

JPA IMPACT DRAWINGS

* * *

GREEN RIDGE RECYCLING &
DISPOSAL FACILITY

* * *

PLAN LEGEND:

	PROPERTY BOUNDARY (FACILITY BOUNDARY)
	EXISTING MAJOR CONTOURS
	FINAL GRADE MAJOR CONTOURS
	POTENTIAL CULTURAL RESOURCES OF INTEREST (SEE "GREEN RIDGE LANDFILL, PHASE 1 CULTURAL RESOURCES EVALUATION REPORT")
	EXISTING ROAD
	PROPOSED ROAD
	200 FOOT BUFFER
	WETLAND DELINEATION BOUNDARY
	PROPOSED BORROW AREA LOCATION
	NON-IMPACTED STREAM
	STREAM DIRECTION OF FLOW
	PROPOSED DETENTION POND / SEDIMENT TRAP LOCATION
	PERENNIAL (R3) STREAM IMPACTS - PRIMARY
	PERENNIAL (R3) STREAM IMPACTS - SECONDARY
	INTERMITTENT (R4) STREAM IMPACTS - PRIMARY
	INTERMITTENT (R4) STREAM IMPACTS - SECONDARY
	EPHEMERAL (R6) STREAM IMPACTS - PRIMARY
	NON-IMPACTED WETLANDS
	PFO IMPACT - PRIMARY
ER	ENTRANCE ROAD
HR	HAUL ROAD
SR	STATE ROAD

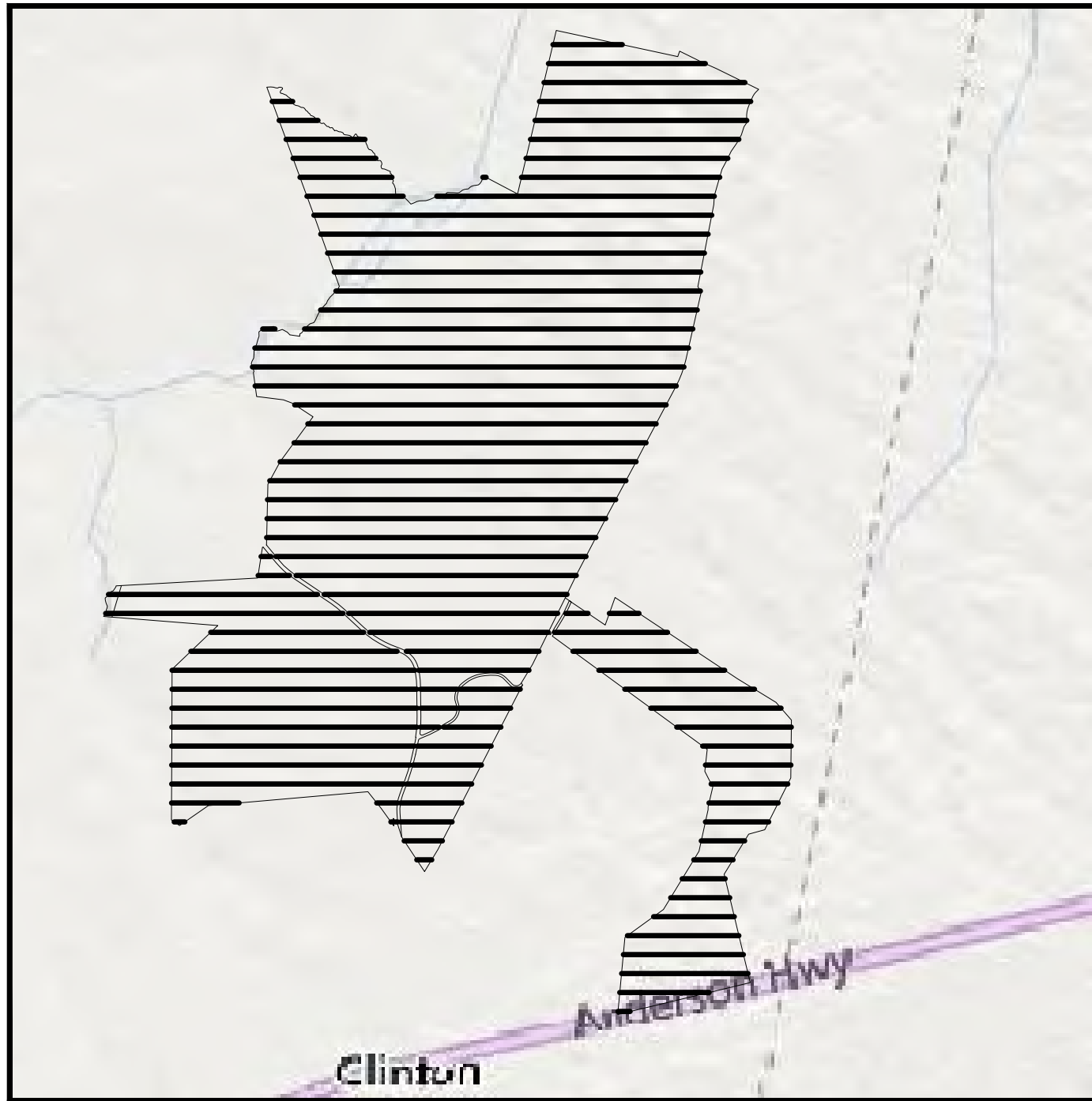
NOTE: ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE
CONSIDERED PERMANENT.

- NOTES:
- THIS MAPPING PROJECT, L18-10560, WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, ROBERT H. TUCK, FROM AN ACTUAL AIRBORNE SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON 05-02-18; AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
 - PARCEL LINES SHOWN HEREON ARE PER BOUNDARY SURVEYS BY HIGHMARK ENGINEERING DATED MAY 24, 2018, MARCH 4, 2019, APRIL 17, 2019 AND PER BOUNDARY SURVEY BY DRAPER ADEN ASSOCIATES DATED MARCH 29, 2019 AND COMPILED BOUNDARY EXHIBIT BY DRAPER ADEN ASSOCIATES DATED NOVEMBER 6, 2019.
 - WETLANDS INFORMATION PROVIDED BY A SURVEY PERFORMED BY KOONTZ BRYANT JOHNSON WILLIAMS GROUP, DATED AUGUST 22, 2018, REVISED MAY 10, 2019 AND AUGUST 16, 2021.
 - SEE DRAPER ADEN ASSOCIATES' DRAWINGS ENTITLED, "CONCEPTUAL DESIGN FOR JPA PERMITTING," DATED APRIL 29, 2022 FOR TECHNICAL DETAILS ON ENGINEERING DESIGN.

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CUMBERLAND COUNTY, VIRGINIA

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VICINITY MAP

1" = 2000'

PROJECT DESCRIPTION

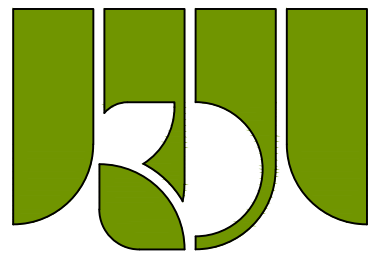
THE PROJECT INCLUDES THE PERMITTING, CONSTRUCTION AND OPERATION OF A 238 ACRE SANITARY LANDFILL WITH A LIFE EXPECTANCY OF 25 - 30 YEARS. IN SUPPORT OF THE SANITARY LANDFILL, THE PROJECT WILL REQUIRE THE CONSTRUCTION OF AN ENTRANCE OFF OF ROUTE 60, CONVENIENCE CENTER FOR PUBLIC USE, ACCESS ROAD TO THE SITE, SCALES AND SCALE HOUSE, RELOCATION OF MILLER LANE AND PINE GROVE ROAD, INTERNAL ACCESS ROADS, BORROW AREAS IN SUPPORT OF THE OPERATIONS, STORMWATER MANAGEMENT BMPs AND STRUCTURES, OFFICE AND MAINTENANCE FACILITIES, PARKING AND OTHER ANCILLARY FACILITIES SUCH AS A LEACHATE TANK FARM AS MAY BE NEEDED FOR OPERATIONS AND AS REQUIRED BY THE FINAL LANDFILL PERMIT. FACILITY IS UNDERGOING PERMITTING WITH THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY AND OTHER AGENCIES. THE TOTAL AREA OF LAND DISTURBANCE FOR THIS PROJECT IS 514 ACRES.

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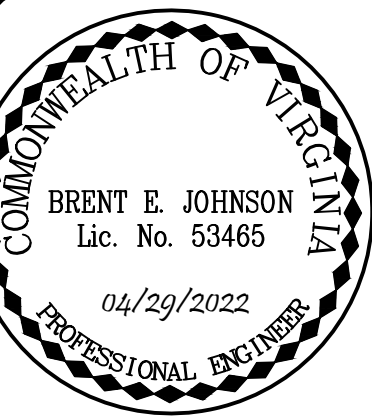
KBJW PROJECT #2017-890

SHEET INDEX:

SHT. NO.	DESCRIPTION
0.0	SHEET INDEX & LEGEND
1.0	OVERALL PLAN
1.1	STREAM REACH 1 IMPACTS
1.2	STREAM REACH 2 IMPACTS
1.3	STREAM REACH 3 IMPACTS
1.4	STREAM REACH 4 IMPACTS
1.5	STREAM REACH 5 IMPACTS
1.6	STREAM REACH 6 IMPACTS
1.7	STREAM REACH 7 IMPACTS
1.8	STREAM REACH 8 IMPACTS
1.9	STREAM REACH 9 IMPACTS
1.10	PINEGROVE ROAD IMPACTS
1.11	ENTRANCE ROAD IMPACTS
1.12	MILLER LANE RELOCATION IMPACTS
1.13	BORROW AREA ROAD IMPACTS
2.1	JPA IMPACTS - CULVERT CROSS SECTIONS
3.1	STREAM REACH 1 - PROFILES
3.1A	STREAM REACH 1 - CROSS SECTIONS
3.2	STREAM REACH 2 - PROFILES
3.2A	STREAM REACH 2 - PROFILES
3.2B	STREAM REACH 2 - CROSS SECTIONS
3.2C	STREAM REACH 2 - CROSS SECTIONS
3.3	STREAM REACH 3 - PROFILES
3.3A	STREAM REACH 3 - CROSS SECTIONS
3.4	STREAM REACH 4 - PROFILES
3.4A	STREAM REACH 4 - CROSS SECTIONS
3.5	STREAM REACH 5 - PROFILE AND CROSS SECTIONS
3.6	STREAM REACH 6 - PROFILE AND CROSS SECTIONS
3.7	STREAM REACH 7 - PROFILE AND CROSS SECTIONS
3.8	STREAM REACH 8 - PROFILE AND CROSS SECTIONS
3.9	STREAM REACH 9 - PROFILE AND CROSS SECTIONS
4.1	LANDFILL SEDIMENT BASIN OUTLET PROTECTION
5.1	BORROW AREA 1 GRADING PLAN
5.3	BORROW AREA 2 GRADING PLAN
5.5	BORROW AREA 3 GRADING PLAN



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REVISIONS		POST APPROVAL	
NO.	DATE	DESCRIPTION	REVISED PER CLIENT COMMENTS
1.	07/13/2020	REVISED PER CLIENT COMMENTS	REVISED PER CLIENT/COUNTY COMMENTS
2.	04/16/2021	REVISED PER CLIENT/COUNTY COMMENTS	REVISED PER DEQ ADDITIONAL INFORMATION
3.	10/15/2021	REVISED PER DEQ ADDITIONAL INFORMATION	REQUEST LETTER DATED 01/26/2022
4.	04/12/2022	REQUEST LETTER DATED 01/26/2022	

DESIGNED BEJ	DRAWN EEB	CHECKED
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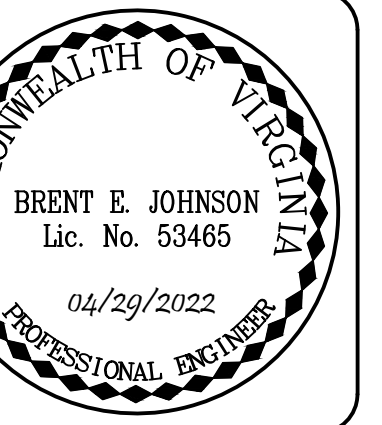
GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

COVER SHEET

SCALE: NO SCALE
DATE: APRIL 29, 2022
PROJECT: 2017-890

0.0



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POST APPROVAL

DESIGNED	BEJ
DRAWN	EEB
CHECKED	

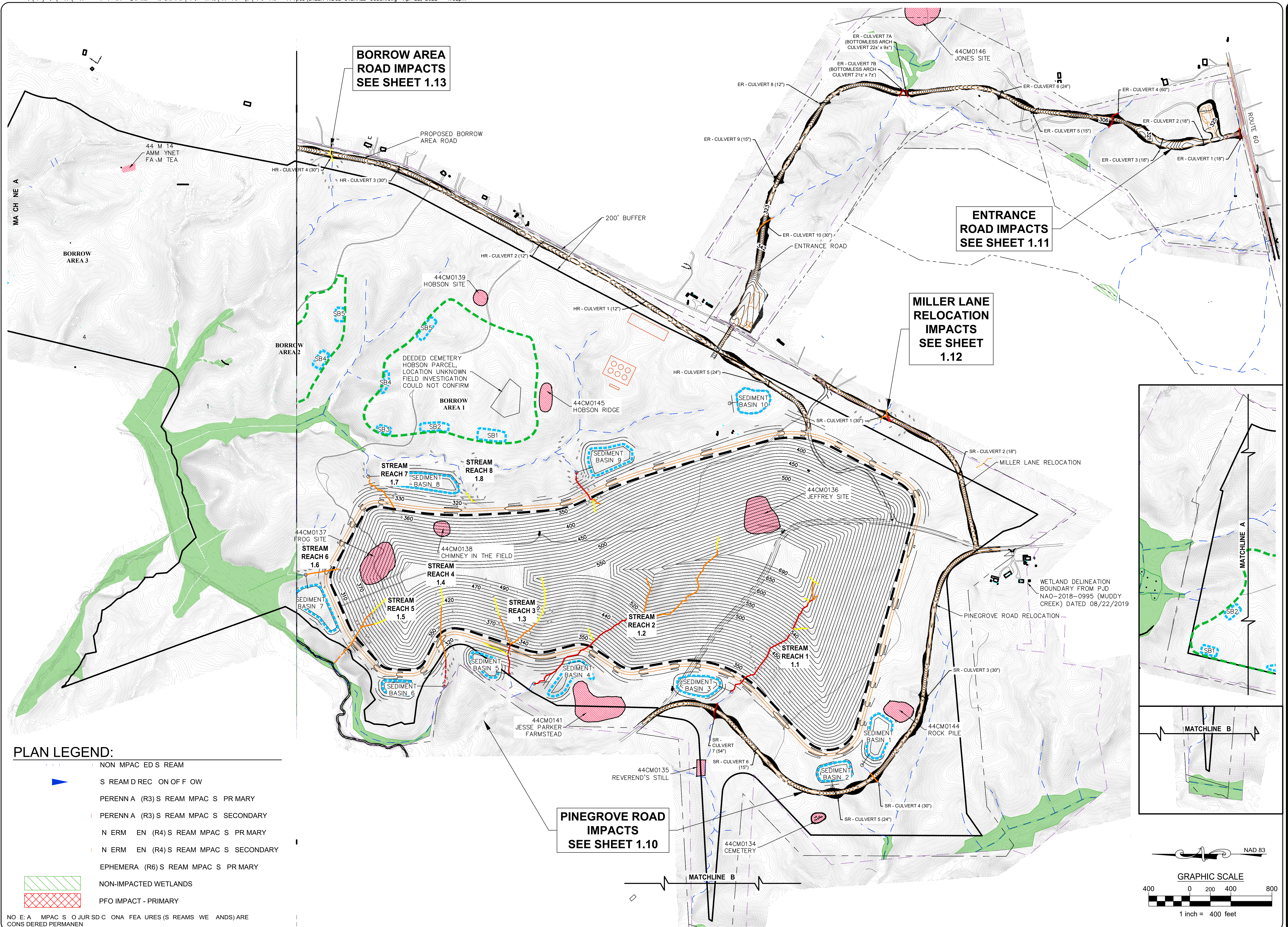
GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

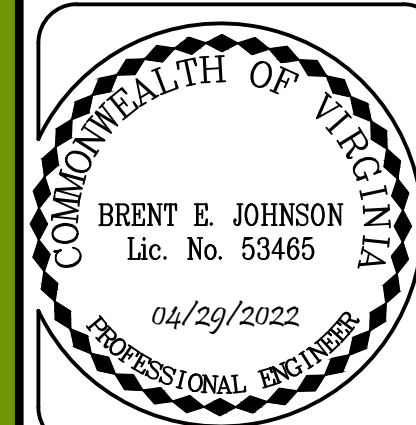
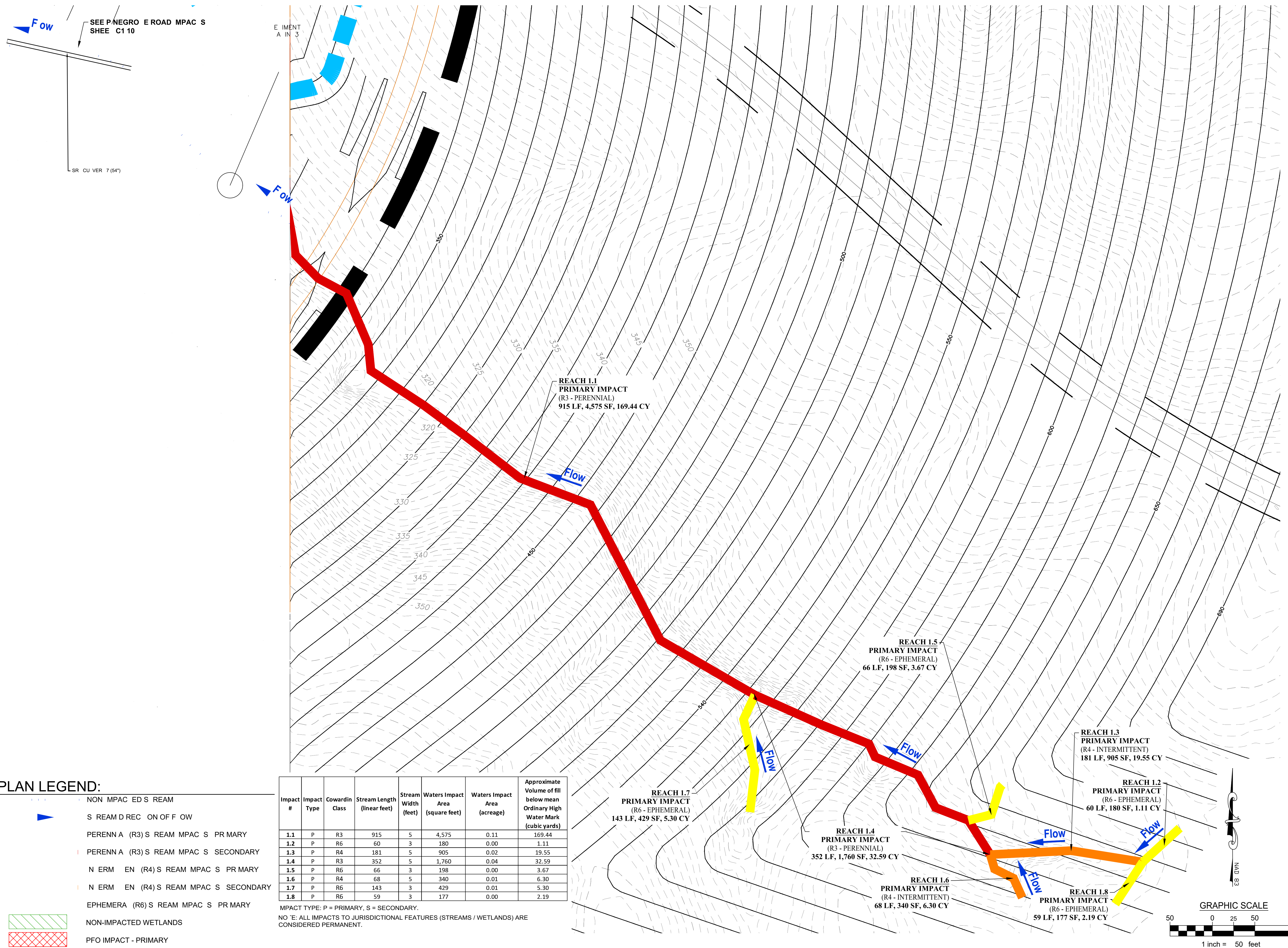
CUMBERLAND COUNTY, VIRGINIA

OVERALL PLAN

SCALE: 1"=400'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.0





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DESIGNED BEJ	DRAWN EEB	CHECKED
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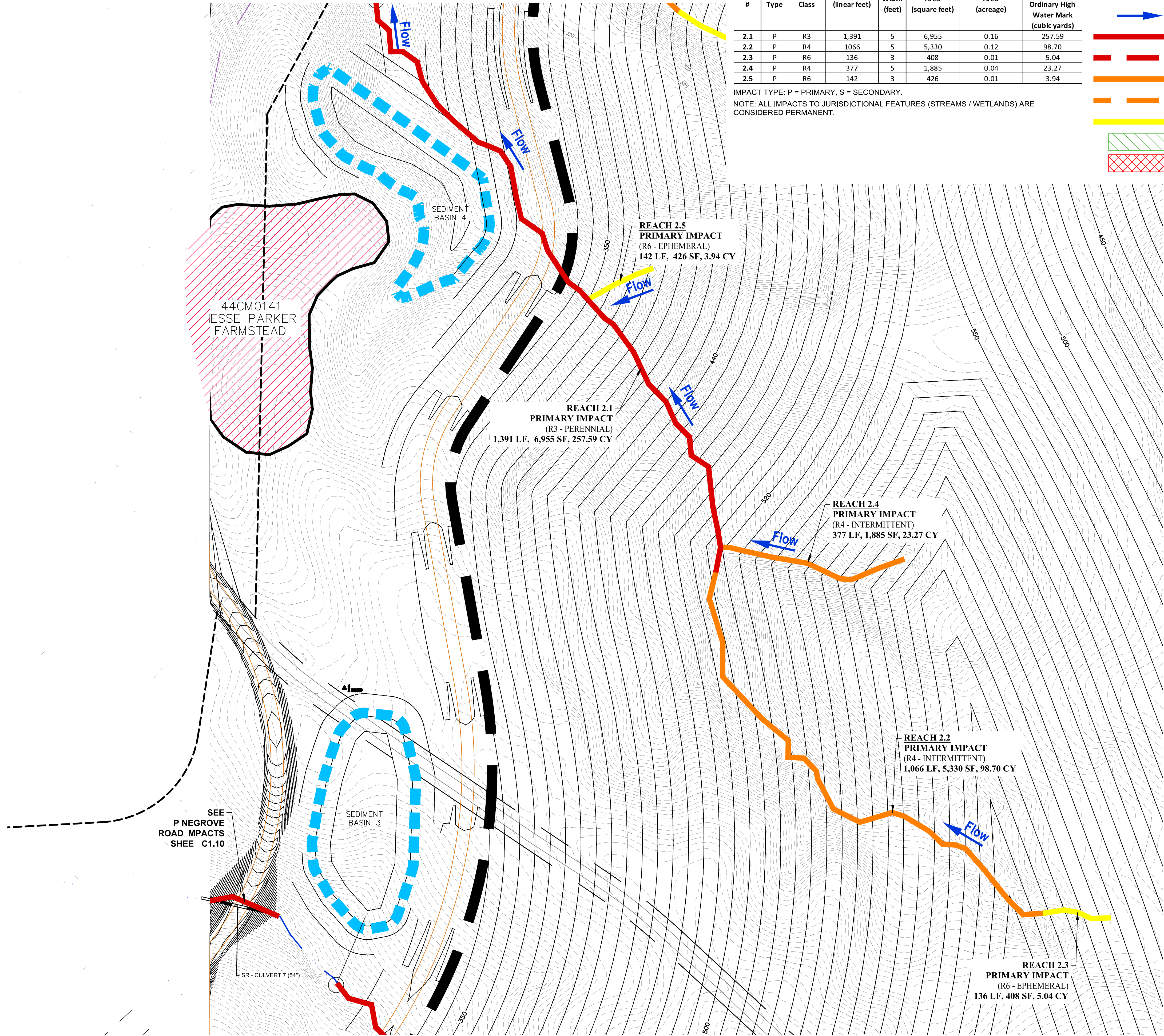
GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

STREAM REACH 1 IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.1

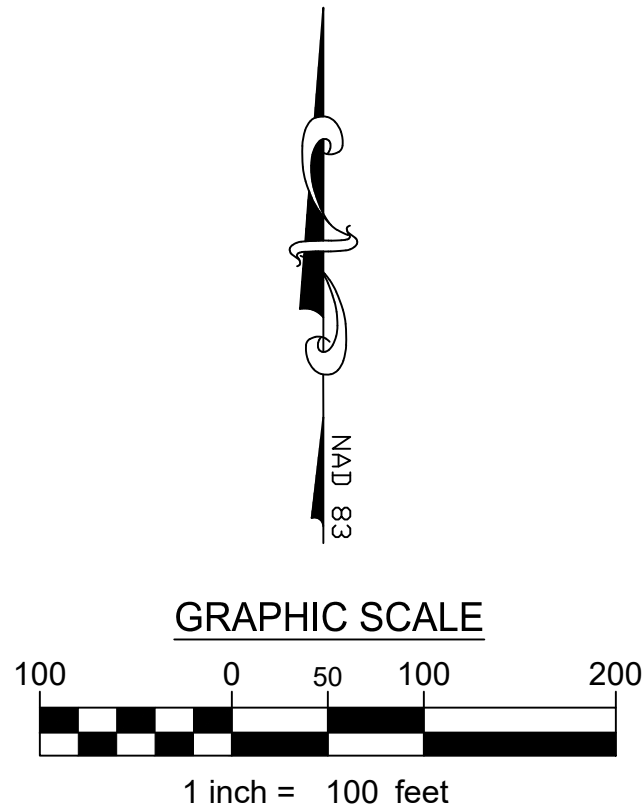


Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
2.1	P	R3	1,391	5	6,955	0.16	257.59
2.2	P	R4	1066	5	5,330	0.12	98.70
2.3	P	R6	136	3	408	0.01	5.04
2.4	P	R4	377	5	1,885	0.04	23.27
2.5	P	R6	142	3	426	0.01	3.94

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
NOTE: ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE CONSIDERED PERMANENT.

PLAN LEGEND:

- NON-IMPACTED STREAM
- STREAM DIRECTION OF FLOW
- PERENNIAL (R3) STREAM IMPACTS - PRIMARY
- PERENNIAL (R3) STREAM IMPACTS - SECONDARY
- INTERMITTENT (R4) STREAM IMPACTS - PRIMARY
- INTERMITTENT (R4) STREAM IMPACTS - SECONDARY
- EPHEMERAL (R6) STREAM IMPACTS - PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY



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COMMONWEALTH OF VIRGINIA
BRENT E. JOHNSON
Lic. No. 53465
04/29/2022
PROFESSIONAL ENGINEER

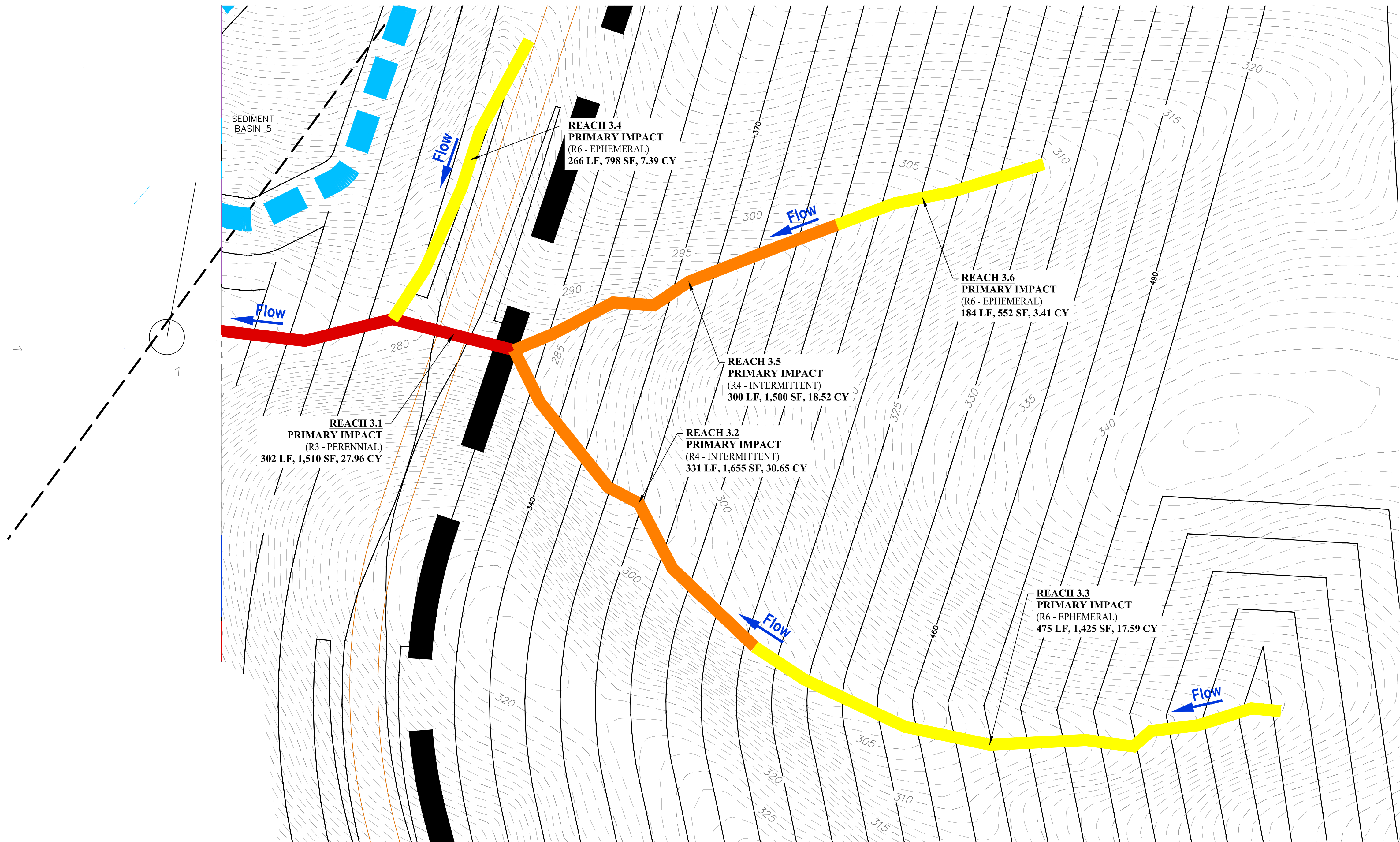
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POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

GREEN RIDGE RECYCLING AND DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA
STREAM REACH 2 IMPACTS

SCALE: 1"=100'
DATE: APRIL 29, 2022
PROJECT: 2017-890

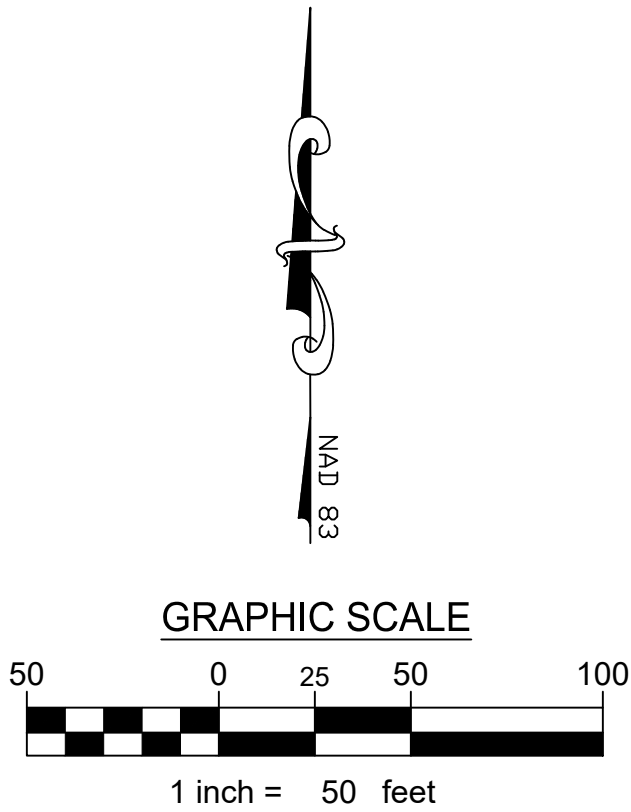


PLAN LEGEND:

- NON-IMPACTED STREAM
- STREAM DECONTAMINATION
- PERENNIAL (R3) STREAM IMPACT PRIMARY
- PERENNIAL (R3) STREAM IMPACT SECONDARY
- INTERMITTENT (R4) STREAM IMPACT PRIMARY
- INTERMITTENT (R4) STREAM IMPACT SECONDARY
- EPHEMERAL (R6) STREAM IMPACT PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acres)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
3.1	P	R3	302	5	1,510	0.03	27.96
3.2	P	R4	331	5	1,655	0.04	30.65
3.3	P	R6	475	3	1,425	0.03	17.59
3.4	P	R6	266	3	798	0.02	7.39
3.5	P	R4	300	5	1,500	0.03	18.52
3.6	P	R6	184	3	552	0.01	3.41

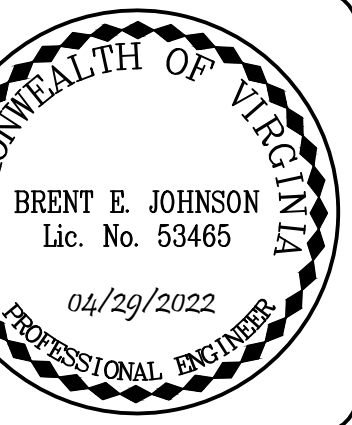
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POST APPROVAL

DESIGNED	BEJ
DRAWN	EEB
CHECKED	

GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

STREAM REACH & IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

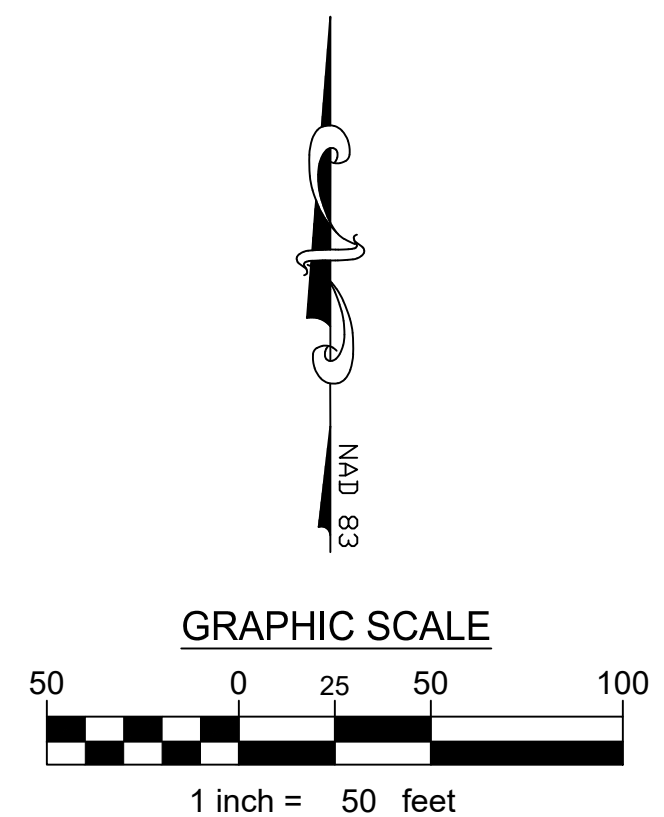
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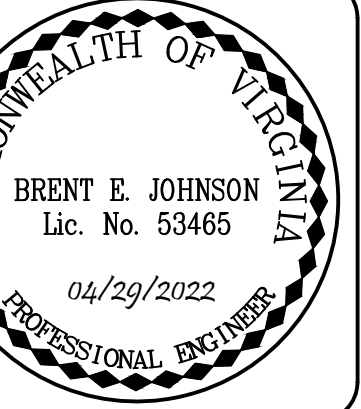


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- PERENN A (R3) S REAM MPAC S PR MARY
- PERENN A (R3) S REAM MPAC S SECONDARY
- N ERM EN (R4) S REAM MPAC S PR MARY
- N ERM EN (R4) S REAM MPAC S SECONDARY
- EPHEMERA (R6) S REAM MPAC S PR MARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
4.1	P	R3	77	5	385	0.01	14.26
4.1 Sec	S	R3	192	5	960	0.02	35.56
4.2	P	R4	518	5	2,590	0.06	47.96
4.3	P	R6	186	3	558	0.02	5.17

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DRAWN	EEB
CHECKED	

GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

SIREAM REACH 5 IMPACT IS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

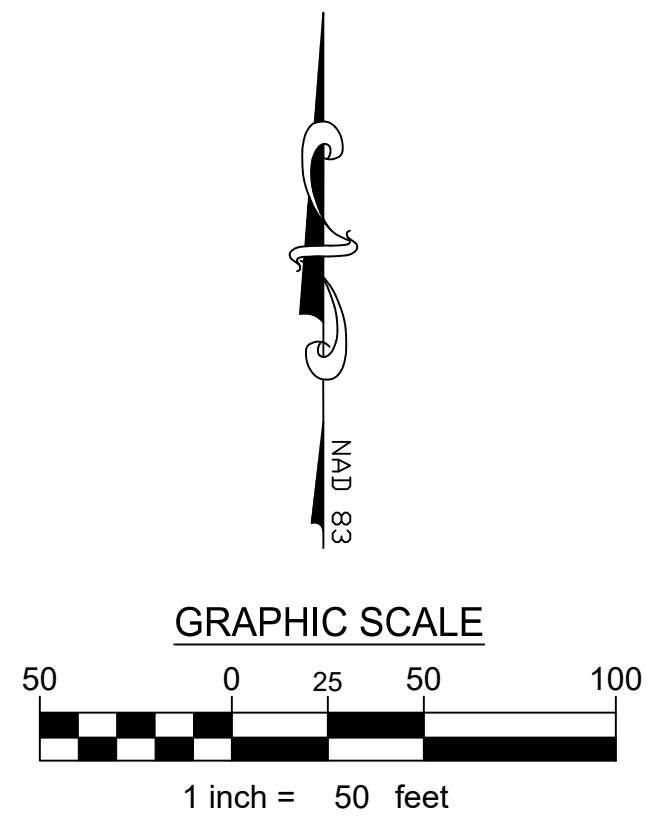
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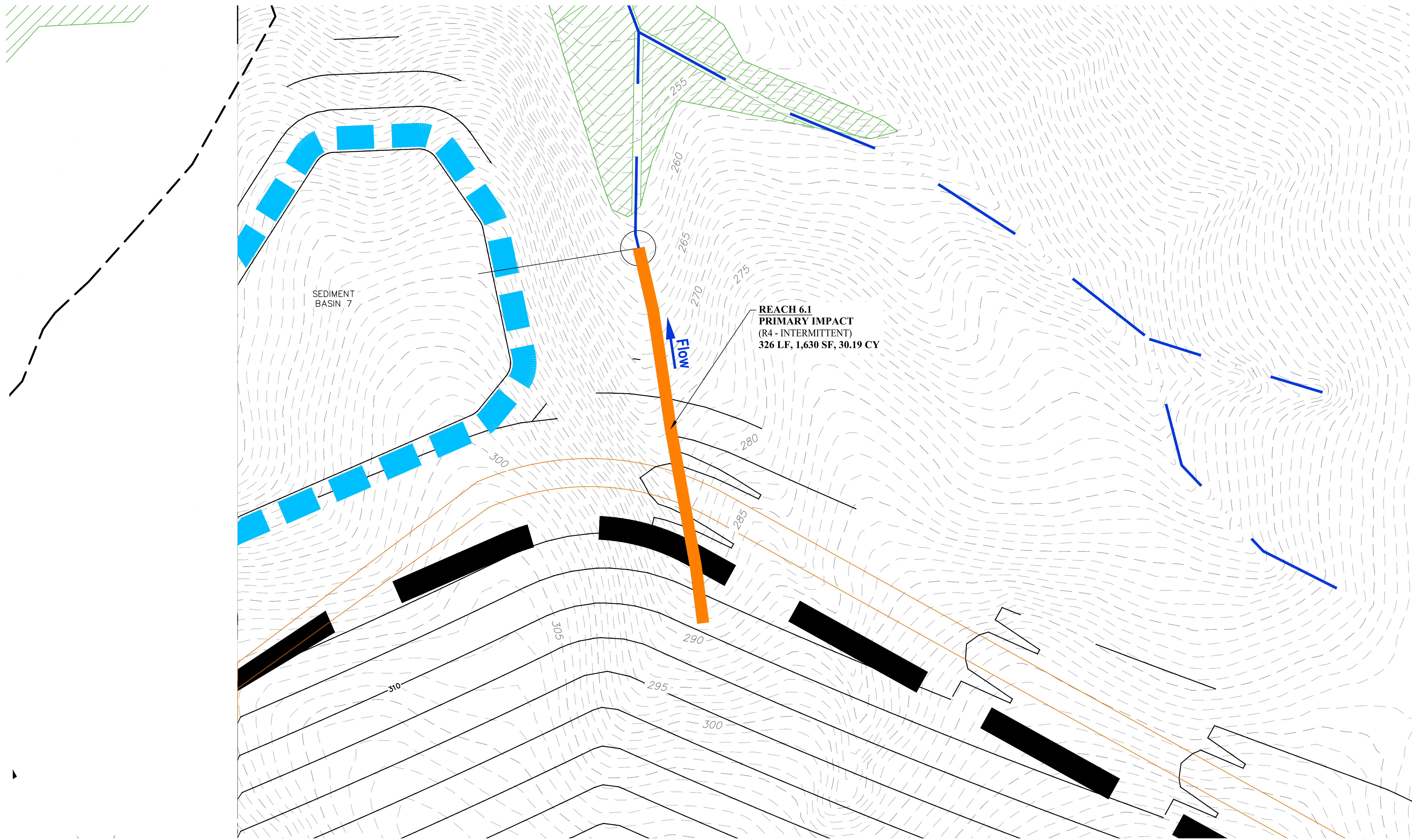
PLAN LEGEND:

- NON IMPACT ED S REAM
- S REAM D REC ON OF F OW
- PERENN A (R3) S REAM MPAC S PR MARY
- PERENN A (R3) S REAM MPAC S SECONDARY
- N ERM EN (R4) S REAM MPAC S PR MARY
- N ERM EN (R4) S REAM MPAC S SECONDARY
- EPEHERA (R6) S REAM MPAC S PR MARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
5.1	P	R4	300	5	1,500	0.03	55.56
5.1 Sec	S	R4	134	5	670	0.02	24.81
5.2	P	R4	131	5	655	0.02	12.13
5.3	P	R6	155	3	465	0.01	5.74
5.4	P	R4	179	5	895	0.02	11.05
5.5	P	R6	206	3	618	0.01	5.72

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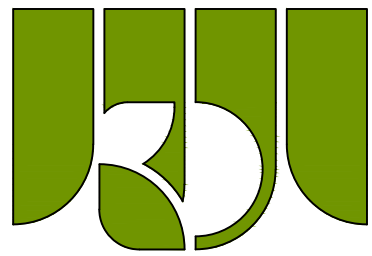
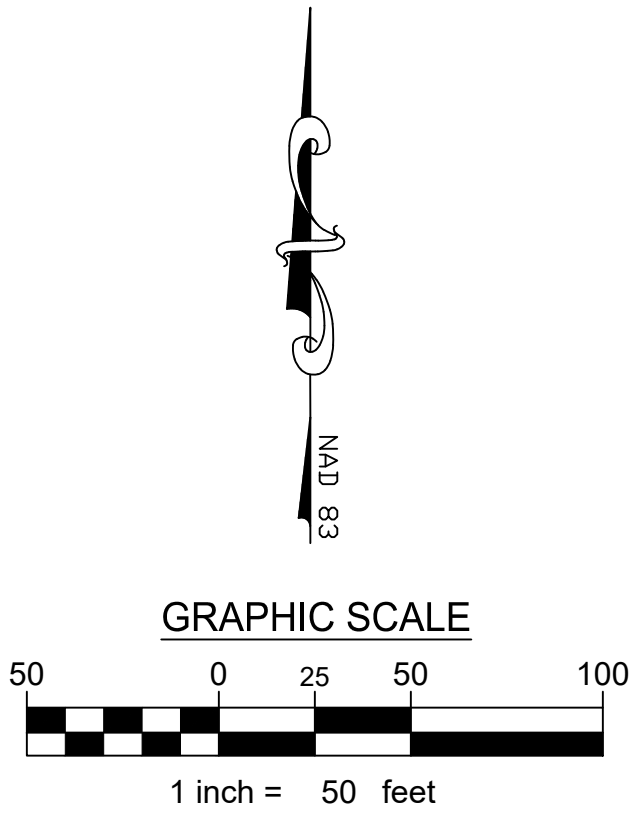


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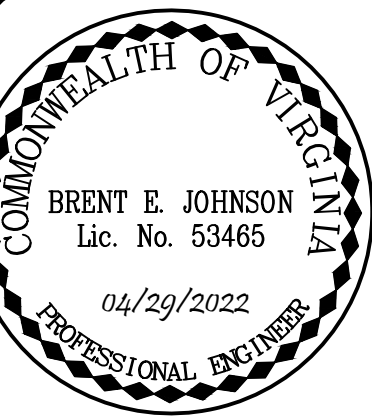
- NON IMPACTED STREAM
- STREAM DECONTAMINATION FLOW
- PERENNIAL (R3) STREAM IMPACT PRIMARY
- PERENNIAL (R3) STREAM IMPACT SECONDARY
- INTERMITTENT (R4) STREAM IMPACT PRIMARY
- INTERMITTENT (R4) STREAM IMPACT SECONDARY
- EPHEMERAL (R6) STREAM IMPACT PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
6.1	P	R4	326	5	1,630	0.04	30.19

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
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POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

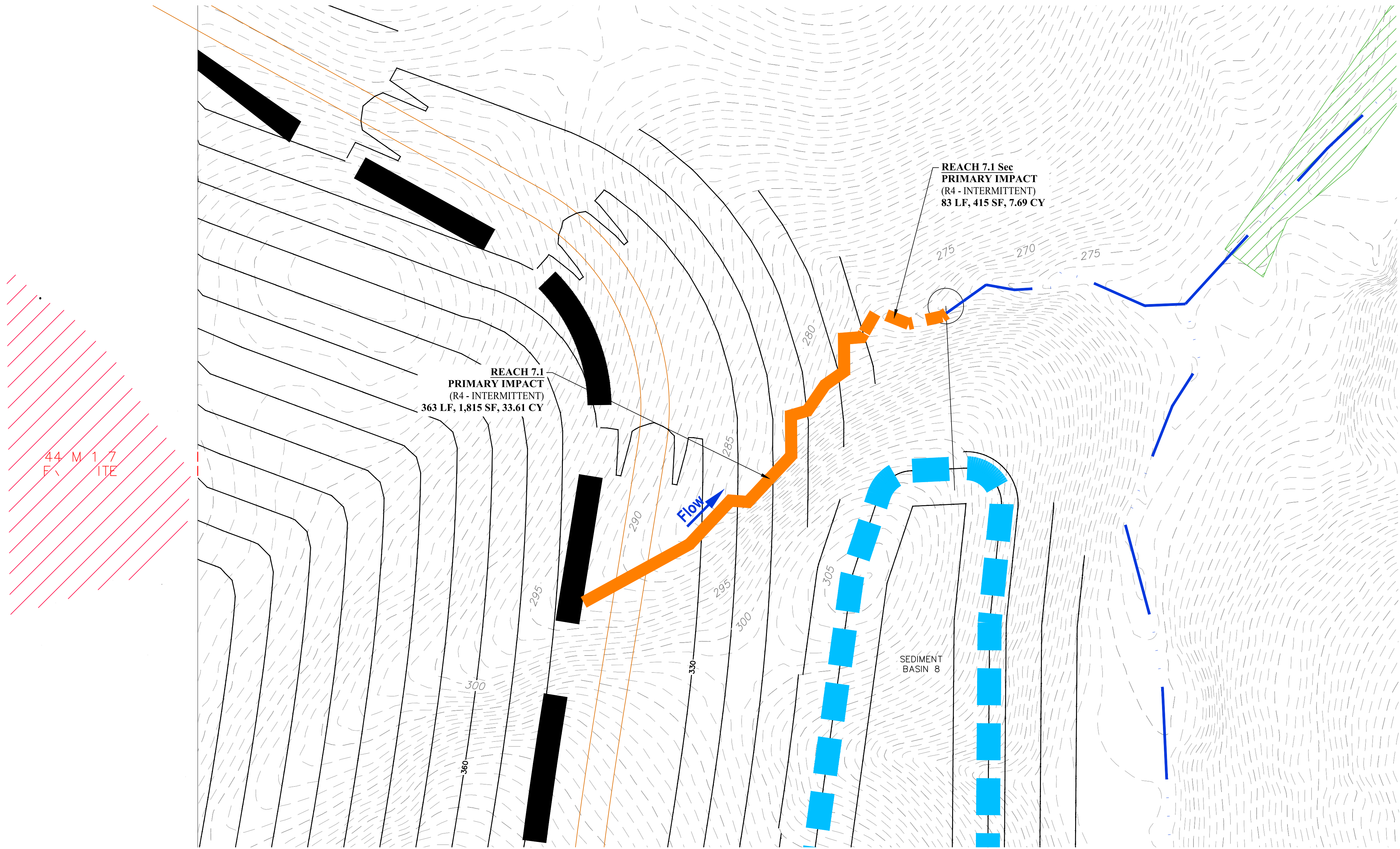
**GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY**

CUMBERLAND COUNTY, VIRGINIA

STREAM REACH 6 IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.6

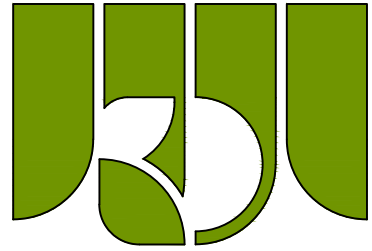
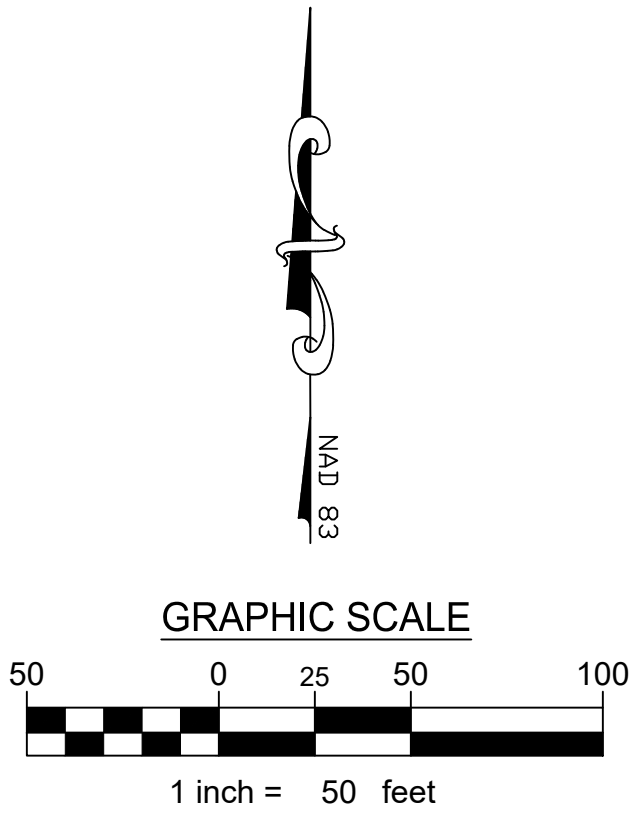


PLAN LEGEND:

- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY
- PERENNIAL (R3) STREAM MPAC SECONDARY
- PERENNIAL (R3) STREAM MPAC SECONDARY
- PERENNIAL (R4) STREAM MPAC SECONDARY
- PERENNIAL (R4) STREAM MPAC SECONDARY
- PERENNIAL (R6) STREAM MPAC SECONDARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
7.1	P	R4	363	5	1,815	0.04	33.61
7.1 Sec	S	R4	83	5	415	0.01	7.69

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
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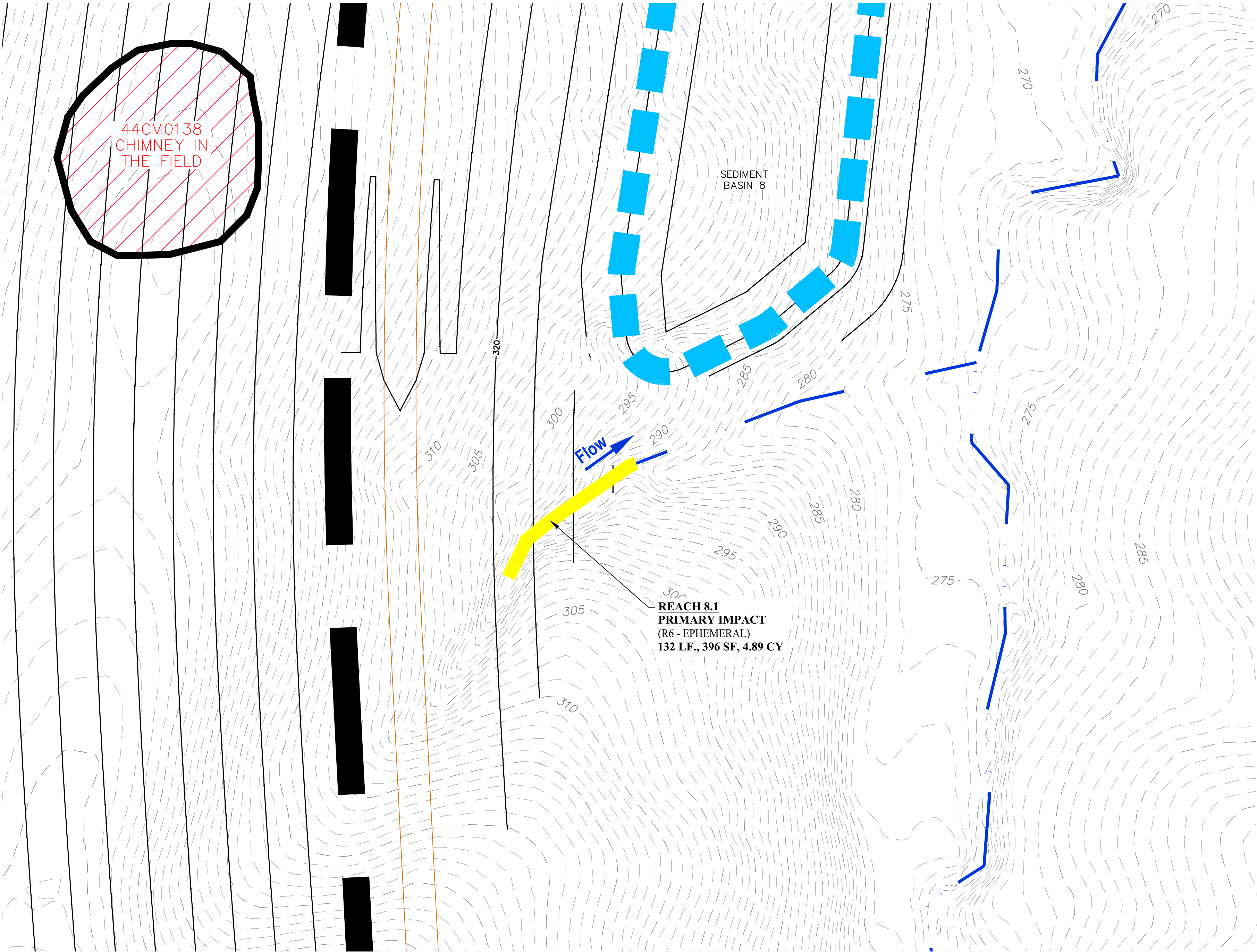
POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

**GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY**
CUMBERLAND COUNTY, VIRGINIA
STREAM REACH 7 IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.7

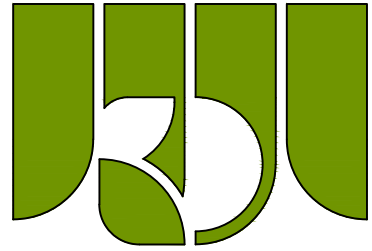
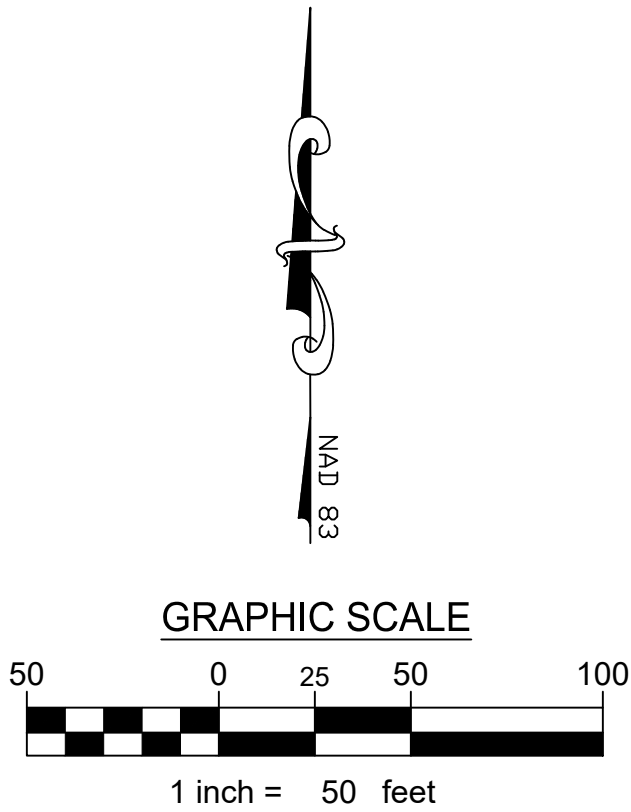


PLAN LEGEND:

- NON IMPACTED STREAM
- STREAM DECONTAMINATION
- PERENNIAL (R3) STREAM MPAC PRIMARY
- PERENNIAL (R3) STREAM MPAC SECONDARY
- INTERMITTENT (R4) STREAM MPAC PRIMARY
- INTERMITTENT (R4) STREAM MPAC SECONDARY
- EPHEMERAL (R6) STREAM MPAC PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
8.1	P	R6	132	3	396	0.01	4.89

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
NOTE: ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE CONSIDERED PERMANENT.



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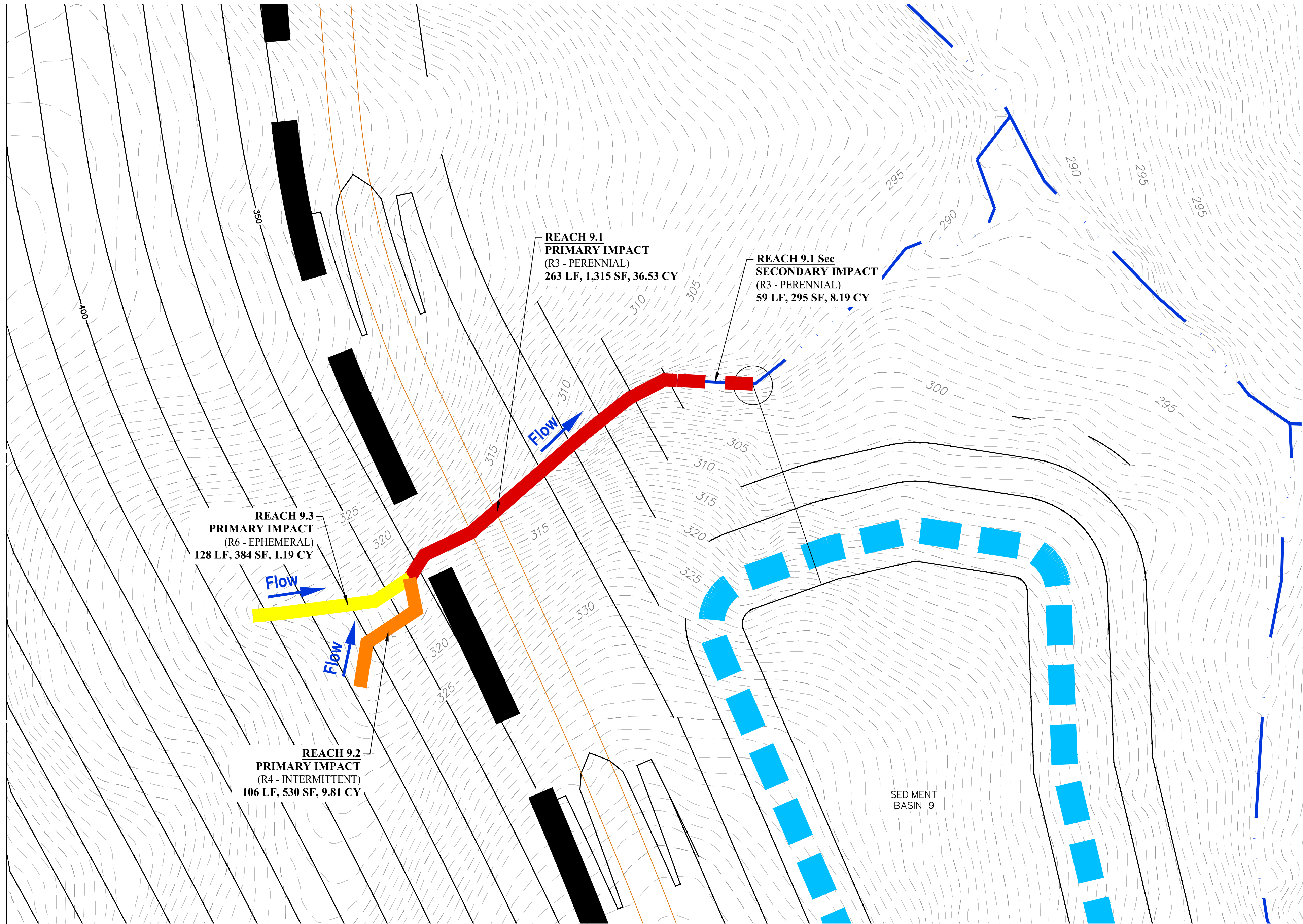
REVISIONS	
NO.	DATE
1.	07/13/2020
2.	04/16/2021
3.	10/15/2021
4.	04/12/2022

DESIGNED	
BEJ	
DRAWN	
EEB	
CHECKED	

**GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY**
CUMBERLAND COUNTY, VIRGINIA
STREAM REACH 8 IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.8

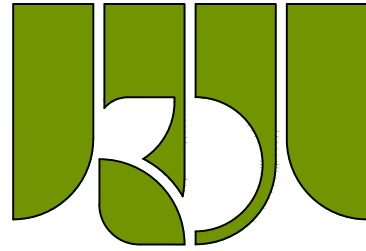
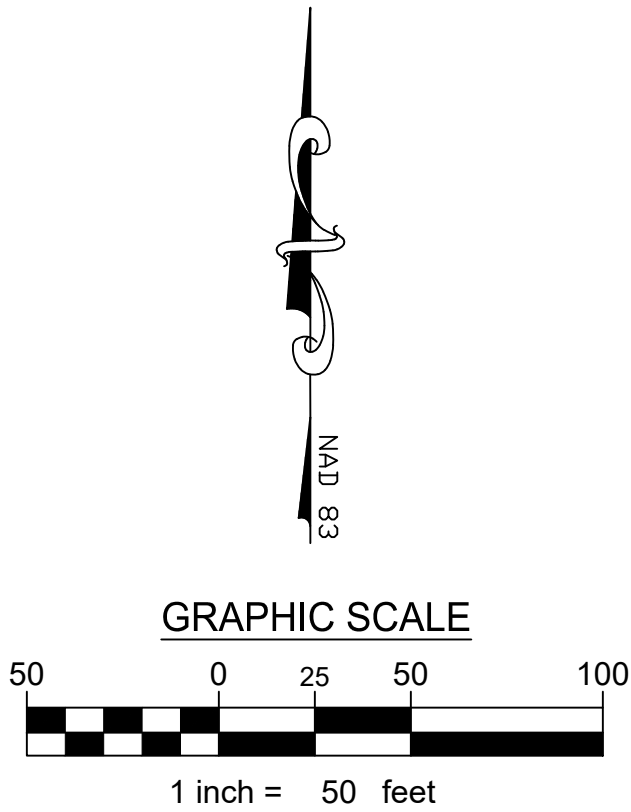


PLAN LEGEND:

- NON IMPACTED STREAM
- STREAM DECONSTRUCTION
- PERENNIAL (R3) STREAM IMPACT PRIMARY
- PERENNIAL (R3) STREAM IMPACT SECONDARY
- INTERMITTENT (R4) STREAM IMPACT PRIMARY
- INTERMITTENT (R4) STREAM IMPACT SECONDARY
- EPHEMERAL (R6) STREAM IMPACT PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acres)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
9.1	P	R3	263	5	1,315	0.03	36.53
9.1 Sec	S	R3	59	5	295	0.01	8.19
9.2	P	R4	106	5	530	0.01	9.81
9.3	P	R6	128	3	384	0.01	1.19

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
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NO.	DATE	DESCRIPTION
1.	07/13/2020	REVISED PER CLIENT COMMENTS
2.	04/16/2021	REVISED PER CLIENT/COUNTY COMMENTS
3.	10/15/2021	REVISED PER CLIENT/COUNTY COMMENTS
4.	04/12/2022	REQUEST LETTER DATED 01/26/2022

POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

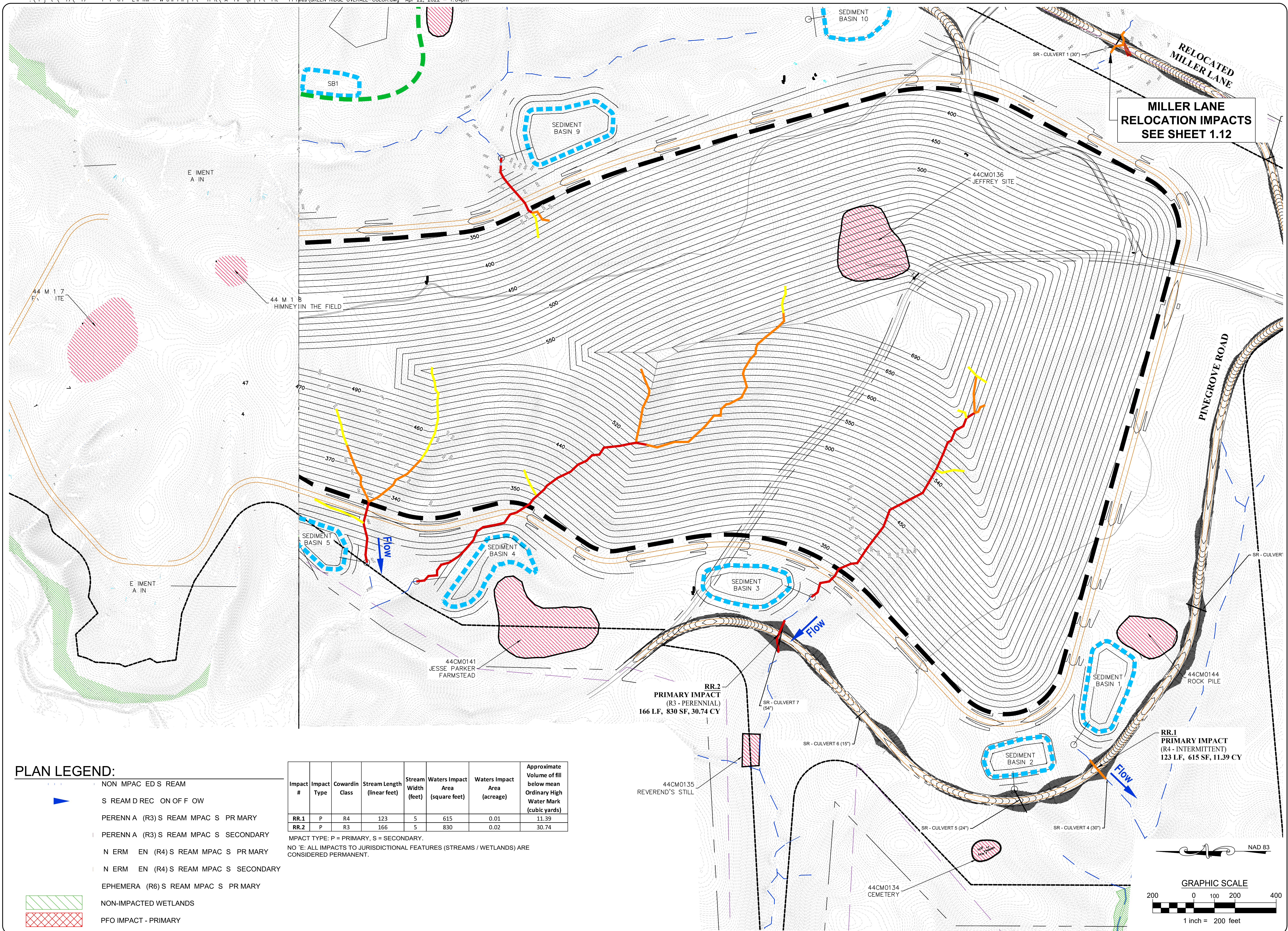
GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

STREAM REACH 9 IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.9



PLAN LEGEND:

- NON IMPACTED STREAM
- STREAM DECONSTRUCTION
- PERENNIAL (R3) STREAM IMPACT PRIMARY
- PERENNIAL (R3) STREAM IMPACT SECONDARY
- INTERMITTENT (R4) STREAM IMPACT PRIMARY
- INTERMITTENT (R4) STREAM IMPACT SECONDARY
- EPHEMERAL (R6) STREAM IMPACT PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acres)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
RR.1	P	R4	123	5	615	0.01	11.39
RR.2	P	R3	166	5	830	0.02	30.74

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
NOTE: ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE CONSIDERED PERMANENT.

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NO.	DATE	DESCRIPTION
1.	07/13/2020	REVISED PER CLIENT COMMENTS
2.	04/16/2021	REVISED PER CLIENT/COUNTY COMMENTS
3.	10/15/2021	REVISED PER CLIENT/COUNTY COMMENTS
4.	04/12/2022	REQUEST LETTER DATED 01/26/2022

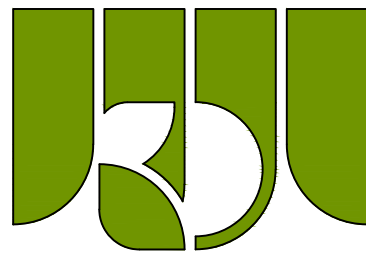
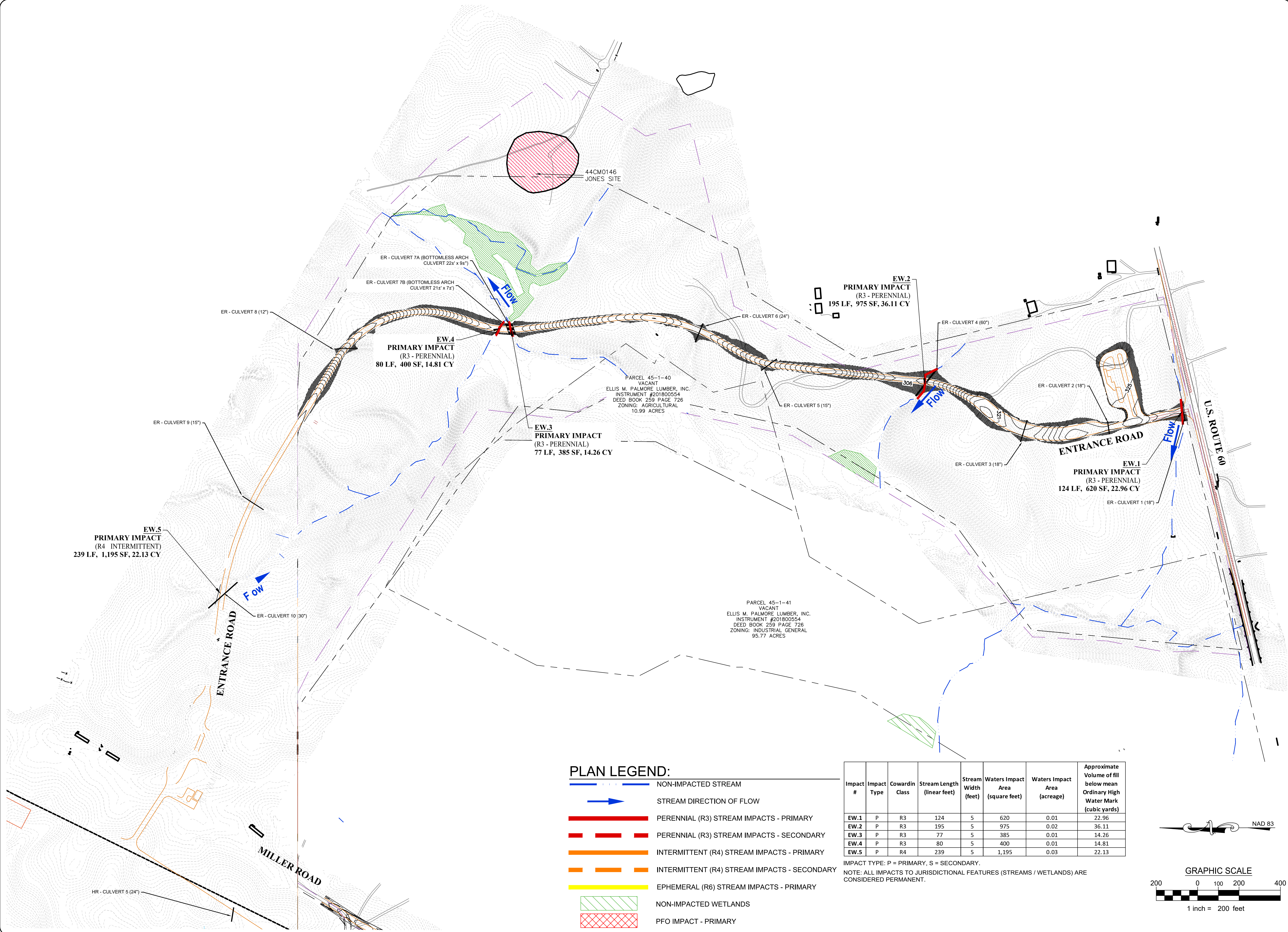
POST APPROVAL

GREEN RIDGE RECYCLING AND DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

PINEGROVE ROAD IMPACTS

SCALE: 1"=200'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.10



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4.	04/12/2022	REVISED PER DEQ ADDITIONAL INFORMATION REQUEST LETTER DATED 01/26/2022

POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

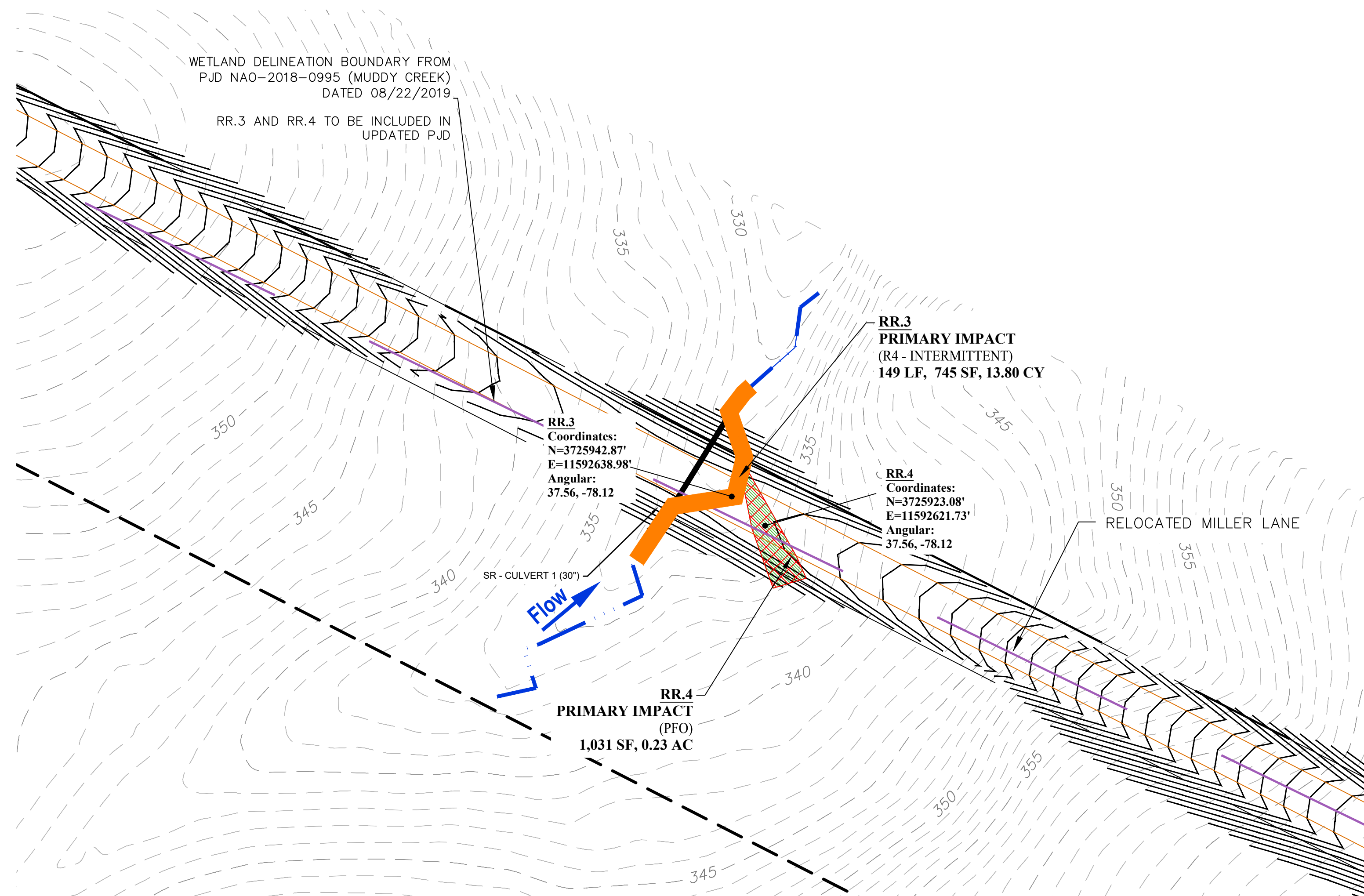
GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

ENTRANCE ROAD IMPACTS

SCALE: 1"=200'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.11



PLAN LEGEND:

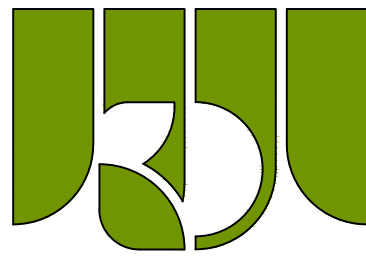
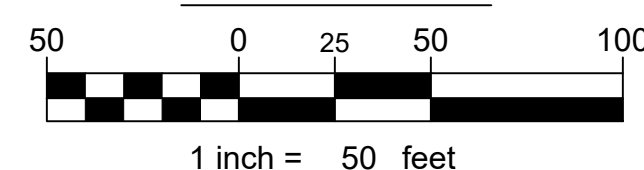
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- PERENN A (R3) S REAM MPAC S PR MARY
- PERENN A (R3) S REAM MPAC S SECONDARY
- N ERM EN (R4) S REAM MPAC S PR MARY
- N ERM EN (R4) S REAM MPAC S SECONDARY
- EPHEMERA (R6) S REAM MPAC S PR MARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
RR.3	P	R4	149	5	745	0.02	13.80
RR.4	P	PFO	N/A	N/A	1,013	0.02	0.00

NO 'E': ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE CONSIDERED PERMANENT.



GRAPHIC SCALE



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NO.	DATE	DESCRIPTION	
1.	07/13/2020	REVISED PER CLIENT/COUNTY COMMENTS	
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3.	10/15/2021	REVISED PER CLIENT/COUNTY COMMENTS	
4.	04/12/2022	REVISED PER DCQ ADDITIONAL INFORMATION REQUEST LETTER DATED 01/26/2022	

DESIGNED BEJ	DRAWN EEB	CHECKED
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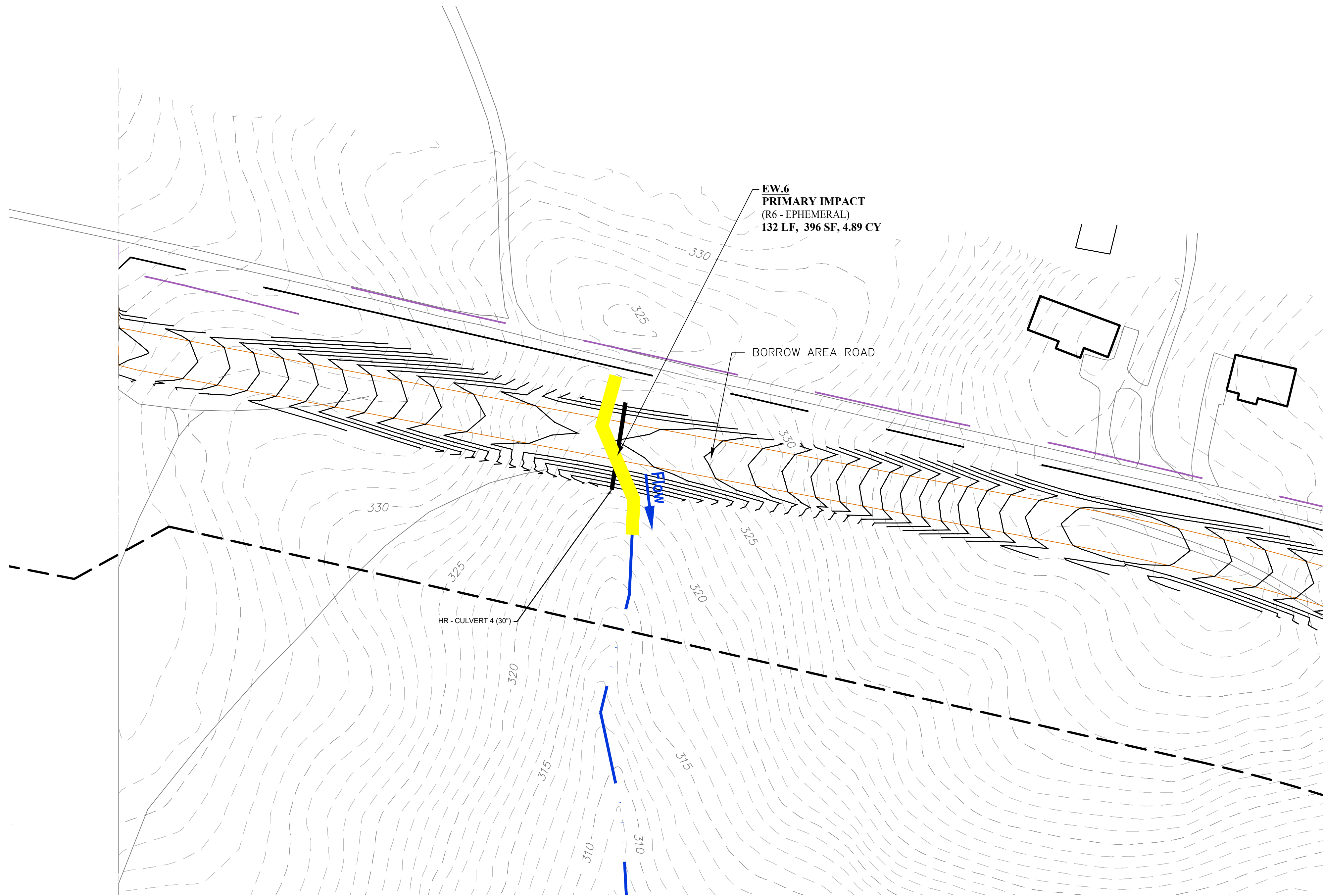
GREEN RIDGE RECYCLING AND DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

MILLER LANE RELOCATION IMPACTS

SCALE: 1"=50'
DATE: APRIL 29, 2022
PROJECT: 2017-890

1.12

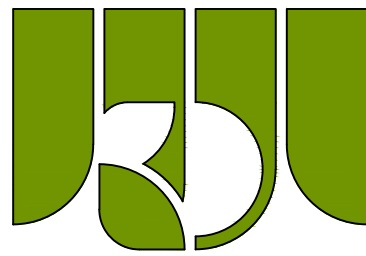
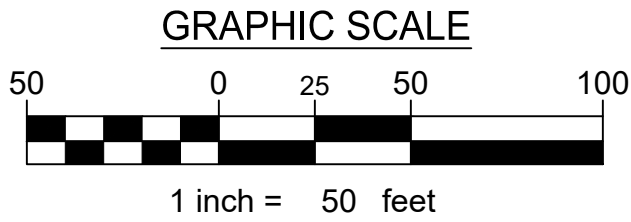


PLAN LEGEND:

- NON IMPACTED STREAM
- STREAM DECONSTRUCTION
- PERENNIAL (R3) STREAM IMPACT PRIMARY
- PERENNIAL (R3) STREAM IMPACT SECONDARY
- INTERMITTENT (R4) STREAM IMPACT PRIMARY
- INTERMITTENT (R4) STREAM IMPACT SECONDARY
- EPHEMERAL (R6) STREAM IMPACT PRIMARY
- NON-IMPACTED WETLANDS
- PFO IMPACT - PRIMARY

Impact #	Impact Type	Cowardin Class	Stream Length (linear feet)	Stream Width (feet)	Waters Impact Area (square feet)	Waters Impact Area (acreage)	Approximate Volume of fill below mean Ordinary High Water Mark (cubic yards)
EW.6	P	R6	132	3	396	0.01	4.89

IMPACT TYPE: P = PRIMARY, S = SECONDARY.
NOTE: ALL IMPACTS TO JURISDICTIONAL FEATURES (STREAMS / WETLANDS) ARE CONSIDERED PERMANENT.



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3.	10/15/2021	REVISED PER CLIENT/COUNTY COMMENTS
4.	04/12/2022	REVISED PER DEQ ADDITIONAL INFORMATION REQUEST LETTER DATED 01/26/2022

POST APPROVAL

DESIGNED	DRAWN	CHECKED
BEJ	EEB	

**GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY**

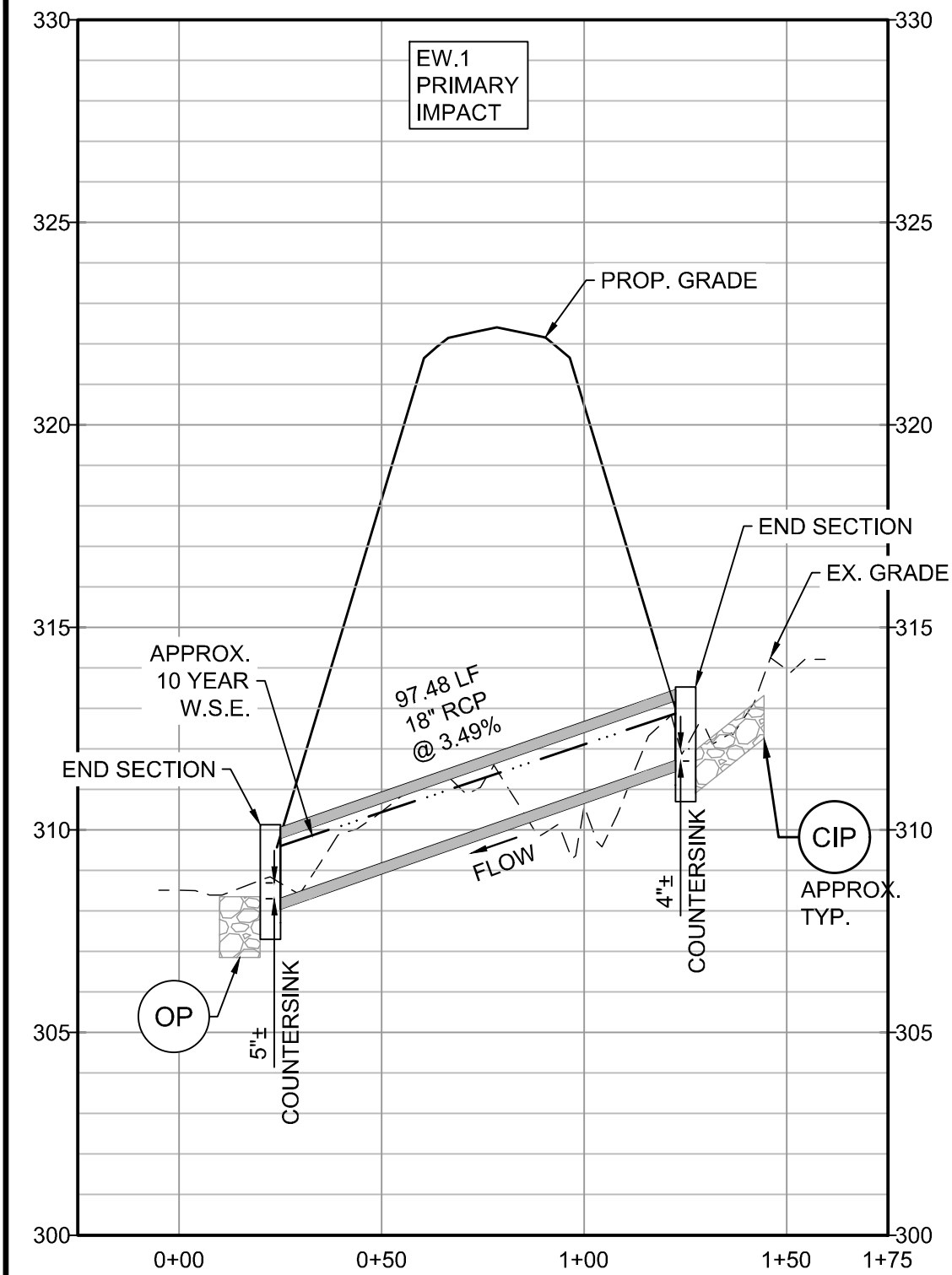
CUMBERLAND COUNTY, VIRGINIA

BORROW AREA ROAD IMPACTS

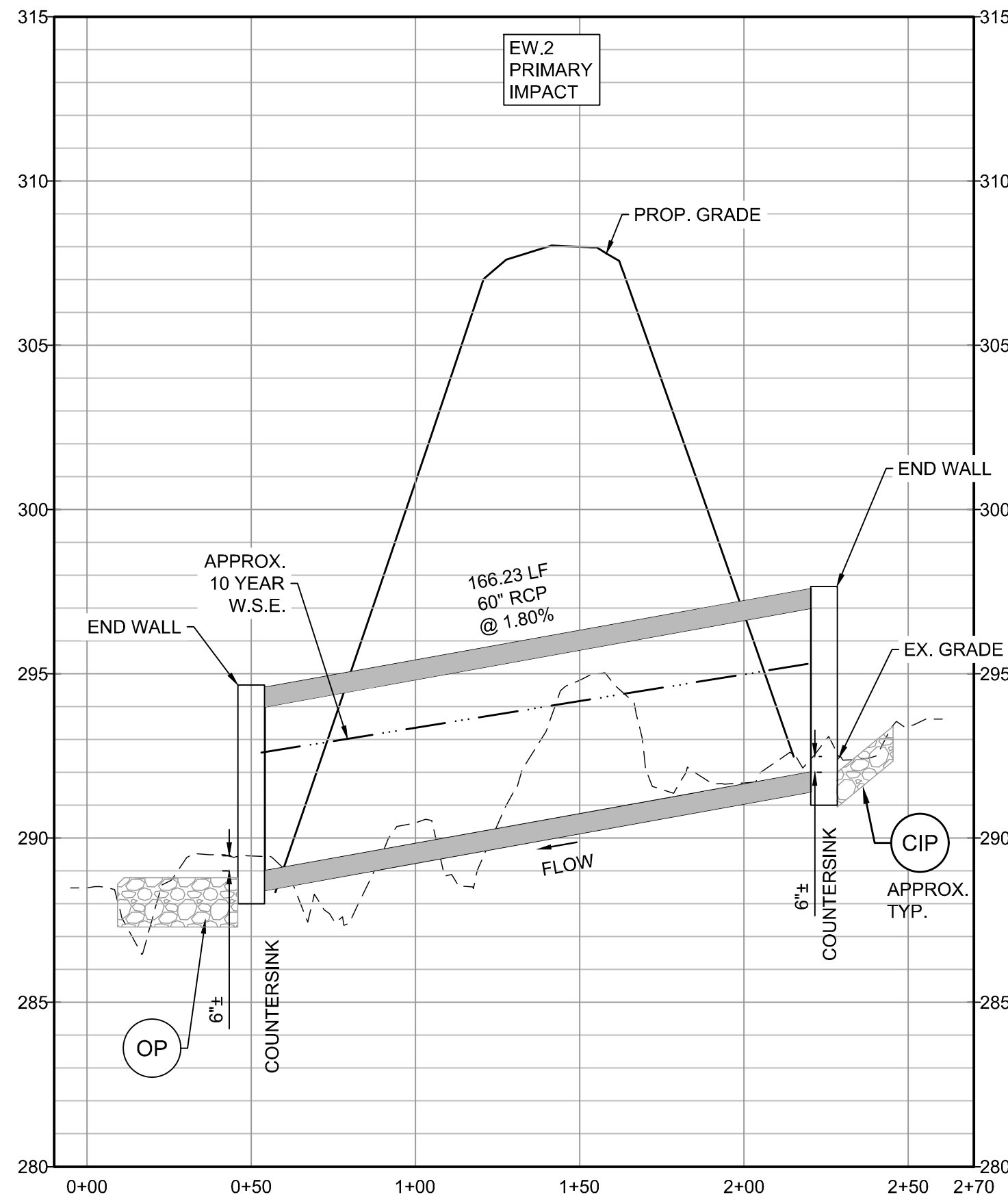
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DATE: APRIL 29, 2022
PROJECT: 2017-890

1.13

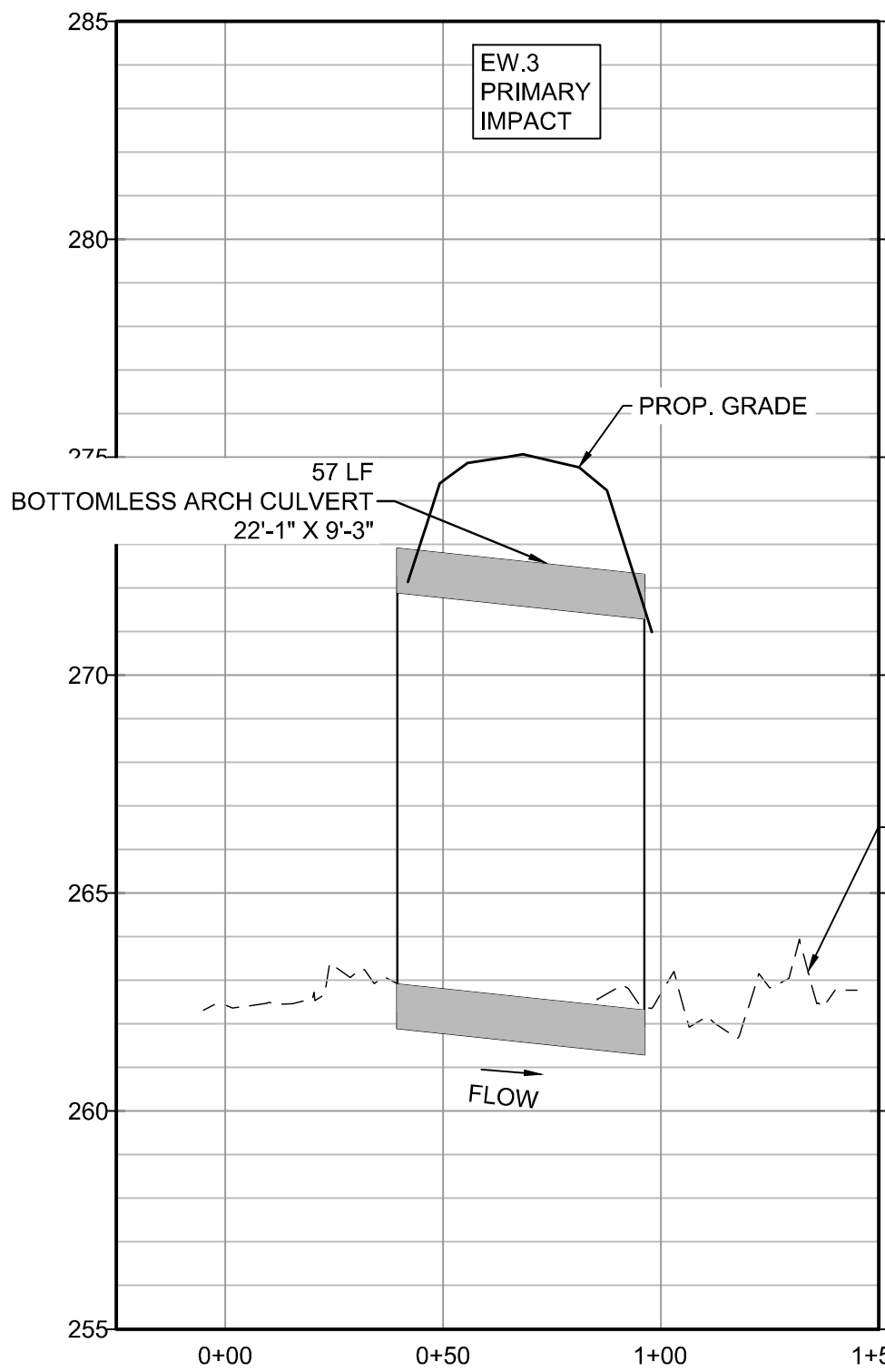
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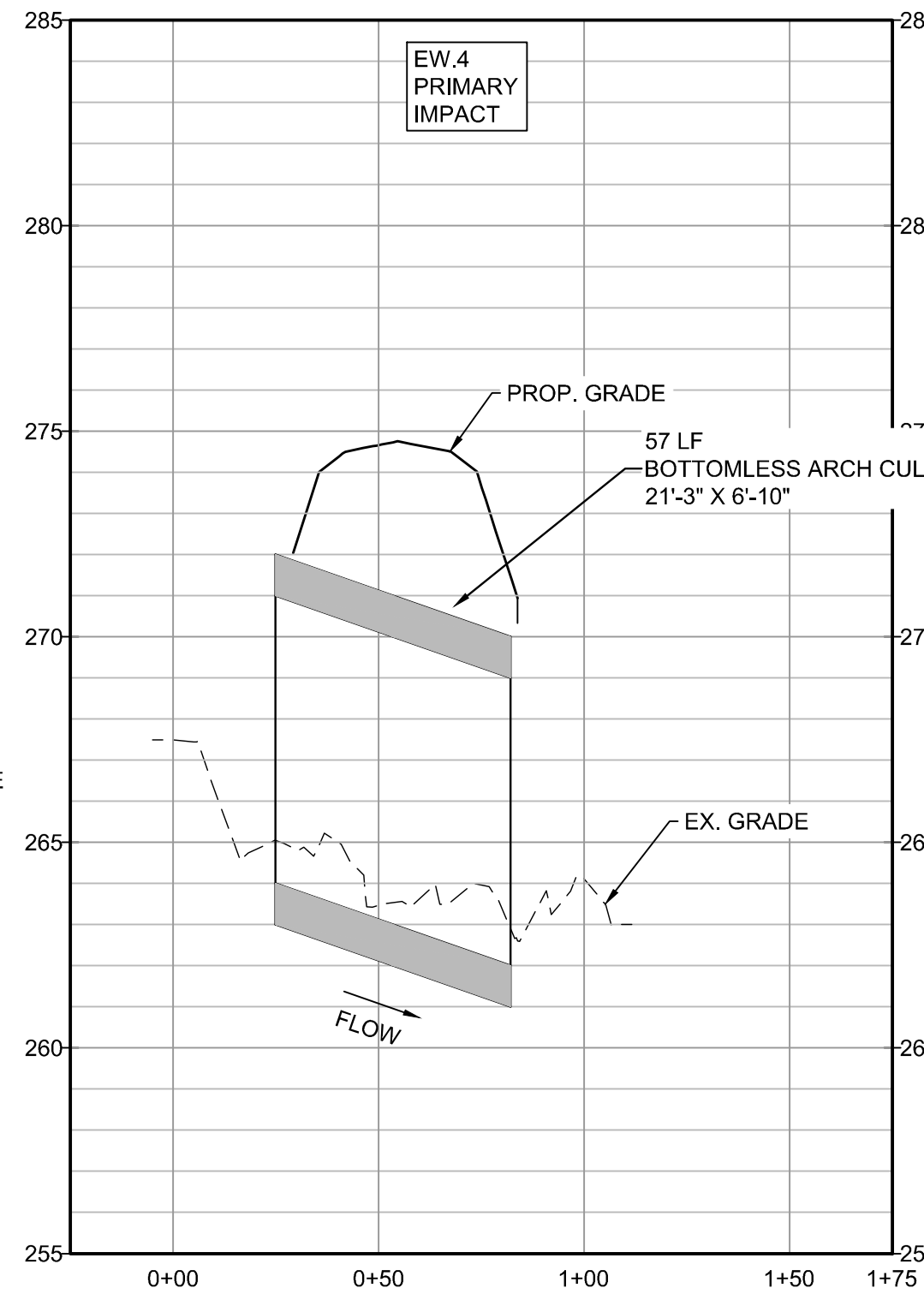
ER - CULVERT 1
Scale: H: 1"=40', V: 1"= 4'



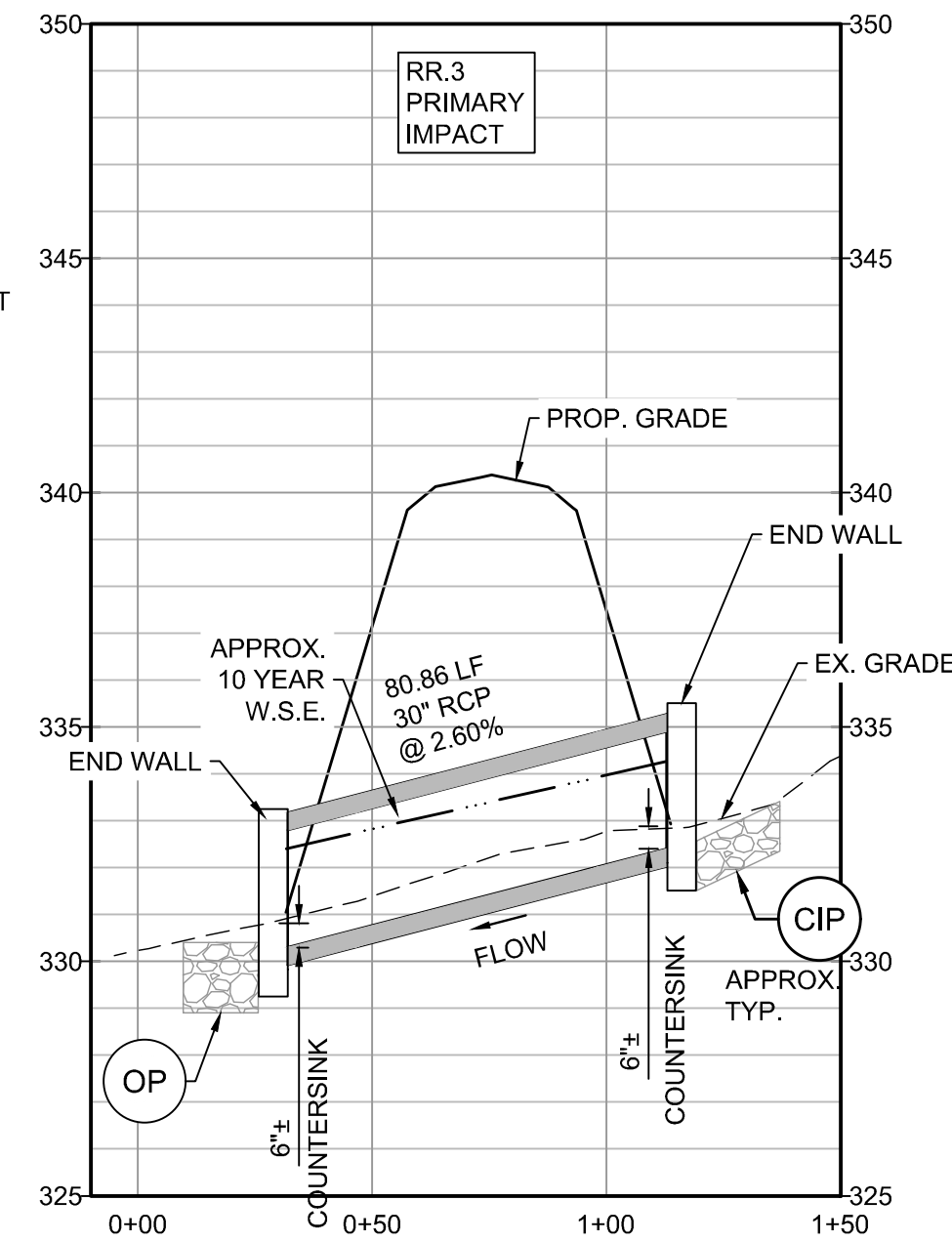
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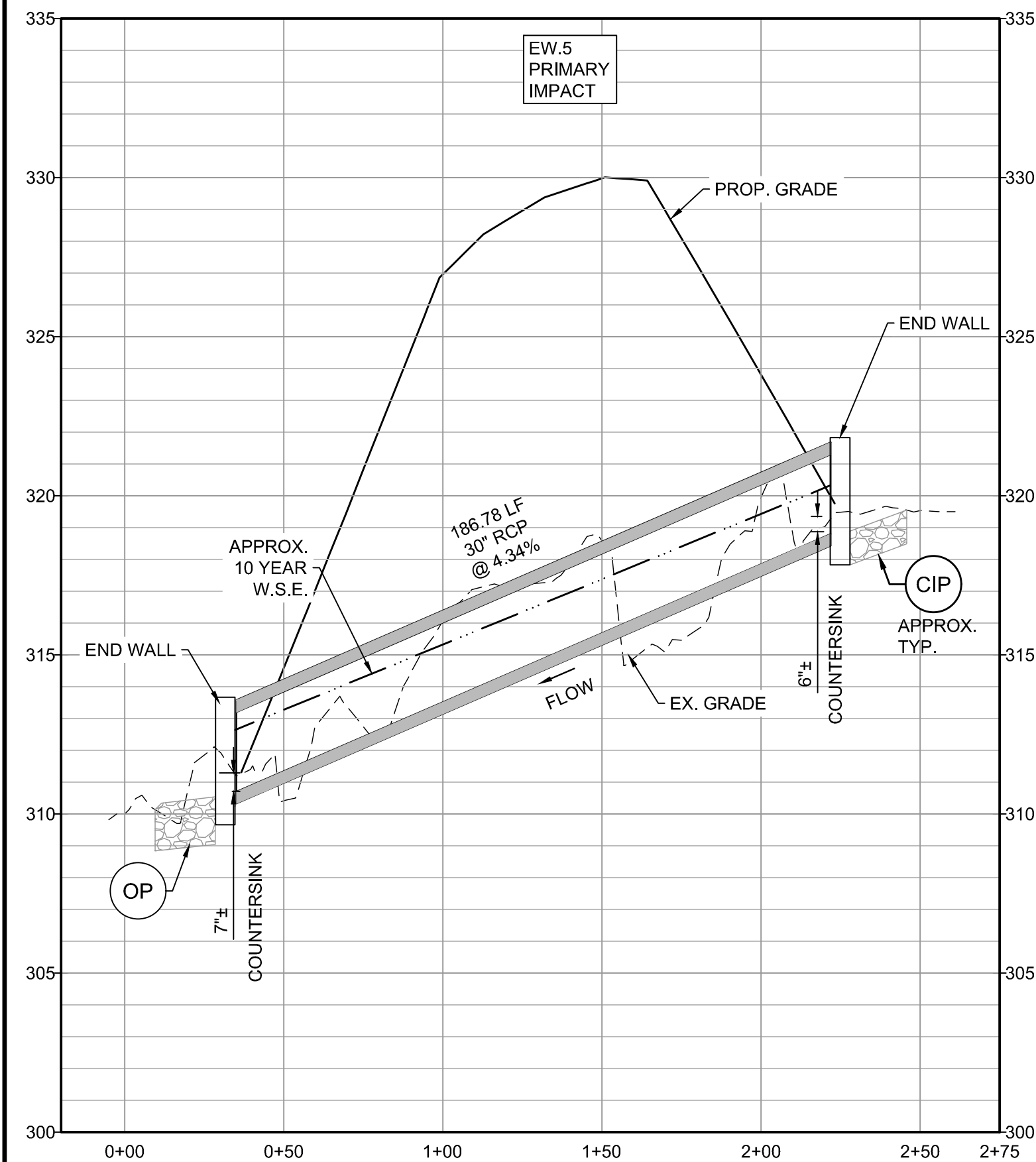
ER - BOTTOMLESS ARCH CULVERT 7A
Scale: H: 1"=40', V: 1"= 4'



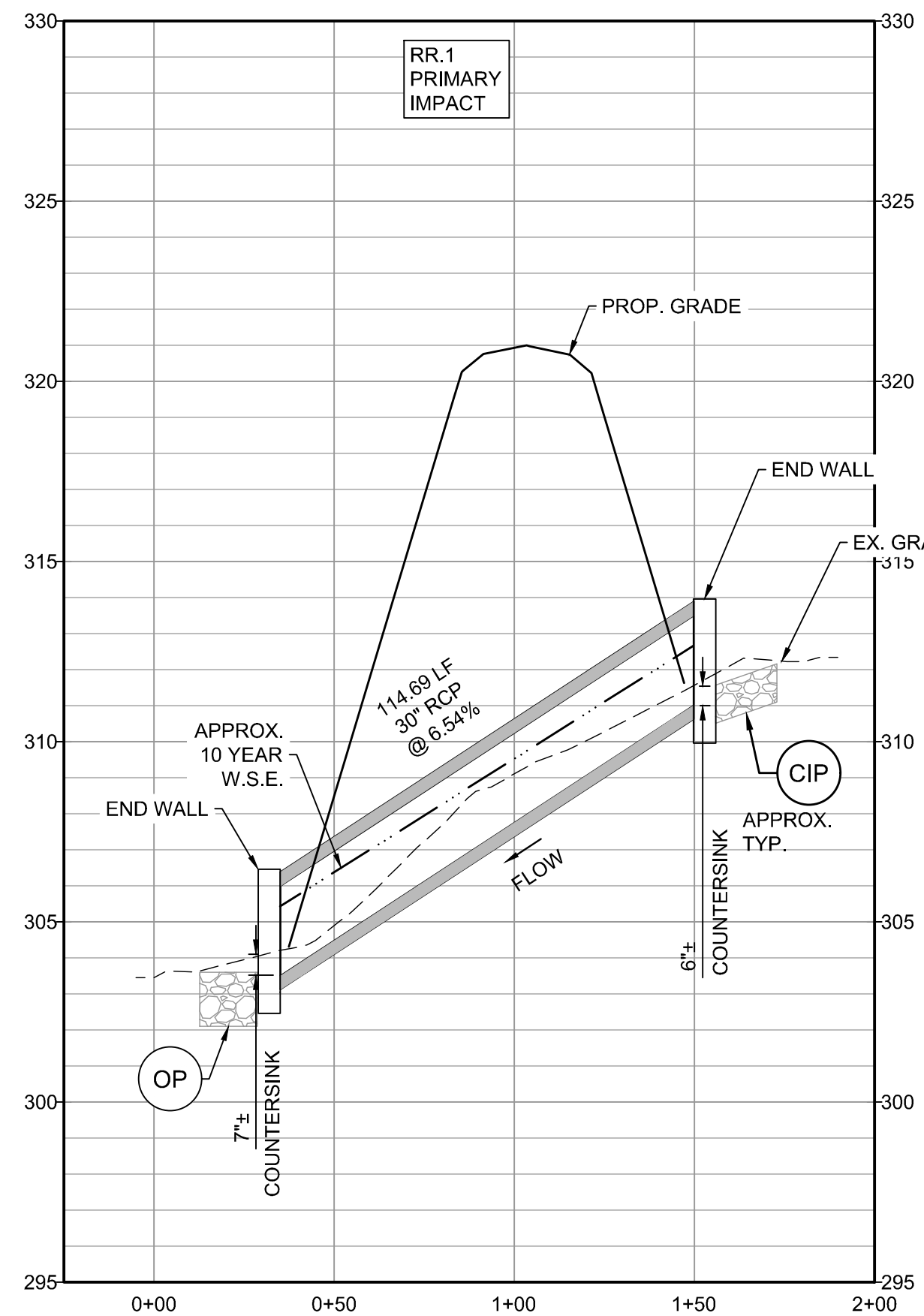
ER - BOTTOMLESS ARCH CULVERT 7B
Scale: H: 1"=40', V: 1"= 4'



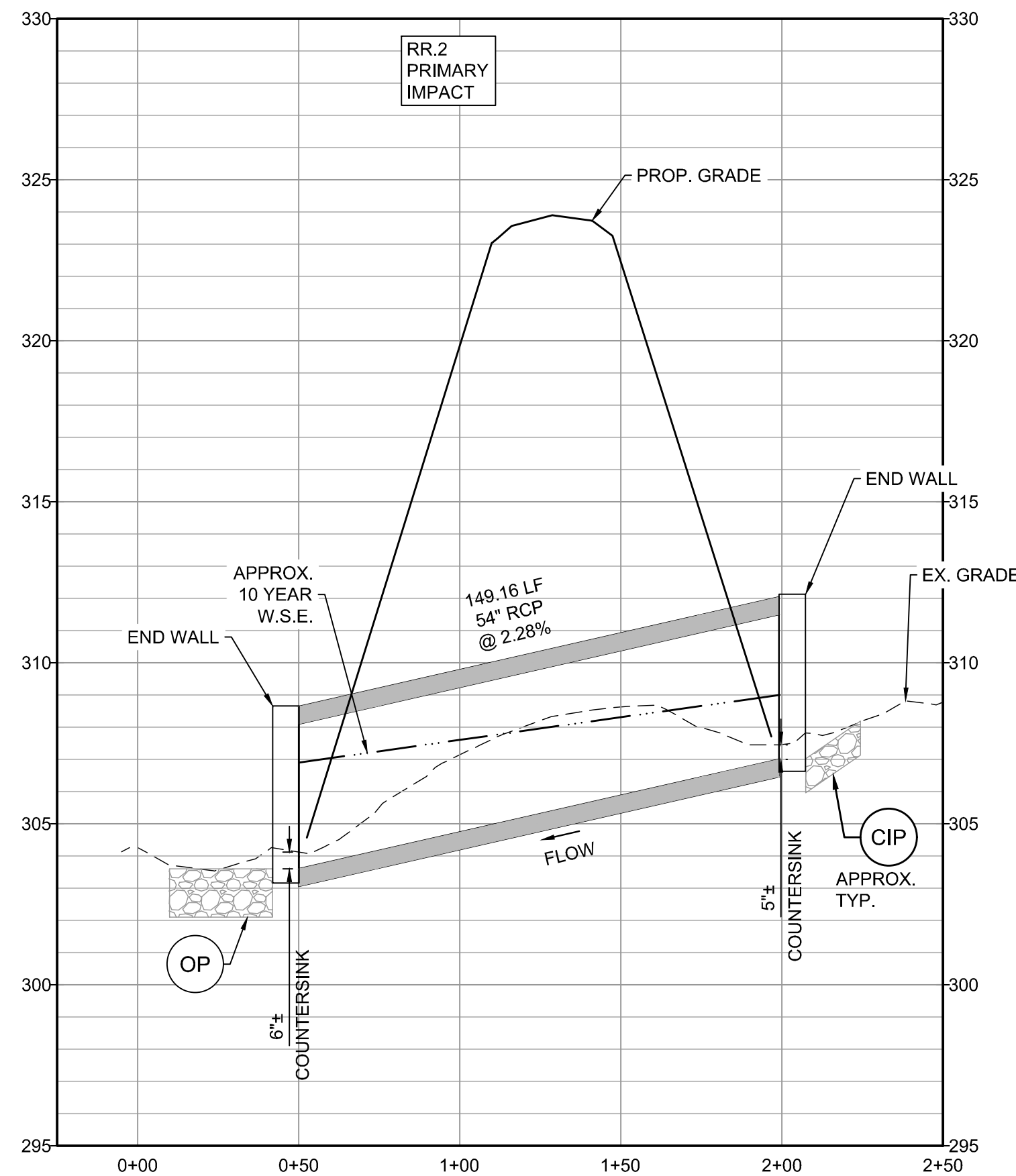
SR - CULVERT 1
Scale: H: 1"=40', V: 1"= 4'



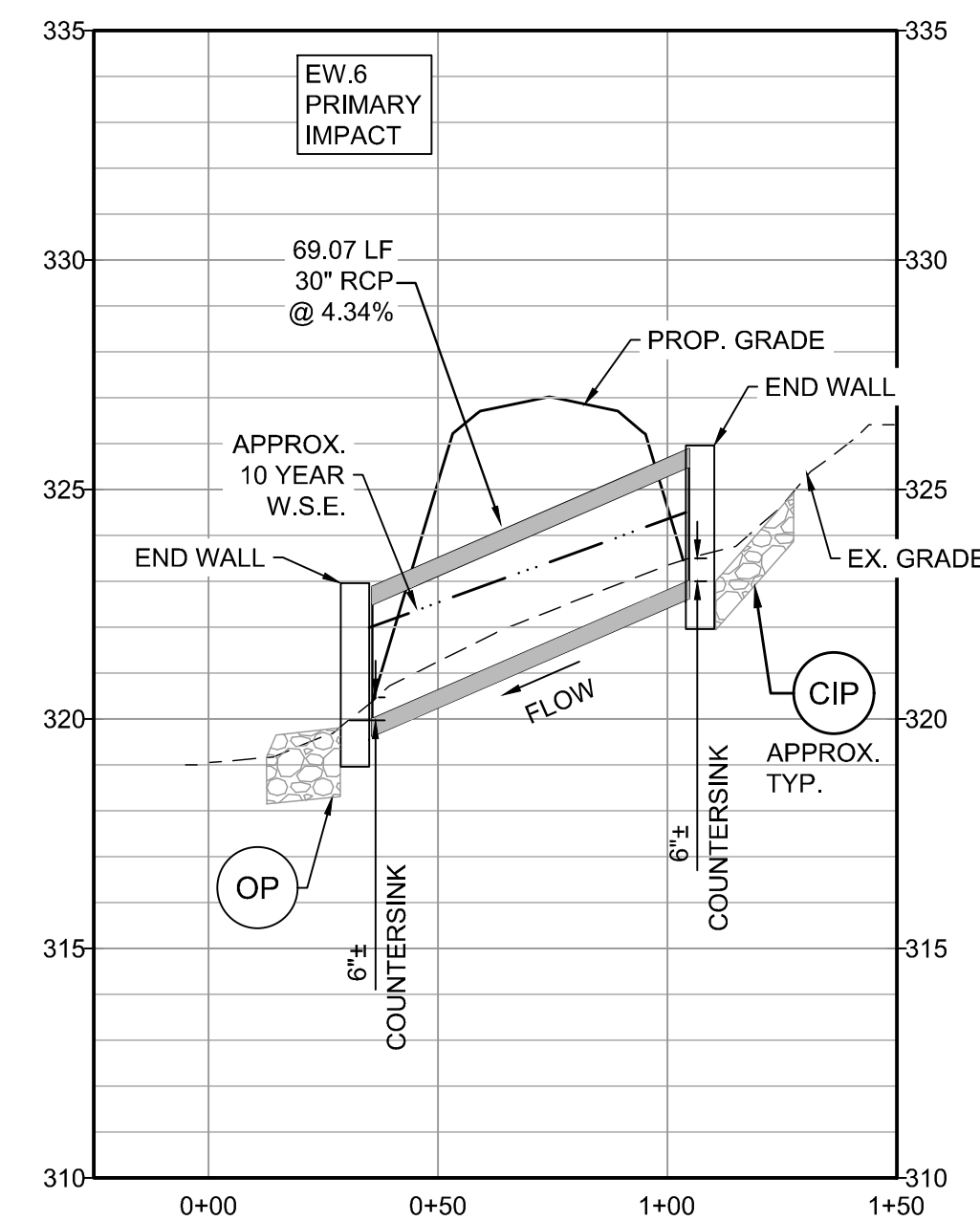
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Scale: H: 1"=40', V: 1"= 4'



SR - CULVERT 4
Scale: H: 1"=40', V: 1"= 4'



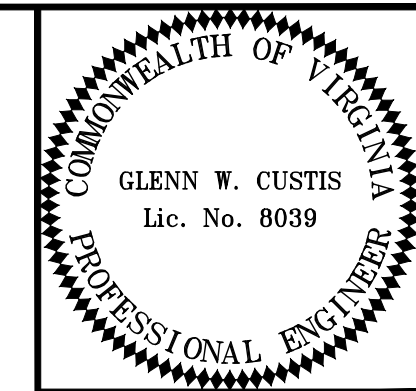
SR - CULVERT 7
Scale: H: 1"=40', V: 1"= 4'



HR - CULVERT 4
Scale: H: 1"=40', V: 1"= 4'

ABBREVIATIONS:
ER = ENTRANCE ROAD
SR = STATE ROAD
HR = HAUL ROAD

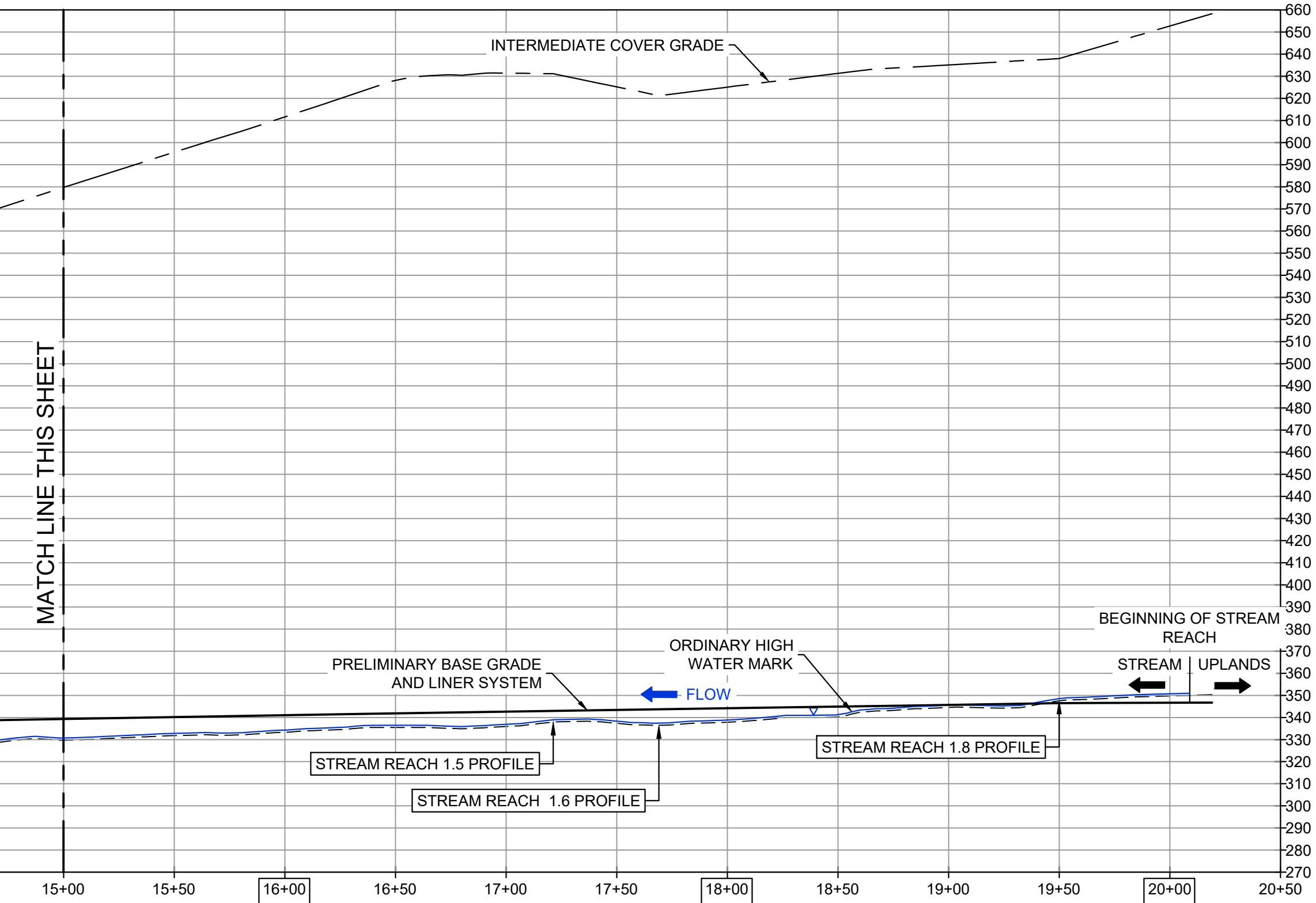
NOTES:
THERE ARE CURRENTLY NO
PROPOSED UTILITY CROSSINGS.
ALL EROSION & SEDIMENT CONTROL
MEASURES WILL BE IN ACCORDANCE
WITH APPLICABLE LOCAL & STATE
REGULATIONS & LOCATED WITHIN
LIMITS OF PERMITTED IMPACT AREAS
OR OUTSIDE OF JURISDICTIONAL
WATERS.



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• Northern Virginia
• Hampton Roads, VA
• Virginia Beach, VA

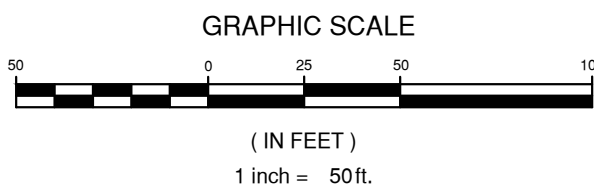
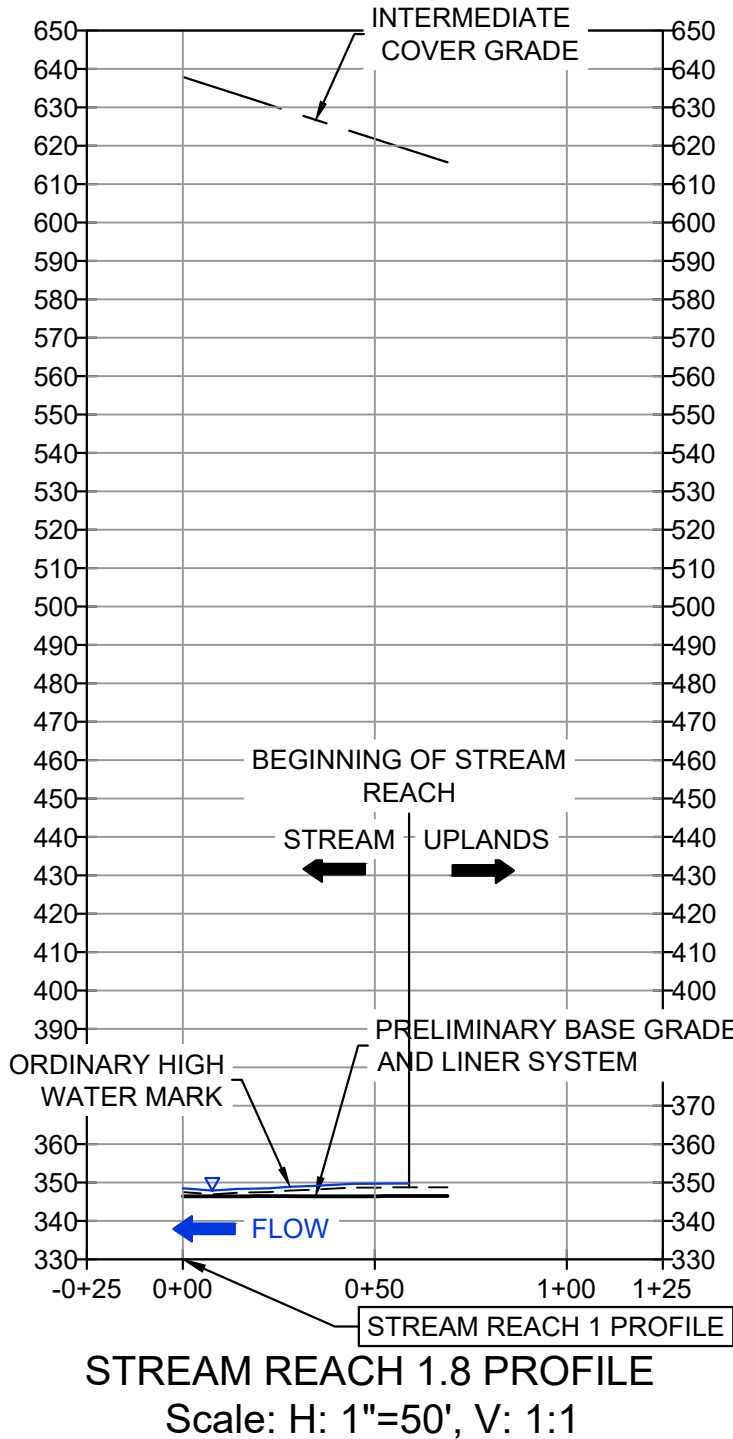
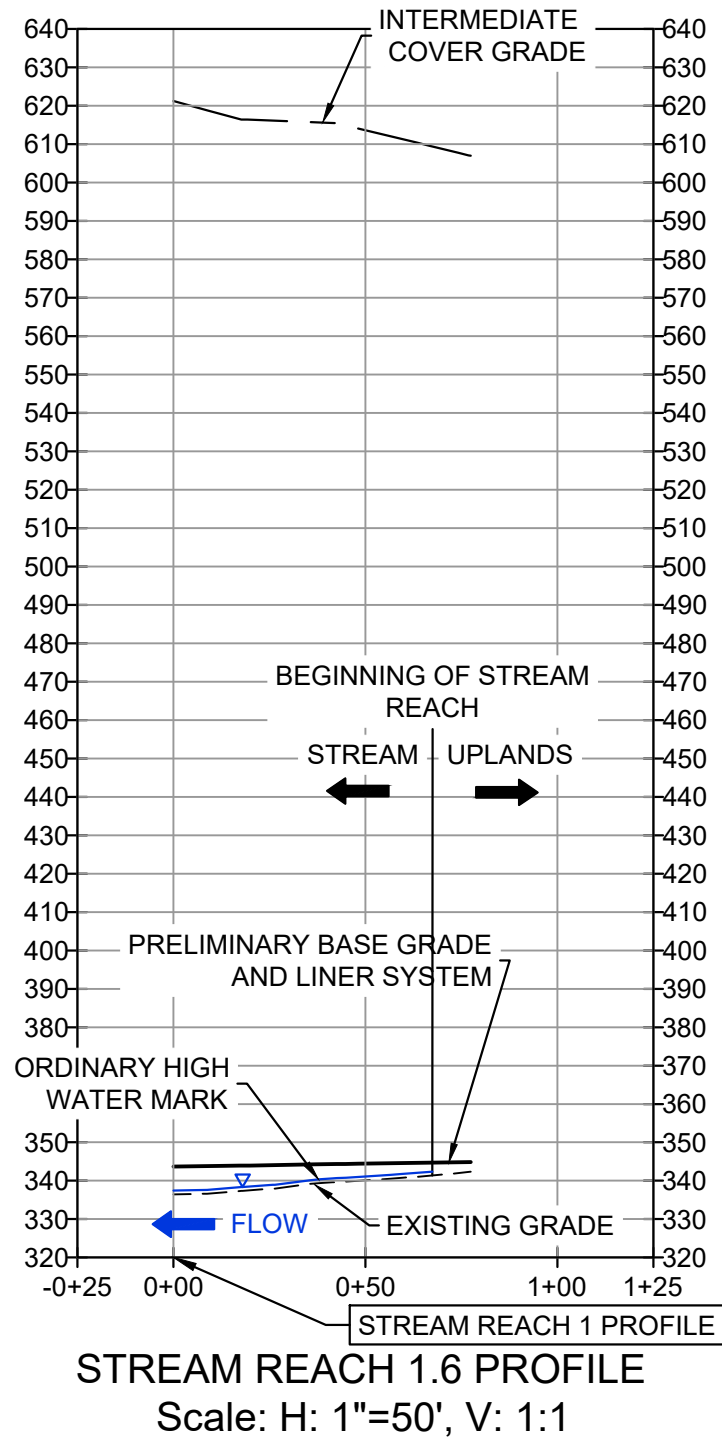
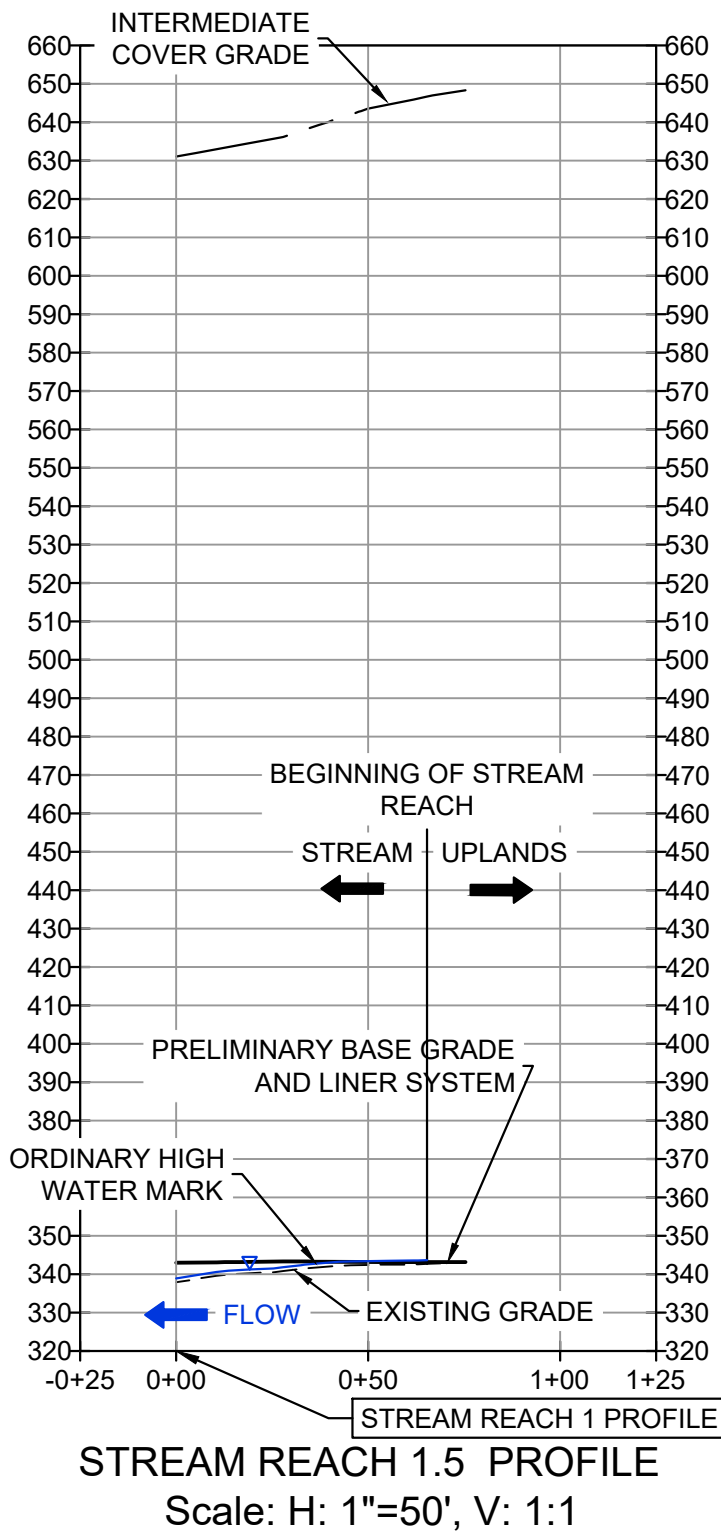
JPA IMPACTS - CULVERT CROSS SECTIONS
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS	
JPA - RESPONSE 1 MAY 07, 2021	
JPA - RESPONSE 2 JANUARY 11, 2022	
JPA - RESPONSE 3 APRIL 29, 2022	
DESIGNED BY:	EEH
DRAWN BY:	EEH
CHECKED BY:	GWC
SCALE:	AS SHOWN
DATE:	SEPTEMBER 30, 2021
PROJECT NUMBER:	18020117-110102
2.1	



LEGEND

	EXISTING GRADE
	ORDINARY HIGH WATER MARK
	PROPOSED GRADING
	INTERMEDIATE COVER GRADE
	PRELIMINARY BASE GRADE AND LINER SYSTEM
	STREAM FLOW DIRECTION



STREAM REACH 1 - PROFILES
PROPOSED BASE AND INTERMEDIATE COVER GRADES

GREEN RIDGE RECYCLING & DISPOSAL FACILITY

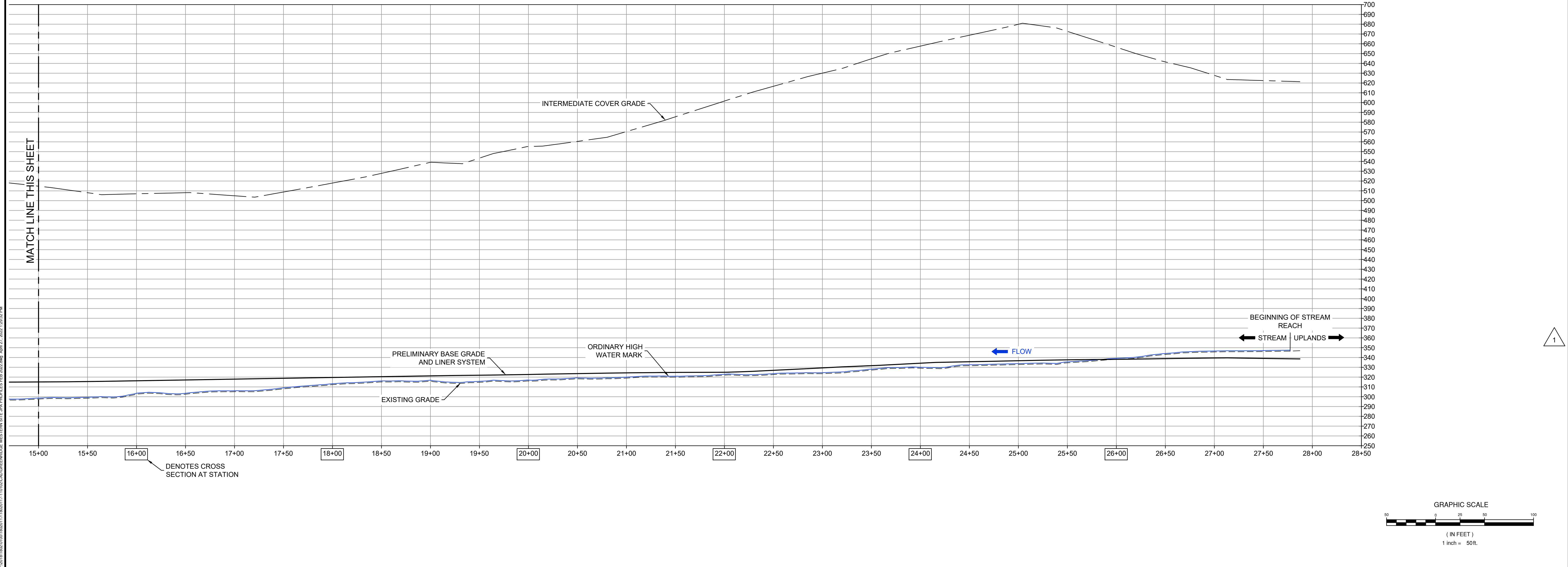
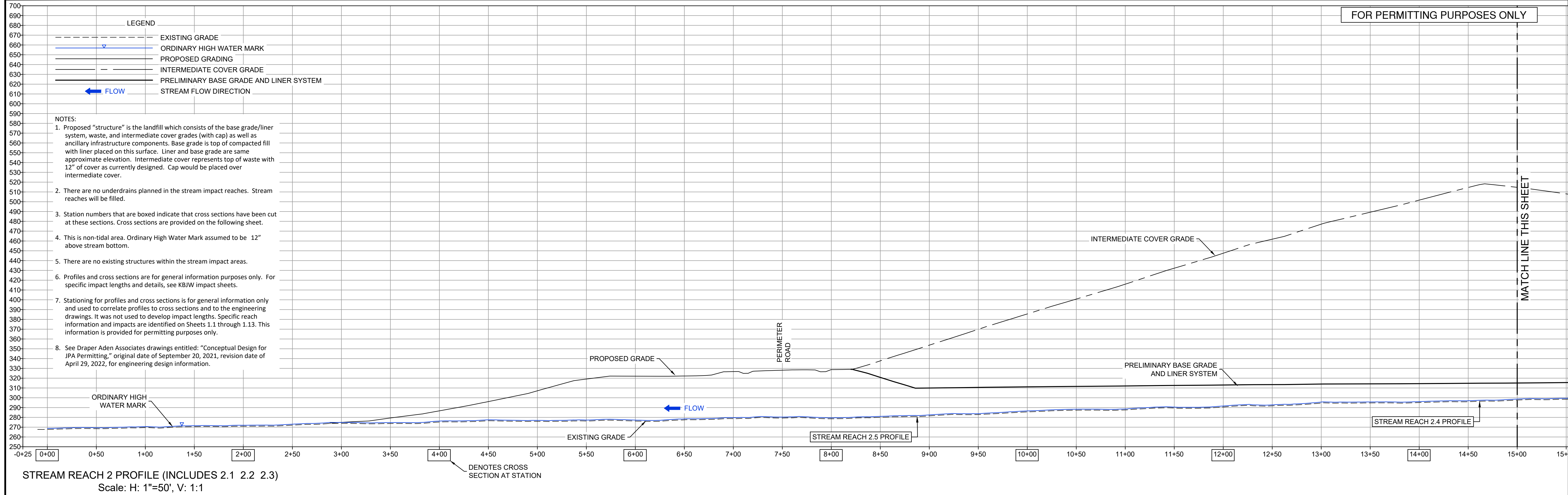
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022

RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:	LPK
DRAWN BY:	DLD
CHECKED BY:	LPK
SCALE:	1" = 50'
DATE:	SEPTEMBER 30, 2021
PROJECT NUMBER:	18020117-110102

3.1



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• Virginia Beach, VA

STREAM REACH 2 - PROFILES
PROPOSED BASE AND INTERMEDIATE COVER GRADES

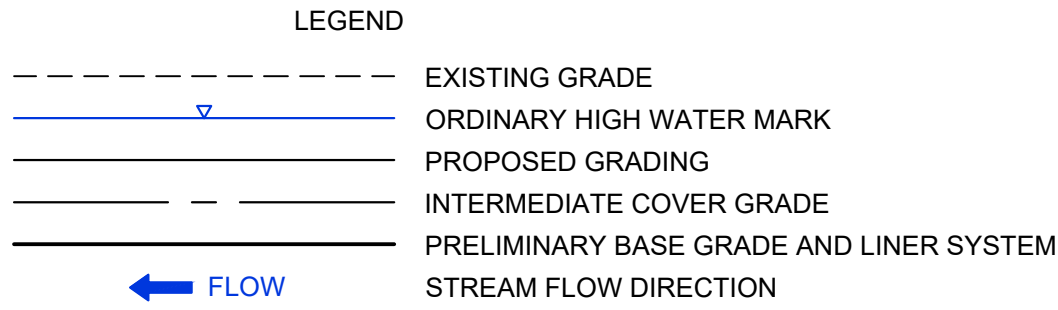
GREEN RIDGE RECYCLING & DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

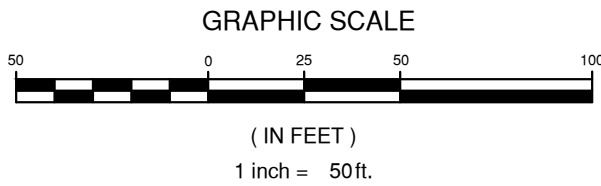
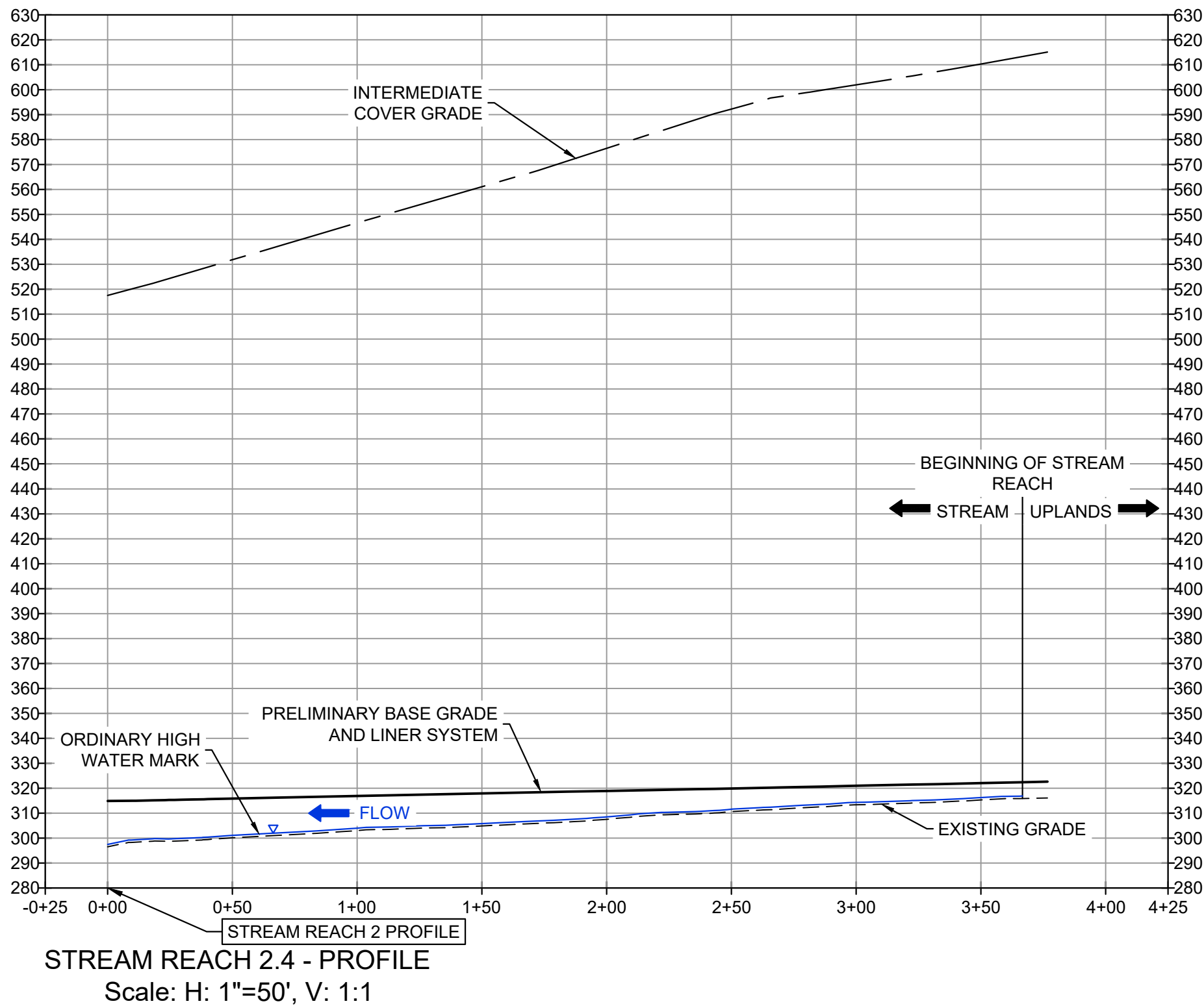
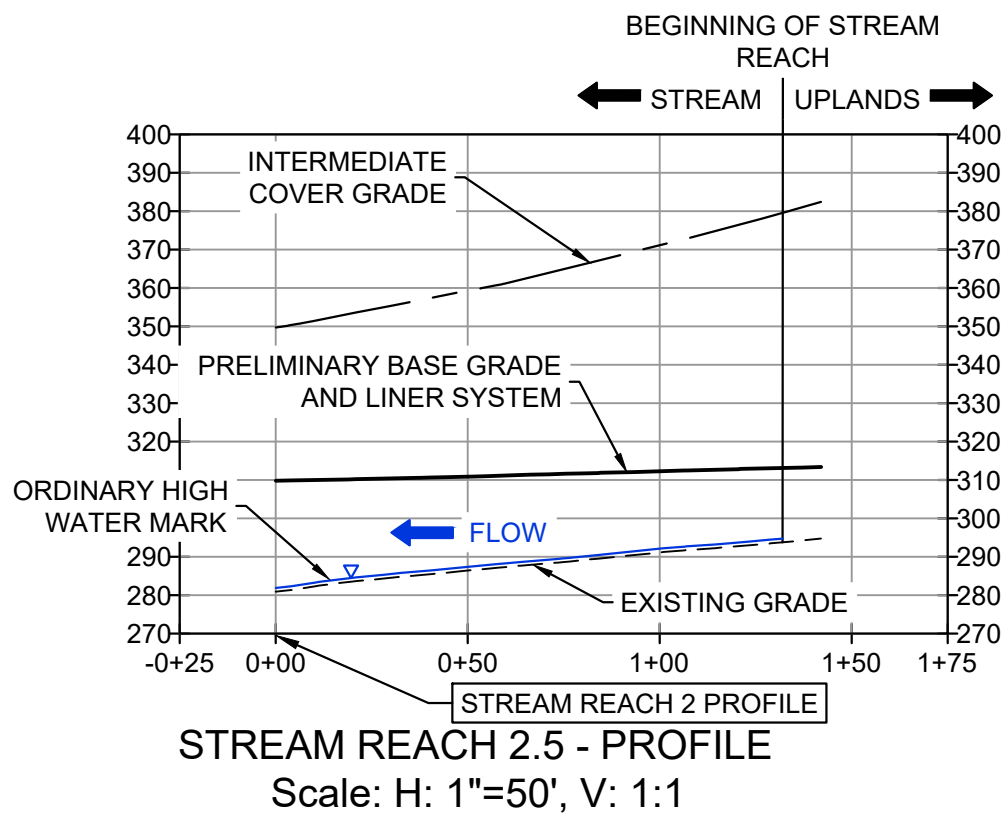
REVISIONS
ORIGINAL JPA SUBMITTAL JANUARY 11, 2022
RESPONSE 1 - APRIL 29, 2022

DESIGNED BY:	LPK
DRAWN BY:	DLD
CHECKED BY:	LPK
SCALE:	1" = 50'
DATE:	SEPTEMBER 30, 2021
PROJECT NUMBER:	18020117-110102

P:\2011\18020117-110102\GREENRIDGE WESTERN SITE JPA\PROFILES\FEB 2022\AND APR 27, 2022\18020117.dwg



- NOTES:
- Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
 - There are no underdrains planned in the stream impact reaches. Stream reaches will be filled.
 - Station numbers that are boxed indicate that cross sections have been cut at these sections. Cross sections are provided on the following sheet.
 - This is non-tidal area. Ordinary High Water Mark assumed to be 12" above stream bottom.
 - There are no existing structures within the stream impact areas.
 - Profiles and cross sections are for general information purposes only. For specific impact lengths and details, see KBIW impact sheets.
 - Stationing for profiles and cross sections is for general information only and used to correlate profiles to cross sections and to the engineering drawings. It was not used to develop impact lengths. Specific reach information and impacts are identified on Sheets 1.1 through 1.13. This information is provided for permitting purposes only.
 - See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



FOR PERMITTING PURPOSES ONLY

1

STREAM REACH 2 - PROFILES
PROPOSED BASE AND INTERMEDIATE COVER GRADES

GREEN RIDGE RECYCLING & DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

REVISIONS

ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022

RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK

DRAWN BY:
DLD

CHECKED BY:
LPK

SCALE:
1" = 50'

DATE:
SEPTEMBER 30, 2021

PROJECT NUMBER:
18020117-110102

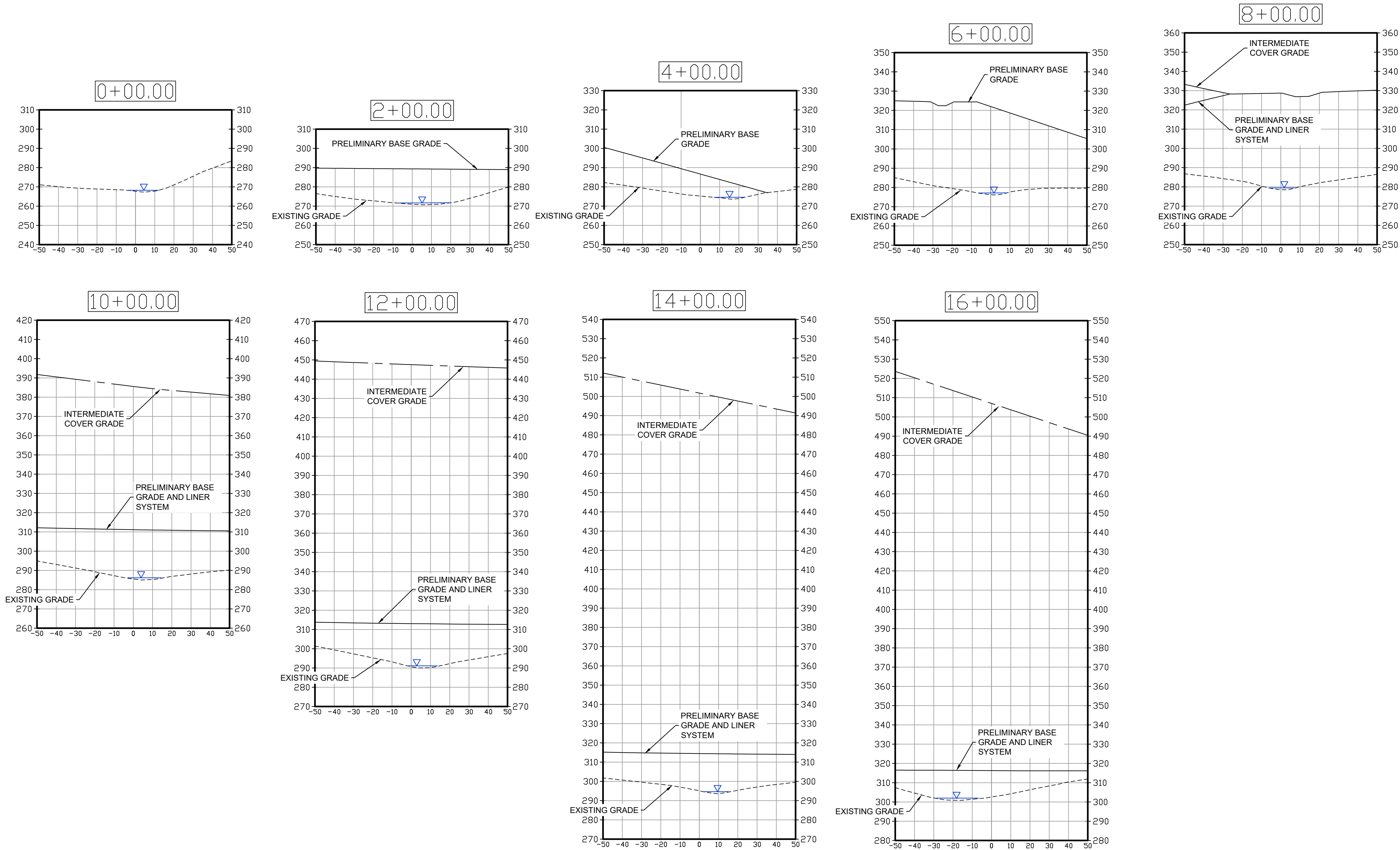
3.2A

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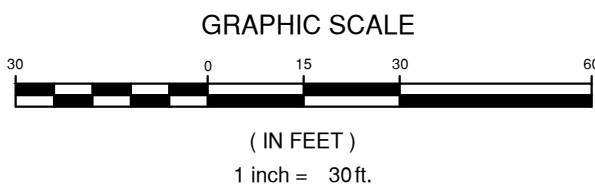
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P:\2018\18020117\18020117-10162CAGREENHOUSE WESTERN SITE JPA PROFILES\FEB 2022.dwg, 04/27/2022 1:29:44 PM



STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1



FOR PERMITTING PURPOSES ONLY

1

STREAM REACH 2 - CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

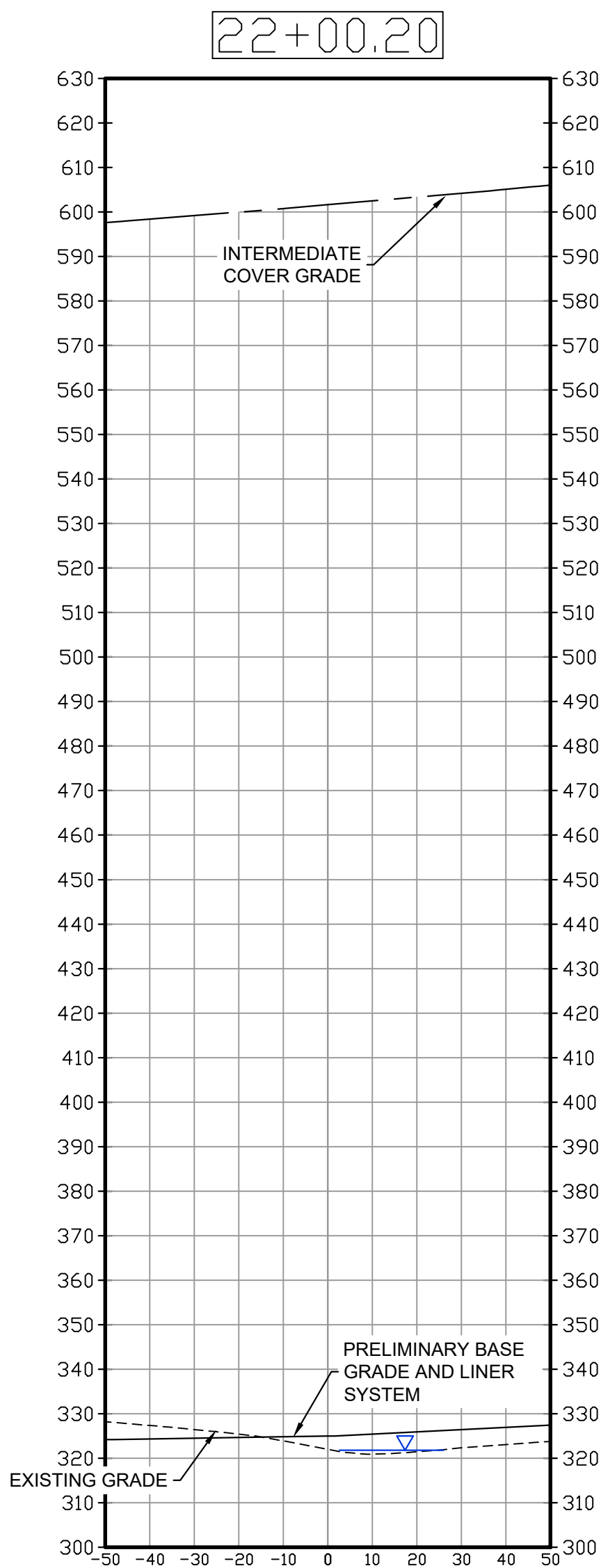
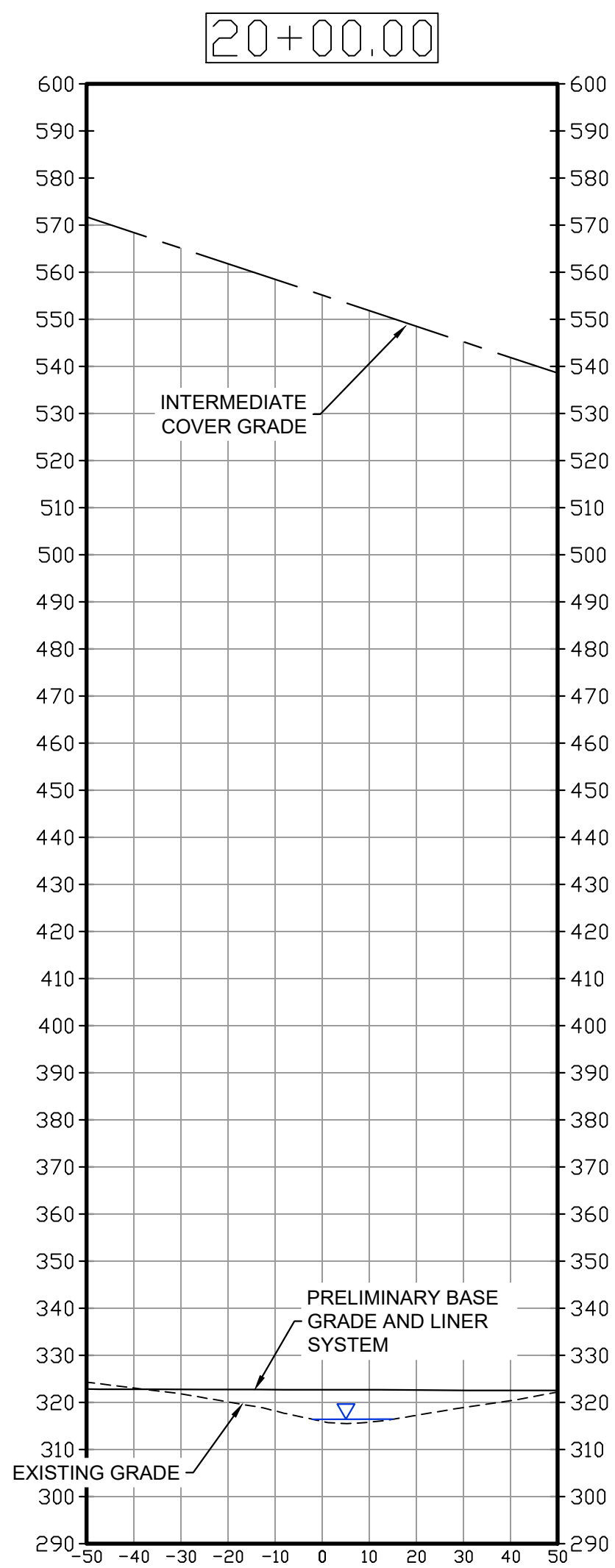
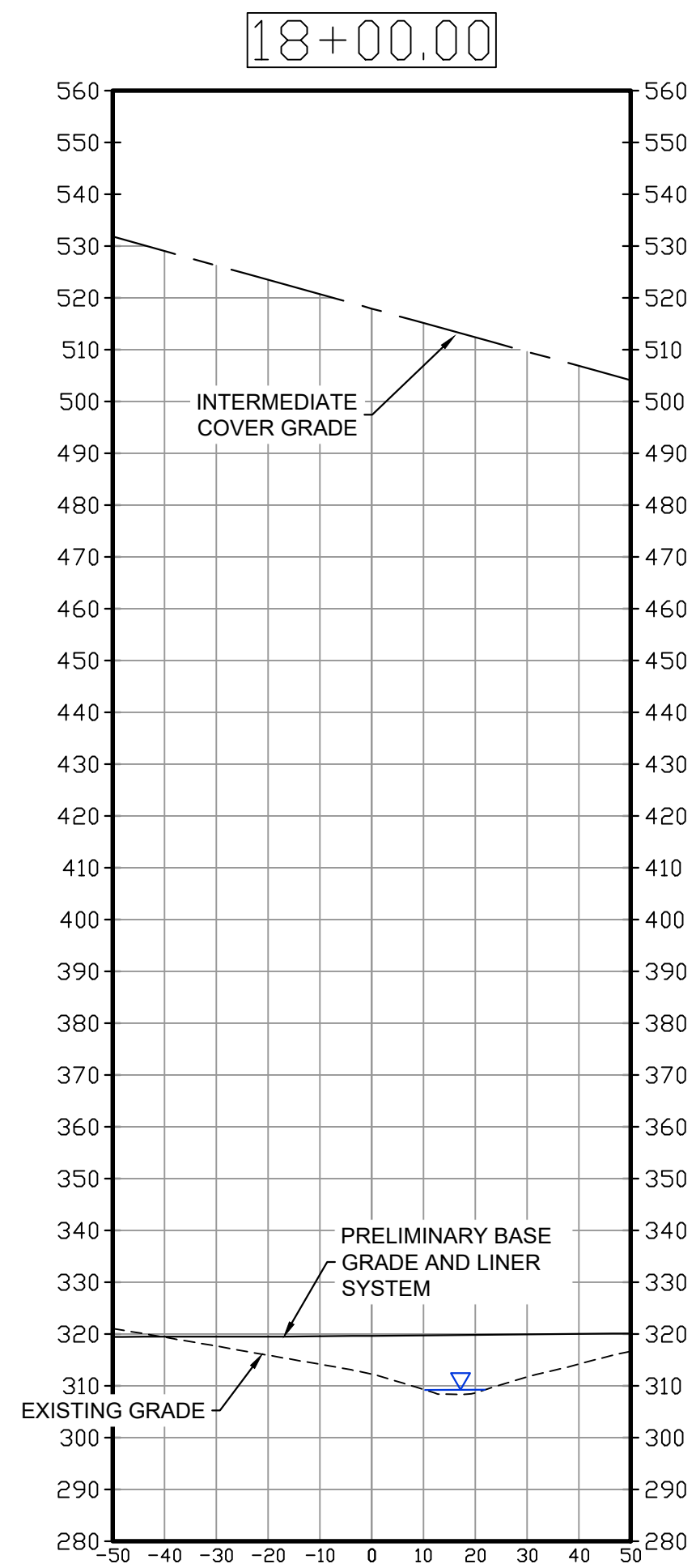
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LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
1" = 30'
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102

3.2B

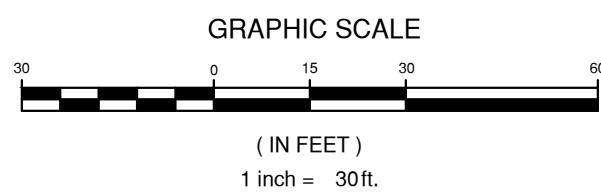
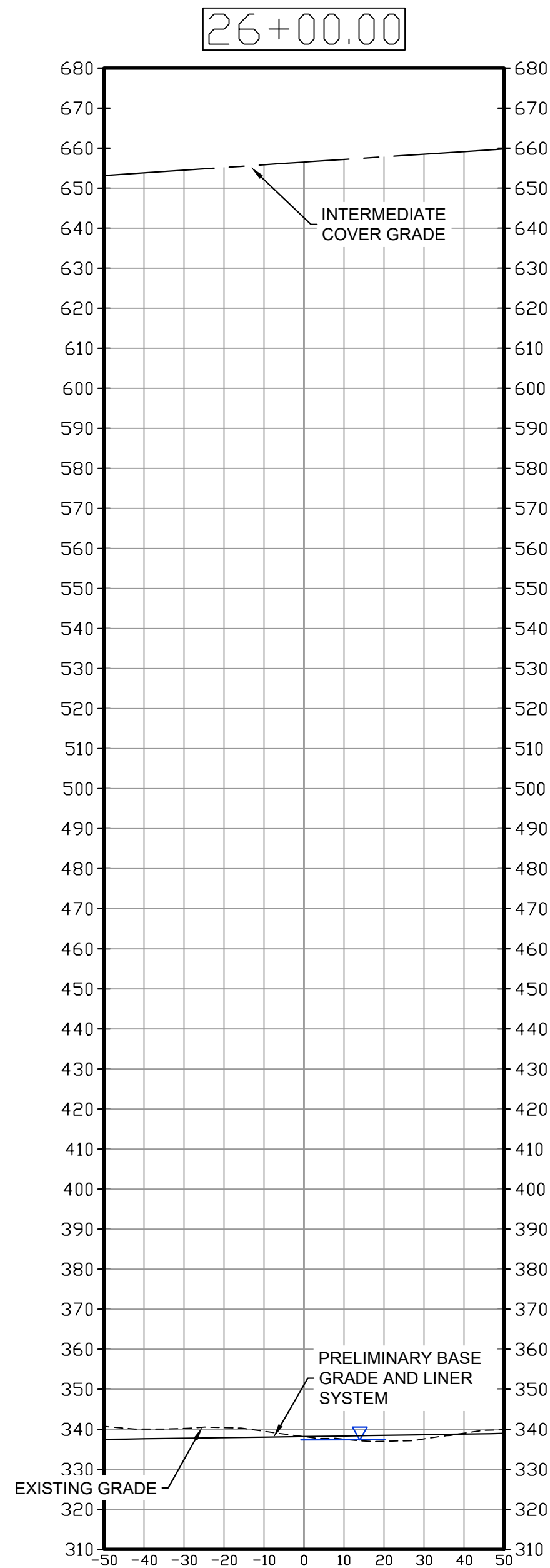
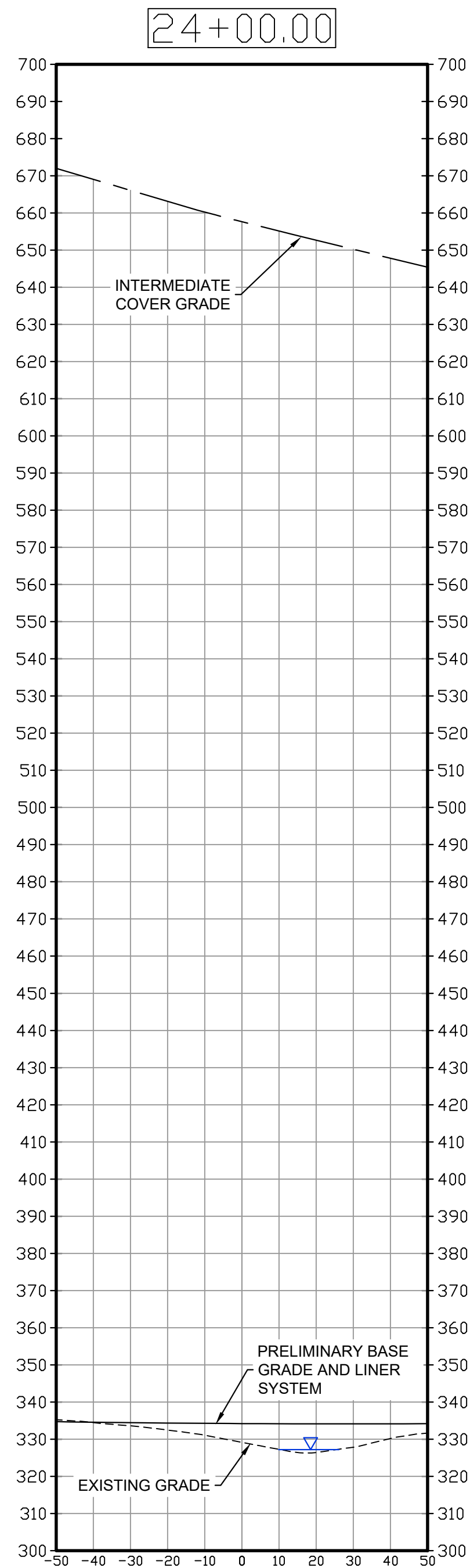
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STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1



FOR PERMITTING PURPOSES ONLY

1

STREAM REACH 2 - CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
1" = 30'
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102

3.2C

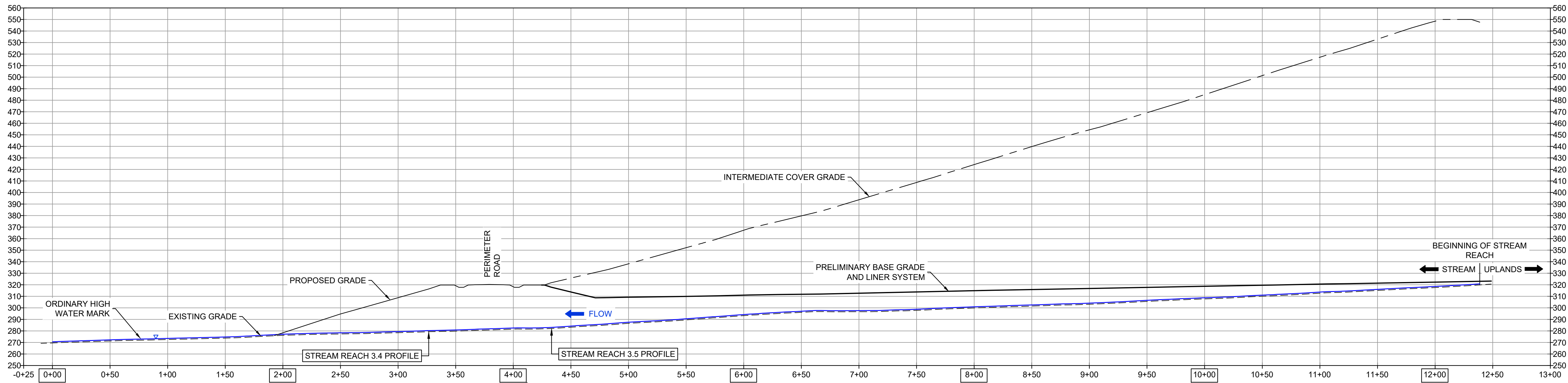
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STREAM REACH 3 - PROFILES
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

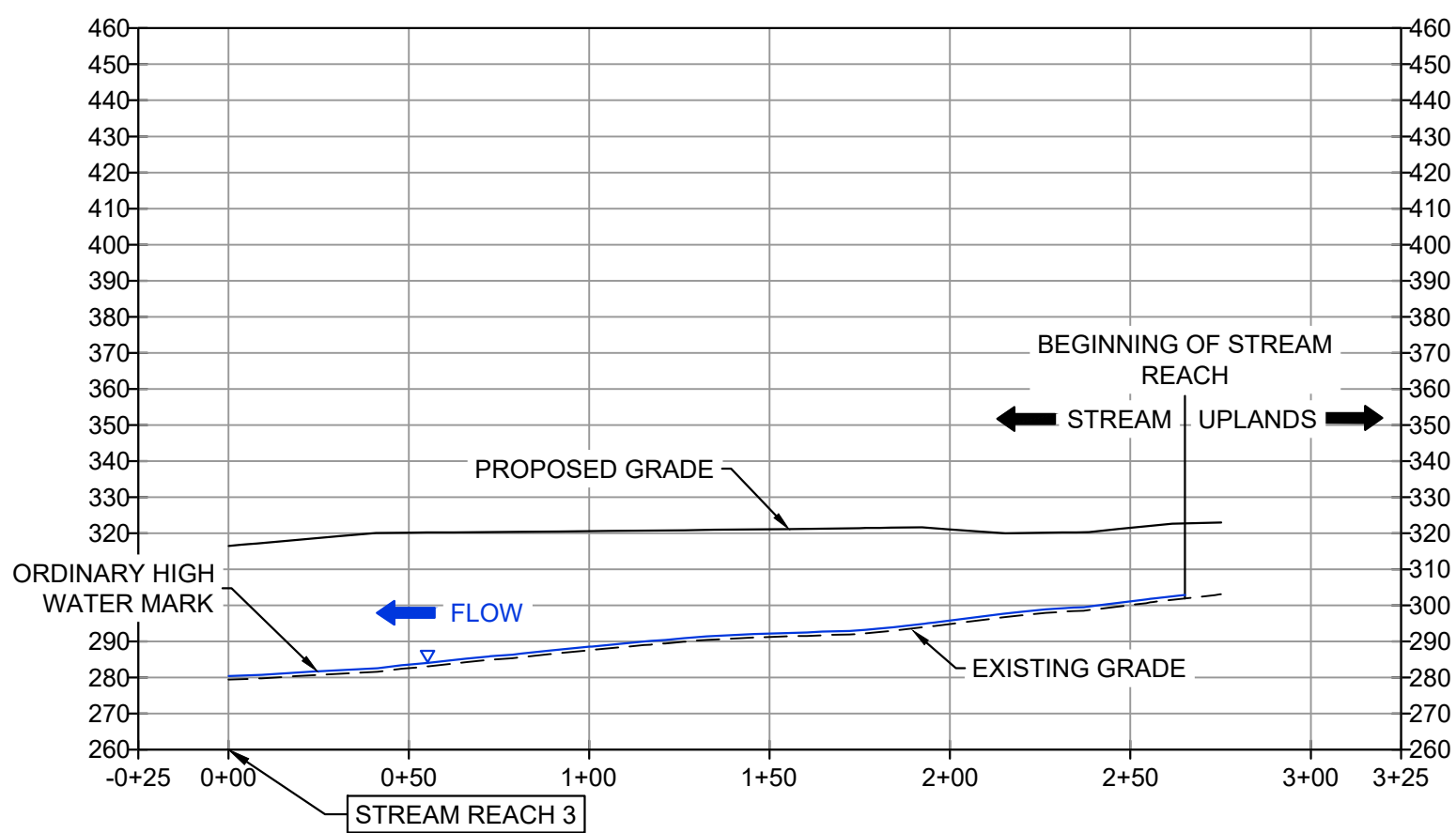
REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
1" = 50'
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102

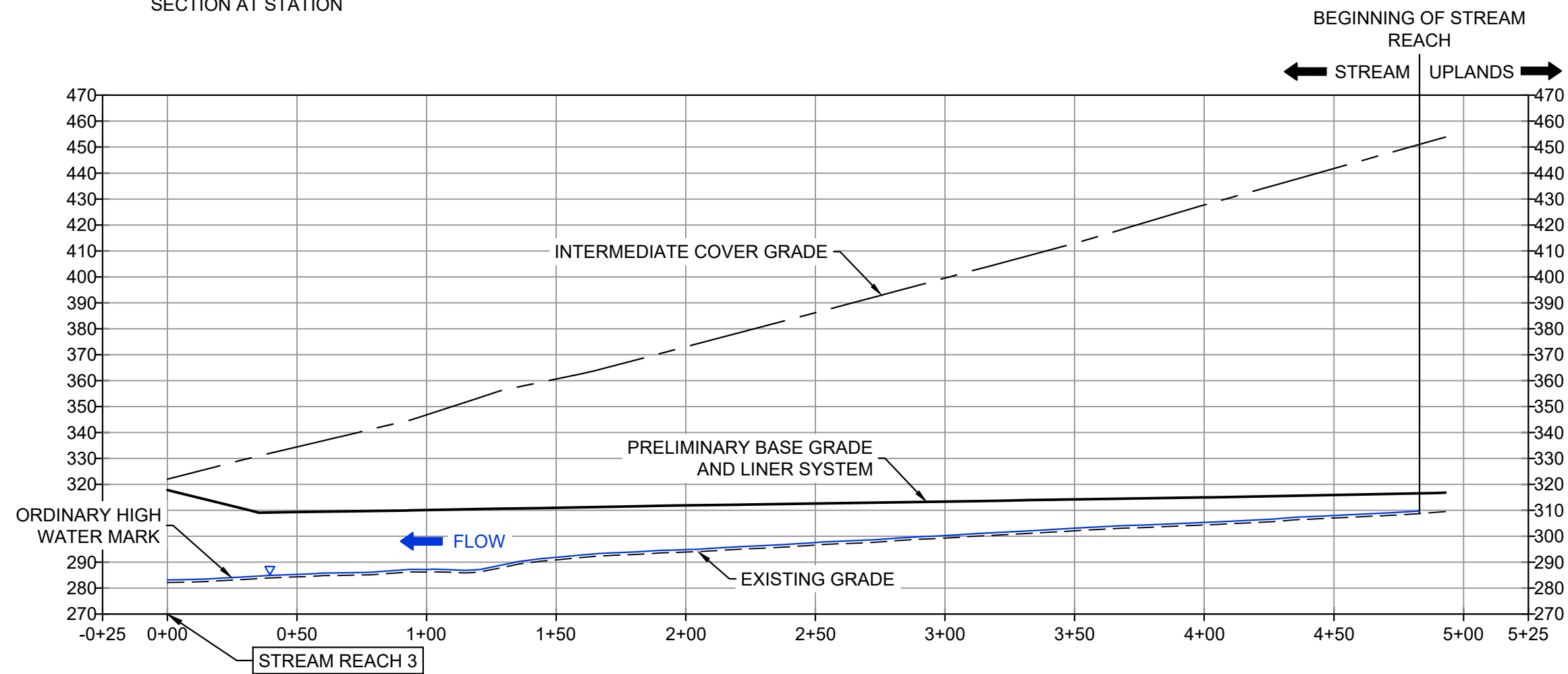
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STREAM REACH 3 PROFILE (INCLUDES STREAM REACHS 3.1 3.2 3.3)
Scale: H: 1"=50', V: 1:1



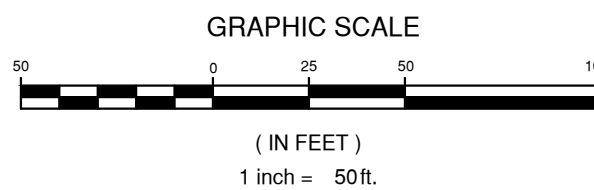
STREAM REACH 3.4 PROFILE
Scale: H: 1"=50', V: 1:1



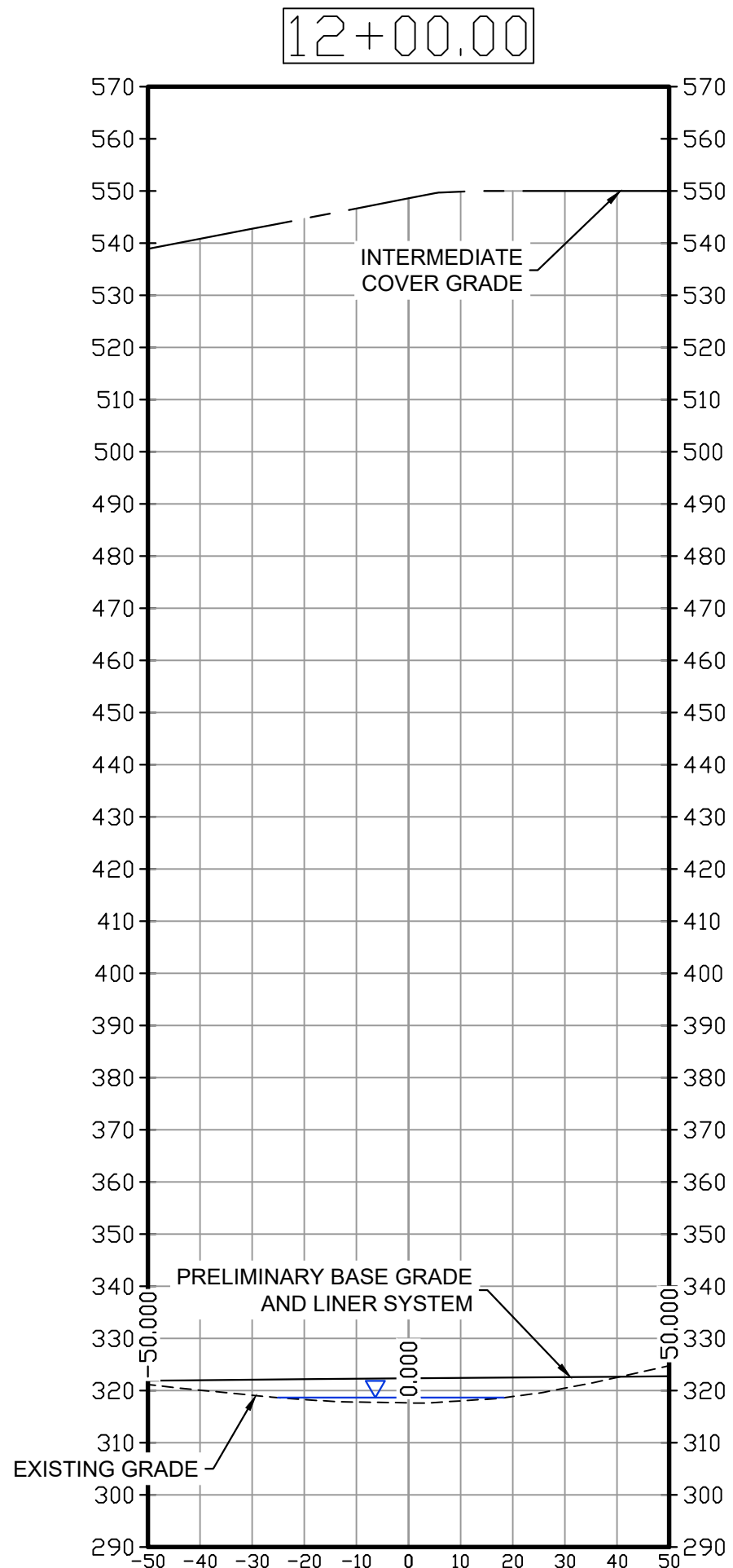
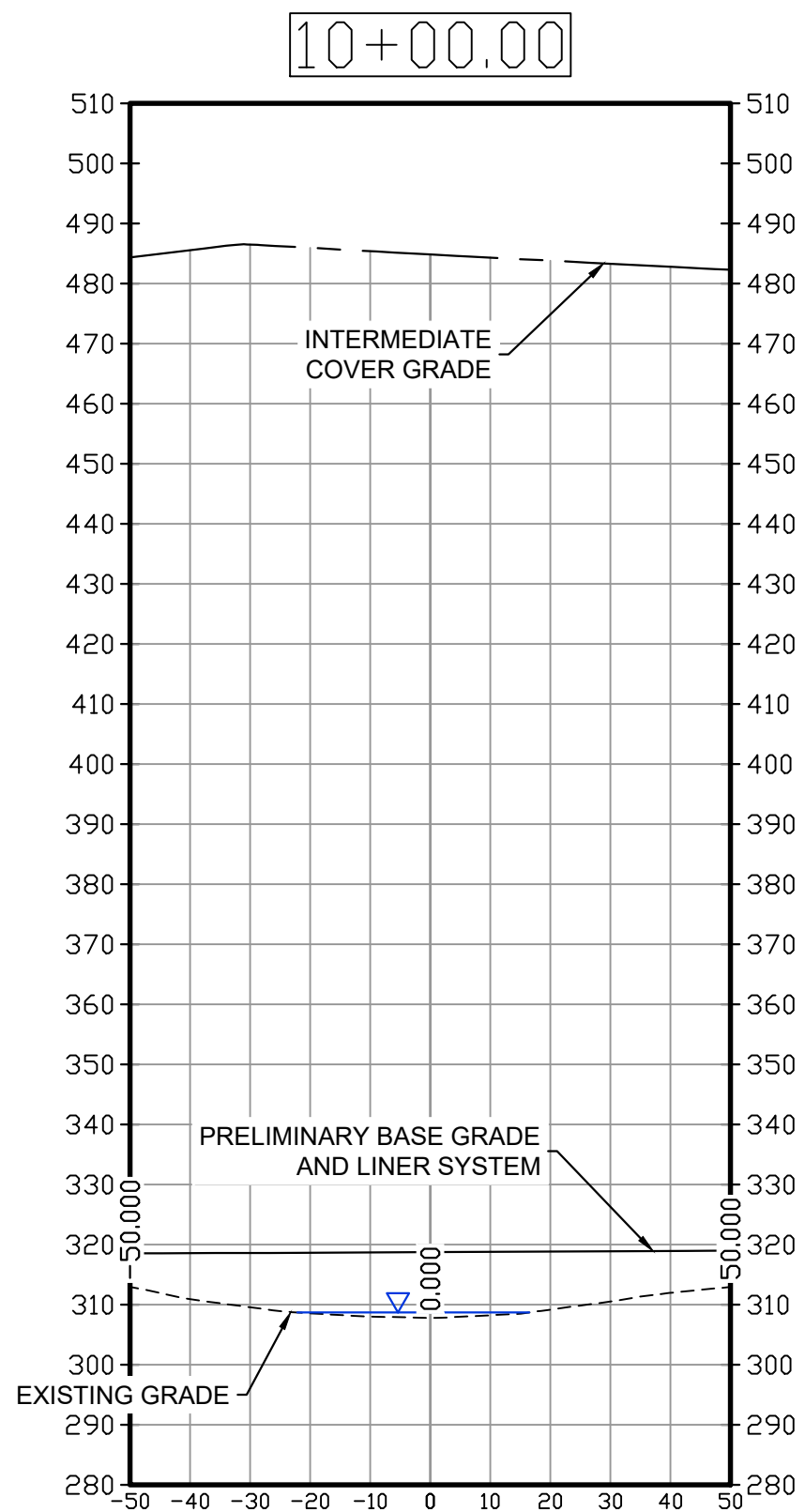
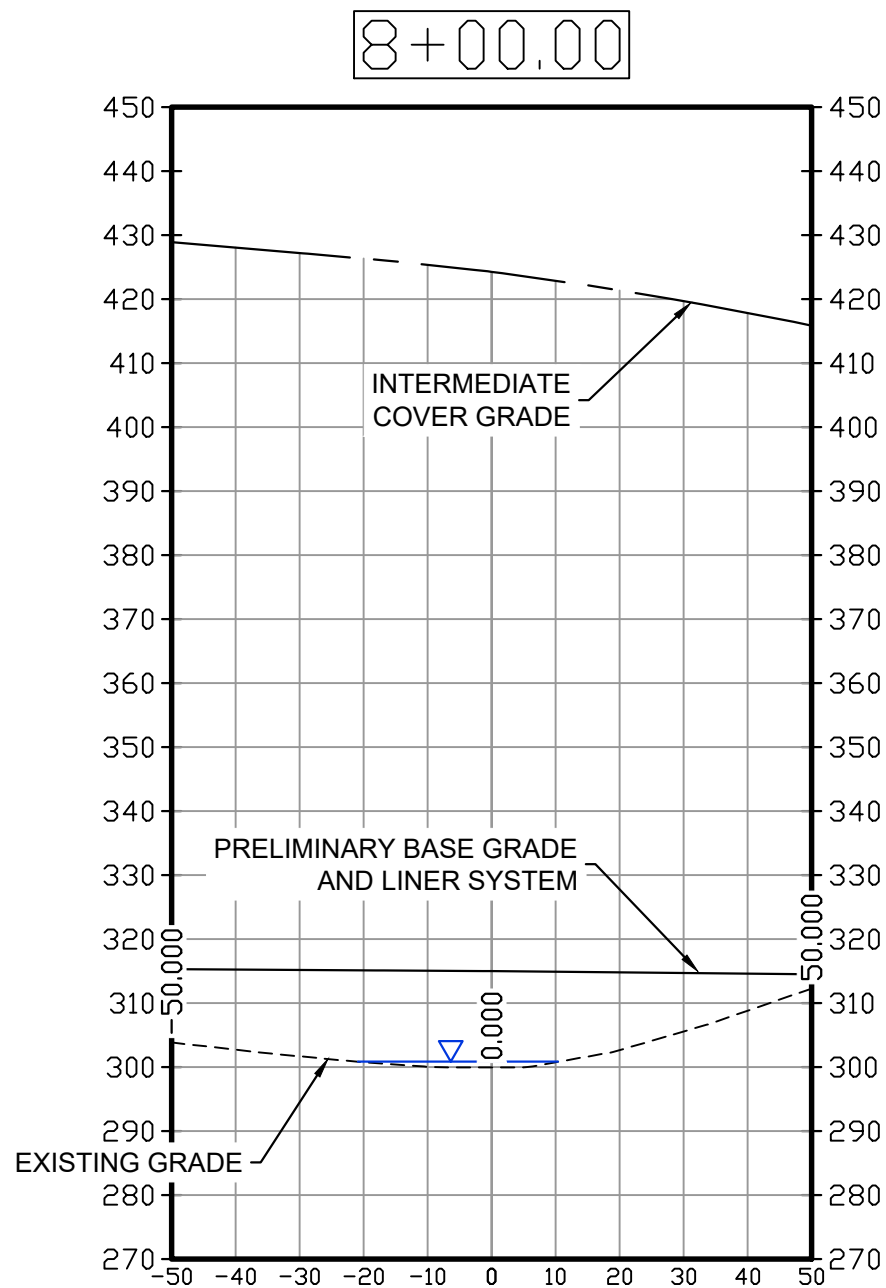
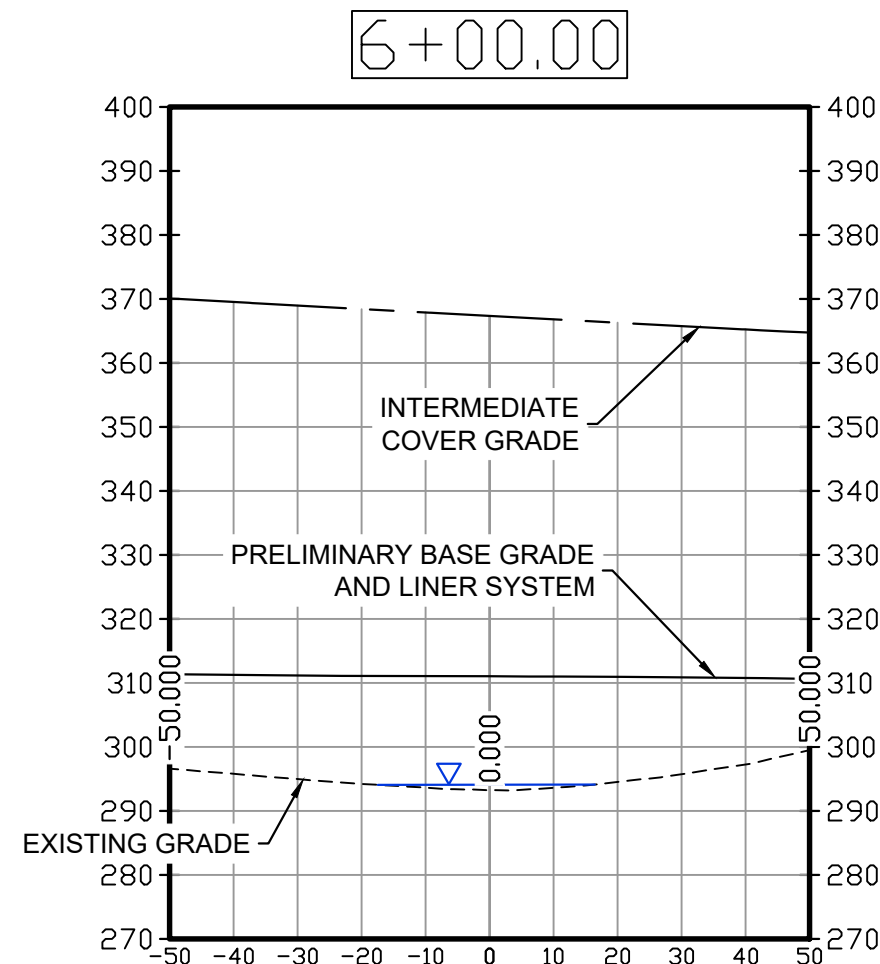
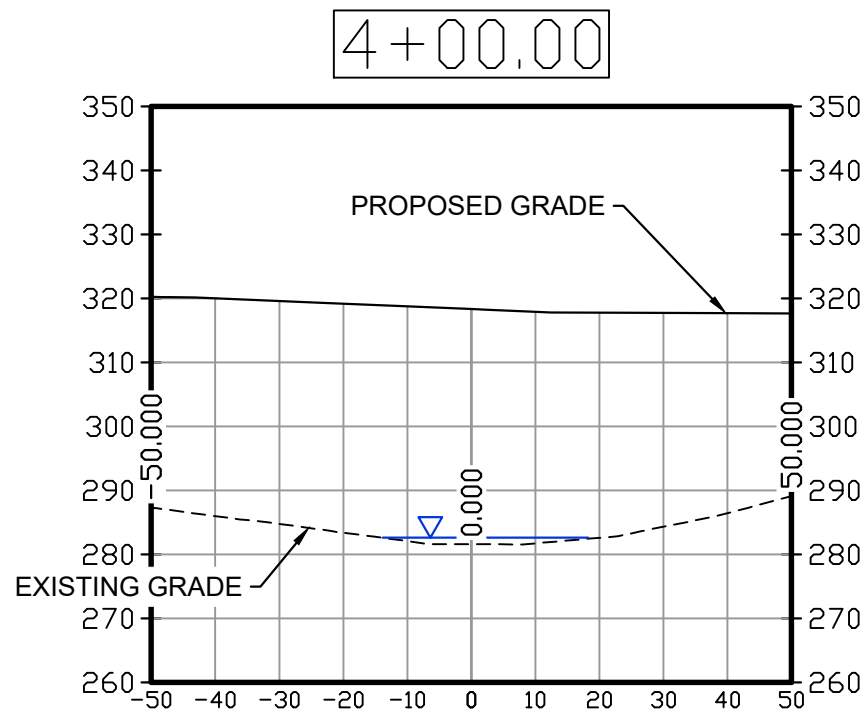
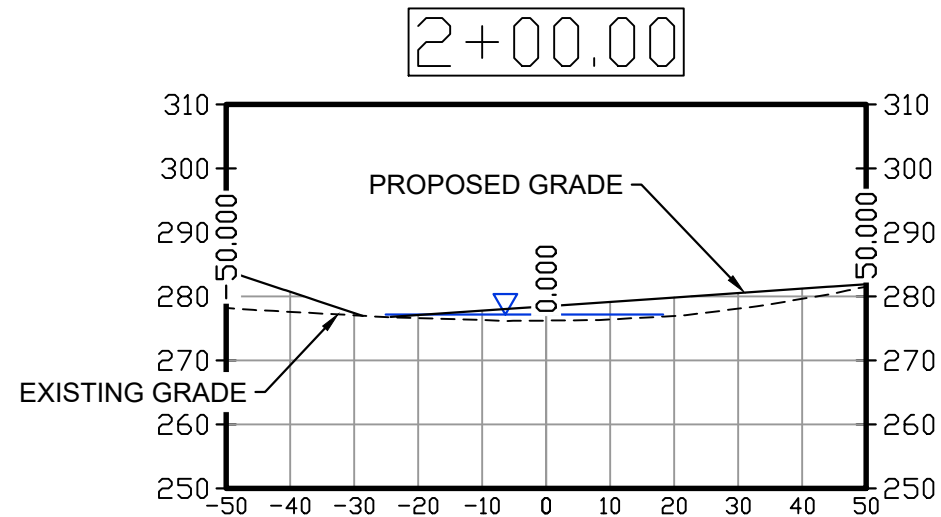
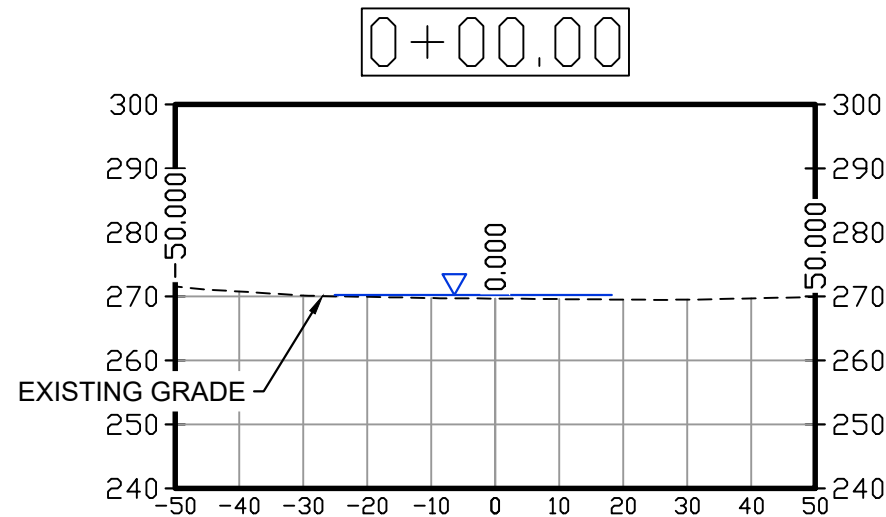
STREAM REACH 3.5 AND 3.6 PROFILE
Scale: H: 1"=50', V: 1:1

- LEGEND
- EXISTING GRADE
 - ORDINARY HIGH WATER MARK
 - PROPOSED GRADING
 - INTERMEDIATE COVER GRADE
 - PRELIMINARY BASE GRADE AND LINER SYSTEM
 - ← FLOW
 - ← STREAM
 - UPLANDS

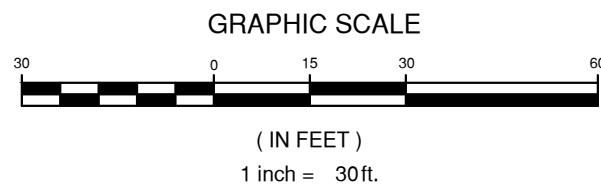
- NOTES:
- Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
 - There are no underdrains planned in the stream impact reaches. Stream reaches will be filled.
 - Station numbers that are boxed indicate that cross sections have been cut at these sections. Cross sections are provided on the following sheet.
 - This is non-tidal area. Ordinary High Water Mark assumed to be 12" above stream bottom.
 - There are no existing structures within the stream impact areas.
 - Profiles and cross sections are for general information purposes only. For specific impact lengths and details, see KBJW impact sheets.
 - Stationing for profiles and cross sections is for general information only and used to correlate profiles to cross sections and to the engineering drawings. It was not used to develop impact lengths. Specific reach information and impacts are identified on Sheets 1.1 through 1.13. This information is provided for permitting purposes only.
 - See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



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STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1



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1

STREAM REACH 3 - CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
1" = 30'
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102

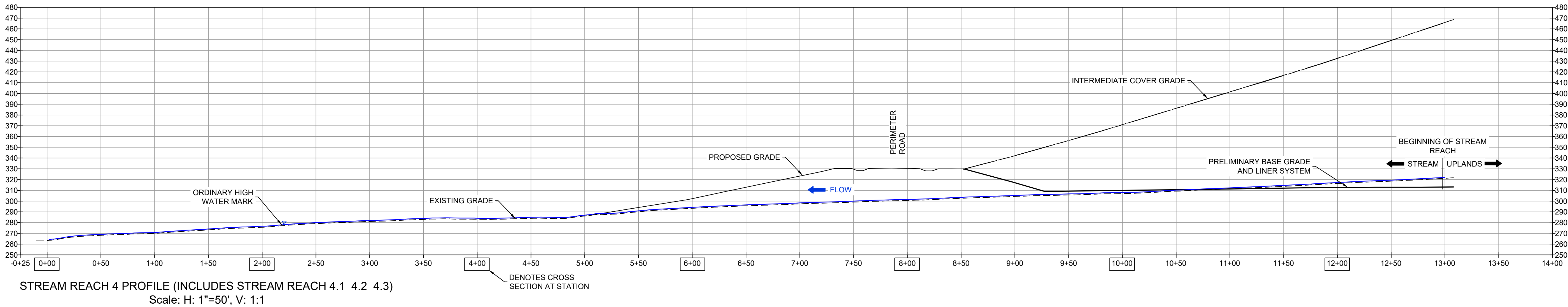
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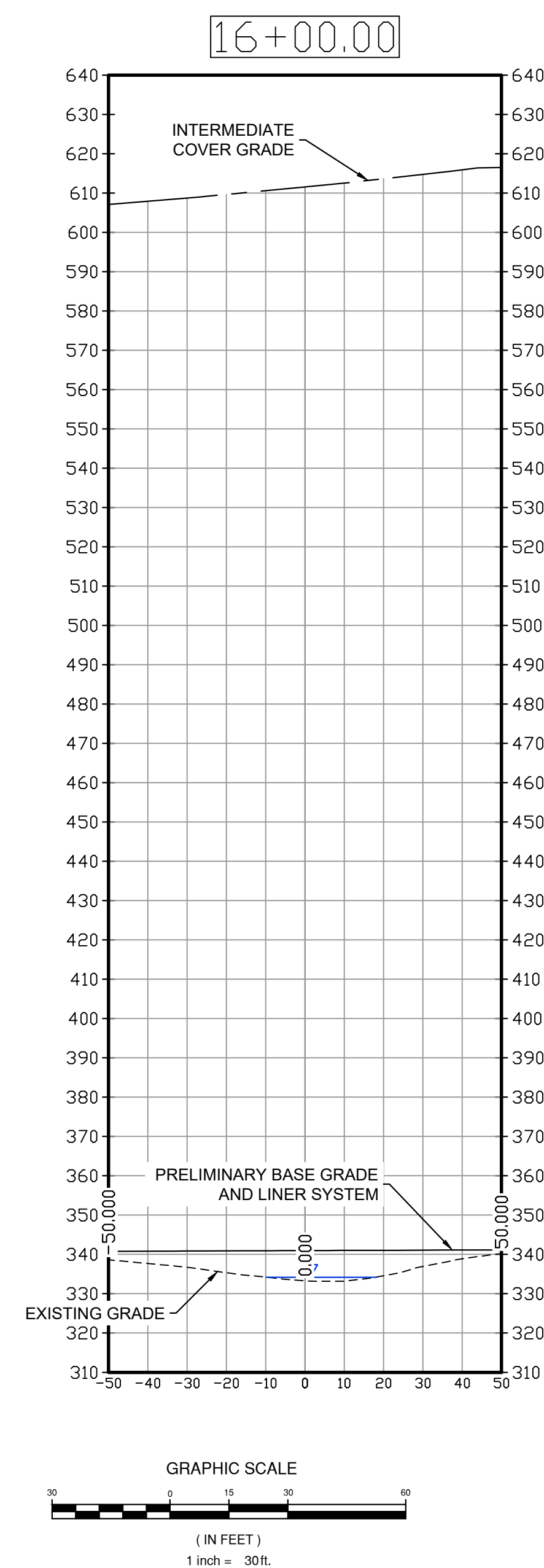
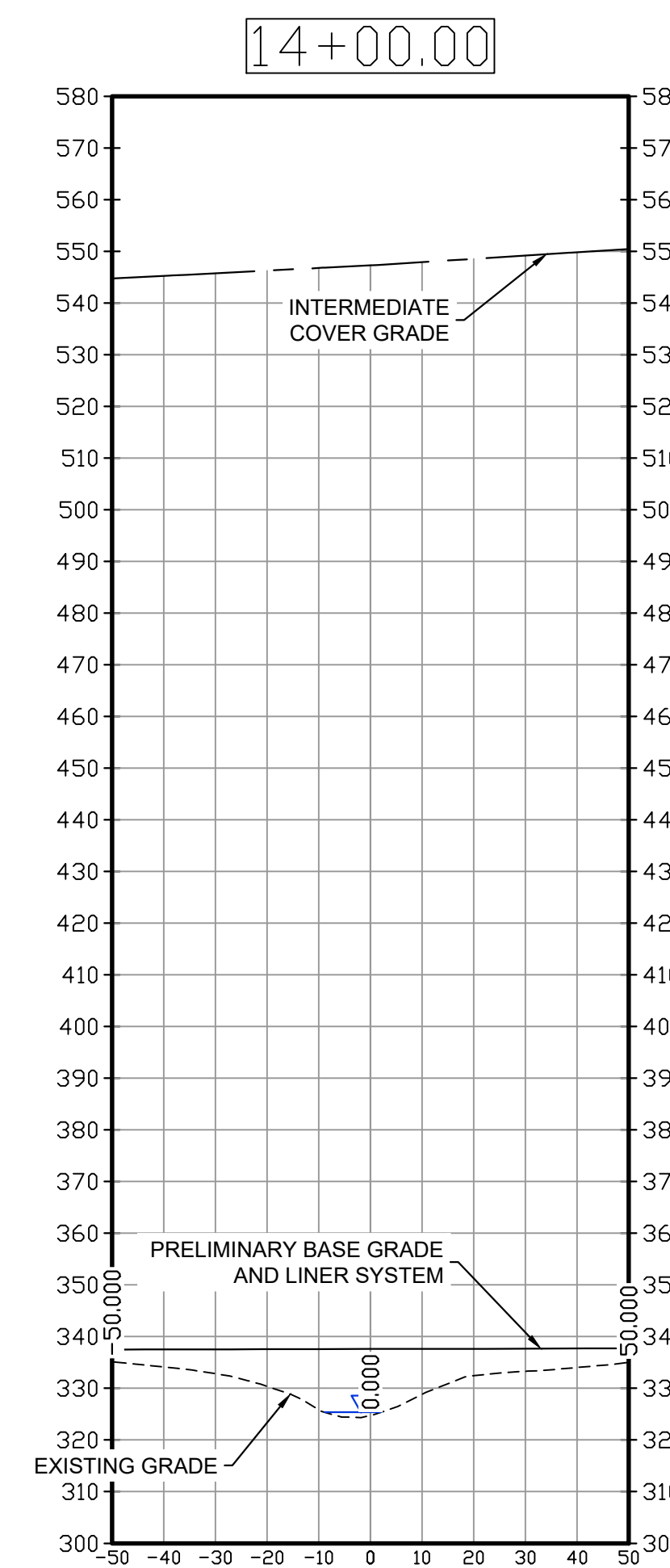
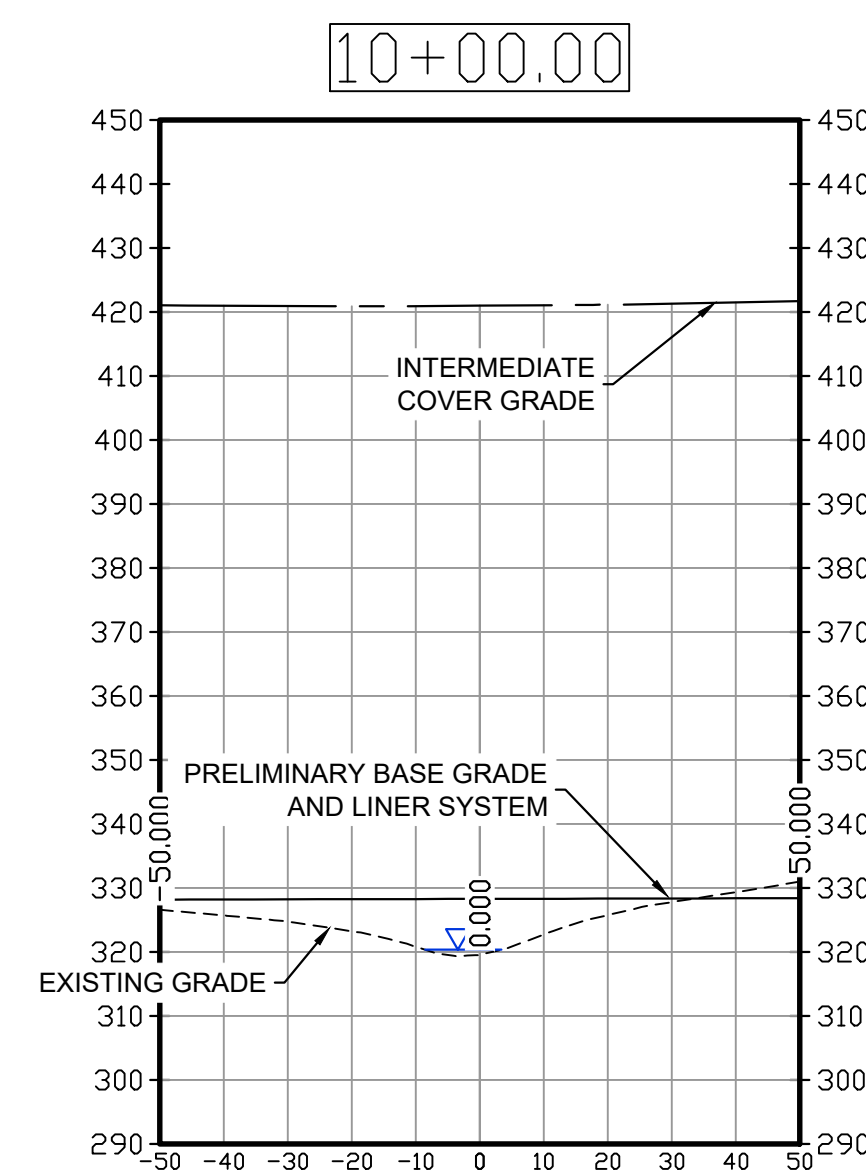
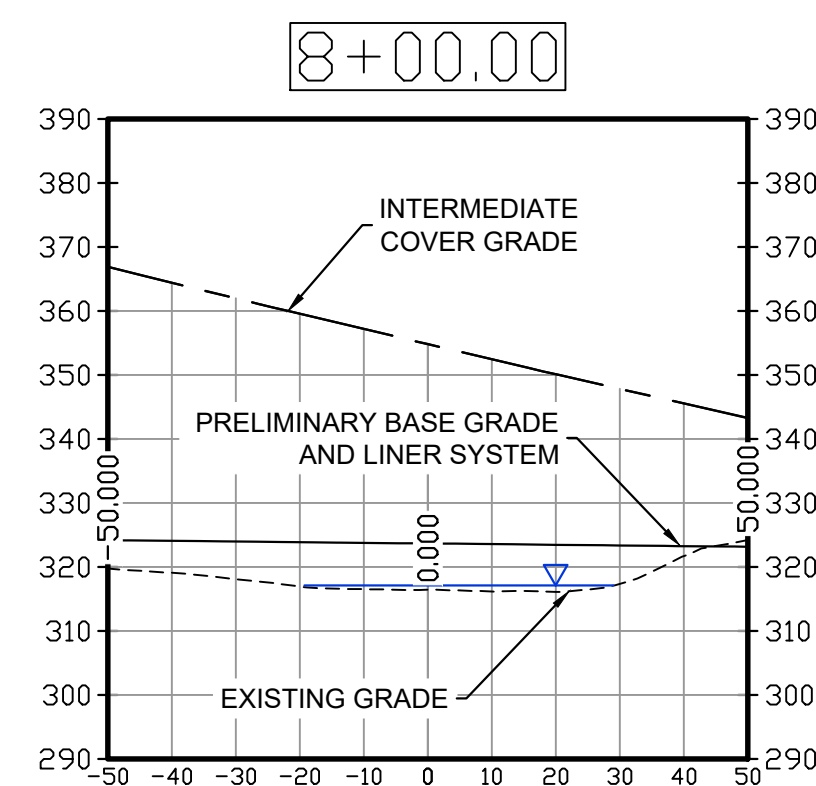
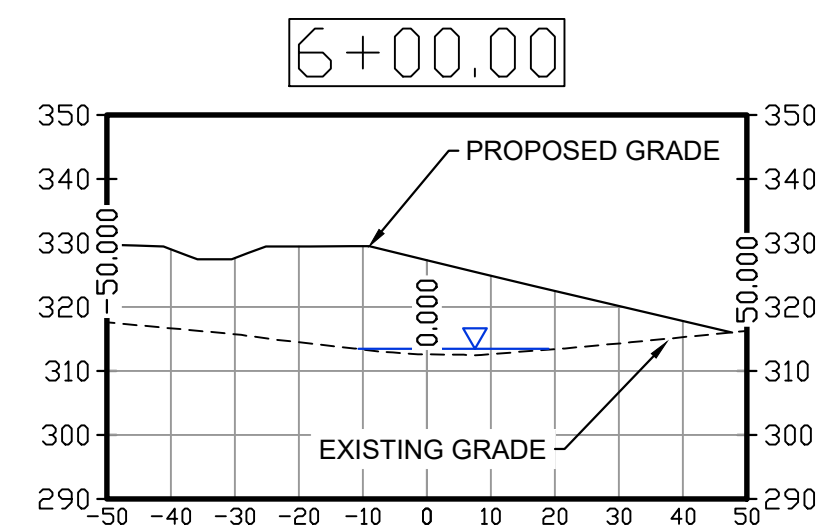
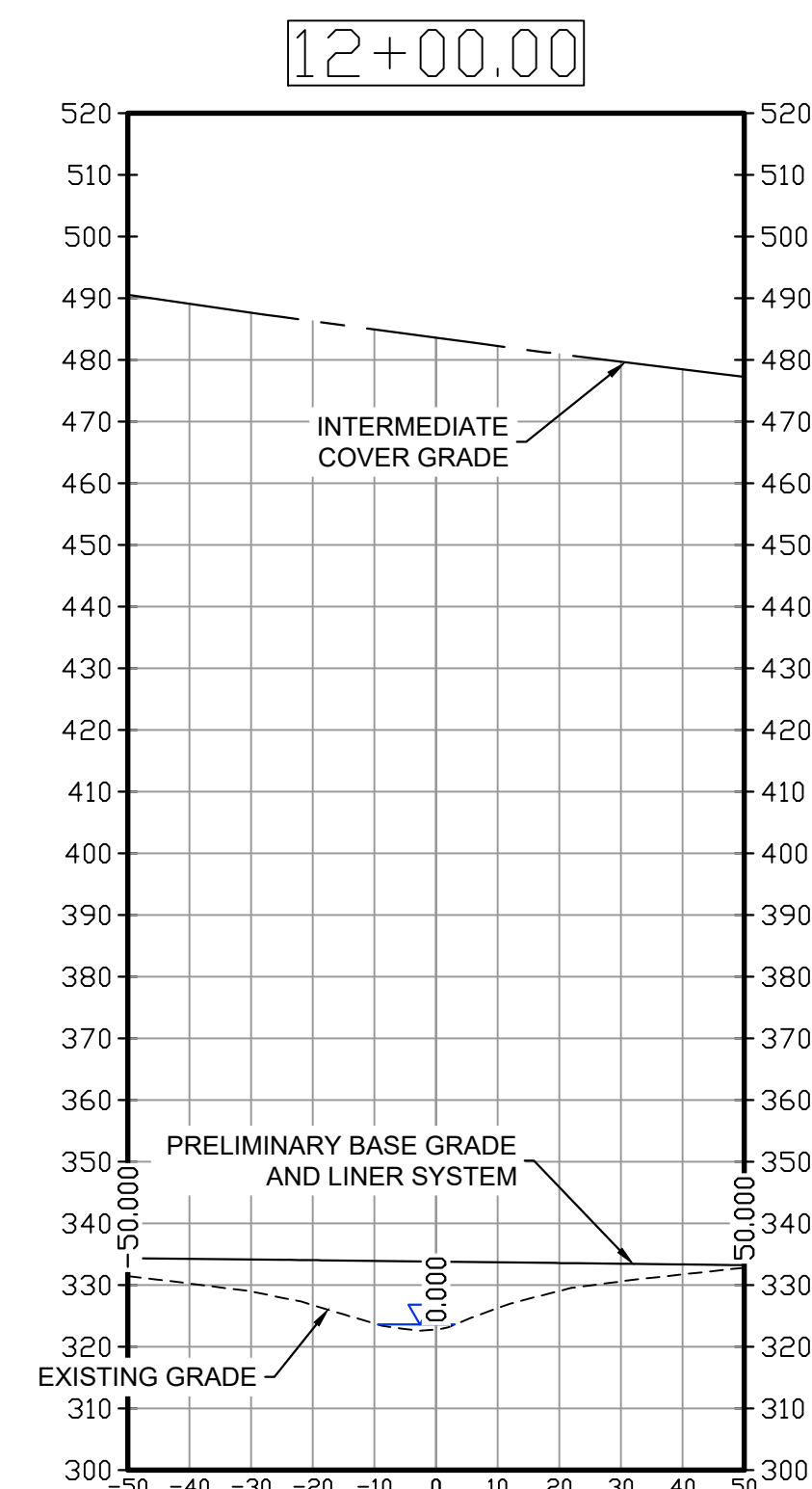
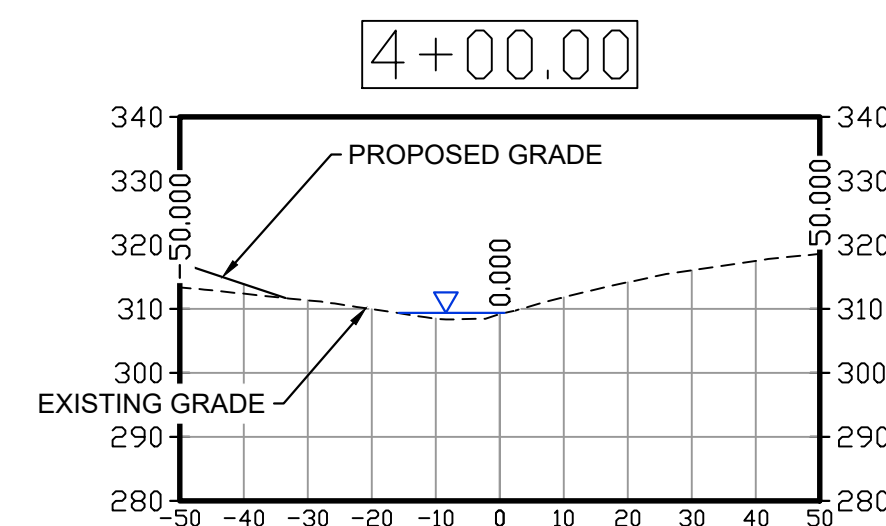
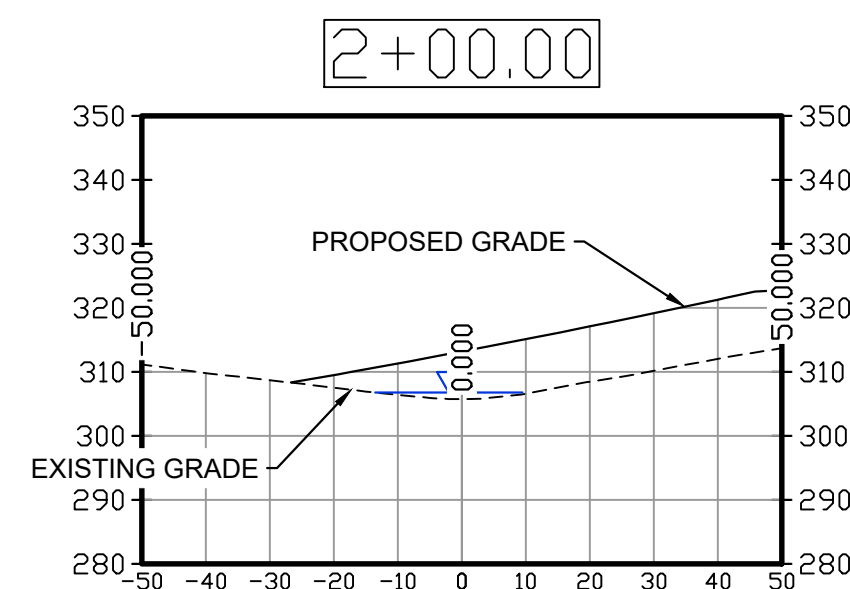
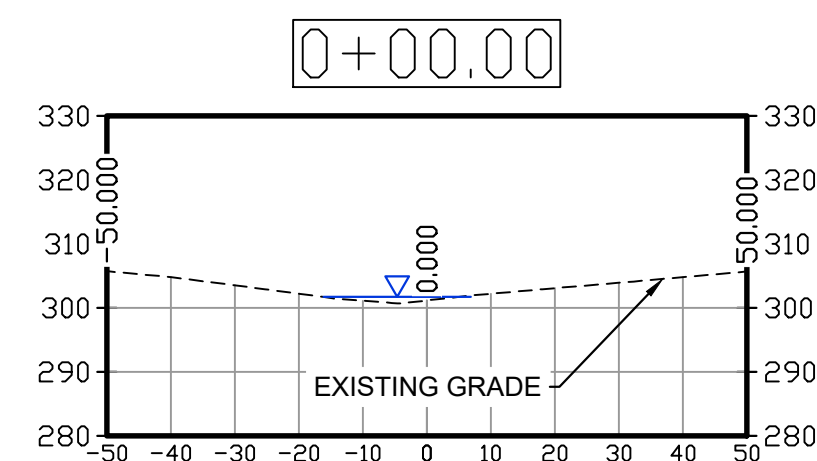
STREAM REACH 4 - PROFILES
PROPOSED BASE AND INTERMEDIATE COVER GRADES

GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL JANUARY 11, 2022
RESPONSE 1 - APRIL 29, 2022

DESIGNED BY:	LPK
DRAWN BY:	DLD
CHECKED BY:	LPK
SCALE:	1" = 50'
DATE:	SEPTEMBER 30, 2021
PROJECT NUMBER:	18020117-110102

3.4



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STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1

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STREAM REACH 4 - CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:

DRAWN BY:

CHECKED BY:

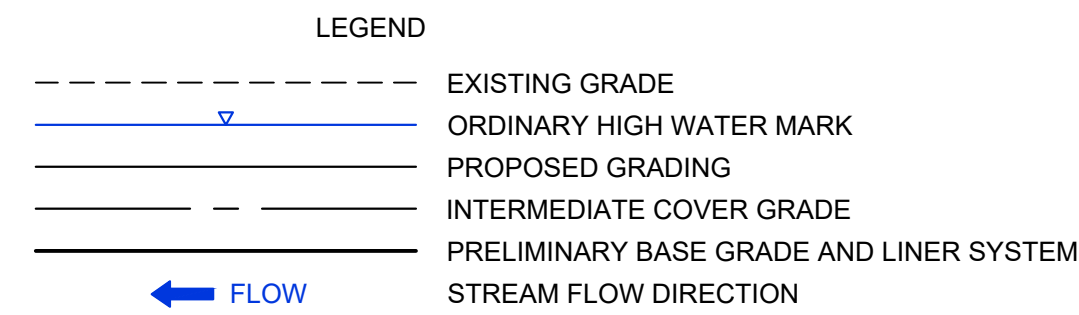
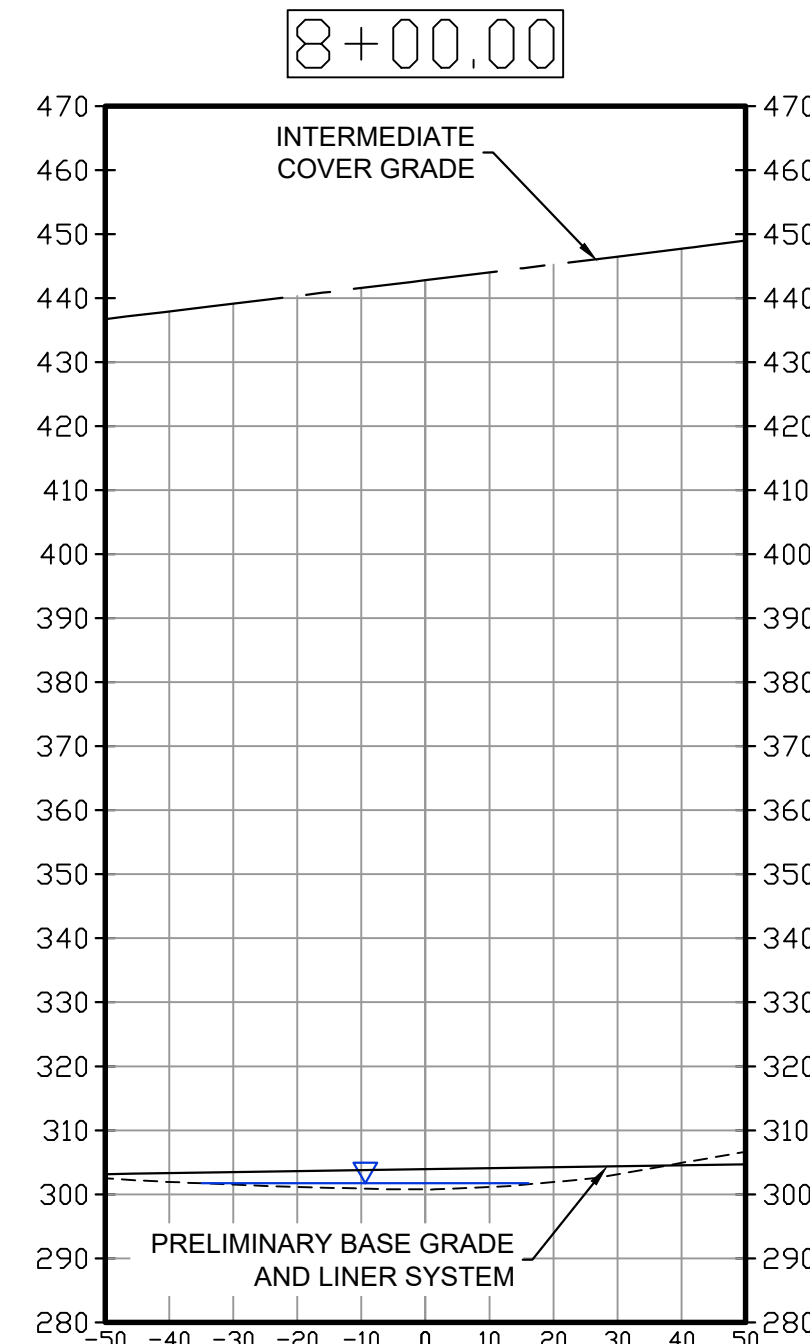
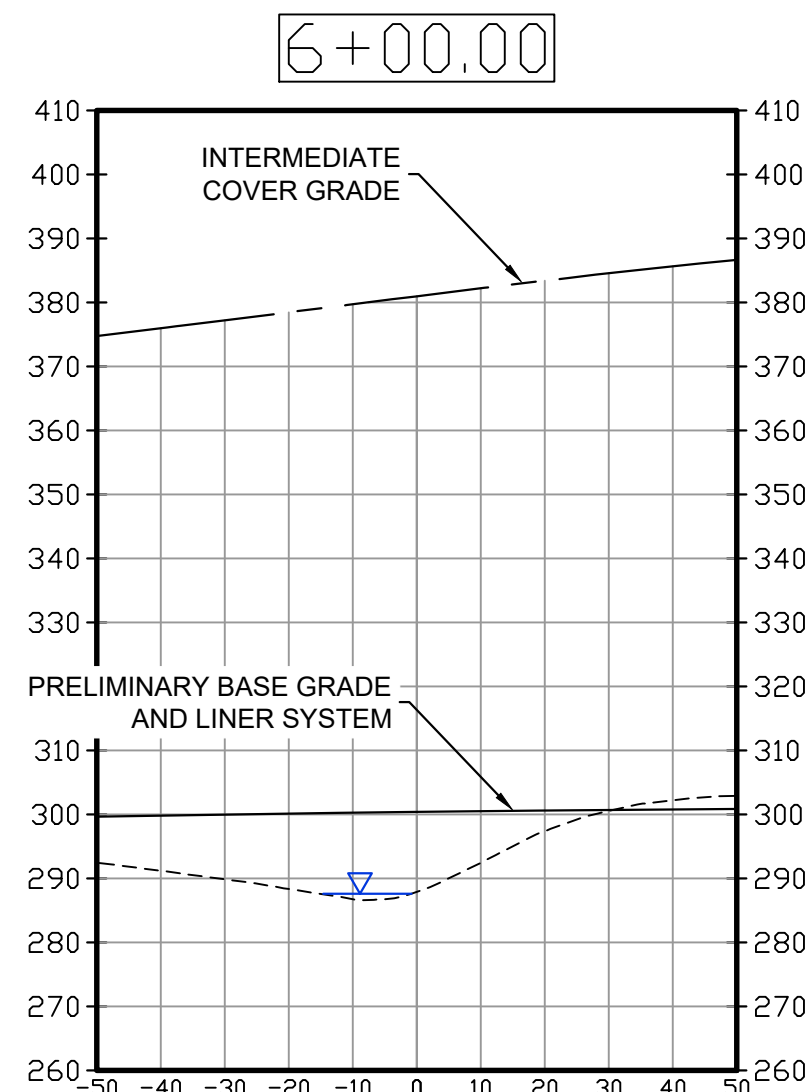
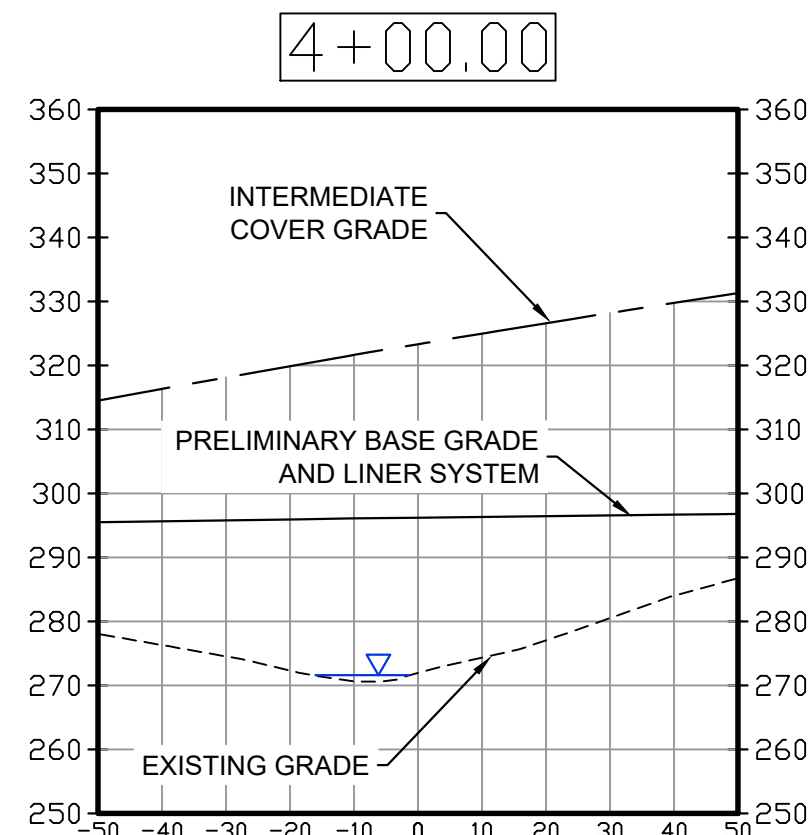
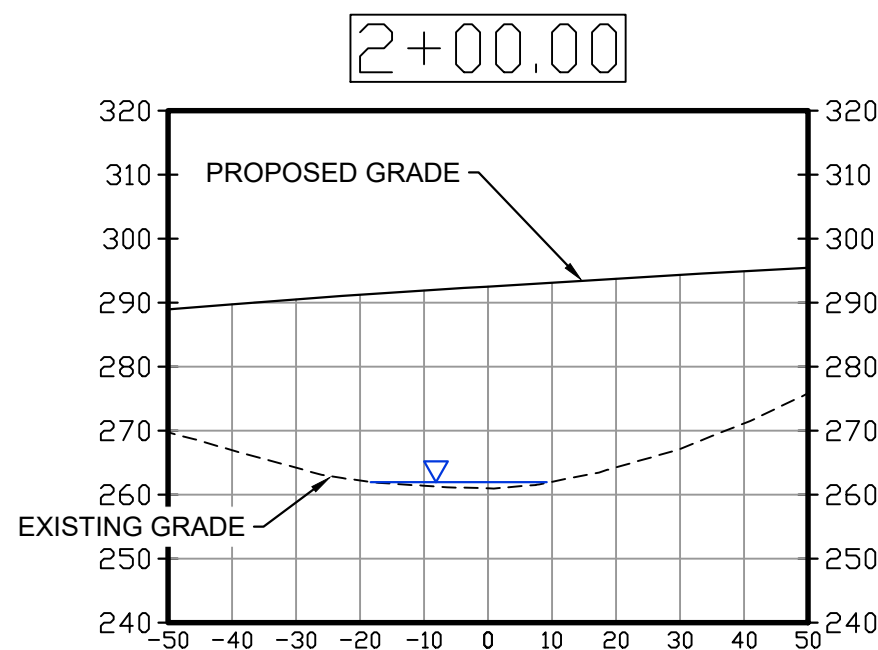
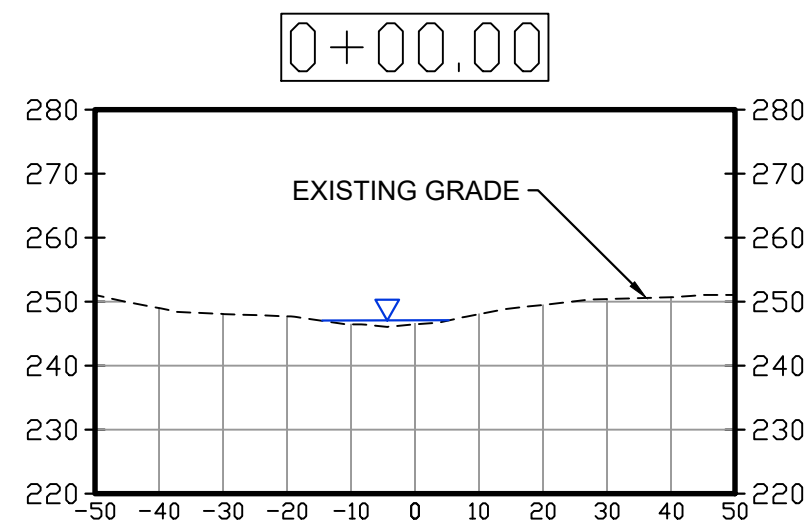
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DATE: SEPTEMBER 30, 2021

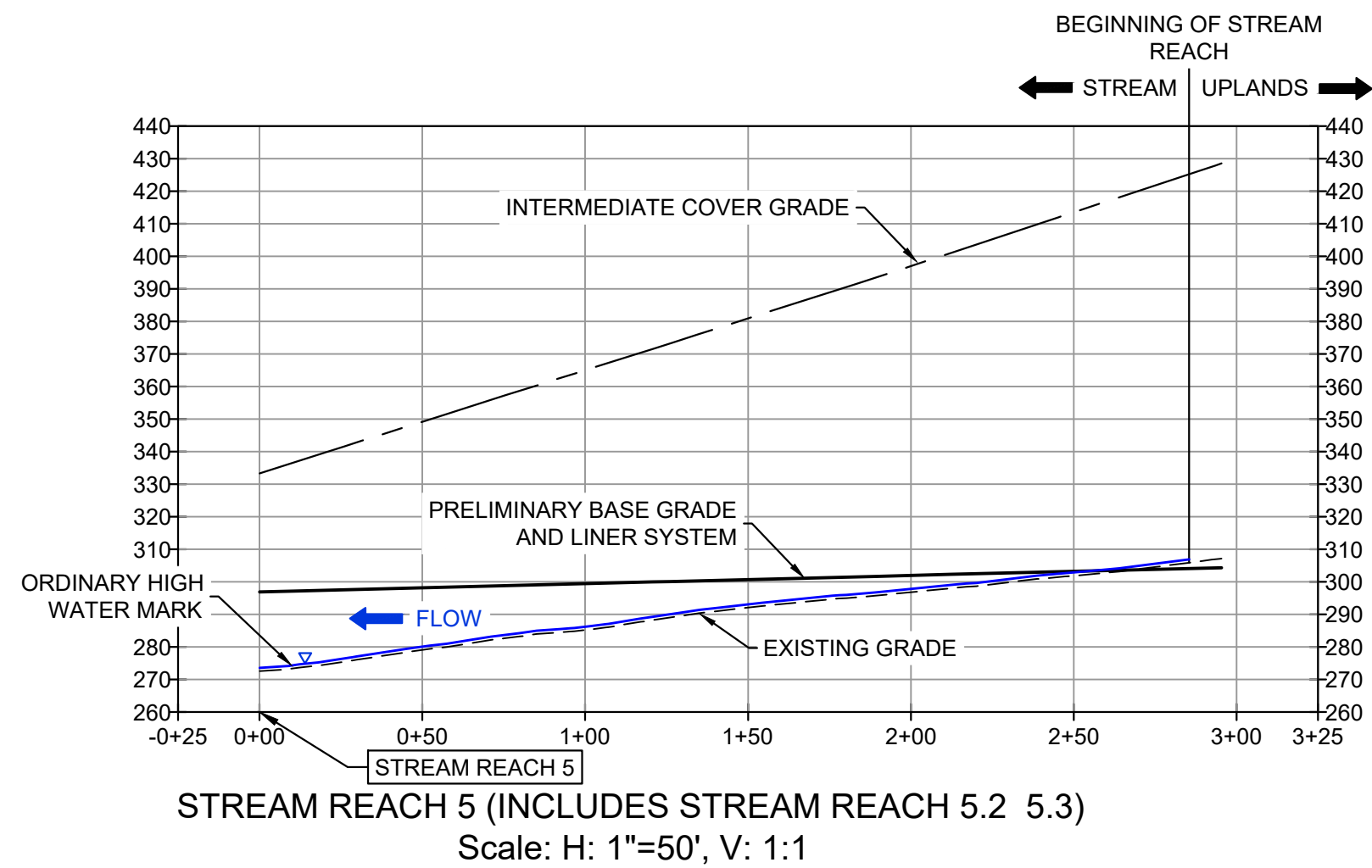
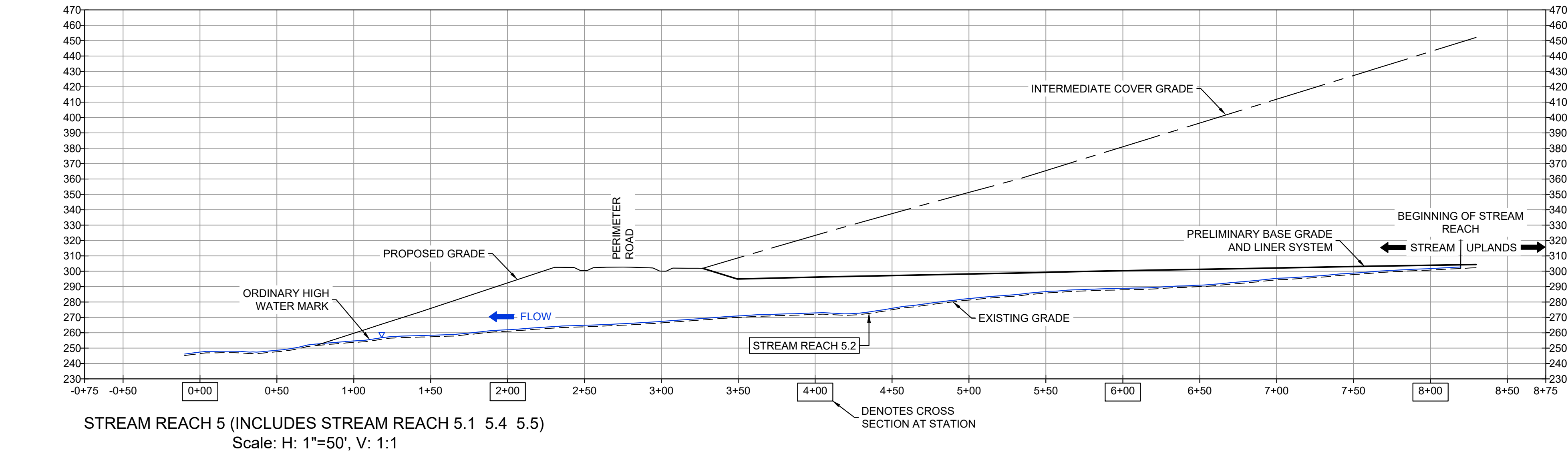
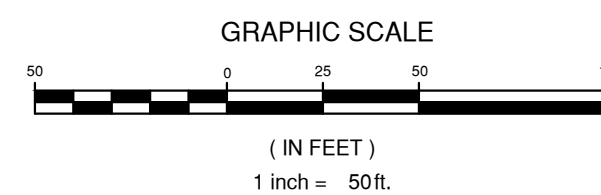
PROJECT NUMBER:
18020117-110102

3.4A

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- NOTES:
- Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
 - There are no underdrains planned in the stream impact reaches. Stream reaches will be filled.
 - Station numbers that are boxed indicate that cross sections have been cut at these sections. Cross sections are provided on the following sheet.
 - This is non-tidal area. Ordinary High Water Mark assumed to be 12" above stream bottom.
 - There are no existing structures within the stream impact areas.
 - Profiles and cross sections are for general information purposes only. For specific impact lengths and details, see KBW impact sheets.
 - Stationing for profiles and cross sections is for general information only and used to correlate profiles to cross sections and to the engineering drawings. It was not used to develop impact lengths. Specific reach information and impacts are identified on Sheets 1.1 through 1.13. This information is provided for permitting purposes only.
 - See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



STREAM REACH 5 - PROFILE AND CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES

GREEN RIDGE RECYCLING & DISPOSAL FACILITY

CUMBERLAND COUNTY, VIRGINIA

REVISIONS

ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022

RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK

DRAWN BY:
DLD

CHECKED BY:
LPK

SCALE:
AS SHOWN

DATE:
SEPTEMBER 30, 2021

PROJECT NUMBER:
18020117-110102

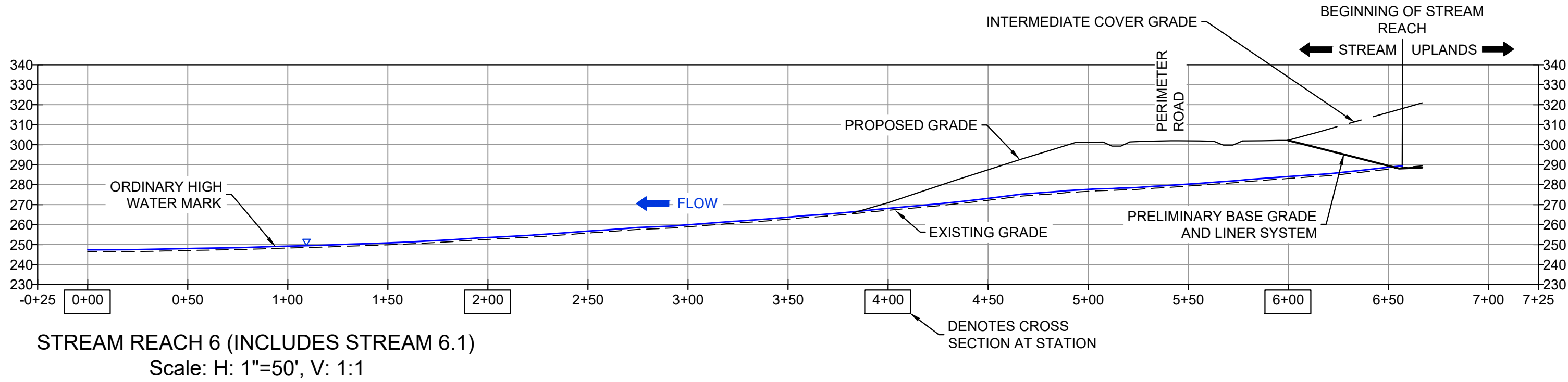
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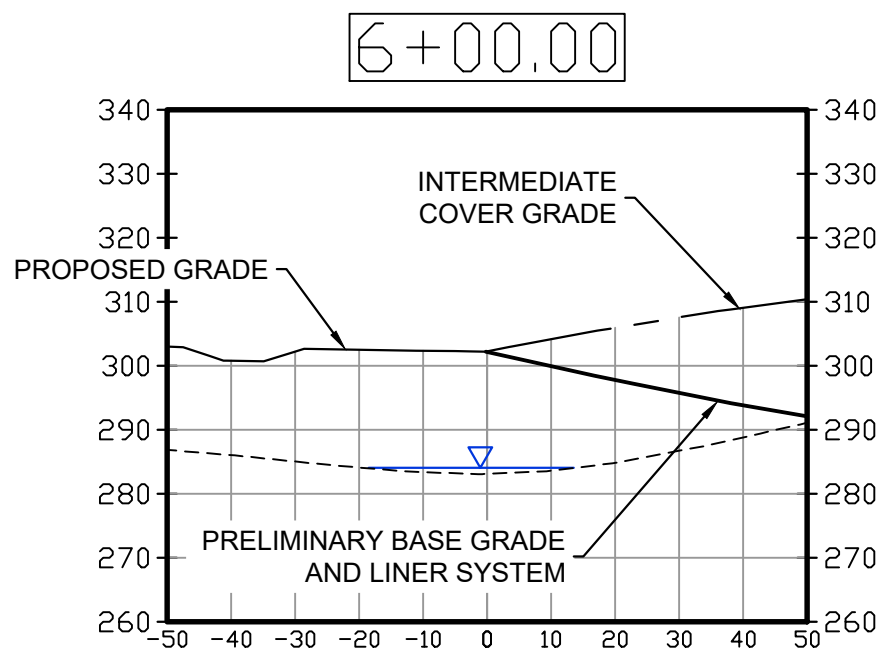
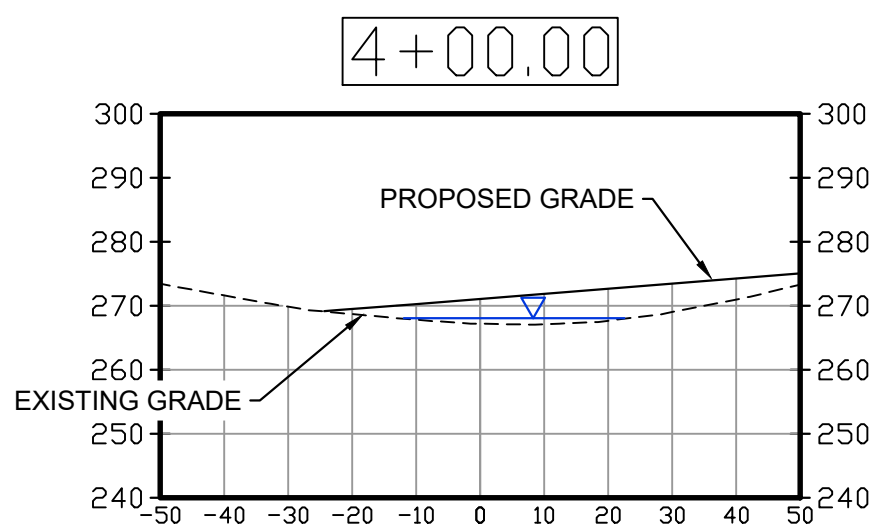
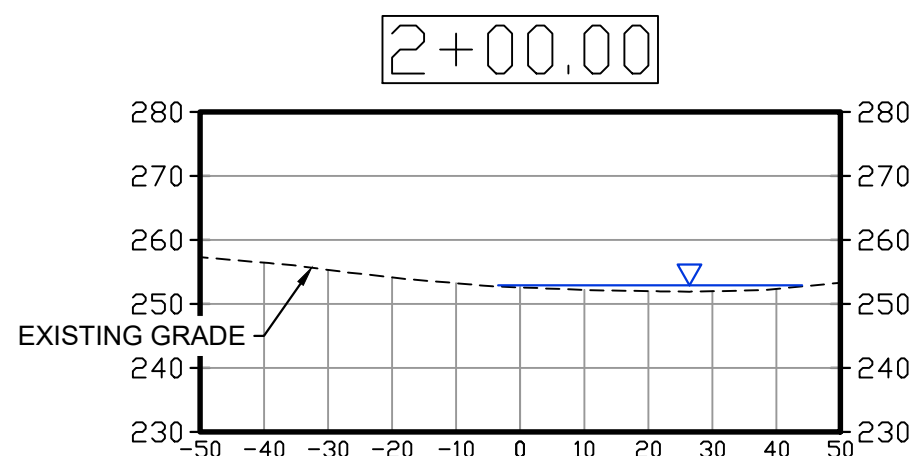
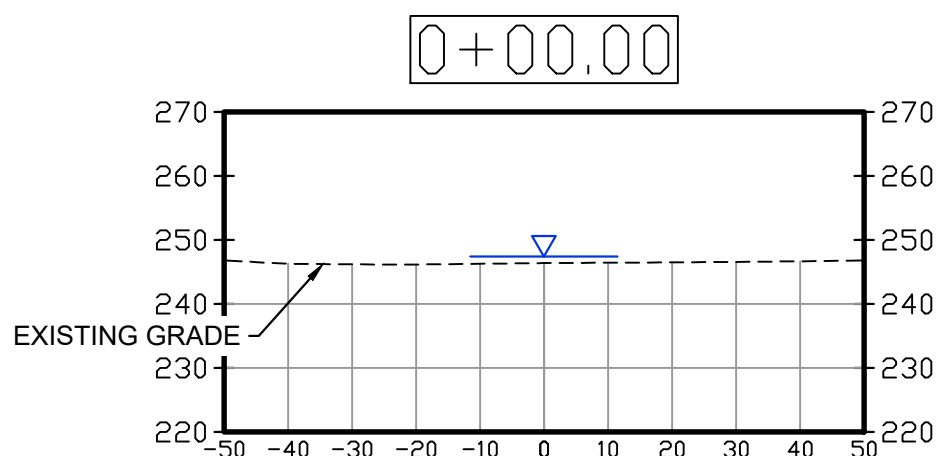
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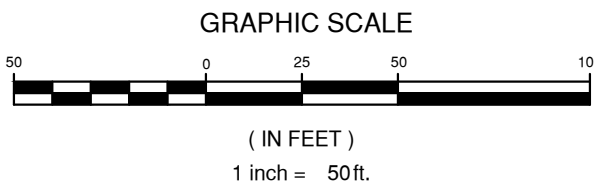
STREAM REACH 6 (INCLUDES STREAM 6.1)
Scale: H: 1"=50', V: 1:1



STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1

- LEGEND
- EXISTING GRADE
 - ORDINARY HIGH WATER MARK
 - PROPOSED GRADING
 - INTERMEDIATE COVER GRADE
 - PRELIMINARY BASE GRADE AND LINER SYSTEM
 - STREAM FLOW DIRECTION

- NOTES:
1. Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
 2. There are no underdrains planned in the stream impact reaches. Stream reaches will be filled.
 3. Station numbers that are boxed indicate that cross sections have been cut at these sections. Cross sections are provided on the following sheet.
 4. This is non-tidal area. Ordinary High Water Mark assumed to be 12" above stream bottom.
 5. There are no existing structures within the stream impact areas.
 6. Profiles and cross sections are for general information purposes only. For specific impact lengths and details, see KBIW impact sheets.
 7. Stationing for profiles and cross sections is for general information only and used to correlate profiles to cross sections and to the engineering drawings. It was not used to develop impact lengths. Specific reach information and impacts are identified on Sheets 1.1 through 1.13. This information is provided for permitting purposes only.
 8. See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



STREAM REACH 6 - PROFILE AND CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

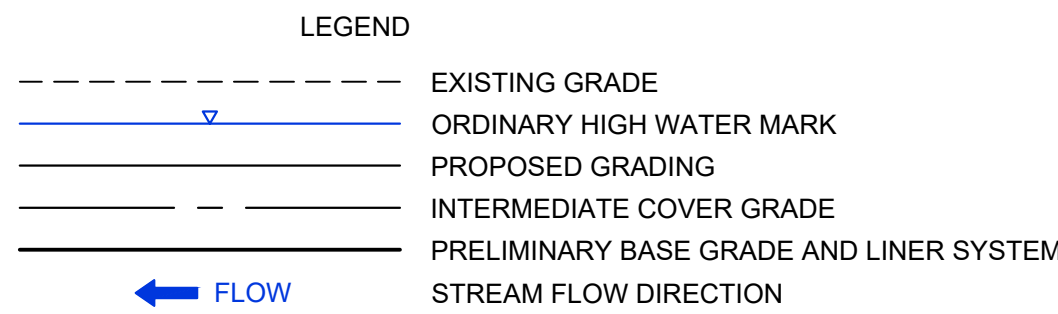
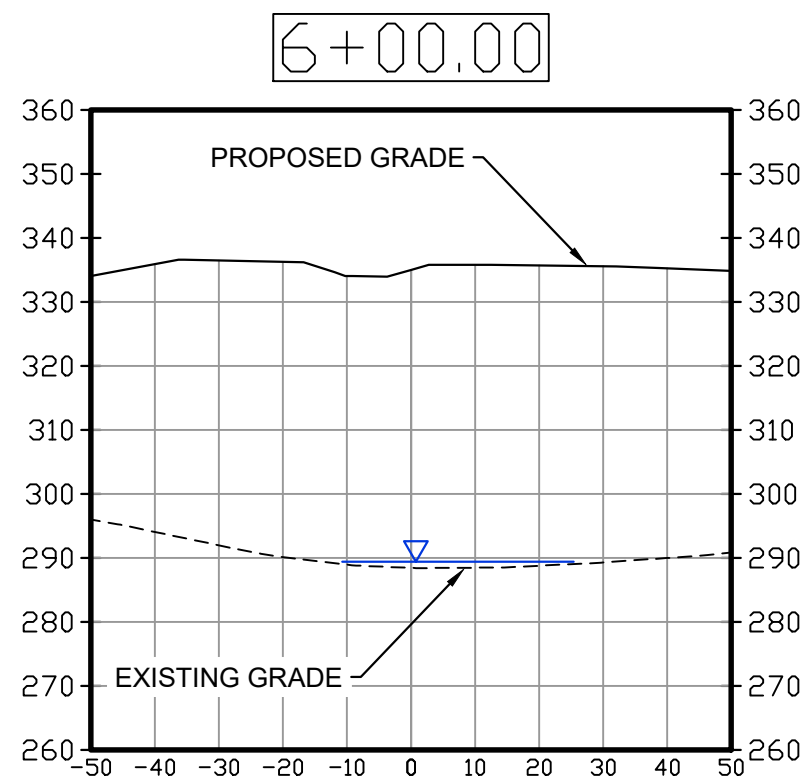
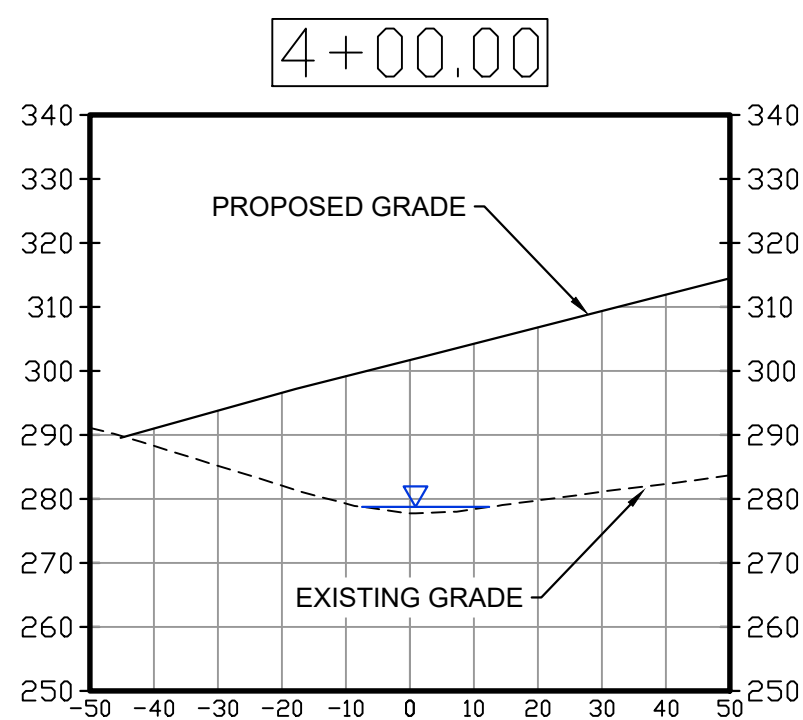
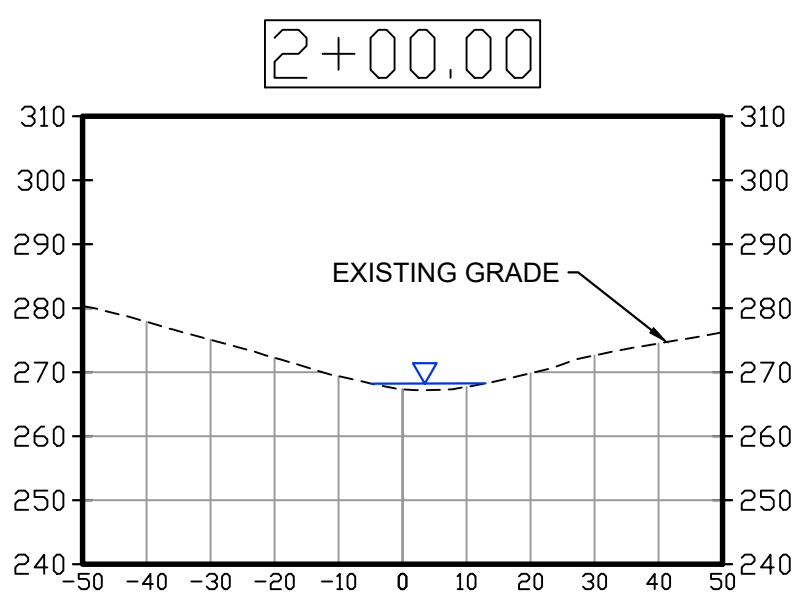
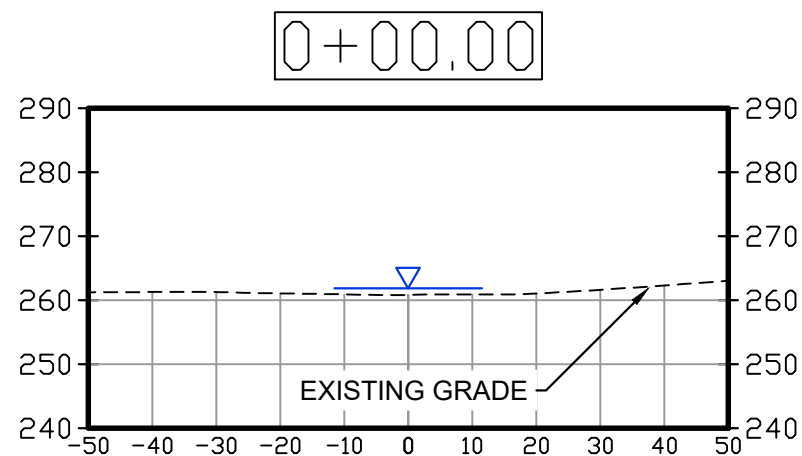
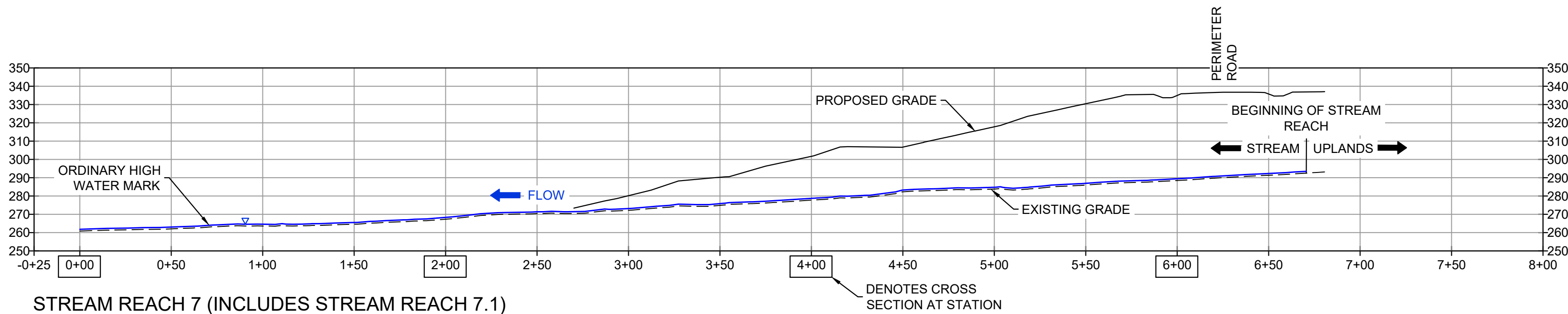
DESIGNED BY:
LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
AS SHOWN
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102



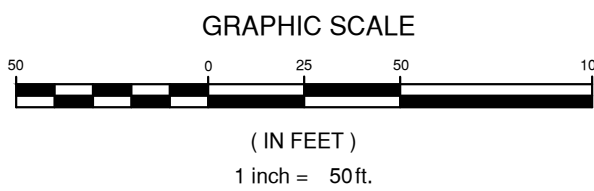
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- NOTES:
- Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
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 - See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



STREAM REACH 7 - PROFILE AND CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES

GREEN RIDGE RECYCLING & DISPOSAL FACILITY

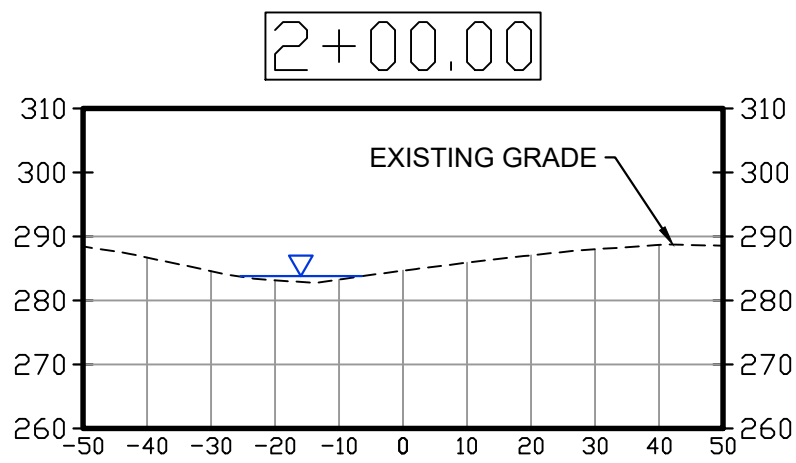
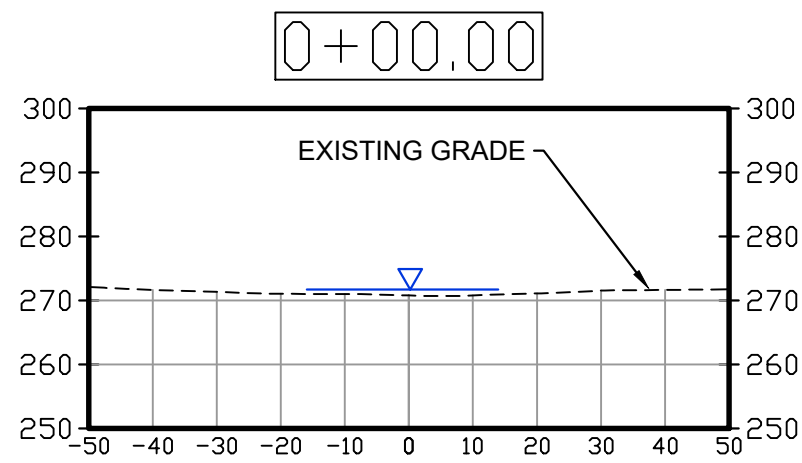
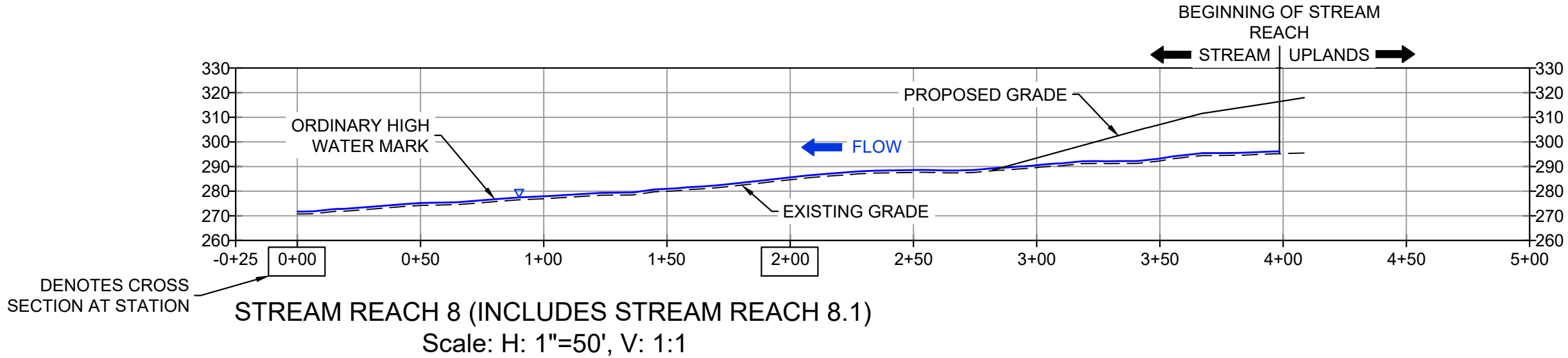
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL JANUARY 11, 2022
RESPONSE 1 - APRIL 29, 2022

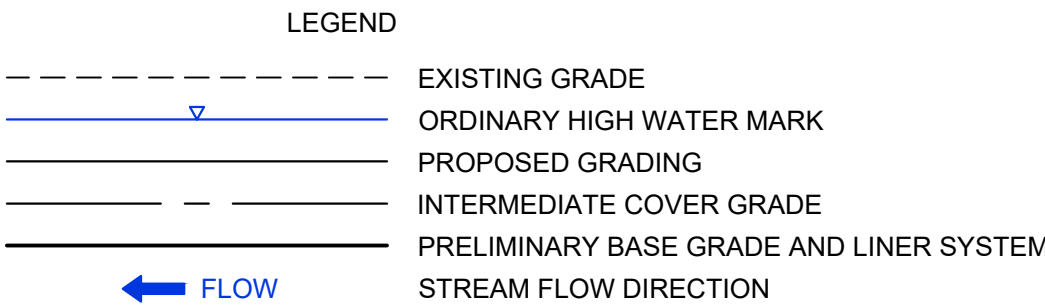
DESIGNED BY:	LPK
DRAWN BY:	DLD
CHECKED BY:	LPK
SCALE:	AS SHOWN
DATE:	SEPTEMBER 30, 2021
PROJECT NUMBER:	18020117-110102

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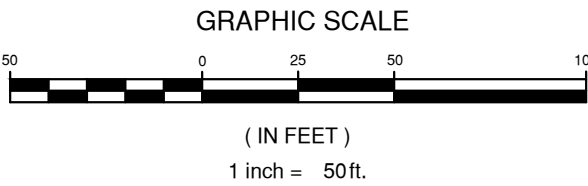
FOR PERMITTING PURPOSES ONLY



STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1



- NOTES:
1. Proposed "structure" is the landfill which consists of the base grade/liner system, waste, and intermediate cover grades (with cap) as well as ancillary infrastructure components. Base grade is top of compacted fill with liner placed on this surface. Liner and base grade are same approximate elevation. Intermediate cover represents top of waste with 12" of cover as currently designed. Cap would be placed over intermediate cover.
 2. There are no underdrains planned in the stream impact reaches. Stream reaches will be filled.
 3. Station numbers that are boxed indicate that cross sections have been cut at these sections. Cross sections are provided on the following sheet.
 4. This is non-tidal area. Ordinary High Water Mark assumed to be 12" above stream bottom.
 5. There are no existing structures within the stream impact areas.
 6. Profiles and cross sections are for general information purposes only. For specific impact lengths and details, see KBW impact sheets.
 7. Stationing for profiles and cross sections is for general information only and used to correlate profiles to cross sections and to the engineering drawings. It was not used to develop impact lengths. Specific reach information and impacts are identified on Sheets 1.1 through 1.13. This information is provided for permitting purposes only.
 8. See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.



1

STREAM REACH 8 - PROFILE AND CROSS SECTIONS
PROPOSED BASE AND INTERMEDIATE COVER GRADES
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
ORIGINAL JPA SUBMITTAL
JANUARY 11, 2022
RESPONSE 1 -
APRIL 29, 2022

DESIGNED BY:
LPK
DRAWN BY:
DLD
CHECKED BY:
LPK
SCALE:
AS SHOWN
DATE:
SEPTEMBER 30, 2021
PROJECT NUMBER:
18020117-110102

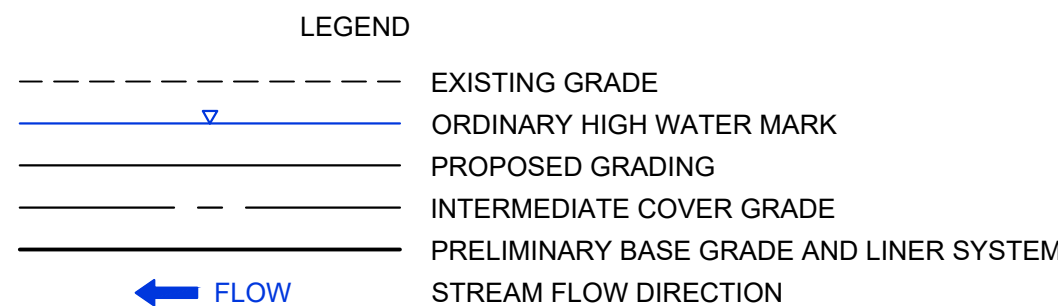
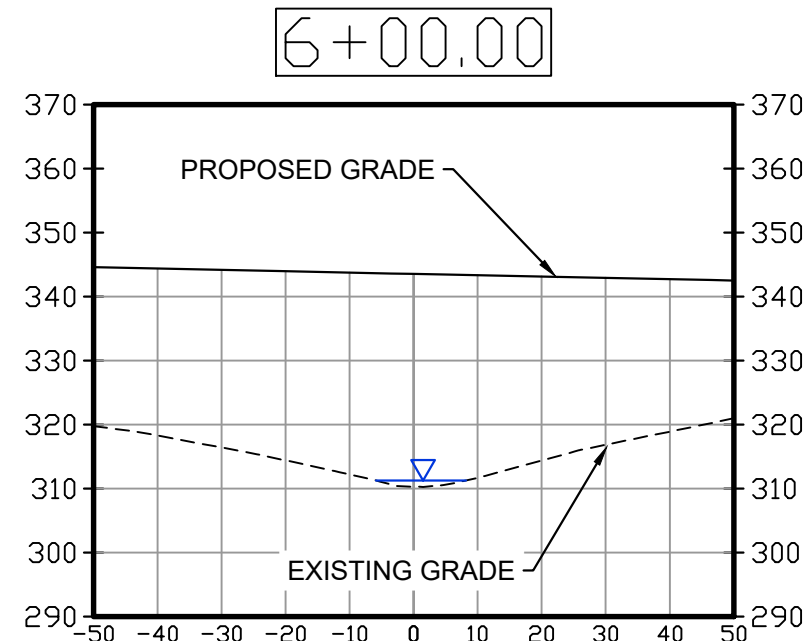
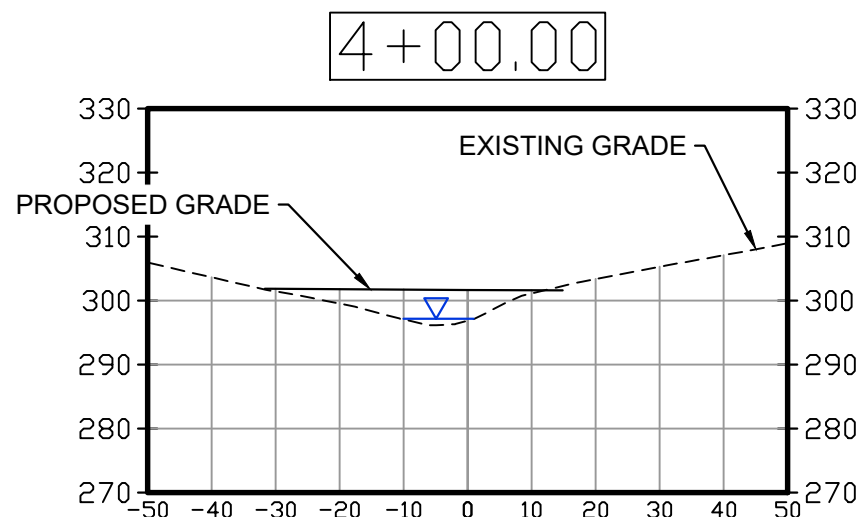
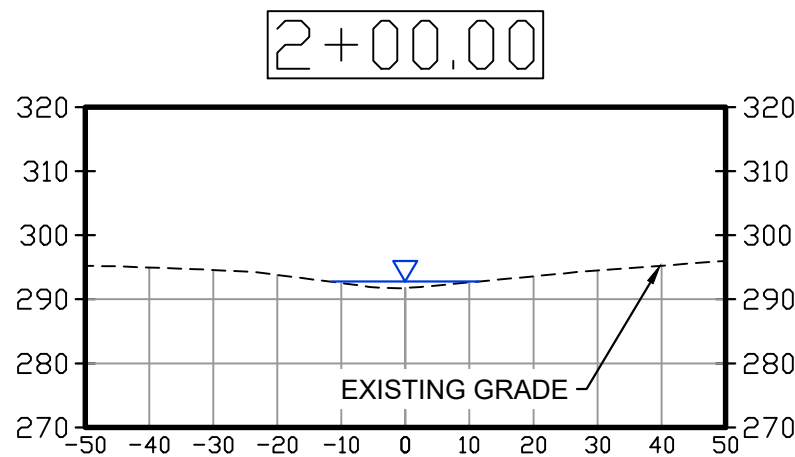
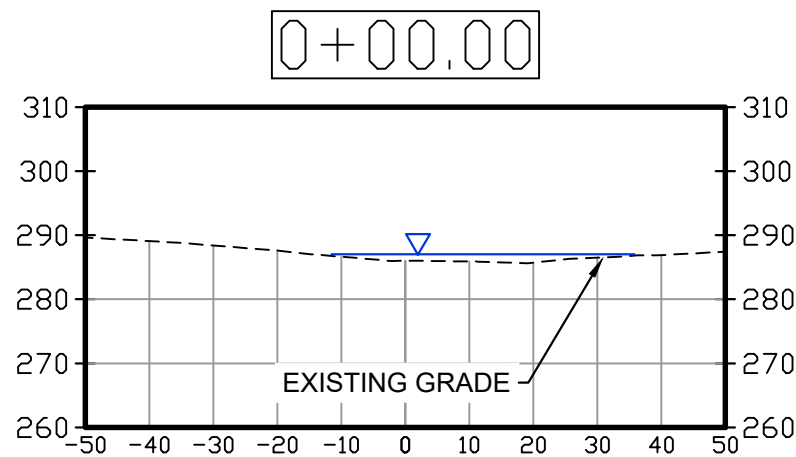
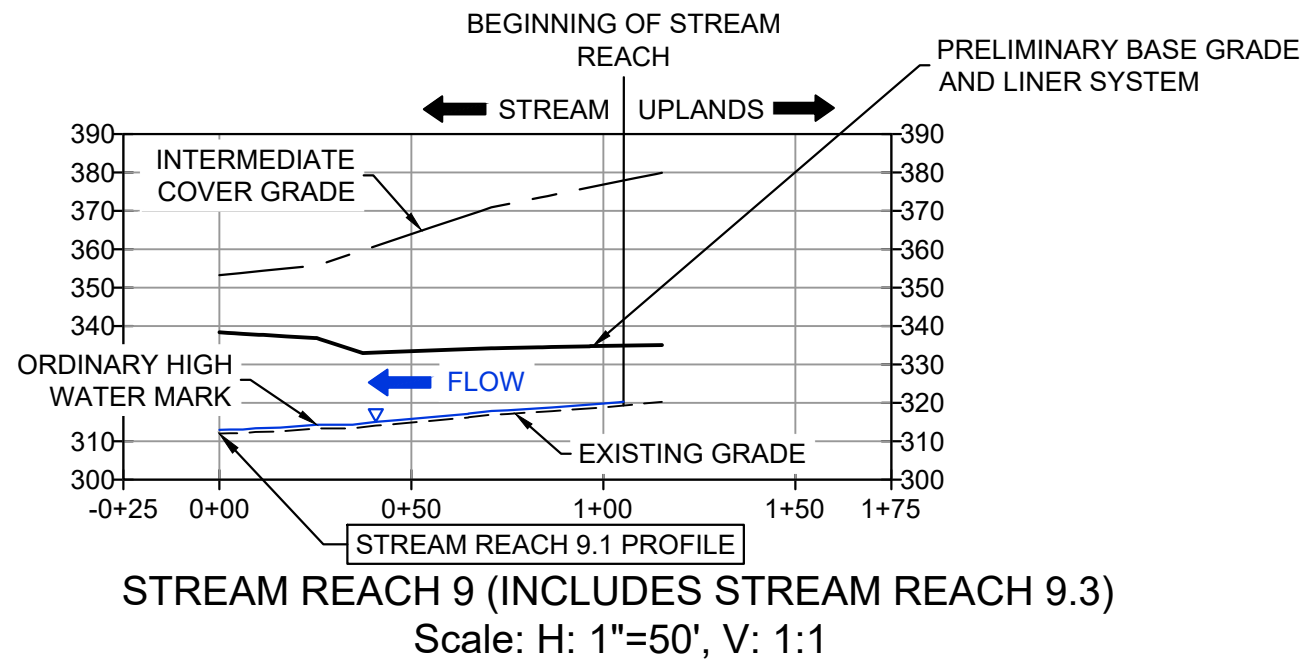
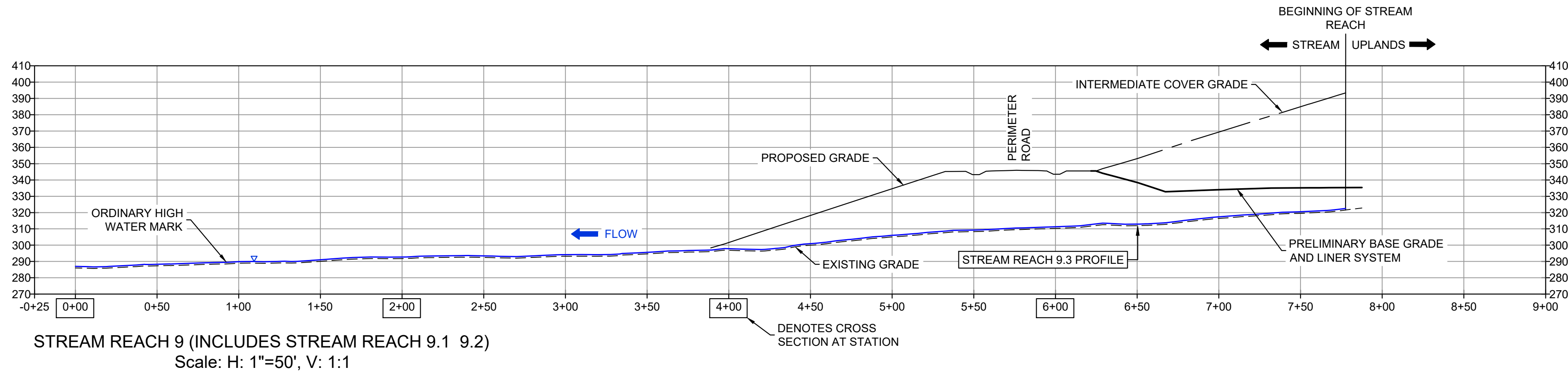
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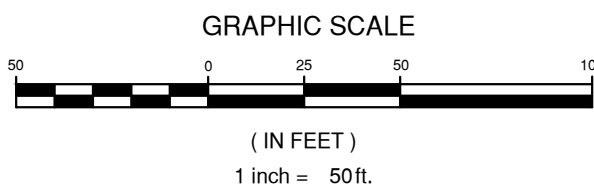
1030 Wilmar Avenue, Suite 100
Richmond, VA 23227
804-264-2228 Fax 804-264-8773
www.daa.com

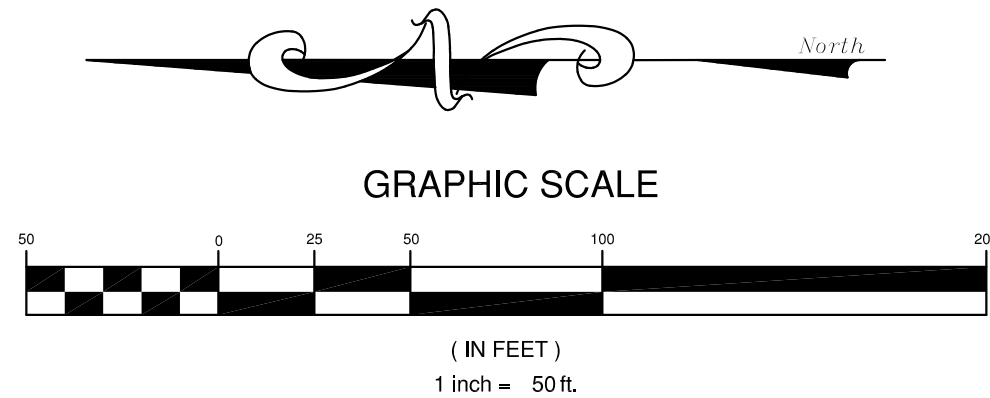
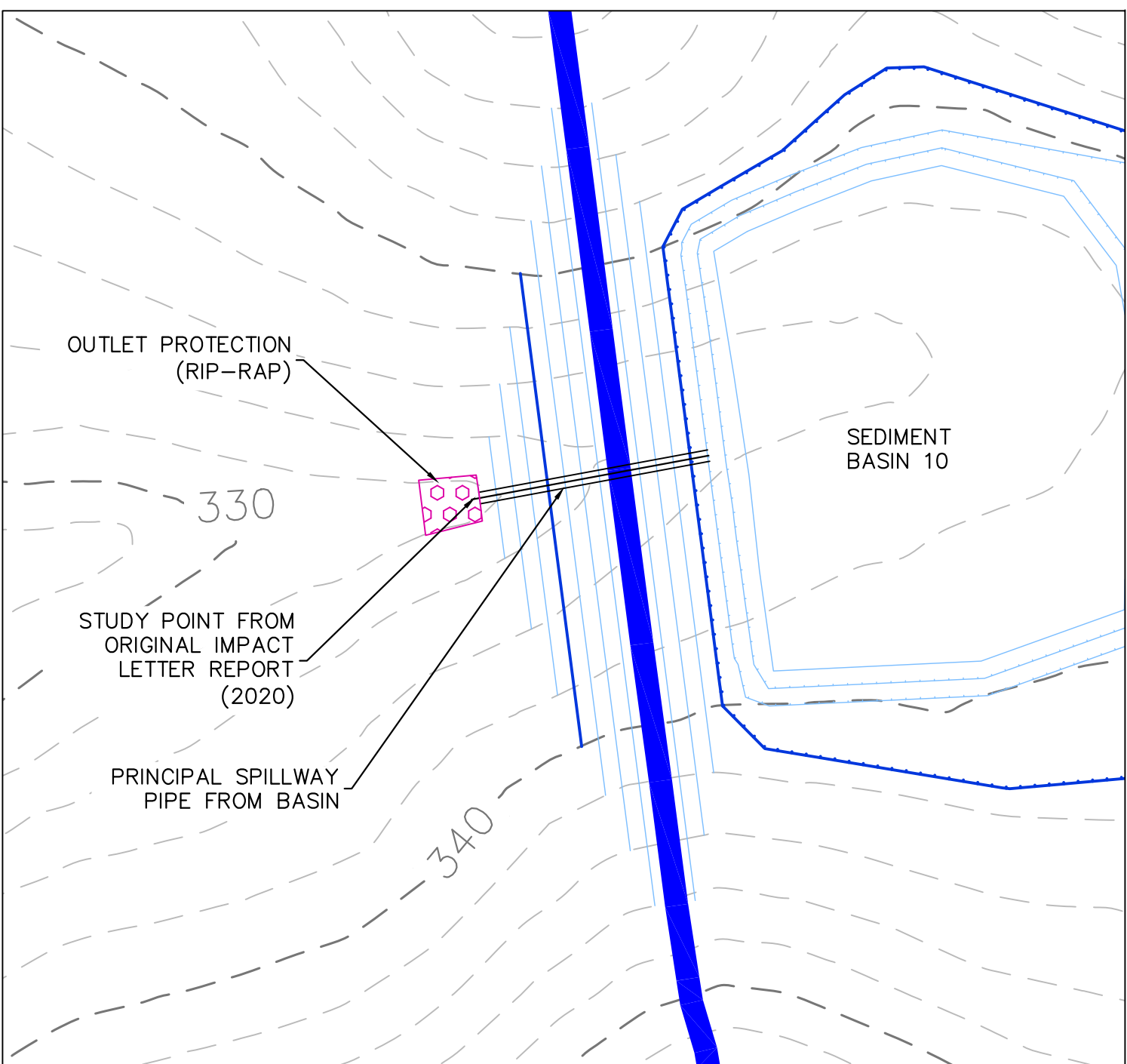
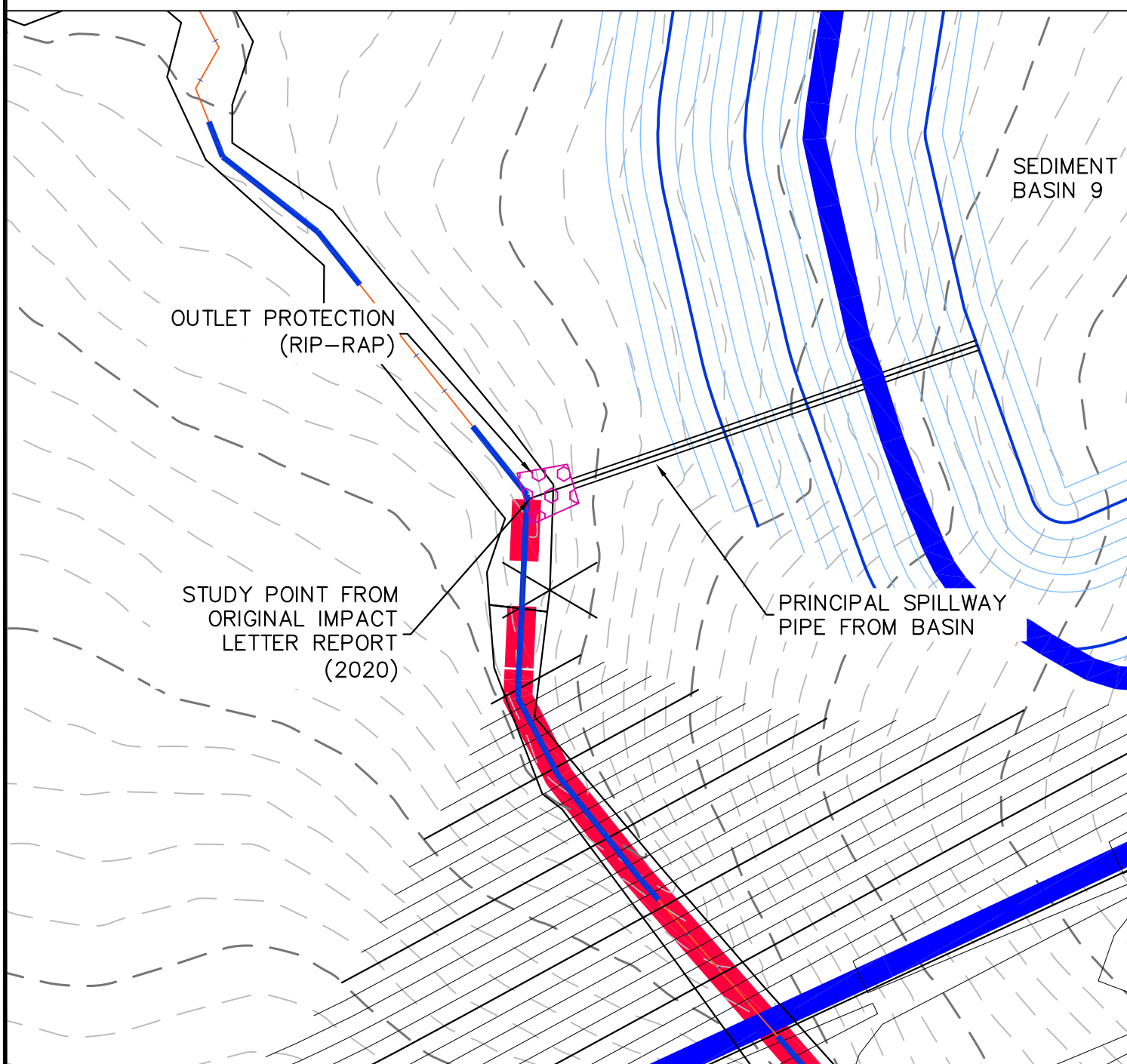
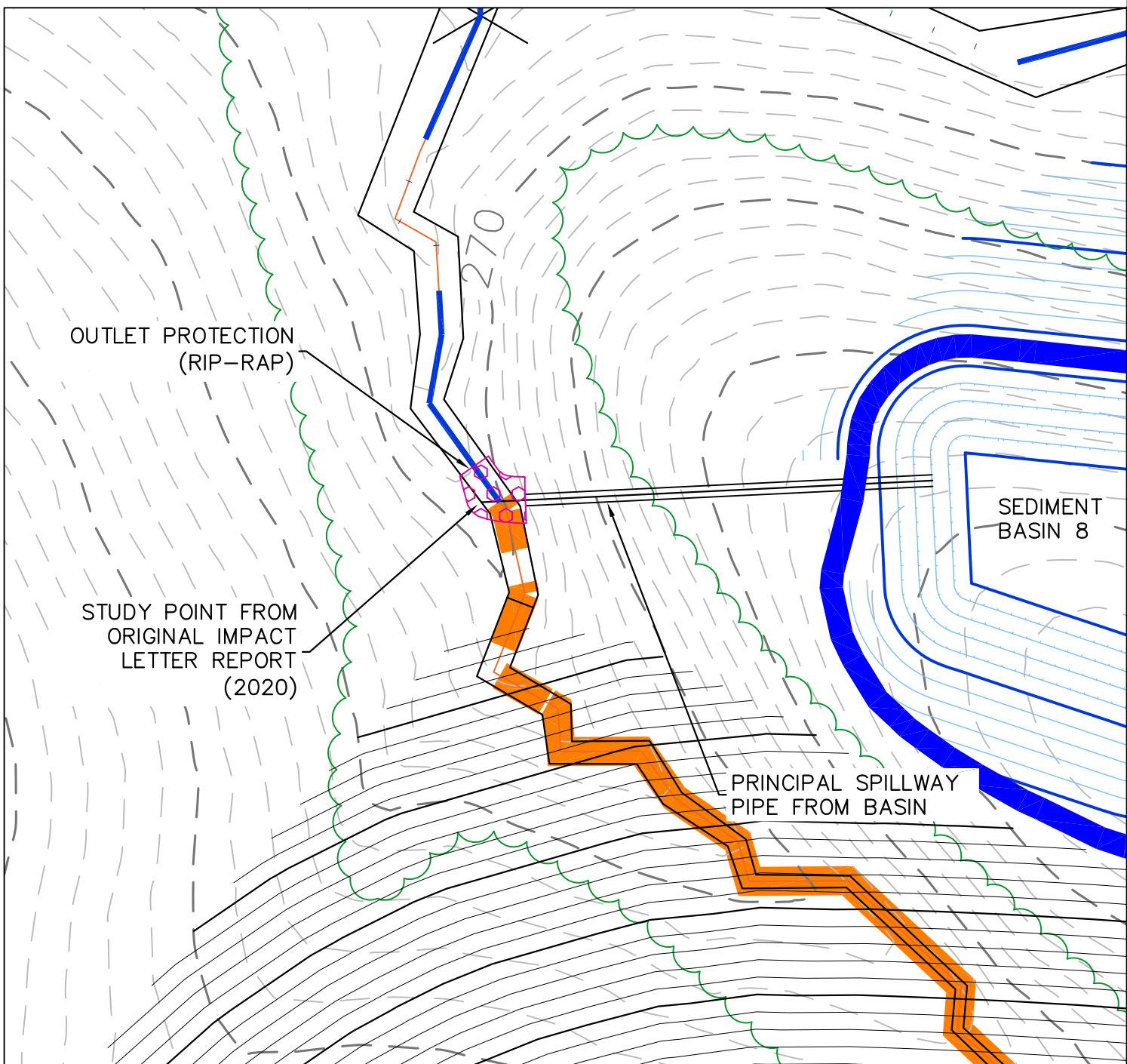
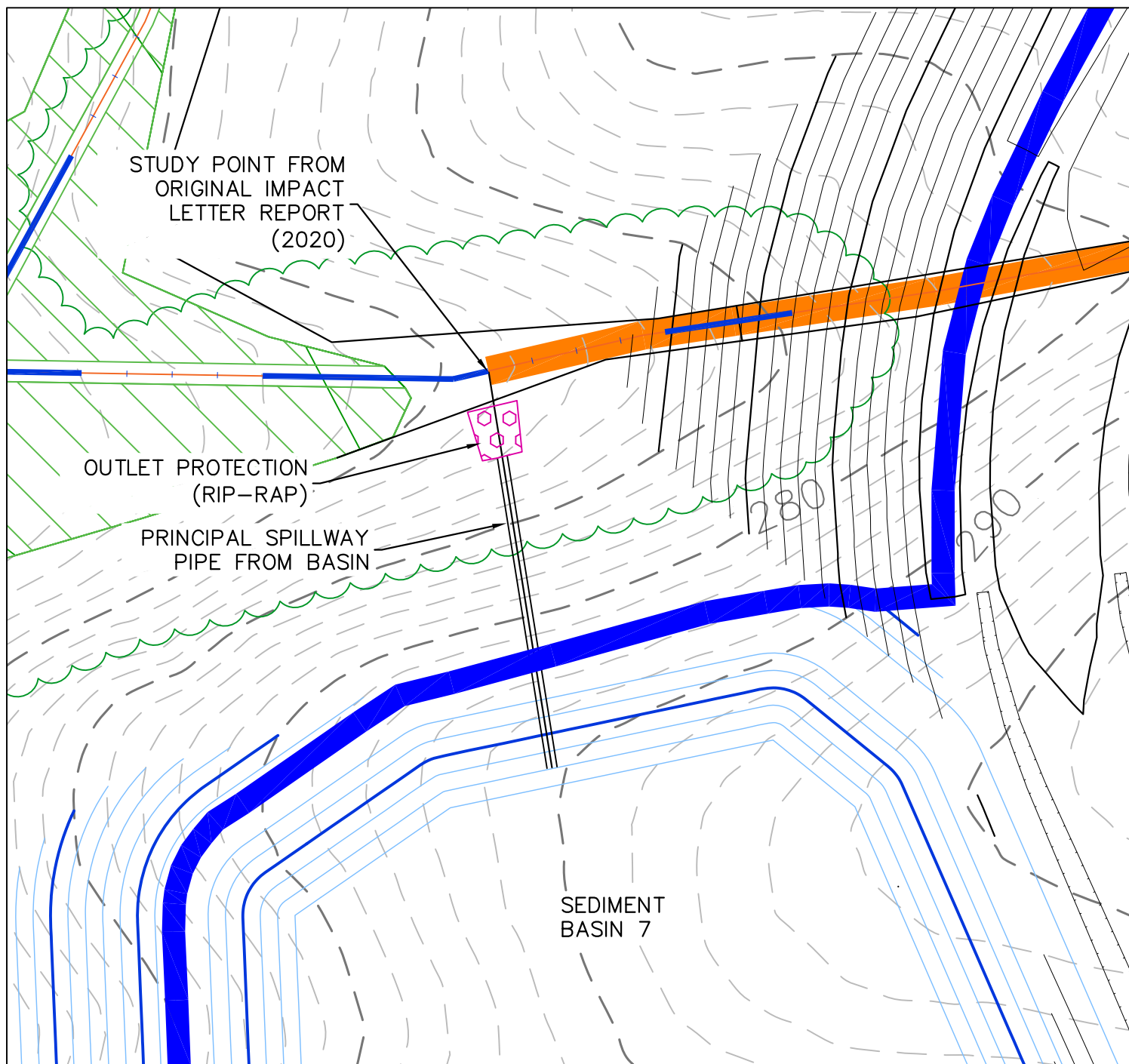
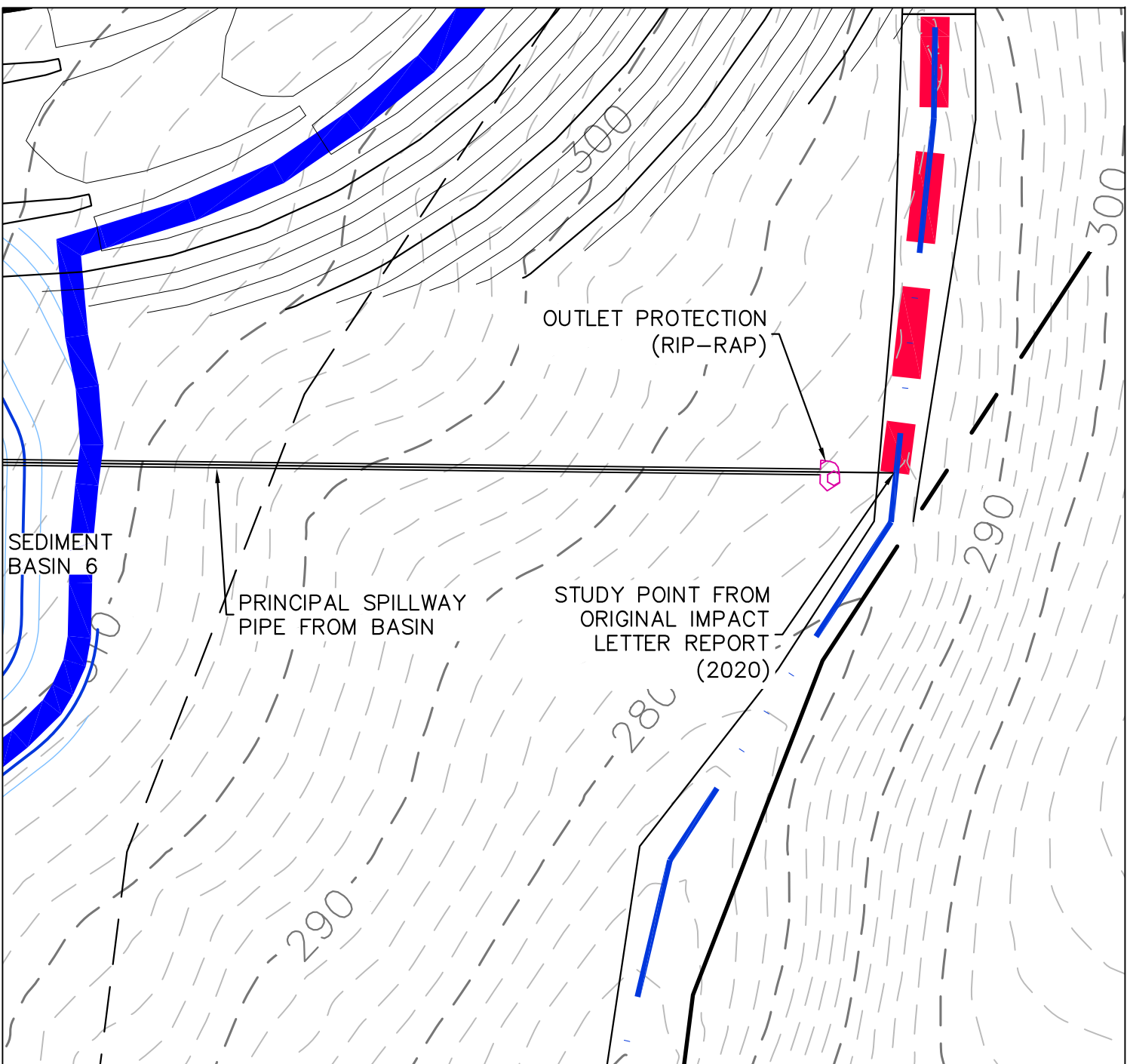
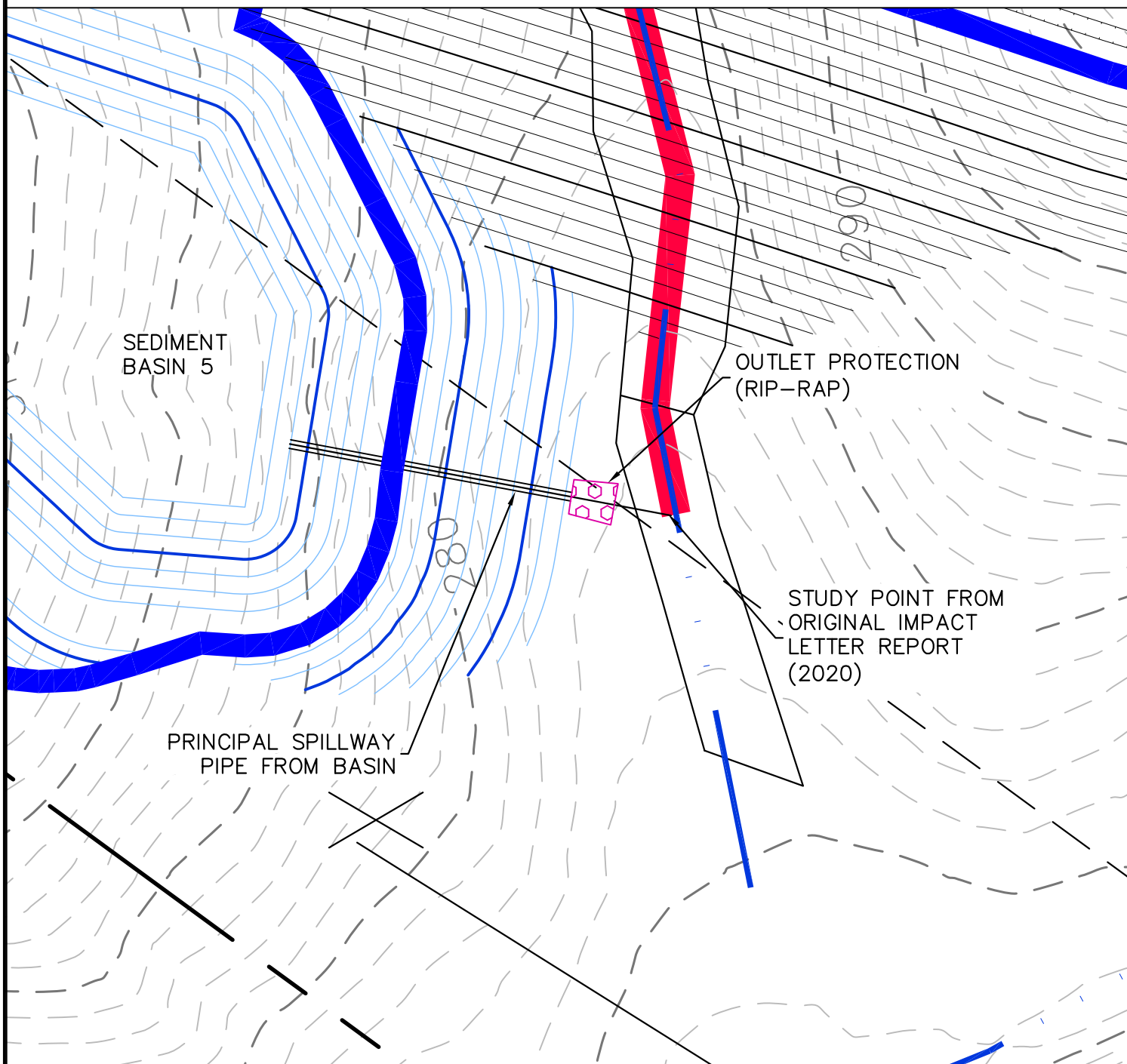
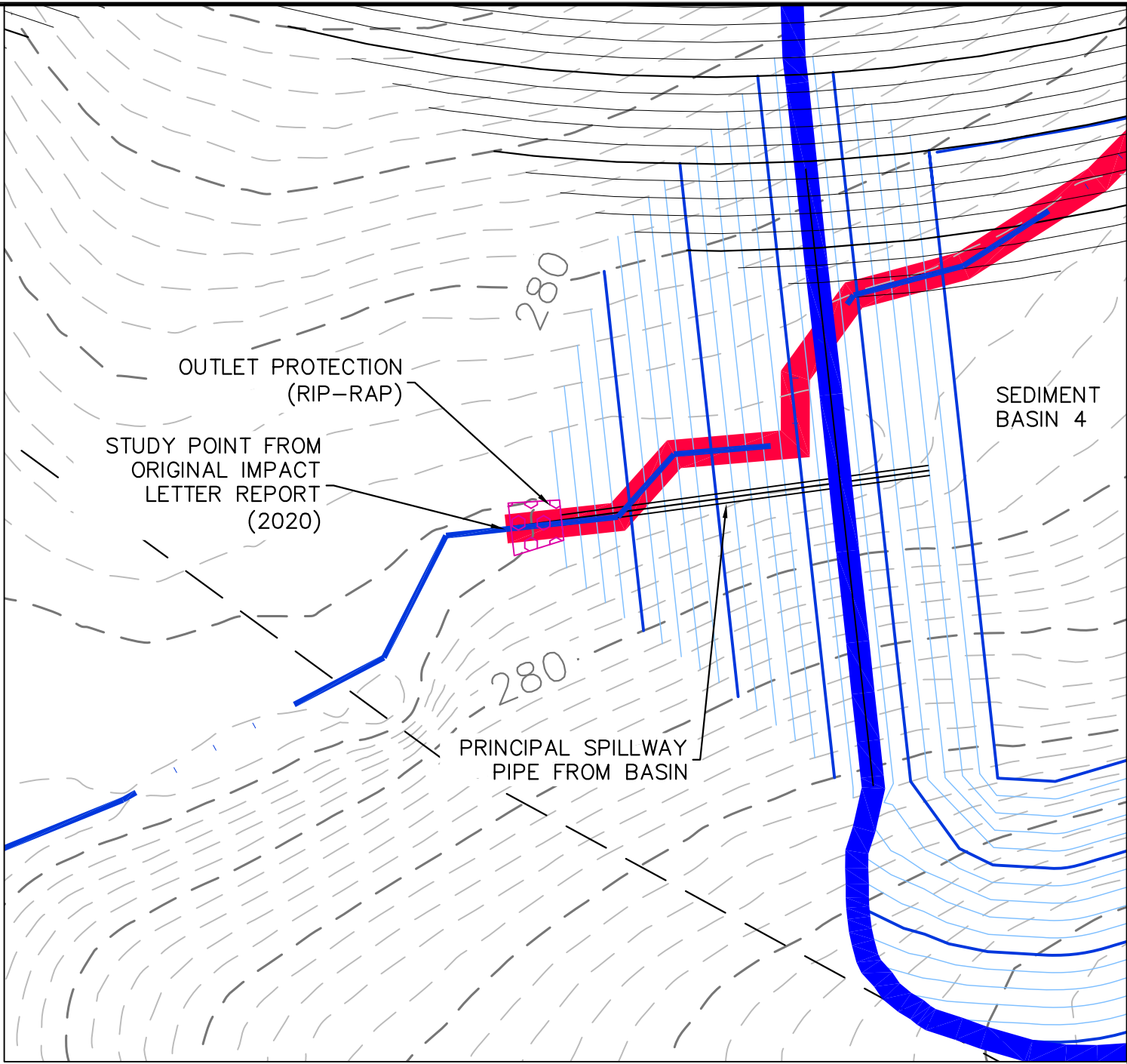
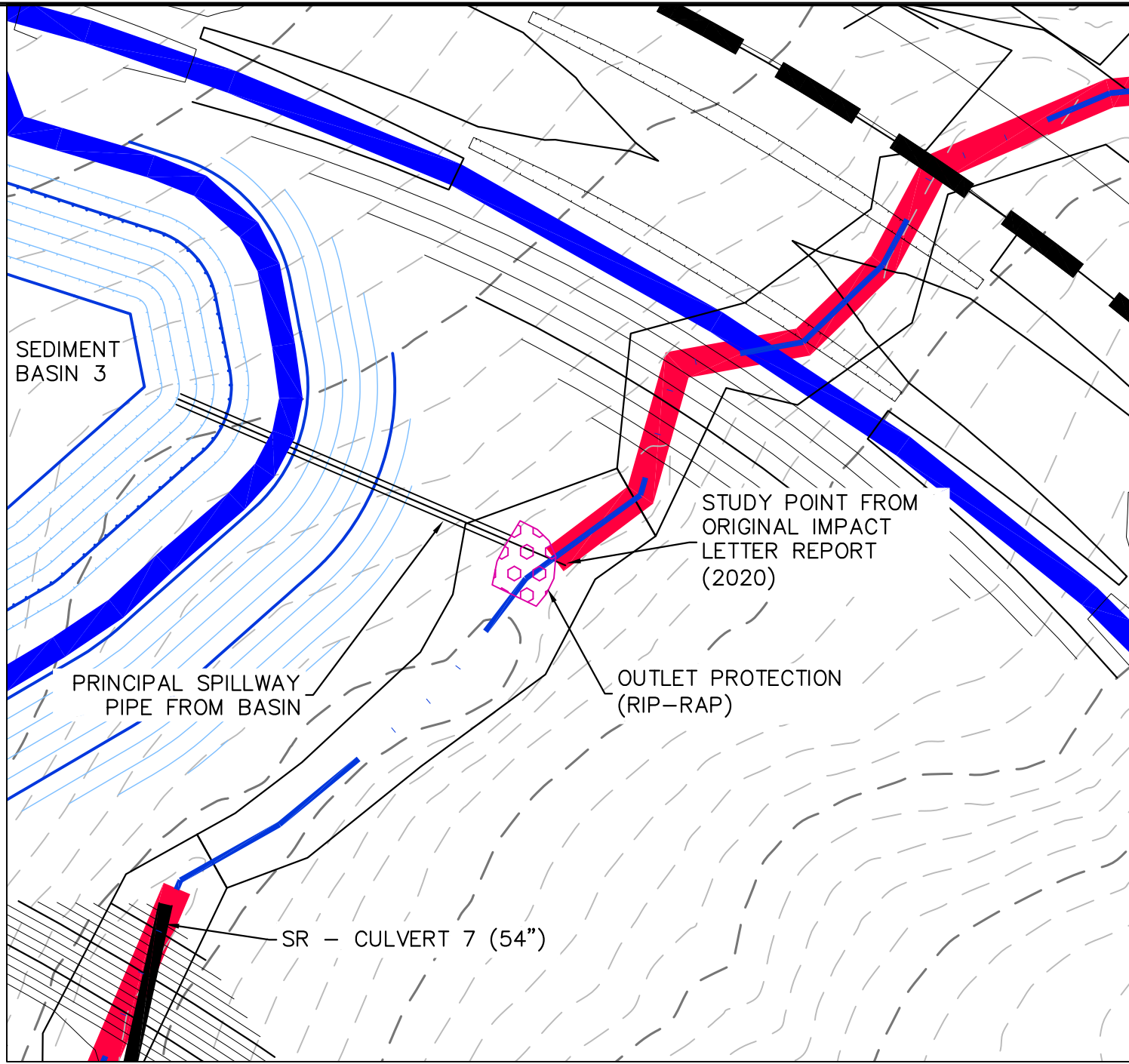
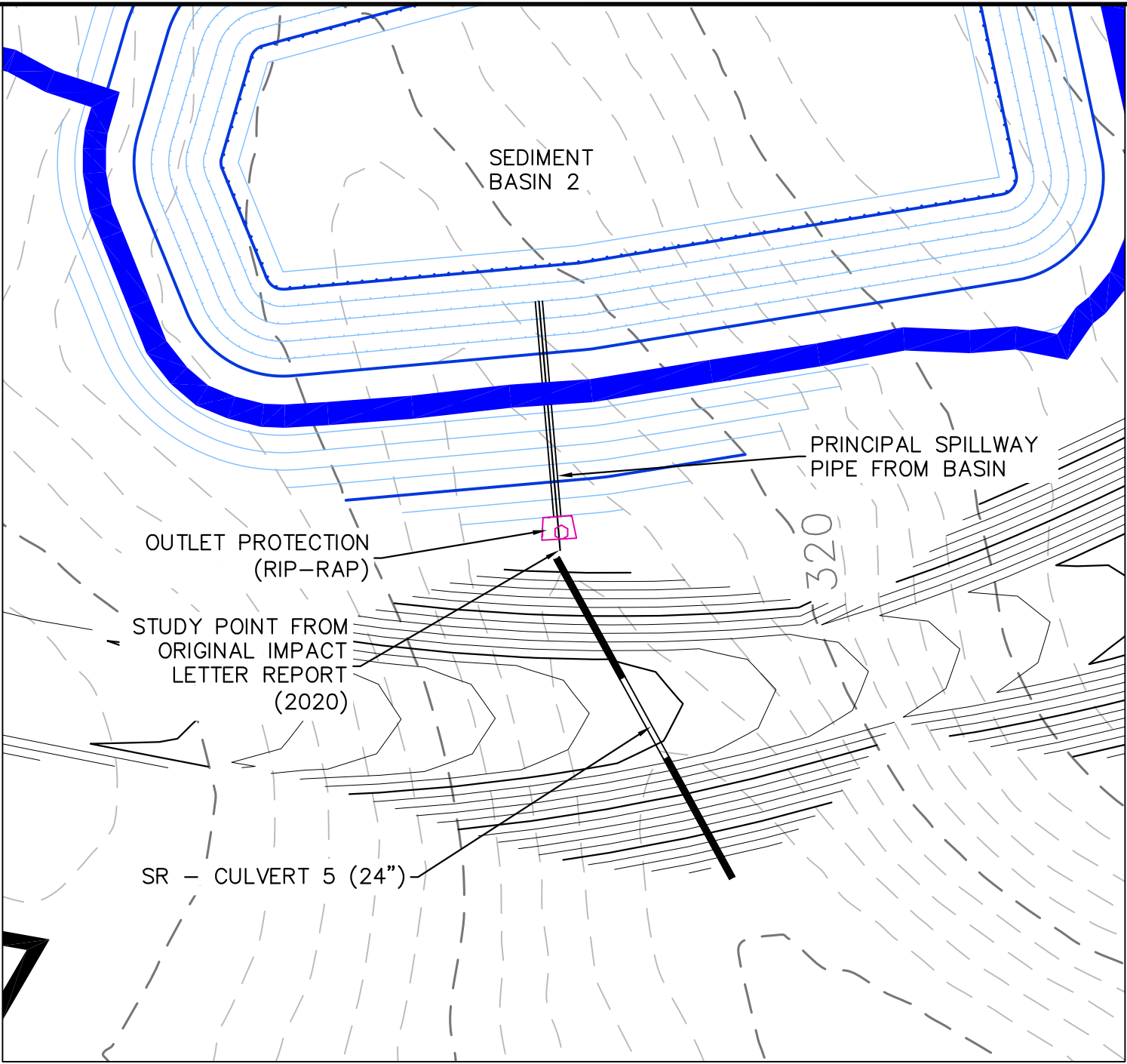
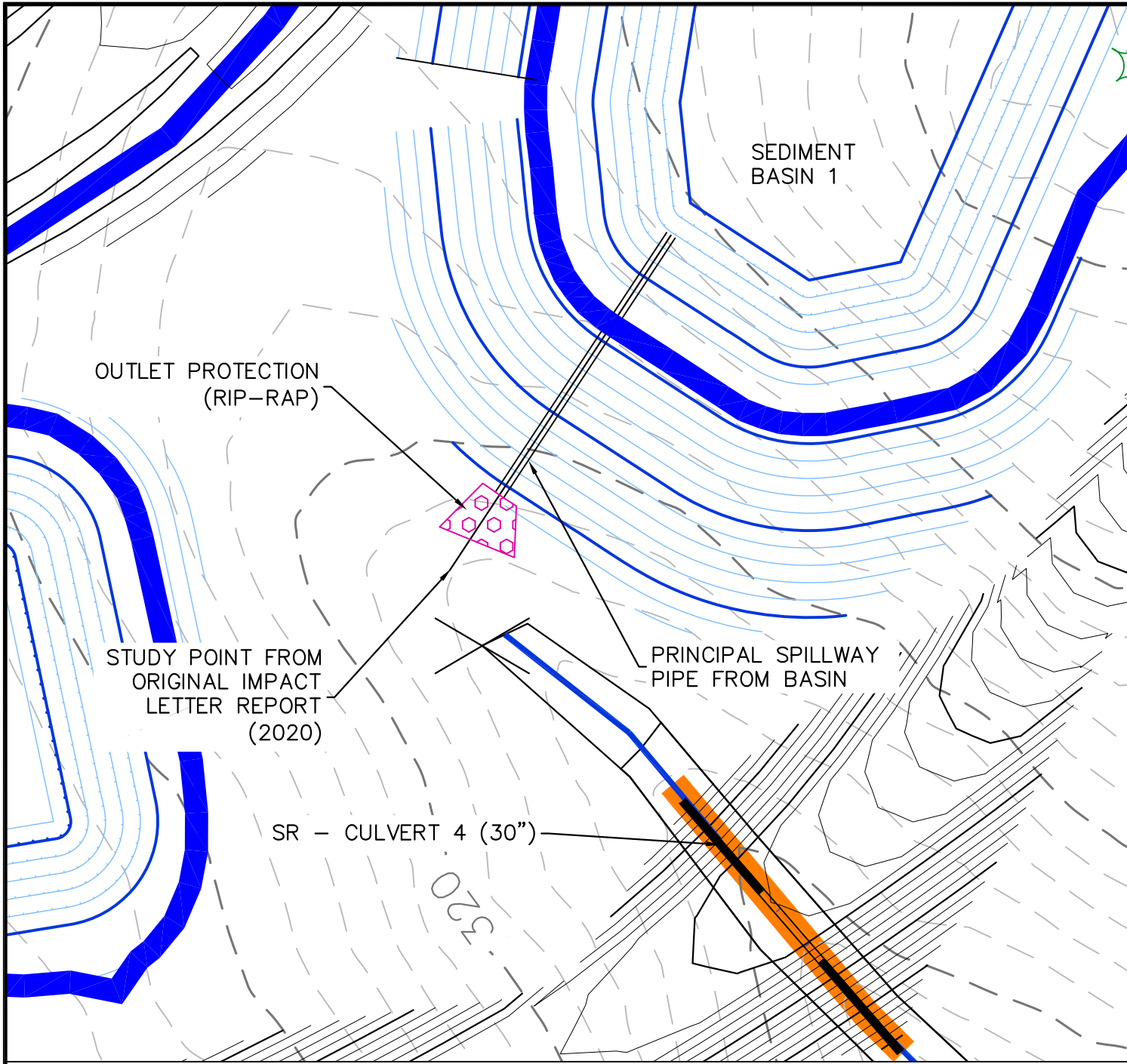
• Blacksburg, VA
• Fayetteville, NC
• Charlottesville, VA
• Hampton Roads, VA
• Northern Virginia
• Raleigh, NC
• Virginia Beach, VA



STREAM CROSS SECTIONS
Scale: H: 1" = 30', V: 1:1

- NOTES:
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 - See Draper Aden Associates drawings entitled: "Conceptual Design for JPA Permitting," original date of September 20, 2021, revision date of April 29, 2022, for engineering design information.





LANDFILL SEDIMENT BASIN OUTLET INFORMATION TABLE					
BASIN ID	Q10 FLOW (CFS)	RIP-RAP CLASS	OUTLET PROTECTION (RIP-RAP) DIMENSIONS		DISTANCE -- END OF OUTLET PROTECTION TO CENTERLINE OF STREAM (FT)
			MIN. LENGTH (FT)	MIN. WIDTH (FT)	
1	0.85	AI	17.5	10.5	13.5
2	0.68	AI	7.5	7.5	402
3	5.63	I	20.0	12.0	0.0
4	1.59	I	17.5	10.5	0.0
5	19.77	II	15.0	9.0	22.0
6	0.12	AI	6.0	6.0	19.5
7	3.62	I	17.5	10.5	12.0
8	11.12	I	20.0	12.0	0.0
9	5.03	I	17.5	10.5	0.0
10	18.22	I	20.0	12.0	222

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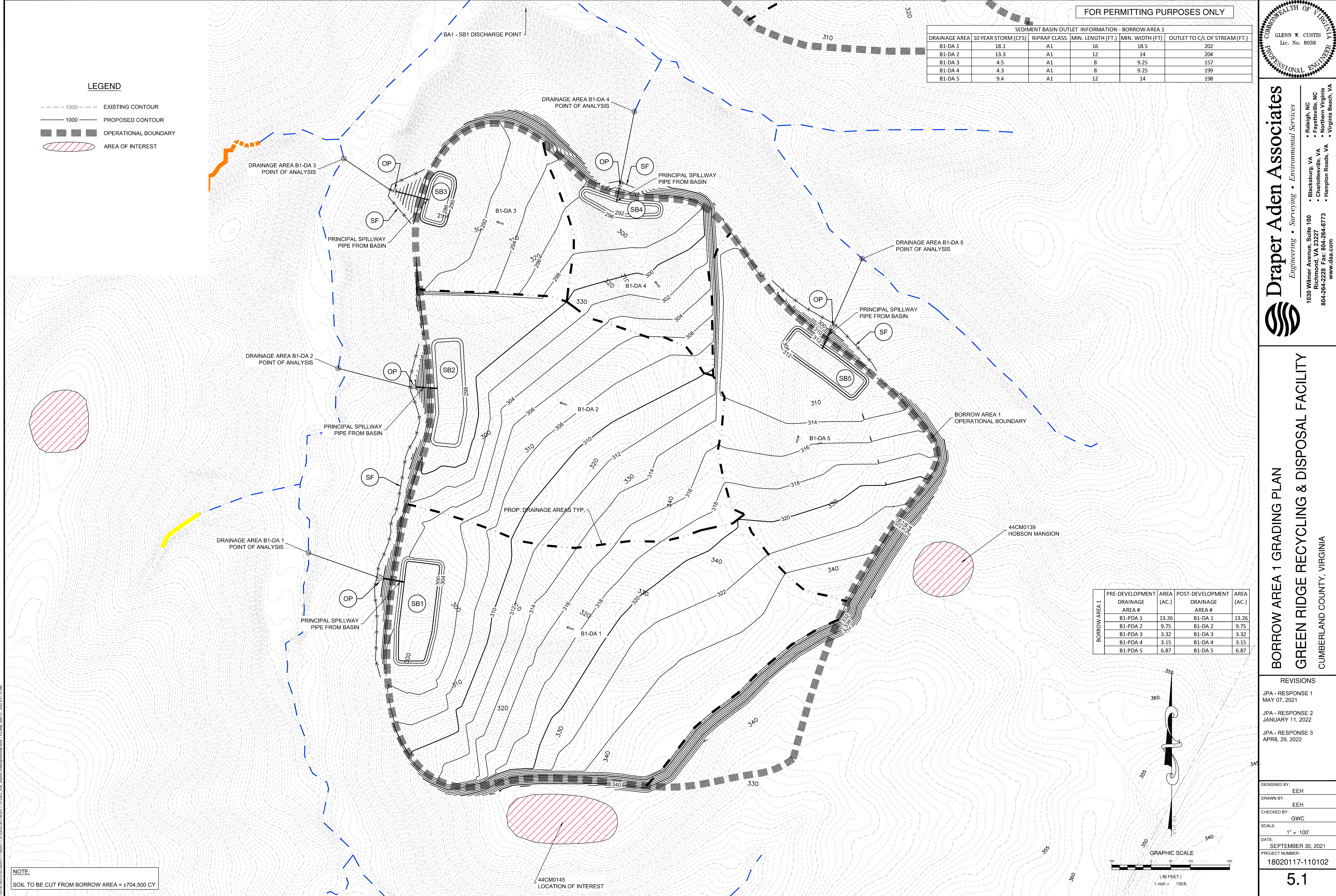
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2206 South Main Street
Blacksburg, VA 24060
540-552-0444 Fax: 540-552-0291
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LANDFILL SEDIMENT BASIN OUTLET PROTECTION
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS
JPA RESPONSE
APRIL 29, 2022

DESIGNED BY: AST
DRAWN BY: DLD/AST
CHECKED BY: -
SCALE: 1" = 50'
DATE: APRIL 29, 2022
PROJECT NUMBER: 18020117-110102

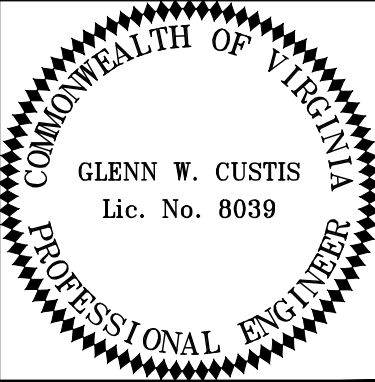


LEGEND

- 1000 --- EXISTING CONTOUR
- 1000 — PROPOSED CONTOUR
- OPERATIONAL BOUNDARY
- /// AREA OF INTEREST

FOR PERMITTING PURPOSES ONLY

SEDIMENT BASIN OUTLET INFORMATION - BORROW AREA 1					
DRAINAGE AREA	10 YEAR STORM (CFS)	RIPRAP CLASS	MIN. LENGTH (FT.)	MIN. WIDTH (FT)	OUTLET TO C/L OF STREAM (FT.)
B1-DA 1	18.1	A1	16	18.5	202
B1-DA 2	13.3	A1	12	14	204
B1-DA 3	4.5	A1	8	9.25	157
B1-DA 4	4.3	A1	8	9.25	199
B1-DA 5	9.4	A1	12	14	198





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• Hampton Roads, VA
• Virginia Beach, VA

BORROW AREA 1 GRADING PLAN
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

REVISIONS

- JPA - RESPONSE 1
MAY 07, 2021
- JPA - RESPONSE 2
JANUARY 11, 2022
- JPA - RESPONSE 3
APRIL 29, 2022

DESIGNED BY: EEH

DRAWN BY: EEH

CHECKED BY: GWC

SCALE: 1" = 100'

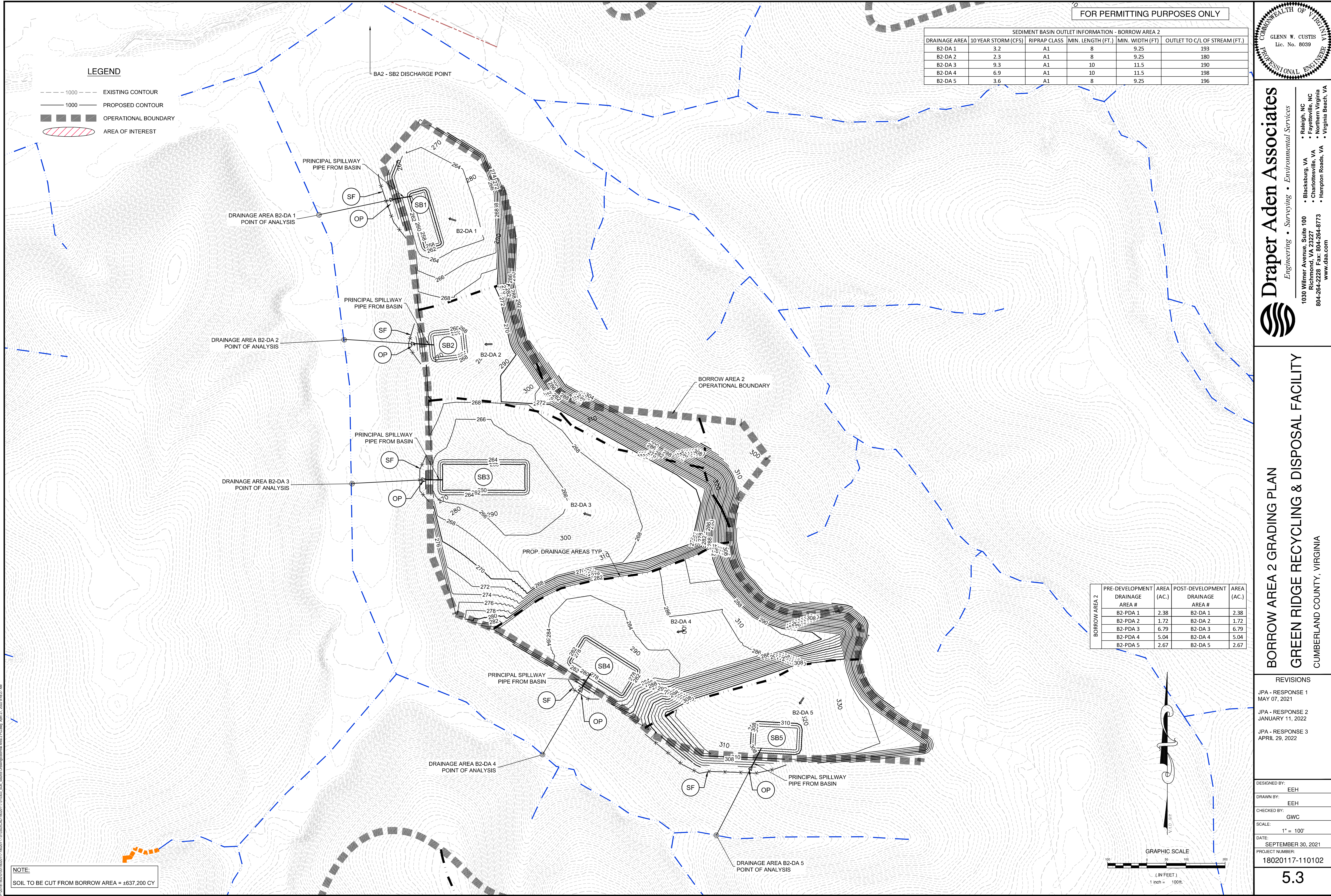
DATE: SEPTEMBER 30, 2021

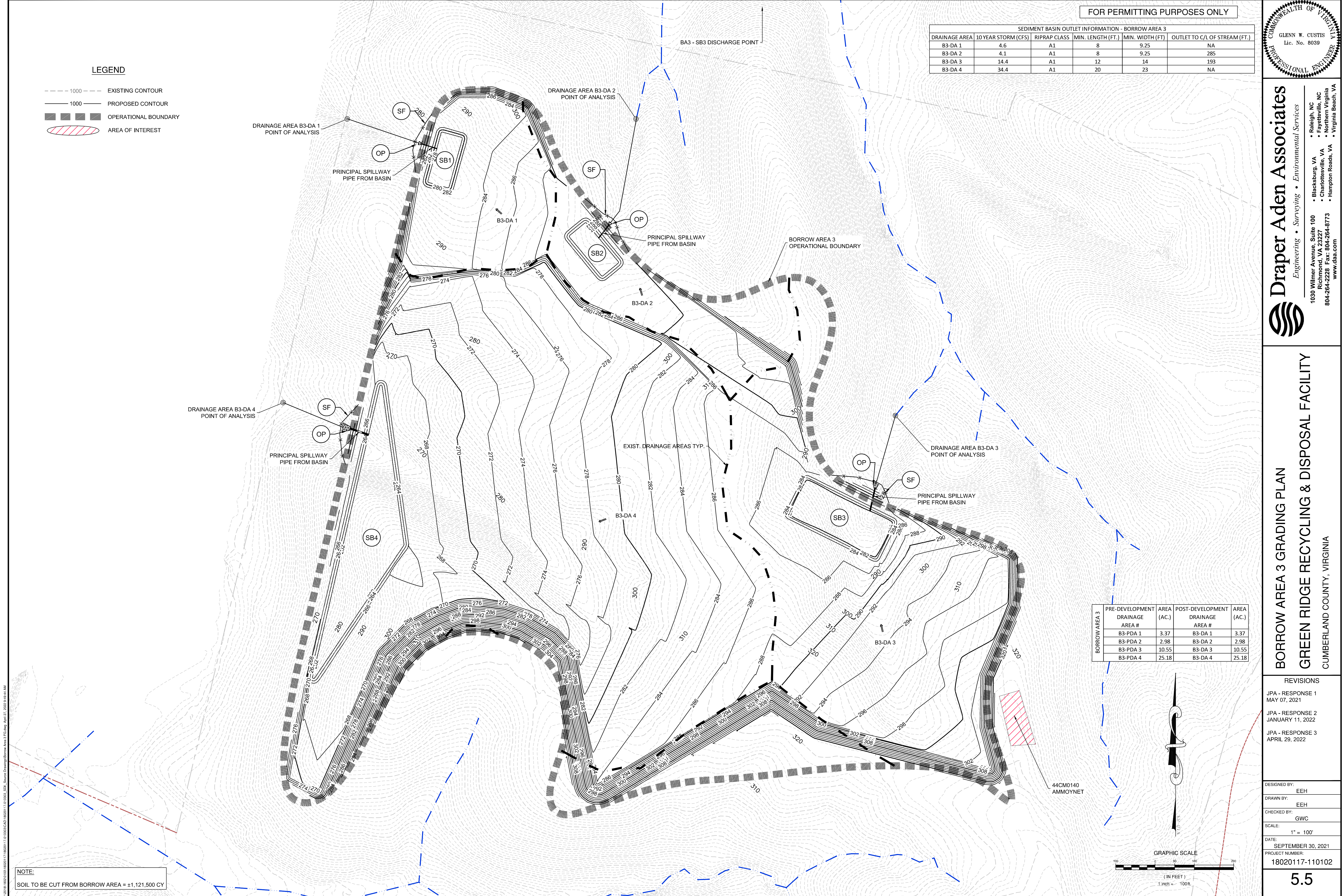
PROJECT NUMBER:

18020117-110102

5.1

NOTE:
SOIL TO BE CUT FROM BORROW AREA = ±704,500 CY



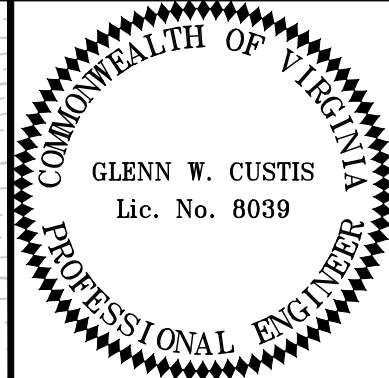


LEGEND

- 1000 --- EXISTING CONTOUR
- 1000 — PROPOSED CONTOUR
- OPERATIONAL BOUNDARY
- ▨▨▨▨ AREA OF INTEREST

FOR PERMITTING PURPOSES ONLY

SEDIMENT BASIN OUTLET INFORMATION - BORROW AREA 3					
DRAINAGE AREA	10 YEAR STORM (CFS)	RIPRAP CLASS	MIN. LENGTH (FT.)	MIN. WIDTH (FT.)	OUTLET TO C/L OF STREAM (FT.)
B3-DA 1	4.6	A1	8	9.25	NA
B3-DA 2	4.1	A1	8	9.25	285
B3-DA 3	14.4	A1	12	14	193
B3-DA 4	34.4	A1	20	23	NA





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• Virginia Beach, VA

BORROW AREA 3 GRADING PLAN
GREEN RIDGE RECYCLING & DISPOSAL FACILITY
CUMBERLAND COUNTY, VIRGINIA

BORROW AREA 3	PRE-DEVELOPMENT DRAINAGE AREA #	AREA (AC.)	POST-DEVELOPMENT DRAINAGE AREA #	AREA (AC.)
	B3-PDA 1	3.37	B3-DA 1	3.37
	B3-PDA 2	2.98	B3-DA 2	2.98
	B3-PDA 3	10.55	B3-DA 3	10.55
	B3-PDA 4	25.18	B3-DA 4	25.18

NOTE:
SOIL TO BE CUT FROM BORROW AREA = ±1,121,500 CY

- REVISIONS
- JPA - RESPONSE 1
MAY 07, 2021
 - JPA - RESPONSE 2
JANUARY 11, 2022
 - JPA - RESPONSE 3
APRIL 29, 2022

DESIGNED BY: EEH
DRAWN BY: EEH
CHECKED BY: GWC
SCALE: 1" = 100'
DATE: SEPTEMBER 30, 2021
PROJECT NUMBER: 18020117-110102