet

Line 21 - Drop Grate Inlet in Sag - D55



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
21	3.73	0.00	3.73	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.29	7.78	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

10-Year Storm Calculations

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	P29	25.20	36	Cir	231.361	812.00	815.00	1.297	813.19	816.62	0.98	816.62	End	DropGrate
2	P50	18.60	36	Cir	47.619	815.00	815.48	1.008	816.62	816.86	n/a	816.86 j	1	None
3	P30	15.81	24	Cir	119.000	816.48	820.98	3.782	817.31	822.41	n/a	822.41	2	Combination
4	P32	14.04	24	Cir	26.000	820.98	821.40	1.616	822.41	822.75	n/a	822.75 j	3	Combination
5	P52	12.56	24	Cir	15.551	821.40	821.43	0.193	823.40	823.43	0.37	823.80	4	Combination
6	P33	4.97	18	Cir	85.160	821.93	823.23	1.527	823.80	824.09	n/a	824.09 j	5	Combination
7	P34	3.29	18	Cir	129.034	823.23	825.00	1.372	824.09	825.69	n/a	825.69 j	6	Combination
8	P35	2.35	12	Cir	146.688	825.50	826.94	0.982	826.10	827.60	0.43	827.60	7	Combination
9	P48	0.44	12	Cir	110.755	827.14	831.80	4.207	827.60	832.07	n/a	832.07 j	8	Combination
10	P38	1.11	12	Cir	26.000	826.94	827.13	0.731	827.60	827.57	n/a	827.57 j	8	Combination
11	P37	1.60	12	Cir	26.000	823.73	823.83	0.385	824.36	824.46	0.15	824.61	6	Combination
12	P51	3.67	18	Cir	234.000	816.98	821.37	1.876	817.50	822.10	0.43	822.10	2	DropGrate
13	P40	3.56	18	Cir	51.137	821.37	821.87	0.978	822.10	822.59	n/a	822.59 j	12	DropGrate
14	P41	3.53	15	Cir	72.100	822.12	823.52	1.942	822.66	824.28	n/a	824.28	13	DropGrate
15	P42	3.03	15	Cir	69.583	823.52	824.22	1.006	824.28	824.92	n/a	824.92 j	14	DropGrate
16	P39	1.22	12	Cir	106.282	822.40	824.21	1.703	822.75	824.67	n/a	824.67	4	Combination
17	P44	8.09	24	Cir	117.793	821.43	821.67	0.204	823.80*	823.95*	0.10	824.06	5	DropGrate
18	P56	1.97	12	Cir	119.906	819.74	822.00	1.885	820.16	822.60	0.25	822.60	End	DropGrate
19	P16	4.13	18	Cir	12.985	807.80	807.93	1.001	808.45	808.71	0.31	808.71	End	Manhole
20	P54	4.23	18	Cir	132.000	807.93	809.39	1.106	808.71	810.18	n/a	810.18	19	Manhole
21	P55	4.41	18	Cir	212.012	809.39	811.51	1.000	810.18	812.32	0.32	812.32	20	DropGrate

Project File: REVISED HAWKS POINTE PLAT 6 .stm

Number of lines: 21

Run Date: 7/10/2024

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Inlet Report

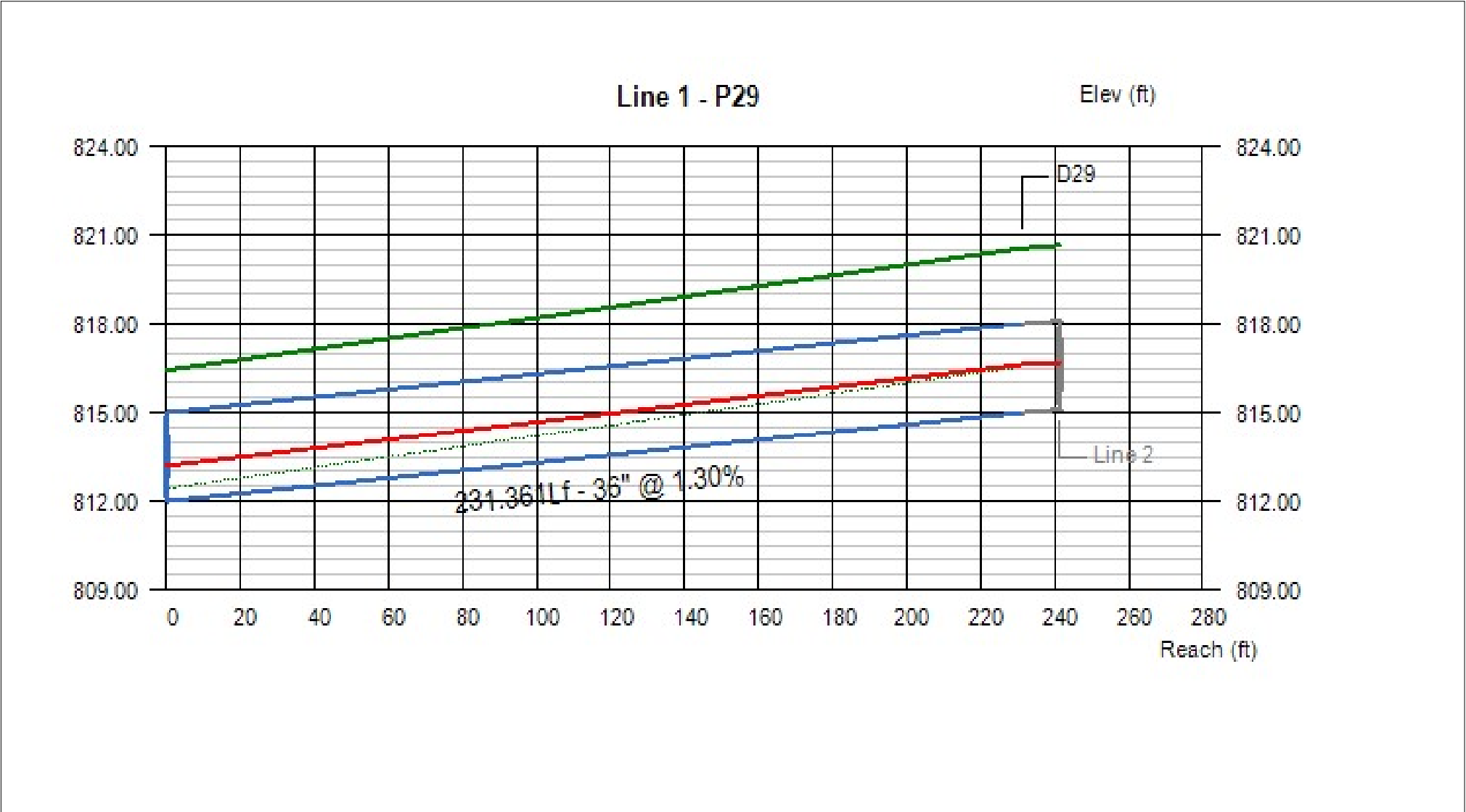
Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	D29	7.90	0.00	7.90	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.54	12.80	0.54	12.80	0.0	Off
2	D50	0.15	0.00	0.00	0.15	None	0.0	0.83	0.00	0.83	0.83	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
3	D30	2.85	0.66	3.51	0.00	Comb	4.0	9.00	6.00	9.00	1.50	Sag	1.50	0.060	0.020	0.013	0.26	9.86	0.26	9.86	0.0	Off
4	D32	1.17	0.41	1.58	0.00	Comb	4.0	3.00	2.00	3.00	1.50	Sag	1.50	0.060	0.020	0.013	0.24	9.14	0.24	9.14	0.0	Off
5	D52	0.98	0.32	0.89	0.41	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.19	6.59	0.13	3.75	0.0	4
6	D33	1.17	0.43	1.29	0.32	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.20	7.22	0.12	3.21	0.0	5
7	D34	1.50	0.45	1.51	0.43	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.22	7.83	0.14	3.86	0.0	6
8	D36	1.32	0.05	0.92	0.45	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.19	6.74	0.14	3.92	0.0	7
9	D48	0.44	0.00	0.39	0.05	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.14	3.89	0.06	1.06	0.0	8
10	D38	1.11	0.00	0.94	0.17	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.18	6.14	0.10	2.00	0.0	11
11	D37	1.60	0.17	1.11	0.66	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.21	7.52	0.16	4.81	0.0	3
12	D51	0.19	0.00	0.08	0.12	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.04	9.70	0.04	9.70	0.0	Off
13	D40	0.09	0.00	0.04	0.05	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.03	7.70	0.03	7.70	0.0	Off
14	D41	0.66	0.00	0.19	0.46	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.08	17.70	0.08	17.70	0.0	Off
15	D42	3.03	0.00	3.03	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.25	7.03	0.25	7.03	0.0	Off
16	D39	1.22	0.00	0.84	0.38	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.013	0.19	6.63	0.13	3.72	0.0	Off
17	D44	8.09	0.00	8.09	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.57	13.33	0.57	13.33	0.0	Off
18	D56	1.97	0.00	1.97	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.19	5.77	0.19	5.77	0.0	Off
19	D53	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
20	D54	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
21	D55	4.41	0.00	4.41	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.32	8.46	0.32	8.46	0.0	Off

Project File: REVISED HAWKS POINTE PLAT 6 .stm

Number of lines: 21

Run Date: 7/10/2024

NOTES: Inlet N-Values = 0.016; Intensity = 182.24 / (Inlet time + 21.30) ^ 0.99; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

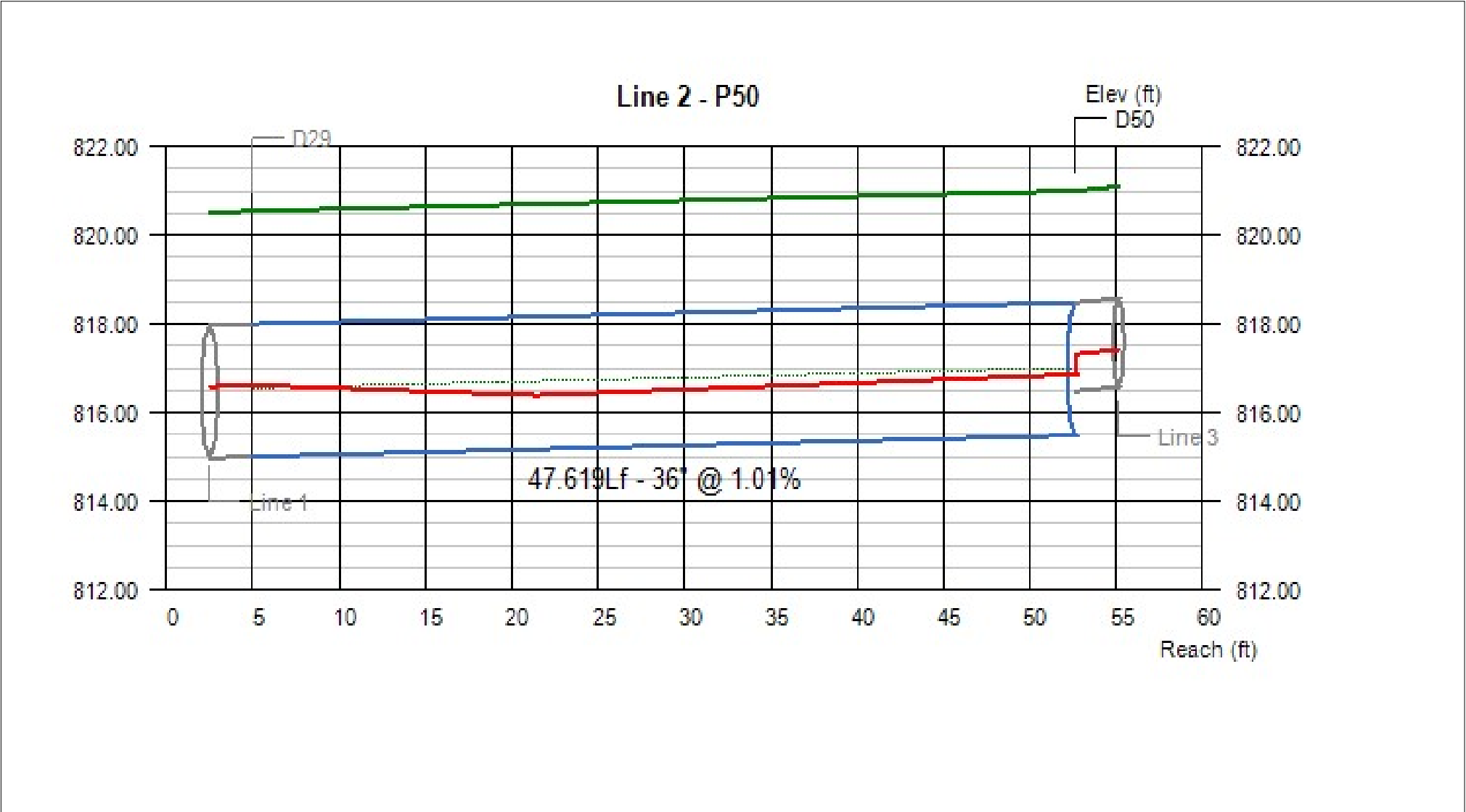


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
1	25.20	812.00	815.00	1.19	1.62	1.62	813.19	816.62	816.62	9.64	6.48	1.42	2.55

Project File:

No. Lines: 21

Run Date: 7/10/2024

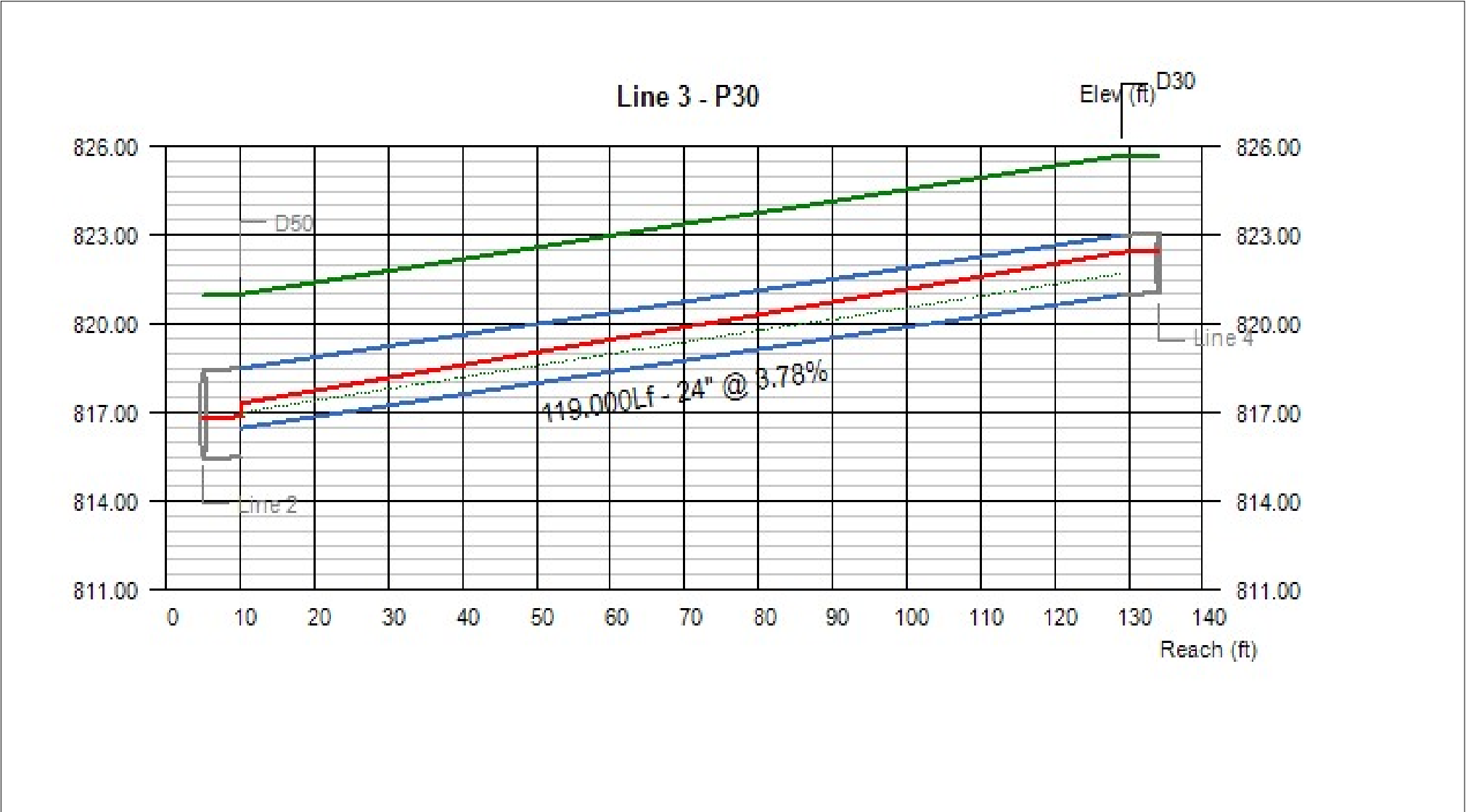


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
2	18.60	815.00	815.48	1.62	1.38	1.38	816.62	816.86 j	816.86	4.78	5.85	2.55	2.52

Project File:

No. Lines: 21

Run Date: 7/10/2024

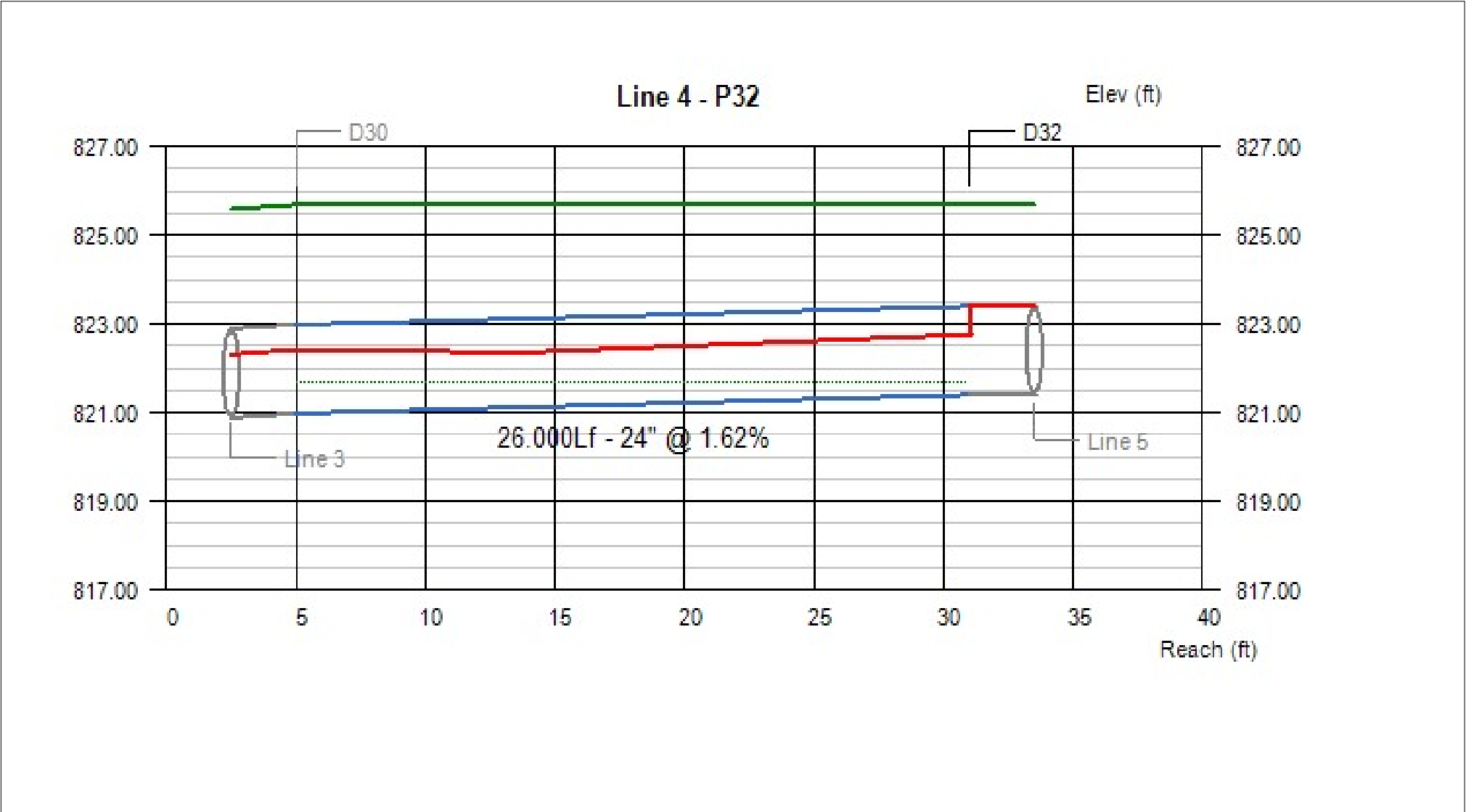


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
3	15.81	816.48	820.98	0.83	1.43	1.43	817.31	822.41	822.41	12.85	6.57	2.52	2.71

Project File:

No. Lines: 21

Run Date: 7/10/2024

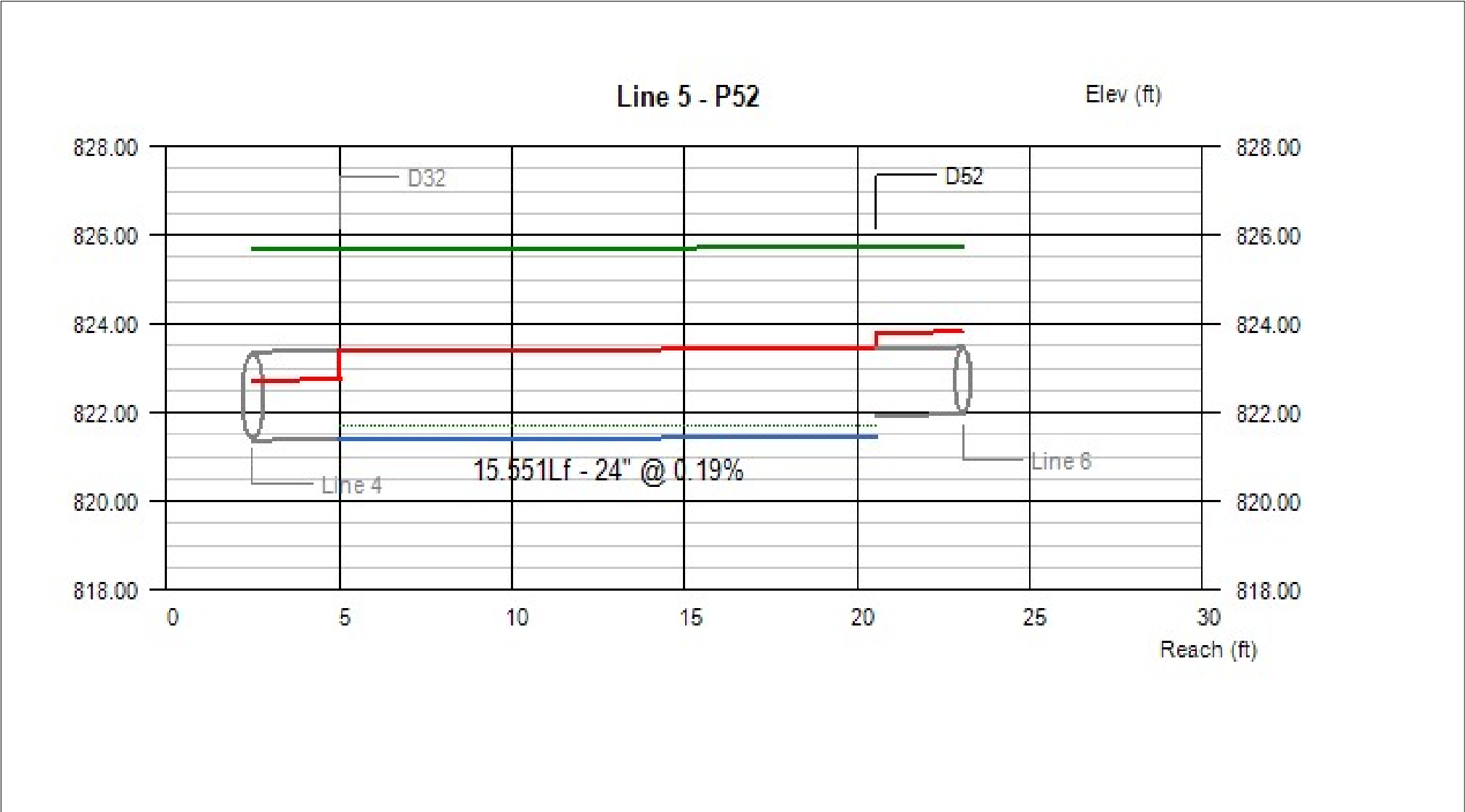


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
4	14.04	820.98	821.40	1.43	1.35	1.35	822.41	822.75 j	822.75	5.83	6.23	2.71	2.29

Project File:

No. Lines: 21

Run Date: 7/10/2024



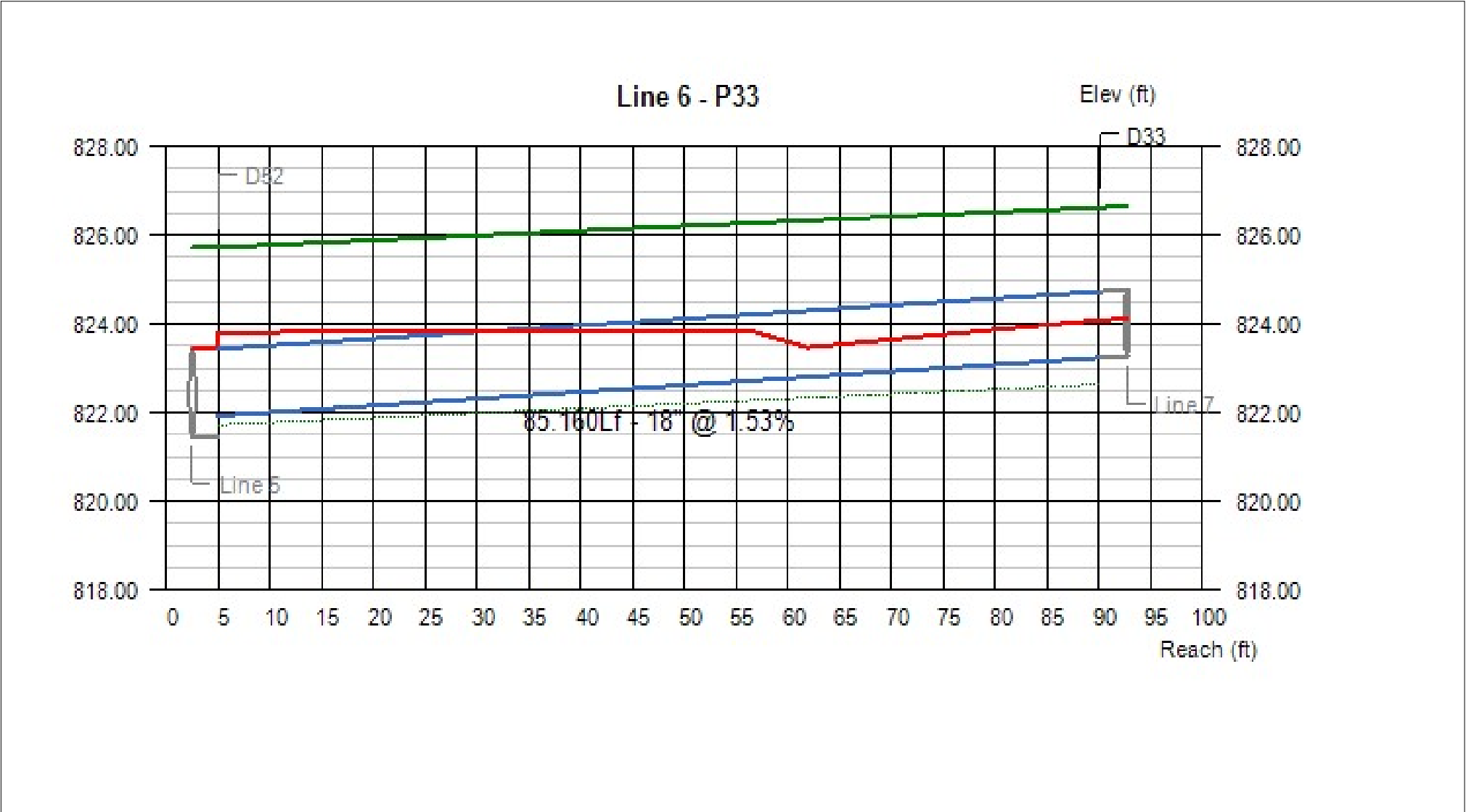
Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
5	12.56	821.40	821.43	2.00	2.00	2.37	823.40	823.43	823.80	4.00	4.00	2.29	2.29

Project File:

No. Lines: 21

Run Date: 7/10/2024

Line Profile (Line 6) - P33

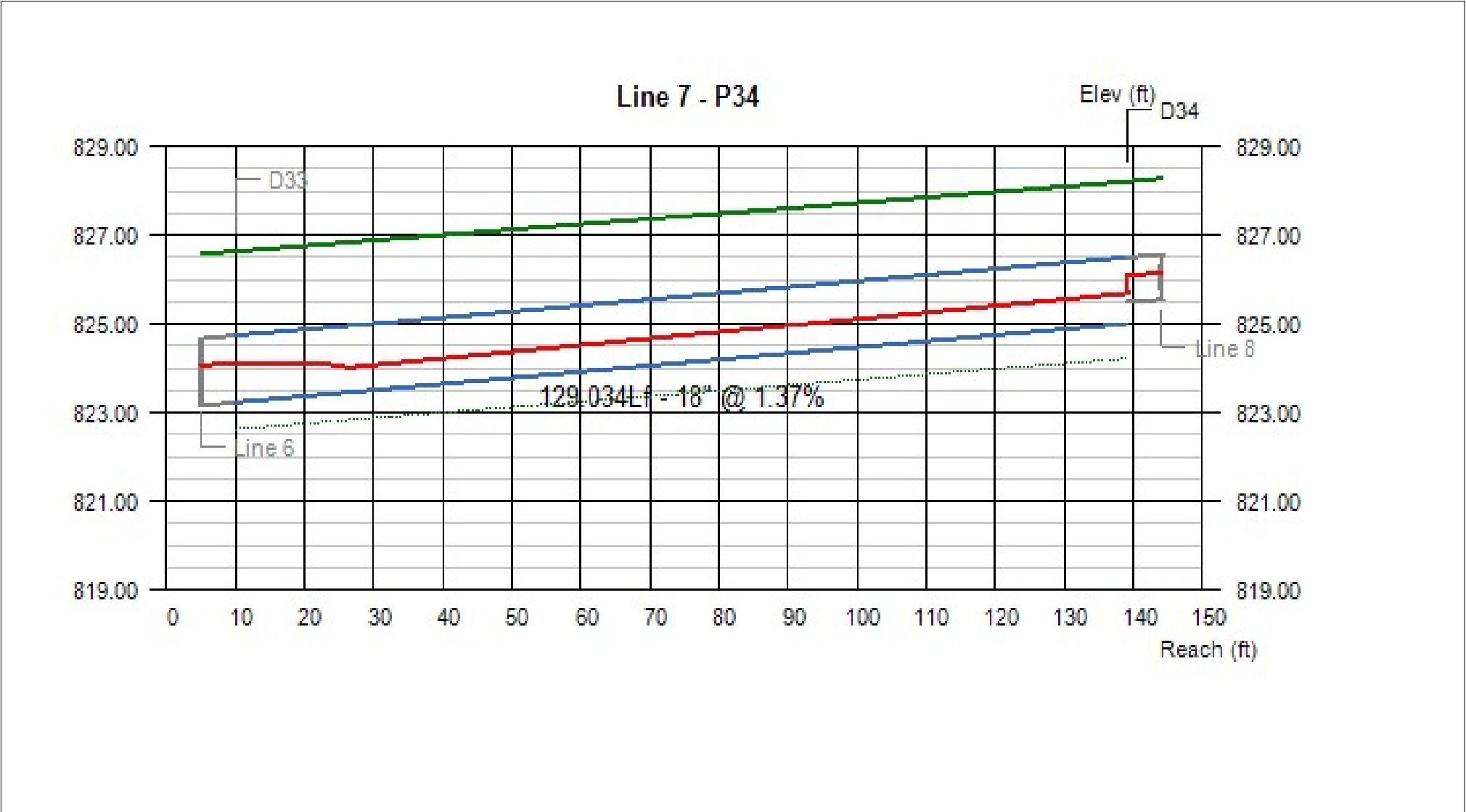


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
6	4.97	821.93	823.23	1.50	0.86	0.86	823.80	824.09 j	824.09	2.81	4.77	2.29	1.90

Project File:

No. Lines: 21

Run Date: 7/10/2024

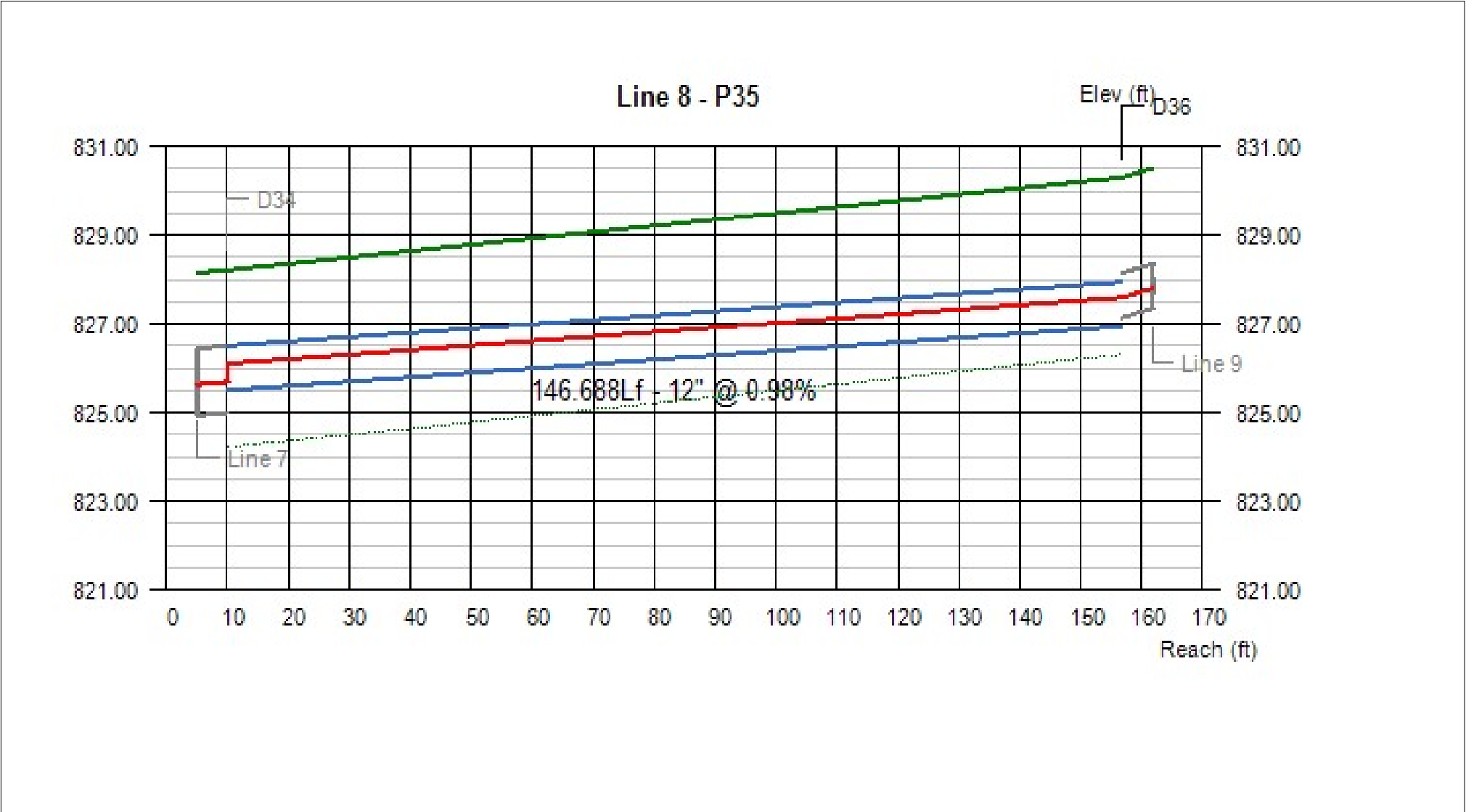


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
7	3.29	823.23	825.00	0.86	0.69	0.69	824.09	825.69 j	825.69	3.15	4.14	1.90	1.71

Project File:

No. Lines: 21

Run Date: 7/10/2024

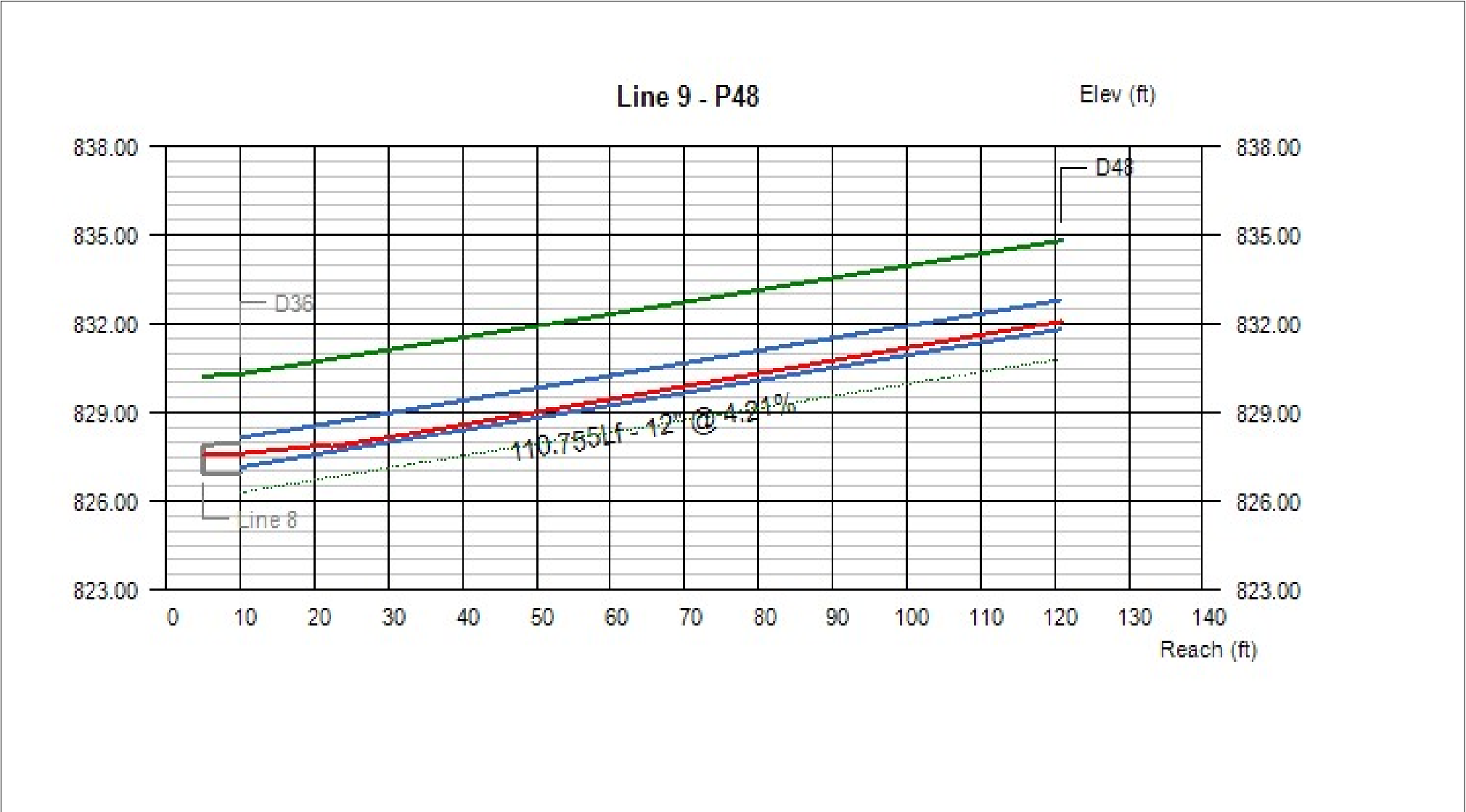


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
8	2.35	825.50	826.94	0.60	0.66	0.66	826.10	827.60	827.60	4.81	4.31	1.71	2.36

Project File:

No. Lines: 21

Run Date: 7/10/2024

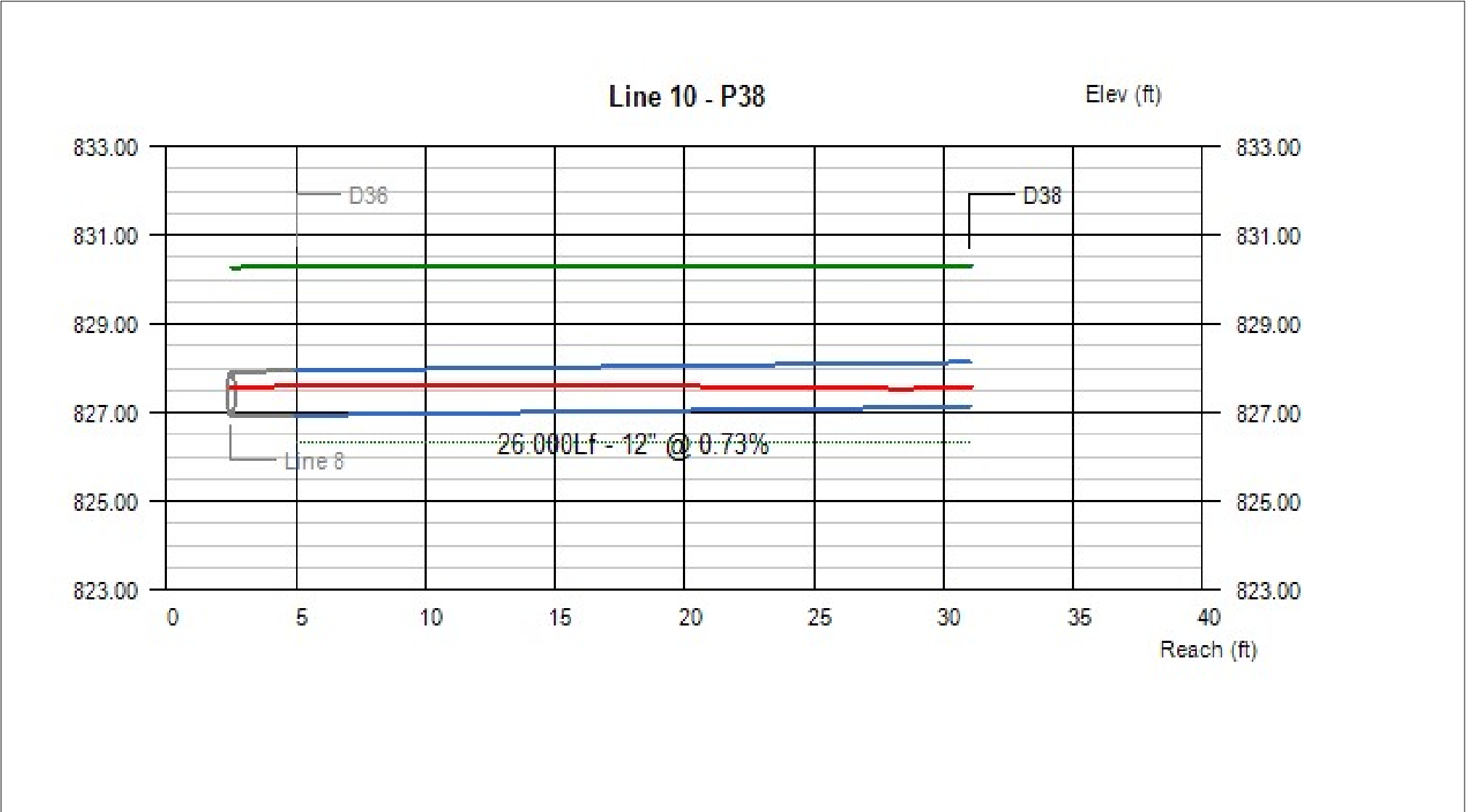


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
9	0.44	827.14	831.80	0.46	0.27	0.27	827.60	832.07 j	832.07	1.26	2.51	2.16	2.00

Project File:

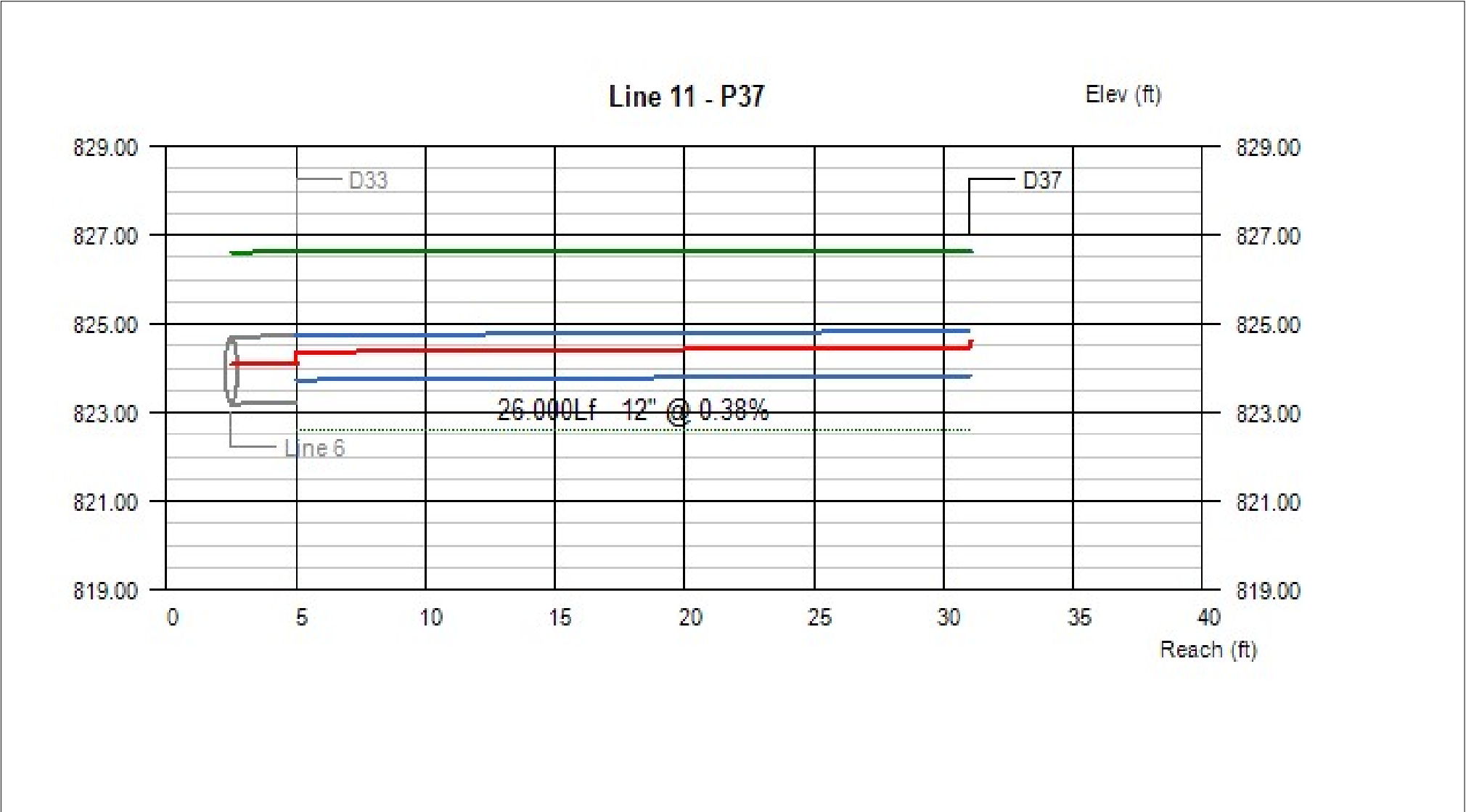
No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
10	1.11	826.94	827.13	0.66	0.44	0.44	827.60	827.57 j	827.57	2.03	3.30	2.36	2.17

Project File:No. Lines: 21Run Date: 7/10/2024

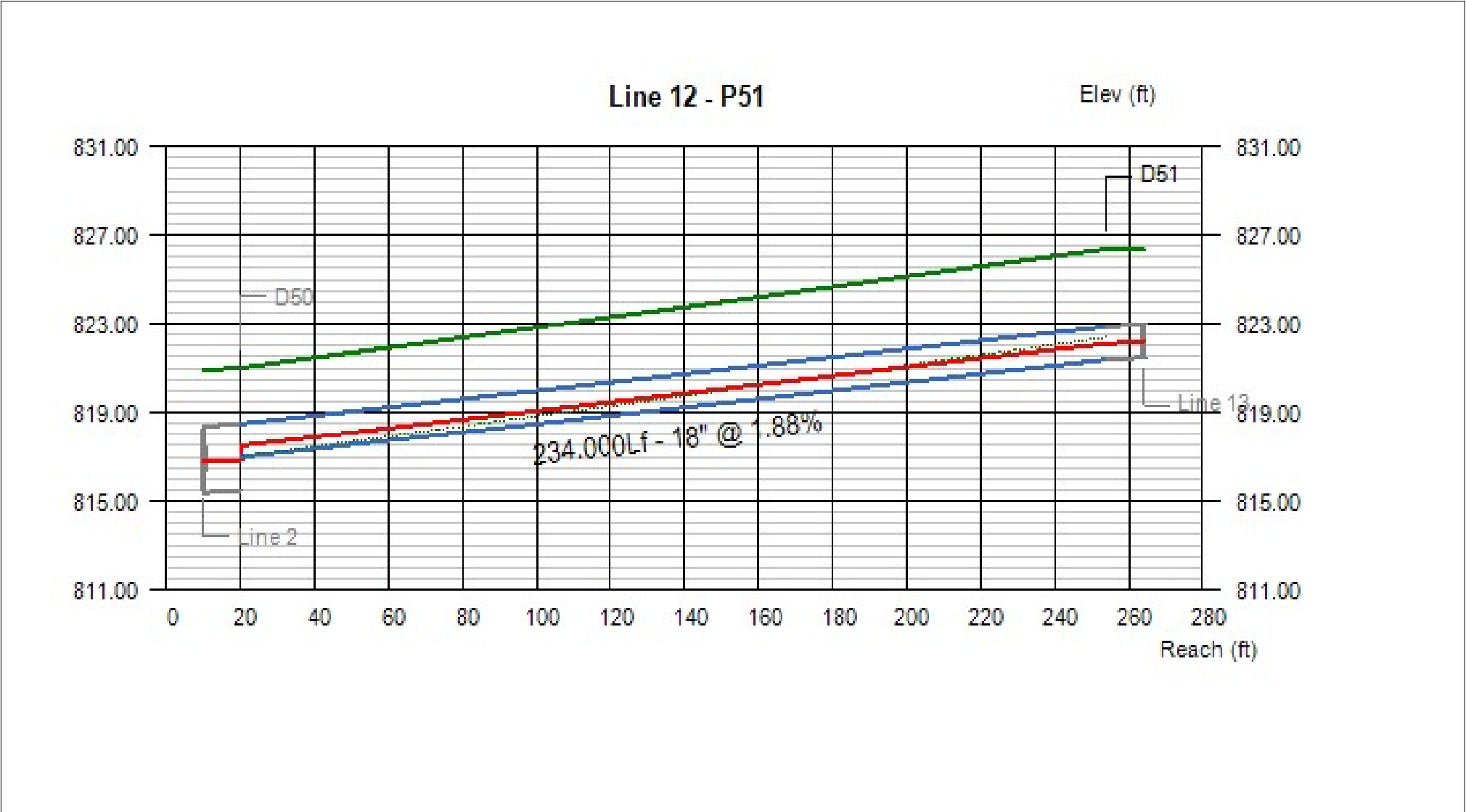


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
11	1.60	823.73	823.83	0.63	0.63	0.78	824.36	824.46	824.61	3.06	3.07	1.90	1.80

Project File:

No. Lines: 21

Run Date: 7/10/2024

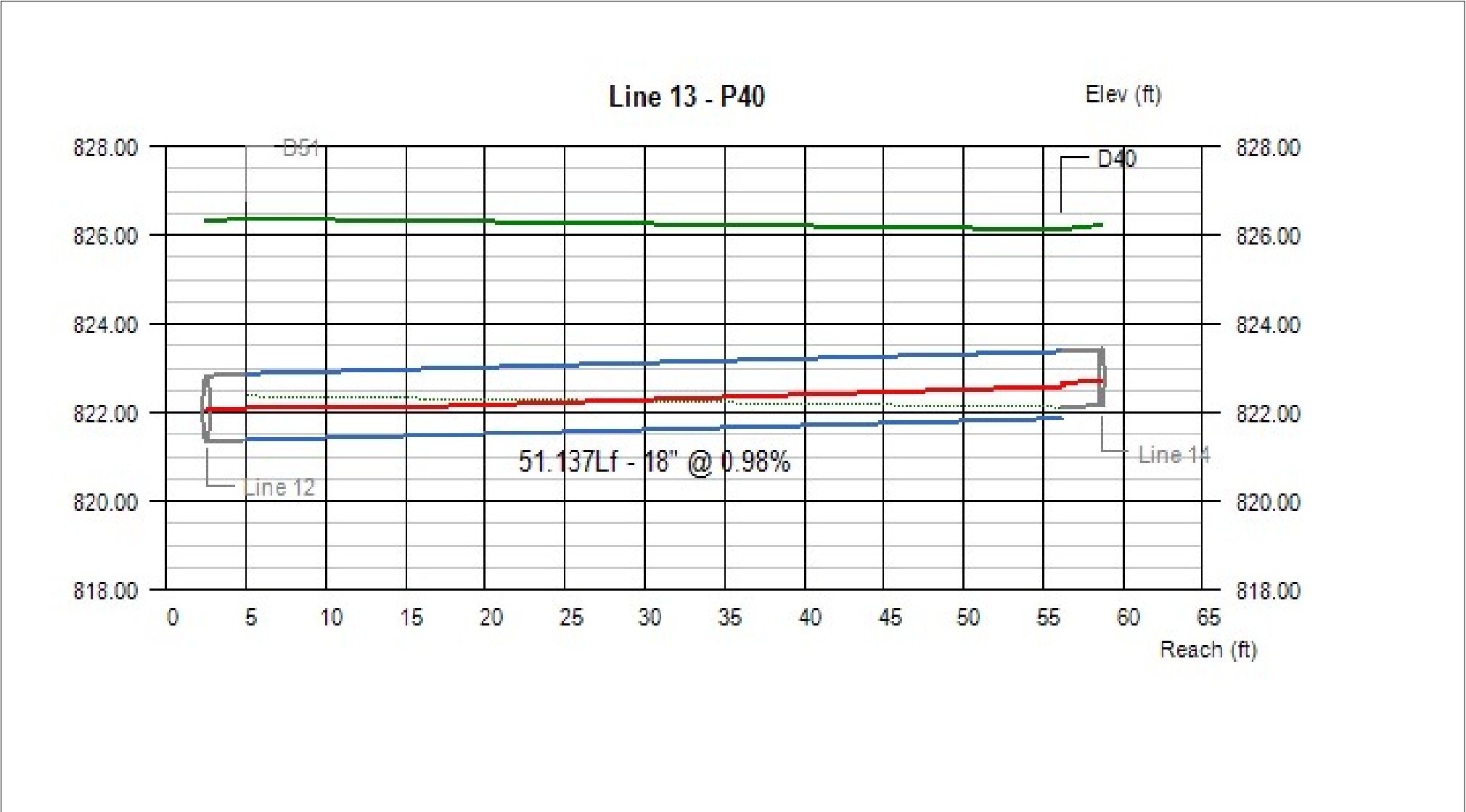


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
12	3.67	816.98	821.37	0.52	0.73	0.73	817.50	822.10	822.10	6.80	4.29	2.52	3.50

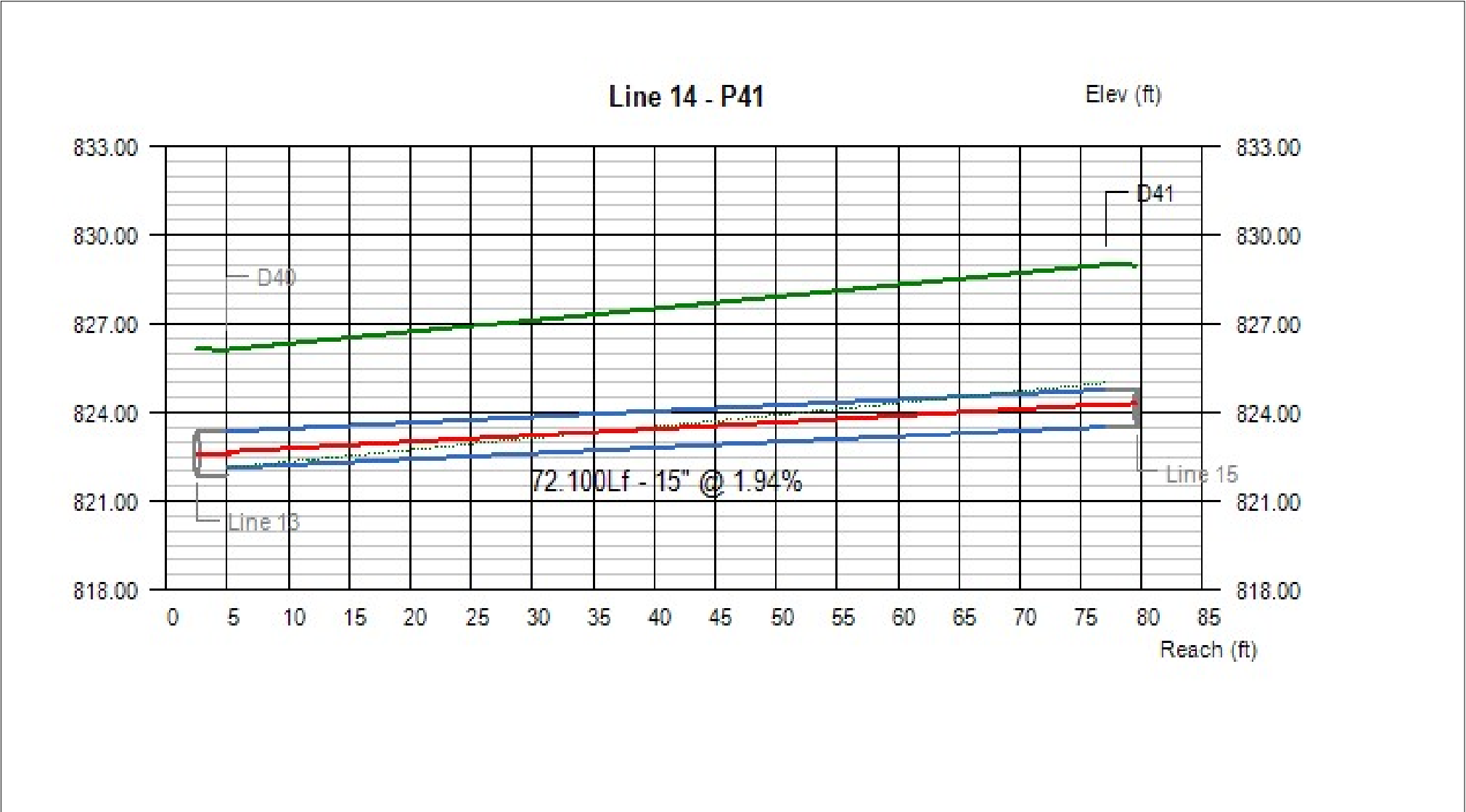
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
13	3.56	821.37	821.87	0.73	0.72	0.72	822.10	822.59 j	822.59	4.16	4.25	3.50	2.75
Project File:								No. Lines: 21			Run Date: 7/10/2024		

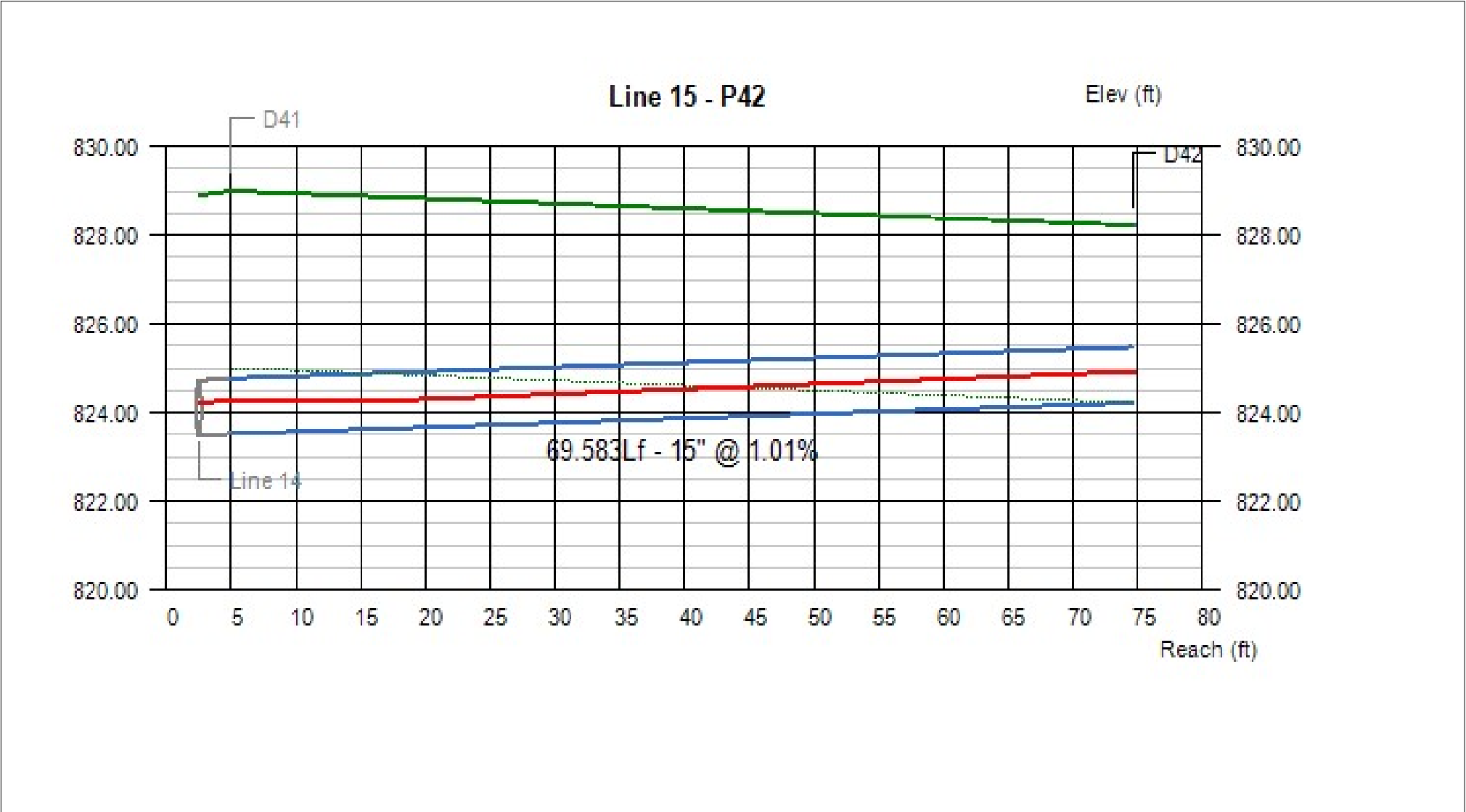


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
14	3.53	822.12	823.52	0.54	0.76	0.76	822.66	824.28	824.28	6.89	4.54	2.75	4.23

Project File:

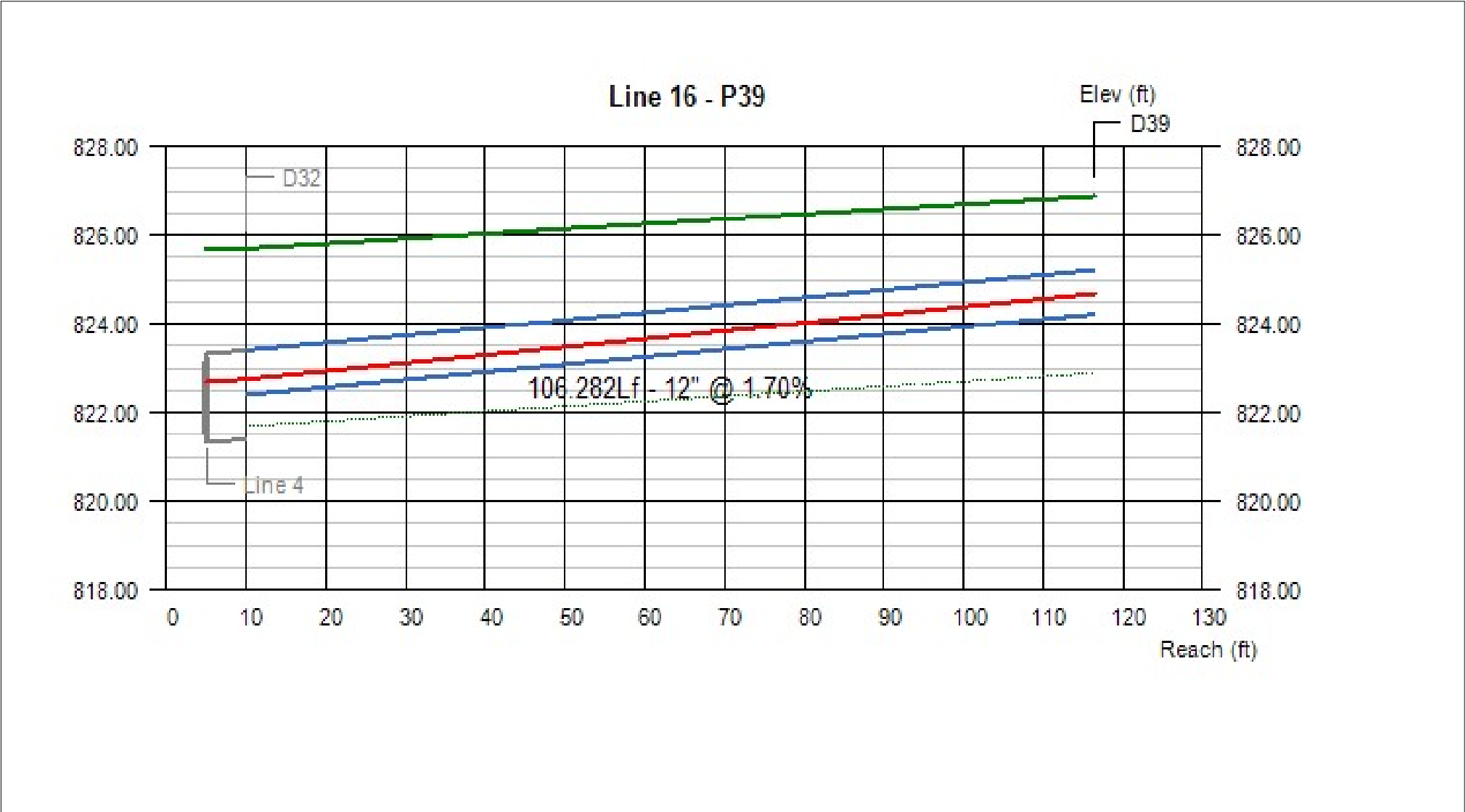
No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
15	3.03	823.52	824.22	0.76	0.70	0.70	824.28	824.92 j	824.92	3.89	4.29	4.23	2.75

Project File:No. Lines: 21Run Date: 7/10/2024

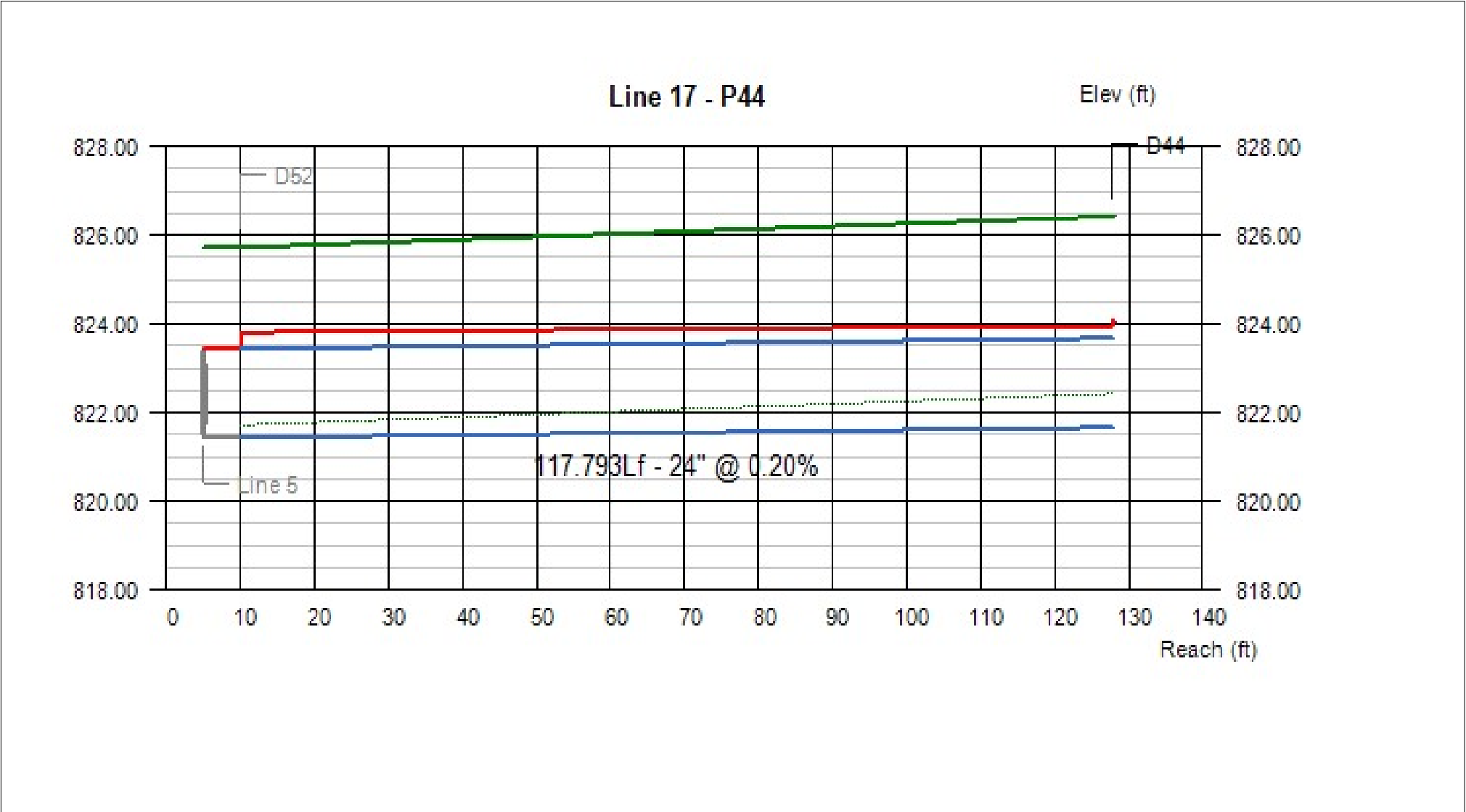


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
16	1.22	822.40	824.21	0.35	0.46	0.46	822.75	824.67	824.67	4.98	3.40	2.29	1.67

Project File:

No. Lines: 21

Run Date: 7/10/2024

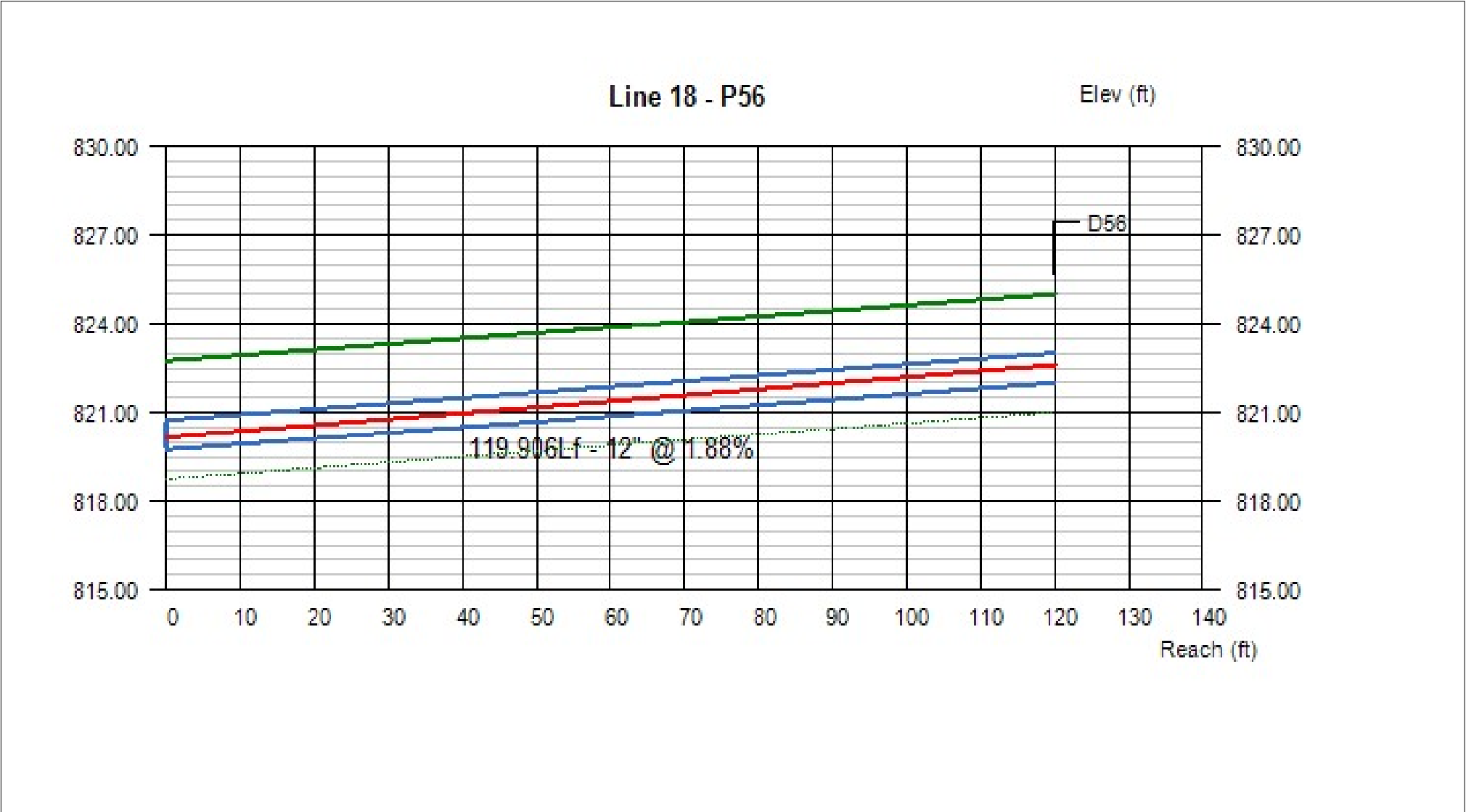


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
17	8.09	821.43	821.67	2.00	2.00	2.39	823.80	823.95	824.06	2.58	2.57	2.29	2.75

Project File:

No. Lines: 21

Run Date: 7/10/2024

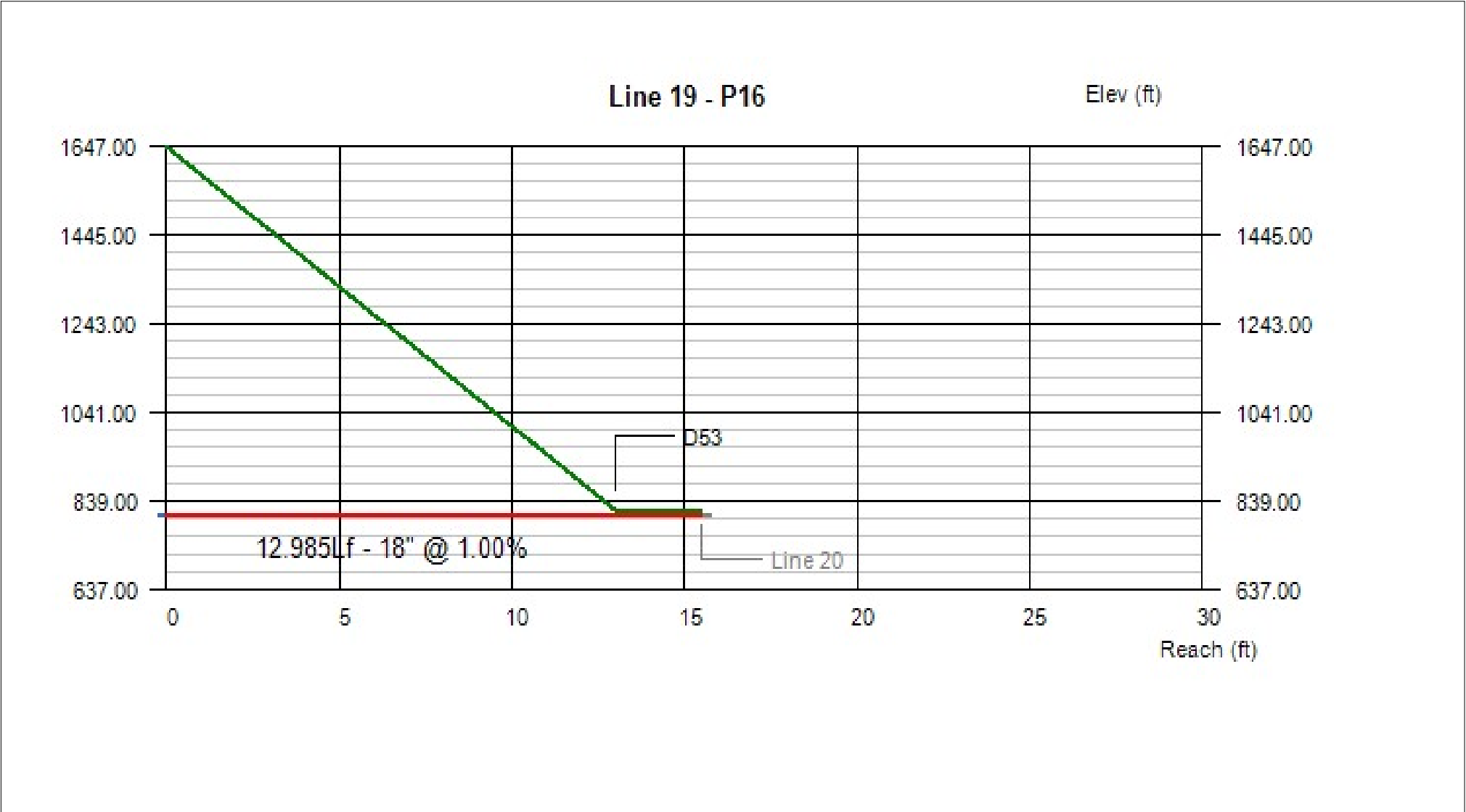


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
18	1.97	819.74	822.00	0.42	0.60	0.60	820.16	822.60	822.60	6.25	4.02	2.00	2.01

Project File:

No. Lines: 21

Run Date: 7/10/2024

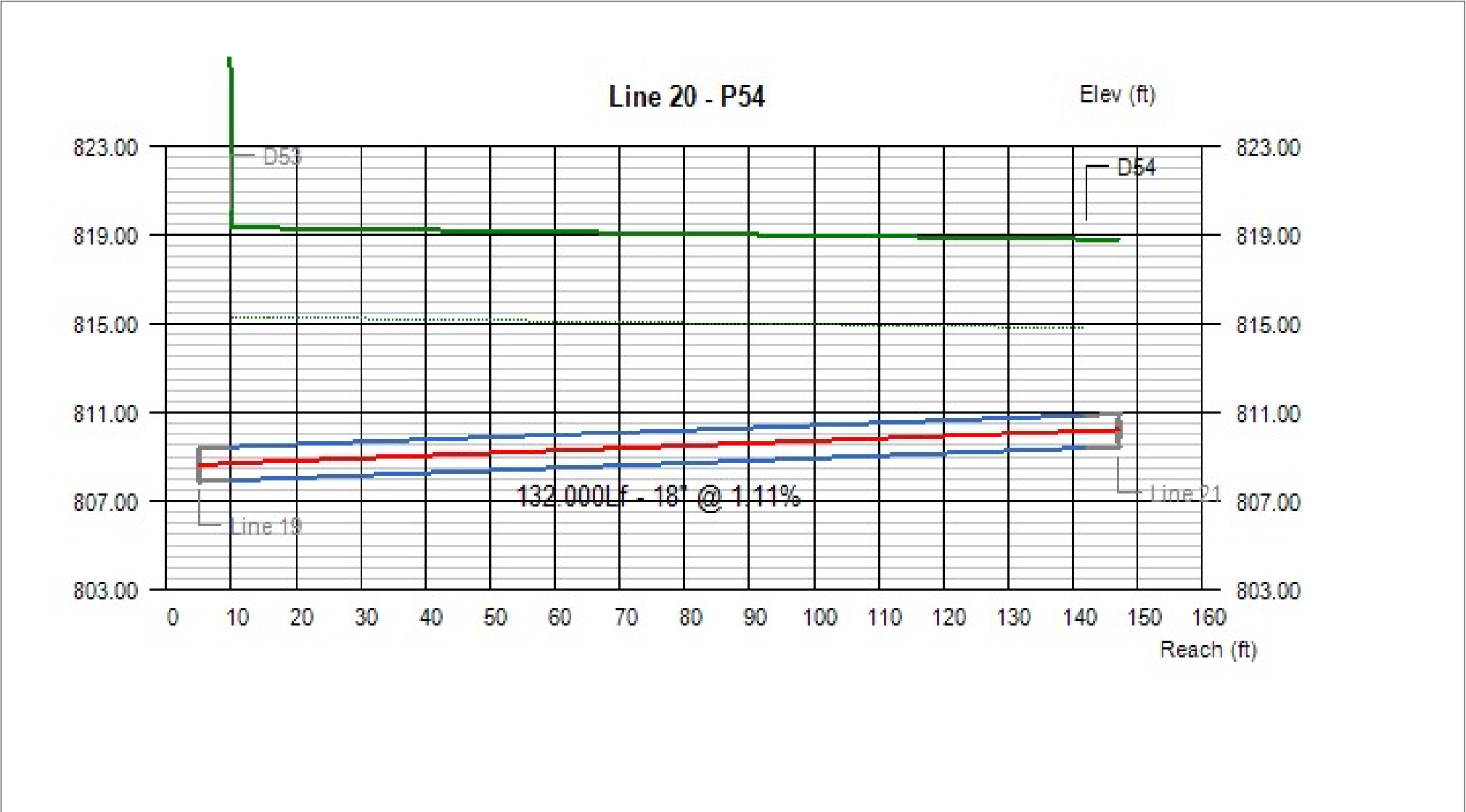


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
19	4.13	807.80	807.93	0.65	0.78	0.78	808.45	808.71	808.71	5.59	4.46	837.00	9.90

Project File:

No. Lines: 21

Run Date: 7/10/2024

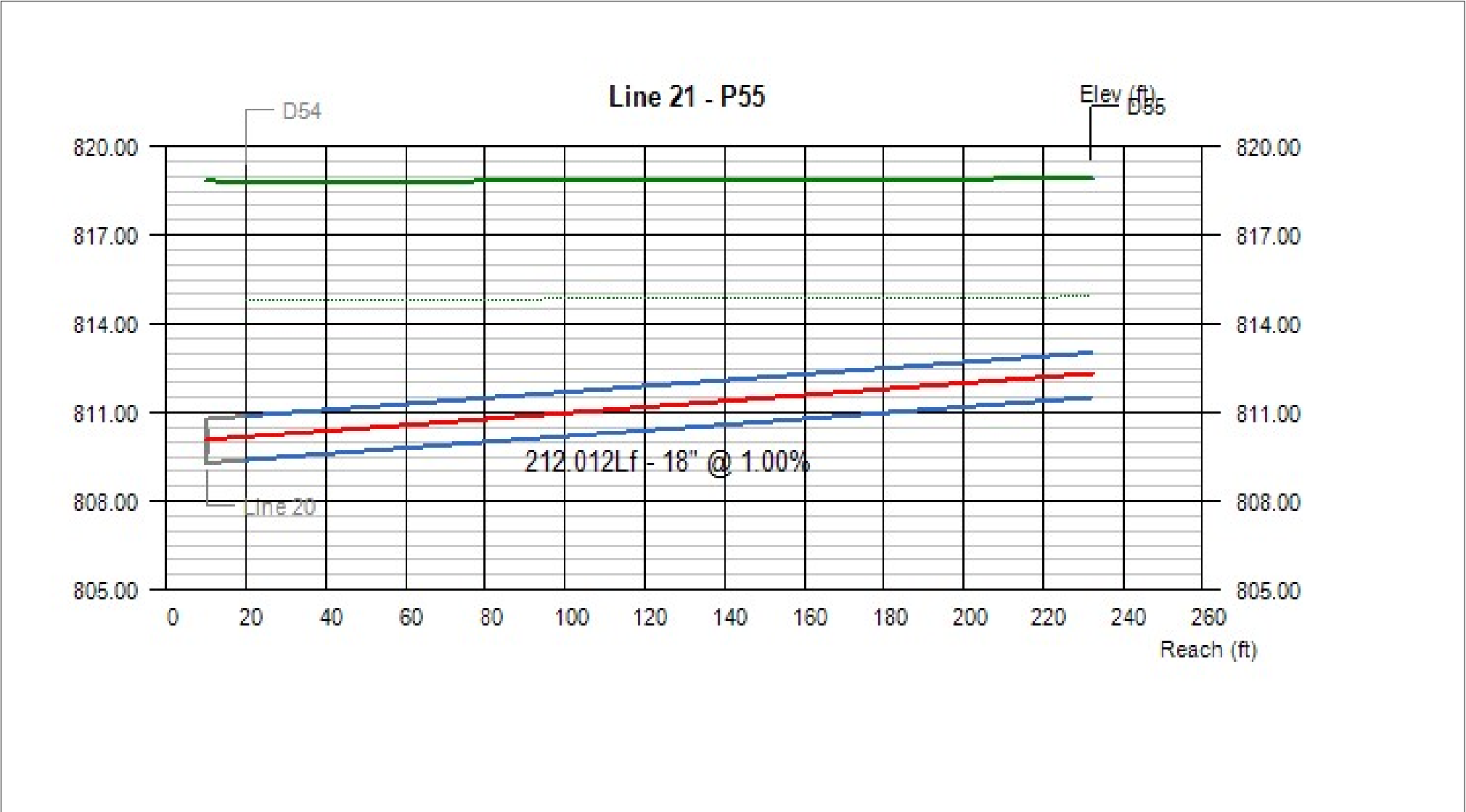


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
20	4.23	807.93	809.39	0.78	0.79	0.79	808.71	810.18	810.18	4.58	4.50	9.90	7.91

Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
21	4.41	809.39	811.51	0.79	0.81	0.81	810.18	812.32	812.32	4.69	4.57	7.91	5.91

Project File:

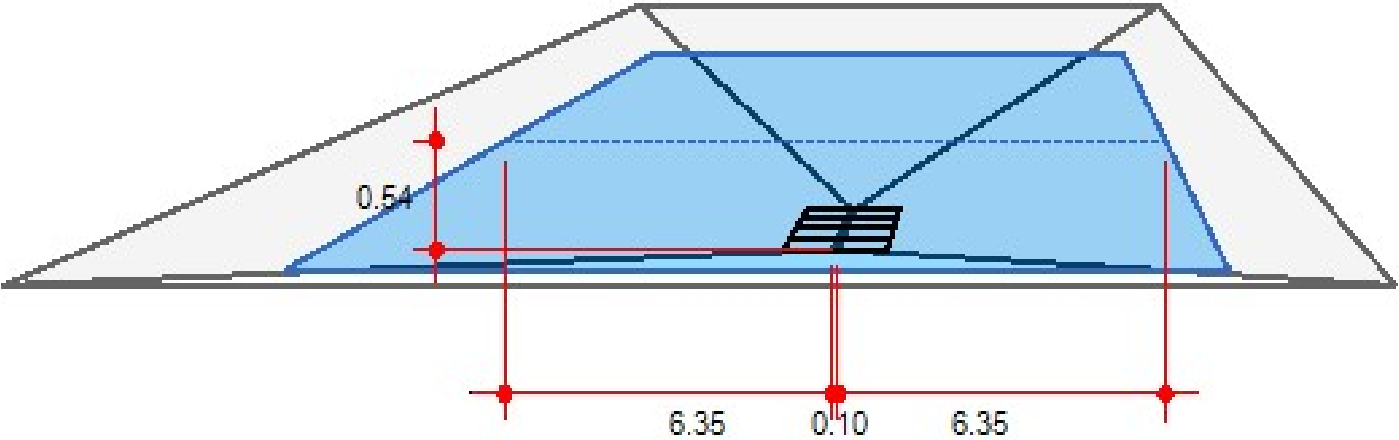
No. Lines: 21

Run Date: 7/10/2024

Inlet Section (Line 1 - Drop Grate Inlet) - D29

All dimensions in feet

Line 1 - Drop Grate Inlet in Sag - D29

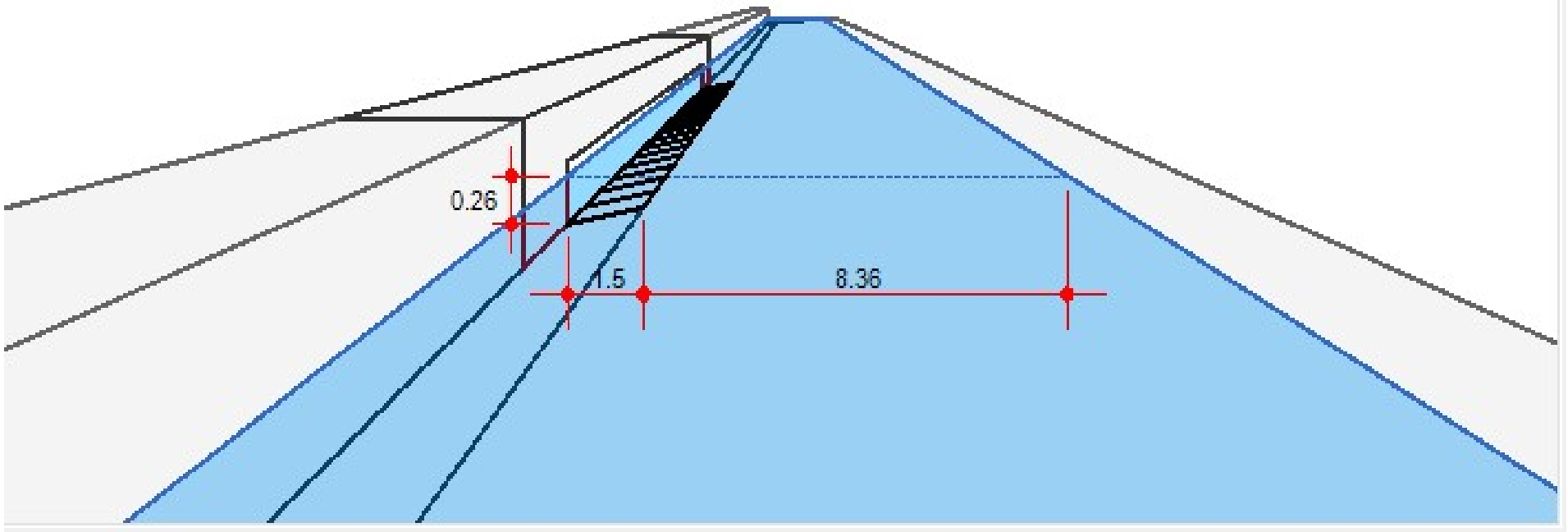


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
1	7.90	0.00	7.90	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.54	12.80	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 3 - Combination Inlet) - D30

All dimensions in feet

Line 3 - Combination Inlet in Sag - D30

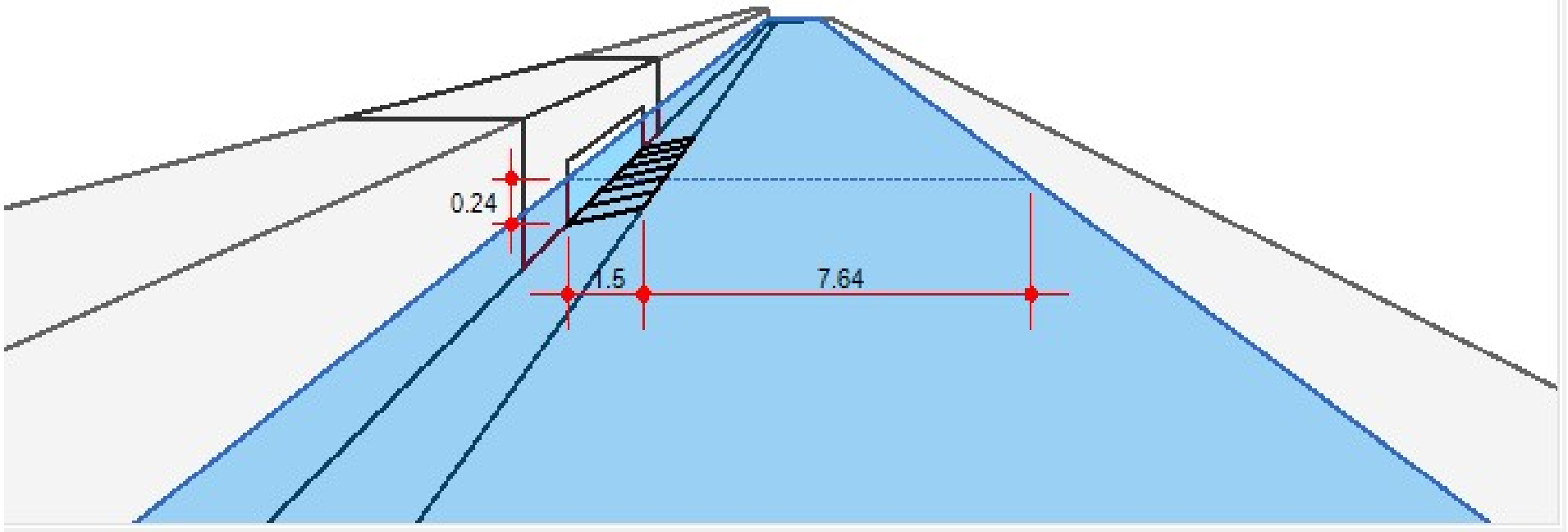


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
3	2.85	0.66	3.51	0.00	9.00	0.0	4.0	1.50	Sag	0.060	0.020	0.26	9.86	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 4 - Combination Inlet) - D32

All dimensions in feet

Line 4 - Combination Inlet in Sag - D32

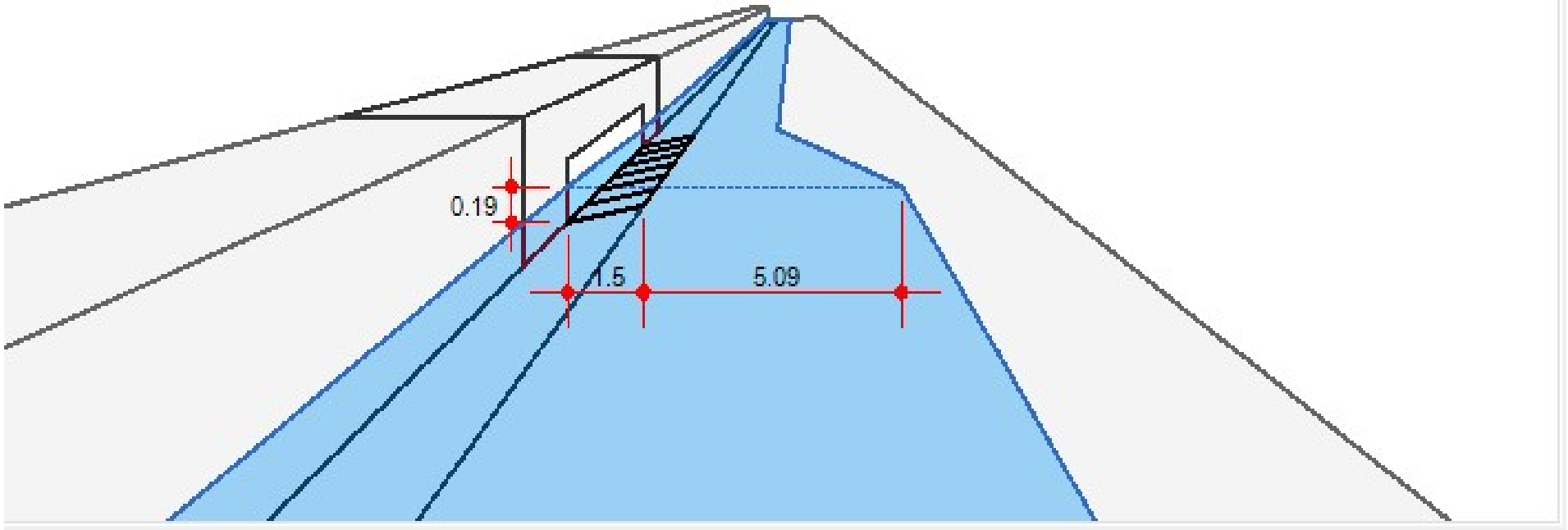


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
4	1.17	0.41	1.58	0.00	3.00	0.0	4.0	1.50	Sag	0.060	0.020	0.24	9.14	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 5 - Combination Inlet) - D52

All dimensions in feet

Line 5 - Combination Inlet on Grade - D52

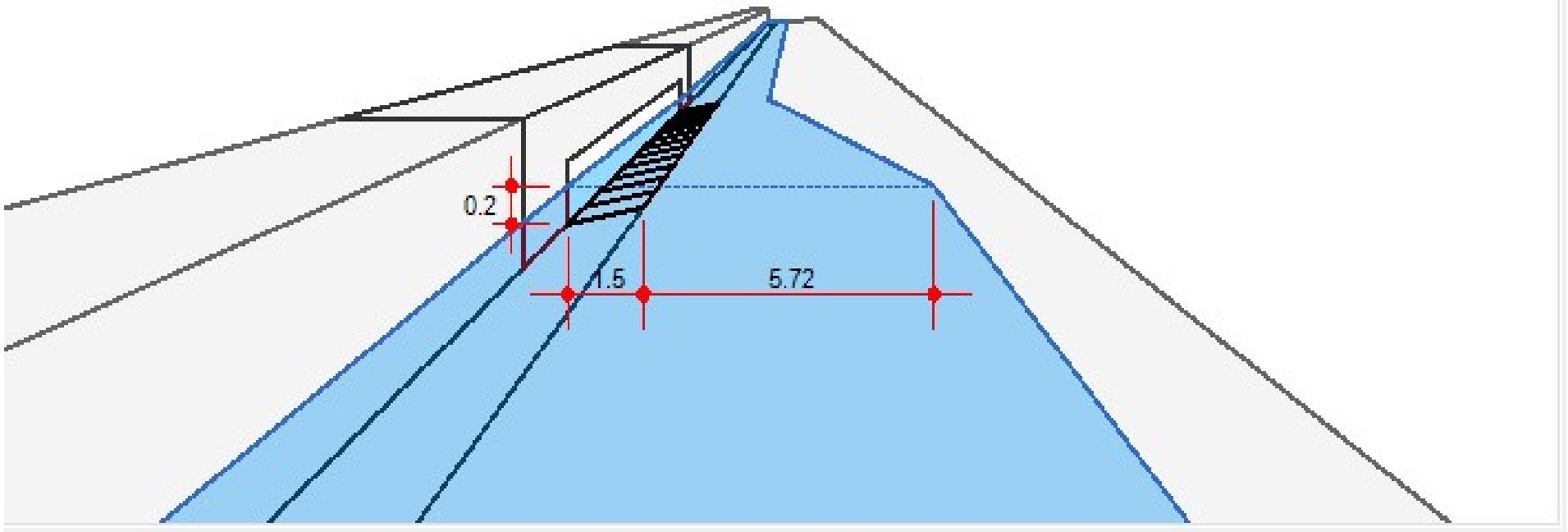


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
5	0.98	0.32	0.89	0.41	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.19	6.59	0.13	3.75	4
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 6 - Combination Inlet) - D33

All dimensions in feet

Line 6 - Combination Inlet on Grade - D33

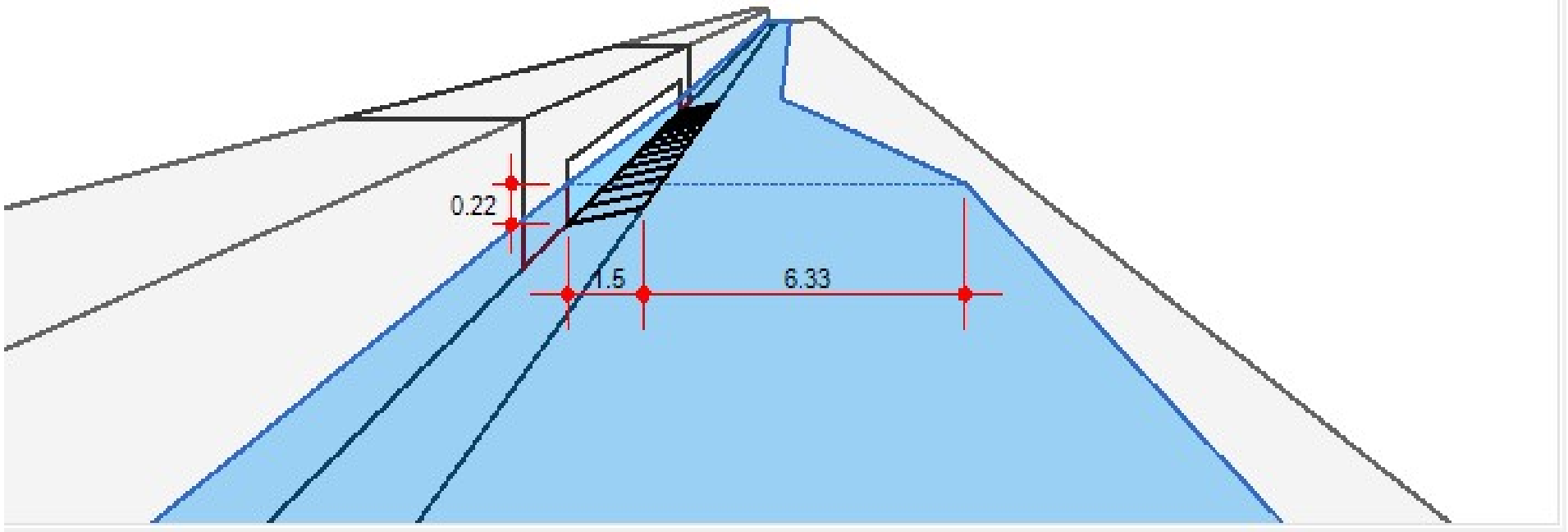


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
6	1.17	0.43	1.29	0.32	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.20	7.22	0.12	3.21	5
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 7 - Combination Inlet) - D34

All dimensions in feet

Line 7 - Combination Inlet on Grade - D34

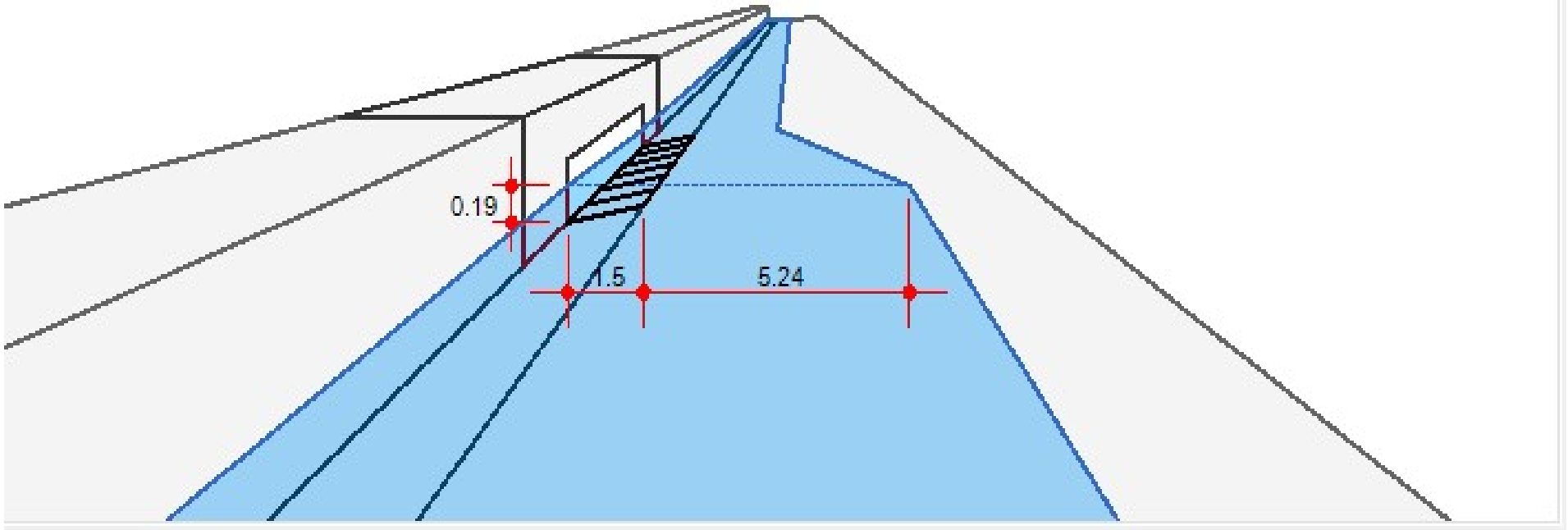


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
7	1.50	0.45	1.51	0.43	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.22	7.83	0.14	3.86	6
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 8 - Combination Inlet) - D36

All dimensions in feet

Line 8 - Combination Inlet on Grade - D36

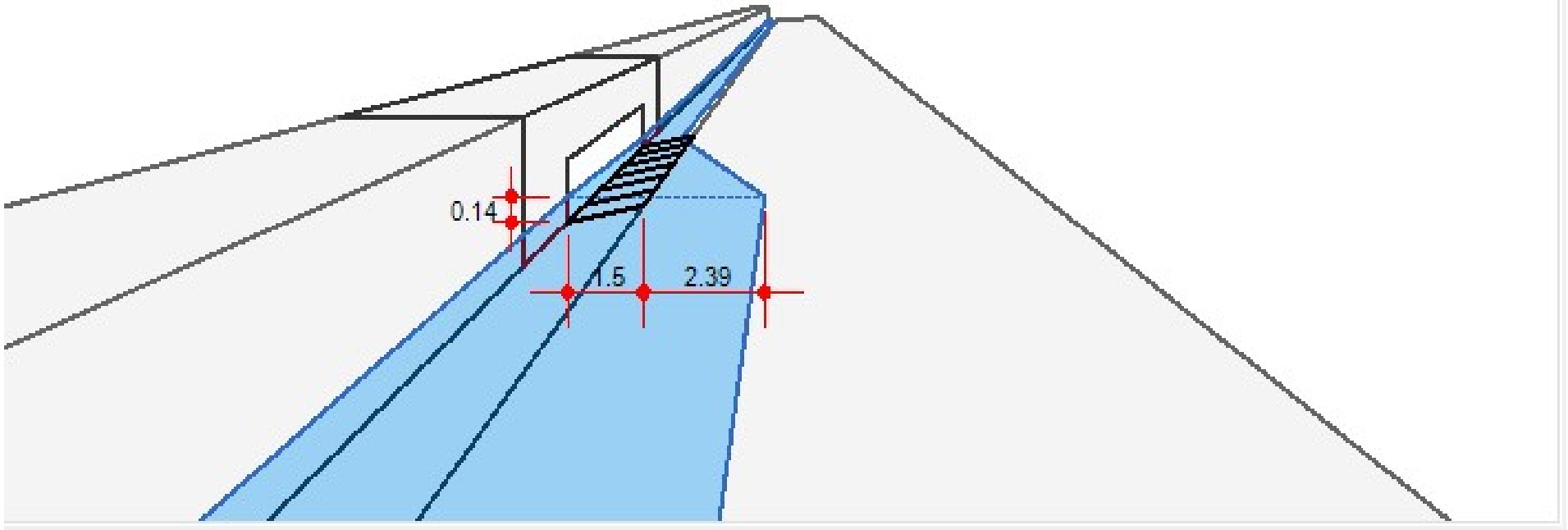


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
8	1.32	0.05	0.92	0.45	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.19	6.74	0.14	3.92	7
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 9 - Combination Inlet) - D48

All dimensions in feet

Line 9 - Combination Inlet on Grade - D48

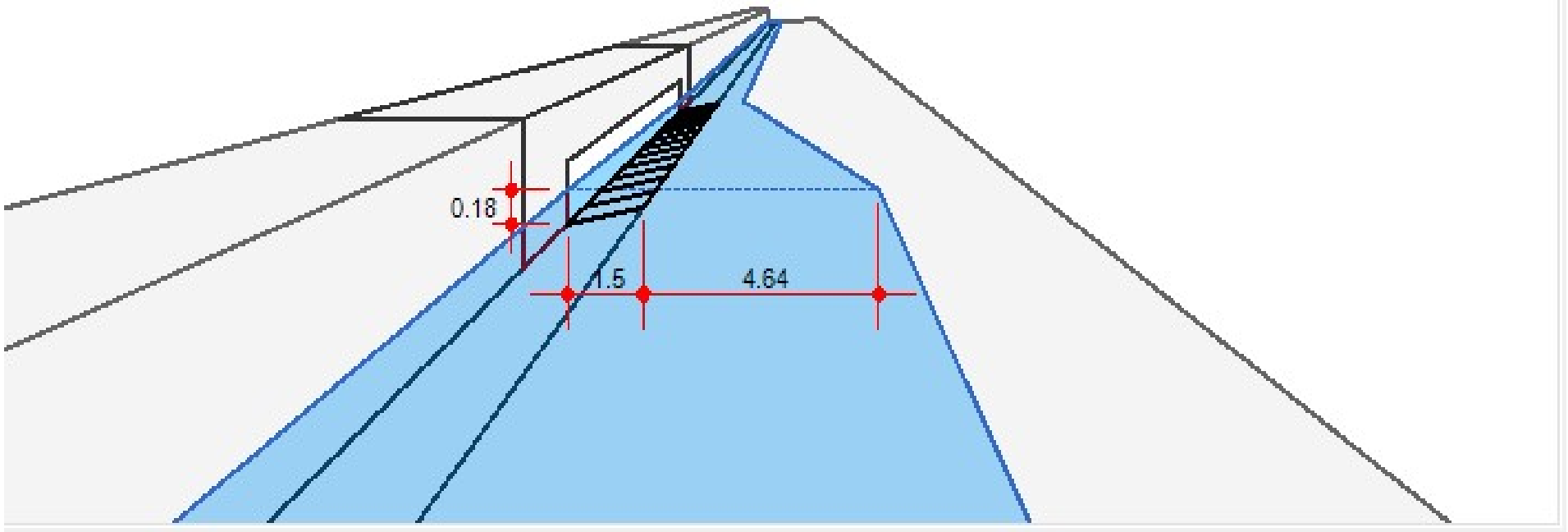


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
9	0.44	0.00	0.39	0.05	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.14	3.89	0.06	1.06	8
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 10 - Combination Inlet) - D38

All dimensions in feet

Line 10 - Combination Inlet on Grade - D38

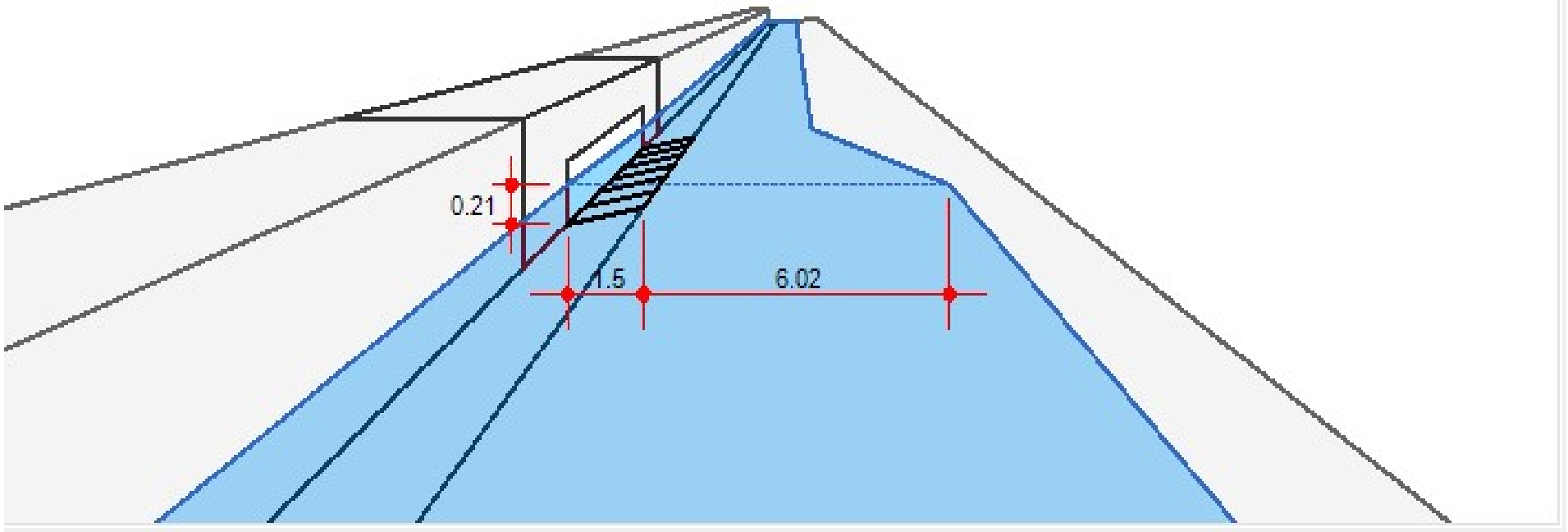


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
10	1.11	0.00	0.94	0.17	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.18	6.14	0.10	2.00	11
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 11 - Combination Inlet) - D37

All dimensions in feet

Line 11 - Combination Inlet on Grade - D37

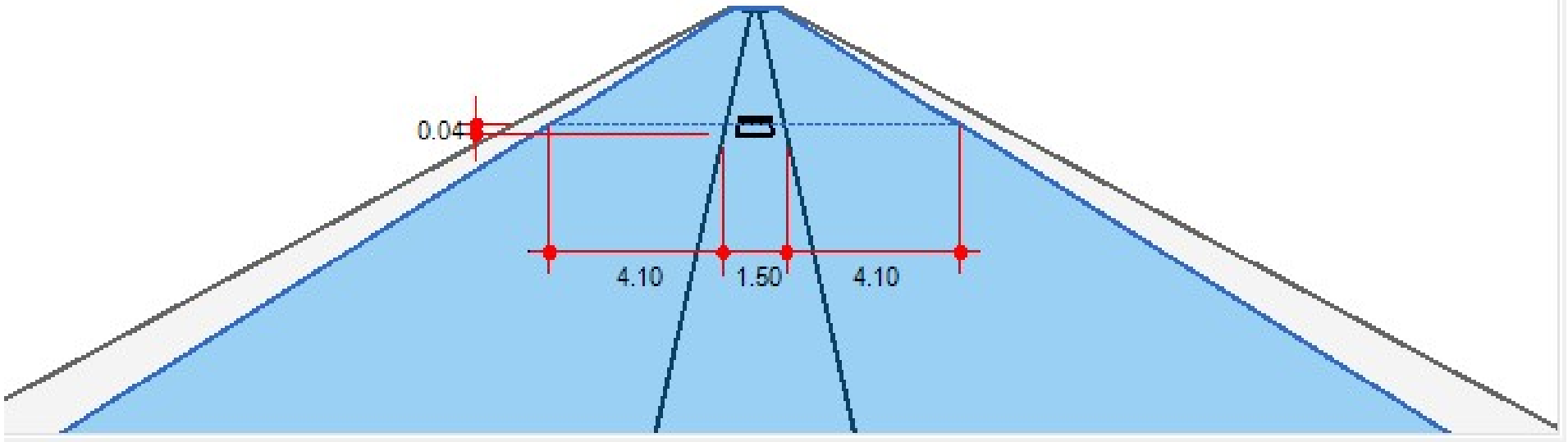


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
11	1.60	0.17	1.11	0.66	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.21	7.52	0.16	4.81	3
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 12 - Drop Grate Inlet) - D51

All dimensions in feet

Line 12 - Drop Grate Inlet on Grade - D51



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
12	0.19	0.00	0.08	0.12	0.83	....	0.83	1.50	0.040	0.060	0.010	0.04	9.70	0.04	9.70	Offsite

Project File:

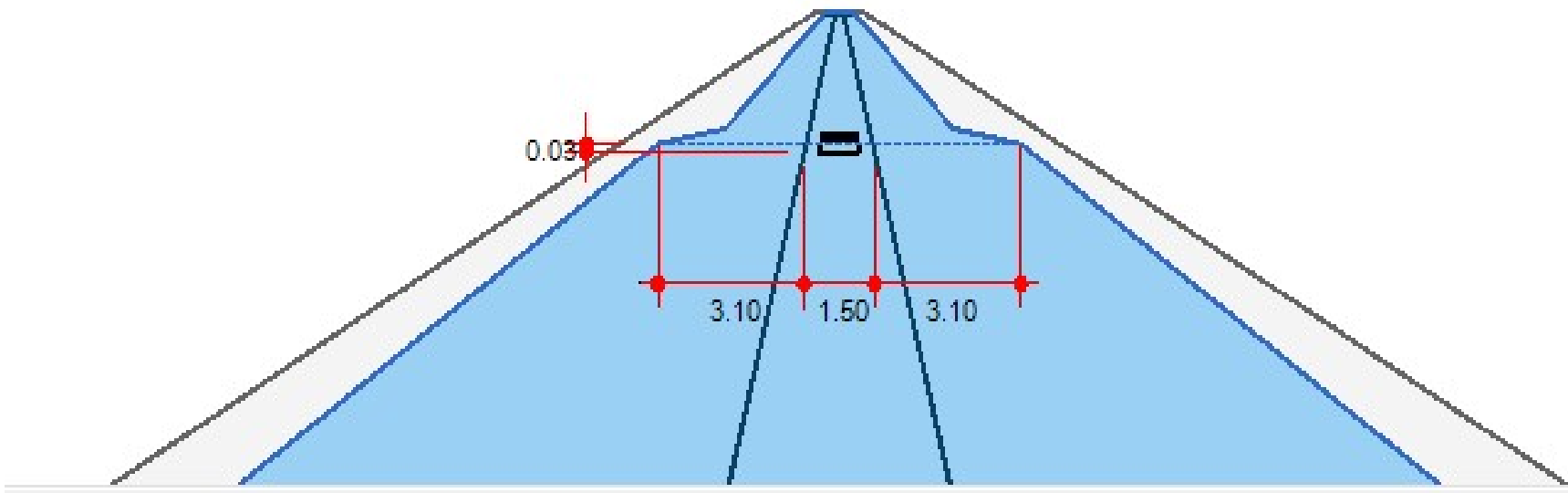
No. Lines: 21

Run Date: 7/10/2024

Inlet Section (Line 13 - Drop Grate Inlet) - D40

All dimensions in feet

Line 13 - Drop Grate Inlet on Grade - D40



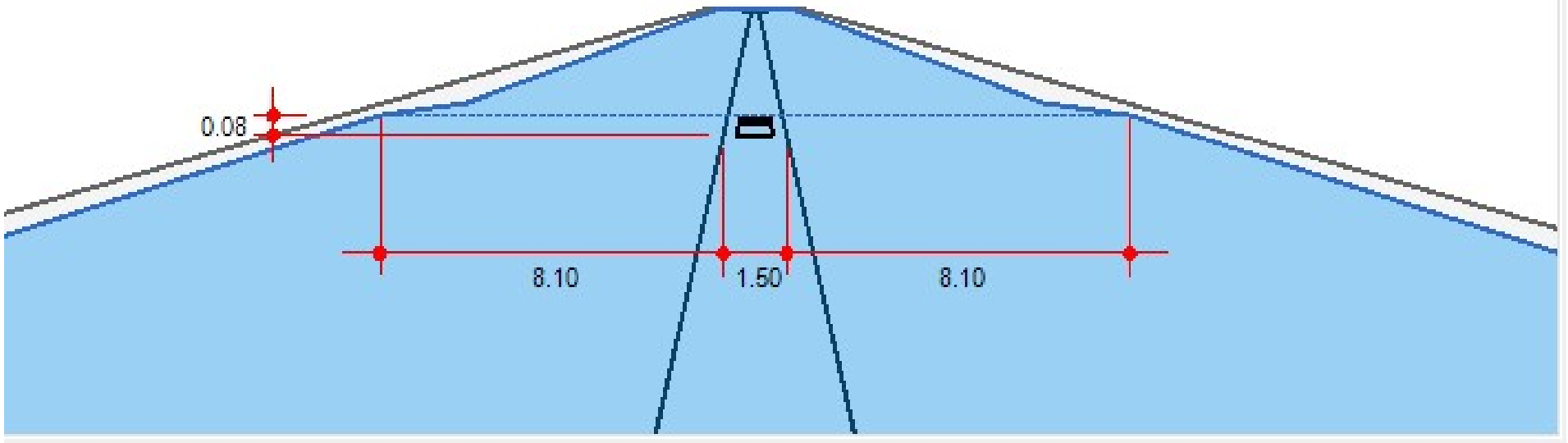
Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
13	0.09	0.00	0.04	0.05	0.83	....	0.83	1.50	0.040	0.060	0.010	0.03	7.70	0.03	7.70	Offsite

Project File:No. Lines: 21Run Date: 7/10/2024

Inlet Section (Line 14 - Drop Grate Inlet) - D41

All dimensions in feet

Line 14 - Drop Grate Inlet on Grade - D41

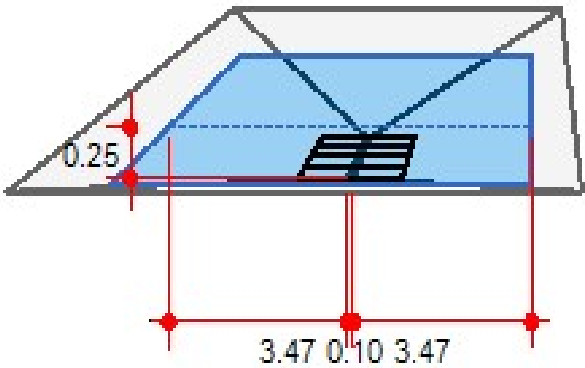


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
14	0.66	0.00	0.19	0.46	0.83	....	0.83	1.50	0.040	0.060	0.010	0.08	17.70	0.08	17.70	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 15 - Drop Grate Inlet) - D42

All dimensions in feet

Line 15 - Drop Grate Inlet in Sag - D42

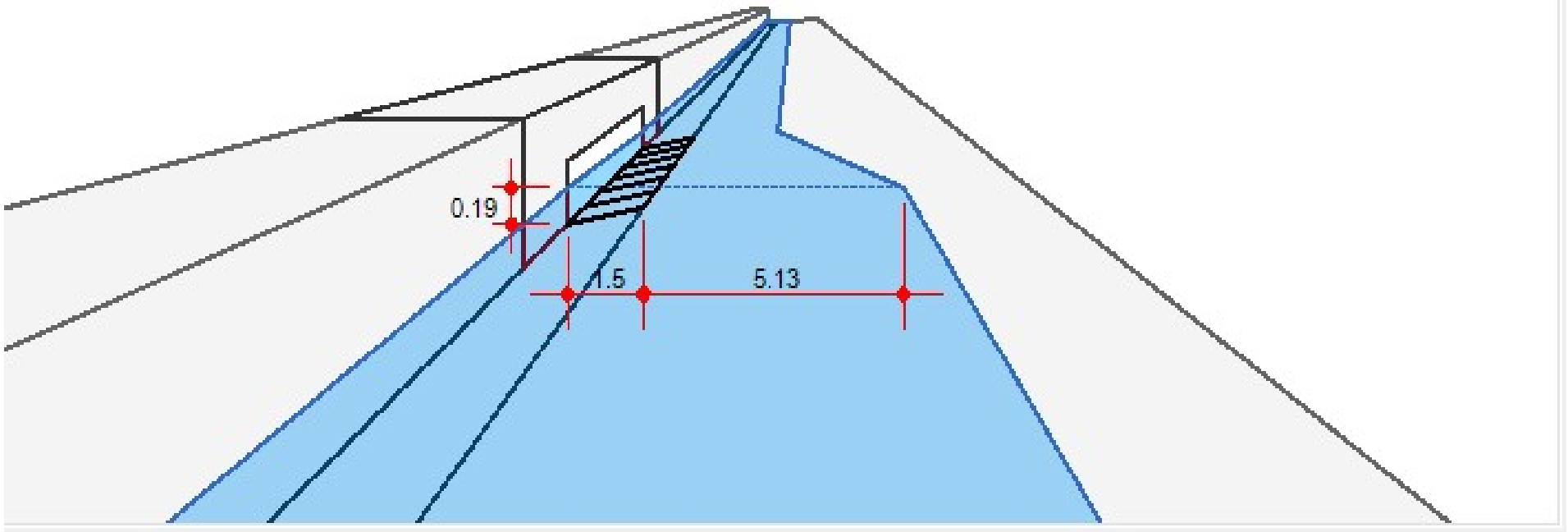


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
15	3.03	0.00	3.03	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.25	7.03	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 16 - Combination Inlet) - D39

All dimensions in feet

Line 16 - Combination Inlet on Grade - D39

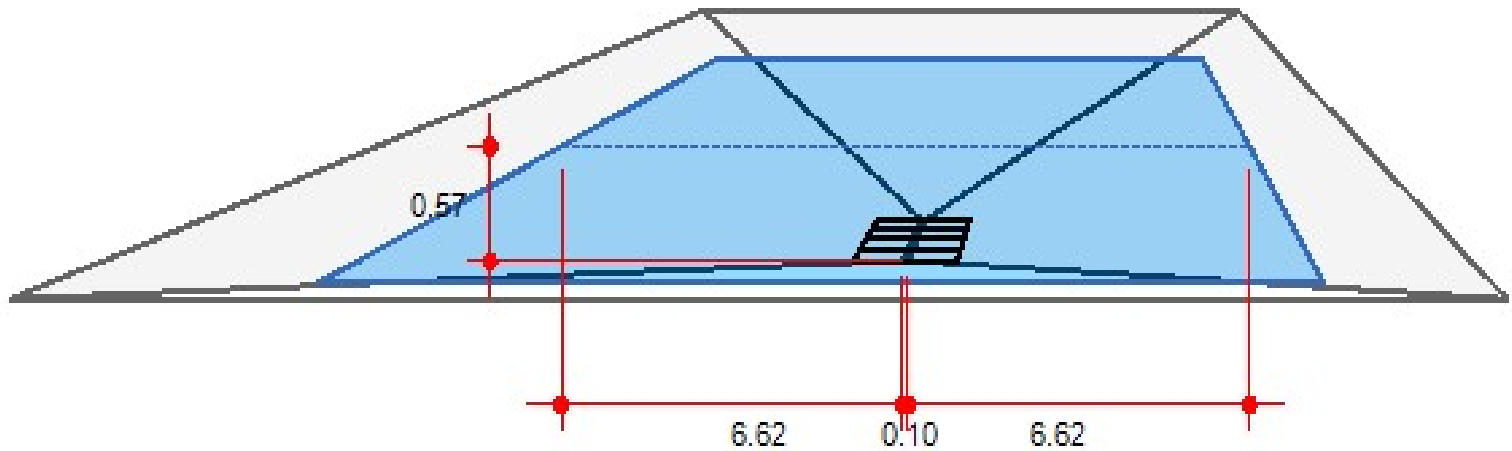


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
16	1.22	0.00	0.84	0.38	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.19	6.63	0.13	3.72	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 17 - Drop Grate Inlet) - D44

All dimensions in feet

Line 17 - Drop Grate Inlet in Sag - D44

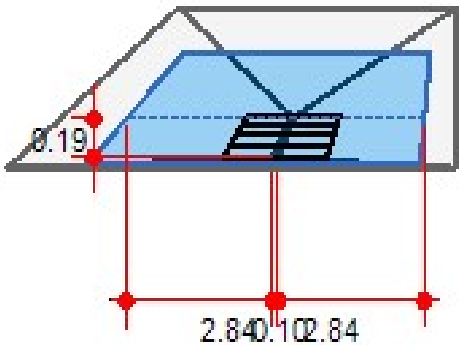


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
17	8.09	0.00	8.09	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.57	13.33	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 18 - Drop Grate Inlet) - D56

All dimensions in feet

Line 18 - Drop Grate Inlet in Sag - D56

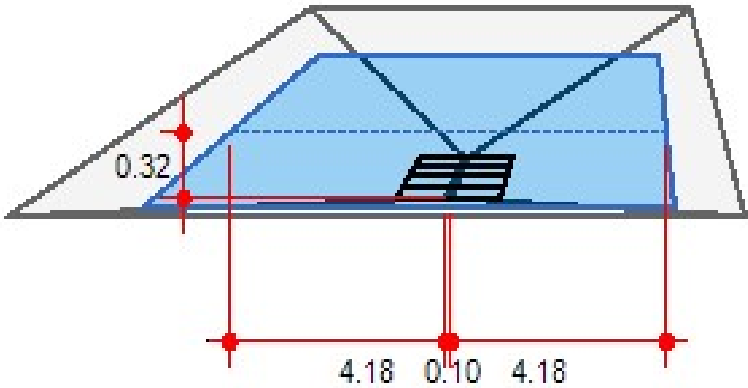


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
18	1.97	0.00	1.97	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.19	5.77	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 21 - Drop Grate Inlet) - D55

All dimensions in feet

Line 21 - Drop Grate Inlet in Sag - D55



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
21	4.41	0.00	4.41	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.32	8.46	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

100-Year Storm Calculations

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	P29	43.88	36	Cir	231.361	812.00	815.00	1.297	813.64	817.16	n/a	817.16	End	DropGrate
2	P50	32.31	36	Cir	47.619	815.00	815.48	1.008	817.16	817.32	n/a	817.32 j	1	None
3	P30	27.39	24	Cir	119.000	816.48	820.98	3.782	817.62	822.80	0.65	822.80	2	Combination
4	P32	24.31	24	Cir	26.000	820.98	821.40	1.616	822.80	823.14	n/a	823.14 j	3	Combination
5	P52	21.73	24	Cir	15.551	821.40	821.43	0.193	823.40*	823.54*	1.12	824.66	4	Combination
6	P33	8.57	18	Cir	85.160	821.93	823.23	1.527	824.66*	825.23*	0.55	825.78	5	Combination
7	P34	5.62	18	Cir	129.034	823.23	825.00	1.372	825.78	826.10	0.13	826.22	6	Combination
8	P35	3.99	12	Cir	146.688	825.50	826.94	0.982	826.50*	828.34*	0.60	828.95	7	Combination
9	P48	0.72	12	Cir	110.755	827.14	831.80	4.207	828.95	832.15	n/a	832.15 j	8	Combination
10	P38	1.83	12	Cir	26.000	826.94	827.13	0.731	828.95*	829.02*	0.08	829.10	8	Combination
11	P37	2.64	12	Cir	26.000	823.73	823.83	0.385	825.78*	825.92*	0.18	826.09	6	Combination
12	P51	6.12	18	Cir	234.000	816.98	821.37	1.876	817.66	822.33	n/a	822.33	2	DropGrate
13	P40	5.91	18	Cir	51.137	821.37	821.87	0.978	822.33	822.81	n/a	822.81 j	12	DropGrate
14	P41	5.84	15	Cir	72.100	822.12	823.52	1.942	822.85	824.50	n/a	824.50	13	DropGrate
15	P42	4.98	15	Cir	69.583	823.52	824.22	1.006	824.50	825.12	n/a	825.12 j	14	DropGrate
16	P39	2.01	12	Cir	106.282	822.40	824.21	1.703	823.14	824.81	n/a	824.81 j	4	Combination
17	P44	13.28	24	Cir	117.793	821.43	821.67	0.204	824.66*	825.07*	0.28	825.34	5	DropGrate
18	P56	3.24	12	Cir	119.906	819.74	822.00	1.885	820.31	822.77	n/a	822.77	End	DropGrate
19	P16	6.96	18	Cir	12.985	807.80	807.93	1.001	808.69	808.95	0.46	808.95	End	Manhole
20	P54	7.07	18	Cir	132.000	807.93	809.39	1.106	808.95	810.42	n/a	810.42	19	Manhole
21	P55	7.26	18	Cir	212.012	809.39	811.51	1.000	810.42	812.55	0.48	812.55	20	DropGrate
Project File: REVISED HAWKS POINTE PLAT 6 .stm									Number of lines: 21			Run Date: 7/10/2024		
NOTES: Return period = 100 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.														

Inlet Report

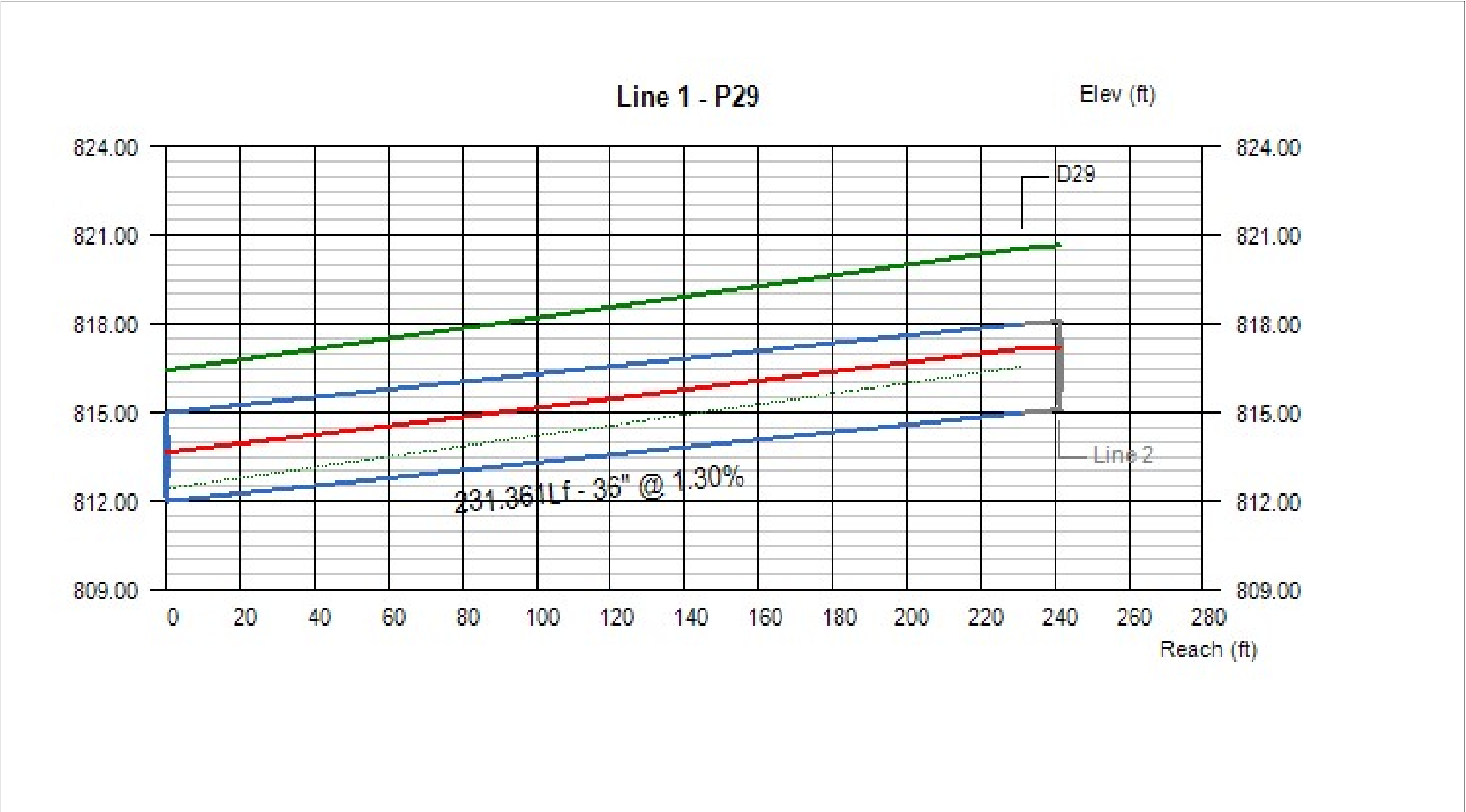
Line No	Inlet ID	Q = CIA	Q carry	Q capt	Q Byp	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
		(cfs)	(cfs)	(cfs)	(cfs)		Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	D29	12.96	0.00	12.96	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	1.46	31.10	1.46	31.10	0.0	Off
2	D50	0.25	0.00	0.00	0.25	None	0.0	0.83	0.00	0.83	0.83	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
3	D30	4.71	1.42	6.13	0.00	Comb	4.0	9.00	6.00	9.00	1.50	Sag	1.50	0.060	0.020	0.013	0.35	14.62	0.35	14.62	0.0	Off
4	D32	1.93	1.07	3.00	0.00	Comb	4.0	3.00	2.00	3.00	1.50	Sag	1.50	0.060	0.020	0.013	0.35	14.38	0.35	14.38	0.0	Off
5	D52	1.62	0.84	1.39	1.07	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.23	8.64	0.18	6.03	0.0	4
6	D33	1.93	1.04	2.14	0.84	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.25	9.34	0.17	5.39	0.0	5
7	D34	2.47	0.98	2.41	1.04	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.26	9.92	0.18	5.97	0.0	6
8	D36	2.17	0.15	1.34	0.98	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.23	8.43	0.18	5.80	0.0	7
9	D48	0.72	0.00	0.57	0.15	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.16	5.02	0.10	1.77	0.0	8
10	D38	1.83	0.00	1.44	0.39	Comb	4.0	6.00	0.00	6.00	1.50	0.010	1.50	0.060	0.020	0.012	0.21	7.63	0.13	3.66	0.0	11
11	D37	2.64	0.39	1.61	1.42	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.012	0.25	9.41	0.20	6.86	0.0	3
12	D51	0.32	0.00	0.11	0.21	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.06	13.70	0.06	13.70	0.0	Off
13	D40	0.14	0.00	0.06	0.09	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.04	9.70	0.04	9.70	0.0	Off
14	D41	1.08	0.00	0.29	0.80	DrGrt	0.0	0.00	0.00	0.83	0.83	0.040	1.50	0.060	0.010	0.013	0.10	21.70	0.10	21.70	0.0	Off
15	D42	4.98	0.00	4.98	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.35	9.01	0.35	9.01	0.0	Off
16	D39	2.01	0.00	1.20	0.80	Comb	4.0	3.00	0.00	3.00	1.50	0.010	1.50	0.060	0.020	0.013	0.22	8.21	0.17	5.49	0.0	Off
17	D44	13.28	0.00	13.28	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	1.53	32.55	1.53	32.55	0.0	Off
18	D56	3.24	0.00	3.24	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.26	7.26	0.26	7.26	0.0	Off
19	D53	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
20	D54	0.01*	0.00	0.00	0.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off
21	D55	7.26	0.00	7.26	0.00	DrGrt	0.0	0.00	2.00	2.00	2.00	Sag	0.10	0.100	0.100	0.013	0.46	11.12	0.46	11.12	0.0	Off

Project File: REVISED HAWKS POINTE PLAT 6 .stm

Number of lines: 21

Run Date: 7/10/2024

NOTES: Inlet N-Values = 0.016; Intensity = 265.65 / (Inlet time + 20.10) ^ 0.96; Return period = 100 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

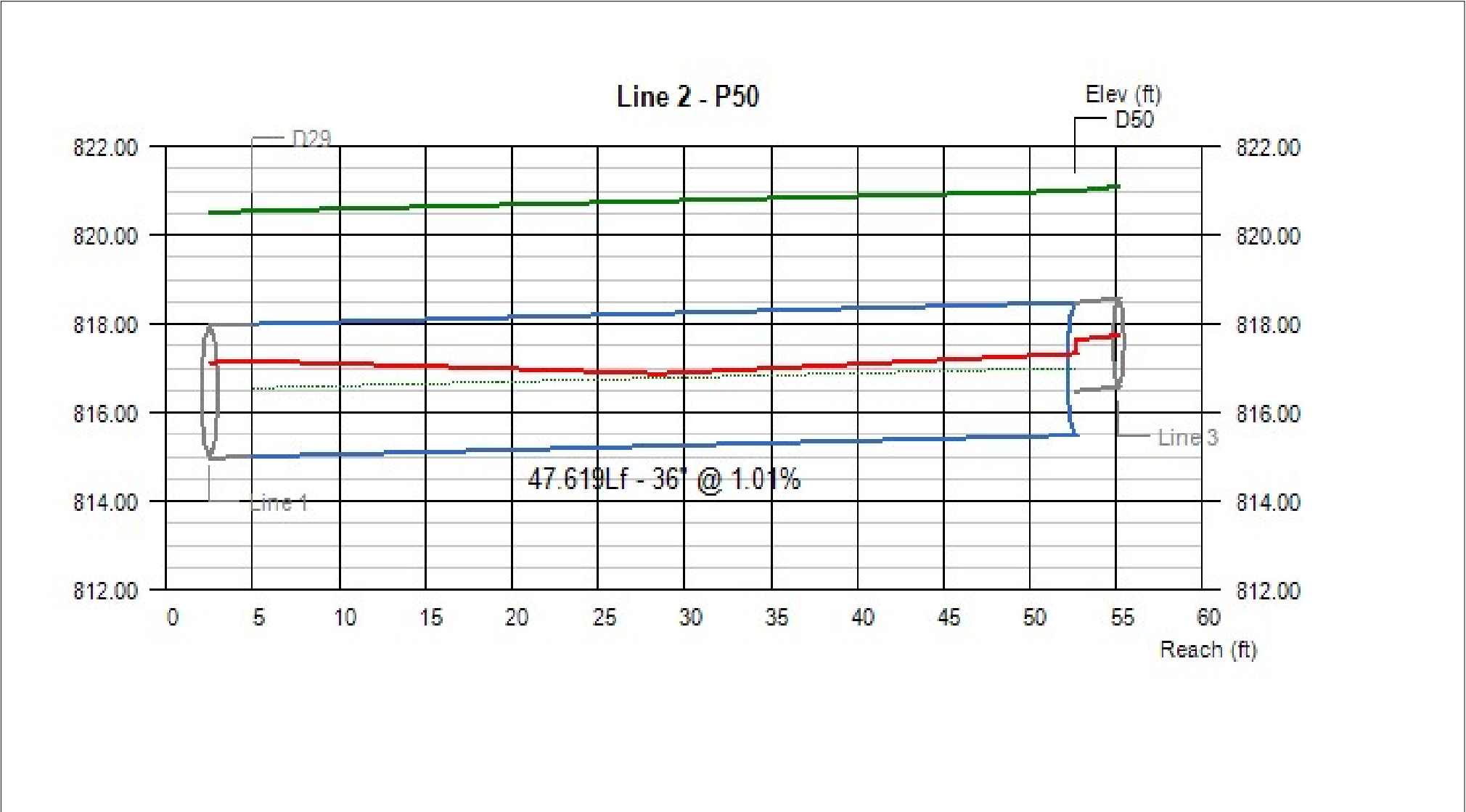


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
1	43.88	812.00	815.00	1.64	2.16	2.16	813.64	817.16	817.16	11.13	8.07	1.42	2.55

Project File:

No. Lines: 21

Run Date: 7/10/2024

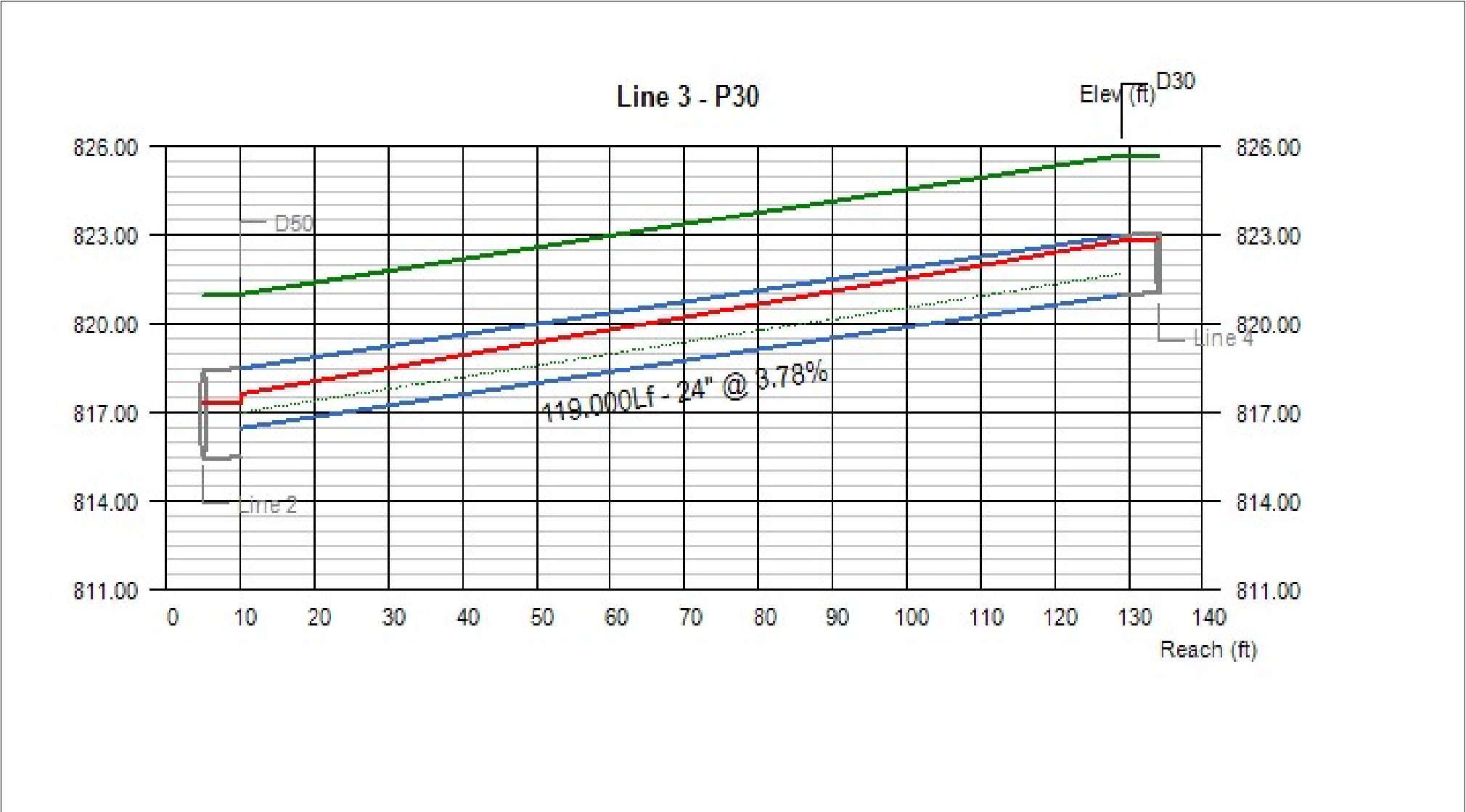


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
2	32.31	815.00	815.48	2.16	1.84	1.84	817.16	817.32 j	817.32	5.94	7.09	2.55	2.52

Project File:

No. Lines: 21

Run Date: 7/10/2024

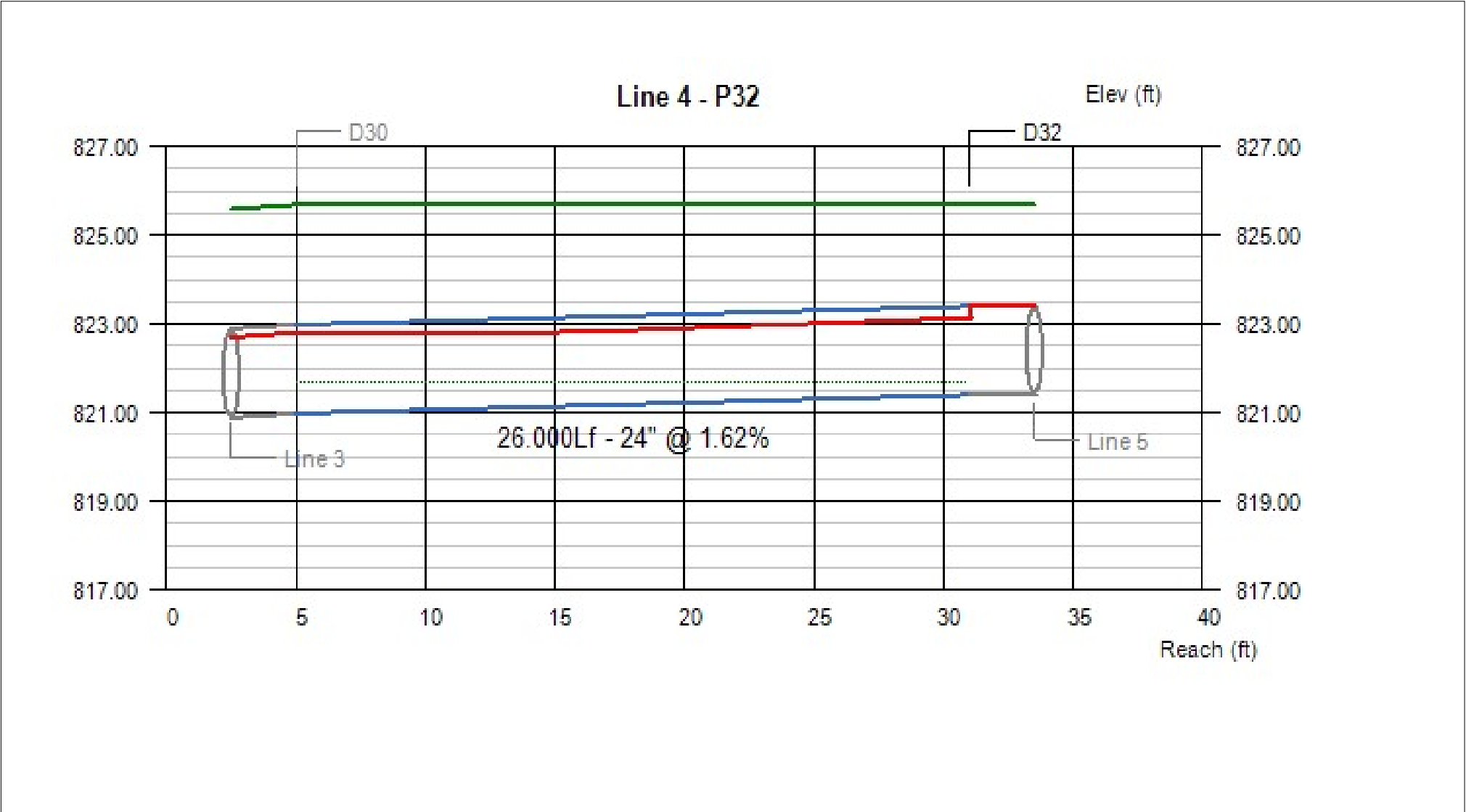


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
3	27.39	816.48	820.98	1.14	1.82	1.82	817.62	822.80	822.80	14.75	9.14	2.52	2.71

Project File:

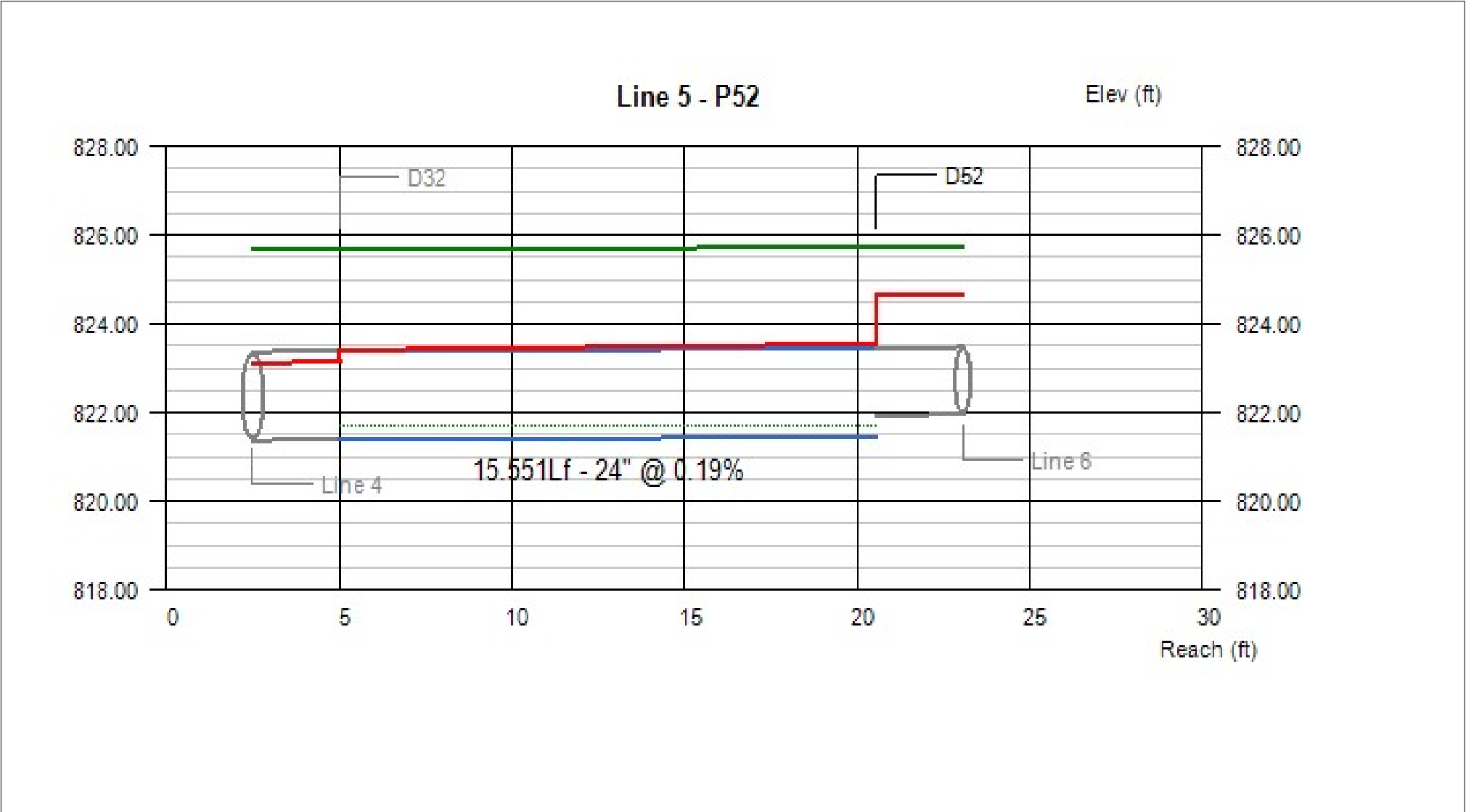
No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
4	24.31	820.98	821.40	1.82	1.74	1.74	822.80	823.14 j	823.14	8.11	8.37	2.71	2.29

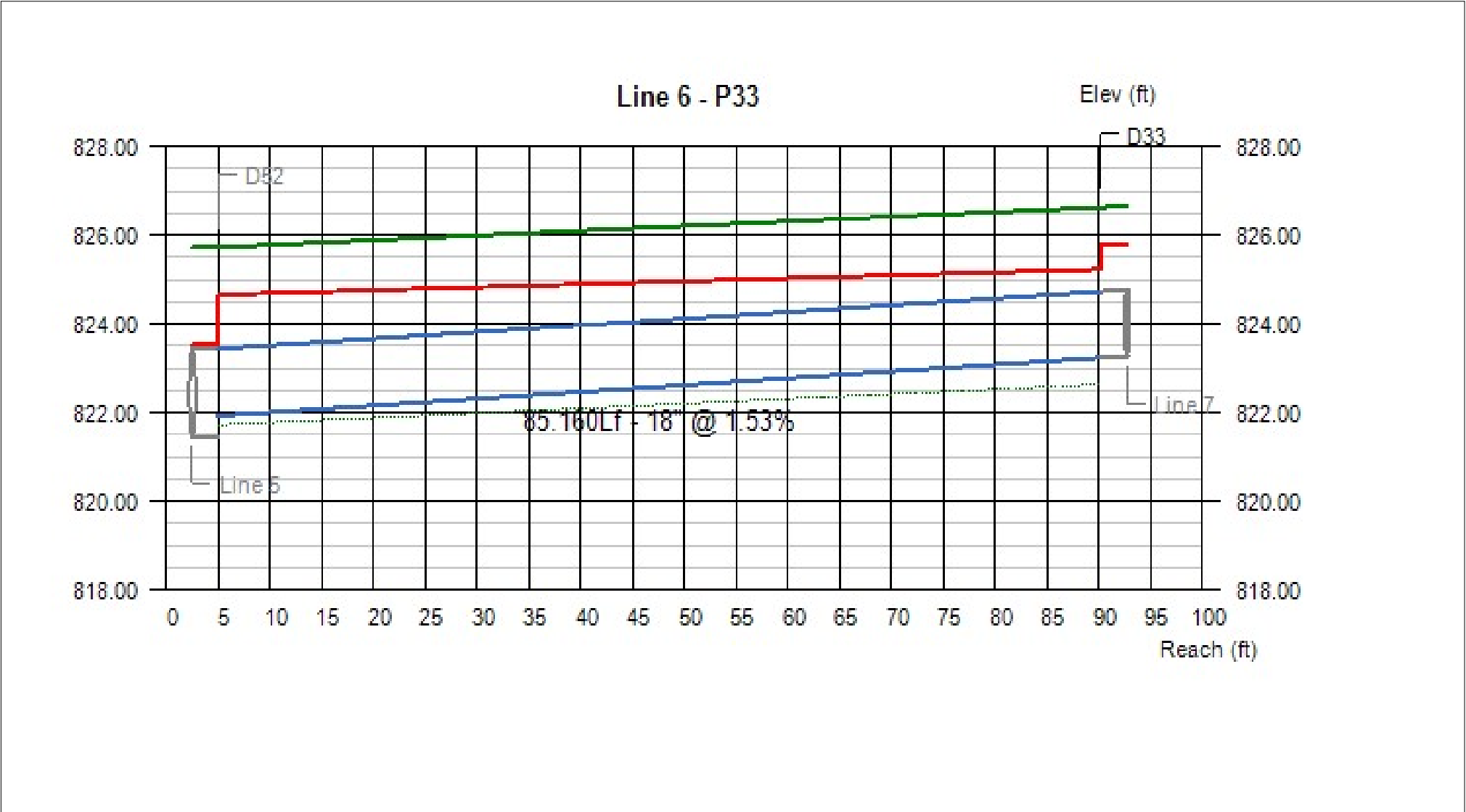
Project File:No. Lines: 21Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
5	21.73	821.40	821.43	2.00	2.00	3.23	823.40	823.54	824.66	6.92	6.92	2.29	2.29

Project File:No. Lines: 21Run Date: 7/10/2024

Line Profile (Line 6) - P33

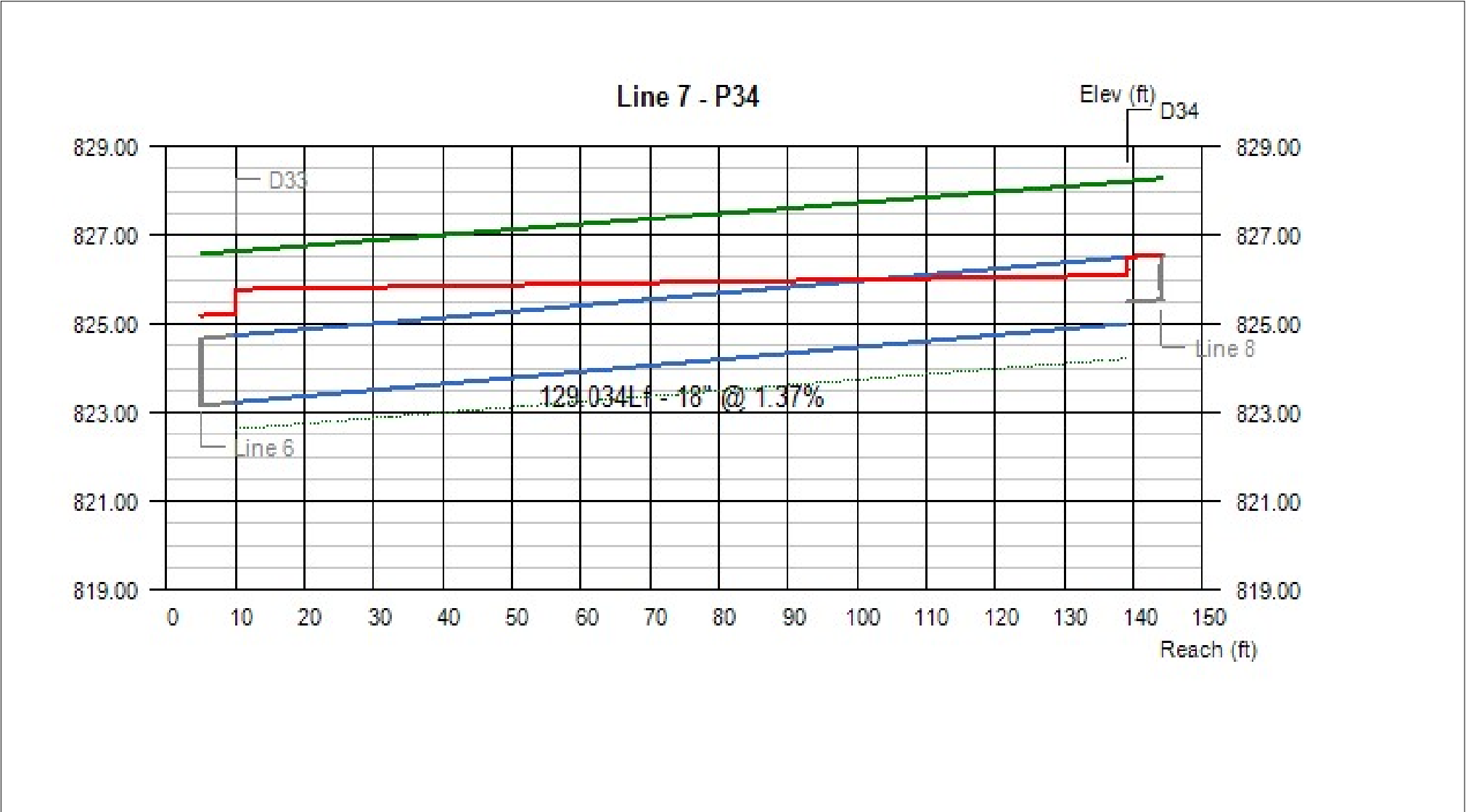


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
6	8.57	821.93	823.23	1.50	1.50	2.55	824.66	825.23	825.78	4.85	4.85	2.29	1.90

Project File:

No. Lines: 21

Run Date: 7/10/2024

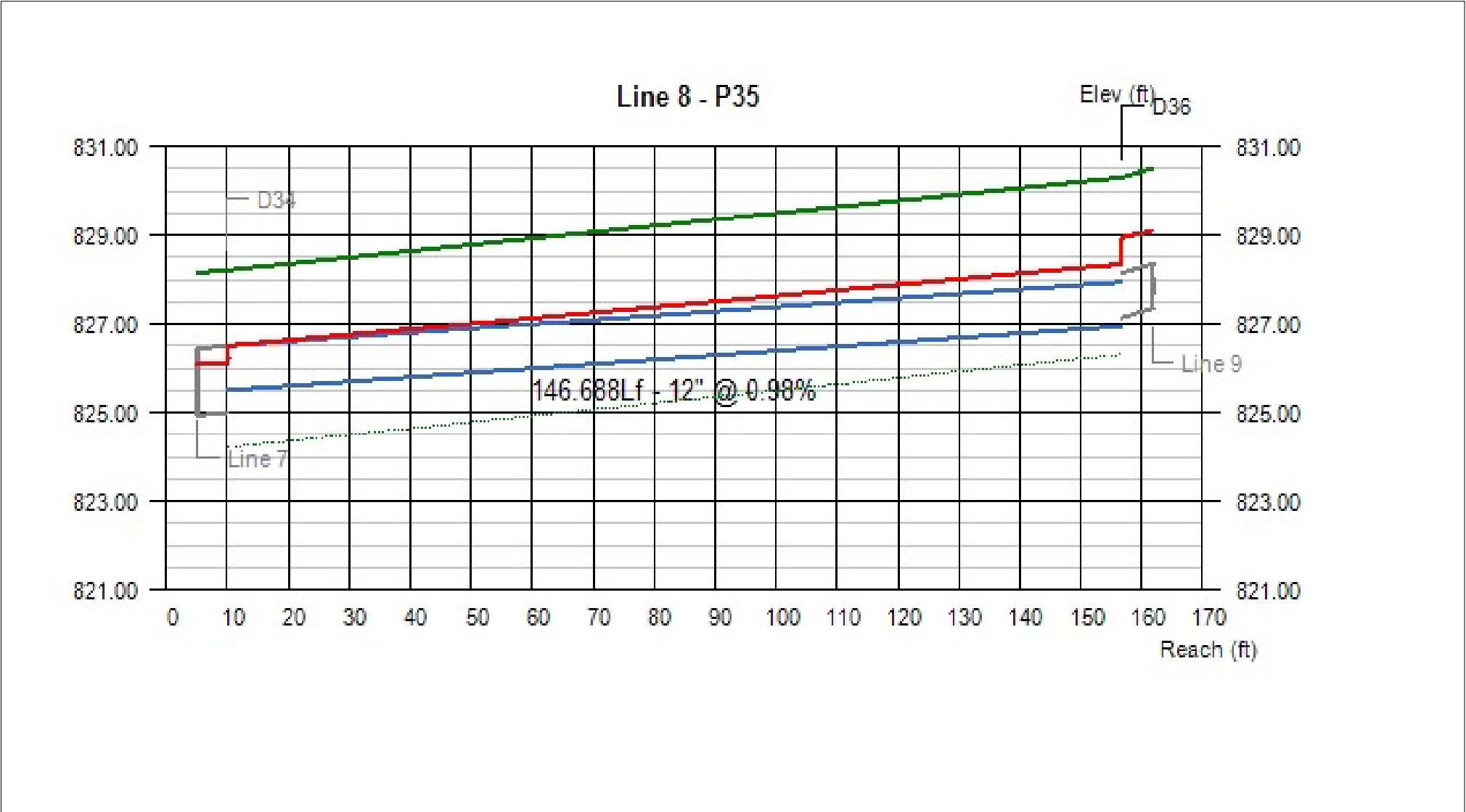


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
7	5.62	823.23	825.00	1.50	1.10	1.22	825.78	826.10	826.22	3.18	4.06	1.90	1.71

Project File:

No. Lines: 21

Run Date: 7/10/2024

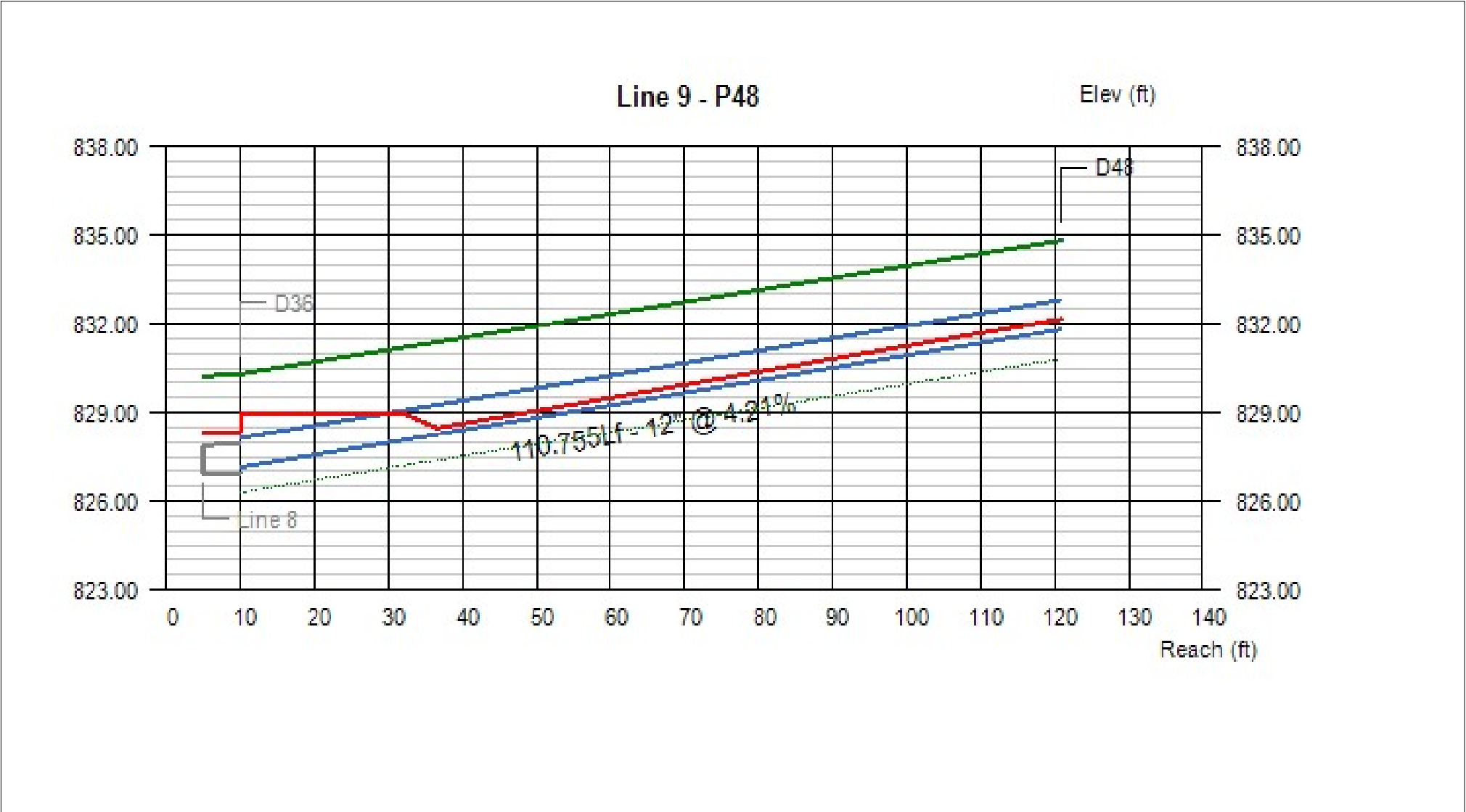


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
8	3.99	825.50	826.94	1.00	1.00	2.01	826.50	828.34	828.95	5.08	5.08	1.71	2.36

Project File:

No. Lines: 21

Run Date: 7/10/2024

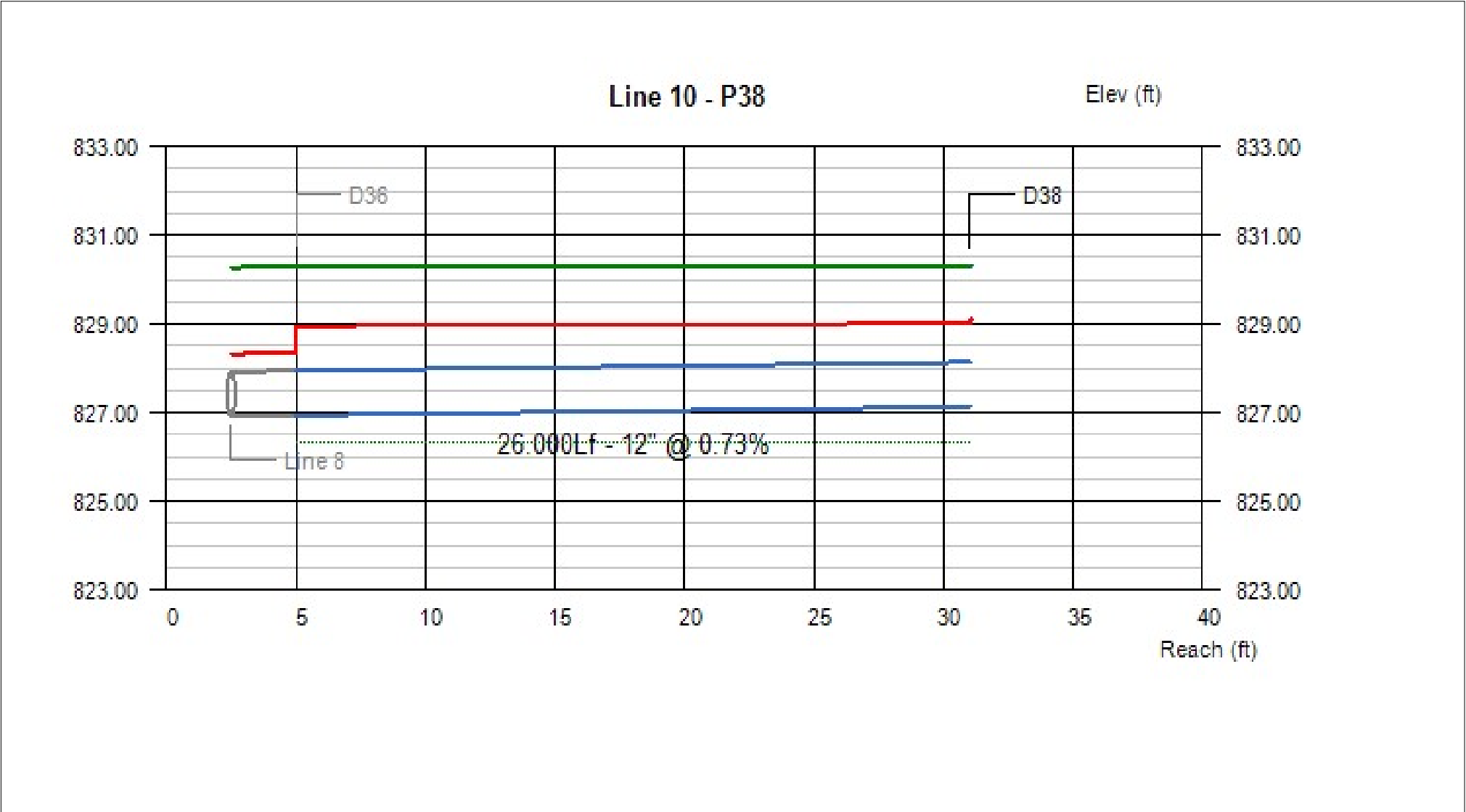


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
9	0.72	827.14	831.80	1.00	0.35	0.35	828.95	832.15 j	832.15	0.92	2.90	2.16	2.00

Project File:

No. Lines: 21

Run Date: 7/10/2024

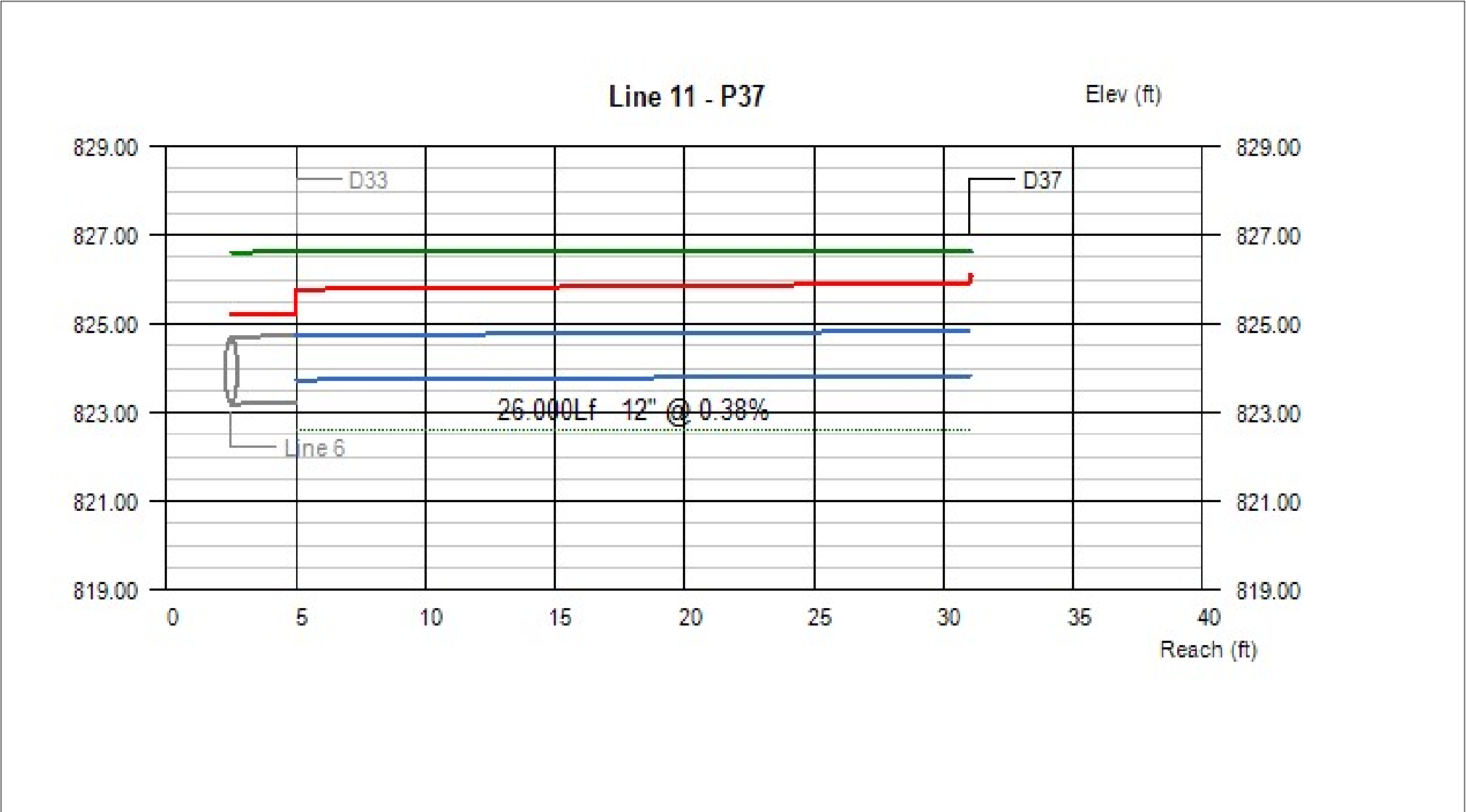


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
10	1.83	826.94	827.13	1.00	1.00	1.97	828.95	829.02	829.10	2.33	2.33	2.36	2.17

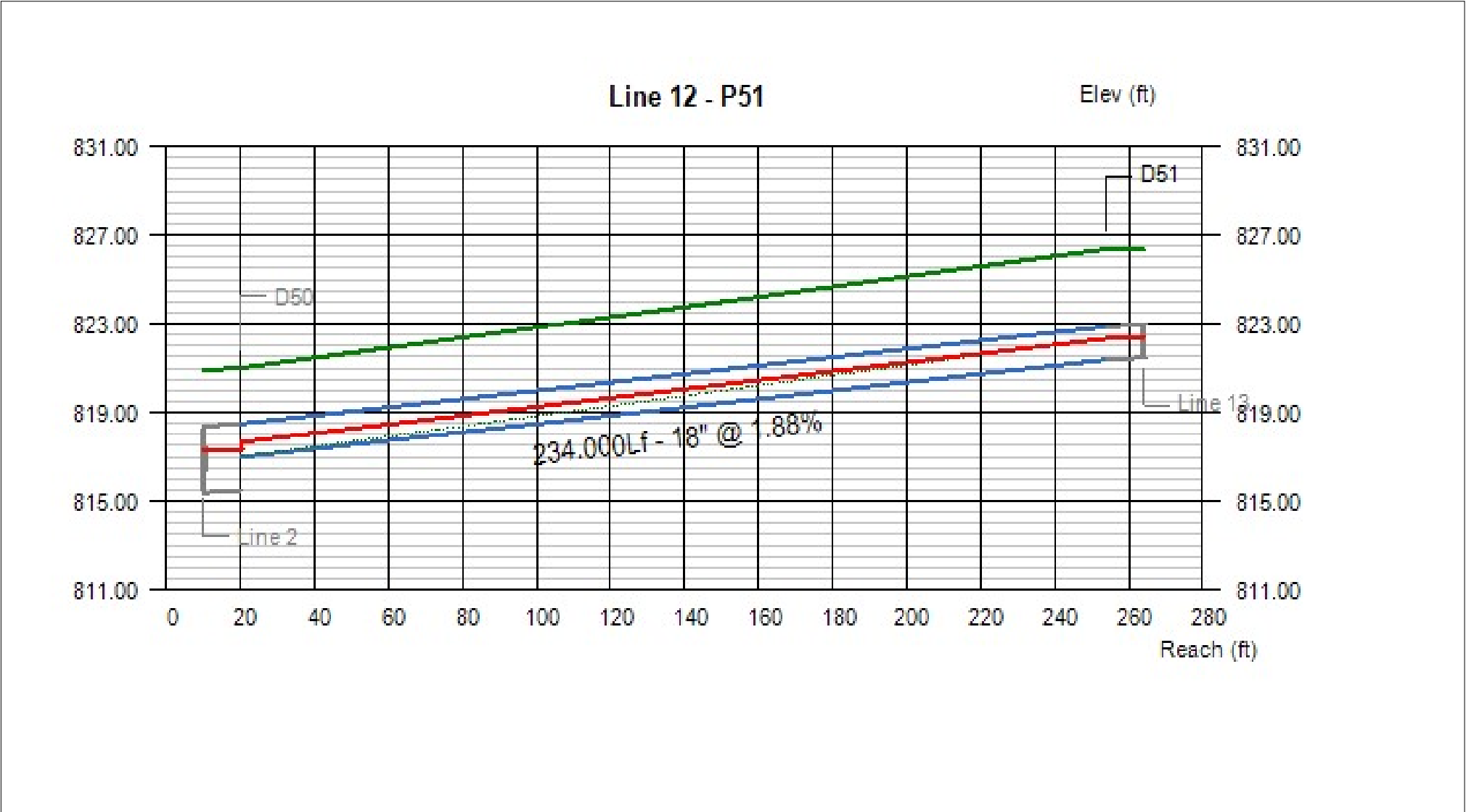
Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
11	2.64	823.73	823.83	1.00	1.00	2.26	825.78	825.92	826.09	3.36	3.36	1.90	1.80
Project File:								No. Lines: 21			Run Date: 7/10/2024		

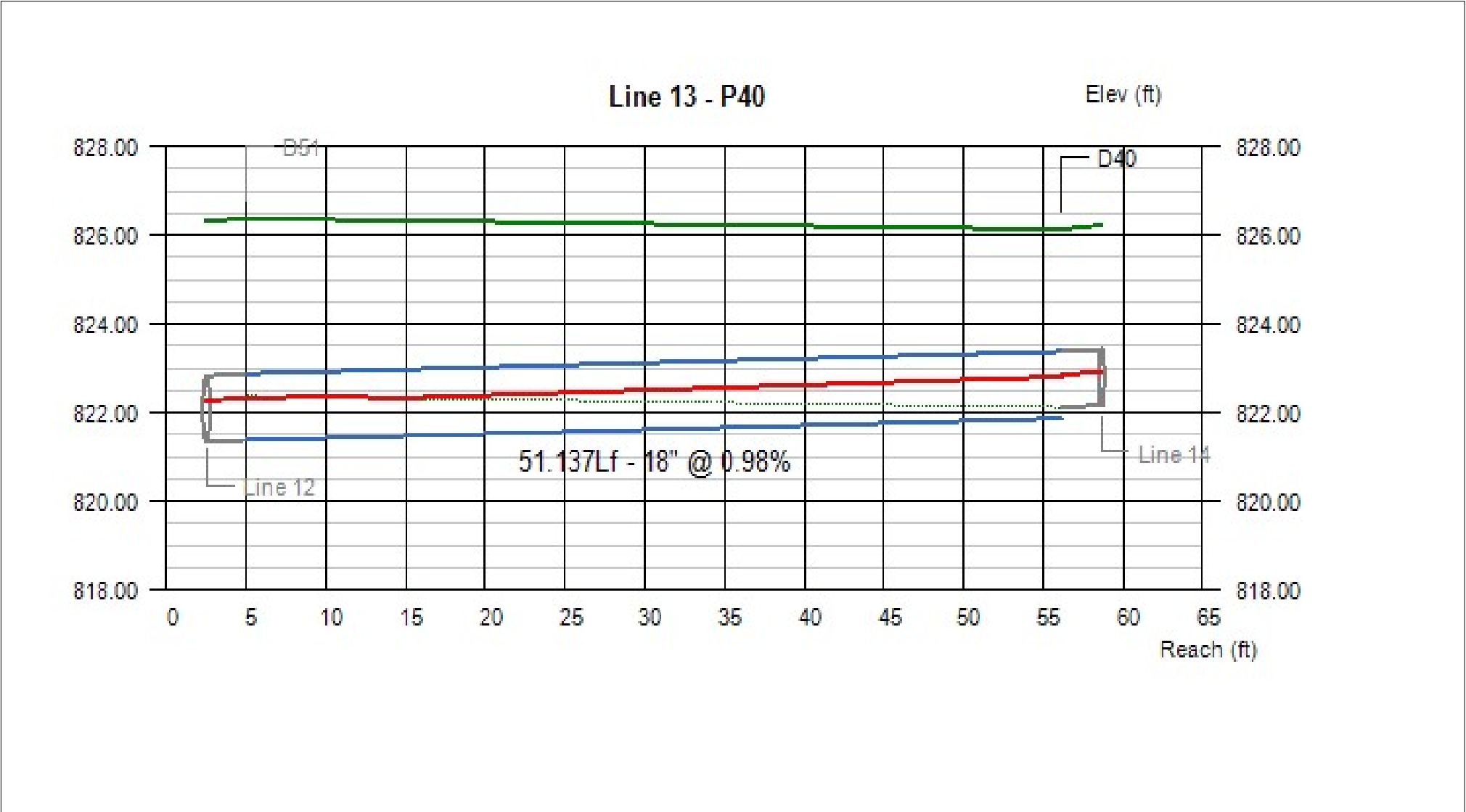


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
12	6.12	816.98	821.37	0.68	0.96	0.96	817.66	822.33	822.33	7.81	5.16	2.52	3.50

Project File:

No. Lines: 21

Run Date: 7/10/2024

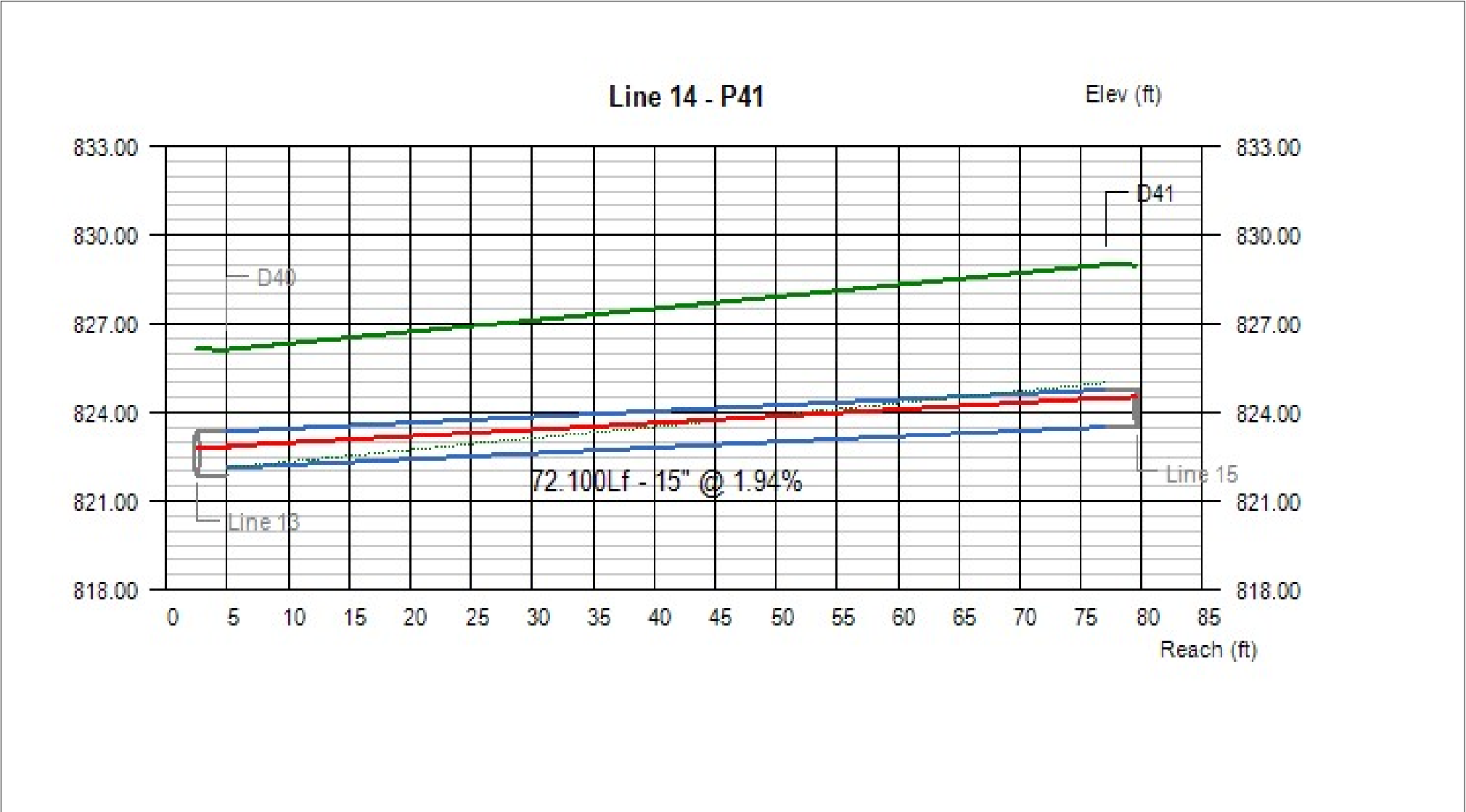


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
13	5.91	821.37	821.87	0.96	0.94	0.94	822.33	822.81 j	822.81	4.98	5.08	3.50	2.75

Project File:

No. Lines: 21

Run Date: 7/10/2024

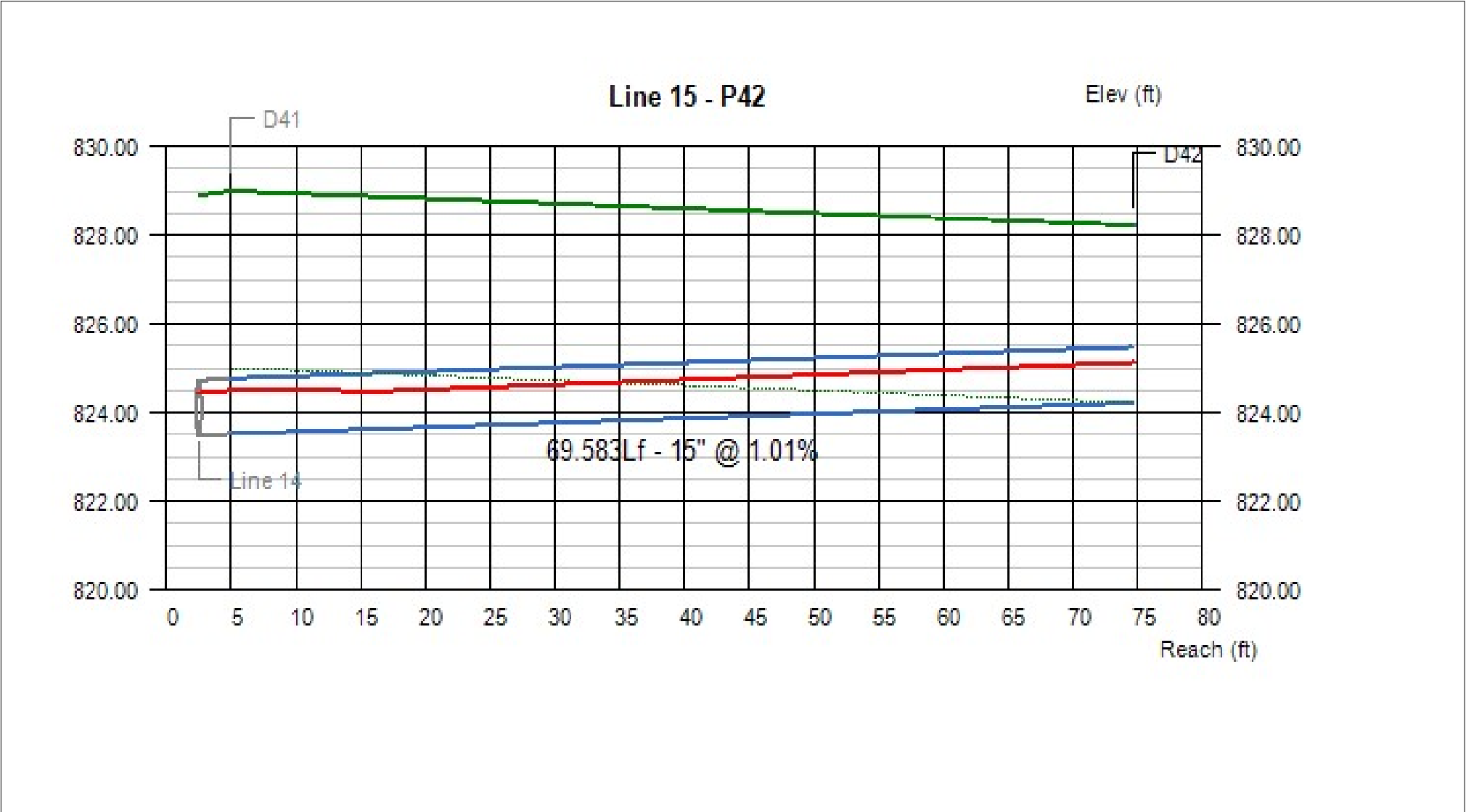


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
14	5.84	822.12	823.52	0.73	0.98	0.98	822.85	824.50	824.50	7.80	5.67	2.75	4.23

Project File:

No. Lines: 21

Run Date: 7/10/2024

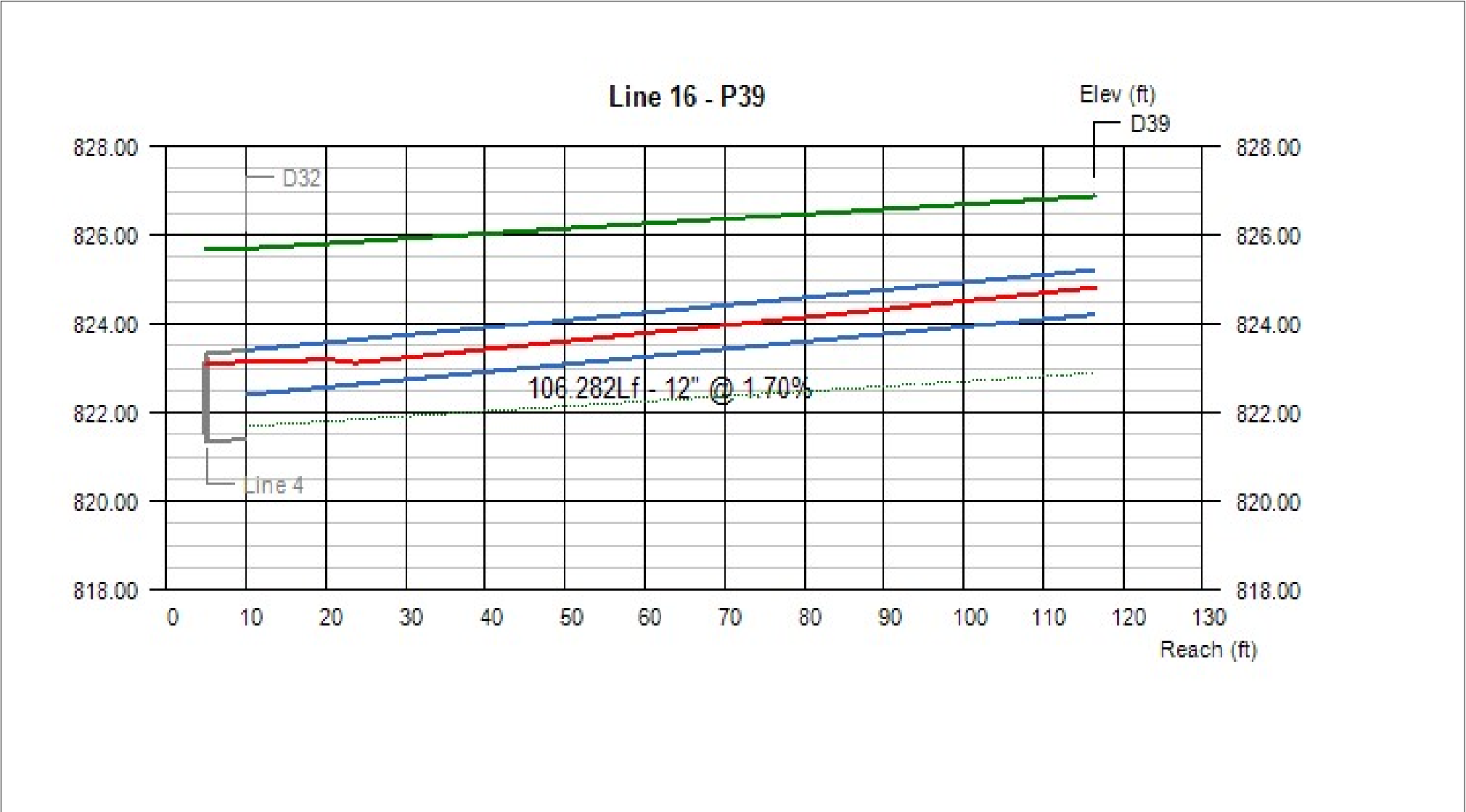


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
15	4.98	823.52	824.22	0.98	0.90	0.90	824.50	825.12 j	825.12	4.84	5.24	4.23	2.75

Project File:

No. Lines: 21

Run Date: 7/10/2024

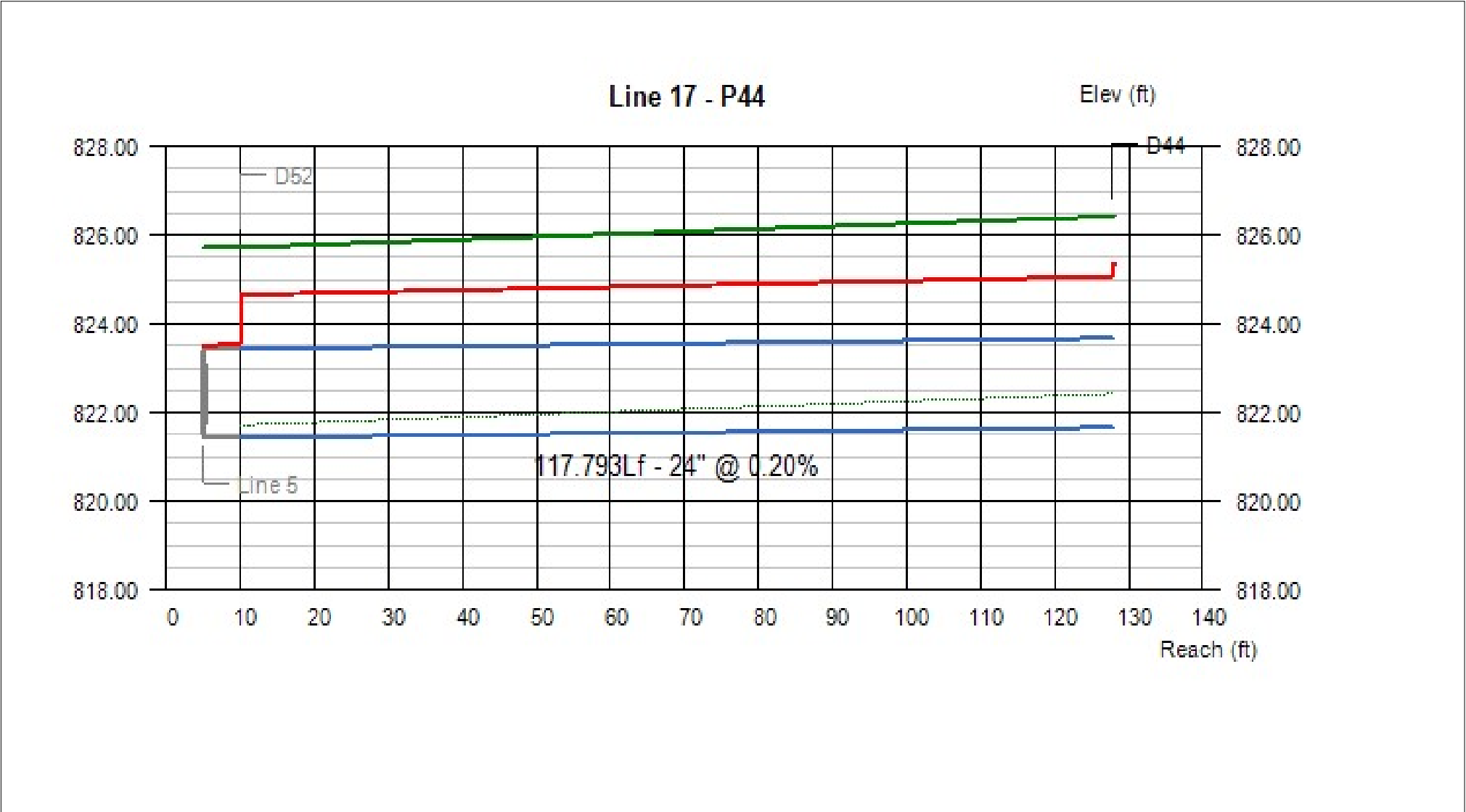


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
16	2.01	822.40	824.21	0.74	0.60	0.60	823.14	824.81 j	824.81	3.21	4.05	2.29	1.67

Project File:

No. Lines: 21

Run Date: 7/10/2024

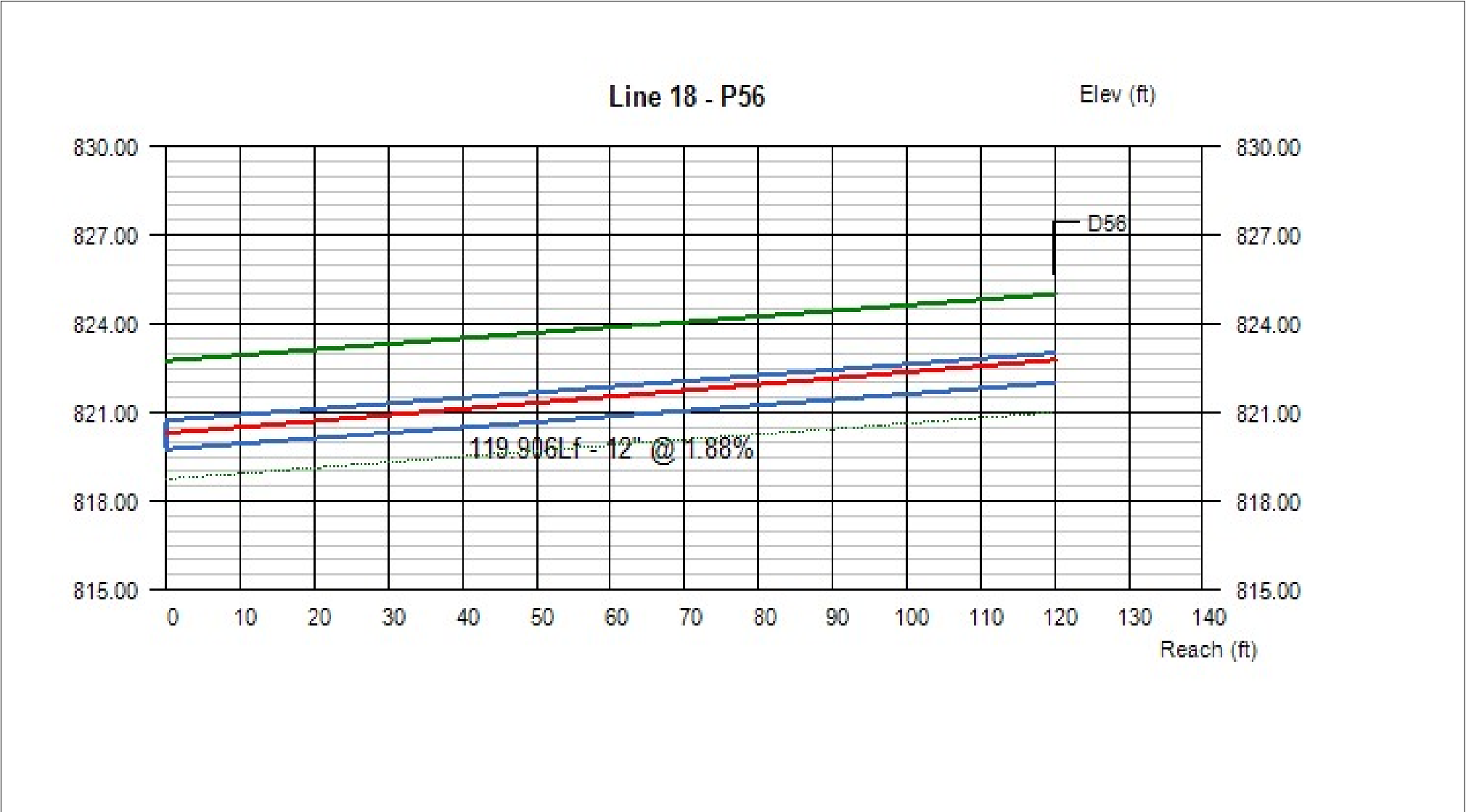


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
17	13.28	821.43	821.67	2.00	2.00	3.67	824.66	825.07	825.34	4.23	4.23	2.29	2.75

Project File:

No. Lines: 21

Run Date: 7/10/2024

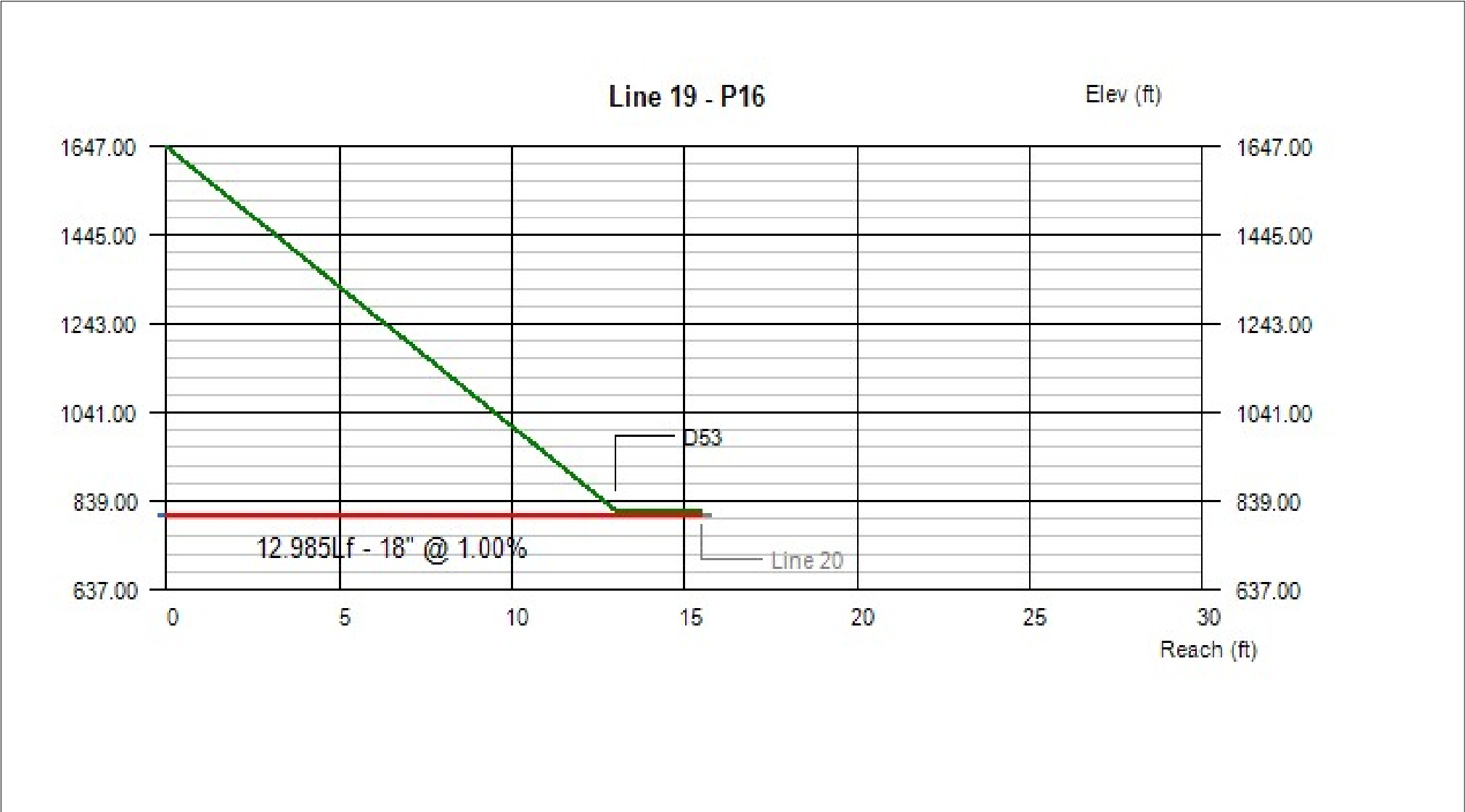


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
18	3.24	819.74	822.00	0.57	0.77	0.77	820.31	822.77	822.77	7.08	4.99	2.00	2.01

Project File:

No. Lines: 21

Run Date: 7/10/2024

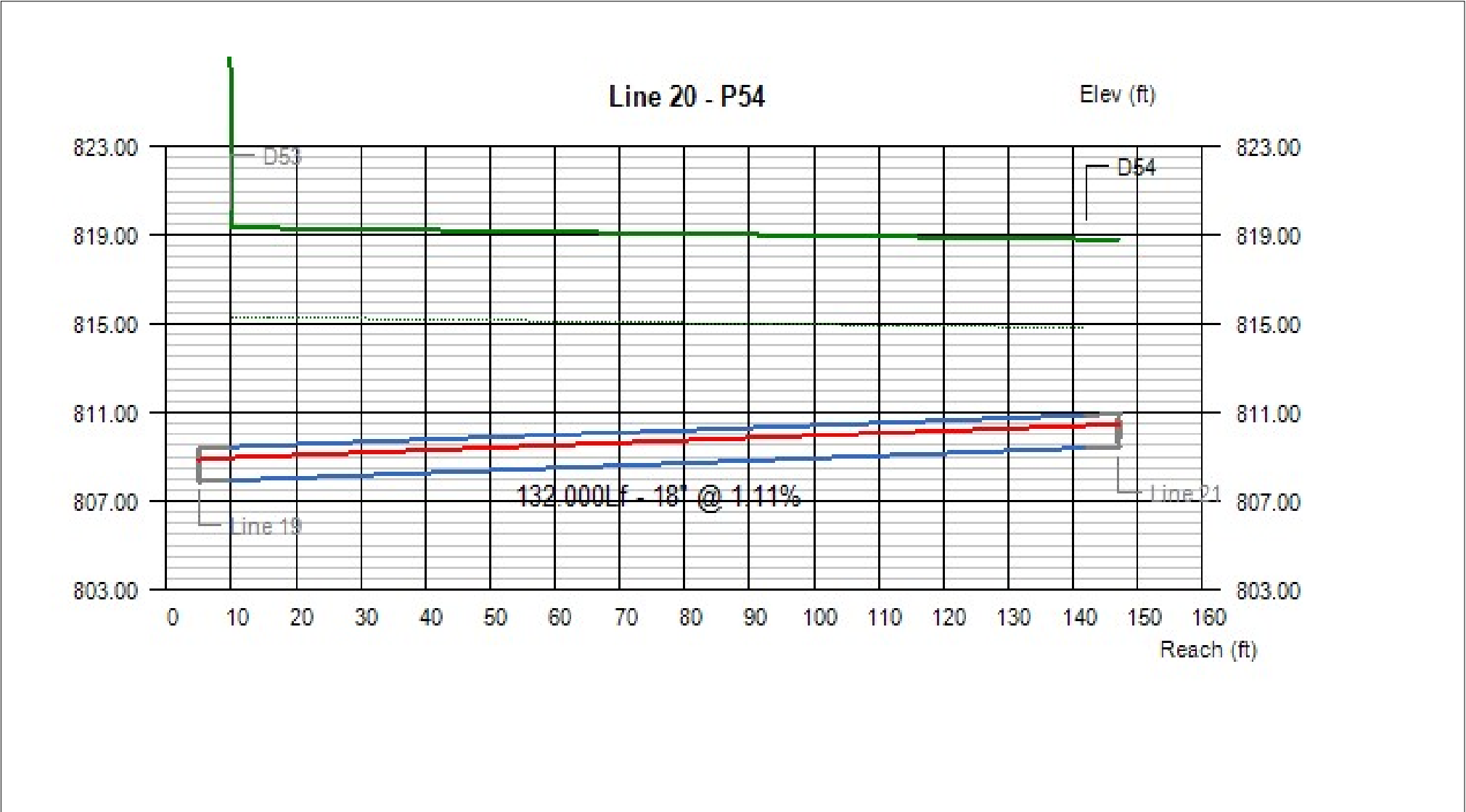


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
19	6.96	807.80	807.93	0.89	1.02	1.02	808.69	808.95	808.95	6.36	5.44	837.00	9.90

Project File:

No. Lines: 21

Run Date: 7/10/2024

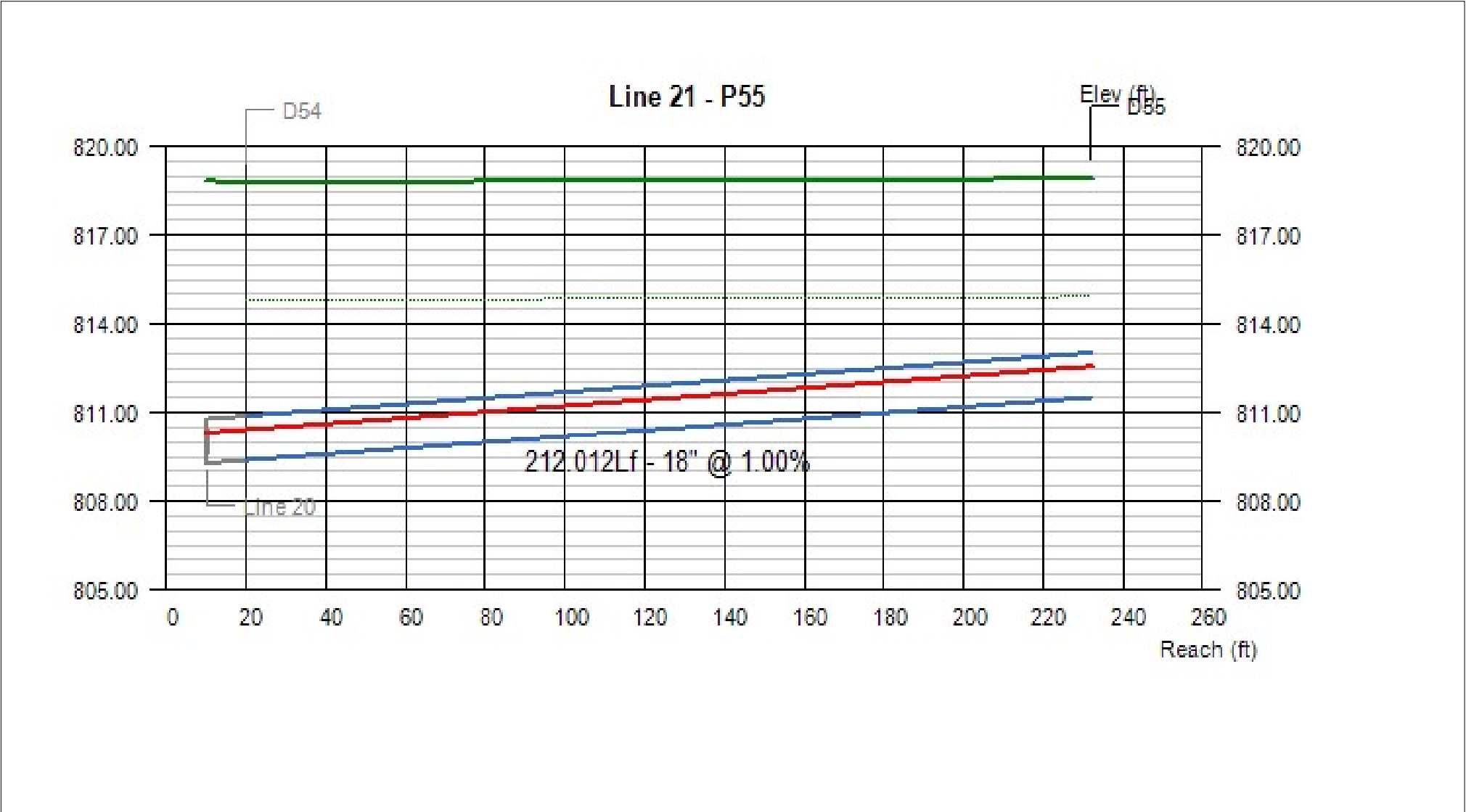


Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
20	7.07	807.93	809.39	1.02	1.03	1.03	808.95	810.42	810.42	5.52	5.47	9.90	7.91

Project File:

No. Lines: 21

Run Date: 7/10/2024



Line #	Q (cfs)	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
		Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
21	7.26	809.39	811.51	1.03	1.04	1.04	810.42	812.55	812.55	5.62	5.54	7.91	5.91

Project File:

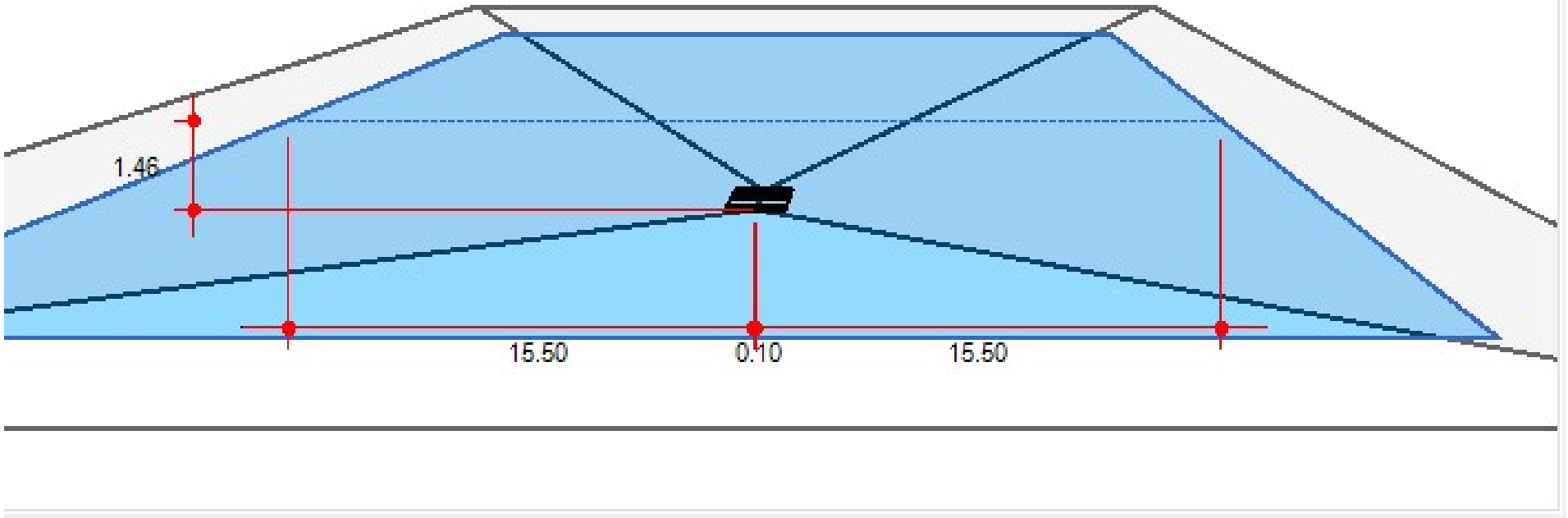
No. Lines: 21

Run Date: 7/10/2024

Inlet Section (Line 1 - Drop Grate Inlet) - D29

All dimensions in feet

Line 1 - Drop Grate Inlet in Sag - D29

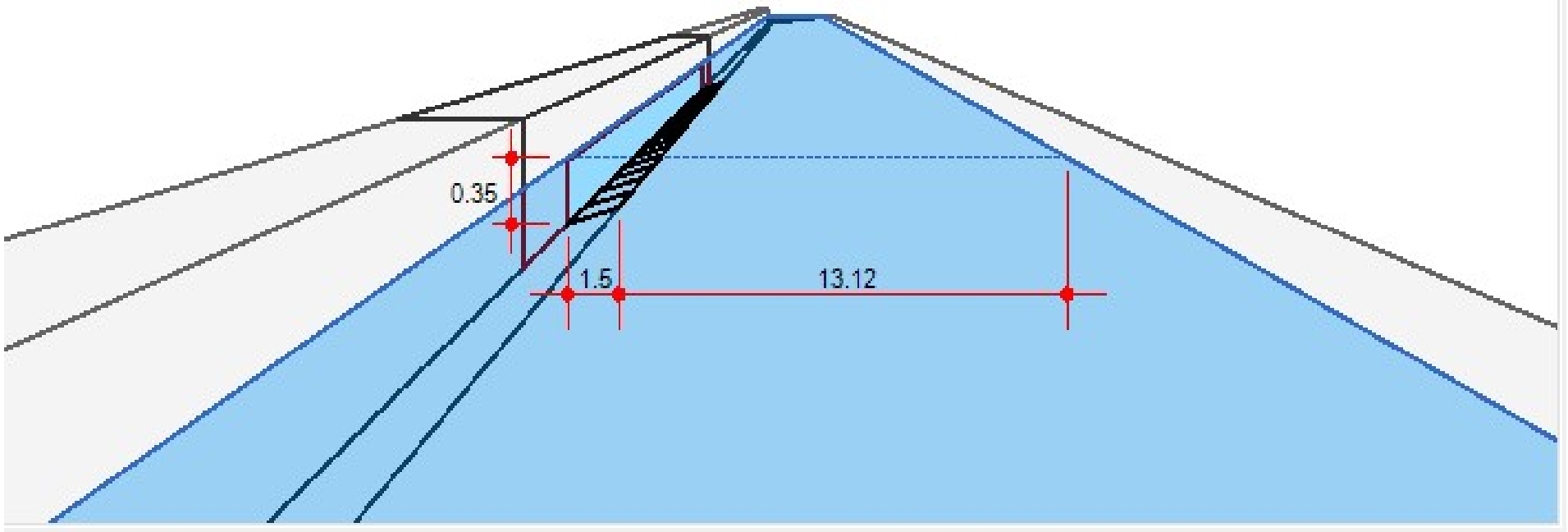


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
1	12.96	0.00	12.96	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	1.46	31.10	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 3 - Combination Inlet) - D30

All dimensions in feet

Line 3 - Combination Inlet in Sag - D30

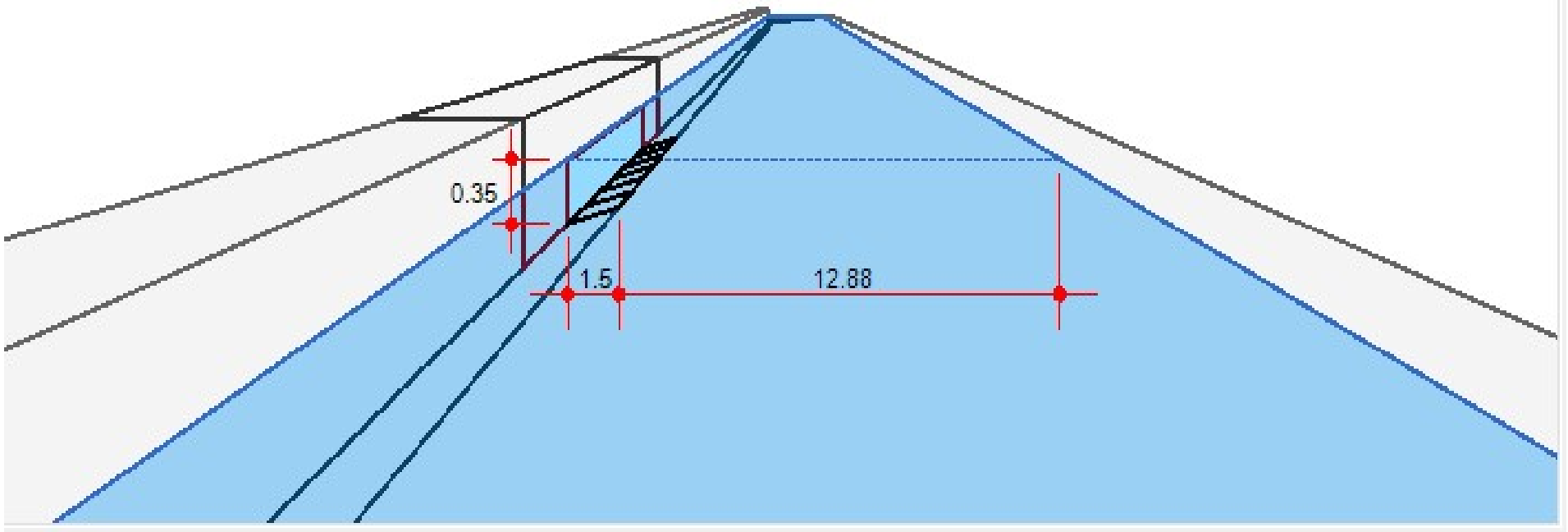


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
3	4.71	1.42	6.13	0.00	9.00	0.0	4.0	1.50	Sag	0.060	0.020	0.35	14.62	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 4 - Combination Inlet) - D32

All dimensions in feet

Line 4 - Combination Inlet in Sag - D32

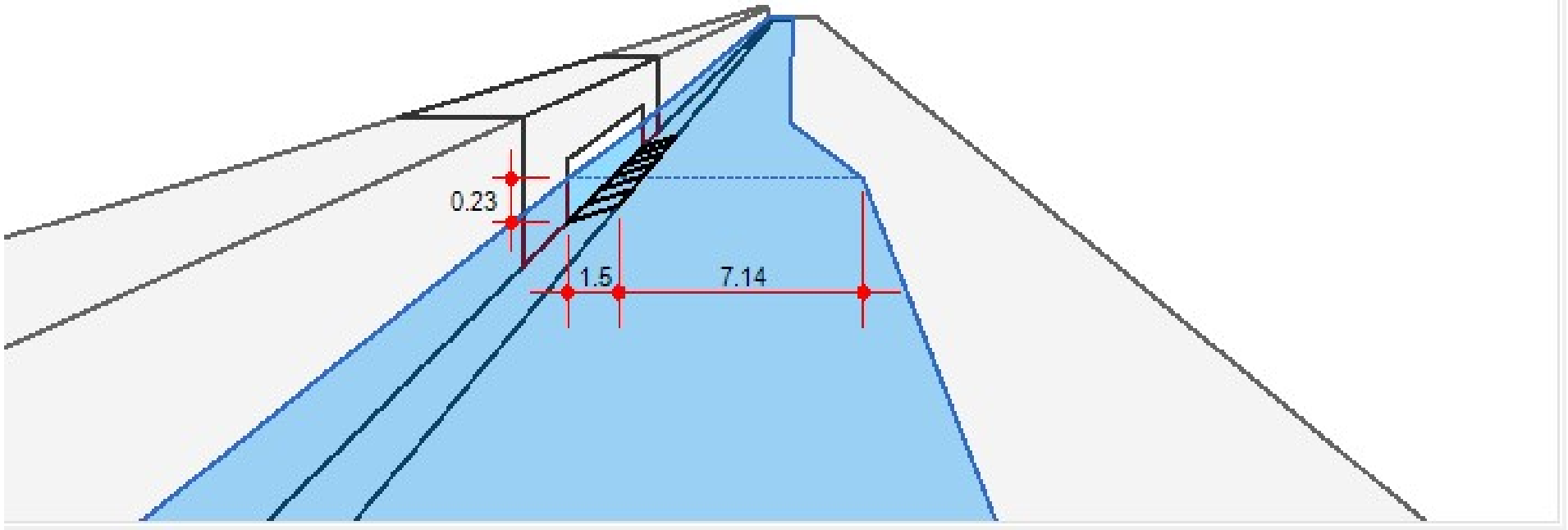


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
4	1.93	1.07	3.00	0.00	3.00	0.0	4.0	1.50	Sag	0.060	0.020	0.35	14.38	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 5 - Combination Inlet) - D52

All dimensions in feet

Line 5 - Combination Inlet on Grade - D52

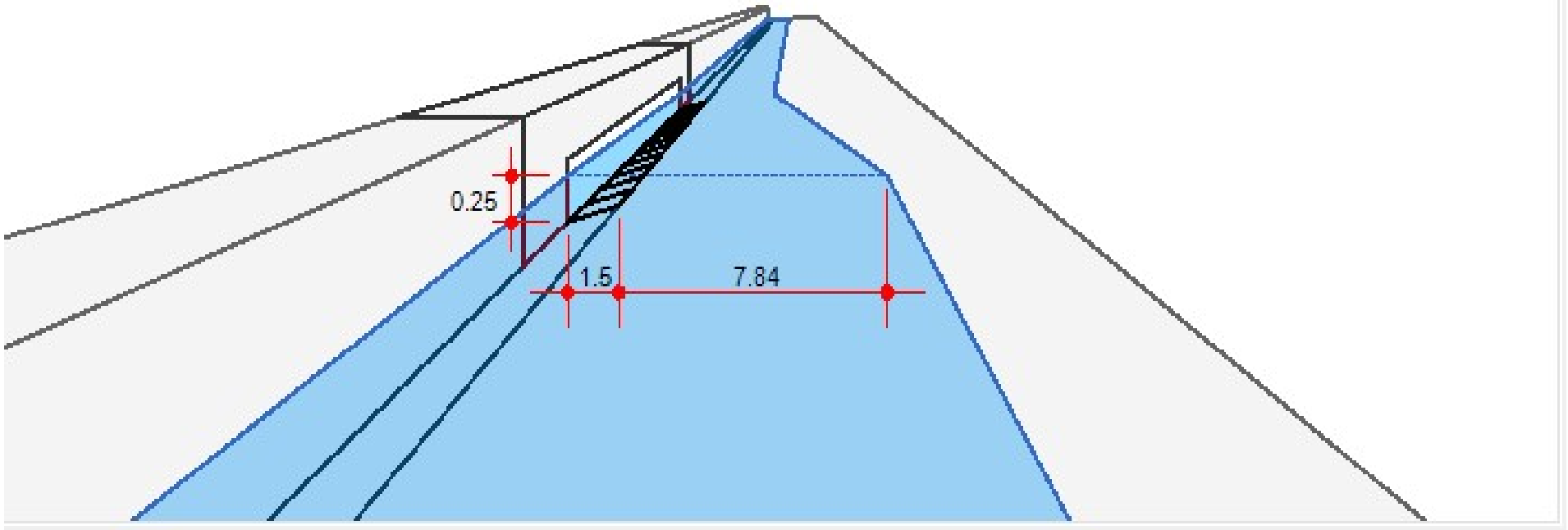


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
5	1.62	0.84	1.39	1.07	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.23	8.64	0.18	6.03	4
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 6 - Combination Inlet) - D33

All dimensions in feet

Line 6 - Combination Inlet on Grade - D33

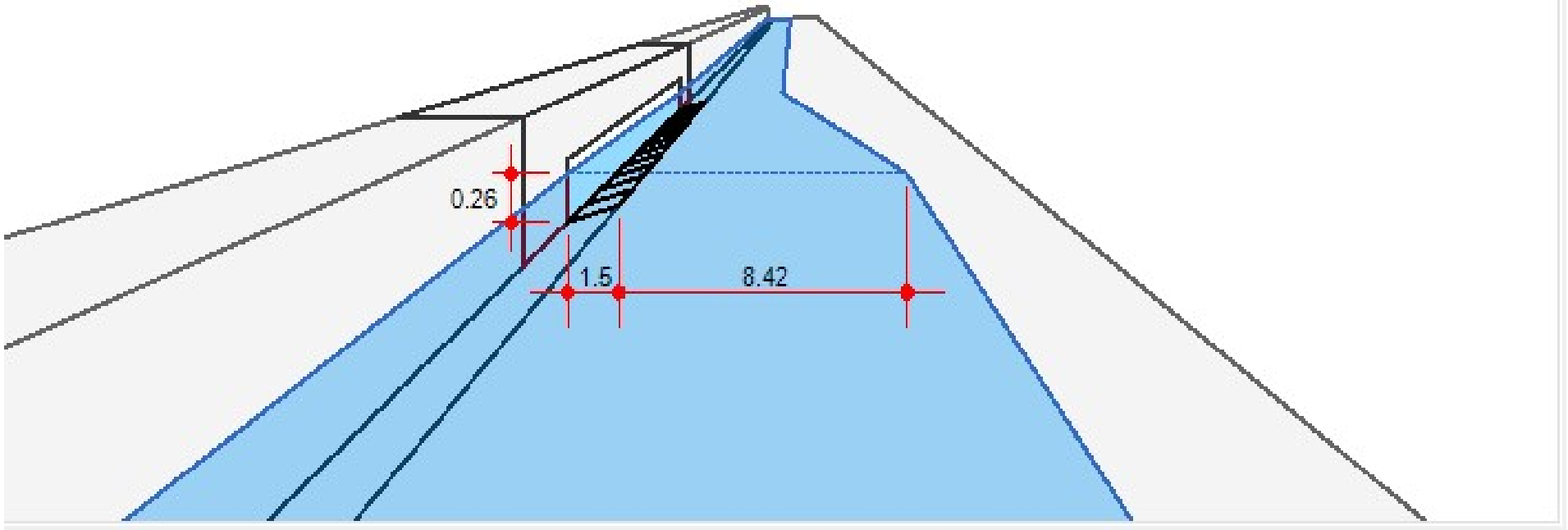


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
6	1.93	1.04	2.14	0.84	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.25	9.34	0.17	5.39	5
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 7 - Combination Inlet) - D34

All dimensions in feet

Line 7 - Combination Inlet on Grade - D34

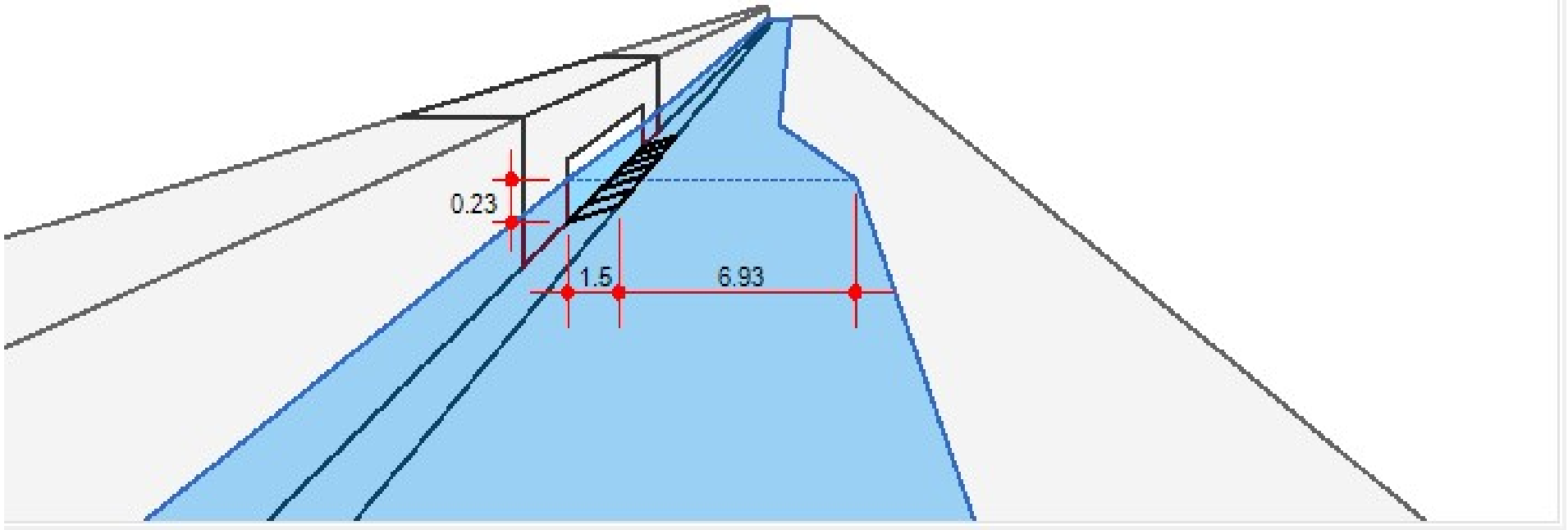


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
7	2.47	0.98	2.41	1.04	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.26	9.92	0.18	5.97	6
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 8 - Combination Inlet) - D36

All dimensions in feet

Line 8 - Combination Inlet on Grade - D36

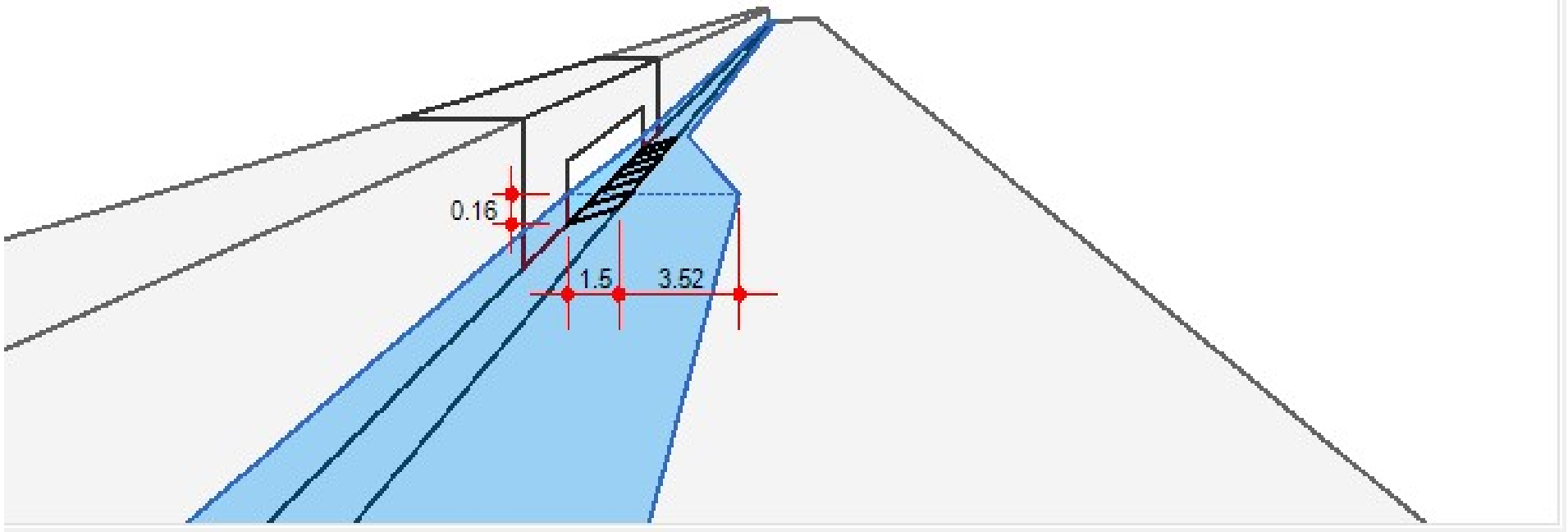


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
8	2.17	0.15	1.34	0.98	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.23	8.43	0.18	5.80	7
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 9 - Combination Inlet) - D48

All dimensions in feet

Line 9 - Combination Inlet on Grade - D48

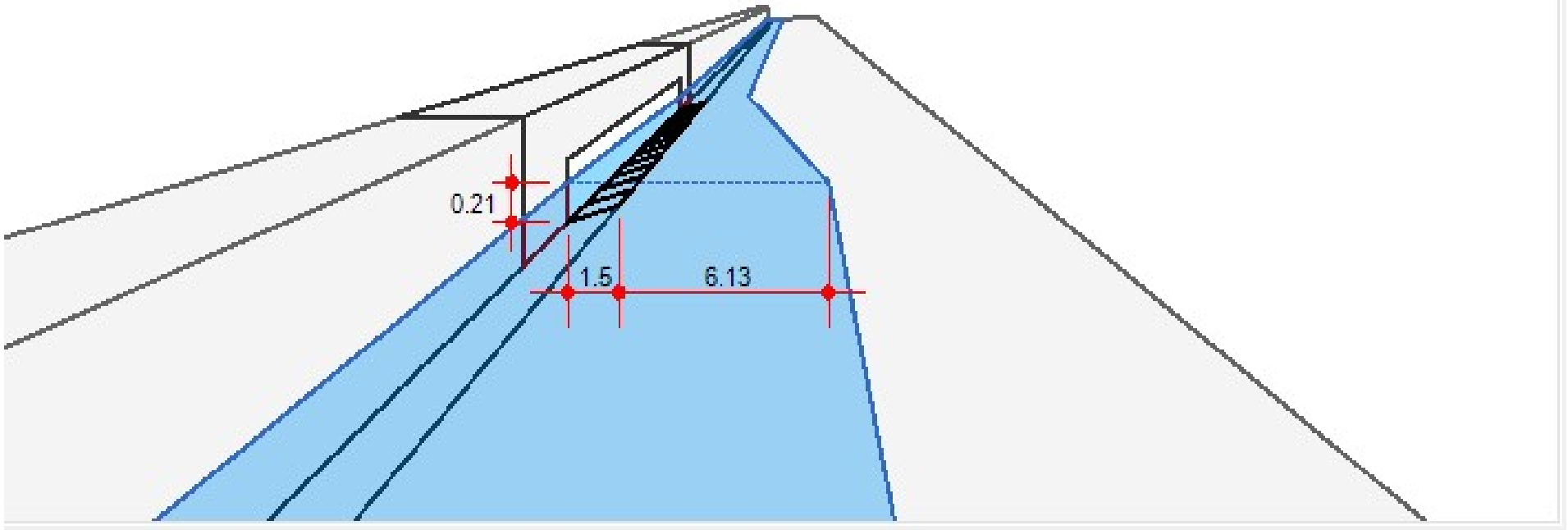


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
9	0.72	0.00	0.57	0.15	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.16	5.02	0.10	1.77	8
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 10 - Combination Inlet) - D38

All dimensions in feet

Line 10 - Combination Inlet on Grade - D38

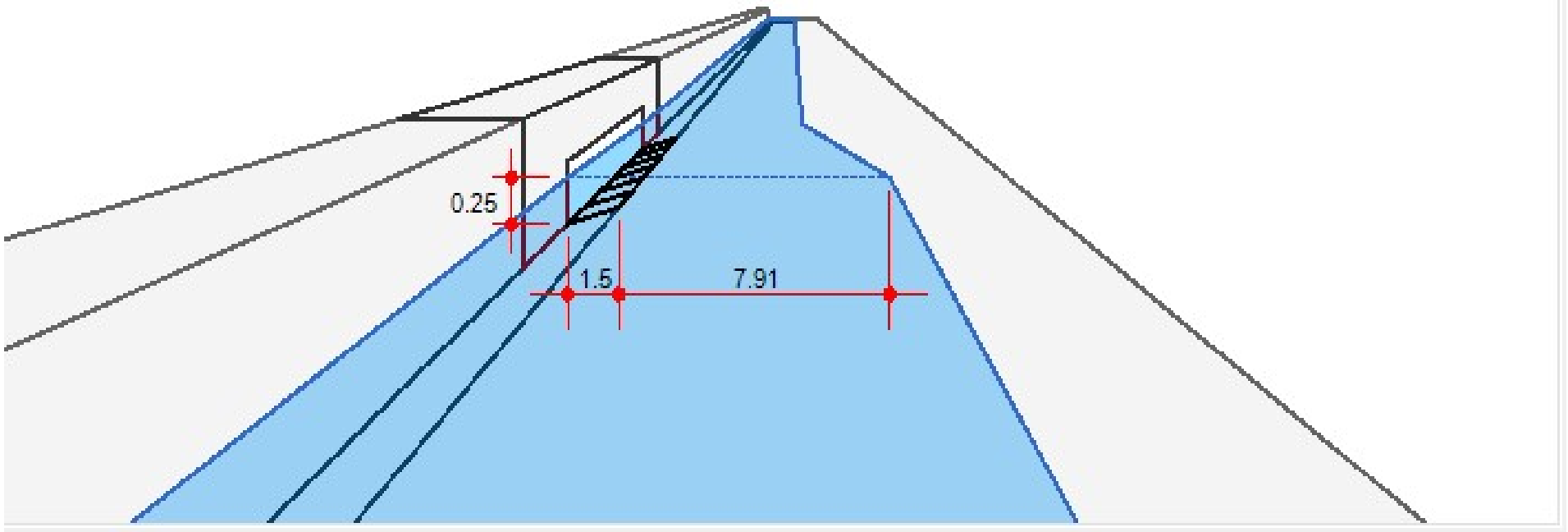


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
10	1.83	0.00	1.44	0.39	6.00	0.0	4.0	1.50	0.010	0.060	0.020	0.21	7.63	0.13	3.66	11
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 11 - Combination Inlet) - D37

All dimensions in feet

Line 11 - Combination Inlet on Grade - D37

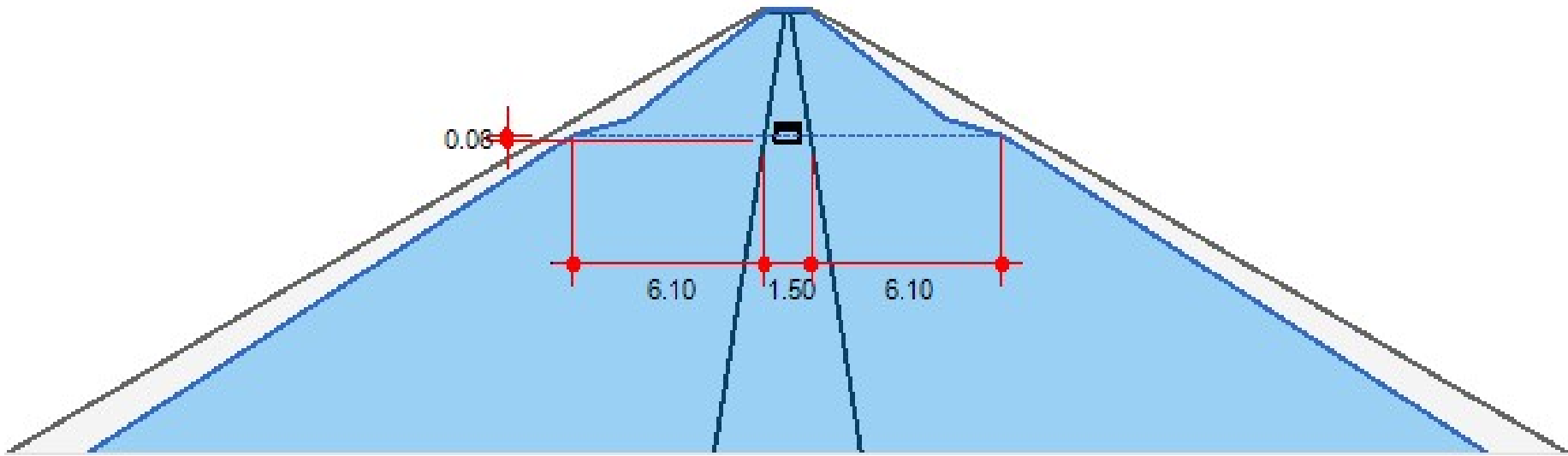


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	By (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
11	2.64	0.39	1.61	1.42	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.25	9.41	0.20	6.86	3
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 12 - Drop Grate Inlet) - D51

All dimensions in feet

Line 12 - Drop Grate Inlet on Grade - D51

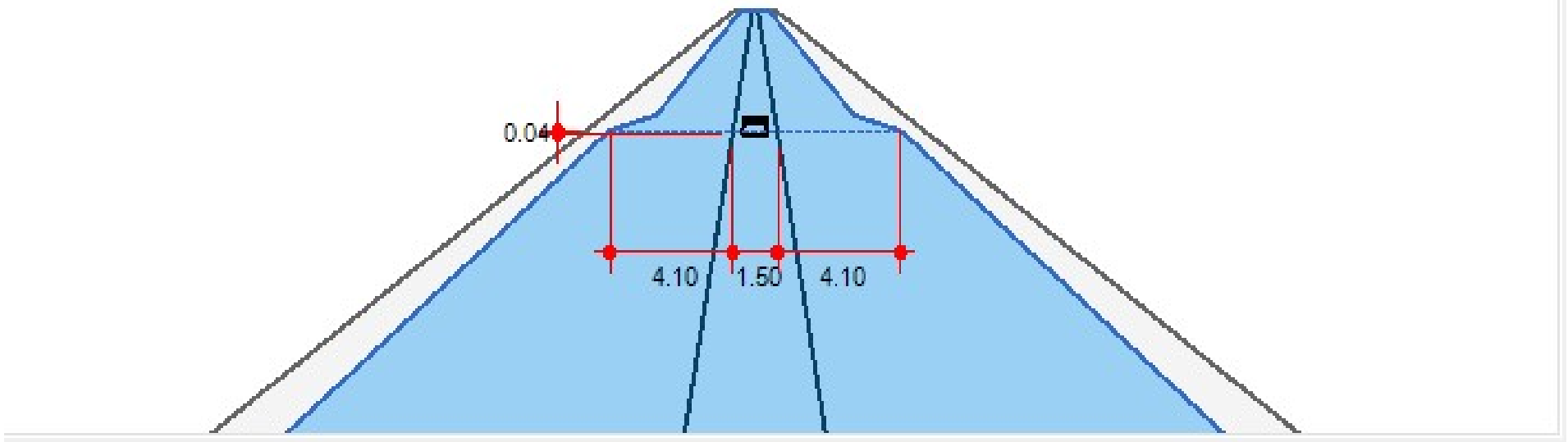


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
12	0.32	0.00	0.11	0.21	0.83	....	0.83	1.50	0.040	0.060	0.010	0.06	13.70	0.06	13.70	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 13 - Drop Grate Inlet) - D40

All dimensions in feet

Line 13 - Drop Grate Inlet on Grade - D40



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
13	0.14	0.00	0.06	0.09	0.83	....	0.83	1.50	0.040	0.060	0.010	0.04	9.70	0.04	9.70	Offsite

Project File:

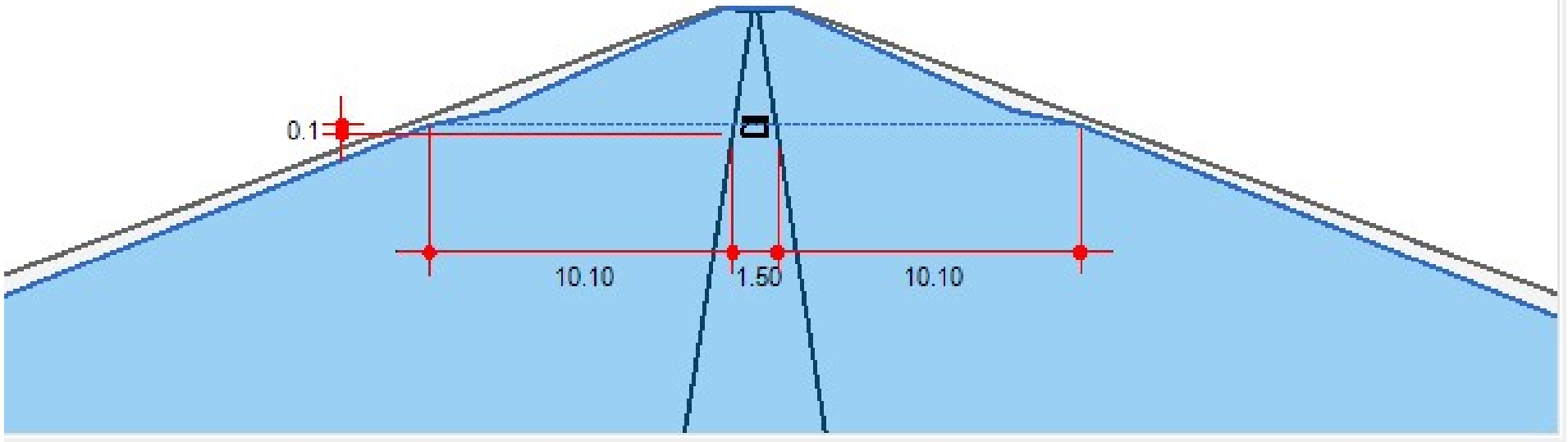
No. Lines: 21

Run Date: 7/10/2024

Inlet Section (Line 14 - Drop Grate Inlet) - D41

All dimensions in feet

Line 14 - Drop Grate Inlet on Grade - D41



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Width (ft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
14	1.08	0.00	0.29	0.80	0.83	....	0.83	1.50	0.040	0.060	0.010	0.10	21.70	0.10	21.70	Offsite

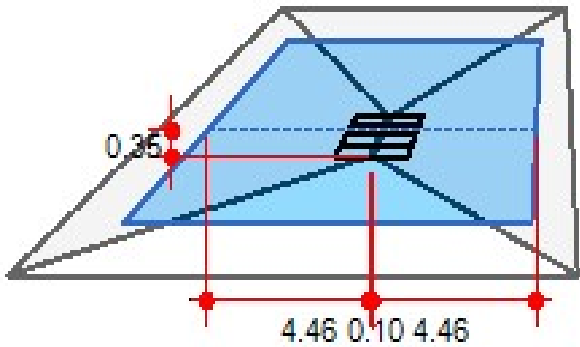
Project File:

No. Lines: 21

Run Date: 7/10/2024

All dimensions in feet

Line 15 - Drop Grate Inlet in Sag - D42

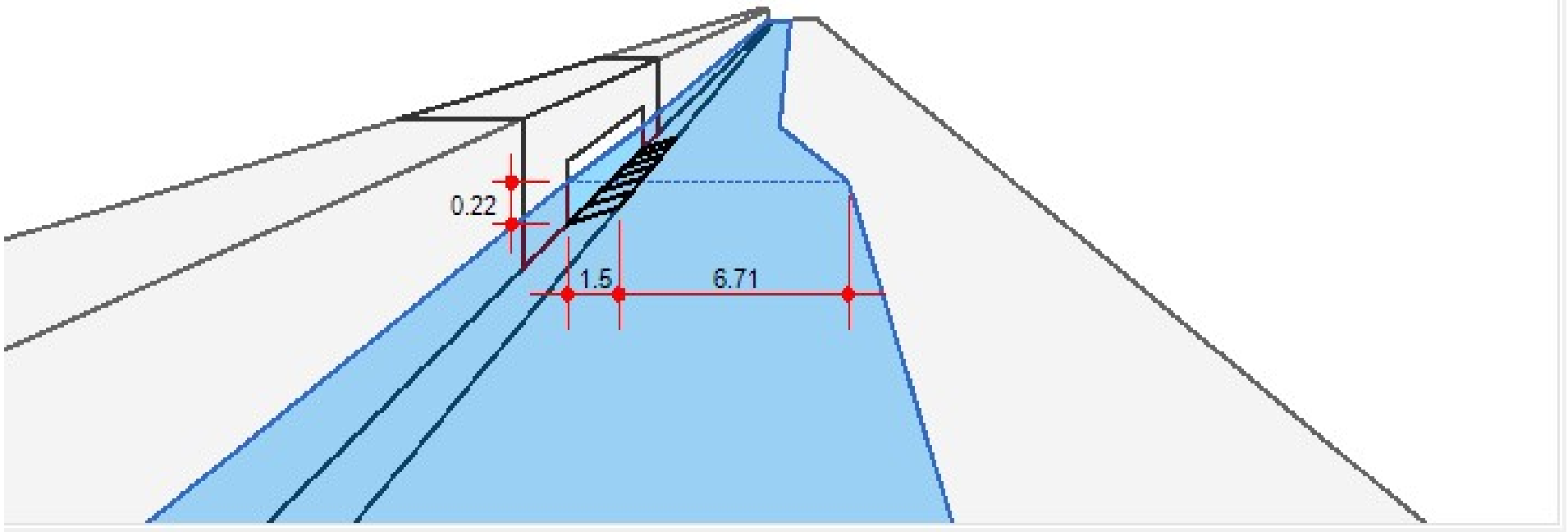


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
15	4.98	0.00	4.98	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.35	9.01	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 16 - Combination Inlet) - D39

All dimensions in feet

Line 16 - Combination Inlet on Grade - D39

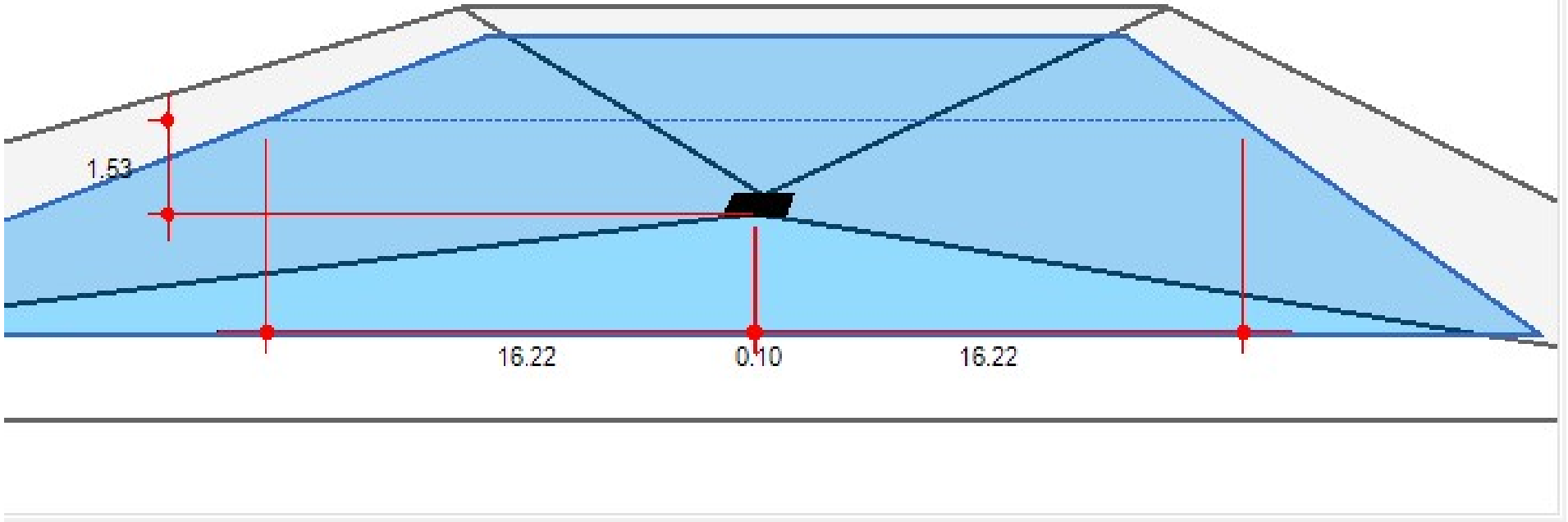


Line #	Q				Inlet			Gutter				Depth		Spread		By
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Throat (in)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
16	2.01	0.00	1.20	0.80	3.00	0.0	4.0	1.50	0.010	0.060	0.020	0.22	8.21	0.17	5.49	Offsite
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 17 - Drop Grate Inlet) - D44

All dimensions in feet

Line 17 - Drop Grate Inlet in Sag - D44

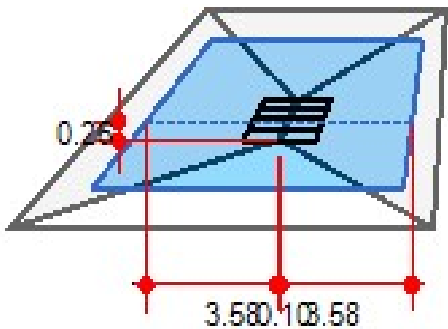


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
17	13.28	0.00	13.28	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	1.53	32.55	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 18 - Drop Grate Inlet) - D56

All dimensions in feet

Line 18 - Drop Grate Inlet in Sag - D56

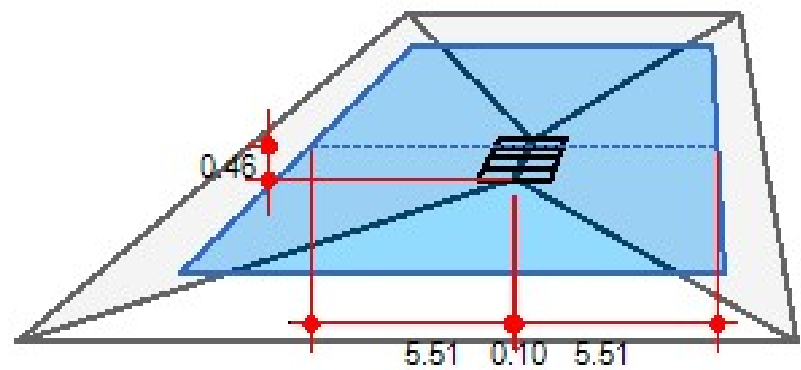


Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
18	3.24	0.00	3.24	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.26	7.26	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			

Inlet Section (Line 21 - Drop Grate Inlet) - D55

All dimensions in feet

Line 21 - Drop Grate Inlet in Sag - D55



Line #	Q				Inlet			Gutter				Depth		Spread		Byp
	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Length (ft)	Depr (in)	Area (sqft)	Width (ft)	Slope (ft/ft)	Sw (ft/ft)	Sx (ft/ft)	Gutter (ft)	Inlet (ft)	Gutter (ft)	Inlet (ft)	Line (ft)
21	7.26	0.00	7.26	0.00	2.00	....	2.00	0.10	Sag	0.100	0.100	0.46	11.12	n/a	n/a	Sag
Project File:										No. Lines: 21			Run Date: 7/10/2024			