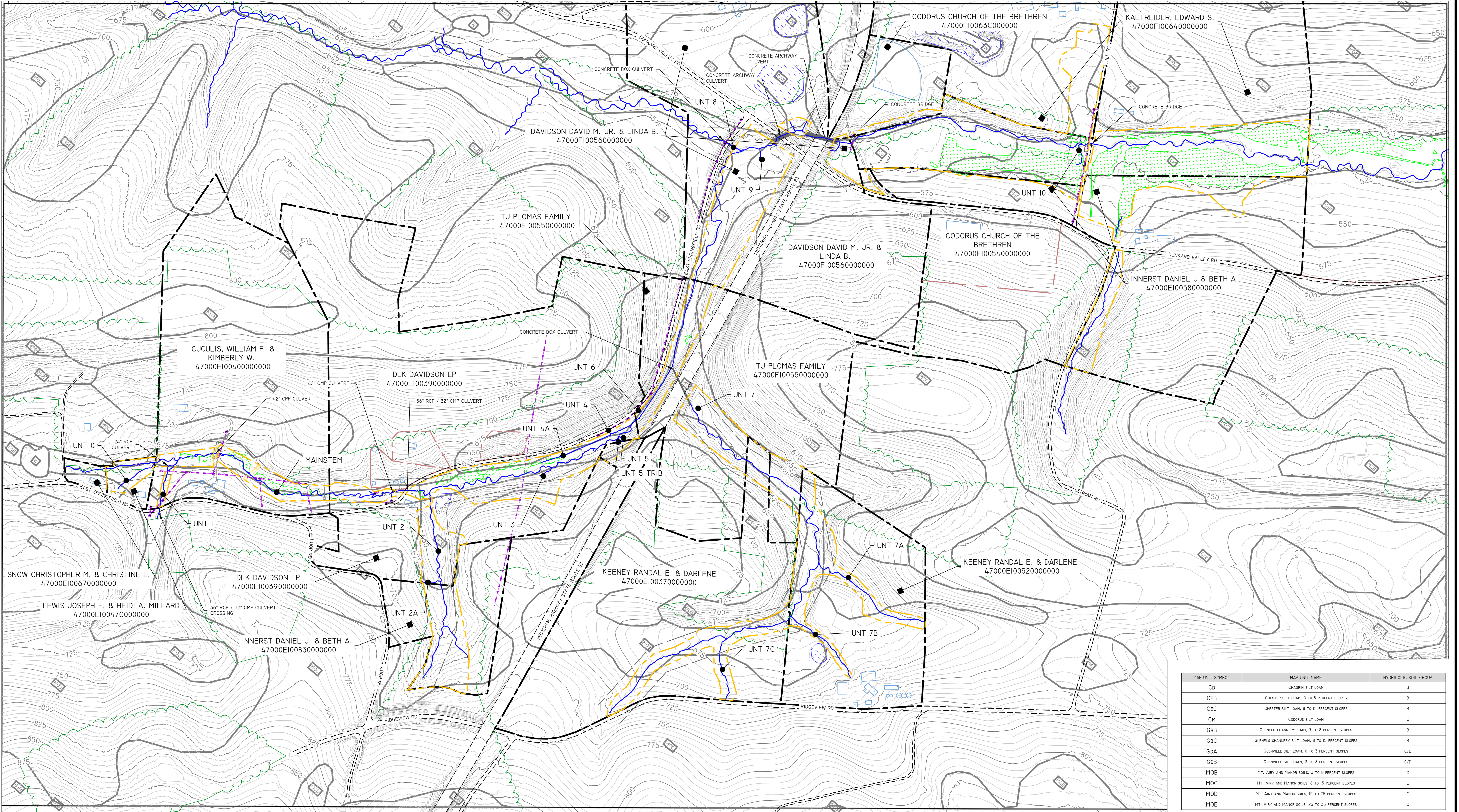


APPENDIX H DESIGN PLANS (PROVIDED SEPARATELY)

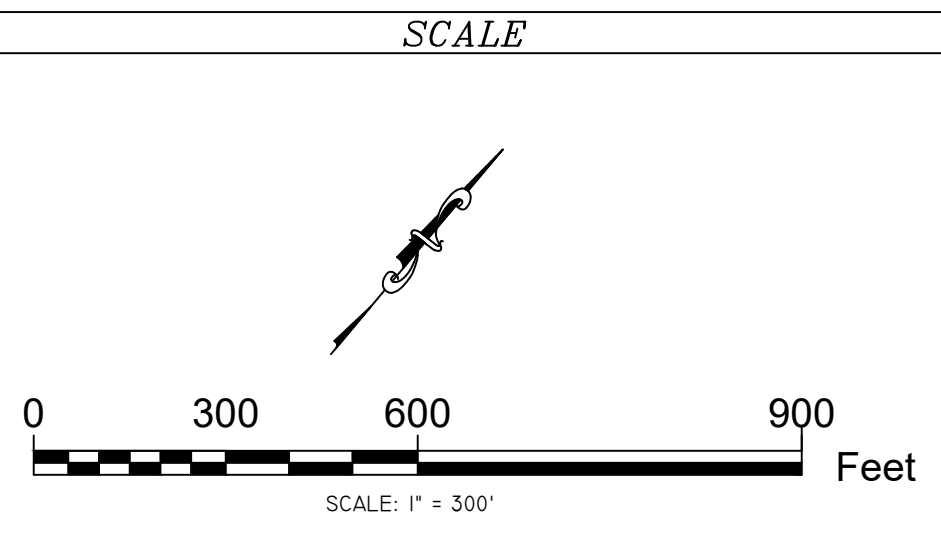


REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - - -
SITE PROTECTION BOUNDARY	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
EXISTING FEMA 100YR FLOODPLAIN	---
EXISTING O/H ELECTRIC UTILITY	---
EXISTING POWER POLE	---
EXISTING SOIL CLASS BOUNDARY	---
EXISTING WATER BODY	---

NOTES	

SEAL	



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

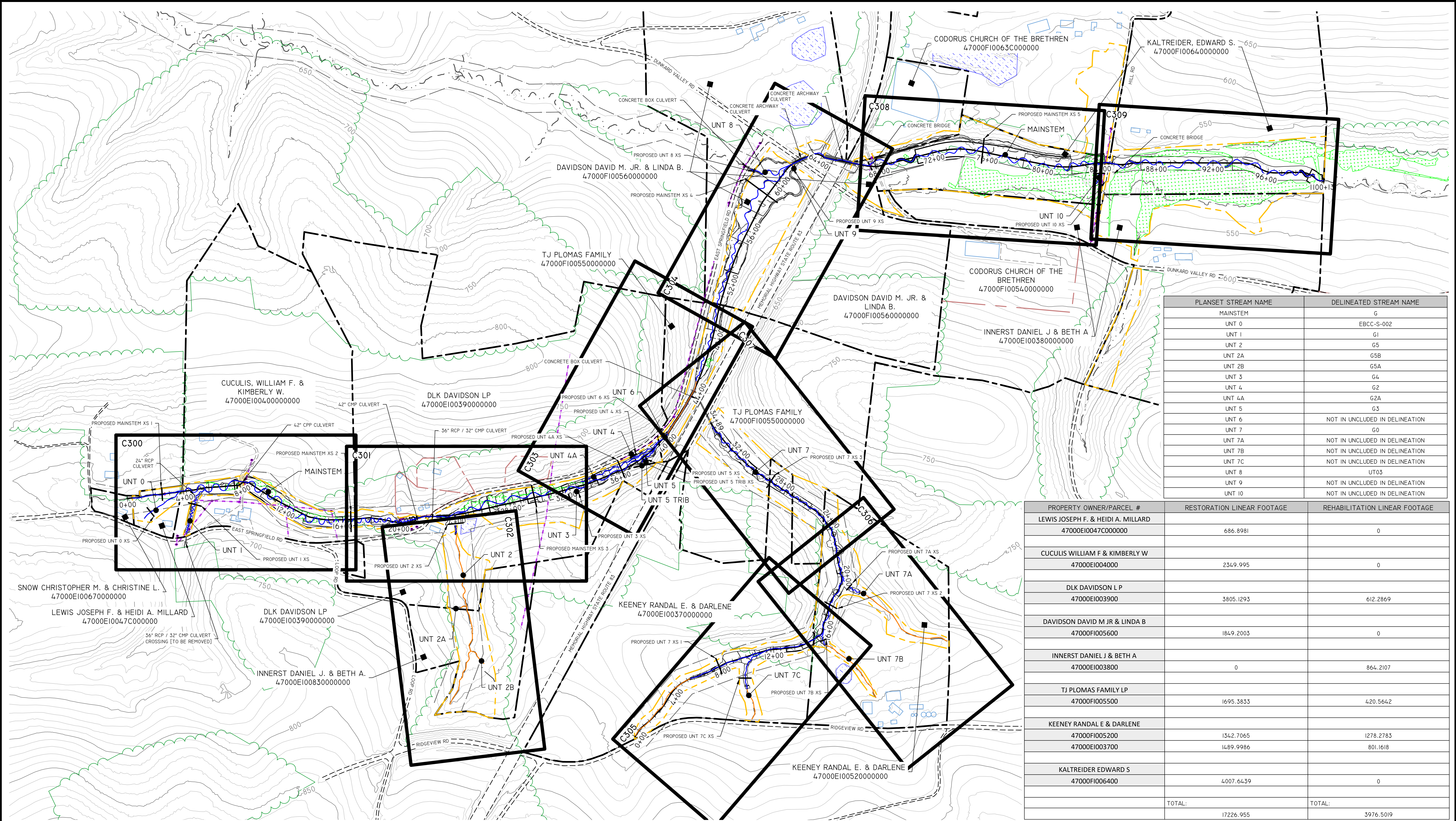
TELEPHONE: (412) 249-2440

EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLANS

EXISTING SITE OVERVIEW

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C100
		FILE NO: 100182



PLANSET STREAM NAME	DELINEATED STREAM NAME
MAINSTEM	G
UNT 0	EBCC-S-002
UNT 1	G1
UNT 2	G5
UNT 2A	G5B
UNT 2B	G5A
UNT 3	G4
UNT 4	G2
UNT 4A	G2A
UNT 5	G3
UNT 6	NOT IN INCLUDED IN DELINEATION
UNT 7	G0
UNT 7A	NOT IN INCLUDED IN DELINEATION
UNT 7B	NOT IN INCLUDED IN DELINEATION
UNT 7C	NOT IN INCLUDED IN DELINEATION
UNT 8	UT03
UNT 9	NOT IN INCLUDED IN DELINEATION
UNT 10	NOT IN INCLUDED IN DELINEATION

PROPERTY OWNER/PARCEL #	RESTORATION LINEAR FOOTAGE	REHABILITATION LINEAR FOOTAGE
LEWIS JOSEPH F. & HEIDI A. MILLARD 47000E10047C000000	686.8981	0
CUCULIS WILLIAM F & KIMBERLY W 47000E100400000000	2349.995	0
DLK DAVIDSON L P 47000E100390000000	3805.1293	612.2869
DAVIDSON DAVID M JR & LINDA B 47000F100560000000	1849.2003	0
INNERST DANIEL J & BETH A 47000E100380000000	0	864.2107
TJ PLOMAS FAMILY LP 47000F100550000000	1695.3833	420.5642
KEENEY RANDAL E & DARLENE 47000F100520000000 47000E100370000000	1342.7065 1489.9986	1278.2783 801.1618
KALTREIDER EDWARD S 47000F100640000000	4007.6439	0
TOTAL:	17226.955	3976.5019

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES

SEAL

SCALE

0 400 800 1600 Feet

SCALE: 1" = 400'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

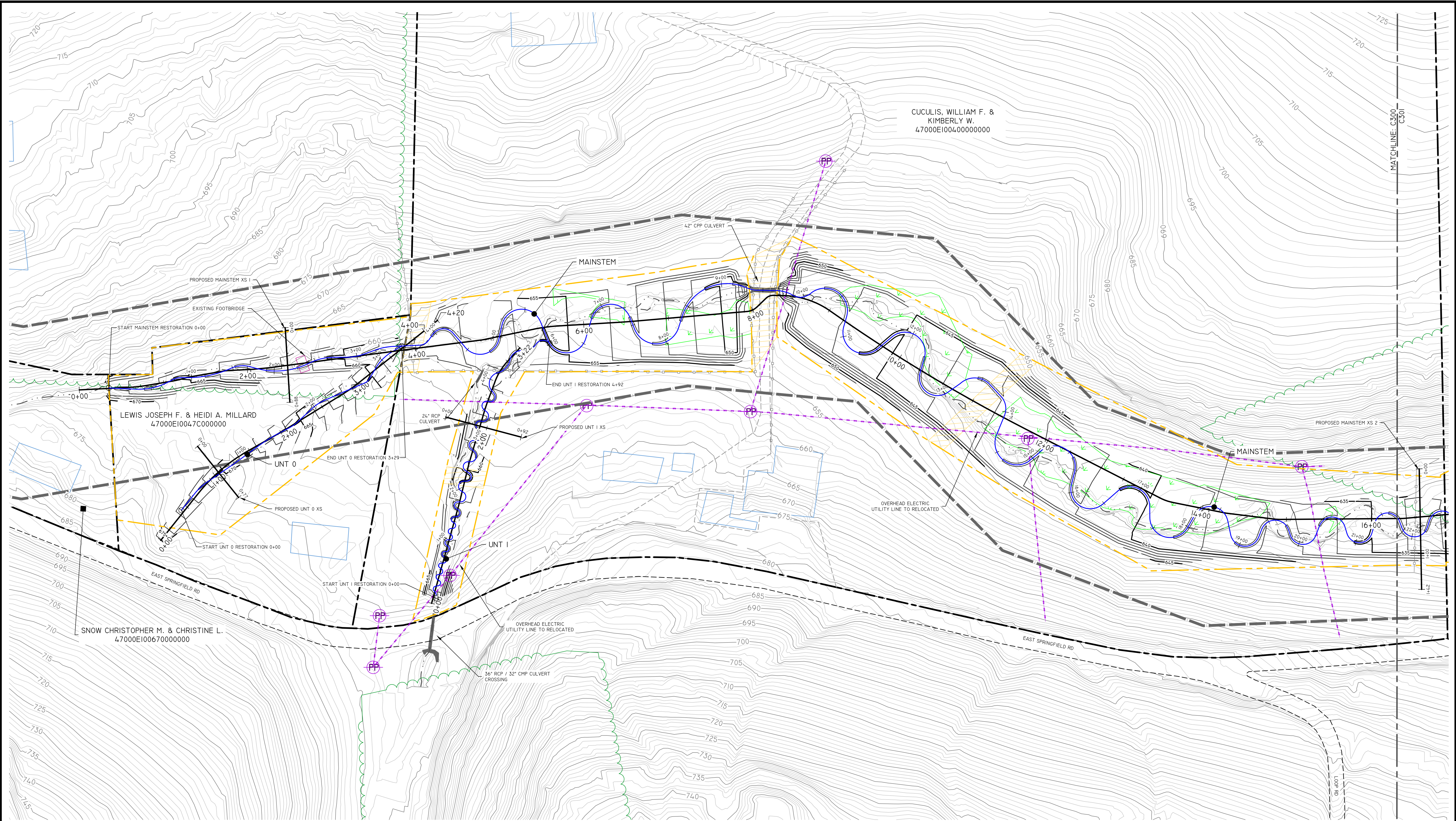
res

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

PROPOSED SITE OVERVIEW

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	SHEET: C200

R:\RES\CD\PROJECT\1001002E_EAST BRANCH CODORUS CREEK\DESIGN\DWG\PLANSETS



REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES	
SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.	
OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.	

SEAL	

SCALE	
0 50 100 200 Feet	SCALE: 1" = 50'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US

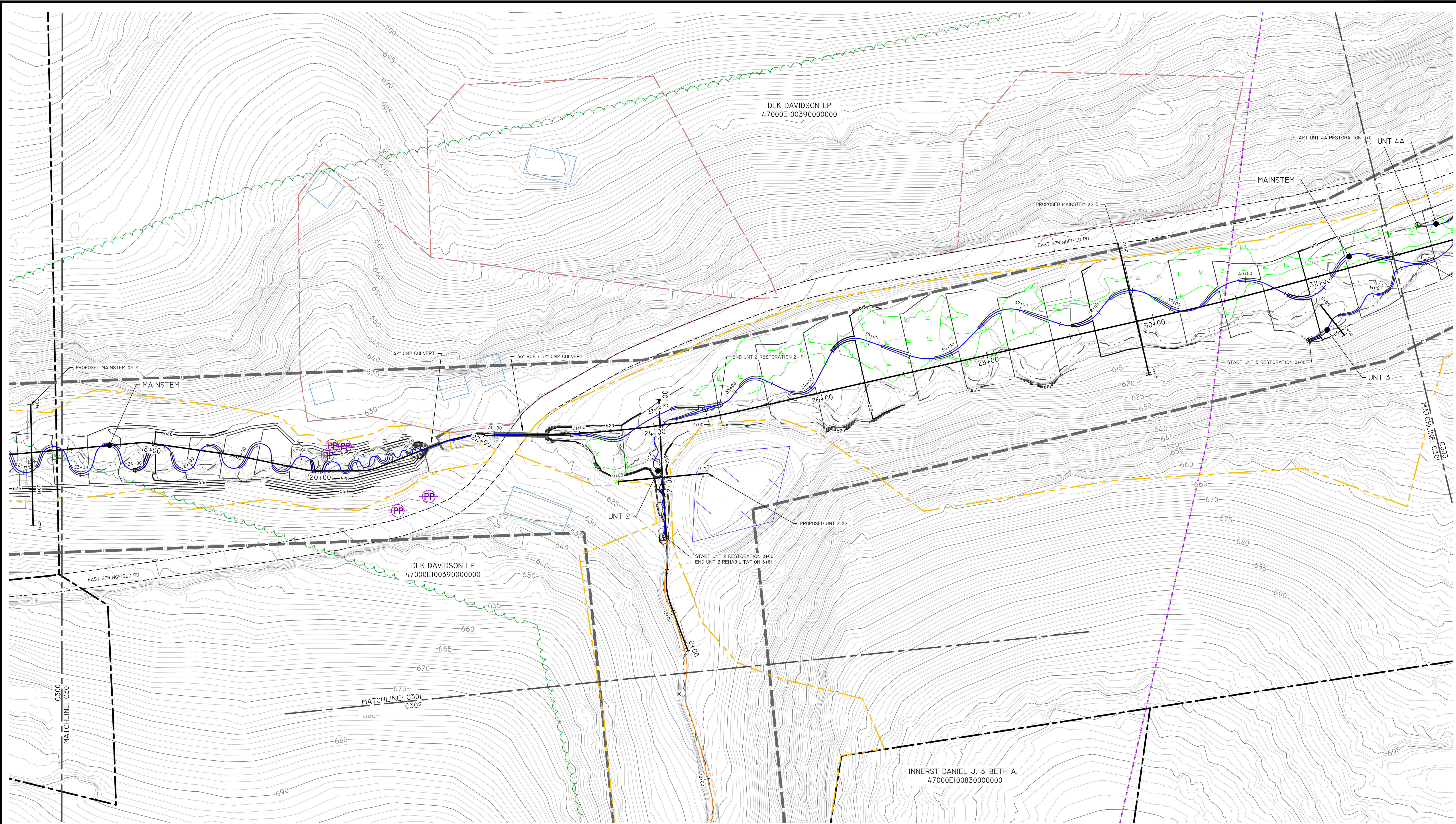
TELEPHONE: (412) 249-2460
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK 65% DESIGN PLANS

GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C300
		FILE NO: 100482

R:\RES\CD\PROJECTS\100482_EAST BRANCH CODORUS CREEK\DESIGN\DWG\PLANS\SETS



REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES

SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.

OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.

SEAL

SCALE

SCALE: 1" = 50'

RESOURCE ENVIRONMENTAL SOLUTIONS

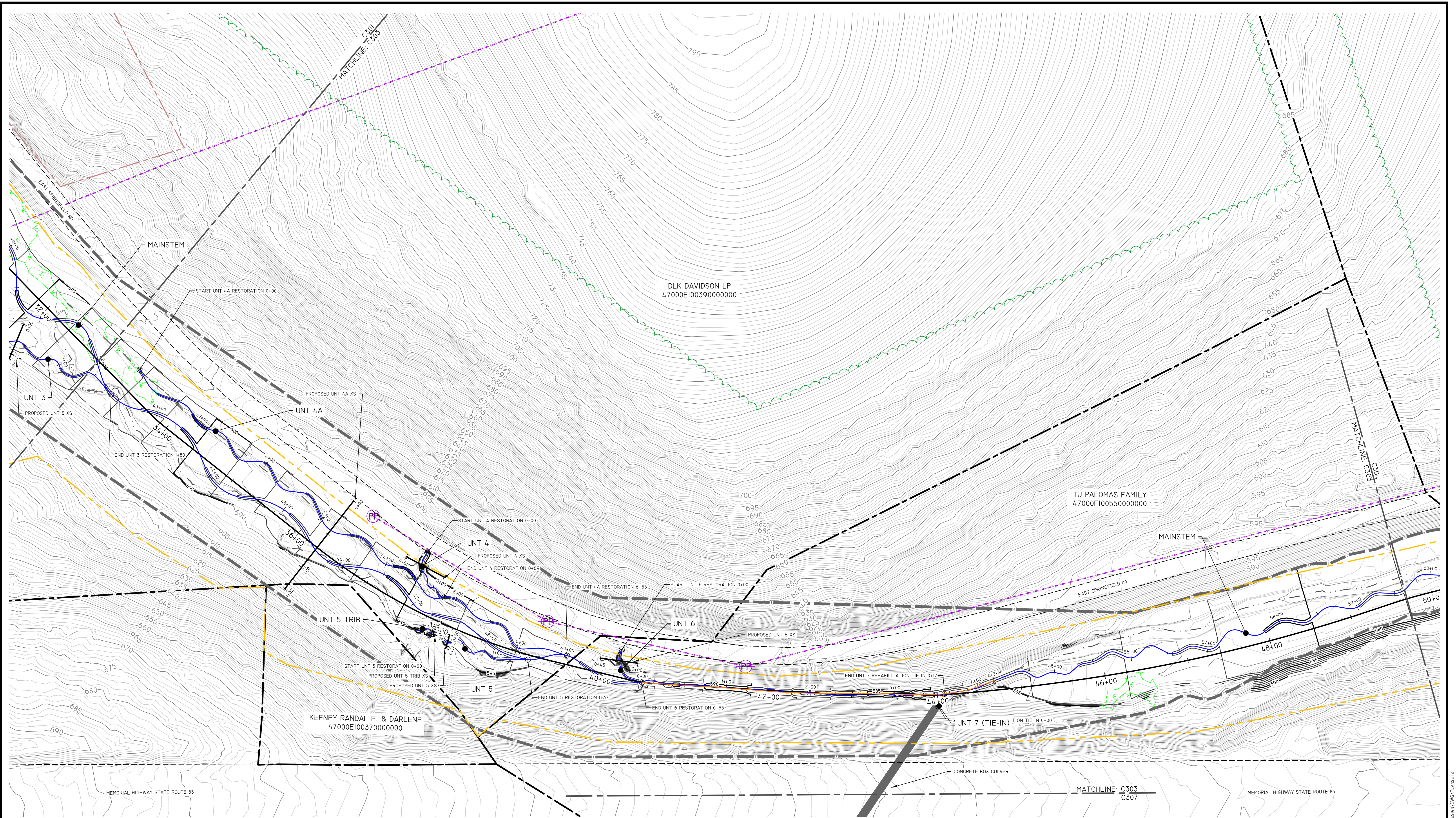
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	FILE NO: 100182



REVISIONS			
NO.	DESCRIPTION	DATE	BY

PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	-.-.-
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---

PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES
SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.
OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.

SEAL

SCALE
0 50 100 200 Feet
SCALE: 1" = 50'

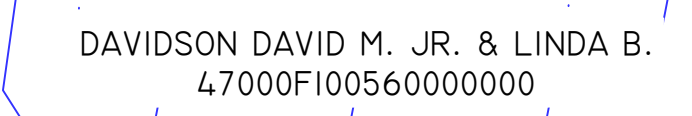
RESOURCE ENVIRONMENTAL SOLUTIONS
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

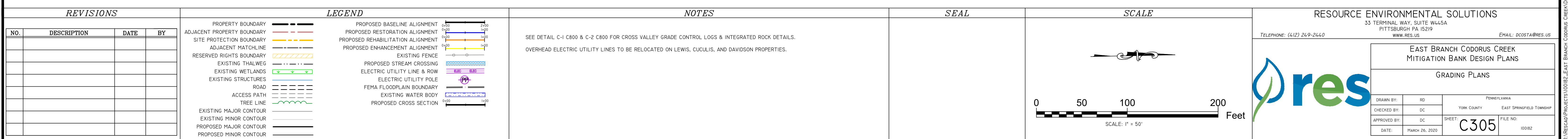
EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

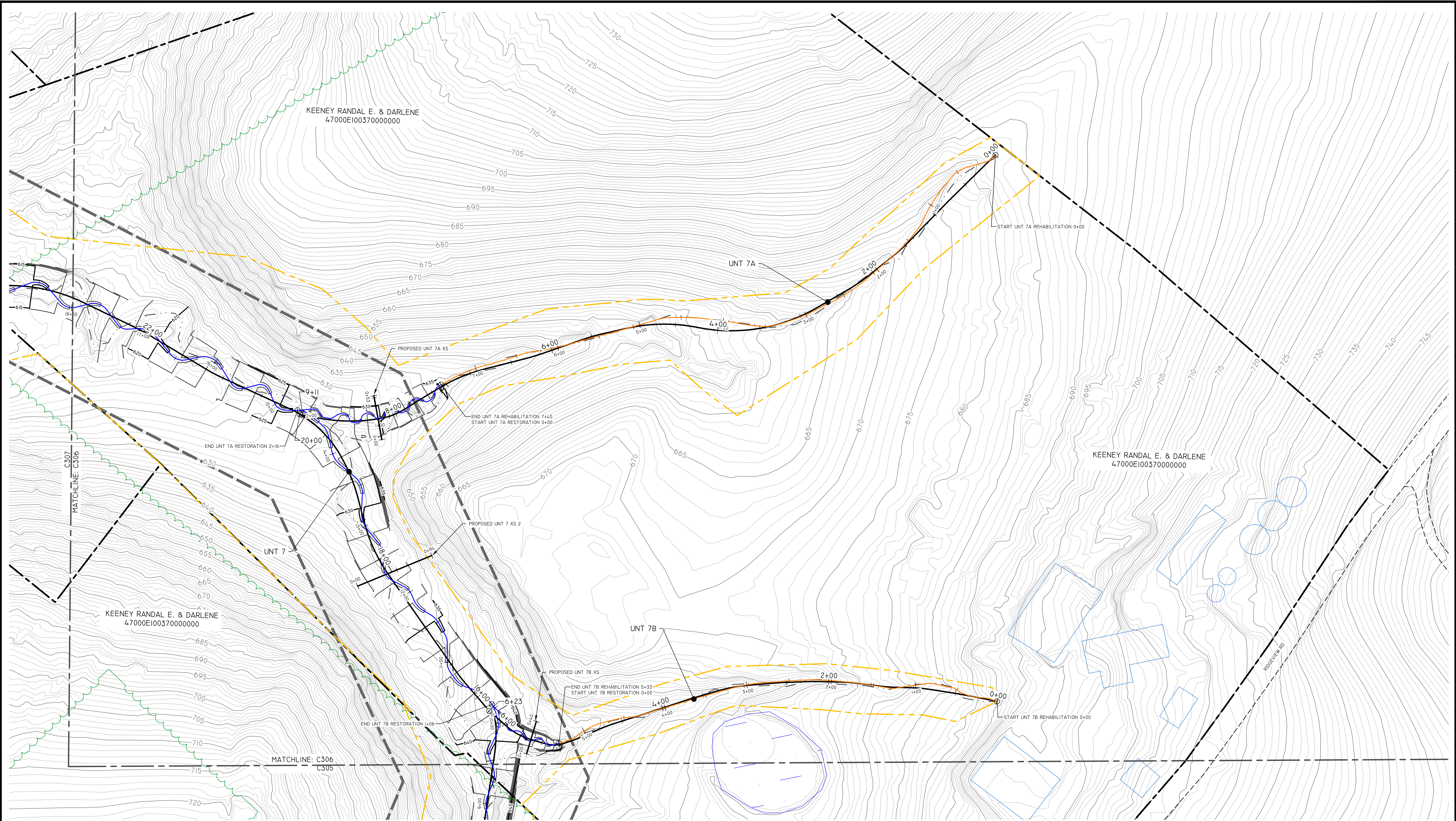
GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C303
		FILE NO: 10042



EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLANS			
GRADING PLANS			
DRAWN BY:	RD	PENNSYLVANIA	
CHECKED BY:	DC	YORK COUNTY	EAST SPRINGFIELD
APPROVED BY:	DC	SHEET	FILE NO:
DATE:	MARCH 26, 2020	C304	10018





REVISIONS			
NO.	DESCRIPTION	DATE	BY

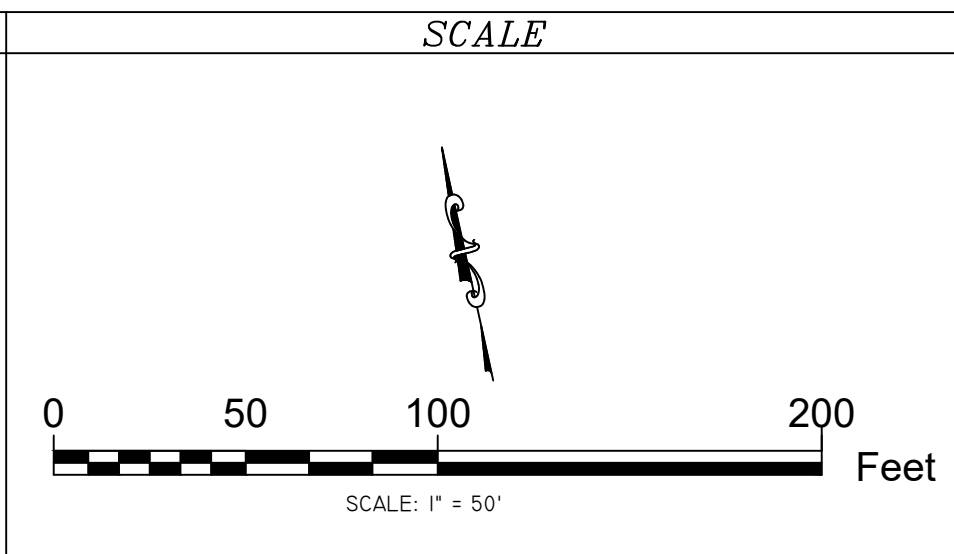
LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES

SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.

OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.

SEAL

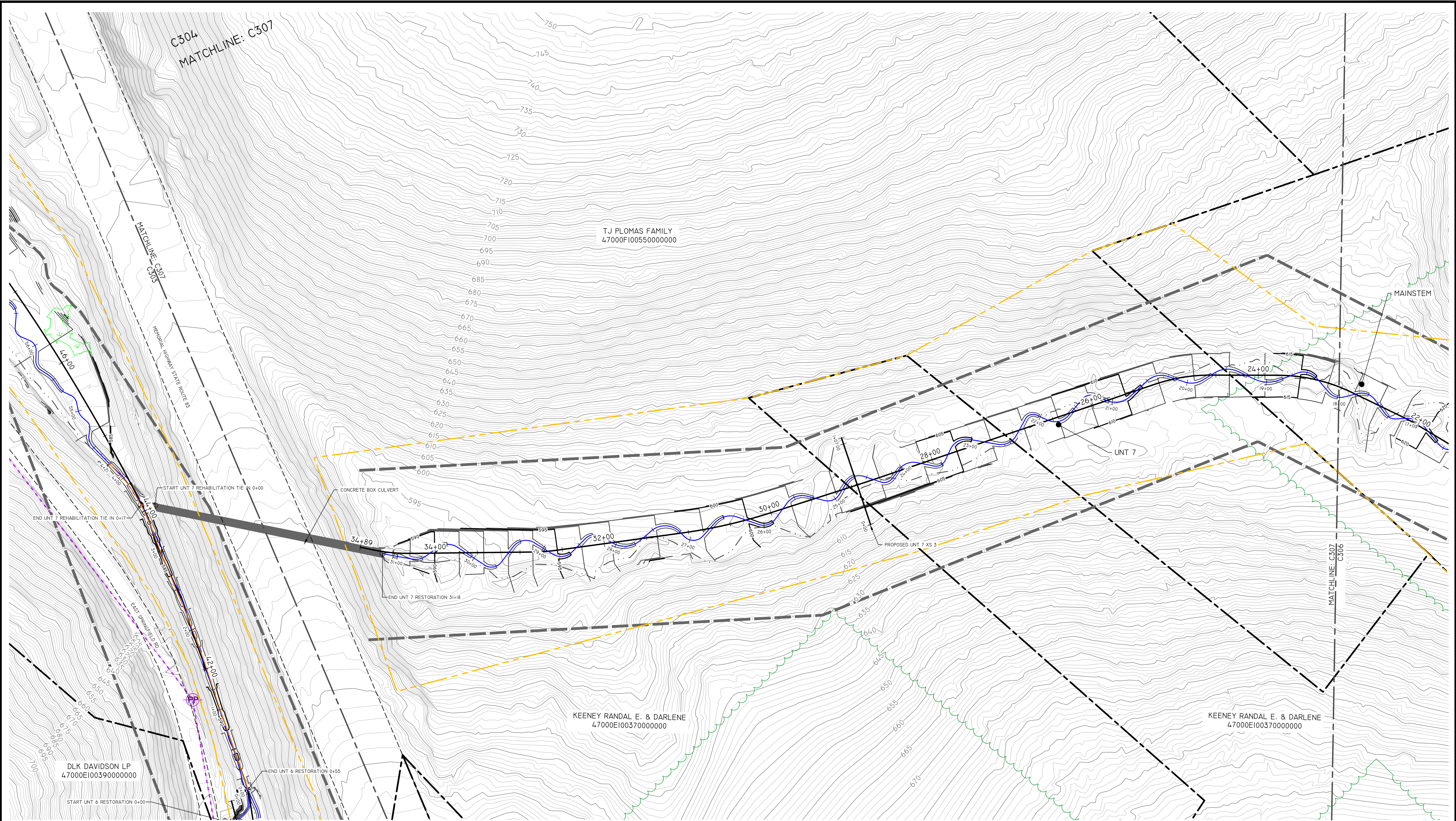


RESOURCE ENVIRONMENTAL SOLUTIONS
33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US
TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

**EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS**

GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C306
		FILE NO: 10042



REVISIONS			
NO.	DESCRIPTION	DATE	BY

PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - -
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---

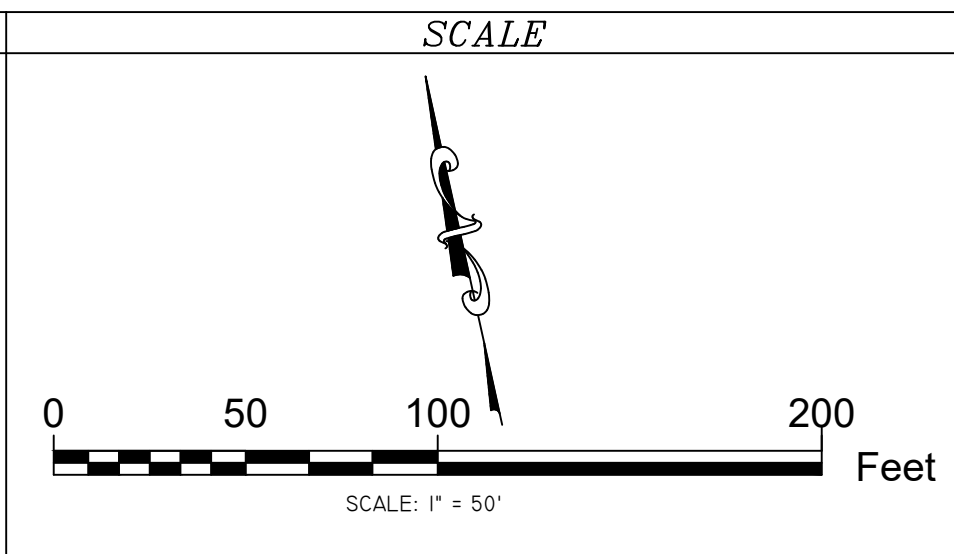
LEGEND	
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES

SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.

OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.

SEAL



RESOURCE ENVIRONMENTAL SOLUTIONS
33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US

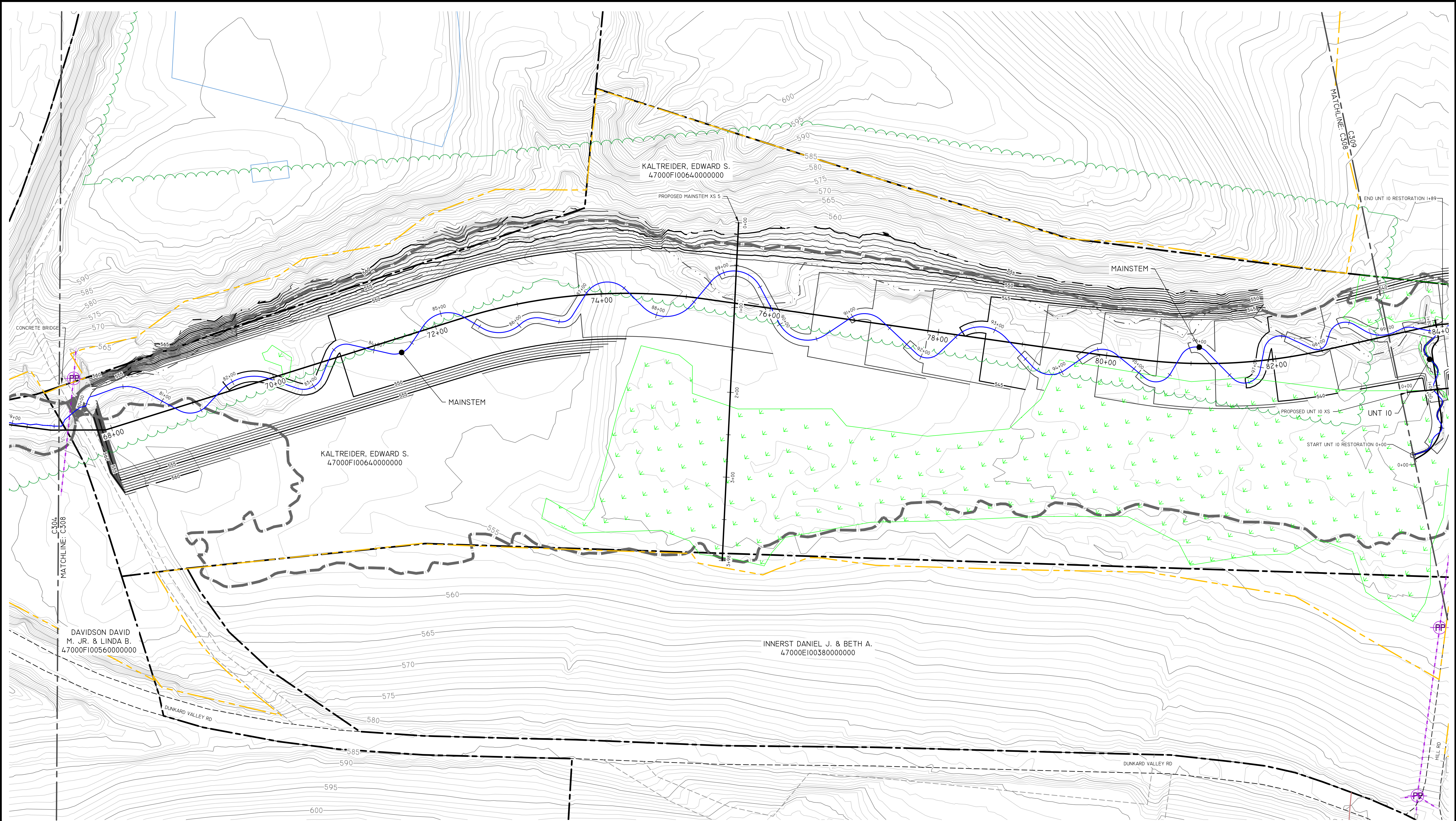
TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

res

**EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS**

GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C307
		FILE NO: 100482



REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - -
SITE PROTECTION BOUNDARY	- . - . -
ADJACENT MATCHLINE	- - -
RESERVED RIGHTS BOUNDARY	- . - . -
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES

SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.

OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.

SEAL

SCALE

SCALE: 1" = 50'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W4.5A
PITTSBURGH PA 15219
WWW.RES.US

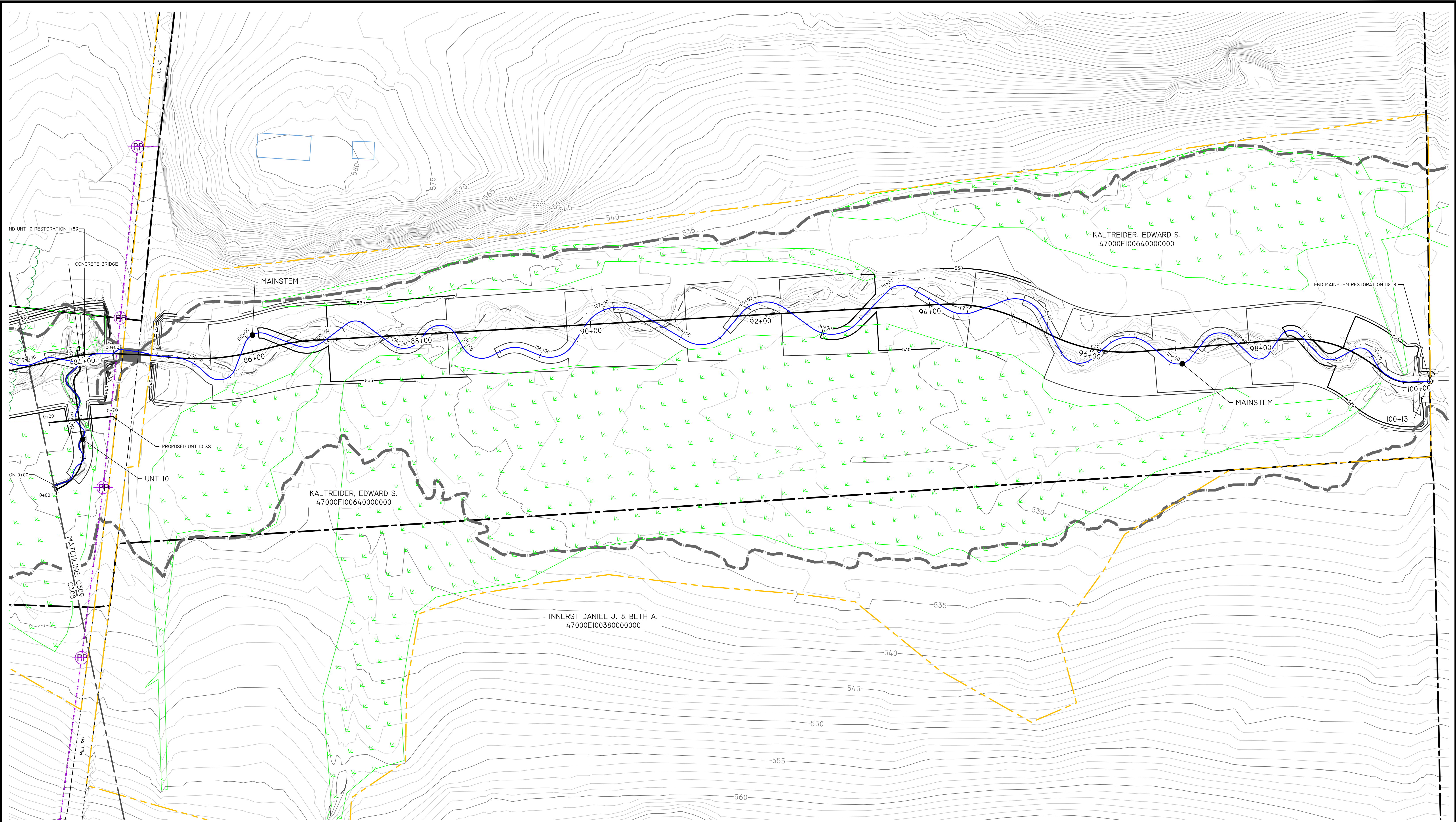
TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

GRADING PLANS

DRAWN BY:	RD	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	MARCH 26, 2020	SHEET: C308
		FILE NO: 100182

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REVISIONS			
NO.	DESCRIPTION	DATE	BY

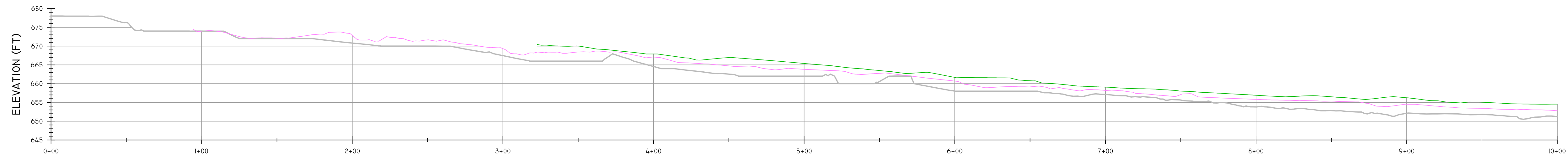
LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - -
SITE PROTECTION BOUNDARY	---
ADJACENT MATCHLINE	---
RESERVED RIGHTS BOUNDARY	---
EXISTING THALWEG	---
EXISTING WETLANDS	---
EXISTING STRUCTURES	---
ROAD	---
ACCESS PATH	---
TREE LINE	---
EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
PROPOSED BASELINE ALIGNMENT	---
PROPOSED RESTORATION ALIGNMENT	---
PROPOSED REHABILITATION ALIGNMENT	---
PROPOSED ENHANCEMENT ALIGNMENT	---
EXISTING FENCE	---
PROPOSED STREAM CROSSING	---
ELECTRIC UTILITY LINE & ROW	---
ELECTRIC UTILITY POLE	---
FEMA FLOODPLAIN BOUNDARY	---
EXISTING WATER BODY	---
PROPOSED CROSS SECTION	---

NOTES	
SEE DETAIL C-1 C800 & C-2 C800 FOR CROSS VALLEY GRADE CONTROL LOGS & INTEGRATED ROCK DETAILS.	
OVERHEAD ELECTRIC UTILITY LINES TO BE RELOCATED ON LEWIS, CUCULIS, AND DAVIDSON PROPERTIES.	

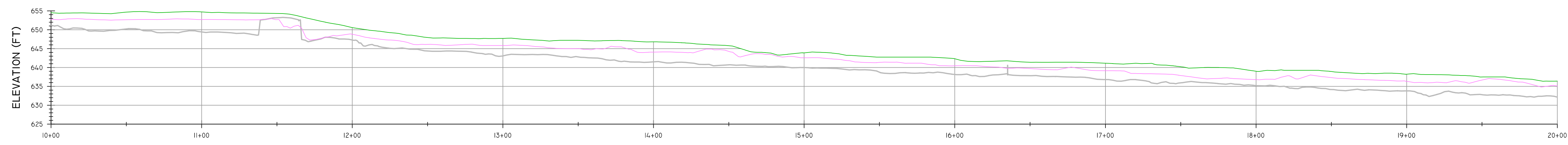
SEAL	

SCALE	
0 50 100 200 Feet	SCALE: 1" = 50'

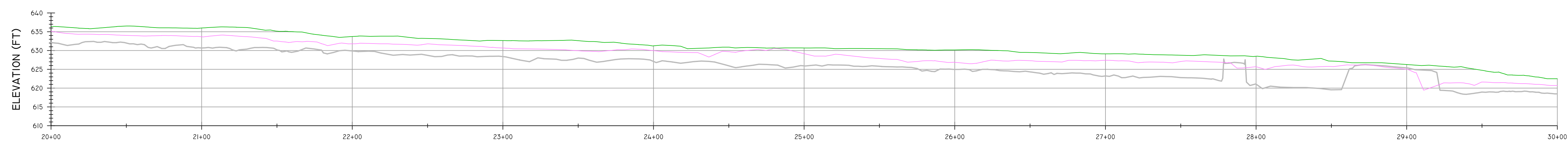
RESOURCE ENVIRONMENTAL SOLUTIONS			
33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US			
TELEPHONE: (412) 249-2440 EMAIL: DCOSTA@RES.US			
EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLANS			
GRADING PLANS			
DRAWN BY:	RD	PENNSYLVANIA	
CHECKED BY:	DC	YORK COUNTY	EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET:	C309
DATE:	MARCH 26, 2020	FILE NO:	10042



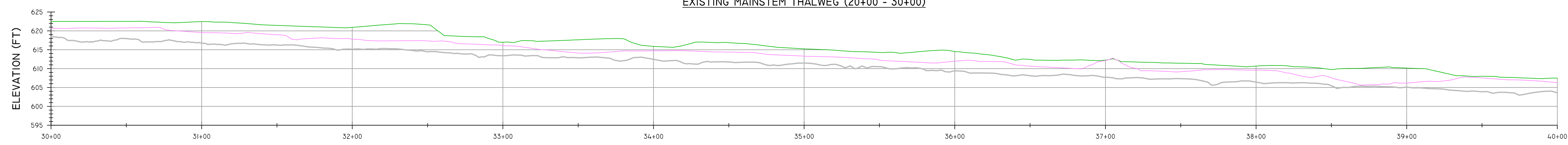
STATION
EXISTING MAINSTEM THALWEG (0+00 - 10+00)



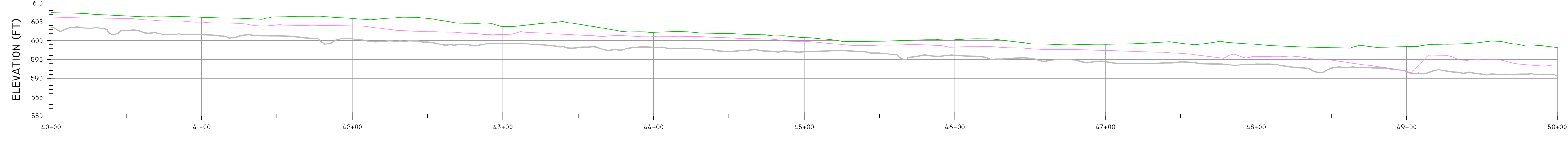
STATION
EXISTING MAINSTEM THALWEG (10+00 - 20+00)



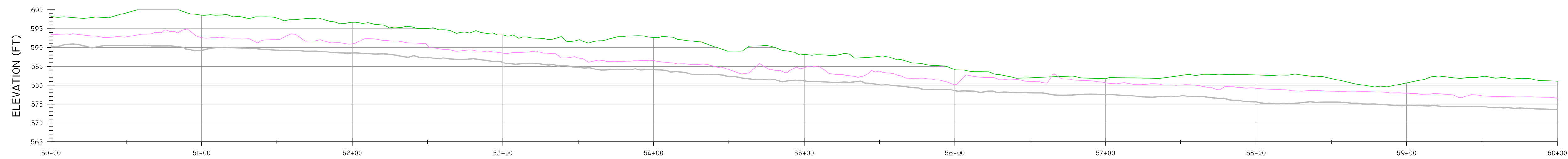
STATION
EXISTING MAINSTEM THALWEG (20+00 - 30+00)



STATION
EXISTING MAINSTEM THALWEG (30+00 - 40+00)



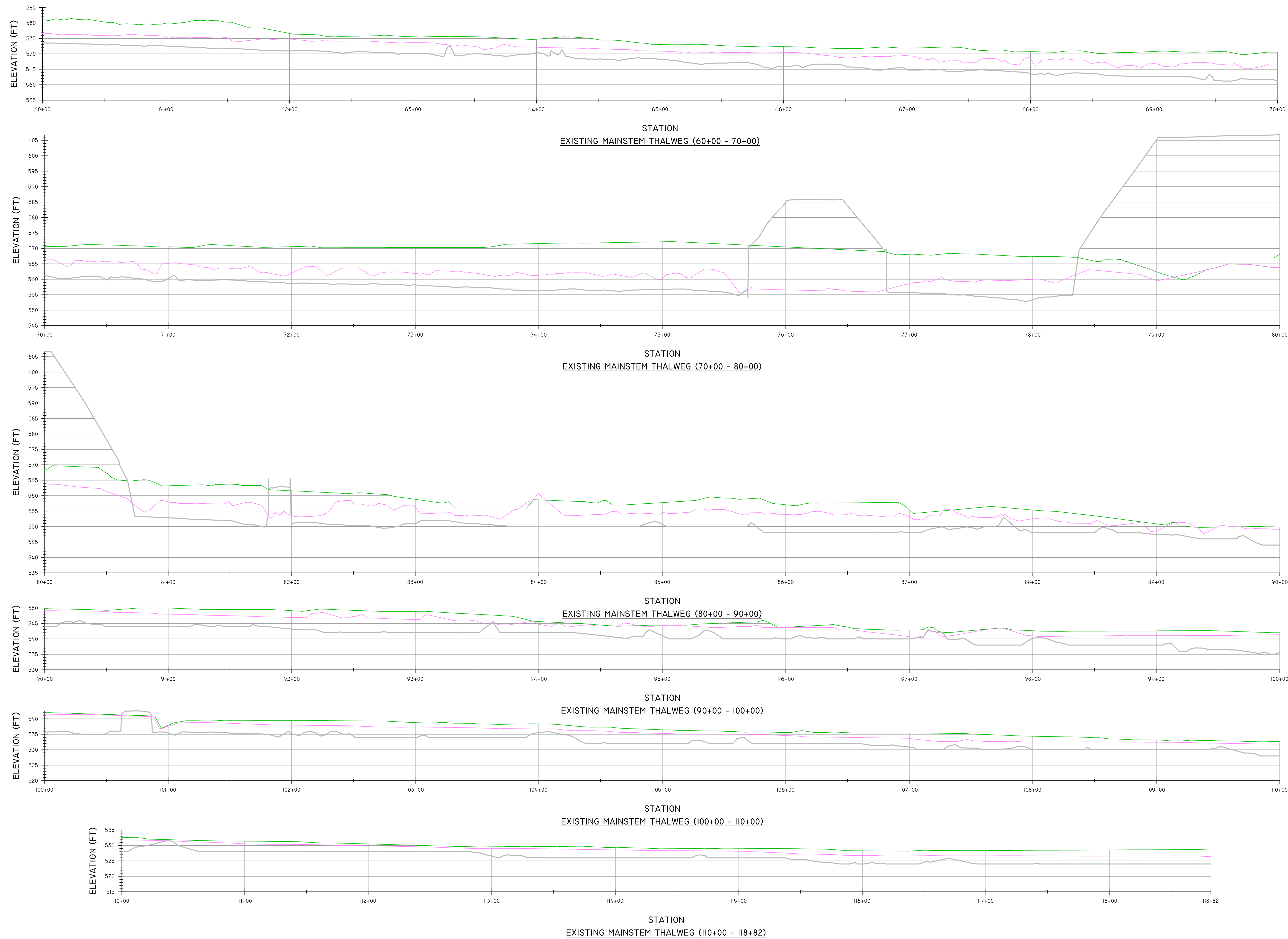
STATION
EXISTING MAINSTEM THALWEG (40+00 - 50+00)



STATION
EXISTING MAINSTEM THALWEG (50+00 - 60+00)

REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS 33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US TELEPHONE: (412) 249-2440 EMAIL: DCOSTA@RES.US			
NO.	DESCRIPTION	DATE	BY	EXISTING THALWEG PROFILE —————						EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN		
				EXISTING 2 YR WSE —————						EXISTING THALWEG PROFILES		
				EXISTING 100 YR WSE —————								
										DRAWN BY: JE	PENNSYLVANIA	
										CHECKED BY: RD	YORK COUNTY	EAST SPRINGFIELD TOWNSHIP
										APPROVED BY: DC	SHEET: C600	FILE NO:
										DATE: APRIL 6, 2020	10002	

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REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

EXISTING THALWEG PROFILE

EXISTING 2 YR WSE

EXISTING 100 YR WSE

NOTES

SEAL

SCALE

04080160

Feet

SCALE: 1" = 40'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

EXISTING THALWEG PROFILES

DRAWN BY: JE

CHECKED BY: RD

APPROVED BY: DC

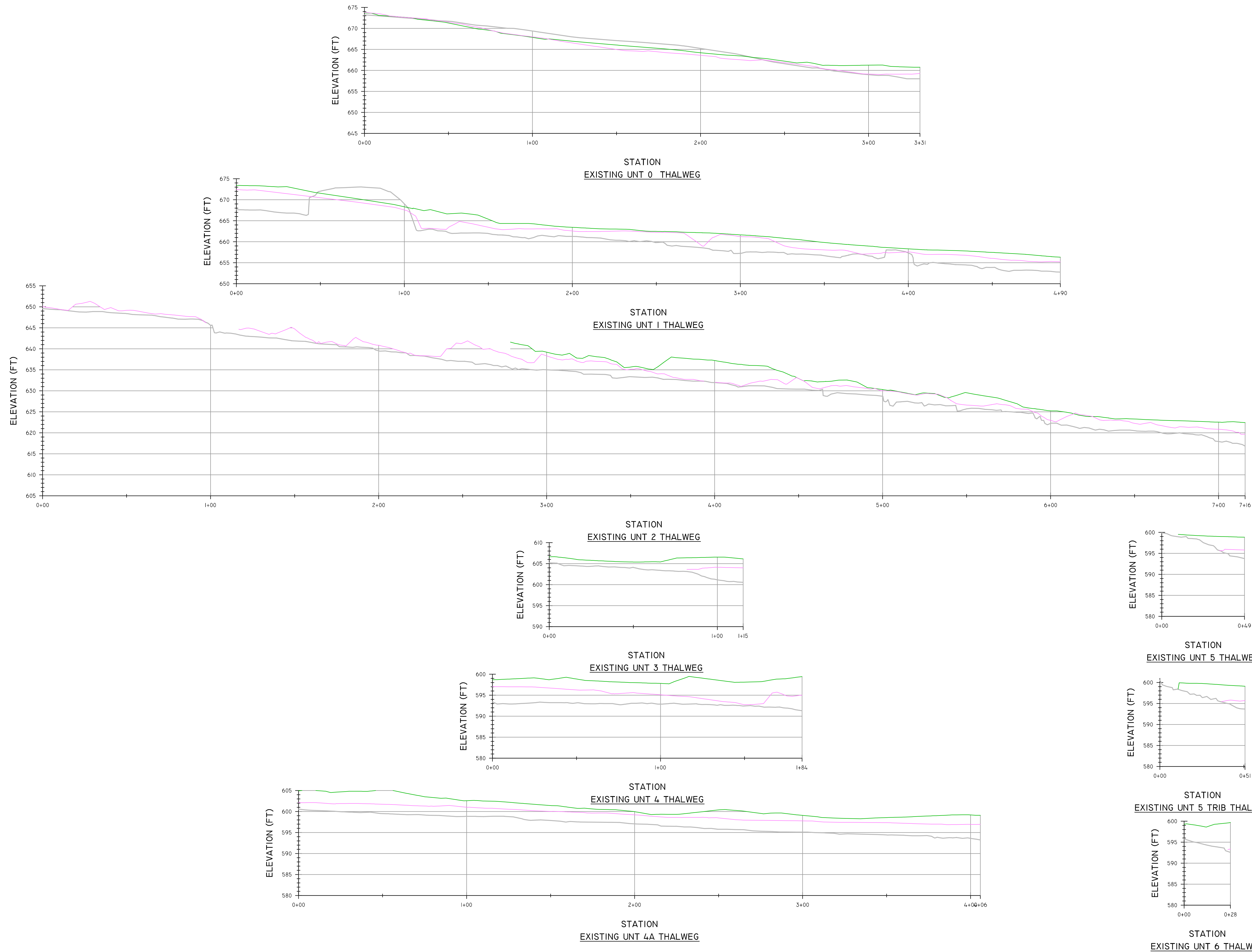
DATE: APRIL 6, 2020

PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

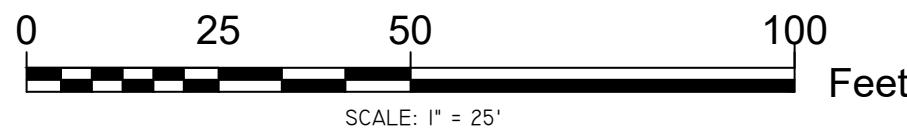
SHEET: C601

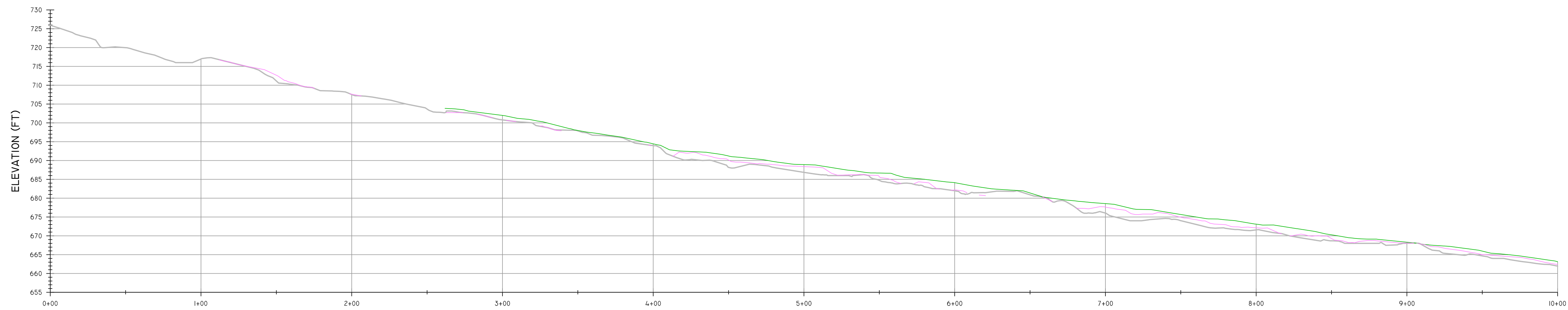
FILE NO: 100182

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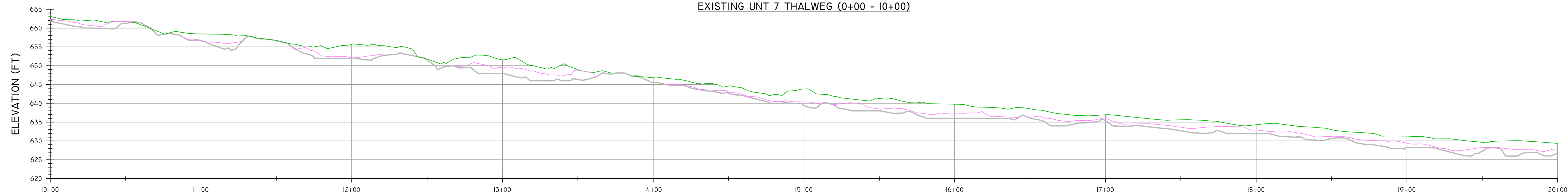


REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS			
NO.	DESCRIPTION	DATE	BY	EXISTING THALWEG PROFILE					33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US	TELEPHONE: (412) 249-2440	EMAIL: DCOSTA@RES.US	
				EXISTING 2 YR WSE					EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN			
				EXISTING 100 YR WSE					EXISTING THALWEG PROFILES			
									DRAWN BY:	JE	PENNSYLVANIA	
									CHECKED BY:	RD	YORK COUNTY	EAST SPRINGFIELD TOWNSHIP
									APPROVED BY:	DC	SHEET:	C602
									DATE:	APRIL 6, 2020	FILE NO.:	00082

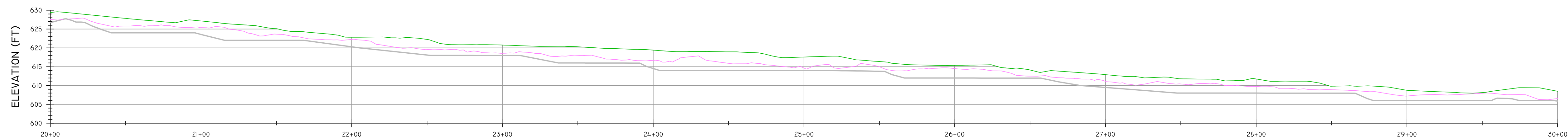




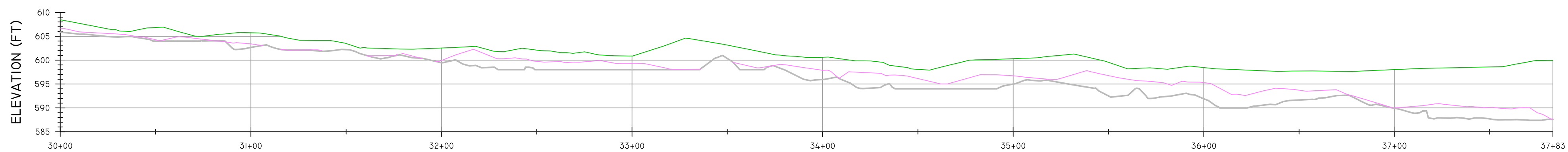
STATION
EXISTING UNIT 7 THALWEG (0+00 - 10+00)



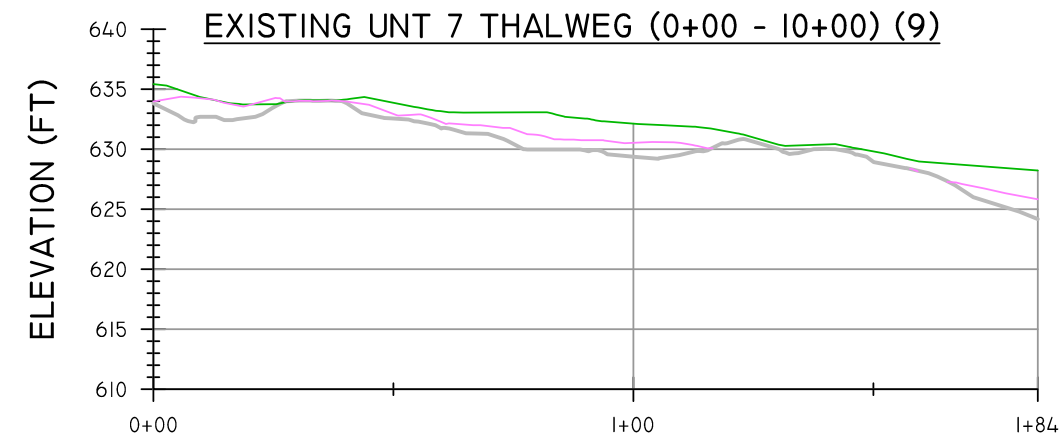
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EXISTING UNIT 7 THALWEG (0+00 - 10+00) (7)



STATION
EXISTING UNIT 7 THALWEG (0+00 - 10+00) (8)



STATION
EXISTING UNIT 7 THALWEG (0+00 - 10+00) (9)



STATION
EXISTING UNIT 7A THALWEG

REVISIONS

NO.	DESCRIPTION	DATE	BY

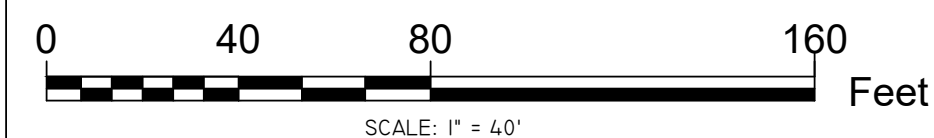
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EXISTING THALWEG PROFILE
EXISTING 2 YR WSE
EXISTING 100 YR WSE

NOTES

SEAL

SCALE

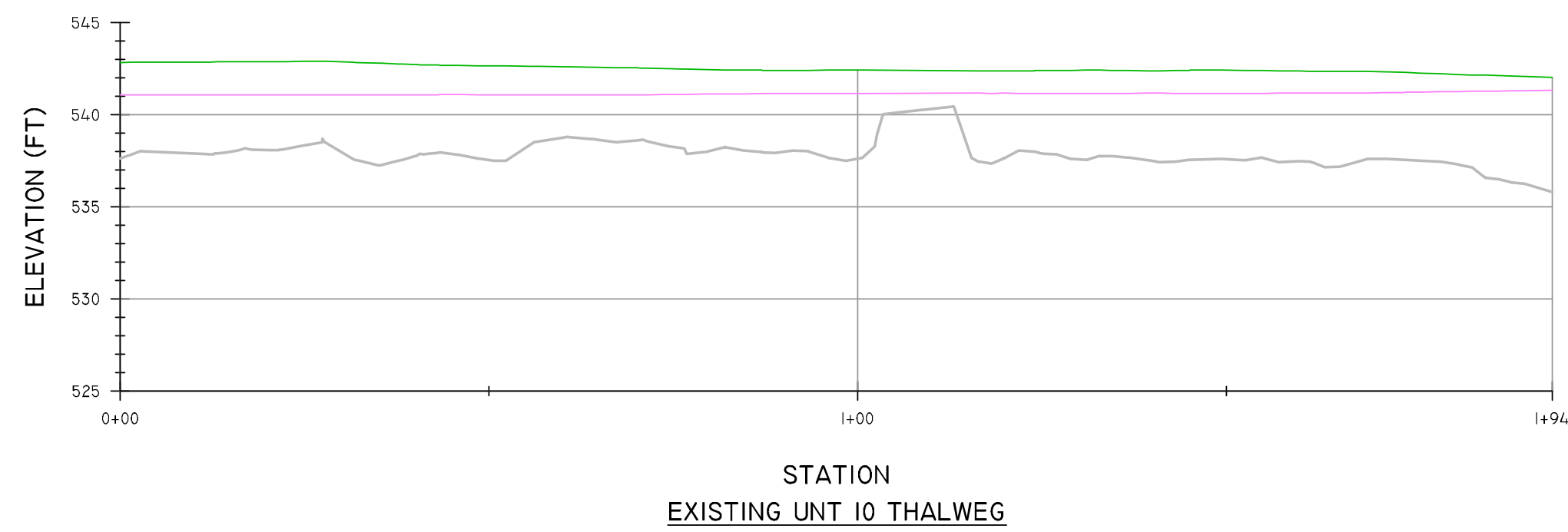
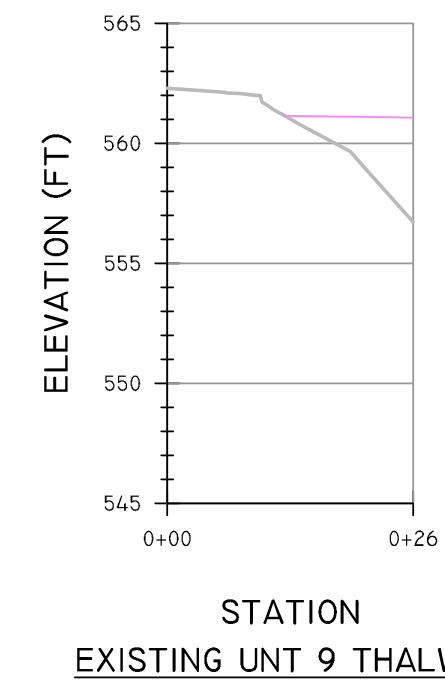
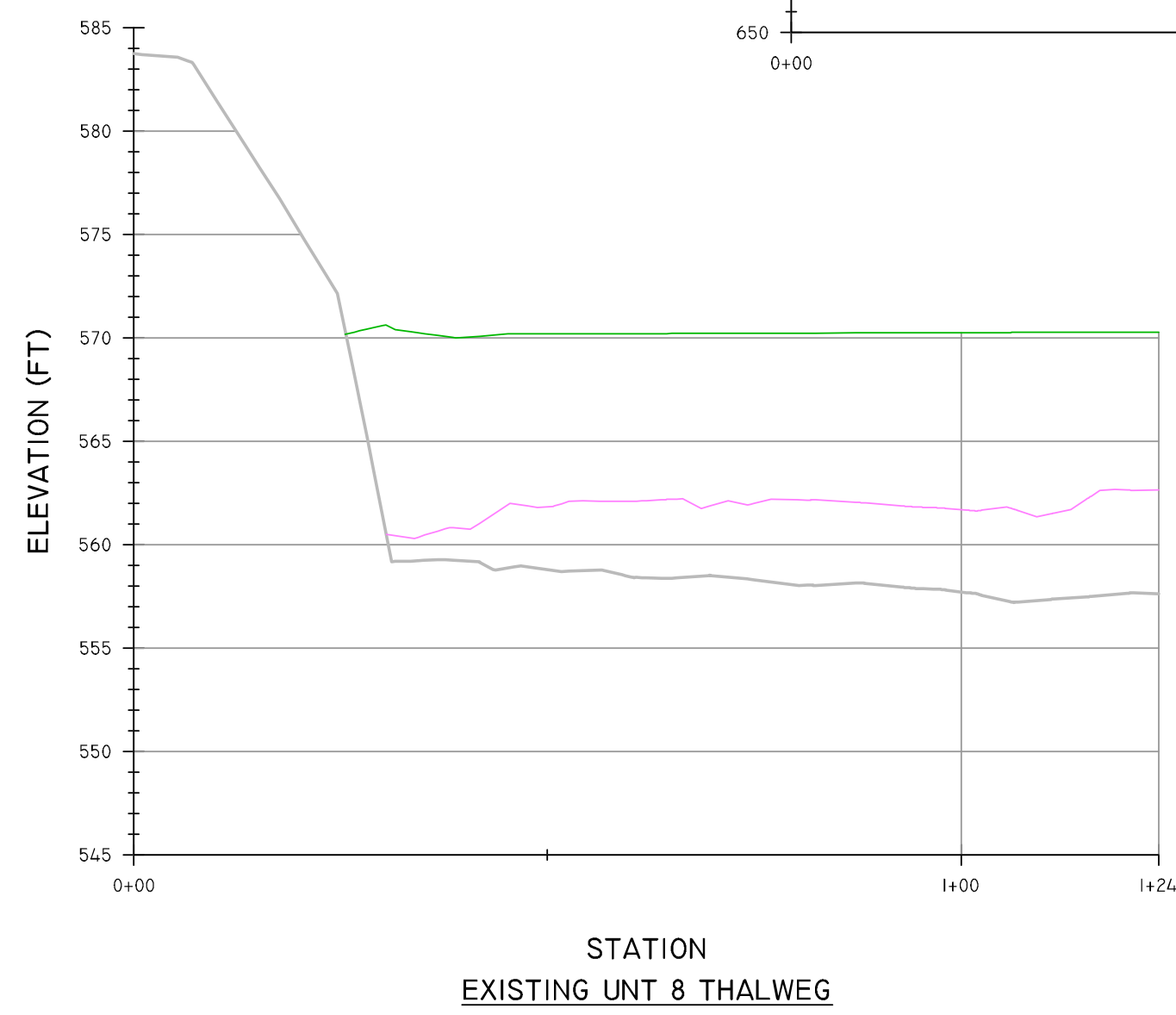
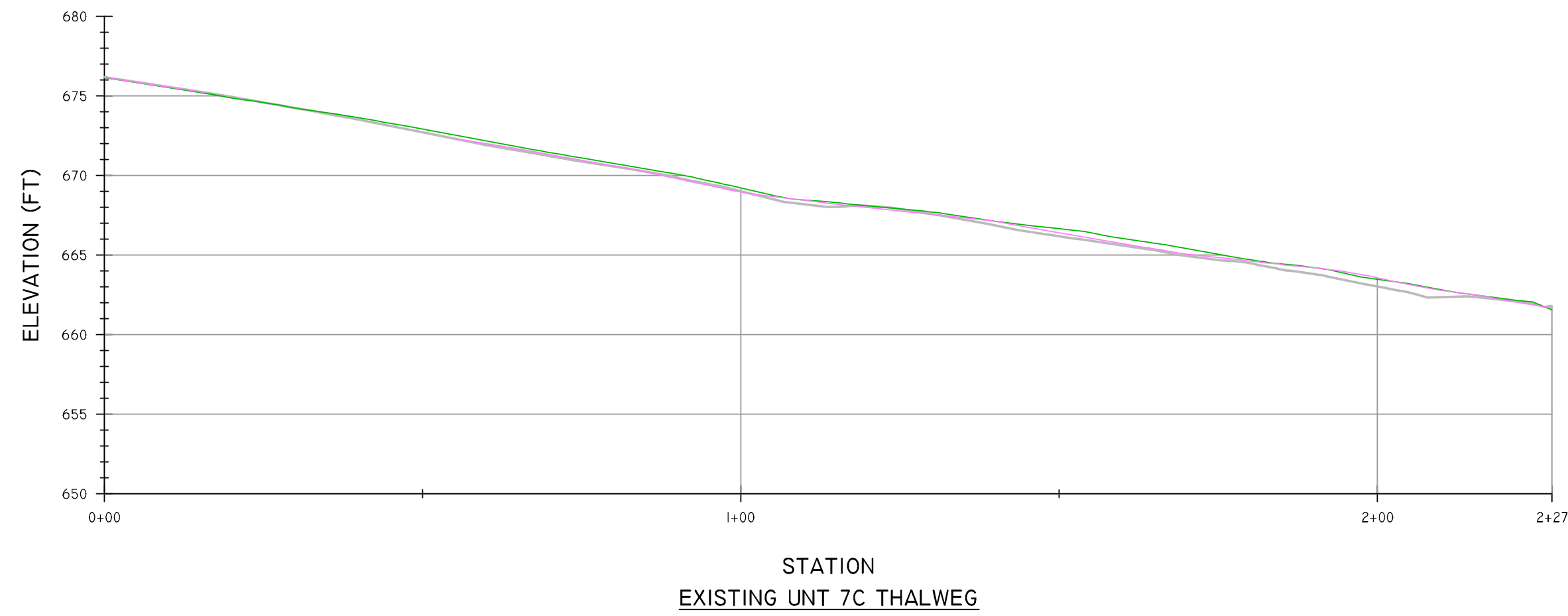
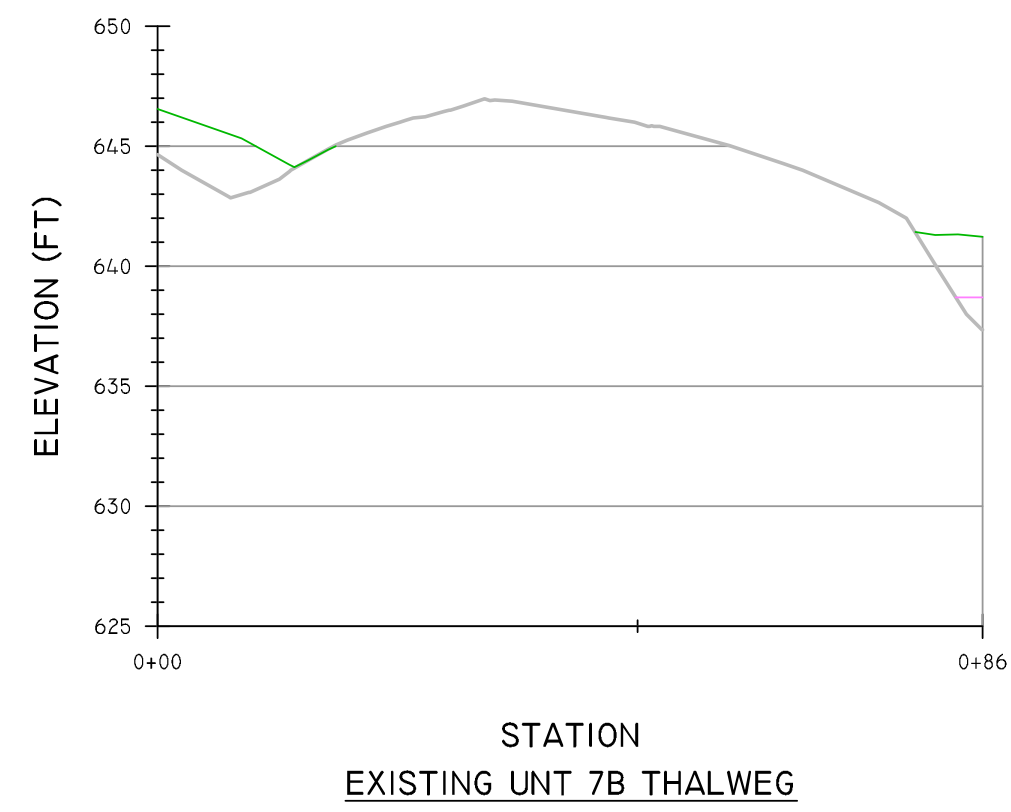


RESOURCE ENVIRONMENTAL SOLUTIONS

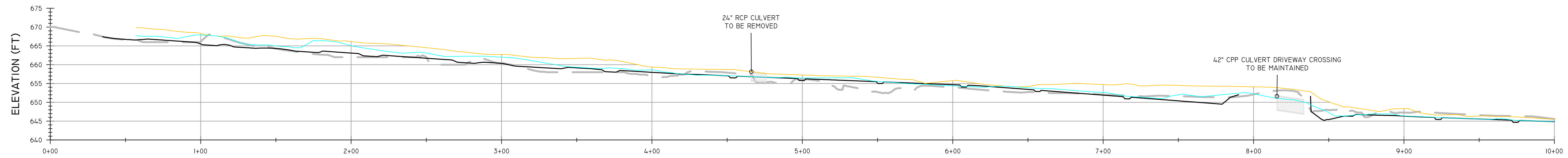
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
TELEPHONE: (412) 249-2440
WWW.RES.US
EMAIL: DCOSTA@RES.US



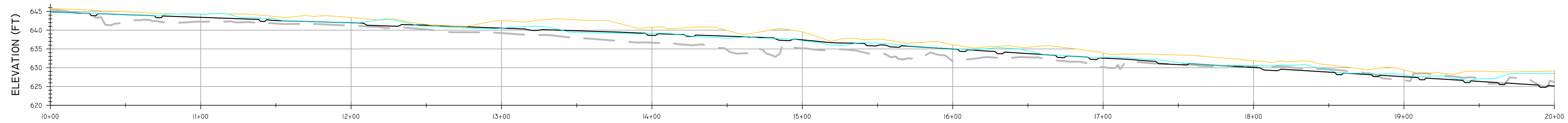
EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN			
EXISTING THALWEG PROFILES			
DRAWN BY:	JE	PENNSYLVANIA	
CHECKED BY:	RD	YORK COUNTY EAST SPRINGFIELD TOWNSHIP	
APPROVED BY:	DC	SHEET:	C603
DATE:	APRIL 6, 2020	FILE NO.:	100182



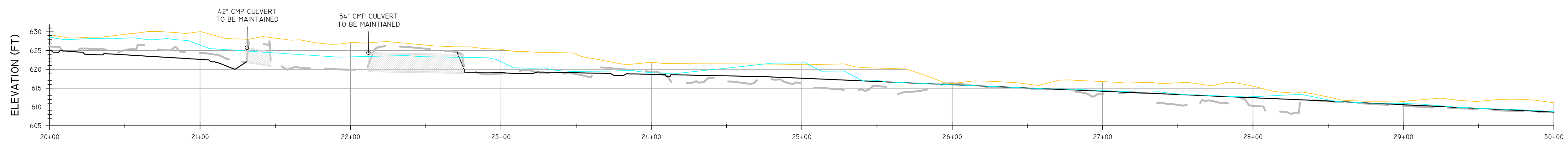
REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS 33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 TELEPHONE: (412) 249-2440 WWW.RES.US EMAIL: DCOSTA@RES.US					
NO.	DESCRIPTION	DATE	BY	EXISTING THALWEG PROFILE									EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN	
				EXISTING 2 YR WSE									EXISTING THALWEG PROFILES	
				EXISTING 100 YR WSE									DRAWN BY: JE	PENNSYLVANIA
													CHECKED BY: RD	YORK COUNTY
													APPROVED BY: DC	EAST SPRINGFIELD TOWNSHIP
													DATE: APRIL 6, 2020	FILE NO: 100182



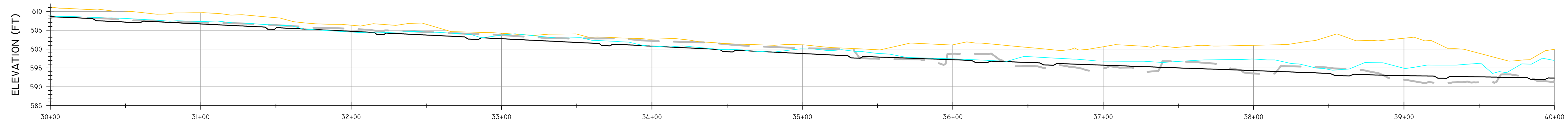
STATION
PROPOSED MAINSTEM BASELINE (0+00 - 10+00)



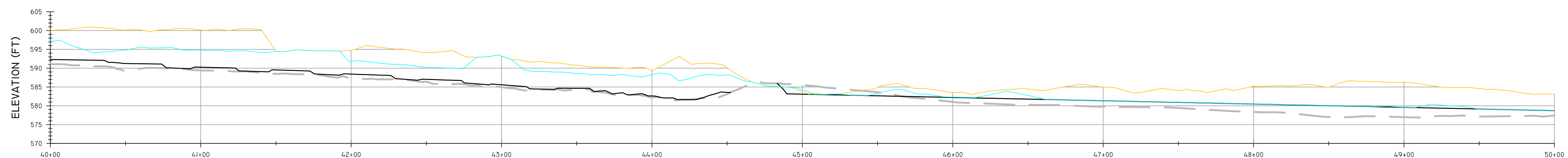
STATION
PROPOSED MAINSTEM BASELINE (10+00 - 20+00)



STATION
PROPOSED MAINSTEM BASELINE (20+00 - 30+00)



STATION
PROPOSED MAINSTEM BASELINE (30+00 - 40+00)



STATION
PROPOSED MAINSTEM BASELINE (40+00 - 50+00)

REVISIONS

NO.	DESCRIPTION	DATE	BY

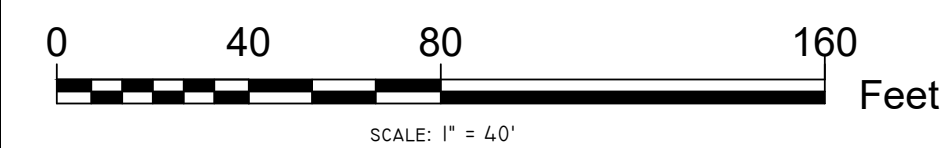
LEGEND

PROPOSED GROUND PROFILE ———
PROPOSED RESTORATION PROFILE ———
EXISTING GROUND PROFILE ———
PROPOSED 2 YR WSE ———
PROPOSED 100 YR WSE ———

NOTES

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440

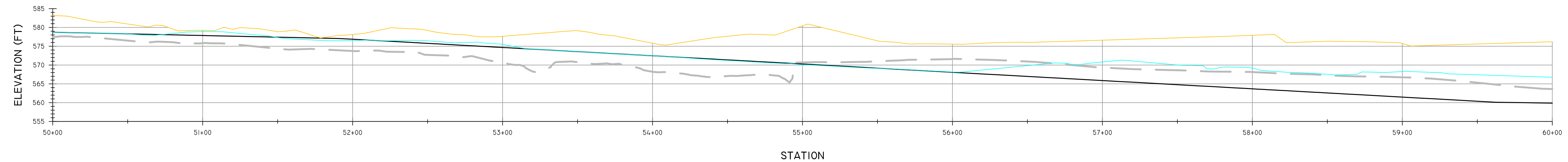
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

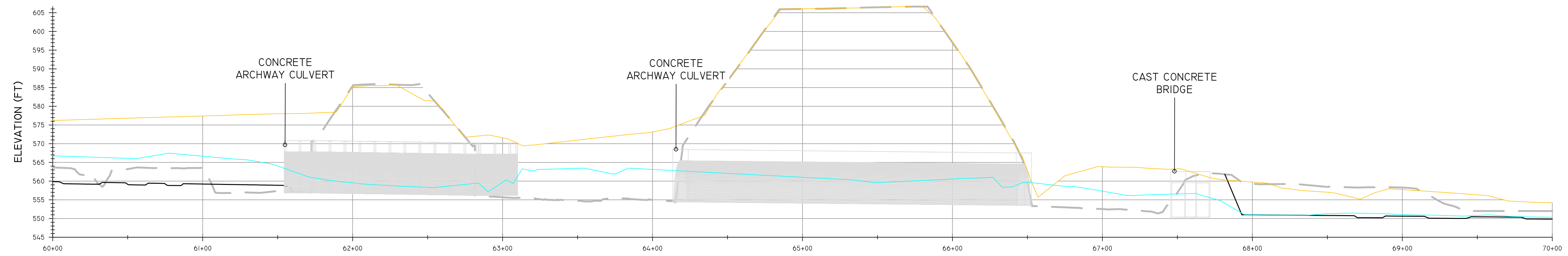
PROPOSED BASELINE PROFILES

DRAWN BY:	JE	PENNSYLVANIA
CHECKED BY:	RD	YORK COUNTY EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET: C605
DATE:	APRIL 6, 2020	FILE NO: 100182

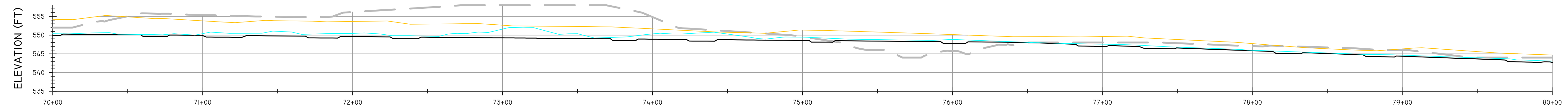




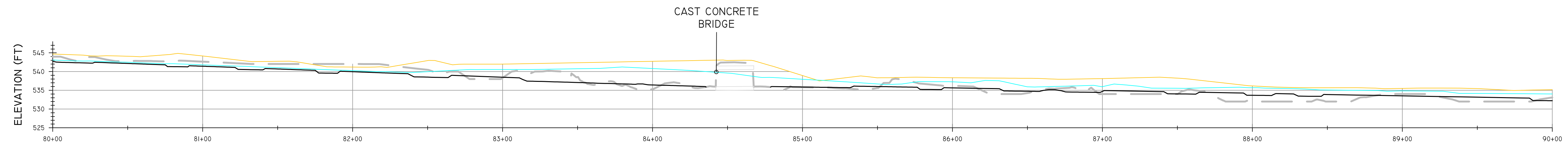
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PROPOSED MAINSTEM BASELINE (50+00 - 60+00)



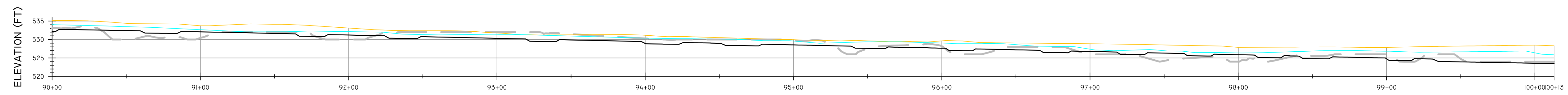
STATION
PROPOSED MAINSTEM BASELINE (60+00 - 70+00)



STATION
PROPOSED MAINSTEM BASELINE (70+00 - 80+00)



STATION
PROPOSED MAINSTEM BASELINE (80+00 - 90+00)



STATION
PROPOSED MAINSTEM BASELINE (90+00 - 100+00)

REVISIONS

NO.	DESCRIPTION	DATE	BY

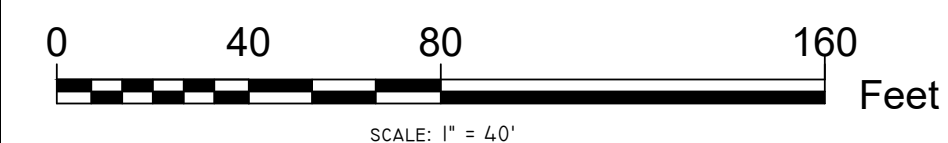
LEGEND

PROPOSED GROUND PROFILE ———
PROPOSED RESTORATION PROFILE ———
EXISTING GROUND PROFILE ———
PROPOSED 2 YR WSE ———
PROPOSED 100 YR WSE ———

NOTES

SEAL

SCALE

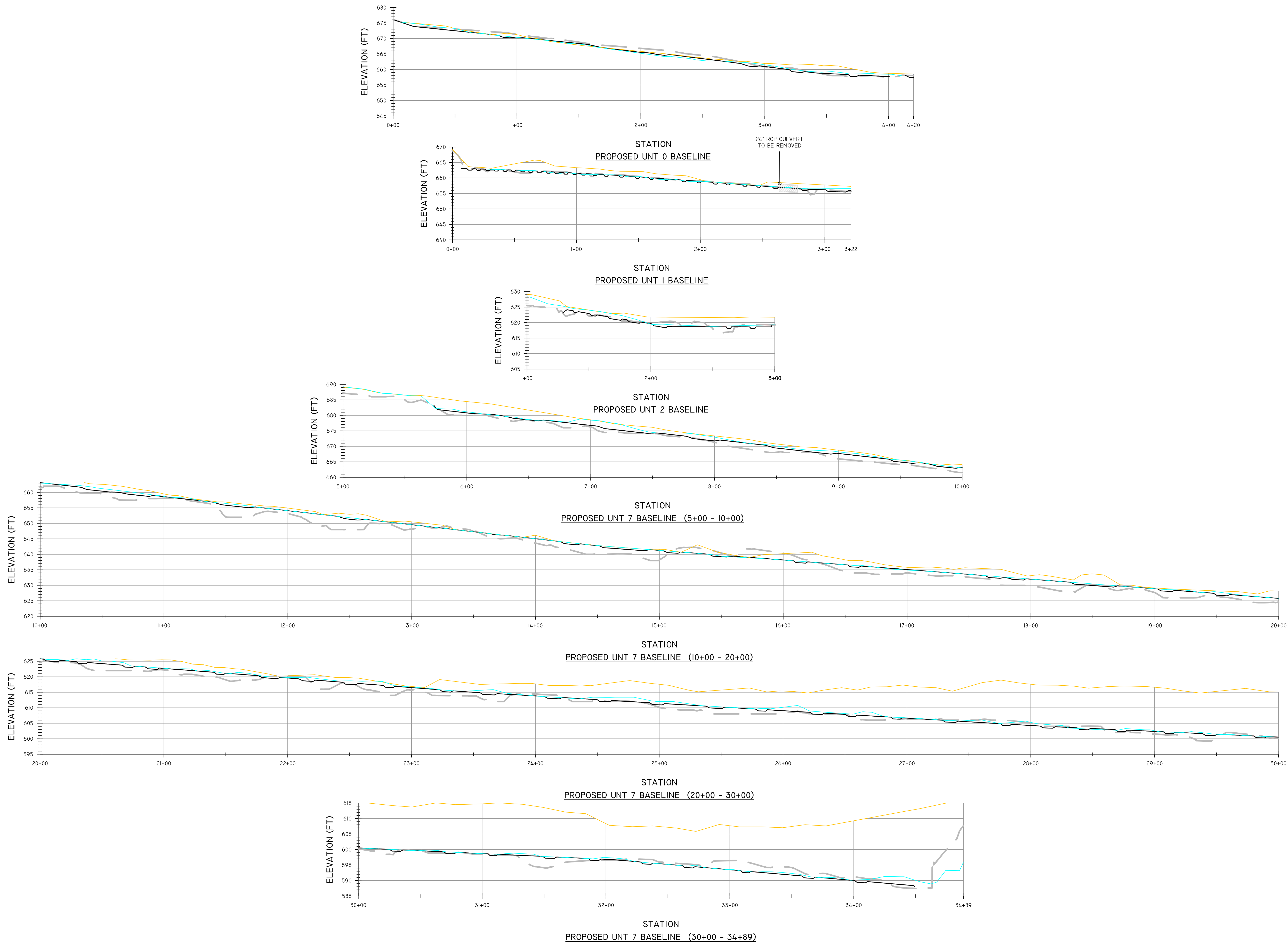


RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US
TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

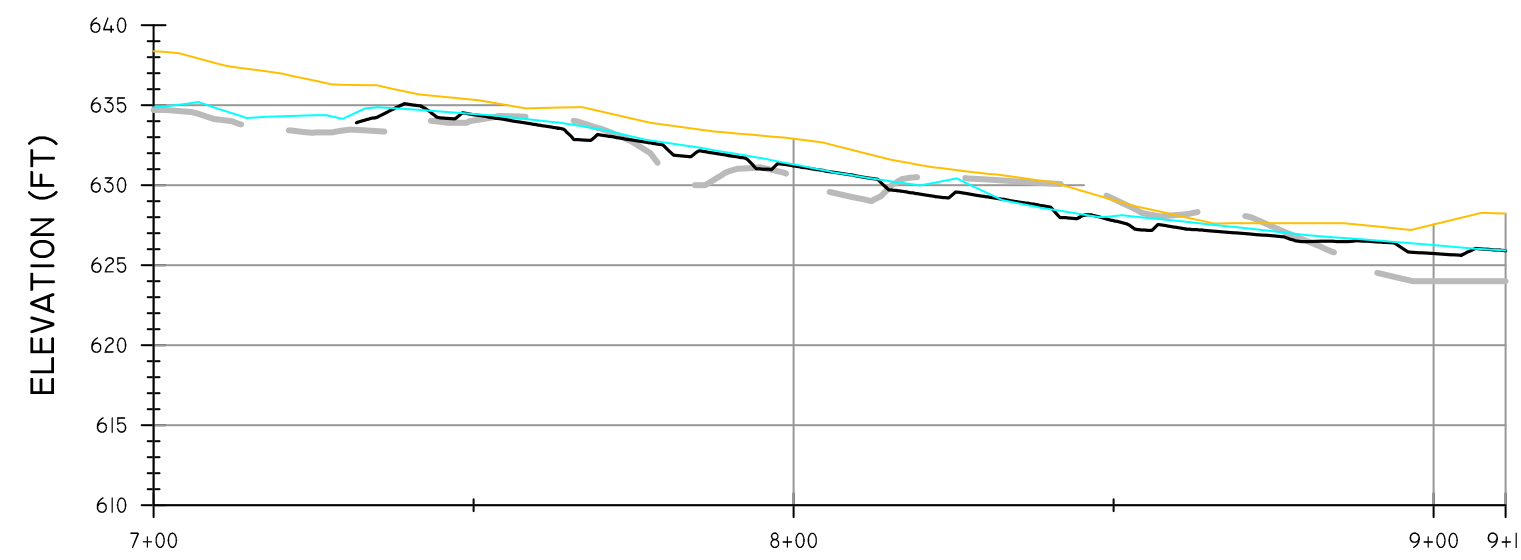
EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN			
PROPOSED BASELINE PROFILES			
DRAWN BY:	JE	PENNSYLVANIA	
CHECKED BY:	RD	YORK COUNTY	EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET:	C606
DATE:	APRIL 6, 2020	FILE NO.:	100182



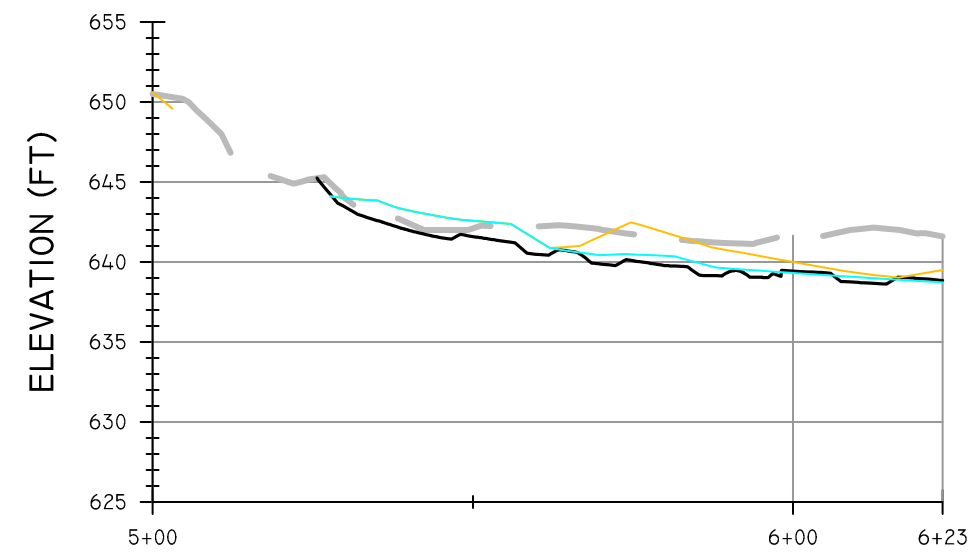


REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS 33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US TELEPHONE: (412) 249-2440 EMAIL: DCOSTA@RES.US	
NO.	DESCRIPTION	DATE	BY	PROPOSED GROUND PROFILE	PROPOSED RESTORATION PROFILE					
				EXISTING GROUND PROFILE	PROPOSED 2 YR WSE					
				PROPOSED 100 YR WSE					EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN PROPOSED BASELINE PROFILES	
									DRAWN BY: JE CHECKED BY: RD APPROVED BY: DC DATE: APRIL 6, 2020	
									PENNSYLVANIA YORK COUNTY EAST SPRINGFIELD TOWNSHIP SHEET: C607 FILE NO: 100182	

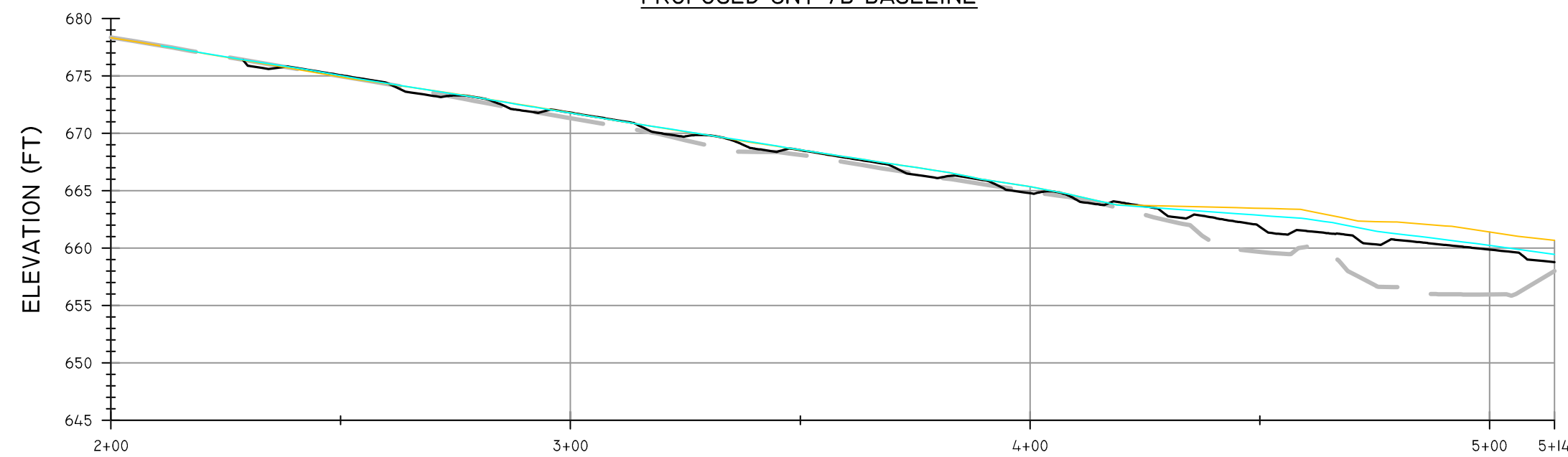
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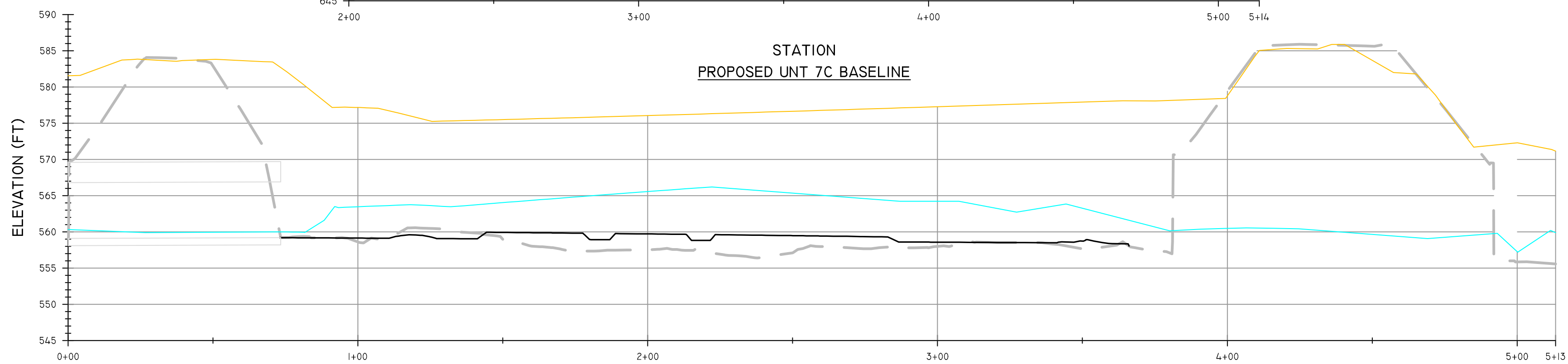
STATION
PROPOSED UNT 7A BASELINE



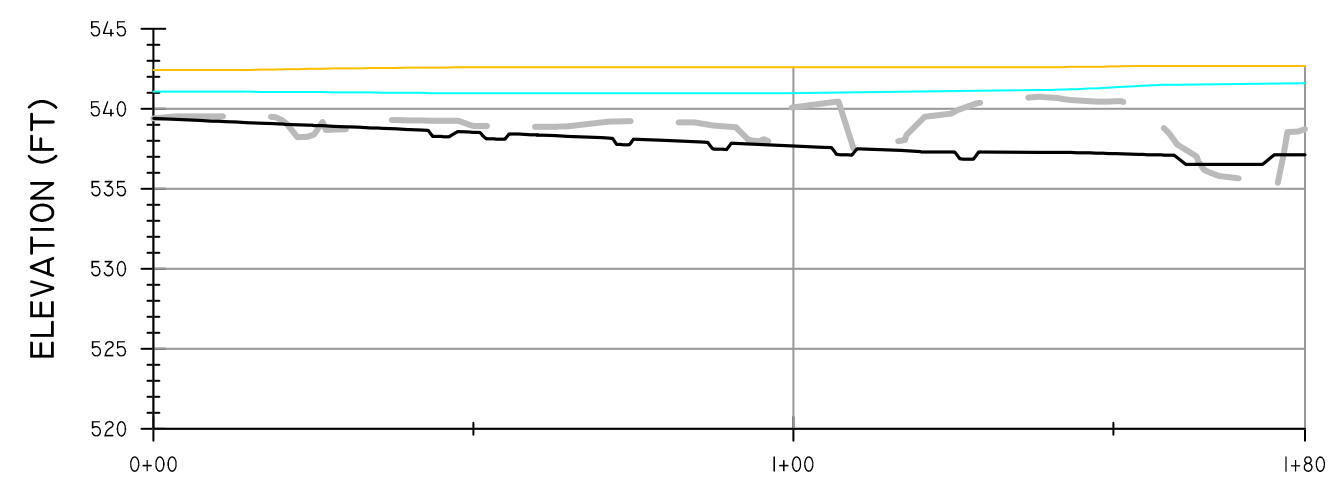
STATION
PROPOSED UNT 7B BASELINE



STATION
PROPOSED UNT 7C BASELINE



STATION
PROPOSED UNT 8 BASELINE



STATION
PROPOSED UNT 10 BASELINE

REVISIONS

NO.	DESCRIPTION	DATE	BY

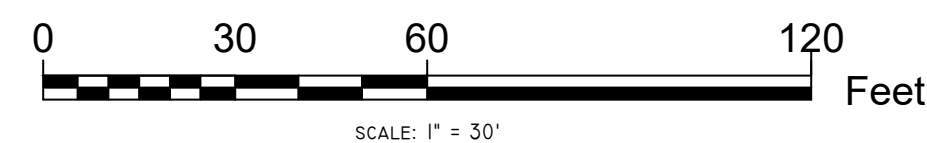
LEGEND

PROPOSED GROUND PROFILE	
PROPOSED RESTORATION PROFILE	
EXISTING GROUND PROFILE	
PROPOSED 2 YR WSE	
PROPOSED 100 YR WSE	

NOTES

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440

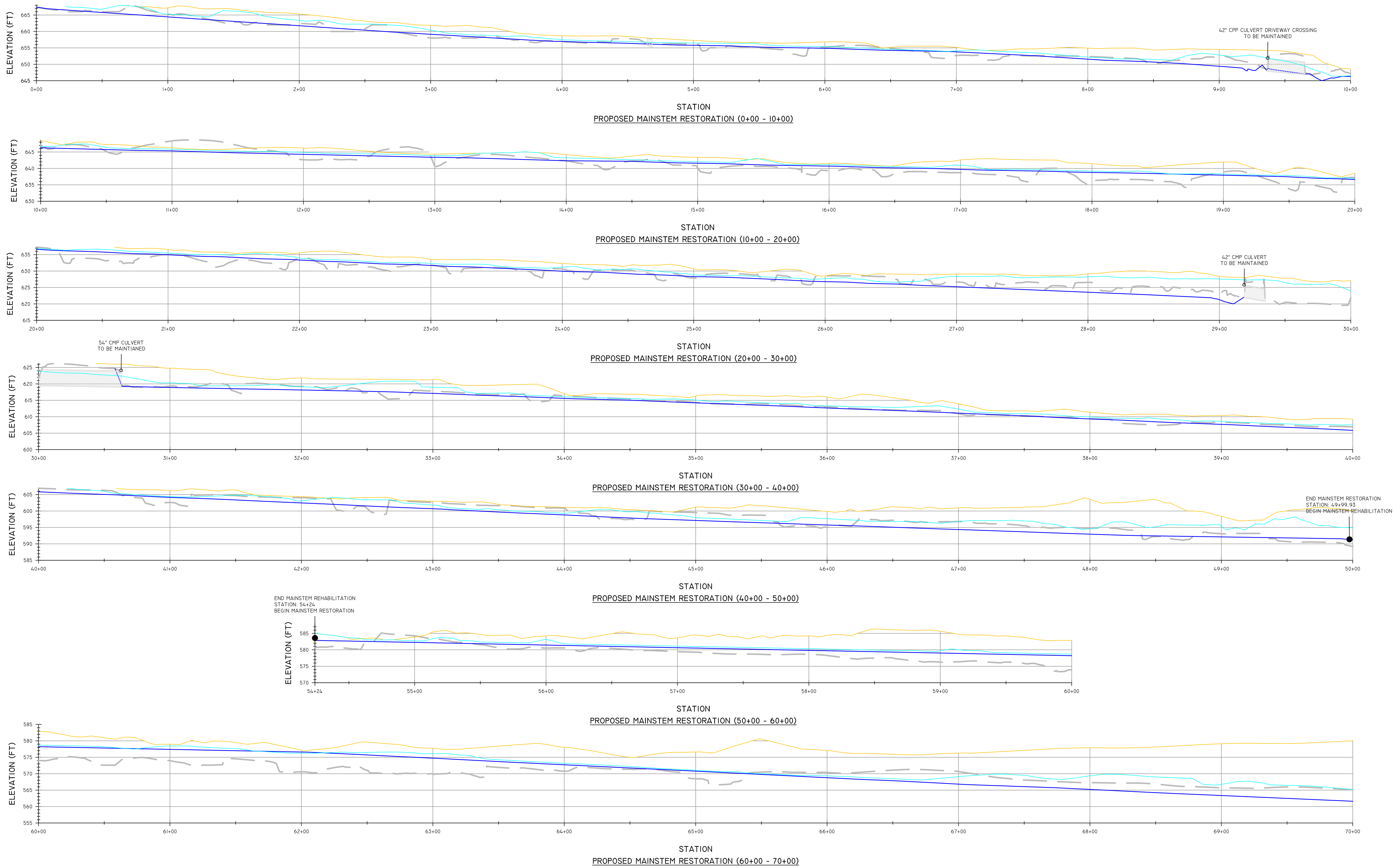
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

PROPOSED BASELINE PROFILES

DRAWN BY:	JE	PENNSYLVANIA
CHECKED BY:	RD	YORK COUNTY EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET: C608
DATE:	APRIL 6, 2020	FILE NO: 100182





REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPOSED GROUND PROFILE

PROPOSED RESTORATION PROFILE

EXISTING GROUND PROFILE

PROPOSED 2 YR WSE

PROPOSED 100 YR WSE

NOTES

SEAL

SCALE

03570140

Feet

SCALE: 1" = 35'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

PROPOSED RESTORATION PROFILES

DRAWN BY: JE

CHECKED BY: RD

APPROVED BY: DC

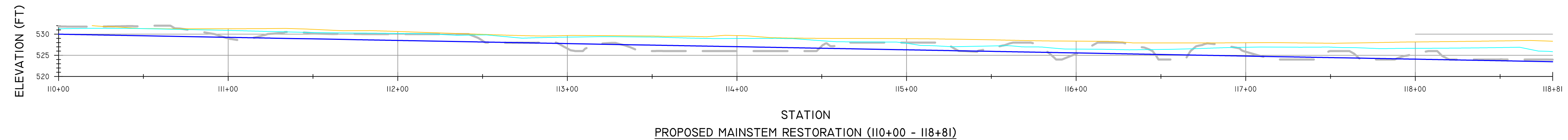
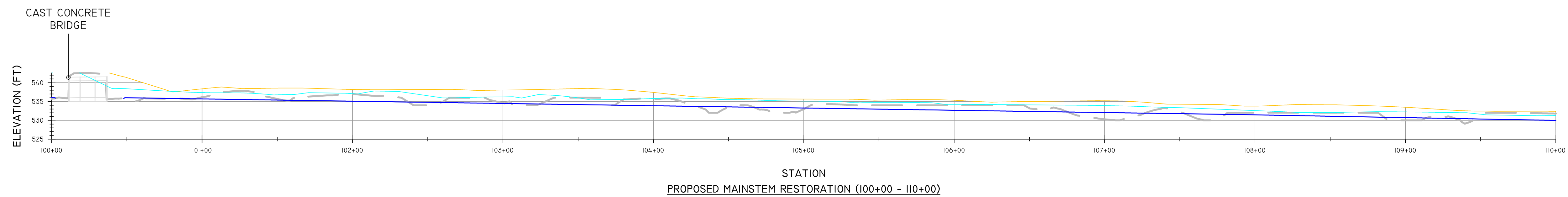
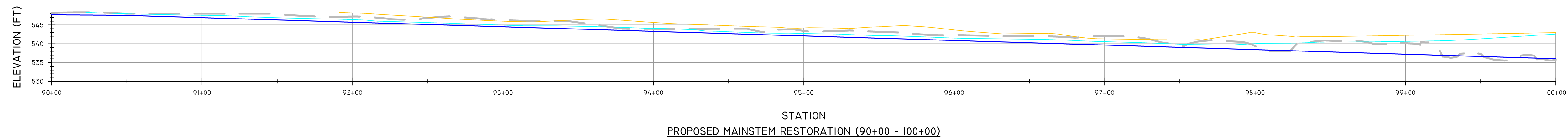
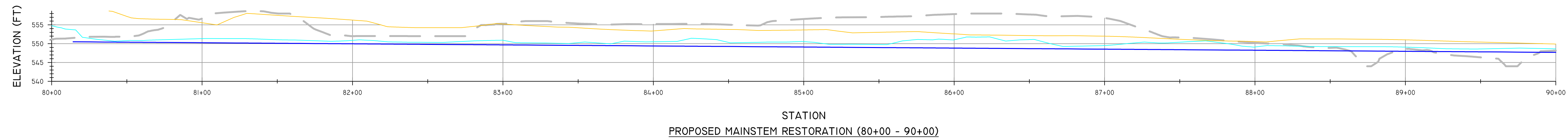
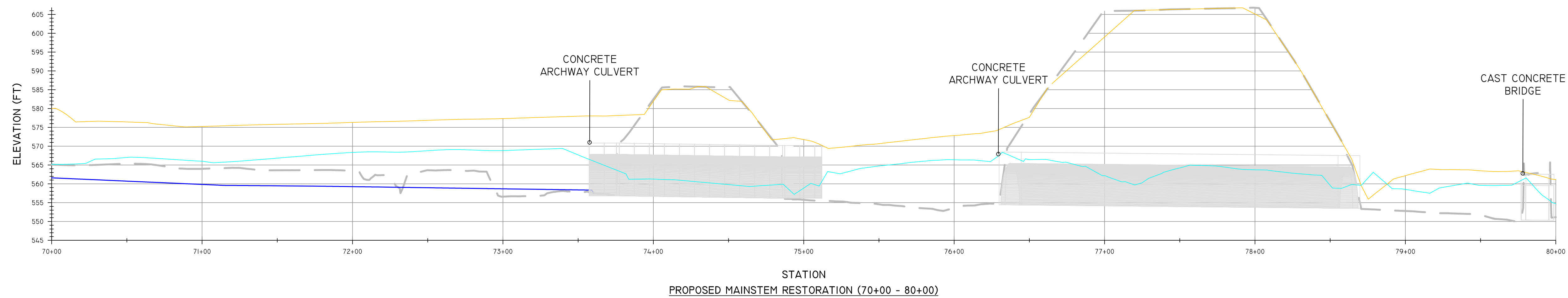
DATE: APRIL 6, 2020

PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: C609

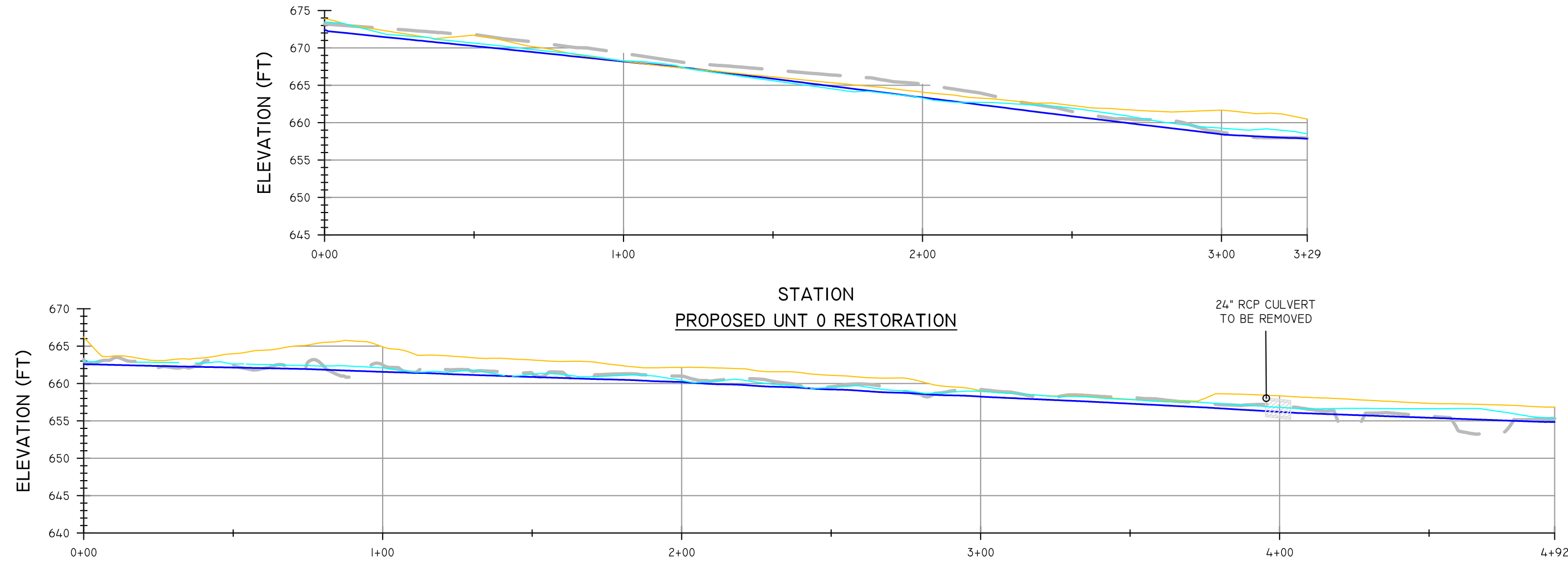
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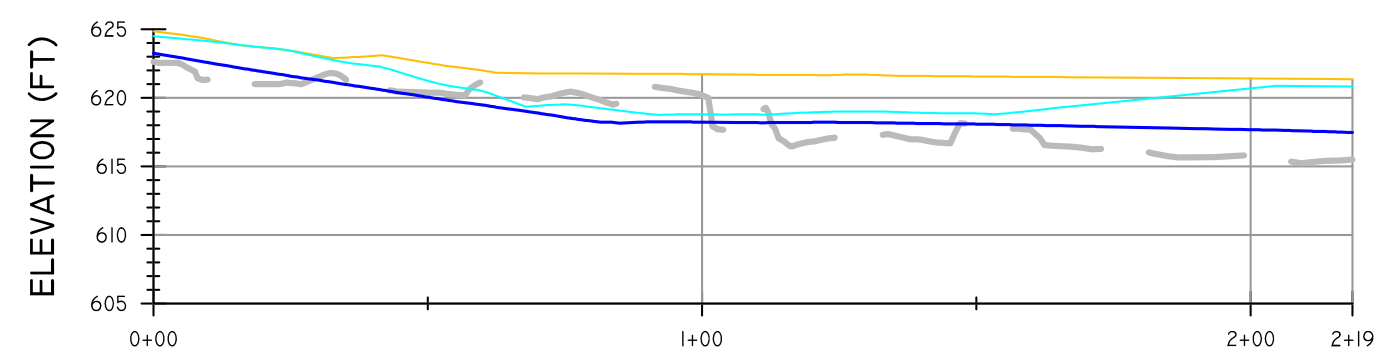


REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS 33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US TELEPHONE: (412) 249-2440 EMAIL: DCOSTA@RES.US					
NO.	DESCRIPTION	DATE	BY	PROPOSED GROUND PROFILE	—								EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN	
				PROPOSED RESTORATION PROFILE	—								DRAWN BY: JE	
				EXISTING GROUND PROFILE	- - -					CHECKED BY: RD	YORK COUNTY		EAST SPRINGFIELD TOWNSHIP	
				PROPOSED 2 YR WSE	—					APPROVED BY: DC	SHEET: C610		FILE NO:	
				PROPOSED 100 YR WSE	—					DATE: APRIL 6, 2020	10082			

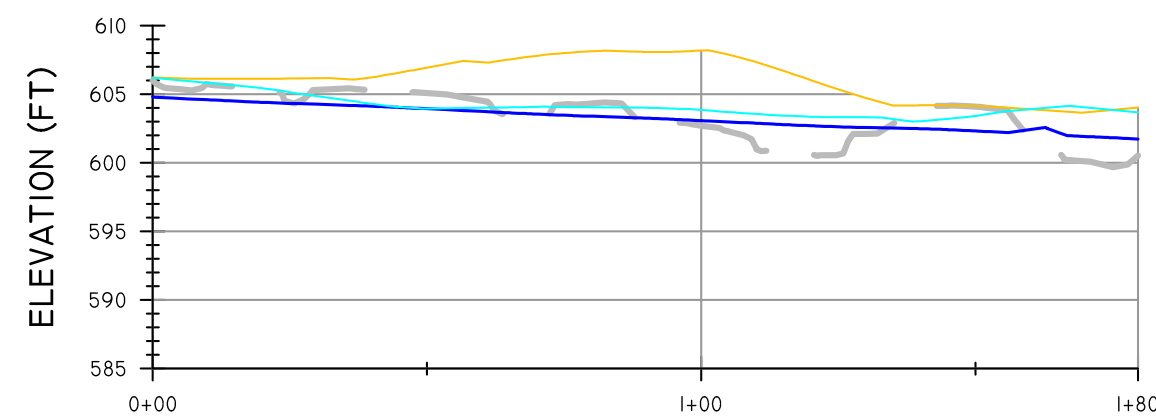
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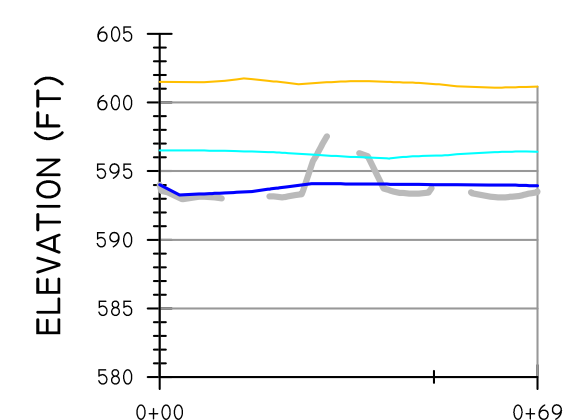
STATION
PROPOSED UNIT 1 RESTORATION



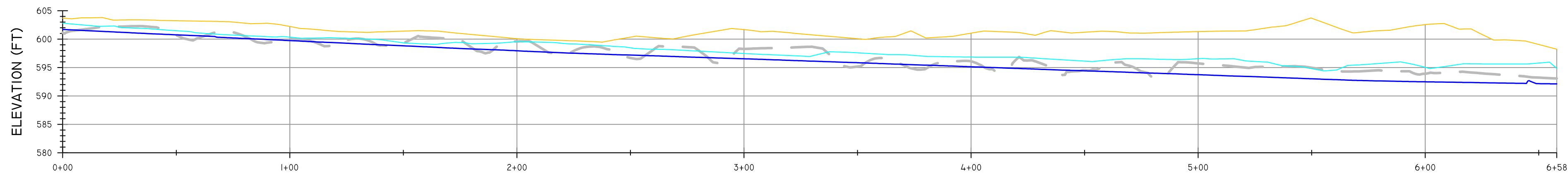
STATION
PROPOSED UNIT 2 RESTORATION



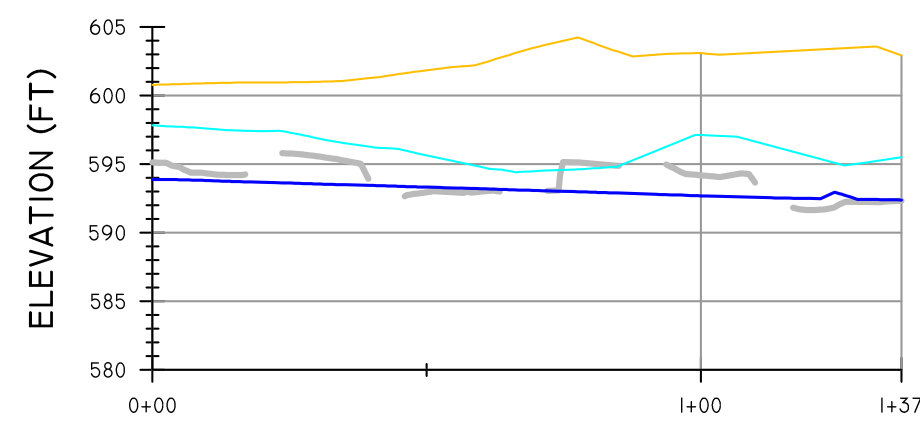
STATION
PROPOSED UNIT 3 RESTORATION



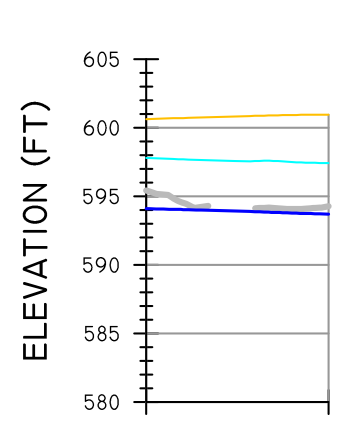
STATION
PROPOSED UNIT 4 RESTORATION



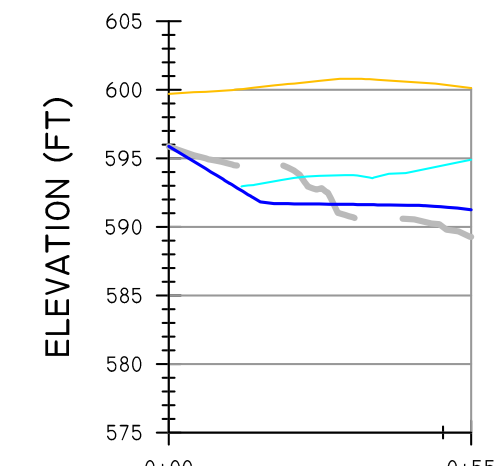
STATION
PROPOSED UNIT 4A RESTORATION



STATION
PROPOSED UNIT 5 RESTORATION



STATION
PROPOSED UNIT 5 TRIB RESTORATION



STATION
PROPOSED UNIT 6 RESTORATION

REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPOSED GROUND PROFILE	
PROPOSED RESTORATION PROFILE	
EXISTING GROUND PROFILE	
PROPOSED 2 YR WSE	
PROPOSED 100 YR WSE	

NOTES

SEAL

SCALE
0 30 60 120 Feet
SCALE: 1" = 30'

RESOURCE ENVIRONMENTAL SOLUTIONS

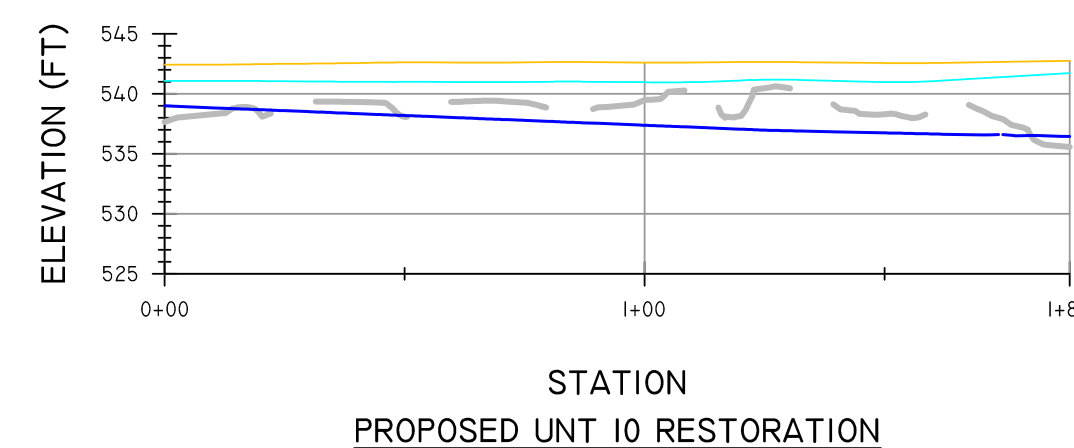
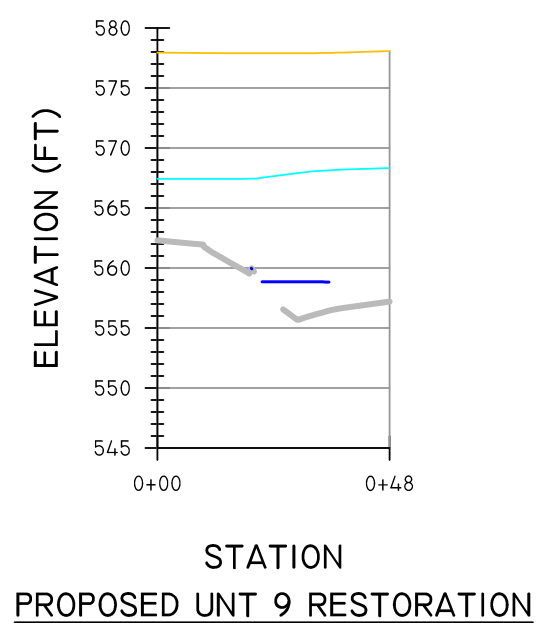
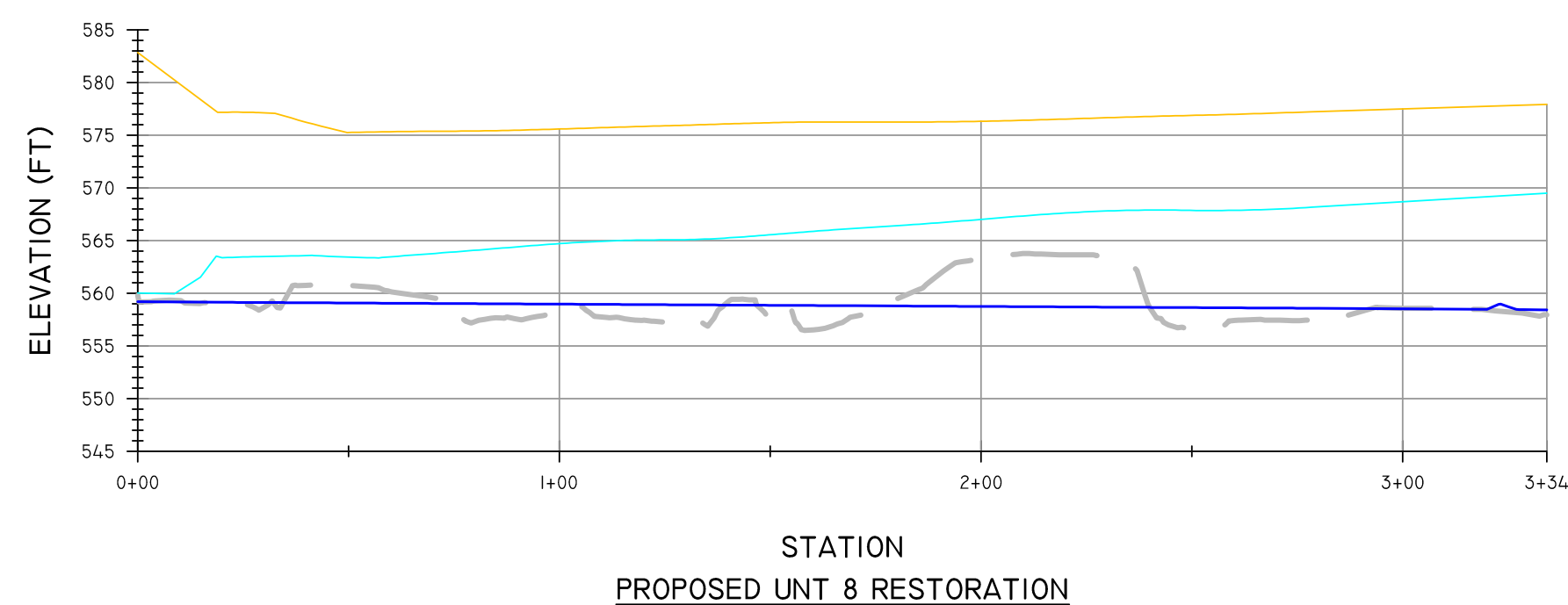
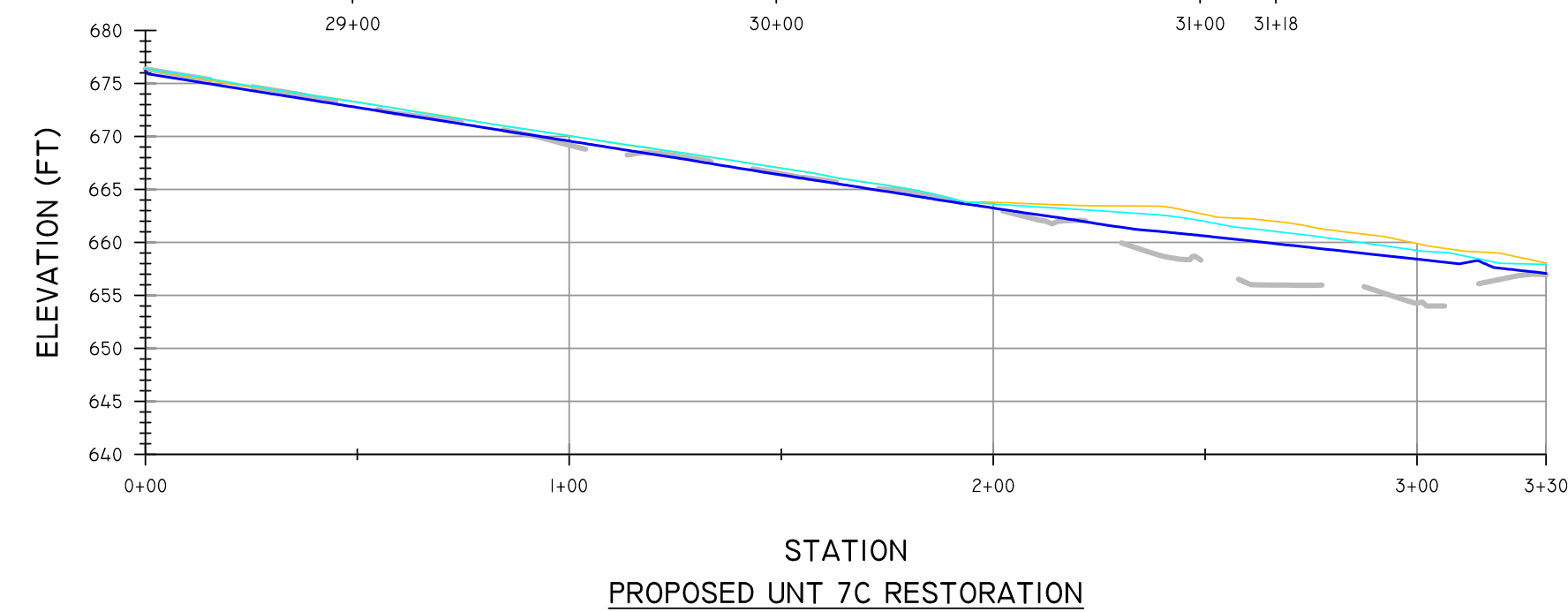
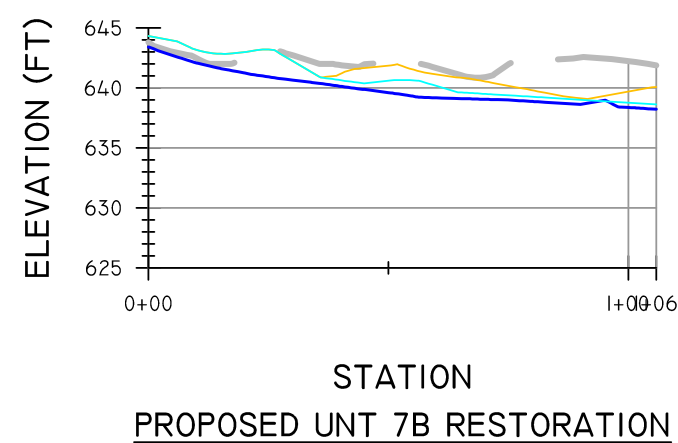
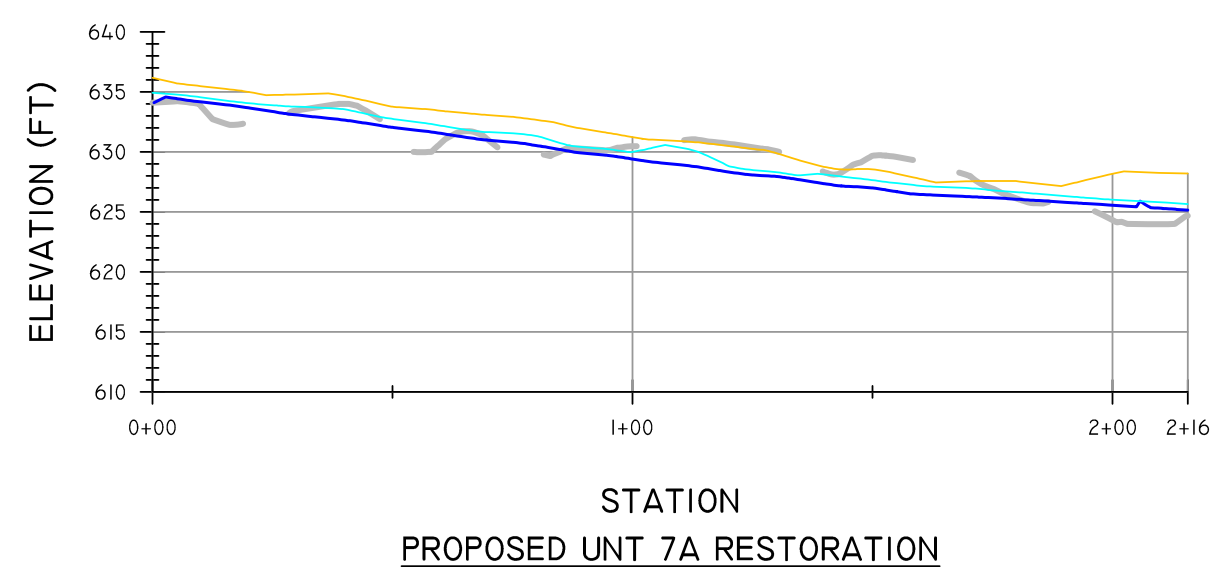
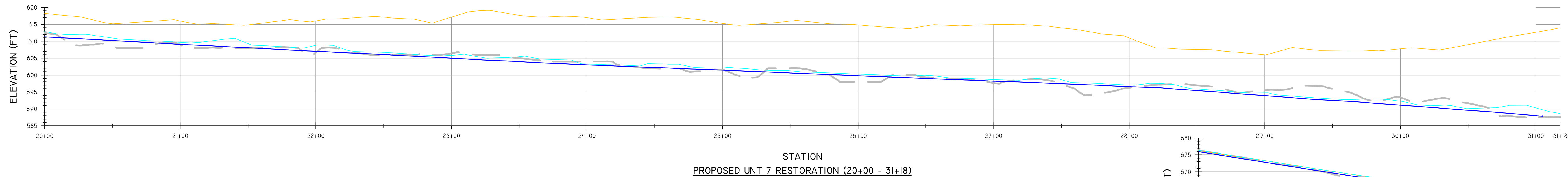
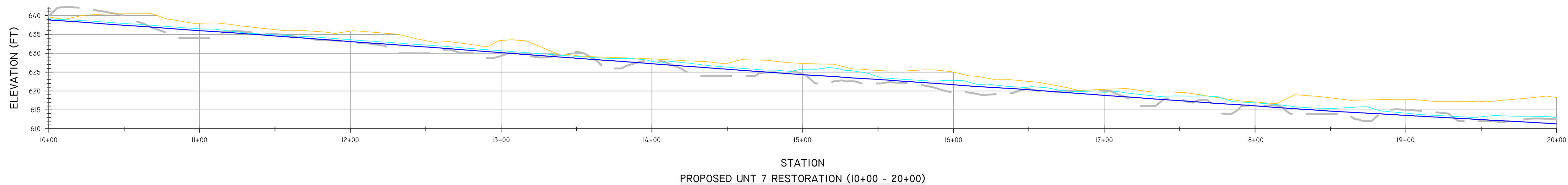
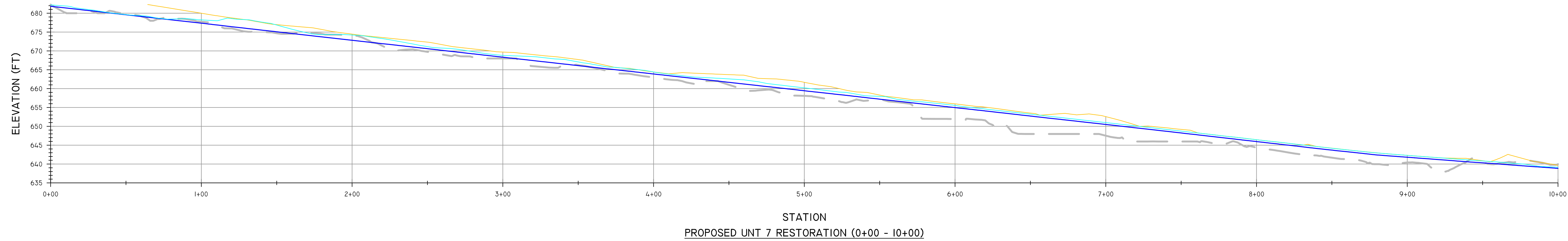
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

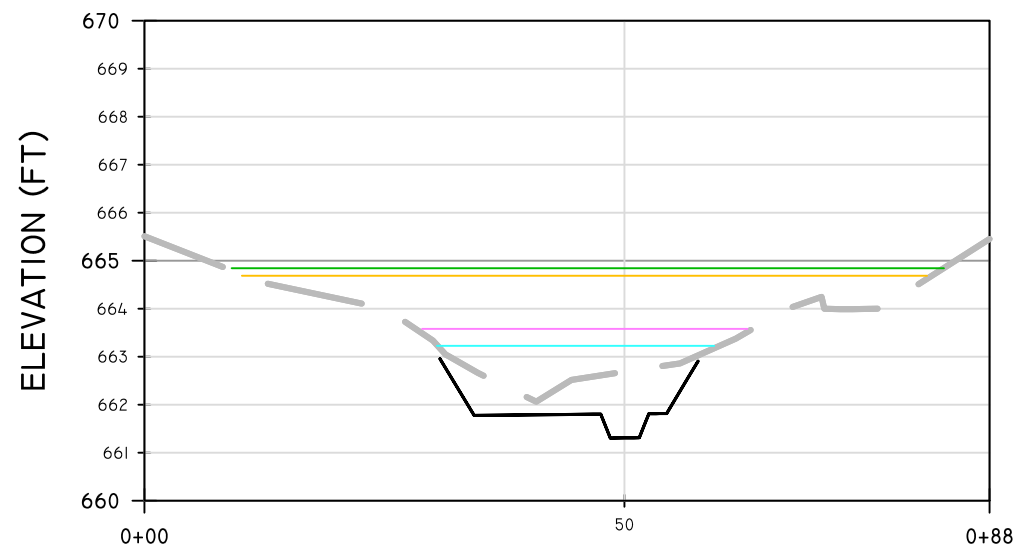
PROPOSED RESTORATION PROFILES

DRAWN BY:	JE	PENNSYLVANIA
CHECKED BY:	RD	YORK COUNTY EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET: C611
DATE:	APRIL 6, 2020	FILE NO: 100182



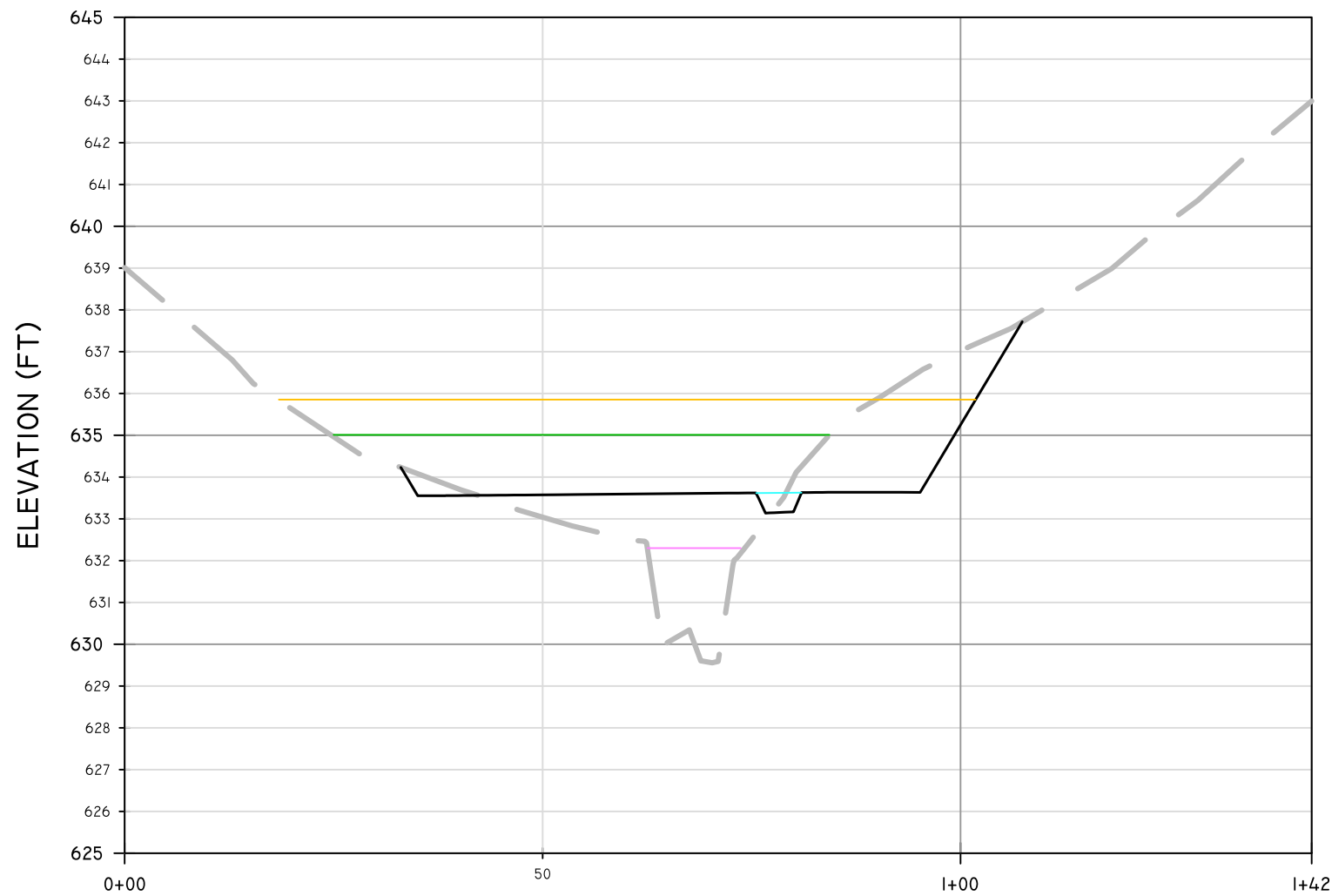
REVISIONS				LEGEND		NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS 33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 TELEPHONE: (412) 249-2440 WWW.RES.US EMAIL: DCOSTA@RES.US							
NO.	DESCRIPTION	DATE	BY	PROPOSED GROUND PROFILE	PROPOSED RESTORATION PROFILE									EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN PROPOSED RESTORATION PROFILES		
				EXISTING GROUND PROFILE												
				PROPOSED 2 YR WSE							DRAWN BY: JE					
				PROPOSED 100 YR WSE							CHECKED BY: RD					
											APPROVED BY: DC					
											DATE: APRIL 6, 2020					
											SHEET: C612					
											FILE NO: 100182					
											PENNSYLVANIA YORK COUNTY EAST SPRINGFIELD TOWNSHIP					

R:\RES\CAD\PROJECTS\100182_EAST BRANCH CODORUS CREEK\DESIGN\DWG\PLANS.DWG

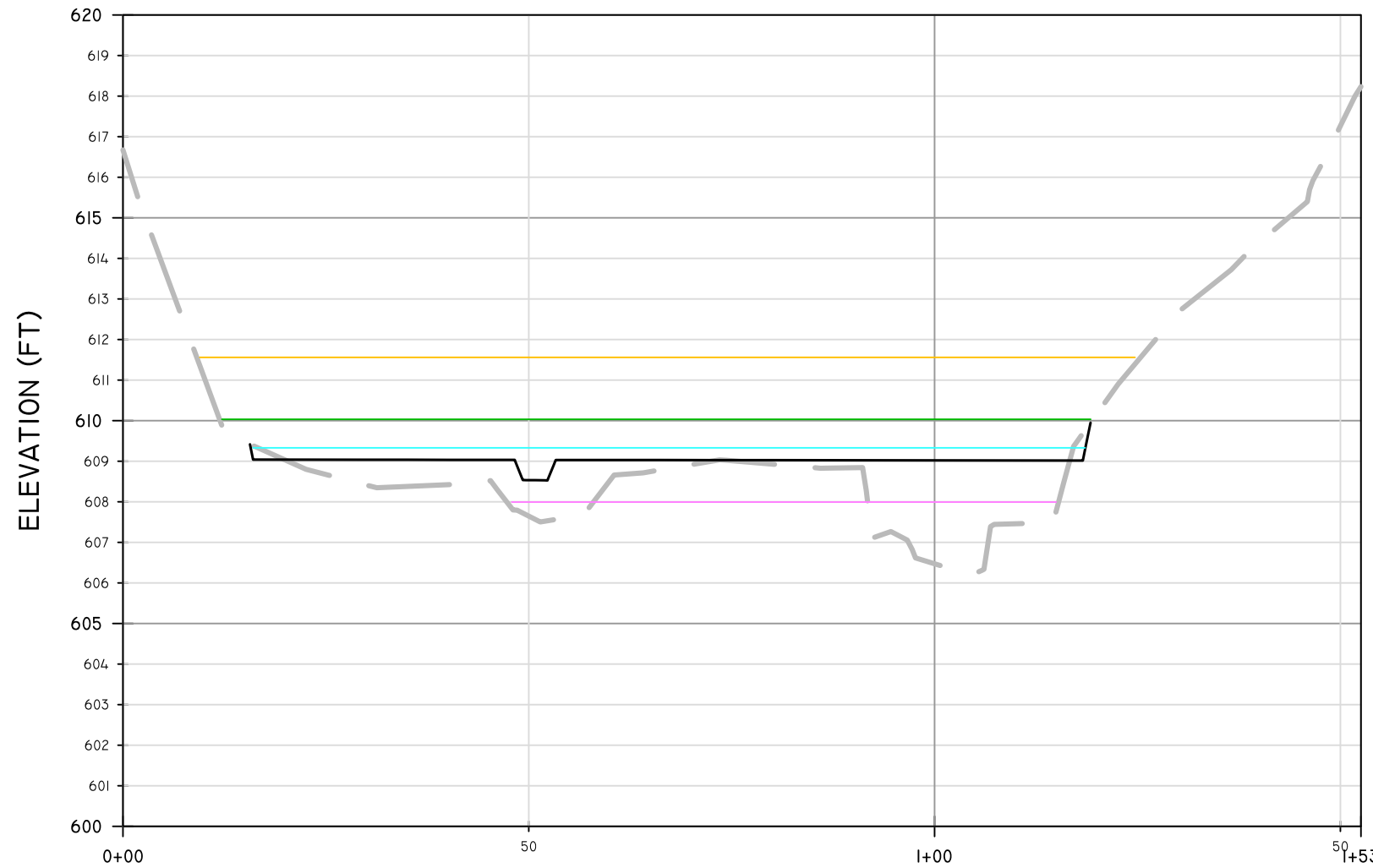


STATION
MAINSTEM CROSS SECTION 1

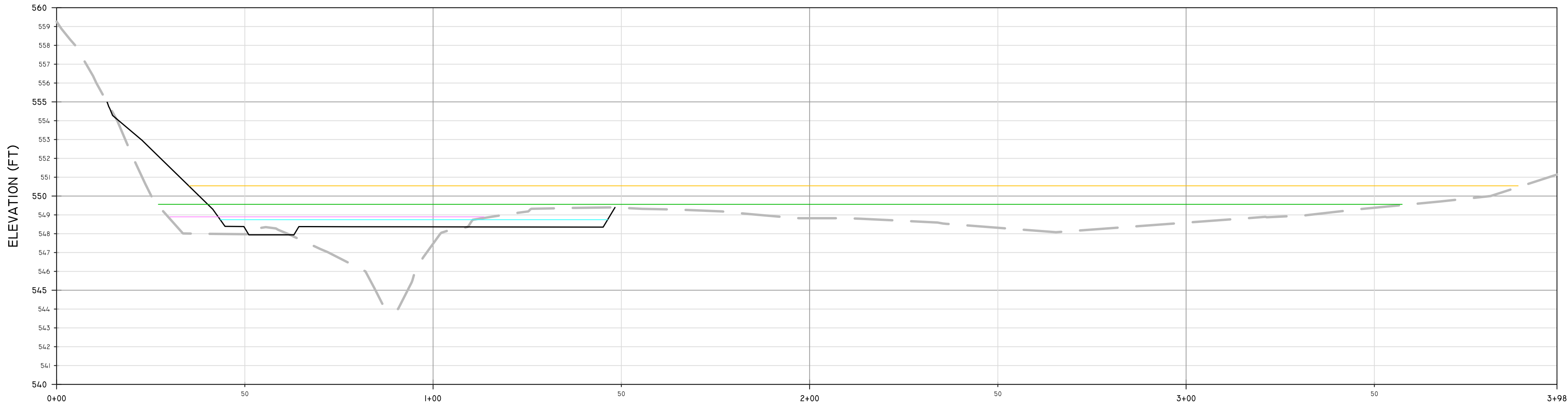
100 YEAR WATER SURFACE ELEVATION SUMMARY					
CROSS SECTION	EXISTING THALWEG STATION	PROPOSED THALWEG STATION	EXISTING 100 YR WSE	PROPOSED 100YR WSE	DIFFERENCE
MAINSTEM CROSS SECTION 1	0+40.80	0+50.22	664.84	664.66	0.18
MAINSTEM CROSS SECTION 2	0+69.89	0+78.49	634.99	635.85	0.86
MAINSTEM CROSS SECTION 3	1+04.67	0+50.99	610.00	611.55	1.55
MAINSTEM CROSS SECTION 5	0+89.13	0+57.30	549.58	550.54	0.96



STATION
MAINSTEM CROSS SECTION 2



STATION
MAINSTEM CROSS SECTION 3



STATION
MAINSTEM CROSS SECTION 5

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPOSED GROUND PROFILE

EXISTING GROUND PROFILE

EXISTING 2 YR WSE

EXISTING 100 YR WSE

PROPOSED 2 YR WSE

PROPOSED 100 YR WSE

NOTES

SEAL

SCALE

0204080

Feet

SCALE: 1" = 20'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK
DESIGN PLAN

PROPOSED CROSS SECTIONS

DRAWN BY: JE

CHECKED BY: RD

APPROVED BY: DC

DATE: APRIL 7, 2020

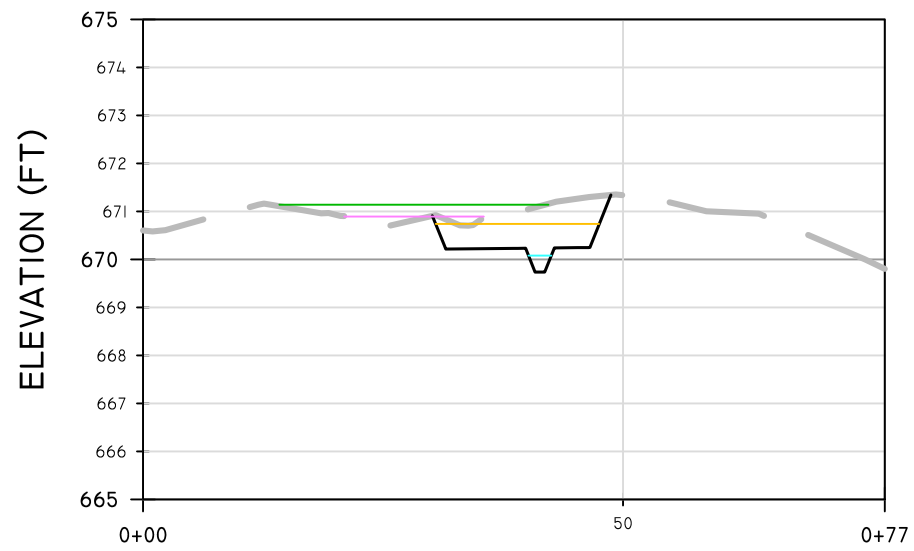
PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: C613

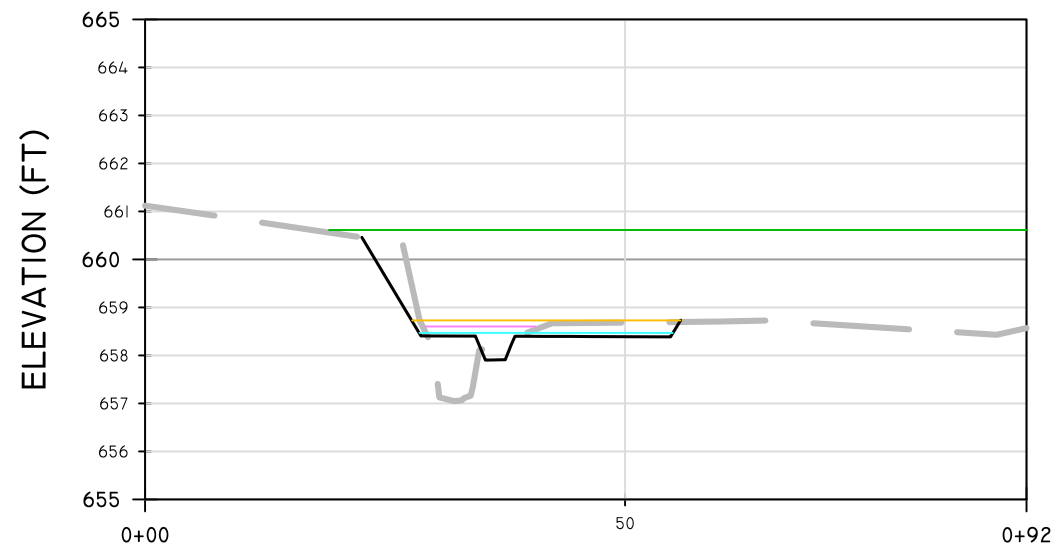
FILE NO: 100182

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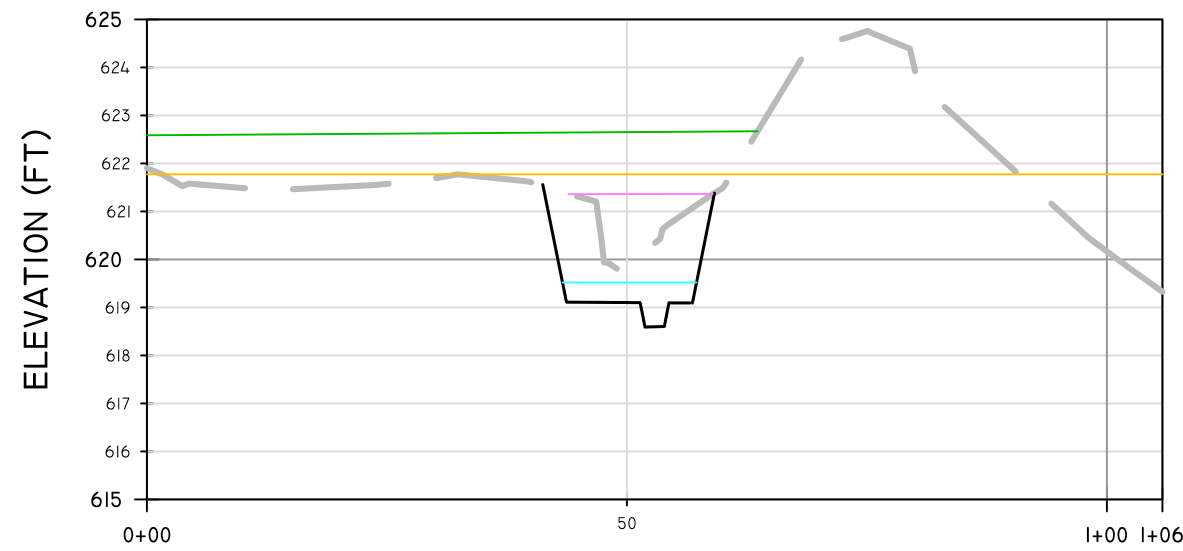
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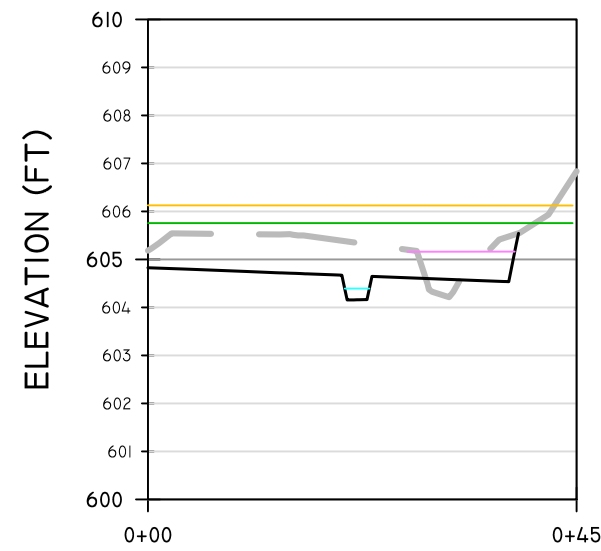
STATION
UNT 0 CROSS SECTION



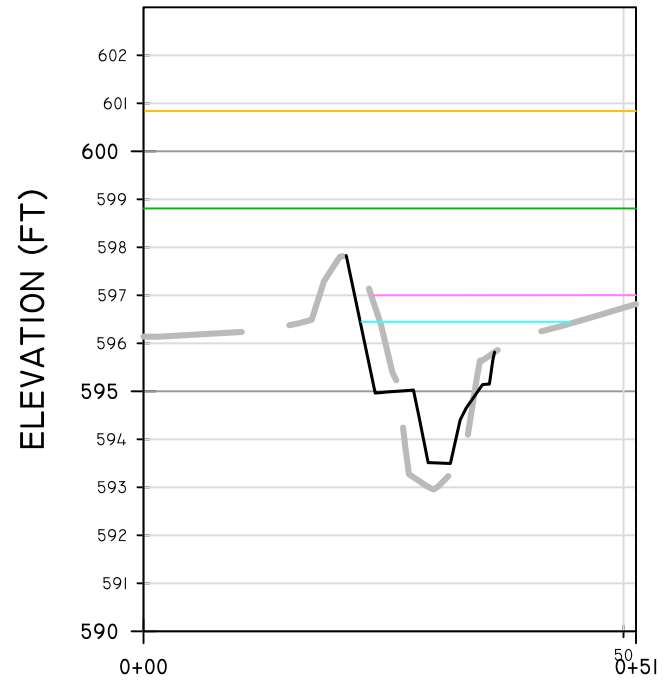
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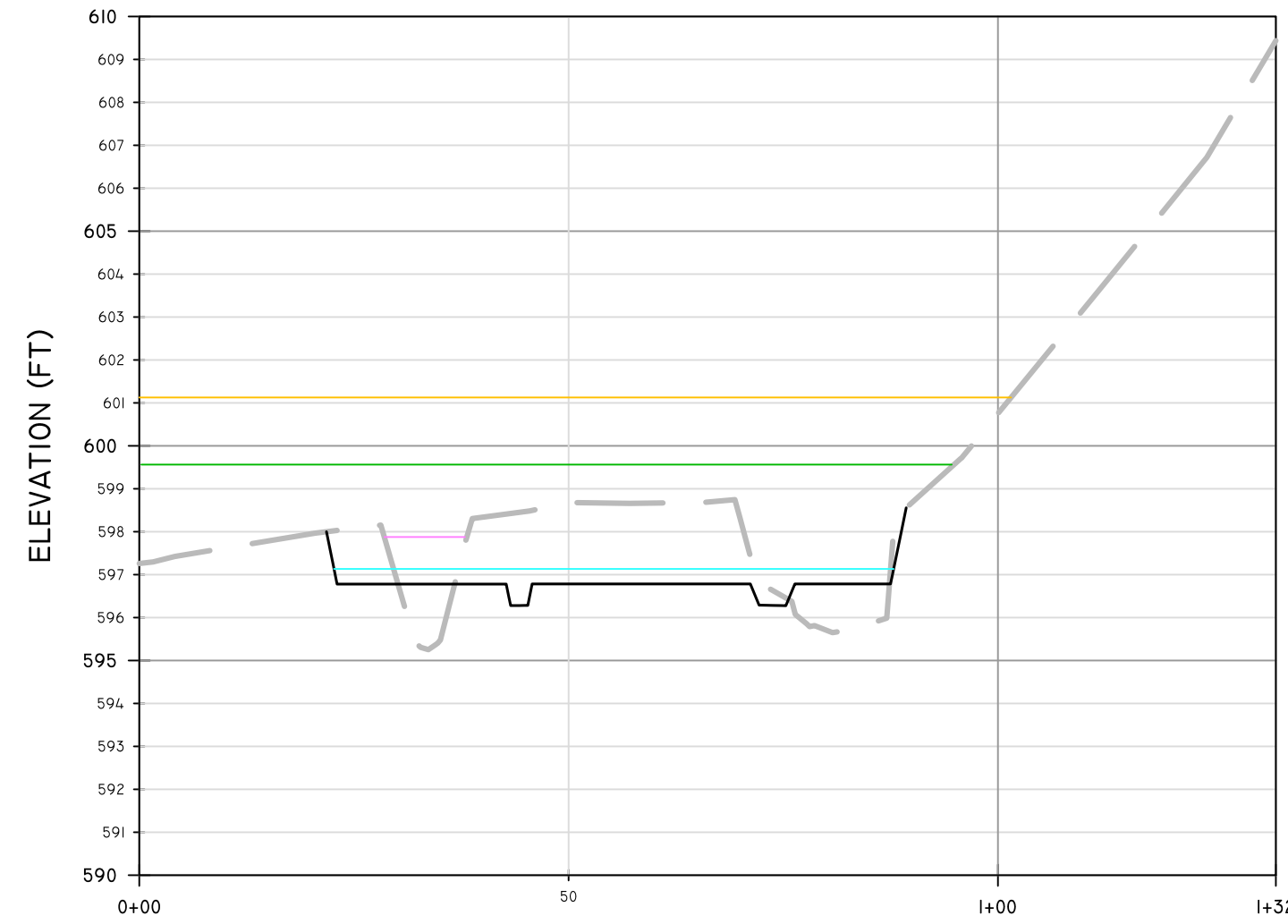
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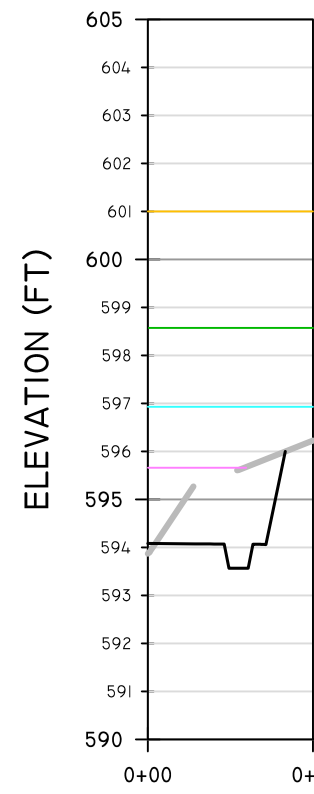
STATION
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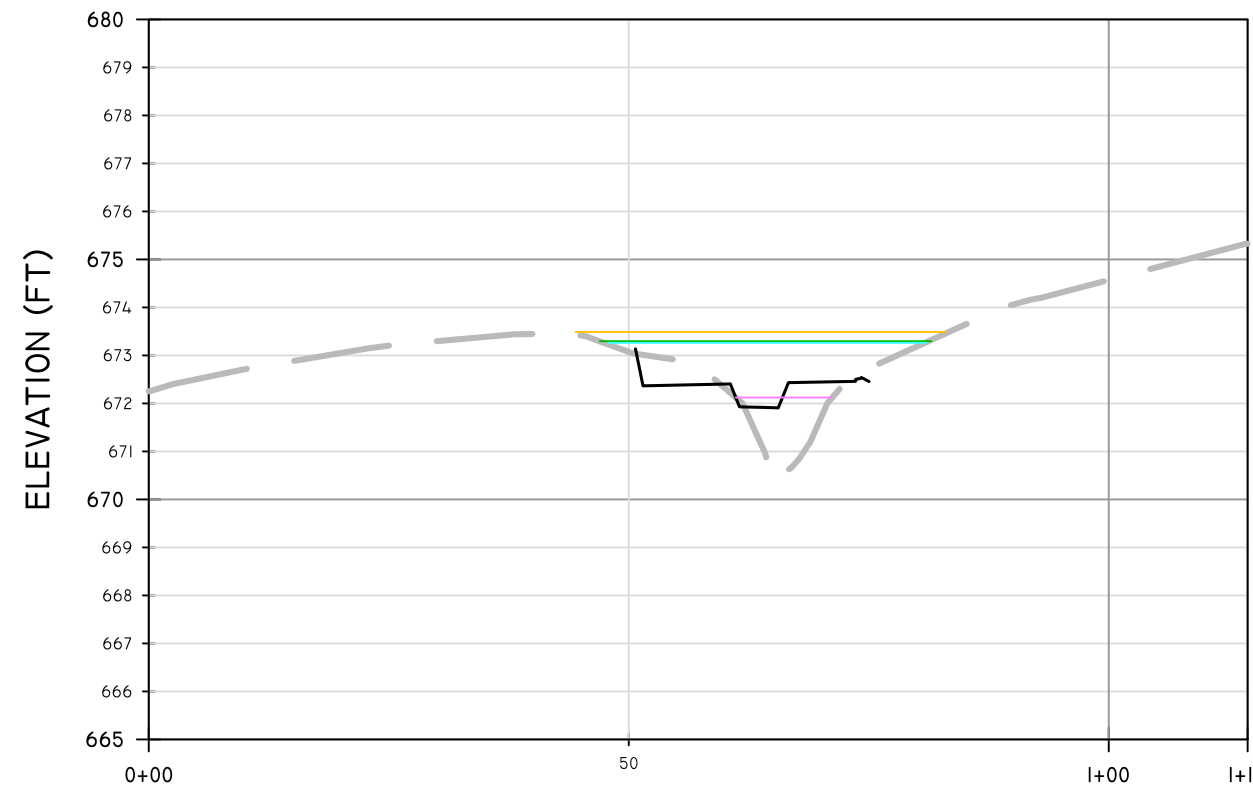
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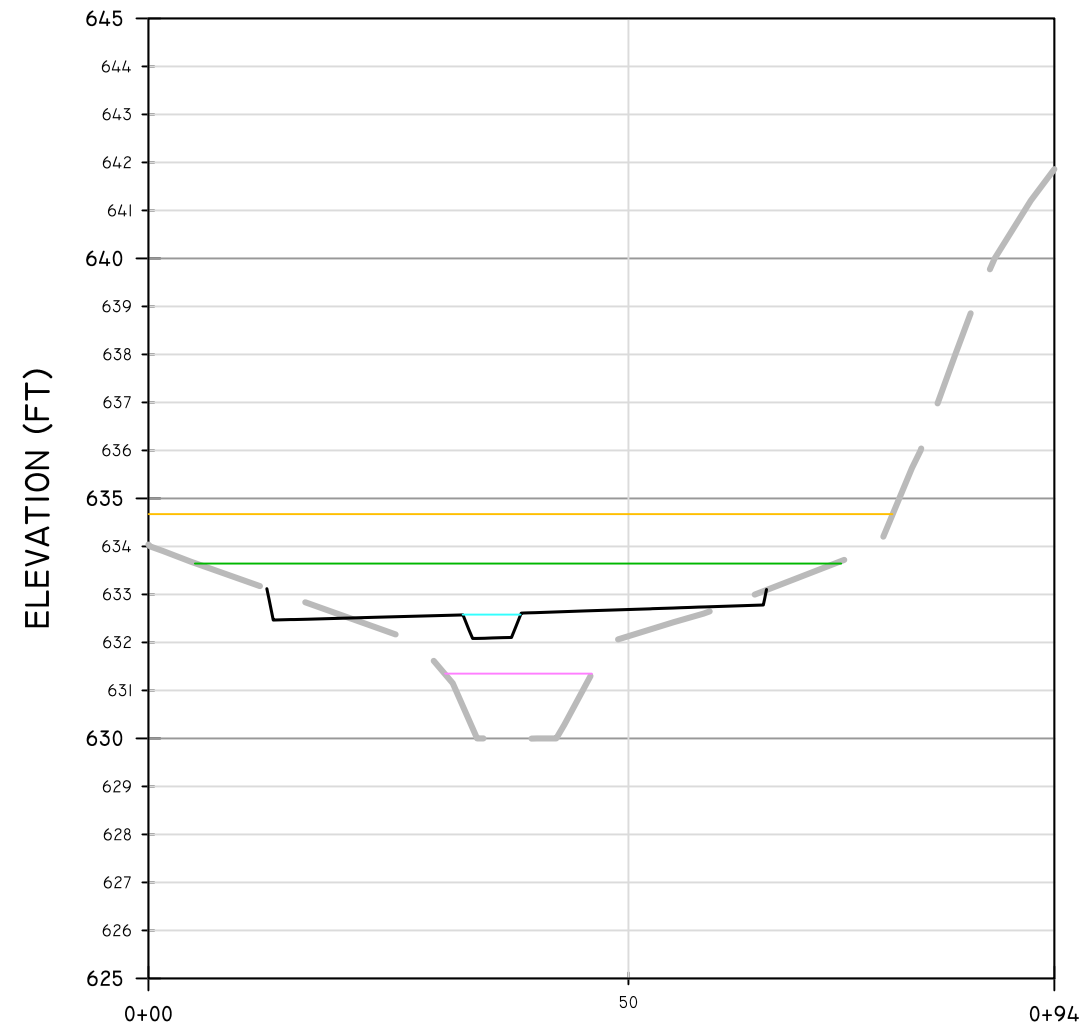
STATION
UNT 4A CROSS SECTION



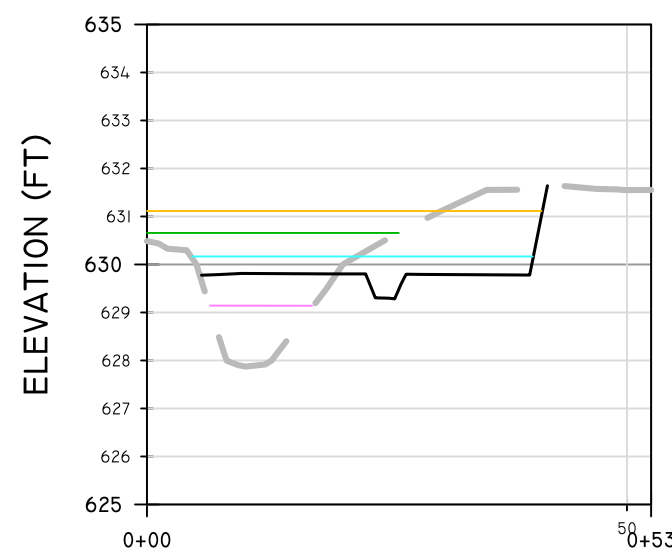
STATION
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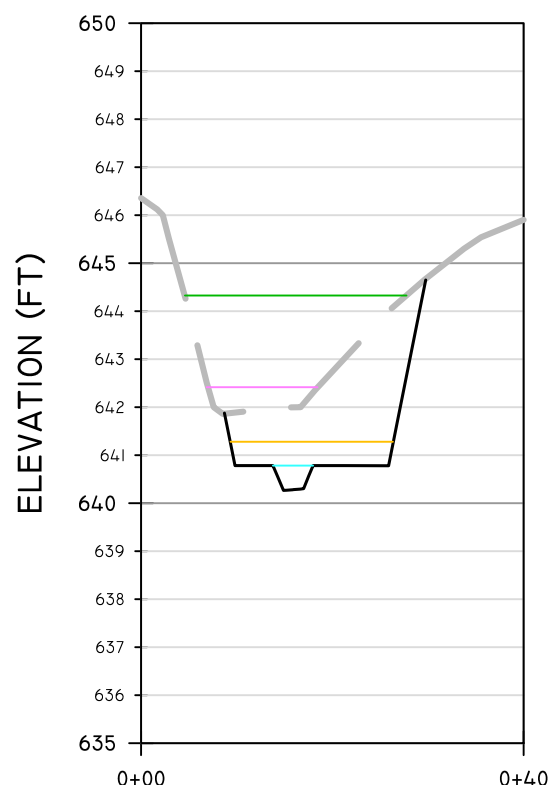
STATION
UNT 7 CROSS SECTION 1



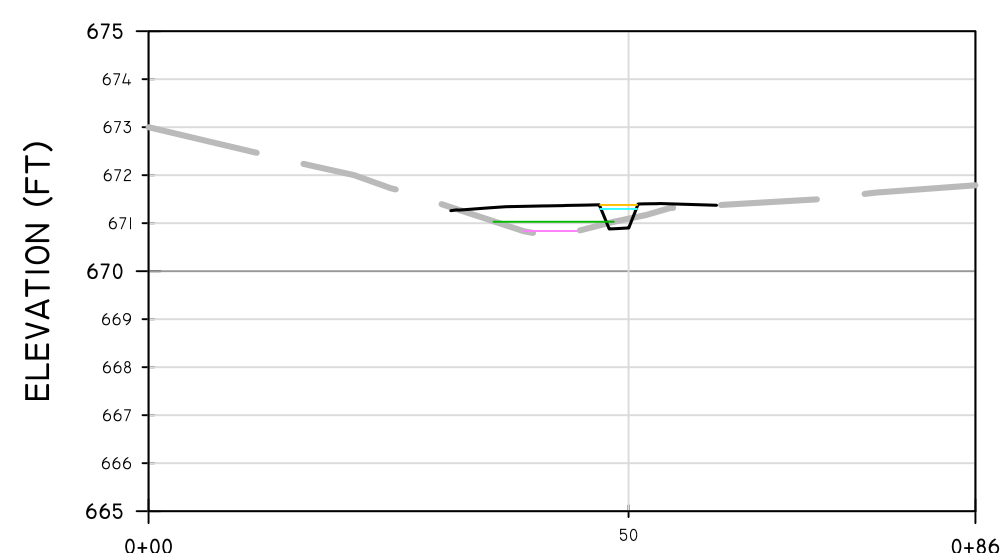
STATION
UNT 7 CROSS SECTION 2



STATION
UNT 7A CROSS SECTION



STATION
UNT 7B CROSS SECTION



STATION
UNT 7C CROSS SECTION

100 YEAR WATER SURFACE ELEVATION SUMMARY

CROSS SECTION	EXISTING THALWEG STATION	PROPOSED THALWEG STATION	EXISTING 100 YR WSE	PROPOSED 100YR WSE	DIFFERENCE
UNT 0 CROSS SECTION	0+26.07	0+41.34	671.13	670.73	0.40
UNT 1 CROSS SECTION	0+32.28	0+36.52	660.61	658.74	1.87
UNT 2 CROSS SECTION	0+49.22	0+52.90	622.64	621.77	0.87
UNT 3 CROSS SECTION	0+31.09	0+21.77	605.76	606.13	0.37
UNT 4 CROSS SECTION	0+30.07	0+30.93	598.78	600.84	2.06
UNT 4A CROSS SECTION	0+80.48	0+73.60	599.56	601.13	1.57
UNT 5 CROSS SECTION	0+00.00	0+09.48	598.57	600.99	2.42
UNT 7 CROSS SECTION 1	0+65.23	0+63.65	673.30	673.49	0.19
UNT 7 CROSS SECTION 2	0+38.86	0+35.71	633.62	634.65	1.03
UNT 7A CROSS SECTION	0+10.66	0+24.93	630.65	631.11	0.46
UNT 7B CROSS SECTION	0+08.62	0+15.79	644.32	644.28	3.04
UNT 7C CROSS SECTION	0+42.31	0+48.99	671.03	671.38	0.35

REVISIONS

NO.	DESCRIPTION	DATE	BY

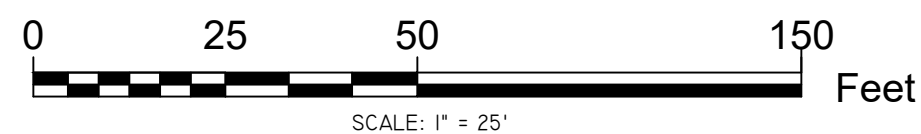
LEGEND

PROPOSED GROUND PROFILE	—
EXISTING GROUND PROFILE	—
EXISTING 2 YR WSE	—
EXISTING 100 YR WSE	—
PROPOSED 2 YR WSE	—
PROPOSED 100 YR WSE	—

NOTES

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

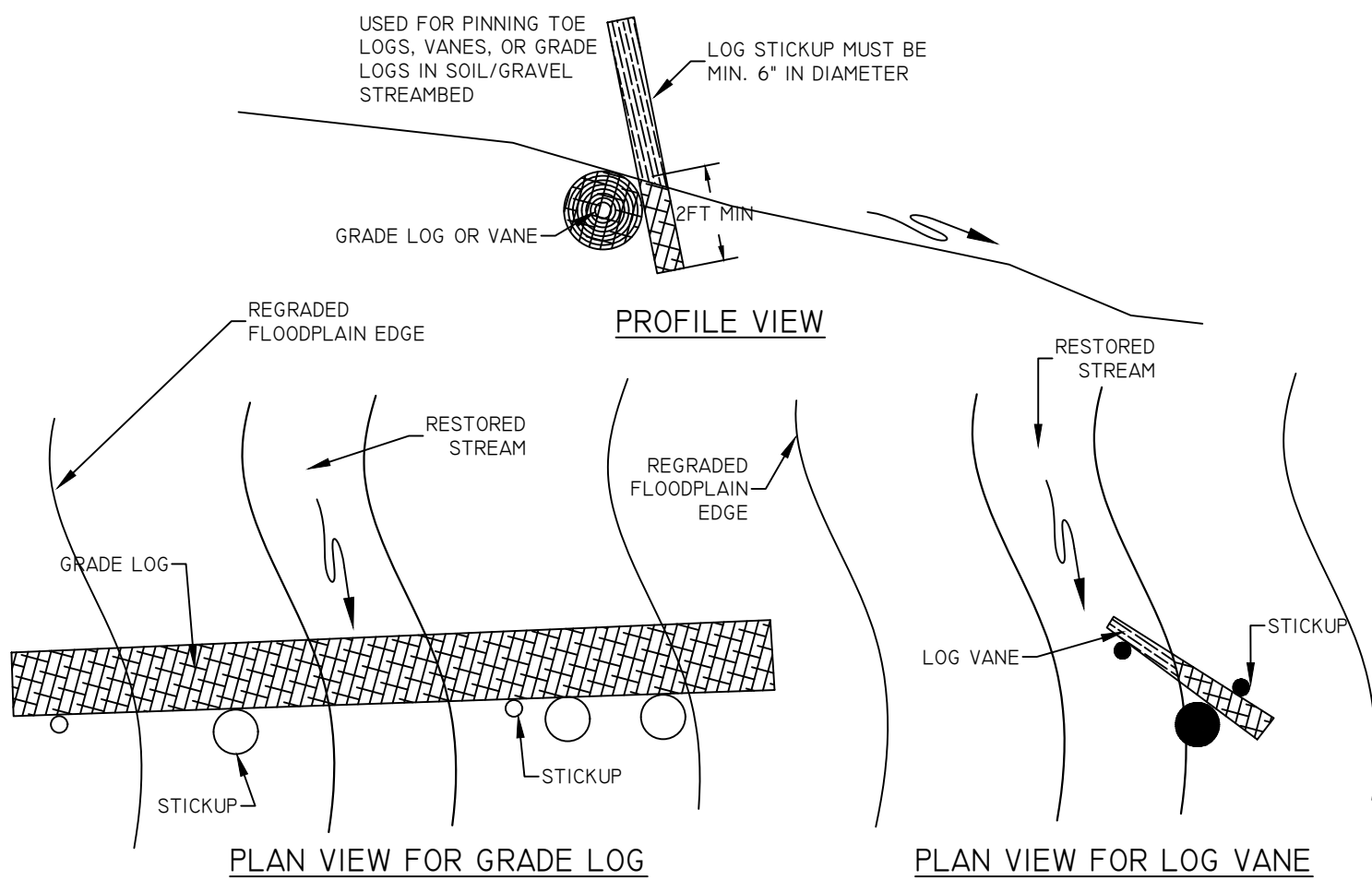
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
TELEPHONE: (412) 249-2440
WWW.RES.US
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLAN

PROPOSED CROSS SECTIONS

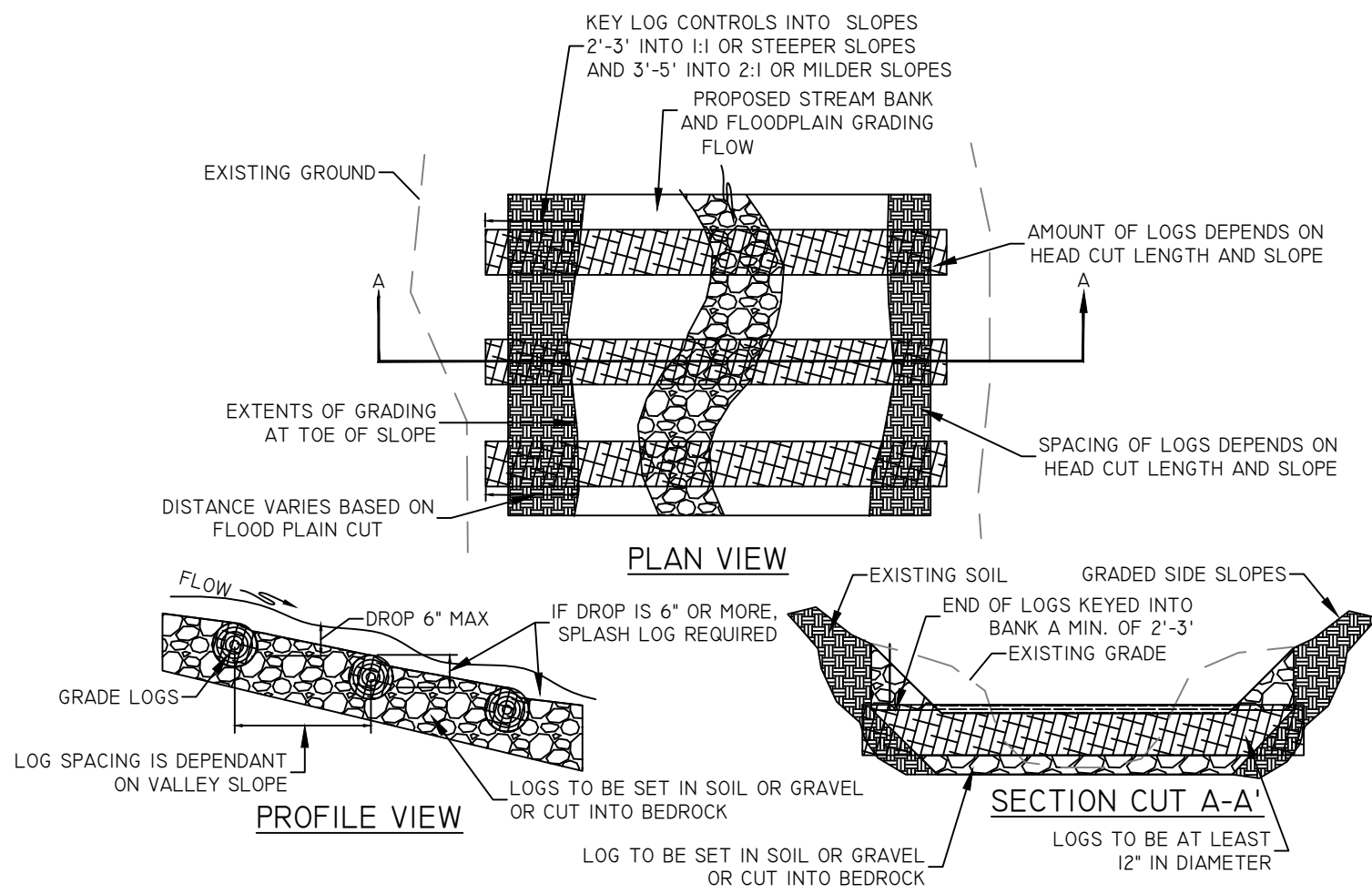
DRAWN BY:	JE	PENNSYLVANIA
CHECKED BY:	RD	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 7, 2020	FILE NO: 100182





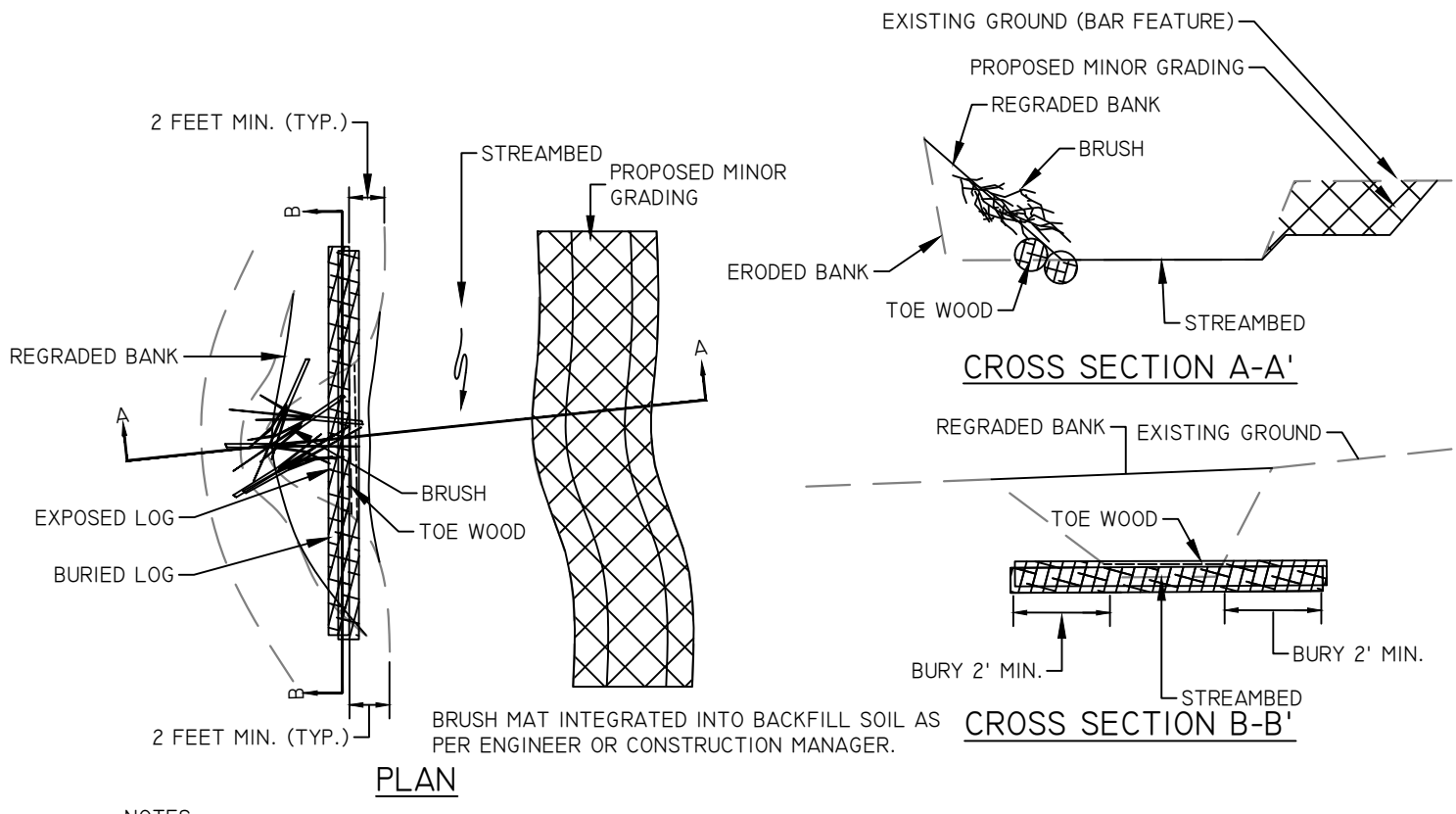
RE-1
C800

LOG STICK-UPS
NOT TO SCALE



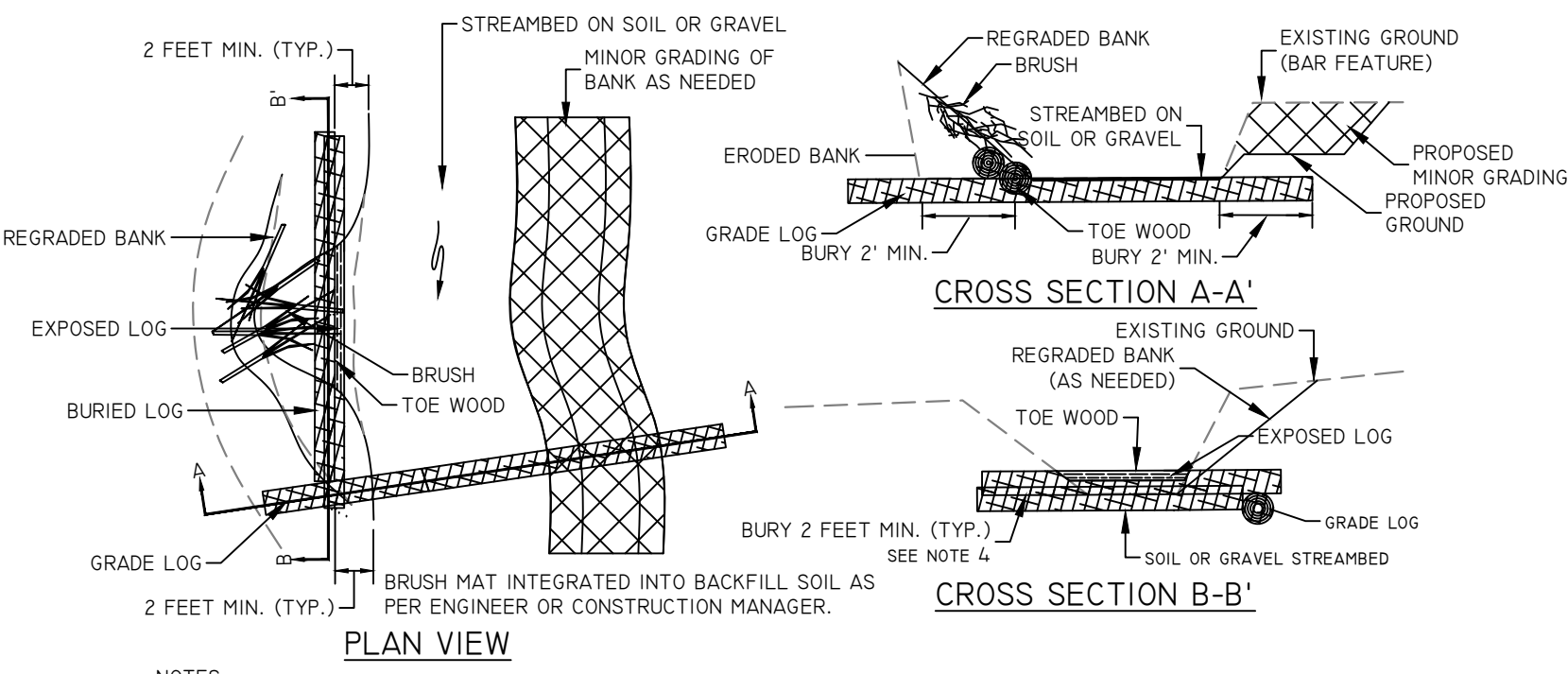
RE-2
C800

GRADE LOG
NOT TO SCALE



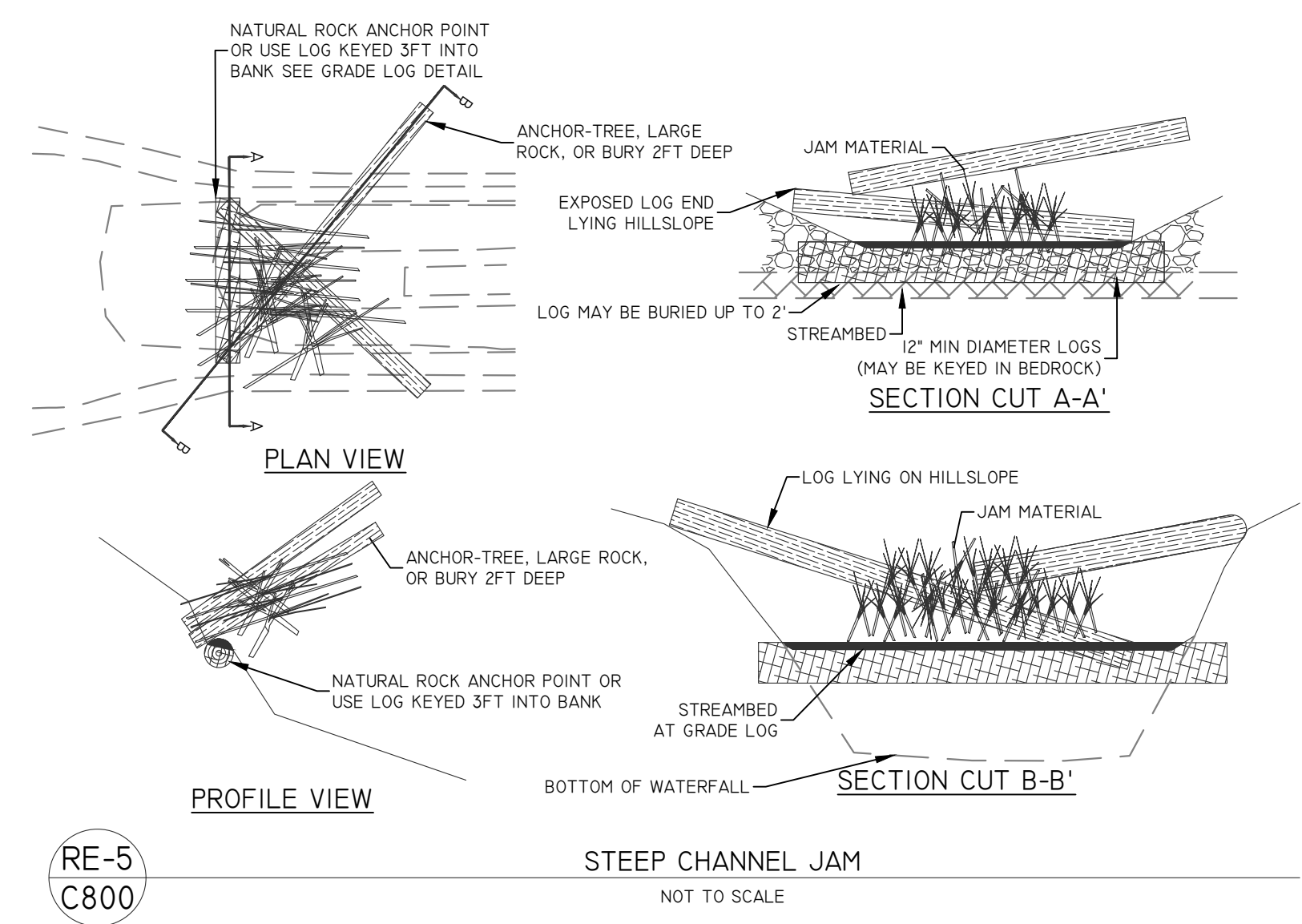
RE-3
C800

TOE WOOD
NOT TO SCALE



RE-4
C800

TOE WOOD WITH GRADE LOG
NOT TO SCALE



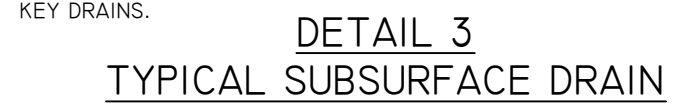
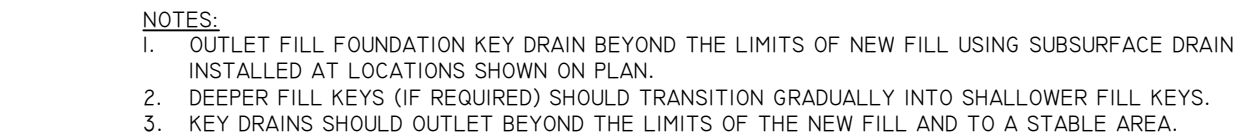
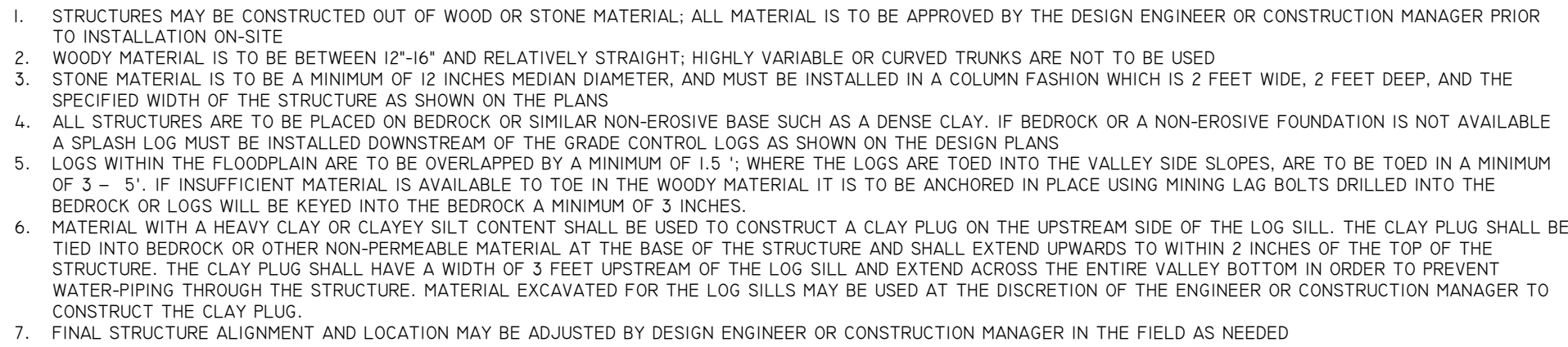
RE-5
C800

STEEP CHANNEL JAM
NOT TO SCALE

REVISIONS				LEGEND		NOTES		SEAL	SCALE		RESOURCE ENVIRONMENTAL SOLUTIONS			
NO.	DESCRIPTION	DATE	BY			GENERAL NOTES THAT SHOULD BE CONSIDERED FOR ALL TYPICAL REHABILITATION DETAILS:					33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US			
						1. ENGINEER OR CONSTRUCTION MANAGER WILL ADJUST THE LOCATION AND TYPE OF DETAIL TO SUIT SITE CONDITIONS IF NECESSARY.					TELEPHONE: (412) 249-2440			
						2. DETAILS WILL BE ADDED OR COMBINED BY THE ENGINEER OR CONSTRUCTION MANAGER TO ADDRESS UNFORESEEN VARIATIONS IN BEDROCK, SOIL CONDITIONS, AND/OR SUPPLY OF NATURAL MATERIALS OR TO MEET APPLICABLE PASSAGE REQUIREMENTS FOR AQUATIC ORGANISMS.					EMAIL: DCOSTA@RES.US			
						3. GRADE CONTROL LOGS AND TOE WOOD MAY BE NOTCHED TO OVERLAP LOGS NEAR THE STREAMBANKS.					EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLANS			
						4. EXISTING LARGE LOGS (6" - 24") FALLEN ACROSS THE CHANNEL WILL BE SAVED AND RECYCLED OVER OR WITHIN THE REHABILITATED CHANNEL IF POSSIBLE.					REHABILITATION DETAILS			
						5. MINOR LOCAL GRADING MAY BE NECESSARY TO:					DRAWN BY: MC			
						5.1. REMOVE HIGH BARS, BANKS AND BENCHES TO REDIRECT LOW OR HIGH FLOWS AWAY FROM HILLSLOPE					CHECKED BY: RD			
						5.2. RESTORE THE BASE OF ERODED HILLSLOPE TOES USING MATERIAL IN 5.1					APPROVED BY: DC			
						5.3. SHIFT CHANNEL AWAY FROM AN ERODING HILLSIDE					DATE: MARCH 25, 2020			
						5.4. MINOR ADJUSTMENTS OF BEDROCK TO INSTALL LARGE LOGS					SHEET: C800			
						6. ANY CHANGES MADE UNDER #1 OR #2 ABOVE WILL BE SURVEYED IN DURING THE AS-BUILT PROCESS.					FILE NO: 100182			



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Stream Feature Dimension Table		
Feature	Width (ft)	Depth (ft)
Channel	####	####
Pool	####	####

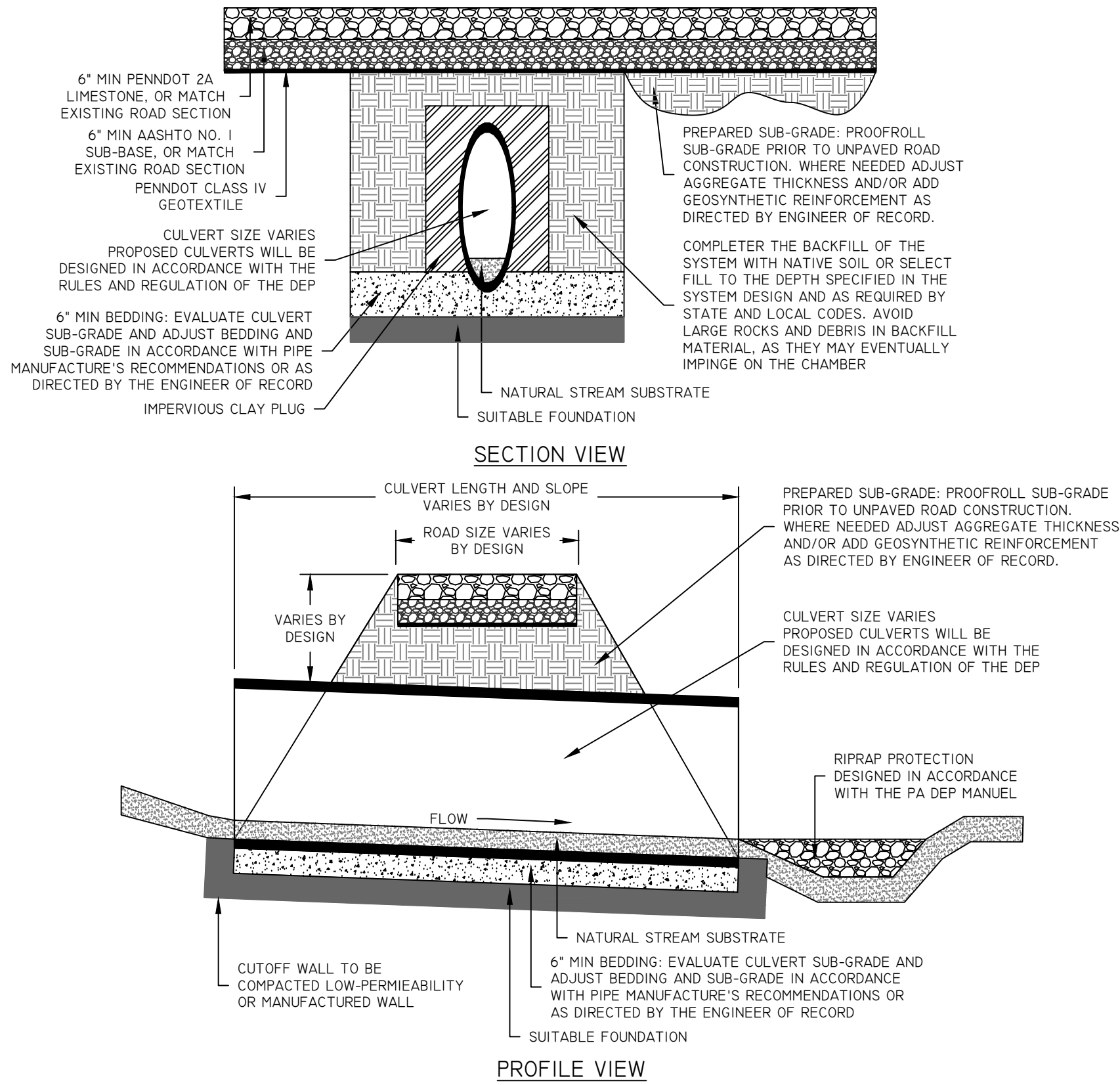
INTEGRATED ROCK DETAIL

NOT TO SCALE

ROCK SIZING MODIFIED FROM PENNDOT PUBLICATION 408						
PERCENT PASSING (SQUARE OPENINGS)						
CLASS, SIZE NO. (NCSA)	R-8**	R7**	R6	R6	R5	R4
ROCK SIZE, INCHES						
42	100*					
30		100*				
24	15-50		100*	100*		
18		15-50			100*	
15	0-15		15-50			
12		0-15		15-50		100*
9					15-50	
6				0-15		15-50
4					0-15	
3						0-15
2						
NOMINAL PLACEMENT THICKNESS, INCHES	36	27	23	18	14	12

PENNDOT PUBLICATION 584			
TABLE 8.11 ALLOWABLE SHEAR STRESSES FOR VARIOUS LININGS			
LINING CATEGORY	LINING TYPE	ALLOWABLE INIT SHEAR STRESS	
		PA	LB/SQ.FT.
UNLINED - EASILY ERODID SOILS (1)	SILTS, FINE-MEDIUM SANDS	1.4	0.03
	COARSE SANDS	1.9	0.04
	VERY COARSE SANDS	2.4	0.05
	FINE GRAVEL	4.8	0.1
UNLINED - EROSION RESISTANT SLILS (2)	CLAY LOAM	12	0.25
	SILTY CLAY LOAM	8.6	0.18
	SANDY CLAY LOAM	4.8	0.1
	LOAM	3.4	0.07
	SILT LOAM	5.7	0.12
	SANDY LOAM	1	0.02
	GRAVELLY, STONY, CHANNERY LOAM	2.4	0.05
	STONY OR CHANNERY SILT LOAM	3.4	0.07
	CLASS A	177.2	3.7
NON-REINFORCED VEGETATION	CLASS B	100.6	2.1
	CLASS C	47.9	1
	CLASS D	28.7	0.6
	CLASS E	16.8	0.35
	MULCH CONTROL NETTING (3)		
TEMPORARY RECP'S (3/4)	NETLESS ROLLED EROSION CONTROL BLANKET (5)		
	OPEN WEAVE TEXTILE		
	SINGLE-NET EROSION CONTROL BLANKET		
	DOUBLE-NET EROSION CONTROL BLANKET		
PERMANENT RECP'S (3/4)	TURF REINFORCEMENT MAT - TYPE 5 A	288	6
	TURF REINFORCEMENT MAT - TYPE 5 B	384	8
	TURF REINFORCEMENT MAT - TYPE 5 C	480	10
RIPRAP LINIG	R-3	48	1
	R-4	96	2
	R-5	144	3
	R-6	192	4
	R-7	240	5
	R-8	384	8
	GABION - 305 mm (12 in)	225	4.7
	GABION - 457 mm (18 in)	249	5.2
	GABION - 914 mm (36 in)	397	8.3
	RENO MATTRESS - 152 mm (6 in)	206	4.3
	RENO MATTRESS - 229 mm (9 in)	220	4.6
	1 SOILS HAVING AN ERODIBILITY K FACTOR GREATER THAN 0.37		
	2 SOILS HAVING AN ERODIBILITY K FACTOR LESS THAN OR EQUAL TO 0.37		
CATEGORIES ARE BASED ON FHWA CLASSIFICATION SYSTEM FOR RECP'S			
4 THE DIFFERENCE BETWEEN THE THREE TYPES OF TRM'S IS THE MINIMUM TENSILE STRENGTH			
5 FEW, IF ANY, OF THESE ARE APPROVED FOR PENNDOT USE			

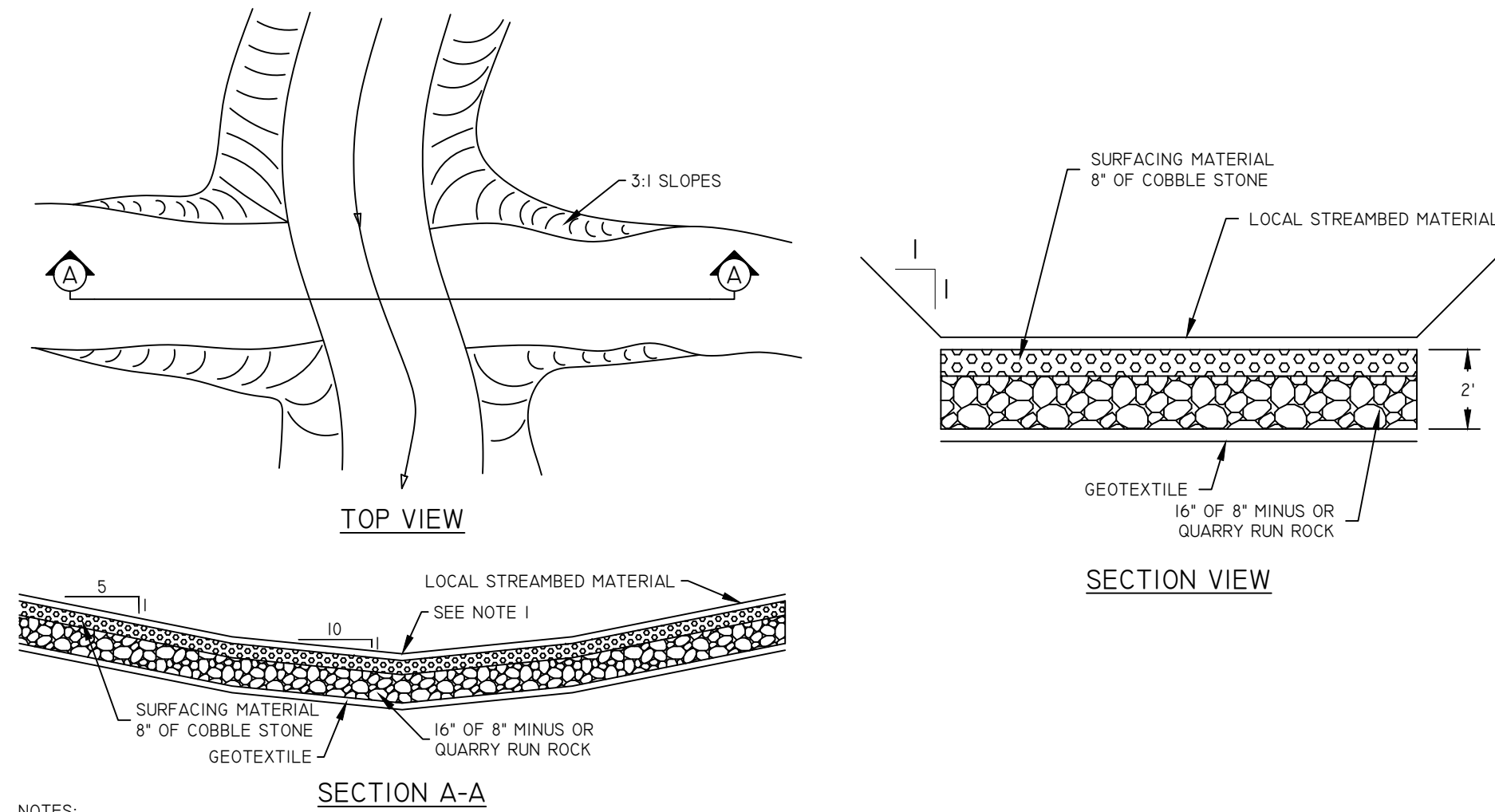
[illegible]



- NOTES:
1. THE CONTRACTOR SHALL STRICTLY ADHERE TO THE PREPARED EROSION AND SEDIMENT CONTROL PLAN.
 2. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT IF REQUIRED, AND COMPACTION.
 3. REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
 4. PLACE TOPSOIL OVER THE SUB-GRADE OF UNPAVED, EROSION AND SEDIMENTATION AREAS TO A DEPTH OF 6" MINIMUM.
 5. ALL SLOPES SHALL BE 2:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
 6. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL PLAN, UNLESS NOTED OTHERWISE.

C-4
C802

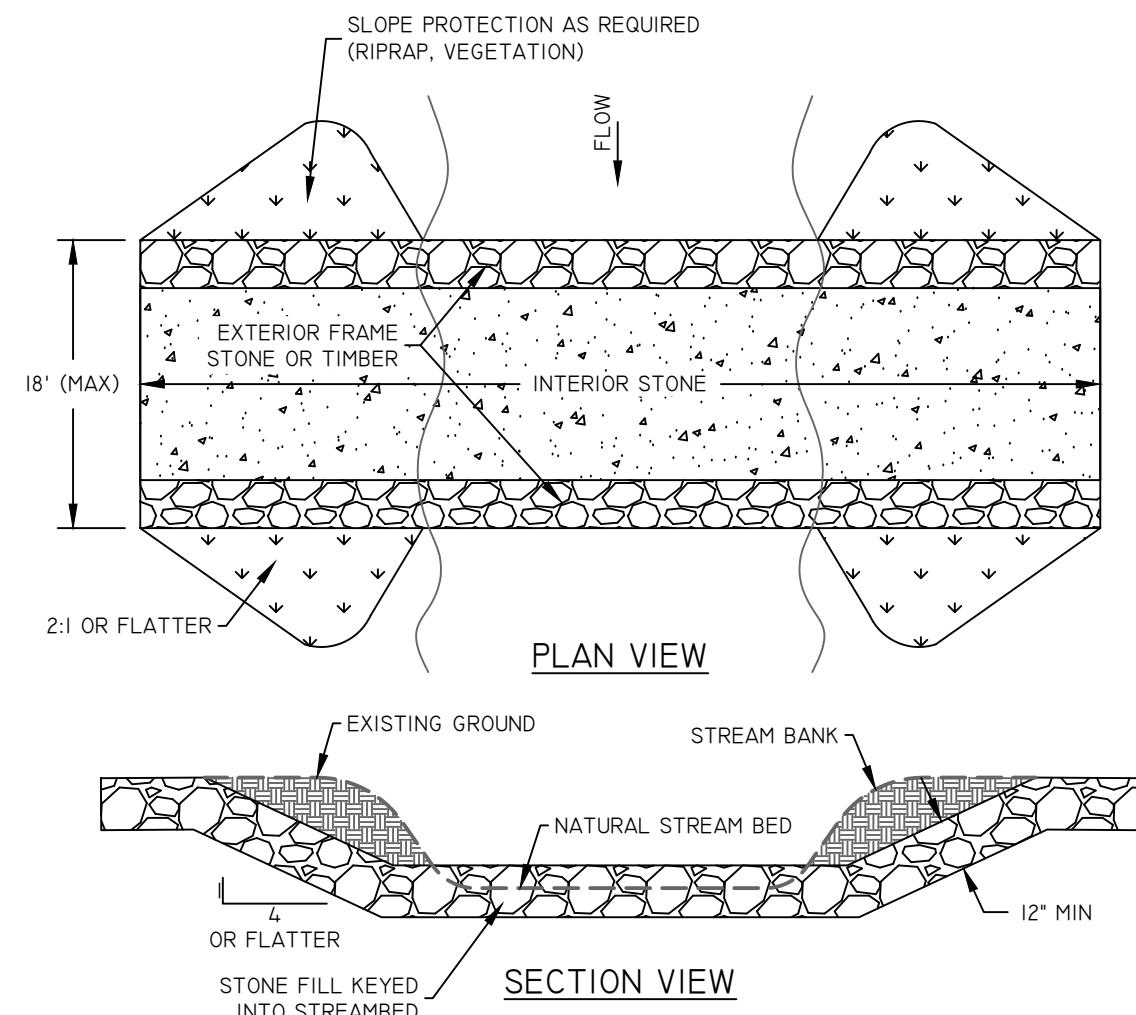
CULVERT ROAD CROSSING
NOT TO SCALE



- NOTES:
- 1) THIS STANDARD DRAWING REQUIRES SUPPORTING TECHNICAL DOCUMENTATION PRIOR TO USE AND MUST BE ADAPTED TO THE SPECIFIC SITE.

C-5
C802

FORD CROSSING
NOT TO SCALE



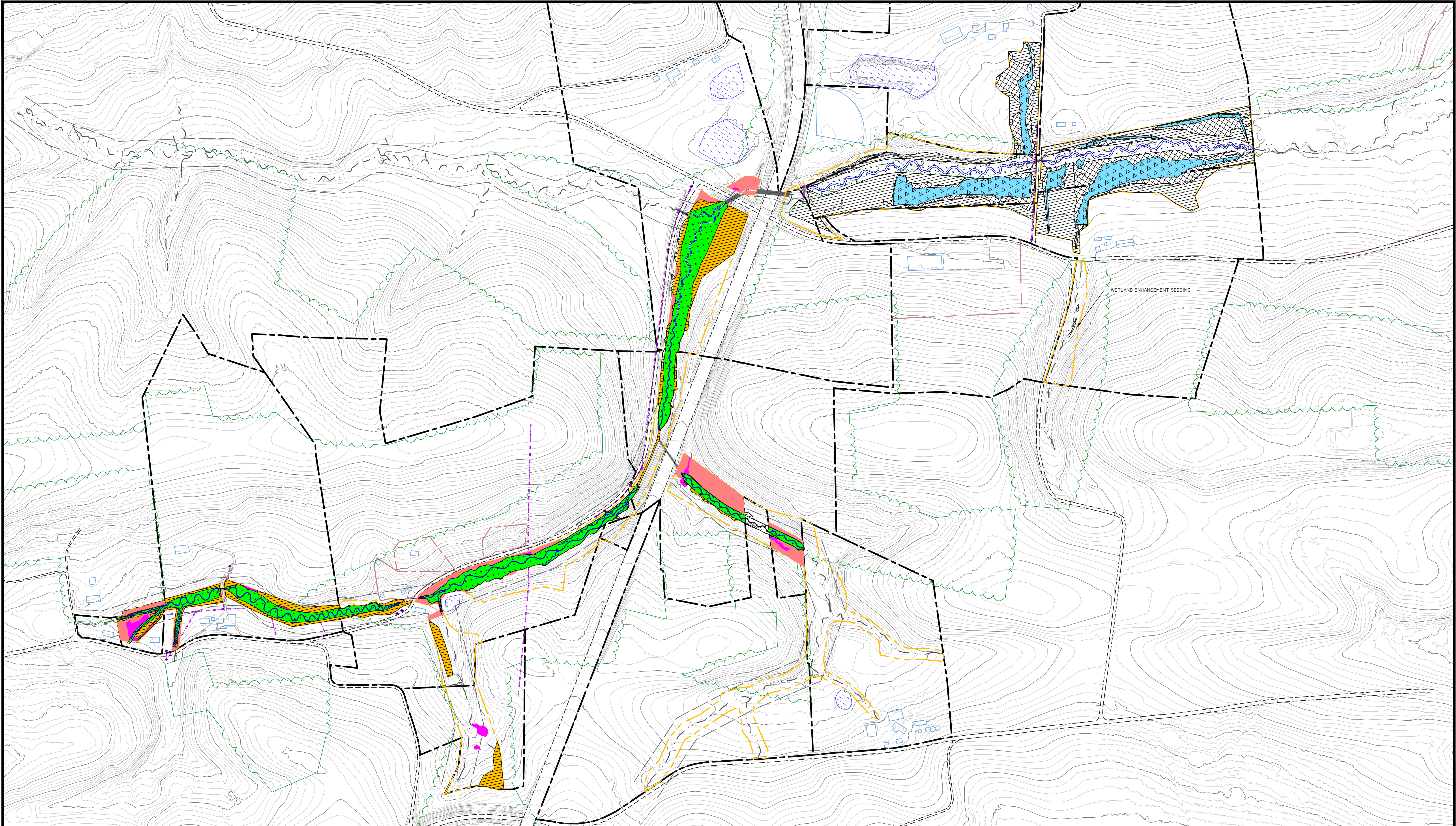
- NOTES:
1. THIS CROSSING IS TO BE USED ON STREAMS WITH A SLOPE OF LESS THAN 1%.
 2. ALL SPOIL SHALL BE DISPOSED OUTSIDE OF THE FLOODWAY AND WETLANDS (SEE CONDITION 13 (I)).
 3. DEPTH OF STONE FILL ABOVE NATURAL STREAMBED SHALL NOT EXCEED 12 INCHES (SEE CONDITION 13 (Q)).
 4. NO.4 OR 5 STONE IS TO BE USED AS THE INTERIOR STONE.
 5. NO.2 STONE IS TO BE USED TO FILL ANY SUBSEQUENT VOIDS.
 6. STONE SHALL BE KEYED INTO THE STREAM BANK AND BED (SEE CONDITION 12 (L), (O), AND (P)).
 7. INSTALL FENCING FOR LIVESTOCK USE (SEE CONDITION 13 (I)).

C-5
C802

GP-6 AGRICULTURAL STREAM CROSSING AND RAMPS
LOW GRADIENT GRADE CROSSING
NOT TO SCALE

- A. CROSSINGS OR RAMPS SHALL BE COMPLETED WITHIN 30 DAYS FROM THE START OF ITS CONSTRUCTION. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 5 DAYS.
- B. CONSTRUCTION OF THE CROSSING OR RAMP SHALL NOT ALTER THE NORMAL CHANNEL WIDTH. THE CONFIGURATION OF THE STREAM BANK SHALL REMAIN SUBSTANTIALLY THE SAME AND THE WORK SHALL BLEND WITH ADJACENT UPSTREAM AND DOWNSTREAM BANKS.
- C. EACH AGRICULTURAL CROSSING AND RAMP SHALL BE INSTALLED IN SUCH A WAY THAT IT DOES NOT HINDER RECREATIONAL NAVIGATION NOR INTERFERE WITH THE NORMAL MIGRATION OF FISH.
- D. ONLY CLEAN, NON-POLLUTING, GRANULAR MATERIALS SHALL BE USED AS FILL MATERIAL IN ORDER TO MINIMIZE EXCESSIVE TURBIDITY BY LEACHING OF FINES AS WELL AS TO PRECLUDE THE ENTRANCE OF POTENTIALLY POLLUTED MATERIALS TO THE WATERCOURSE BY NATURAL RUNOFF.
- E. SLAG MAY NOT BE USED AS A SUBSTITUTE FOR STONE.
- F. DREDGED OR EXCAVATED MATERIALS MAY NOT BE DEPOSITED IN WETLANDS OR WITHIN THE LIMITS OF THE FLOODWAY OR ANY AREA AFFECTED BY FLOODS.
- G. CROSSINGS AND RAMPS SHALL BE INSTALLED AT A RIGHT ANGLE TO THE STREAM FLOW.
- H. CROSSINGS AND RAMPS MUST BE KEYED INTO THE STREAM BANK(S) OR BED WHICH MAY BE ACCOMPLISHED BY TRENCHING OR BY MACHINE WEIGHT RUNNING ON THE STONE FILL.
- I. CROSSINGS AND RAMPS SHOULD BE NO STEEPER THAN 4:1.
- J. SKIDDING OF TIMBER ACROSS RAMPS AND CROSSINGS IS PROHIBITED.
- K. INTERIOR STONE FOR CROSSINGS AND RAMPS SHALL BE OF A DIAMETER TO FILL THE VOIDS THAT WILL ENCOURAGE LIVESTOCK USE.
- L. EXTERIOR FRAME STONE FOR CROSSINGS AND RAMPS SHALL BE OF SUFFICIENT DIAMETER TO RESIST TRANSPORT BY NORMAL HIGH FLOWS AND REQUIRE DEEPER KEYING INTO THE STREAM BANK OR BED.
- M. STONE PLACED FOR AGRICULTURAL CROSSINGS SHALL NOT EXCEED TWELVE (12) INCHES IN HEIGHT ABOVE THE NATURAL STREAMBED.
- N. AGRICULTURAL CROSSINGS AND RAMPS THAT ARE TO BE UTILIZED BY LIVESTOCK SHALL INCLUDE FENCING OR OTHER BARRIERS TO DIRECT THE LIVESTOCK TO THE CROSSING OR RAMP AND TO CONTROL THE MOVEMENT WITHIN THE CROSSING OR RAMP.

REVISIONS				LEGEND	NOTES	SEAL	SCALE	RESOURCE ENVIRONMENTAL SOLUTIONS			
NO.	DESCRIPTION	DATE	BY					33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US			
								TELEPHONE: (412) 249-2440			
								EAST BRANCH CODORUS CREEK MITIGATION BANK DESIGN PLANS			
								CONSTRUCTION DETAILS			
								DRAWN BY: MC			
								CHECKED BY: RD			
								APPROVED BY: DC			
								DATE: MARCH 25, 2020			
								SHEET: C802			
								FILE NO: 100182			



REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - -
SITE PROTECTION BOUNDARY	- - - - -
RESERVED RIGHTS BOUNDARY	- - - - -
EXISTING THALWEG	- - - - -
EXISTING STRUCTURES	- - - - -
ROAD	- - - - -
UTILITY LINE	- - - - -
TREE LINE	- - - - -
EXISTING MAJOR CONTOUR	- - - - -
EXISTING MINOR CONTOUR	- - - - -
EXISTING WATER BODY	- - - - -
UPLAND RESTORATION PLANTING	
UPLAND RESTORATION SEEDING	
UPLAND ENHANCEMENT PLANTING	
WETLAND RESTORATION PLANTING	
WETLAND RESTORATION SEEDING	
WETLAND ENHANCEMENT PLANTING	
WETLAND ENHANCEMENT SEEDING	
LIVE STAKING	
SEDGE MEADOW PLUGS & OPEN WATER/BOG PLANTING	
OPEN WATER/BOG SEEDING	

NOTES

SEAL

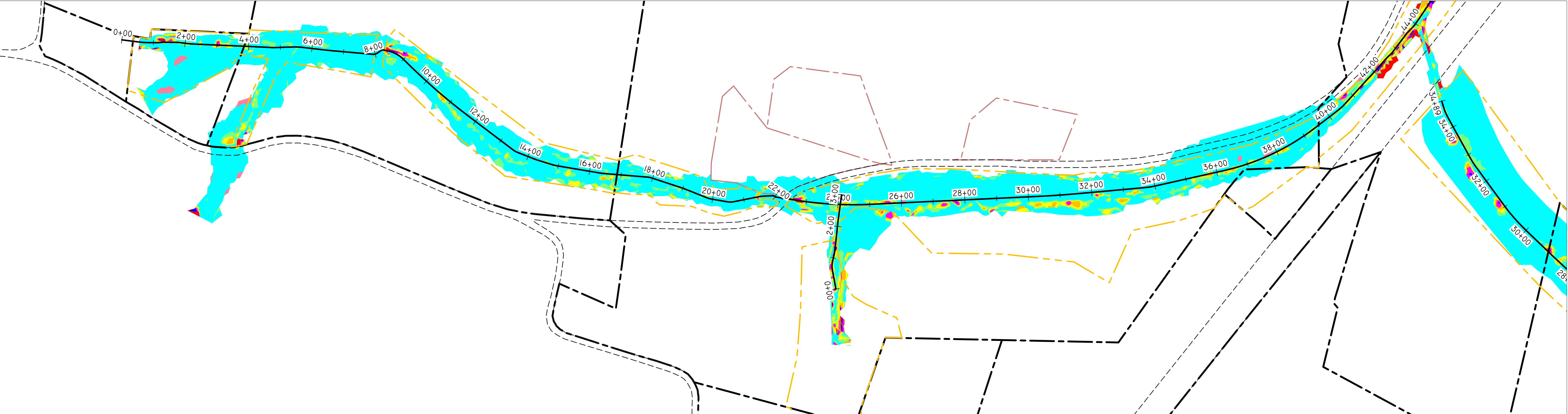
SCALE
0 300 600 1200 Feet
SCALE: 1" = 300'

RESOURCE ENVIRONMENTAL SOLUTIONS
33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

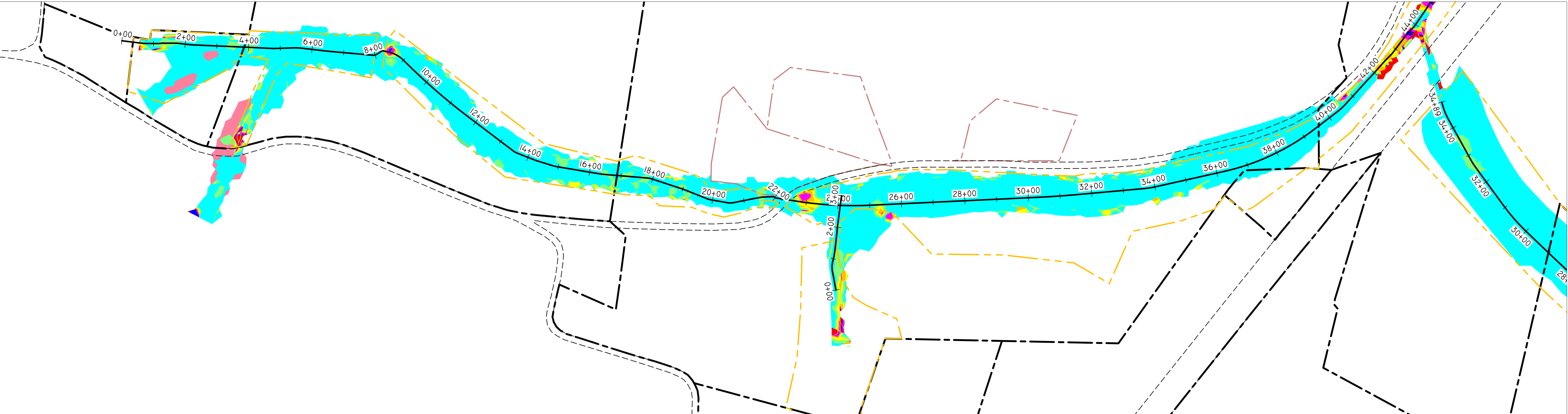
TELEPHONE: (412) 249-2460
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS
SITE RESTORATION PLAN

DRAWN BY:	MC	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY EAST SPRINGFIELD TOWNSHIP
APPROVED BY:	DC	SHEET: C900
DATE:	MARCH 31, 2020	FILE NO: 100482



EXISTING 2 YEAR SHEAR STRESS



PROPOSED 2 YEAR SHEAR STRESS

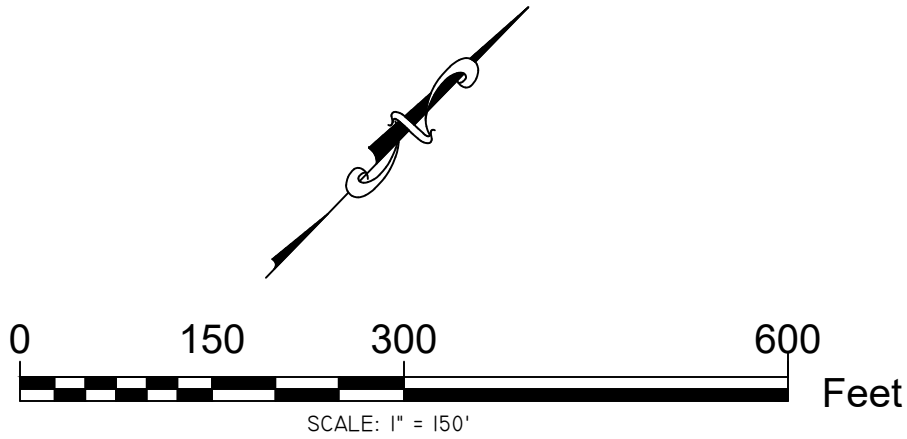
REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ROAD	---
VALLEY BASELINE ALIGNMENT	---

NOTES			
SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Yellow
3	1.000	1.500	Green
4	1.500	2.000	Light Green
5	2.000	2.500	Light Blue
6	2.500	3.000	Blue
7	3.000	3.500	Dark Blue
8	3.500	>3.500	Red

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

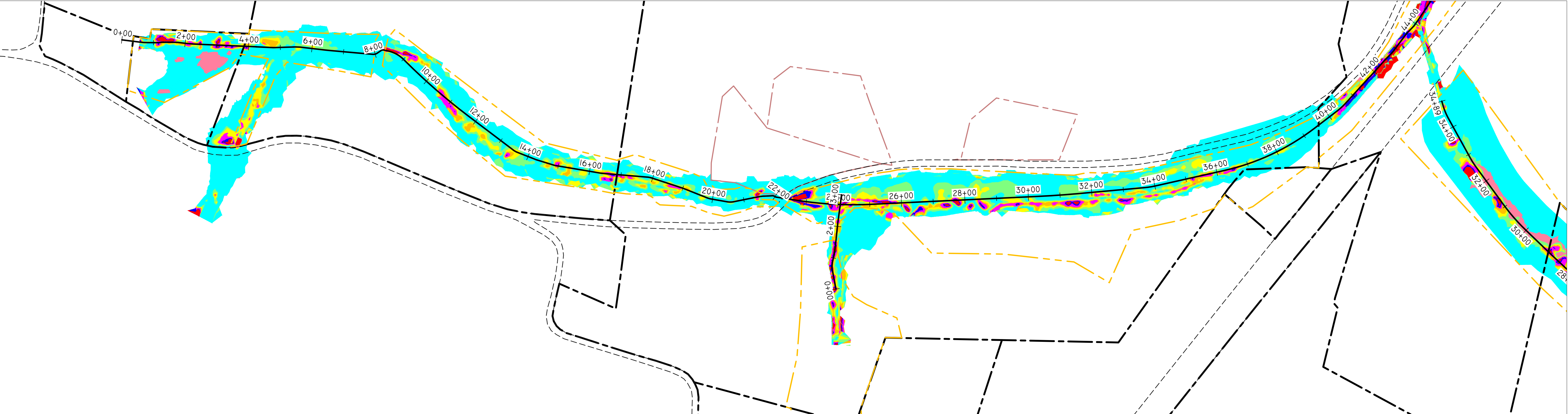
EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

UPPER MAINSTEM: 2 YEAR
MODELED SHEAR STRESS

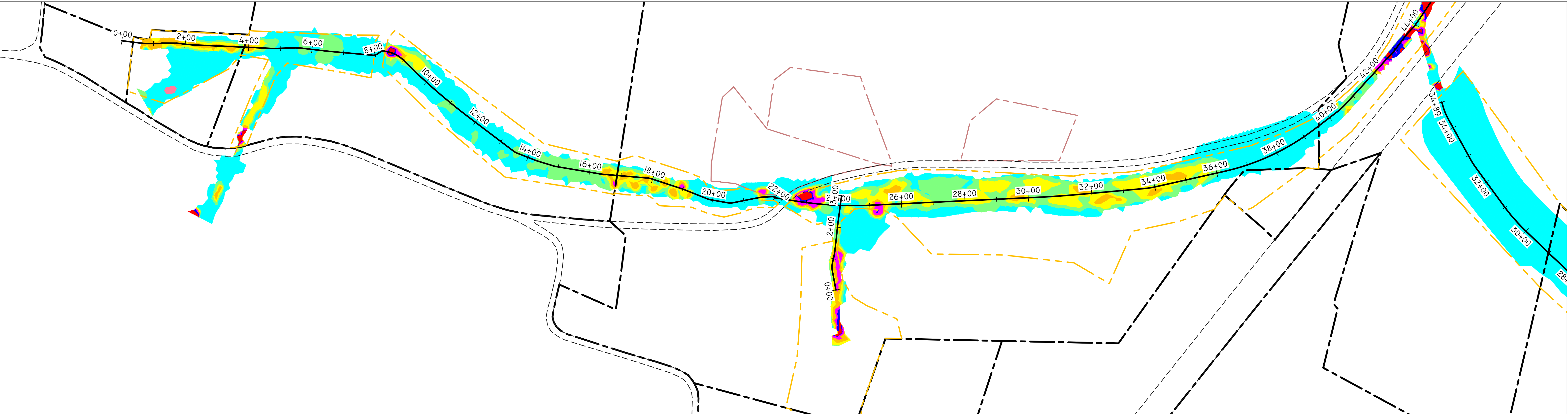
DRAWN BY: ZW
CHECKED BY: DC
APPROVED BY: DC
DATE: APRIL 6, 2020

PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: S100
FILE NO: 100102



EXISTING 10 YEAR SHEAR STRESS



PROPOSED 10 YEAR SHEAR STRESS

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY

ADJACENT PROPERTY BOUNDARY

SITE PROTECTION BOUNDARY

ROAD

VALLEY BASELINE ALIGNMENT

0+00

5+00

NOTES

SHEAR STRESS TABLE

NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Blue
4	1.500	2.000	Green
5	2.000	2.500	Yellow
6	2.500	3.000	Orange
7	3.000	3.500	Red
8	3.500	>3.500	Dark Red

SEAL

SCALE

0

150

300

600

Feet

SCALE: 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

res

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

UPPER MAINSTEM: 10 YEAR
MODELED SHEAR STRESS

DRAWN BY: ZW

CHECKED BY: DC

APPROVED BY: DC

DATE: APRIL 6, 2020

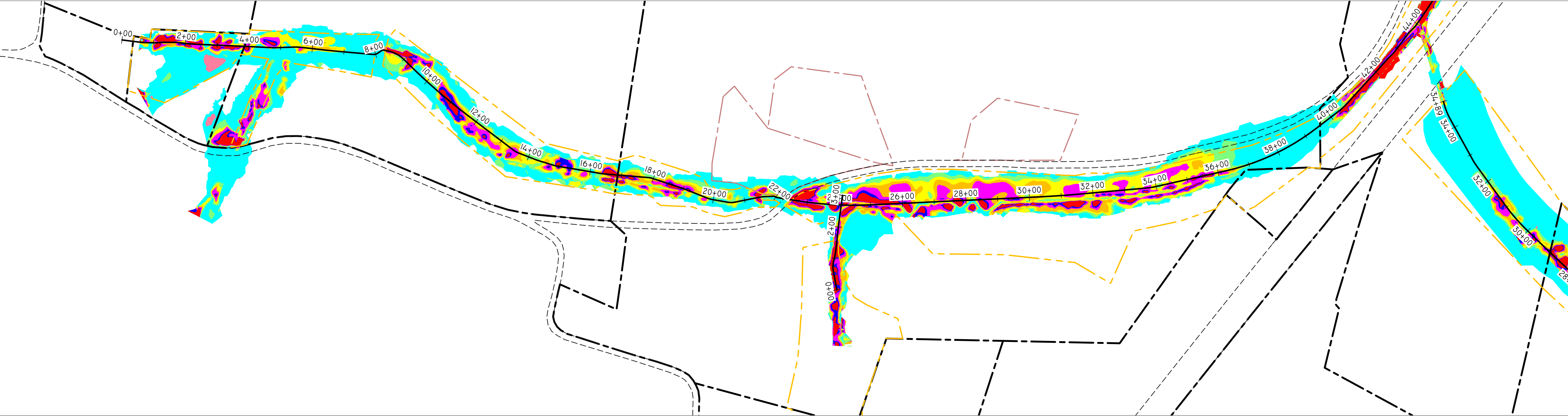
PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: S101

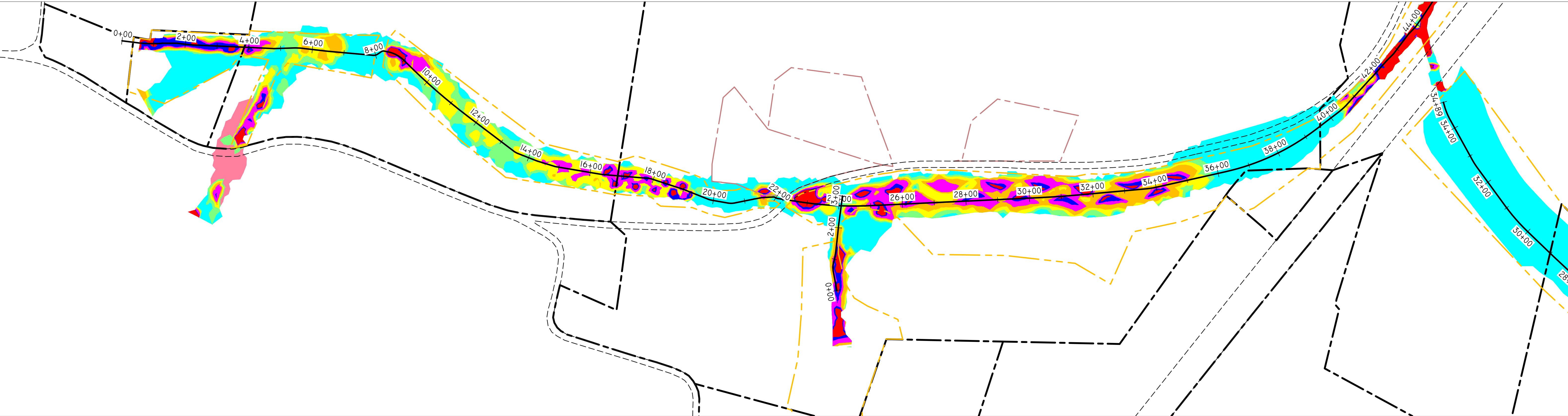
FILE NO: 100182

R:\ESCAD\PROJECTS\100182_EAST BRANCH CODORUS CREEK\DESIGN\DWG\PLANS\SETS

4.31 PM APRIL 20



EXISTING 100 YEAR SHEAR STRESS



PROPOSED 100 YEAR SHEAR STRESS

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY

ADJACENT PROPERTY BOUNDARY

SITE PROTECTION BOUNDARY

ROAD

VALLEY BASELINE ALIGNMENT

0+00

5+00

NOTES

SHEAR STRESS TABLE

NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Blue
4	1.500	2.000	Green
5	2.000	2.500	Yellow
6	2.500	3.000	Orange
7	3.000	3.500	Red
8	3.500	>3.500	Dark Red

SEAL

SCALE

0

150

300

600

Feet

SCALE: 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

res

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

UPPER MAINSTEM: 100 YEAR
MODELED SHEAR STRESS

DRAWN BY: ZW

CHECKED BY: DC

APPROVED BY: DC

DATE: APRIL 6, 2020

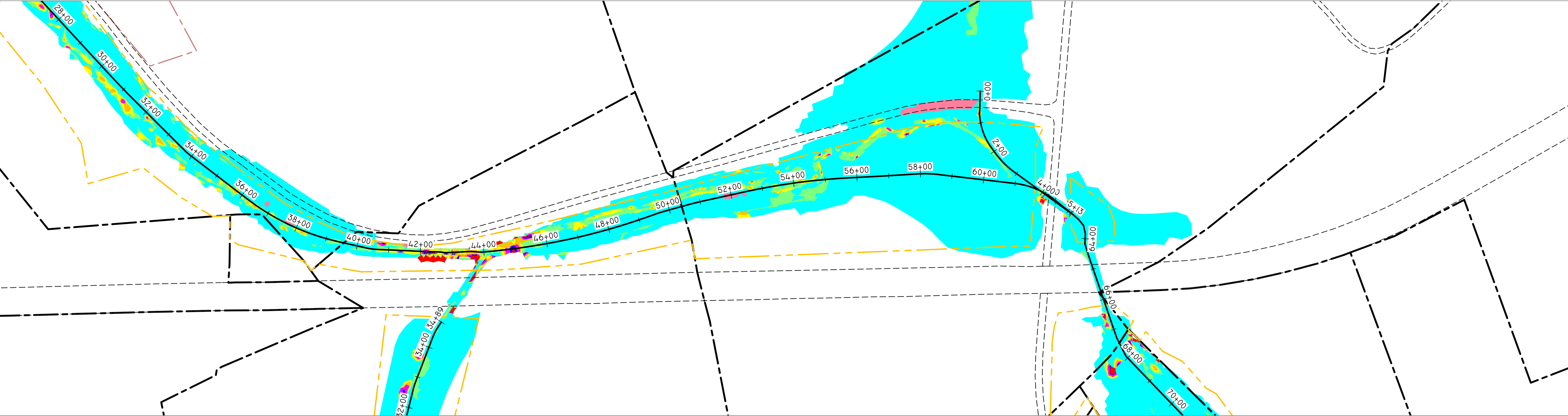
PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: S102

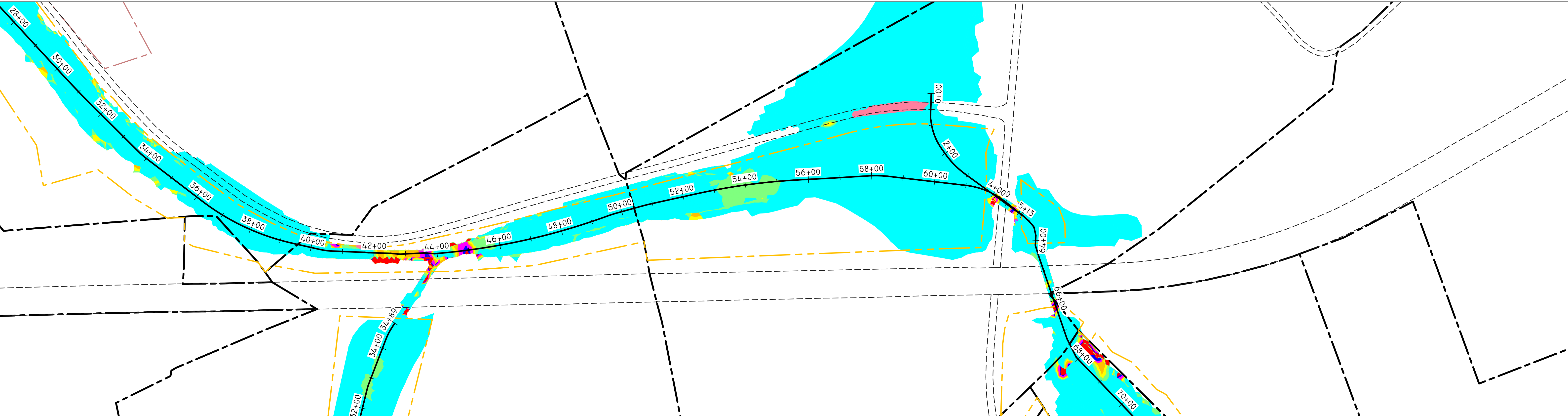
FILE NO: 100182

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4.51 PM APRIL 20



EXISTING 2 YEAR SHEAR STRESS



PROPOSED 2 YEAR SHEAR STRESS

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY

ADJACENT PROPERTY BOUNDARY

SITE PROTECTION BOUNDARY

ROAD

VALLEY BASELINE ALIGNMENT

0+00

5+00

NOTES

SHEAR STRESS TABLE

NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Pink
2	0.500	1.000	Light Blue
3	1.000	1.500	Light Green
4	1.500	2.000	Yellow
5	2.000	2.500	Orange
6	2.500	3.000	Red-Orange
7	3.000	3.500	Red
8	3.500	>3.500	Dark Red

SEAL

SCALE

0

150

300

600

Feet

SCALE: 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

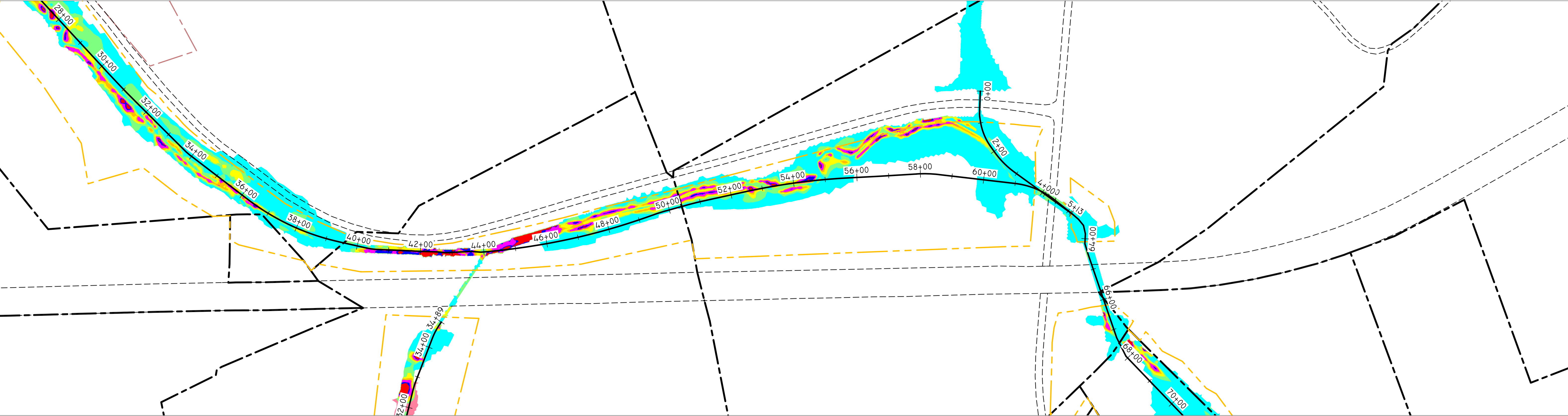
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EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

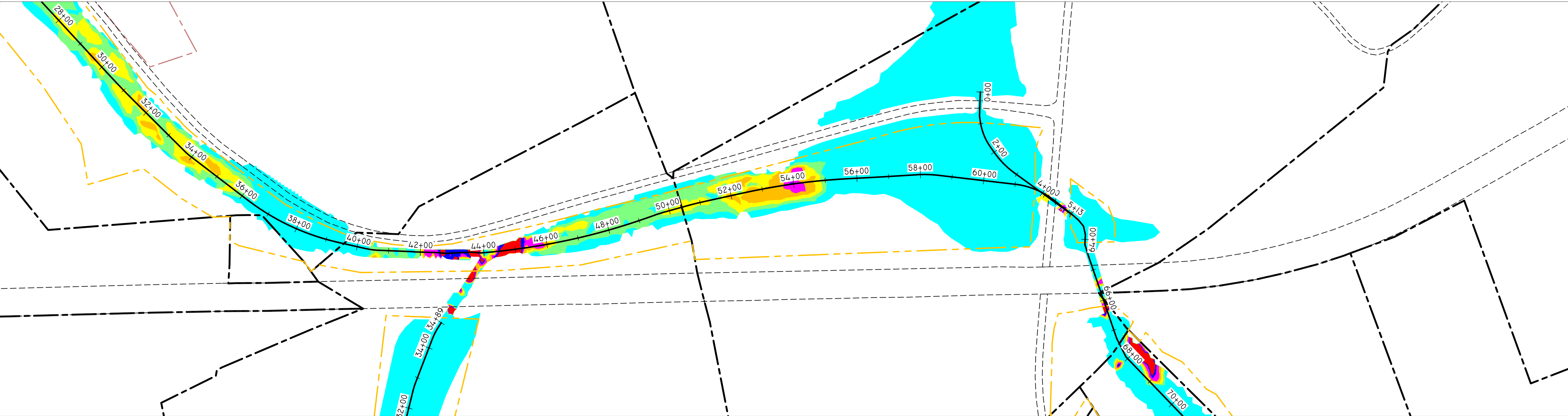
MIDDLE MAINSTEM: 2 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	FILE NO: 100102

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EXISTING 10 YEAR SHEAR STRESS

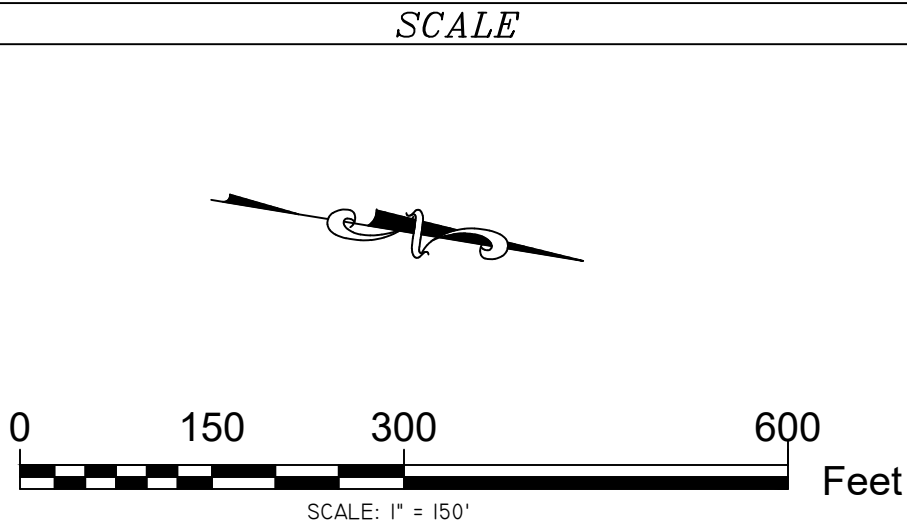


PROPOSED 10 YEAR SHEAR STRESS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	- - -
SITE PROTECTION BOUNDARY	---
ROAD	---
VALLEY BASELINE ALIGNMENT	---

SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Yellow
4	1.500	2.000	Orange
5	2.000	2.500	Red-Orange
6	2.500	3.000	Red
7	3.000	3.500	Dark Red
8	3.500	>3.500	Black



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

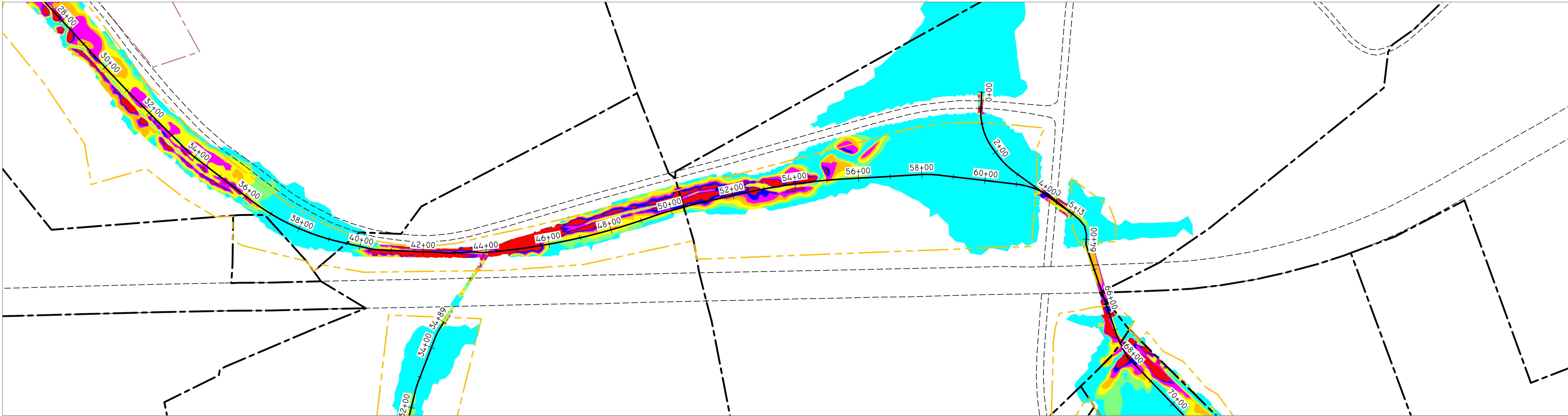
EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

MIDDLE MAINSTEM: 10 YEAR
MODELED SHEAR STRESS

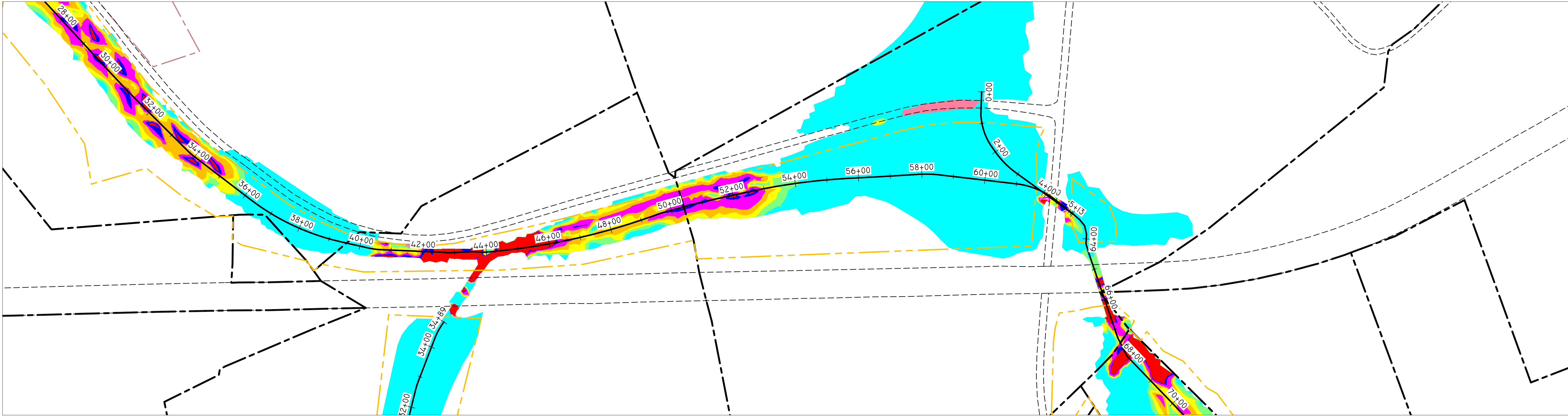
DRAWN BY: ZW
CHECKED BY: DC
APPROVED BY: DC
DATE: APRIL 6, 2020

PENNSYLVANIA
YORK COUNTY
EAST SPRINGFIELD TOWNSHIP

SHEET: S104
FILE NO: 100102



EXISTING 100 YEAR SHEAR STRESS



PROPOSED 100 YEAR SHEAR STRESS

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

PROPERTY BOUNDARY

ADJACENT PROPERTY BOUNDARY

SITE PROTECTION BOUNDARY

ROAD

VALLEY BASELINE ALIGNMENT

0+00

5+00

NOTES

SHEAR STRESS TABLE

NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Yellow
4	1.500	2.000	Orange
5	2.000	2.500	Red
6	2.500	3.000	Dark Red
7	3.000	3.500	Dark Blue
8	3.500	>3.500	Red

SEAL

SCALE

0

150

300

600

Feet

SCALE: 1" = 150'

RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

res

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

MIDDLE MAINSTEM: 100 YEAR
MODELED SHEAR STRESS

DRAWN BY: ZW

CHECKED BY: DC

APPROVED BY: DC

DATE: APRIL 6, 2020

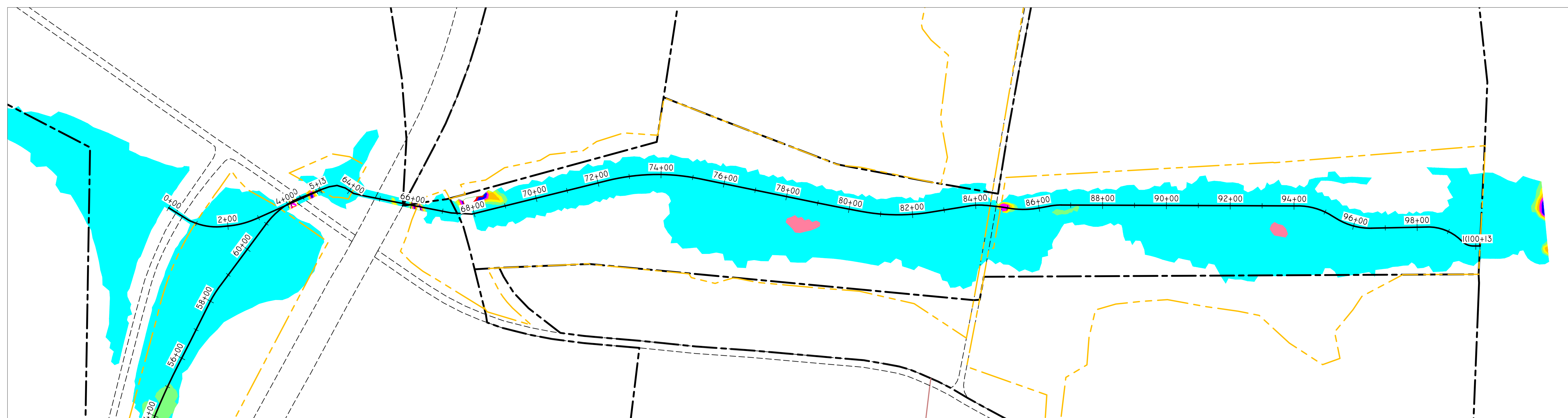
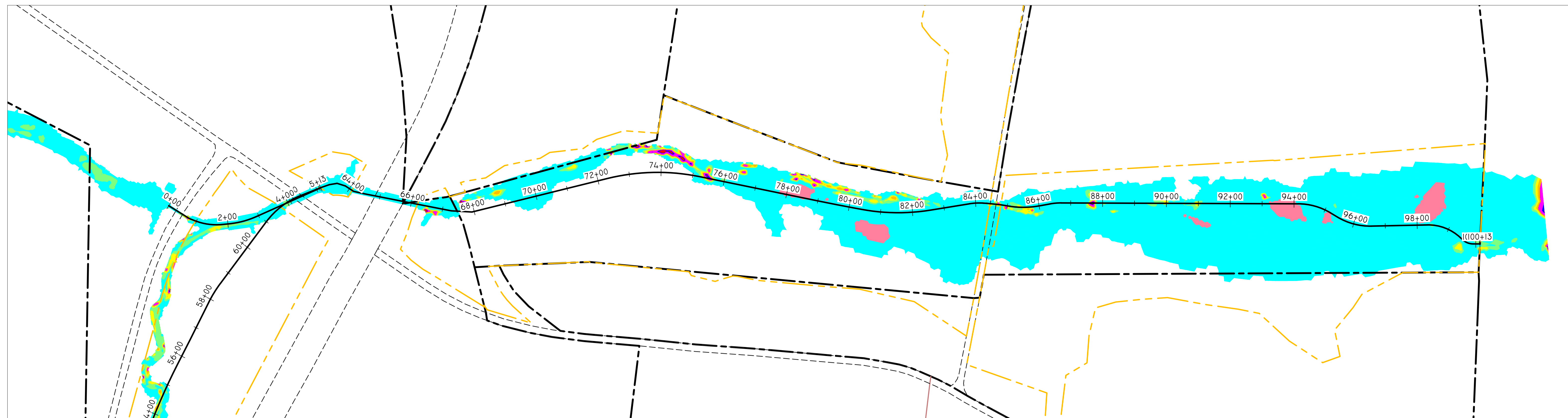
YORK COUNTY

EAST SPRINGFIELD TOWNSHIP

FILE NO: 100182

S105

R:\ESCAP\PROJECTS\100182_EAST BRANCH CODORUS CREEK\DESIGN\DWG\PLANS\SETS 4.51 PM APRIL 20



REVISIONS

[illegible]

LEGEND

PROPERTY BOUNDARY

ADJACENT PROPERTY BOUNDARY

SITE PROTECTION BOUNDARY

ROAD

VALLEY BASELINE ALIGNMENT

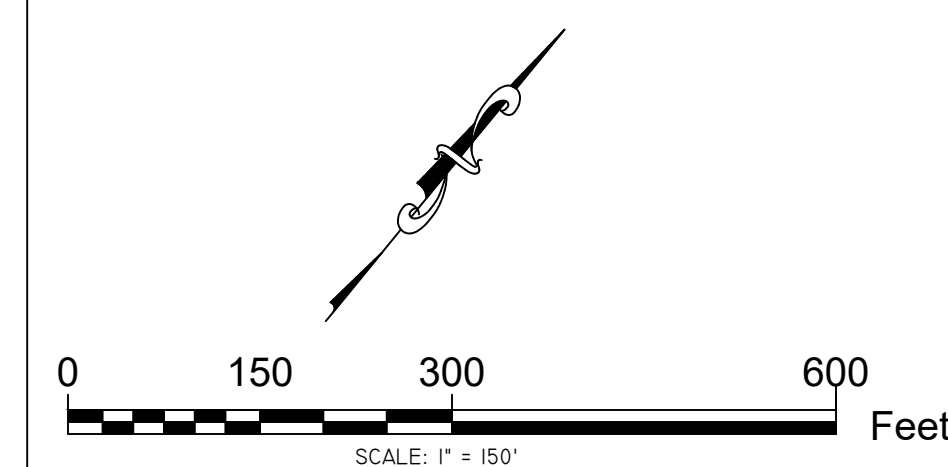
0+00 S+1

NOTES

SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Magenta
3	1.000	1.500	Green
4	1.500	2.000	Yellow
5	2.000	2.500	Orange
6	2.500	3.000	Pink
7	3.000	3.500	Blue
8	3.500	3.500	Red

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

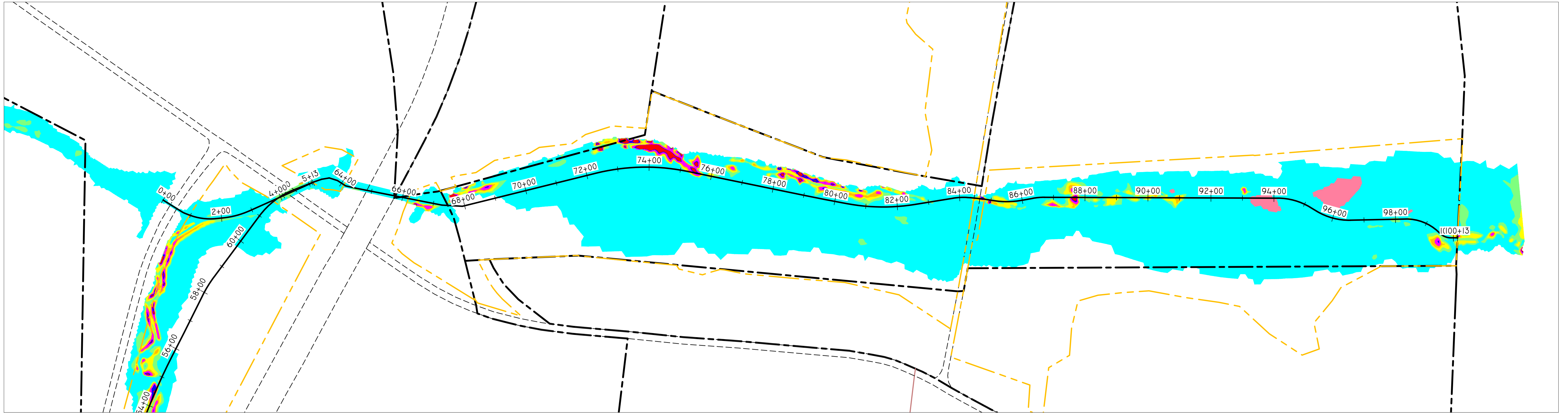
EMAIL: DCOSTA@RES.US



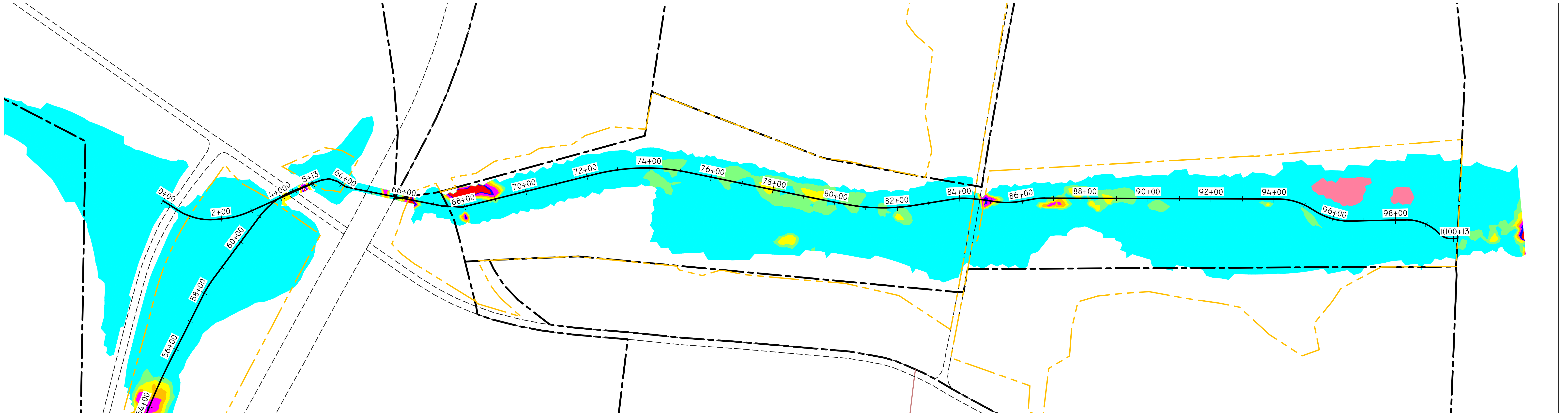
EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

LOWER MAINSTEM: 2 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA	
CHECKED BY:	DC	YORK COUNTY	EAST SPRINGFIELD TOWN
APPROVED BY:	DC	SHEET:	FILE NO:
DATE:	APRIL 6, 2020	S106	100182



EXISTING 10 YEAR SHEAR STRESS



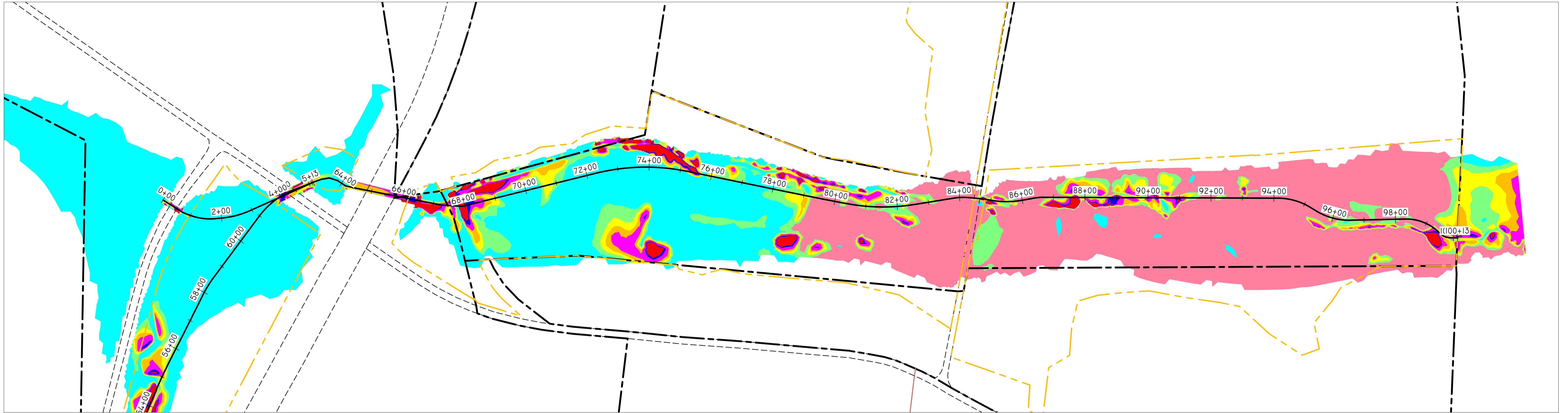
PROPOSED 10 YEAR SHEAR STRESS

REVISIONS				LEGEND		NOTES				SEAL		SCALE		RESOURCE ENVIRONMENTAL SOLUTIONS			
NO.	DESCRIPTION	DATE	BY														
				PROPERTY BOUNDARY										33 TERMINAL WAY, SUITE W445A PITTSBURGH PA 15219 WWW.RES.US			
				ADJACENT PROPERTY BOUNDARY										TELEPHONE: (412) 249-2440 EMAIL: DCOSTA@RES.US			
				SITE PROTECTION BOUNDARY										PENNSYLVANIA YORK COUNTY EAST SPRINGFIELD TOWNSHIP			
				ROAD										DRAWN BY: ZW CHECKED BY: DC APPROVED BY: DC DATE: APRIL 6, 2020			
				VALLEY BASELINE ALIGNMENT										SHEET: S107 FILE NO: 100182			

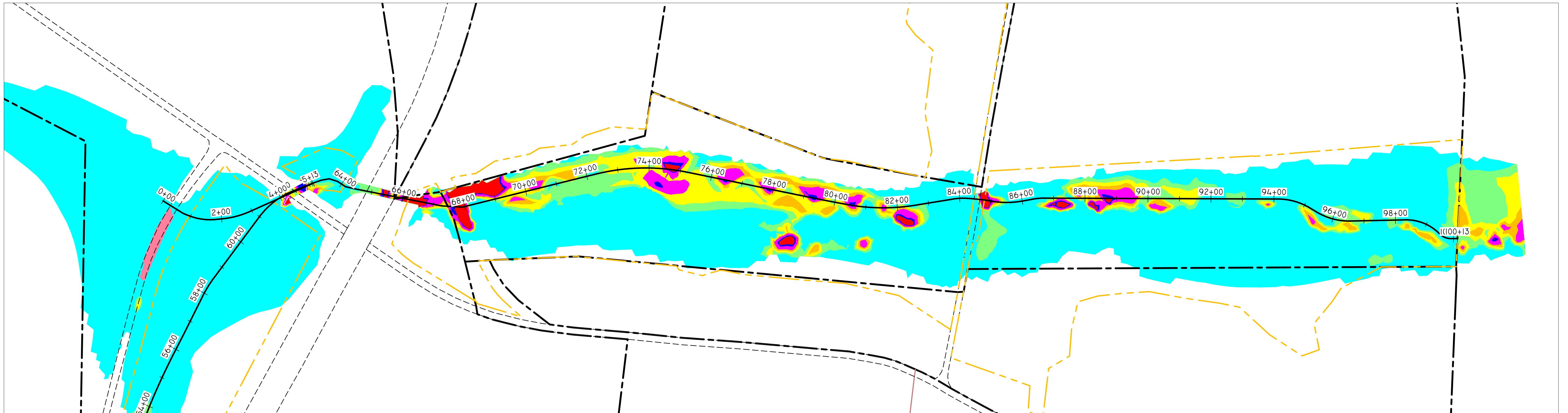
SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Yellow
3	1.000	1.500	Orange
4	1.500	2.000	Red
5	2.000	2.500	Dark Red
6	2.500	3.000	Purple
7	3.000	3.500	Dark Blue
8	3.500	>3.500	Red

0 150 300 600 Feet
SCALE: 1" = 150'

res



EXISTING 100 YEAR SHEAR STRESS



PROPOSED 100 YEAR SHEAR STRESS

REVISIONS

NO.	DESCRIPTION	DATE	BY

LEGEND

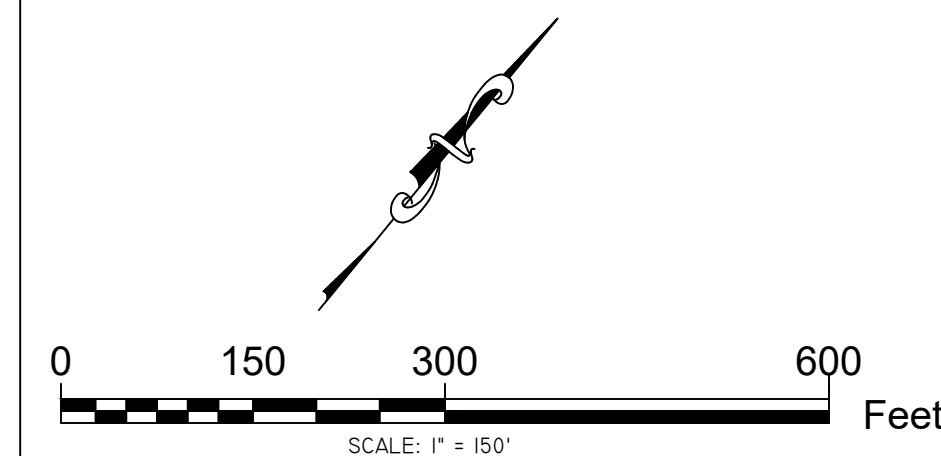
PROPERTY BOUNDARY
ADJACENT PROPERTY BOUNDARY
SITE PROTECTION BOUNDARY
ROAD
VALLEY BASELINE ALIGNMENT

NOTES

SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Blue
4	1.500	2.000	Green
5	2.000	2.500	Yellow
6	2.500	3.000	Orange
7	3.000	3.500	Red
8	3.500	>3.500	Dark Red

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W45A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

res

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

LOWER MAINSTEM: 100 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	FILE NO: 100182

SHEET: S108



EXISTING 2 YEAR SHEAR STRESS



PROPOSED 2 YEAR SHEAR STRESS

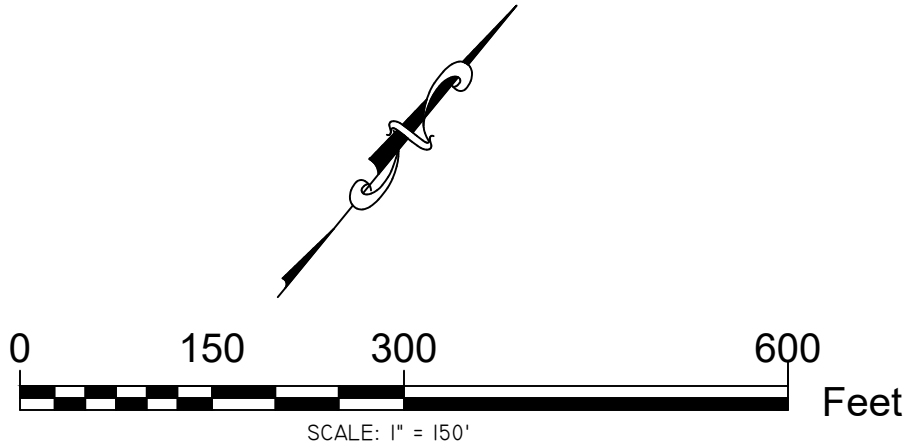
REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ROAD	---
VALLEY BASELINE ALIGNMENT	---

NOTES			
SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Blue
2	0.500	1.000	Cyan
3	1.000	1.500	Green
4	1.500	2.000	Yellow
5	2.000	2.500	Orange
6	2.500	3.000	Red
7	3.000	3.500	Purple
8	3.500	>3.500	Black

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

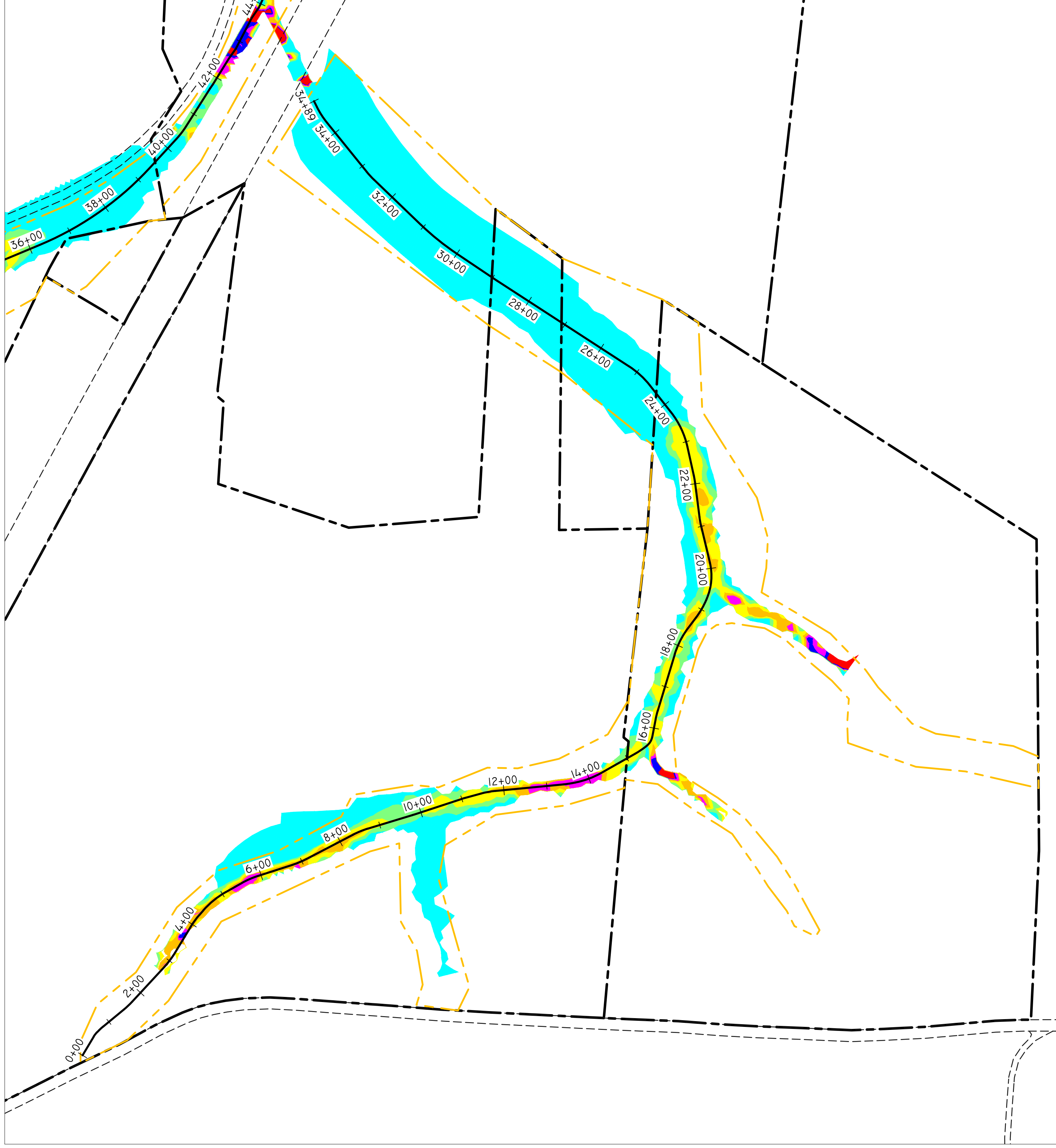
UNT 7: 2 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	FILE NO: 100182

res



EXISTING 10 YEAR SHEAR STRESS



PROPOSED 10 YEAR SHEAR STRESS

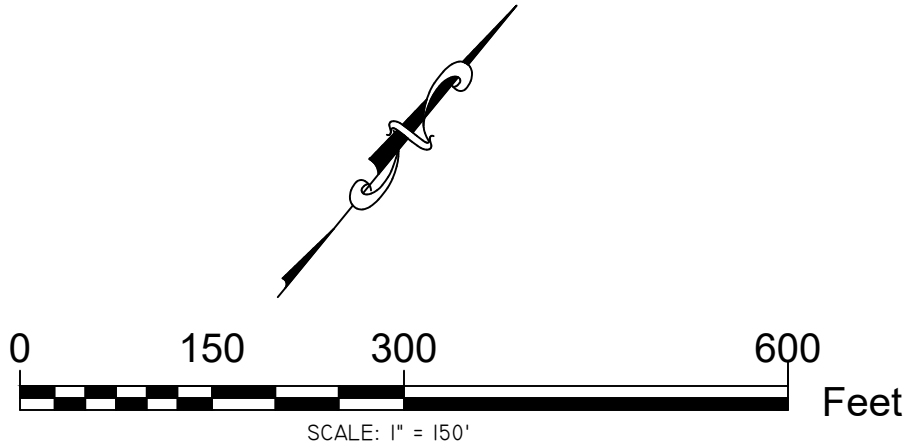
REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ROAD	---
VALLEY BASELINE ALIGNMENT	---

NOTES			
SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Blue
2	0.500	1.000	Cyan
3	1.000	1.500	Green
4	1.500	2.000	Yellow
5	2.000	2.500	Orange
6	2.500	3.000	Red
7	3.000	3.500	Purple
8	3.500	>3.500	Dark Purple

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

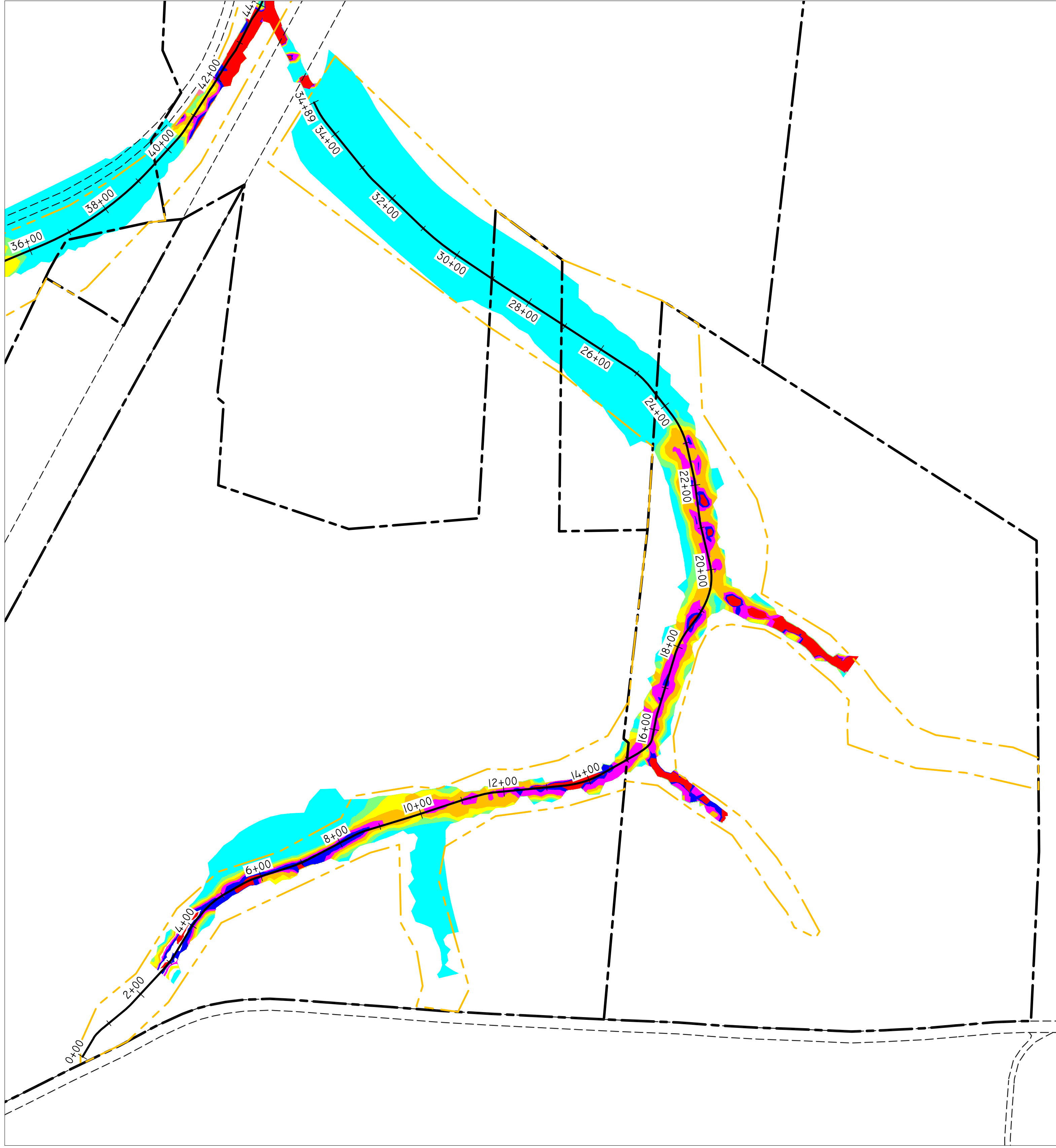
UNT 7: 10 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	FILE NO: 100182

res



EXISTING 100 YEAR SHEAR STRESS



PROPOSED 100 YEAR SHEAR STRESS

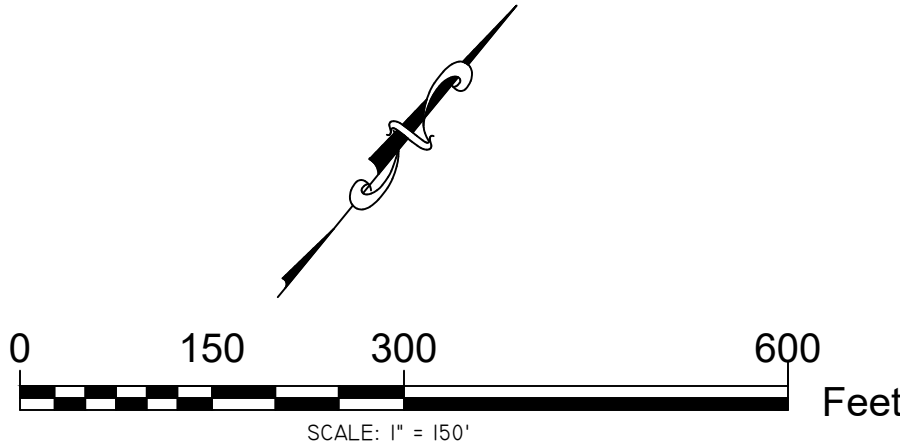
REVISIONS			
NO.	DESCRIPTION	DATE	BY

LEGEND	
PROPERTY BOUNDARY	---
ADJACENT PROPERTY BOUNDARY	---
SITE PROTECTION BOUNDARY	---
ROAD	---
VALLEY BASELINE ALIGNMENT	---

NOTES			
SHEAR STRESS TABLE			
NUMBER	MINIMUM STRESS	MAXIMUM STRESS	COLOR
1	0.000	0.500	Cyan
2	0.500	1.000	Light Blue
3	1.000	1.500	Blue
4	1.500	2.000	Green
5	2.000	2.500	Yellow
6	2.500	3.000	Orange
7	3.000	3.500	Red
8	3.500	>3.500	Dark Red

SEAL

SCALE



RESOURCE ENVIRONMENTAL SOLUTIONS

33 TERMINAL WAY, SUITE W445A
PITTSBURGH PA 15219
WWW.RES.US

TELEPHONE: (412) 249-2440
EMAIL: DCOSTA@RES.US

EAST BRANCH CODORUS CREEK
MITIGATION BANK DESIGN PLANS

UNT 7: 100 YEAR
MODELED SHEAR STRESS

DRAWN BY:	ZW	PENNSYLVANIA
CHECKED BY:	DC	YORK COUNTY
APPROVED BY:	DC	EAST SPRINGFIELD TOWNSHIP
DATE:	APRIL 6, 2020	FILE NO: 100R2

res