

12TH STREET HIGHWALL

SITE NO.	CONTRACT NO.
1836	DEL2415208251/E008-338

GREENE COUNTY

STATE OF INDIANA

INDIANA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF RECLAMATION



ABANDONED COAL MINE

RESTORATION

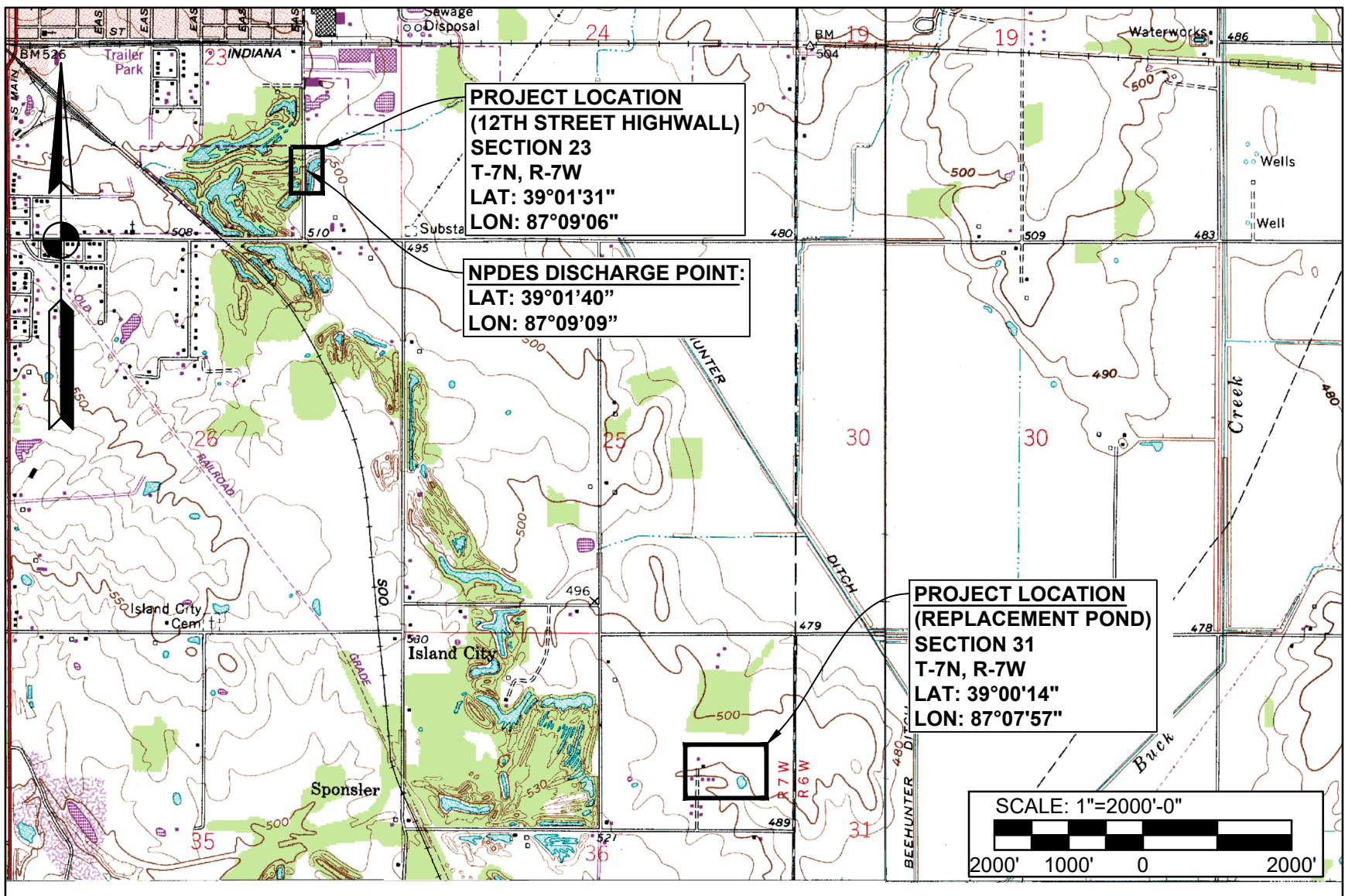
12TH STREET HIGH WALL

SITE 1836

CONTRACT DEL2415208251 /E008-338

GREENE COUNTY

Clear and grub, backfill highwall, improve drainage,
replace guardrail, revegetate all disturbed areas, and
construct replacement water body



PROJECT LOCATION MAP
LINTON & SWITZ CITY US TOTP (USGS, 2018)

GENERAL NOTES

2022 AML Standard Specifications to be used with these plans

Plans developed from Site Survey shot in by Hennessy Surveying, Inc. in NAD 83, Indiana State Plane West, Feet and NAVD88 ELV.

An NPDES discharge permit is required for this project. Additional NPDES discharge points can be added to facilitate construction sequencing

INDEX

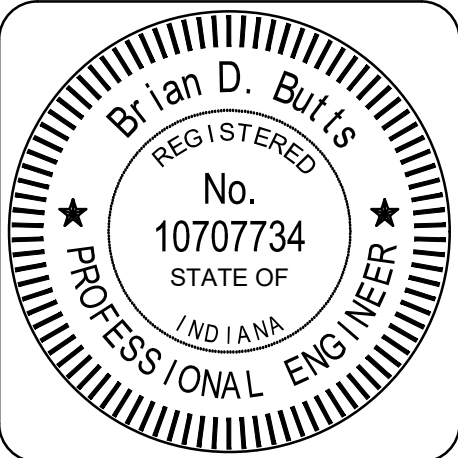
SHEET NO.	SHEET TITLE
1	TITLE, INDEX & LOCATION MAP
2	EXISTING SITE MAP
3	PROPOSED SITE PLAN
4-5	SECTION VIEWS
6	REVEGETATION PLAN
7	MISC. DETAILS
8	REPLACEMENT POND PLAN VIEW
9	REPLACEMENT POND PLAN VIEW
10-11	SECTION VIEWS
12	SECTIONS DETAIL

UTILITIES

The facilities of the following utilities exist near the project site but are not expected to be affected by the proposed construction. If questions arise, the utility may be contacted using the information below.

Electric/Gas/Water: Linton Municipal Utilities 86 S Main St. Linton, IN, 47441 Phone: (812)847-4971	Telecom: Clay County Rural Telephone DBA Endeavor Communications P.O. Box 237 Cloverdale, IN 46120 Phone: (800)922-6677
Water: Ellis Water Co. Inc. 3030 N. IN-59 Linton, IN 47441 Phone: (812)847-9898	Telecom: AT&T Distribution 5657 S US Hwy 41 Terre Haute, IN 47802 Phone: (800)924-9420

Greene Co. Hwy. Dept:
847 Co. Rd. 800
Switz City, IN 47465
Ron Wiggington
(812)798-0352



PLANS
PREPARED BY: COMMONWEALTH ENGINEERS (812) 474-1177
PHONE NUMBER

CERTIFIED BY: *Brian D. Butts* 03/12/2024
DATE

APPROVED
FOR LETTING: MM/DD/YYYY
DATE

SCALE

AS NOTED

PROJECT

E008-338

SHEET

1 OF 12

SITE

1836

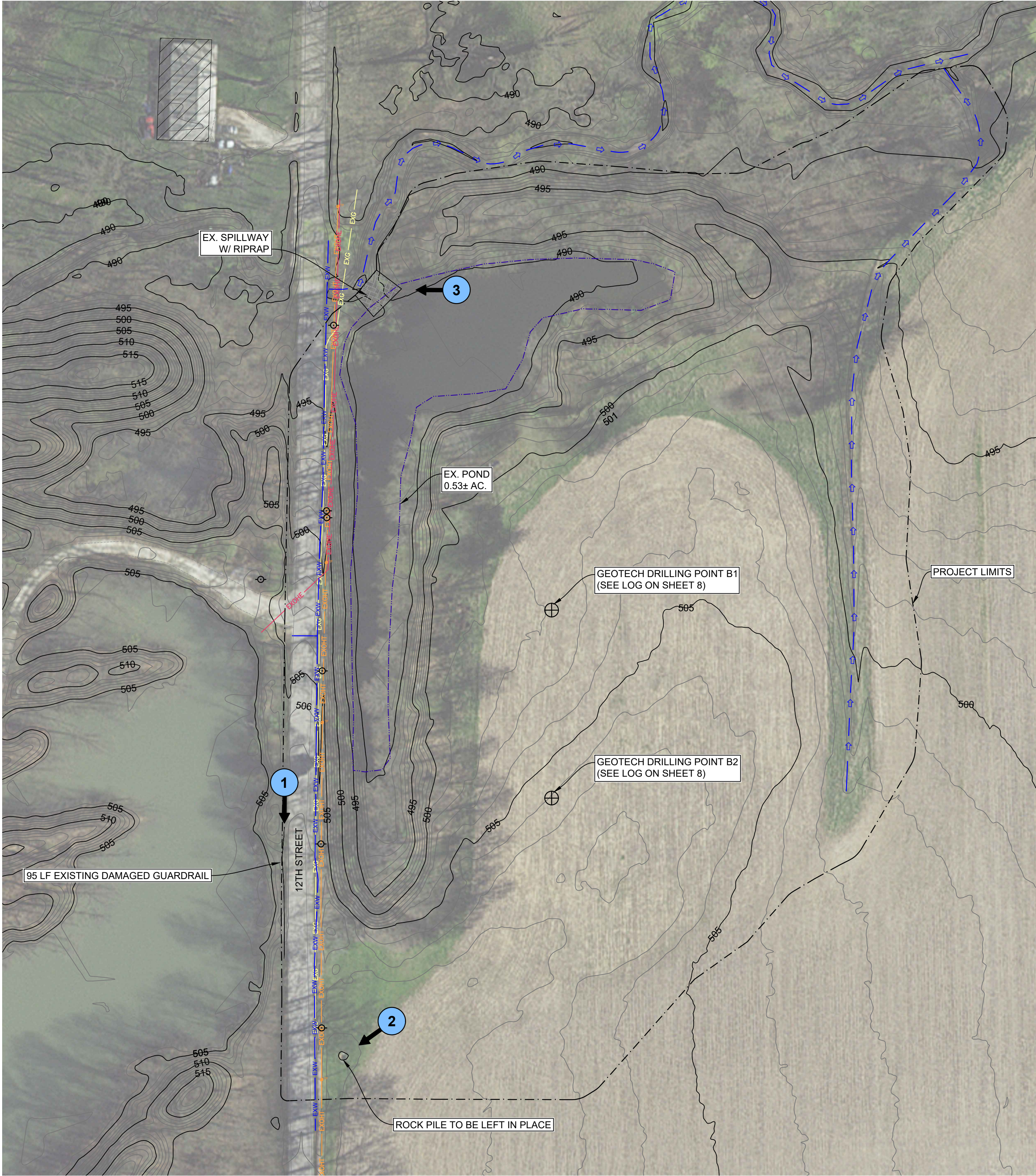
LEGEND

- PROJECT LIMITS
- EX. RIPRAP FEATURE
- EXISTING WATER
- EX. OVERHEAD ELECTRIC
- EX. OVERHEAD TELEPHONE
- EX. GAS LINE
- EX. WATER LINE
- GEOTECH DRILLING POINTS
- INDICATES PHOTO NUMBER AND DIRECTION OF PHOTO
- EXISTING BUILDING/STRUCTURE
- EXISTING PAVED ROAD/DRIVE
- EXISTING UNPAVED ROAD/DRIVE
- EXISTING FLOW LINES

SCALE: 1"=50'-0"

50' 30' 10' 0' 50'

GEOTECH DRILLING COORDINATES		
	POINT B1	POINT B2
NORTHING	2933250	2933250
EASTING	1375922	1375786



1 EX. DAMAGED GUARDRAIL WEST SIDE OF 12TH ST
LOOKING SOUTH



2 EX. ROCK PILE TO BE LEFT IN PLACE
EAST SIDE OF 12TH STREET
LOOKING SOUTH WEST



3 EX. SPILLWAY LOOKING WEST
EAST SIDE OF 12TH STREET

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REGISTERED
No. 10707734
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: *Brian D. Butts* 03/12/2024
DATE

DESIGNED BY
BDB

DRAWN BY
SAC

DATE MADE
03/12/2024

DATE REVISED
03/12/2024

EXISTING SITE MAP

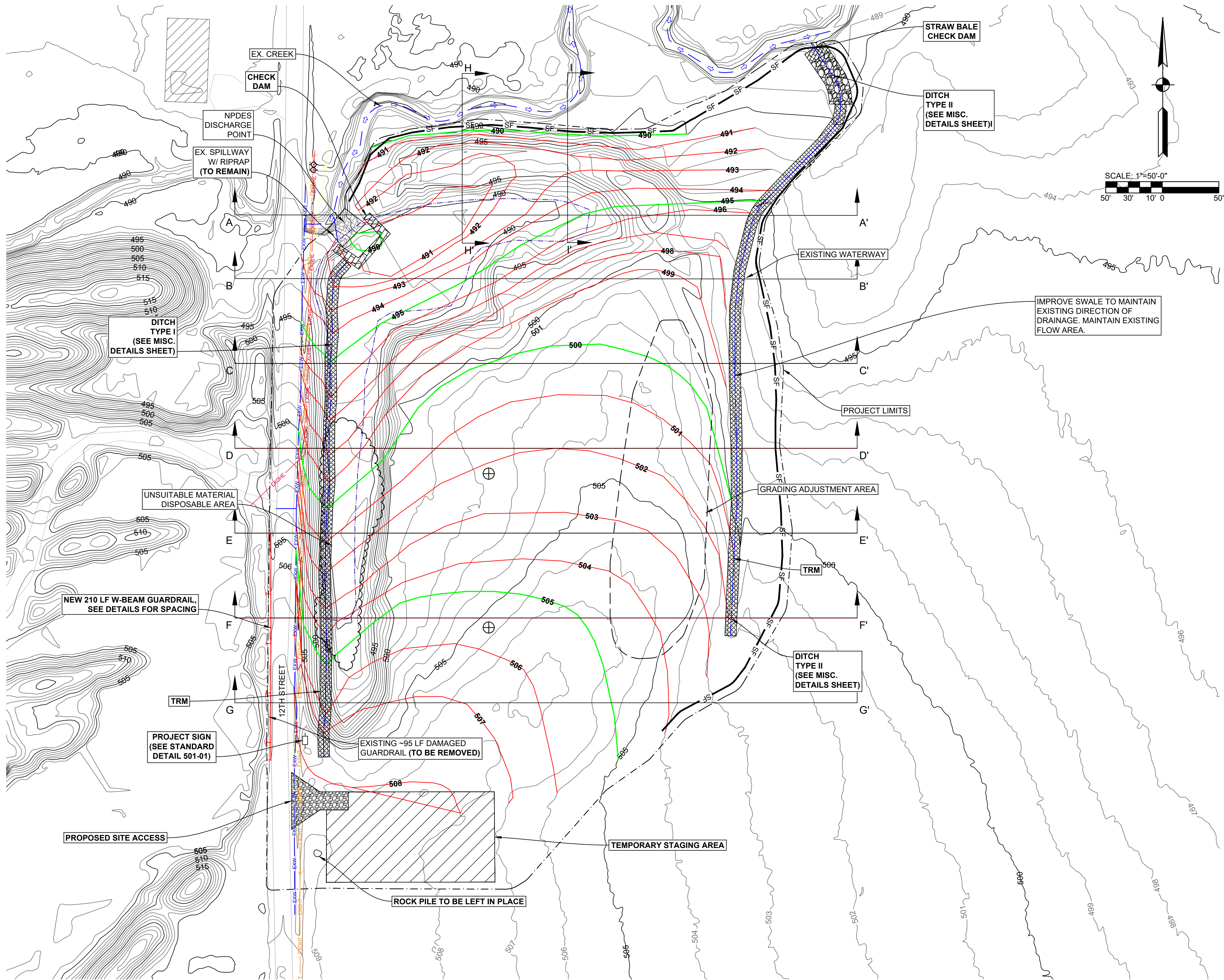
STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE
1" = 50'

PROJECT
E008-338

SHEET
2 of 12

SITE
1836



GENERAL NOTES

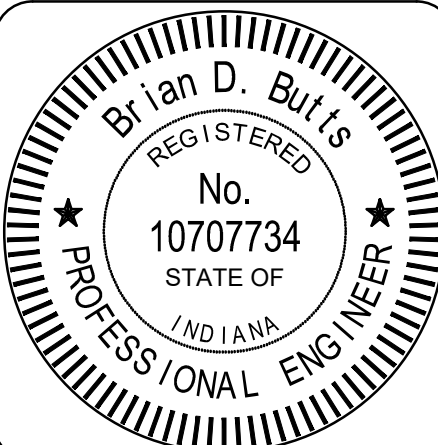
- 1) The contractor is not to disturb the existing creek bank.
- 2) Excavate and install construction entrance with 6 inches of No. 73 compacted aggregate on 6 inches of No. 2 coarse aggregate on geotextile. The construction entrance shall be 50 feet in width at 12th Street and taper to 16 feet in width over a distance of approximately 25 ft (Contractor to include this work in Lump Sum).
- 3) Temporary Staging Area (maximum limits shown) to be removed after project completion. Contractor shall remove all stone and geotextile placed and used for his temporary purpose during demobilization.
- 4) Clear and Grub, chip trees, remove and grind stumps. Wood chips to be incorporated into the prairie mix areas no more than 4" spread thickness. Remaining wood chips to be hauled off site to the city of Linton disposal facilities or the Green-Sullivan State Forest as directed by the Engineer
- 5) The contractor shall strip and stockpile all topsoil IE: the darkened surface soils from within the current crop area. The soil shall be stockpiled within the construction boundary limits identified on the drawings. Topsoil removal material shall consist of fertile, friable, organic surface soil stripped from the site and shall be free of subsoil, brush, turf grasses weeds, roots, stumps and stones larger than 4 inches in diameter and other contaminated matter. The Topsoil shall be stockpiled to be reused and re-spread upon the regraded surface. The topsoil stockpile shall be properly protected against water and wind erosion. At a minimum, 6 inches of topsoil shall be salvaged.
- 6) Regrade loose fill 4 ft deep from final grade and revegetate as noted in the revegetation plan. Place large boulders in a single pile at a location approved by the engineer.
- 7) Existing water body to be filled with approved materials from the cut area per standard specifications.
- 8) The existing open channel spillway to remain, the rip rap lined structure will become the final discharge point for the reclaimed area. The remnant pond dam is to remain intact to control the discharge of water through the spillway
- 9) Should contractor expose any fire clay or similar acid producing materials during excavation, then the Contractor shall not excavate below this elevation unless approved by the Engineer. If such material is excavated, then it shall be placed within the unsuitable material disposal area and shall have a minimum of 4 feet of cover above and on the sides with suitable material to the proposed final surface elevation.
- 10) Reshape the existing waterway such that it is traversable by farm equipment throughout its length in the crop field. Place TRM and establish 8 ft minimum grass strips on either side.
- 11) Any cut/fill adjustments shall occur within the designated areas and must not create any grade that exceeds:
 - 3.5% in the existing crop field
 - 4h:1v slopes elsewhere
- 12) Any cut/fill adjustments must maintain positive drainage patterns away from the adjustment areas. All significant adjustments in elevation and grade shall require approval of the Engineer.
- 13) Any accumulated trash to be hauled to landfill by Contractor.
- 14) The locations of existing underground utilities, such as water mains, sewer, gas lines, etc., as shown on the plans have been determined from the best available information and is given for the convenience of the contractor. However, the engineer and the owner do not assume responsibility for the accuracy of the locations shown. It shall be the responsibility of the contractor to contact all utility companies and their facilities shall be located prior to commencement of any work.
- 15) Prior to construction the contractor is to call INDIANA 811.
- 16) All public street construction shall meet performance standards of the current edition of the INDIANA Department of Transportation Standard Specifications.
- 17) Street signage shall be included in accordance with the MUTCD requirements applicable at the time of construction.
- 18) Contractor to repair any road damage caused by construction activities to as good or better condition. Pre-construction video of the roads shall be taken by contractor prior to construction.
- 19) Contractor to protect overhead utility lines.
- 20) Turf Reinforcement Mat (TRM) per Section 608.07 of the Standard Specification.
- 21) Install TRM after completion of grading to mitigate erosion in areas of potential concentrated flow as shown.

LEGEND

	EXISTING CONTOUR		PROPOSED CONTOUR
	EXISTING WATER		PROJECT LIMITS
	EXISTING BUILDING/STRUCTURE		GEOTECH DRILLING POINT
	EXISTING PAVED ROAD/DRIVE		PROPOSED STRAW BALES
	EXISTING UNPAVED ROAD/DRIVE		PROPOSED AGGREGATE FEATURE
	EXISTING GUARDRAIL		PROPOSED RIPRAP FEATURE
	UTILITY POLE		CUT/FILL ADJUSTMENT AREA
	EXISTING FLOW LINES		DISPOSAL (MATERIAL AS NOTED)
	EXISTING RIPRAP FEATURE		STAGING AREA
	PROPOSED PROJECT SIGN		PROPOSED FLOWLINE
	PROPOSED GUARDRAIL		TURF REINFORCEMENT MAT
	PROPOSED SILT FENCE		



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RECOMMENDED
FOR APPROVAL:

Brian D. Butts

03/12/2024
DATE

DESIGNED BY

BDB

DRAWN BY

SAC

DATE MADE

03/12/2024

DATE REVISED

03/12/2024

PROPOSED SITE PLAN

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE

1" = 50'

PROJECT

E008-338

SHEET

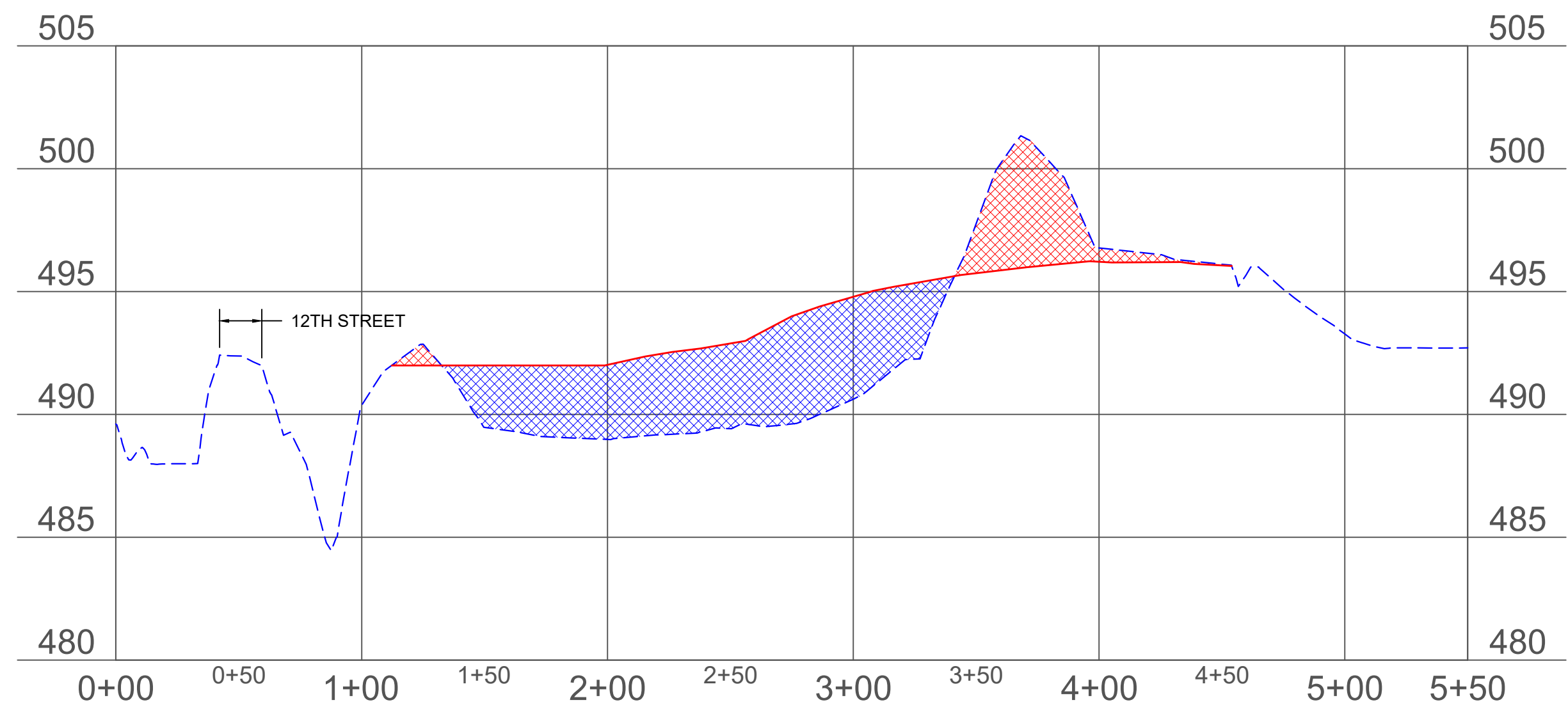
3 of 12

SITE

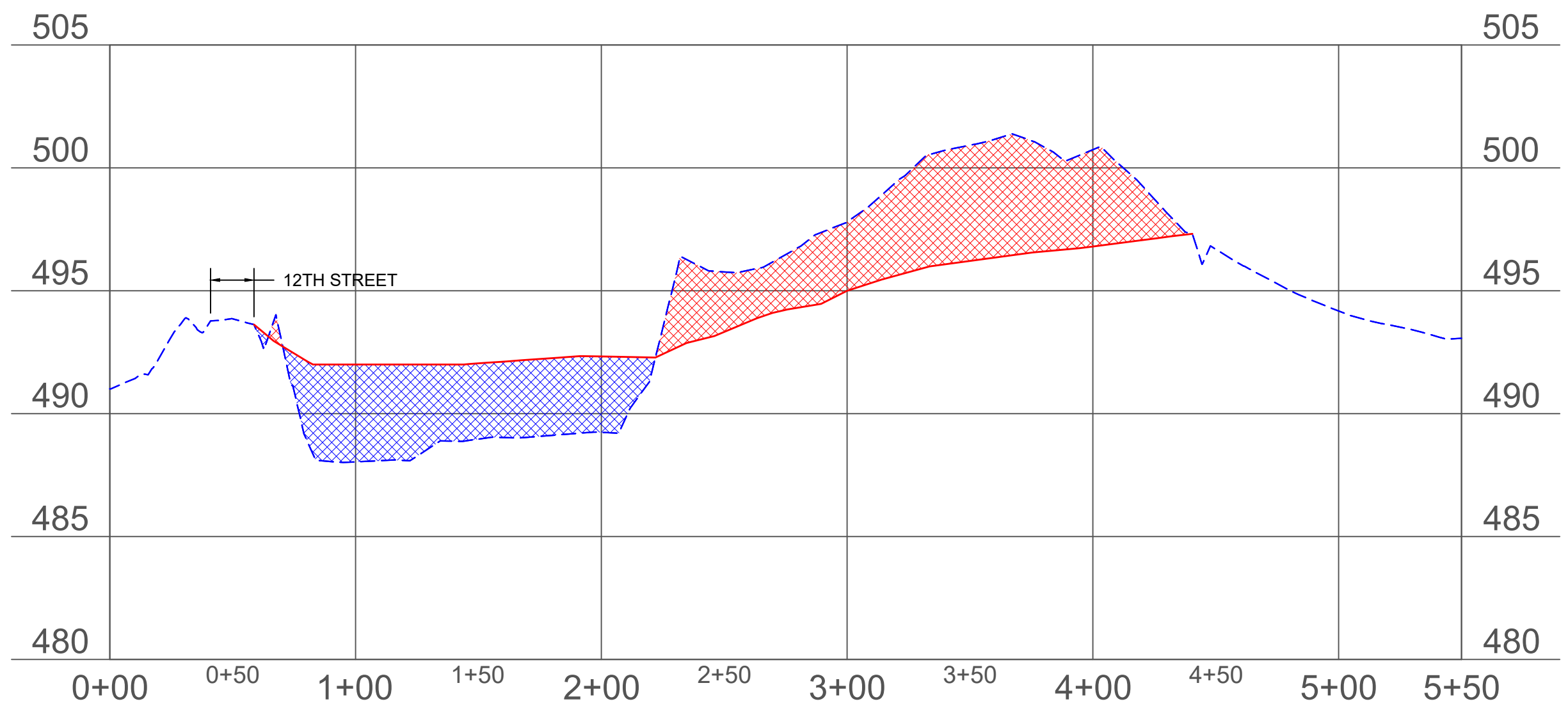
1836

LEGEND

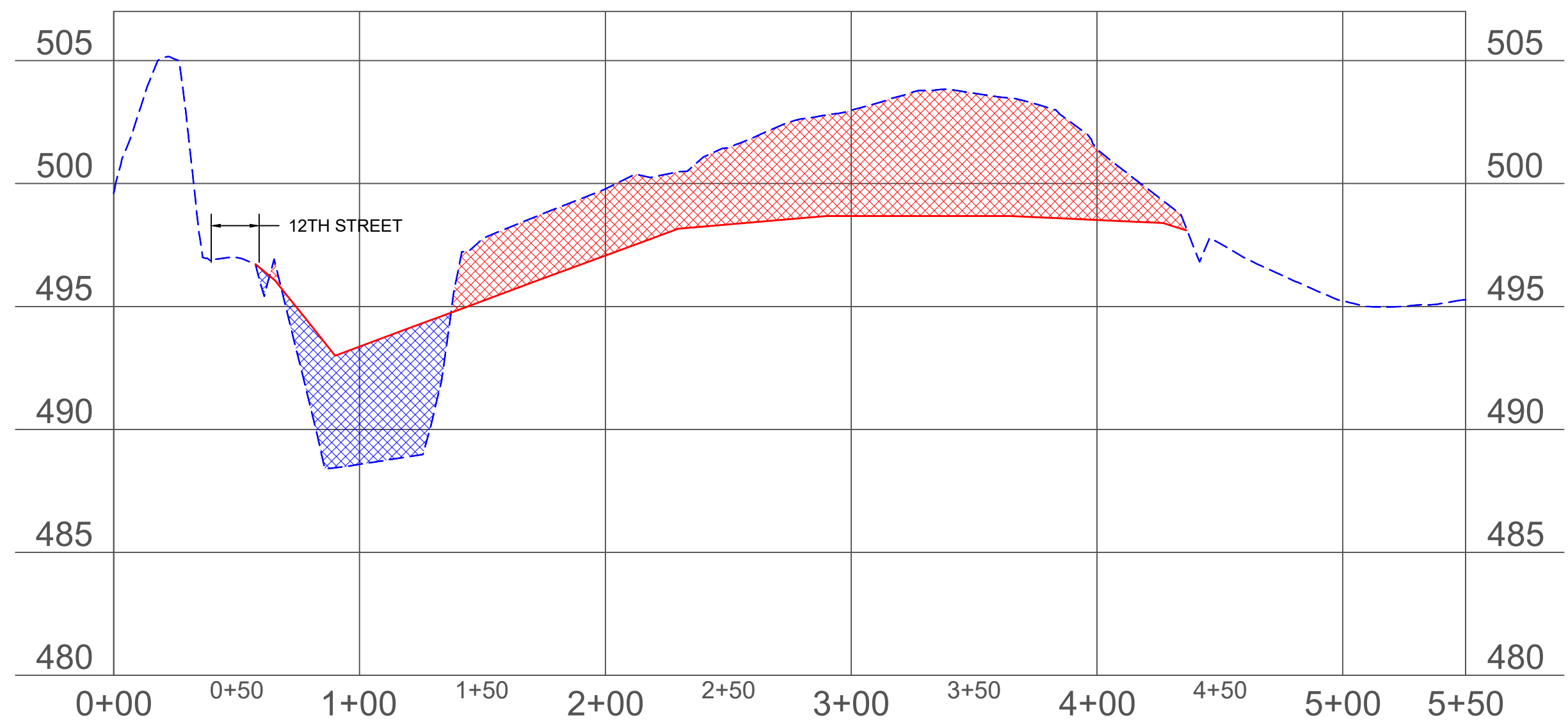
- EX. GRADE
DESIGN GRADE
CUT
FILL



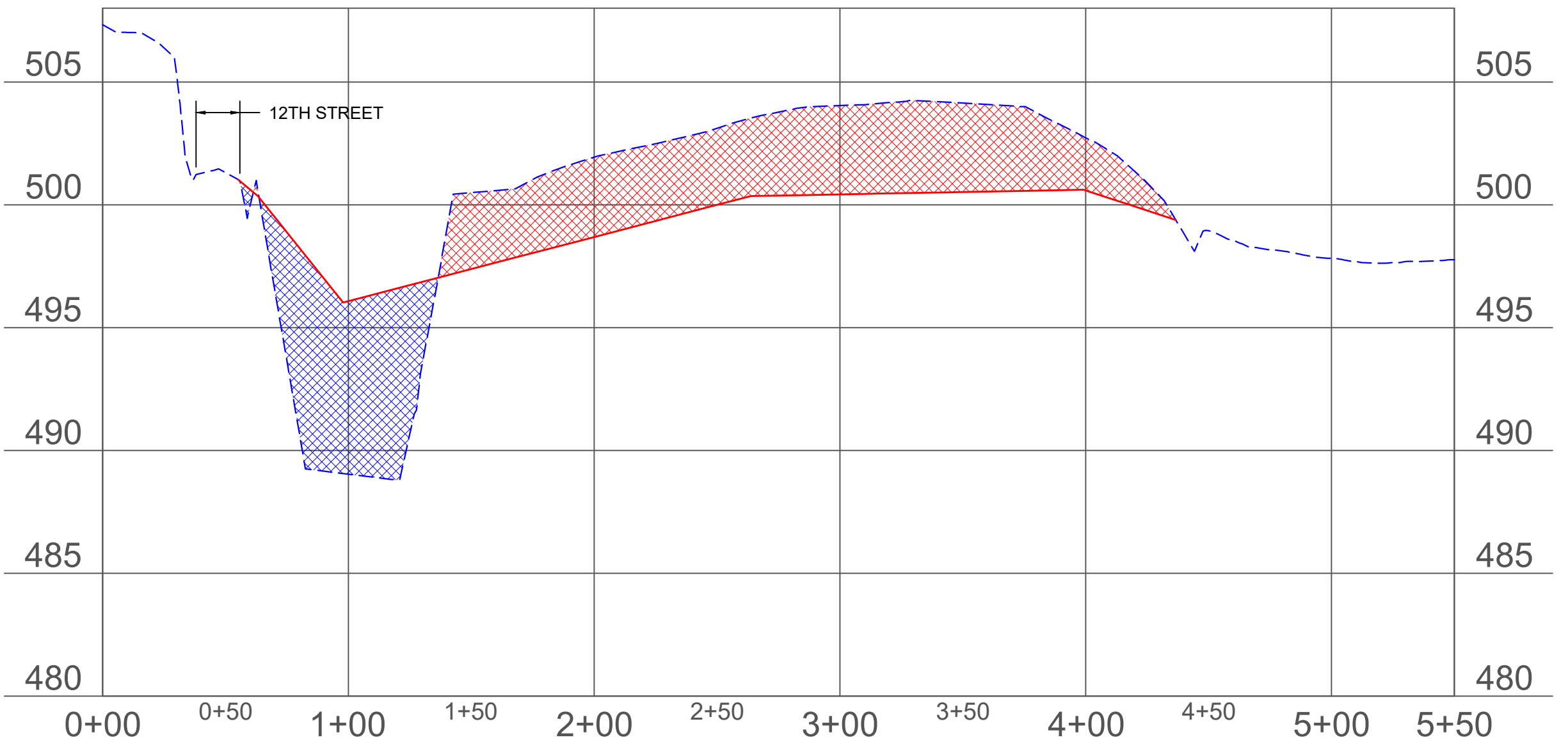
SECTION VIEW LINE (A-A')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



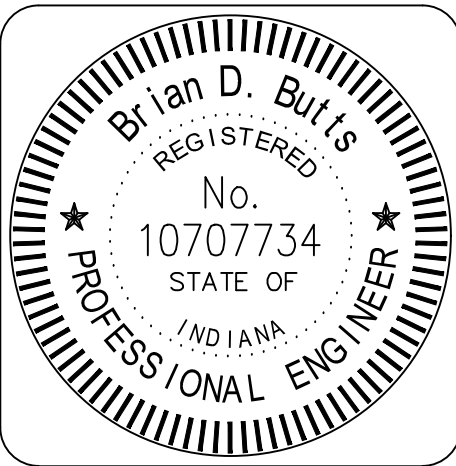
SECTION VIEW LINE (B-B')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (C-C')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (D-D')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



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SECTION VIEWS

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE

1" = 50'

PROJECT

E008-338

SHEET

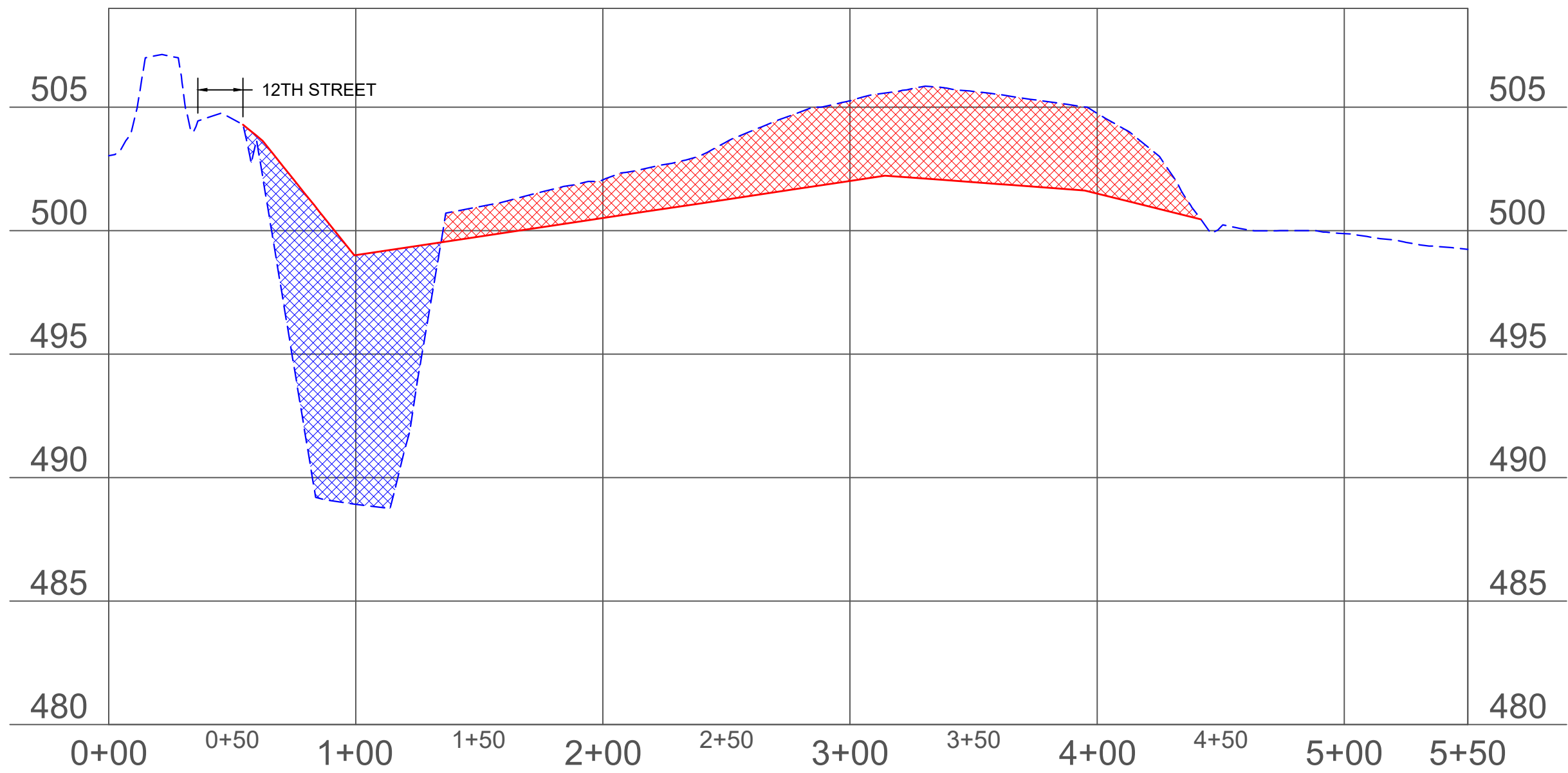
4 of 12

SITE

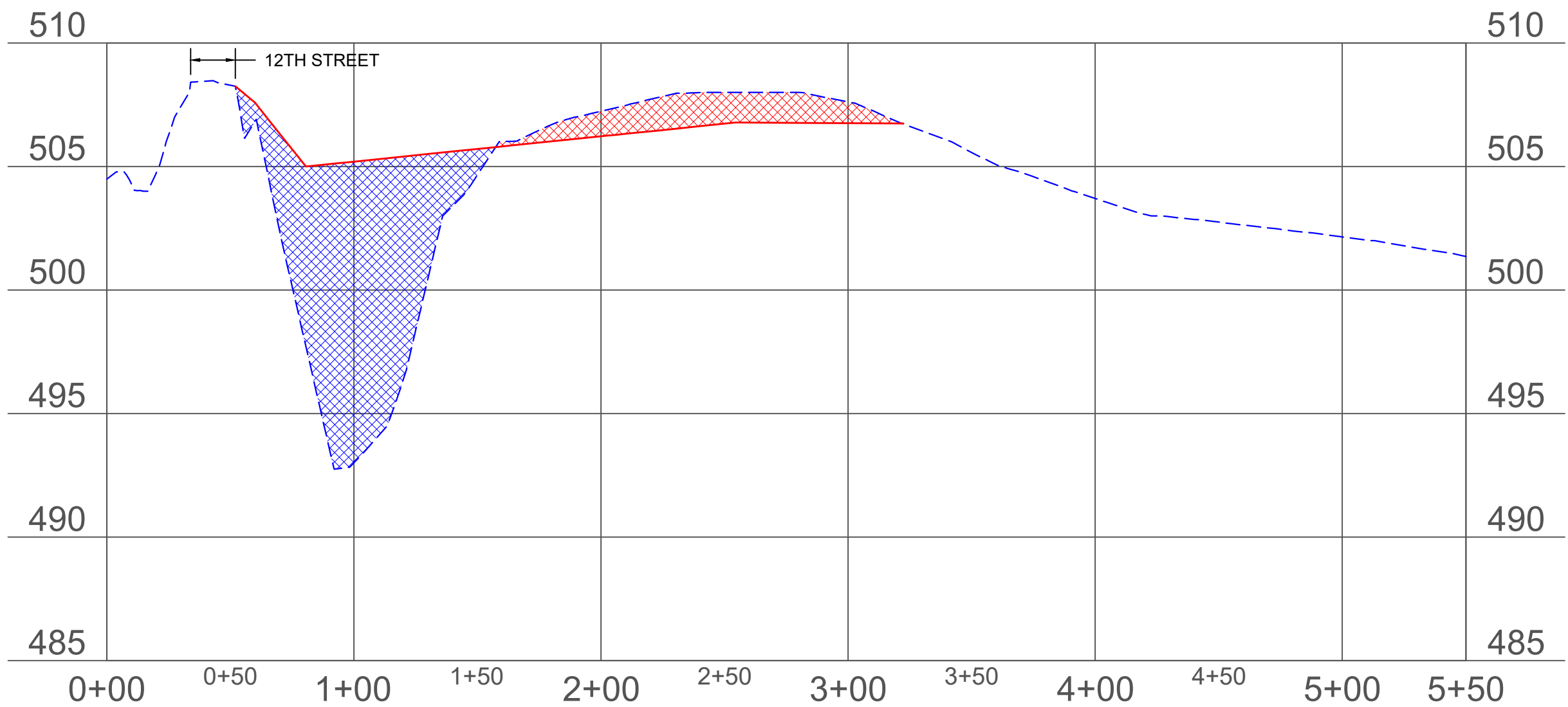
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LEGEND

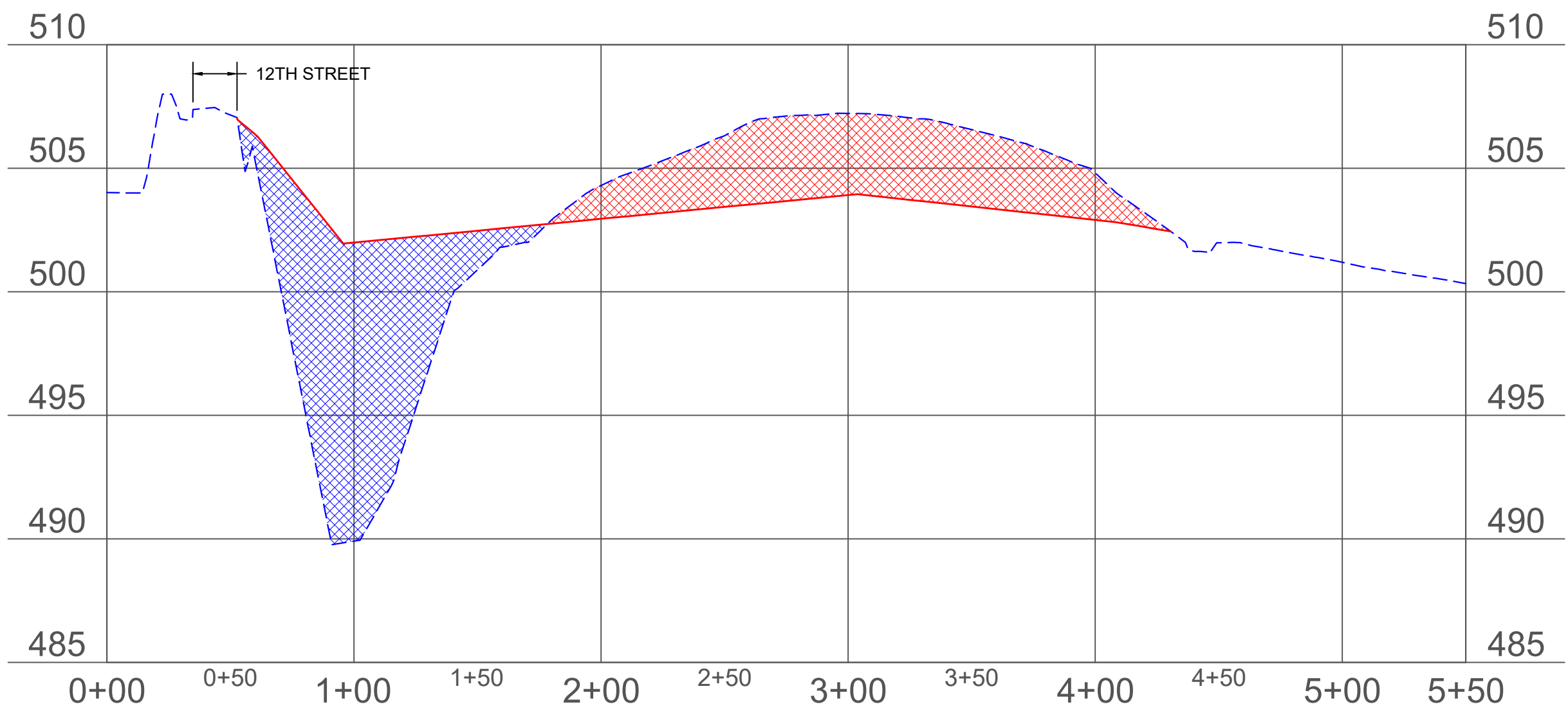
- EX. GRADE
DESIGN GRADE
CUT
FILL



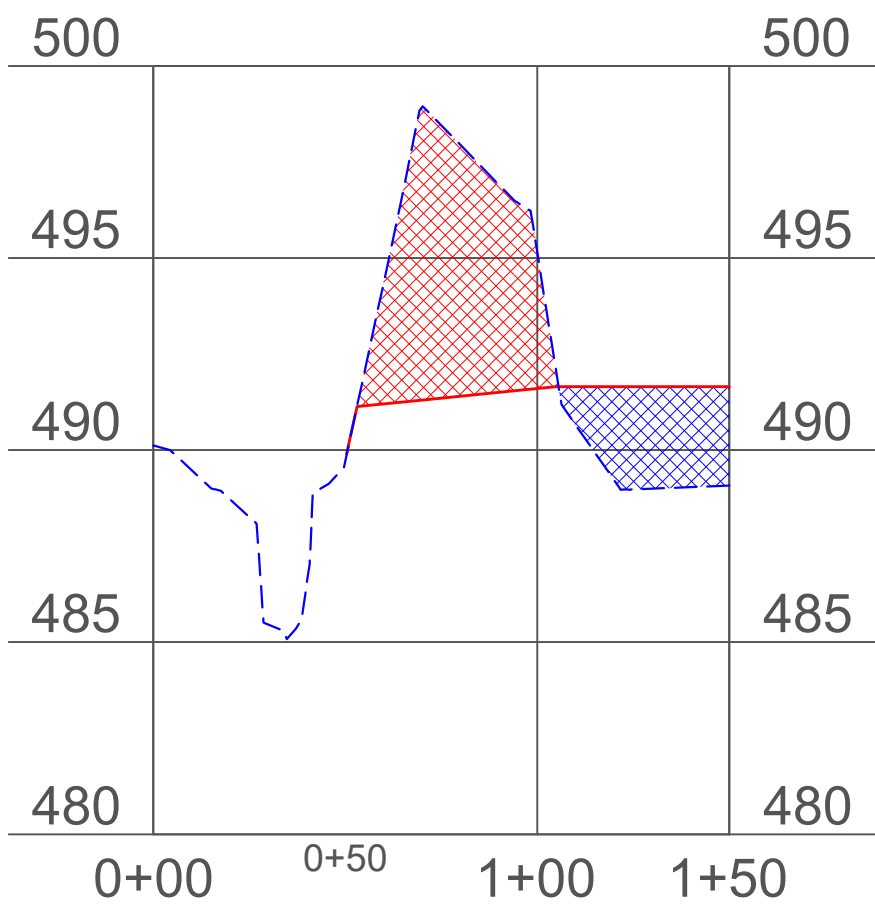
SECTION VIEW LINE (E-E')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



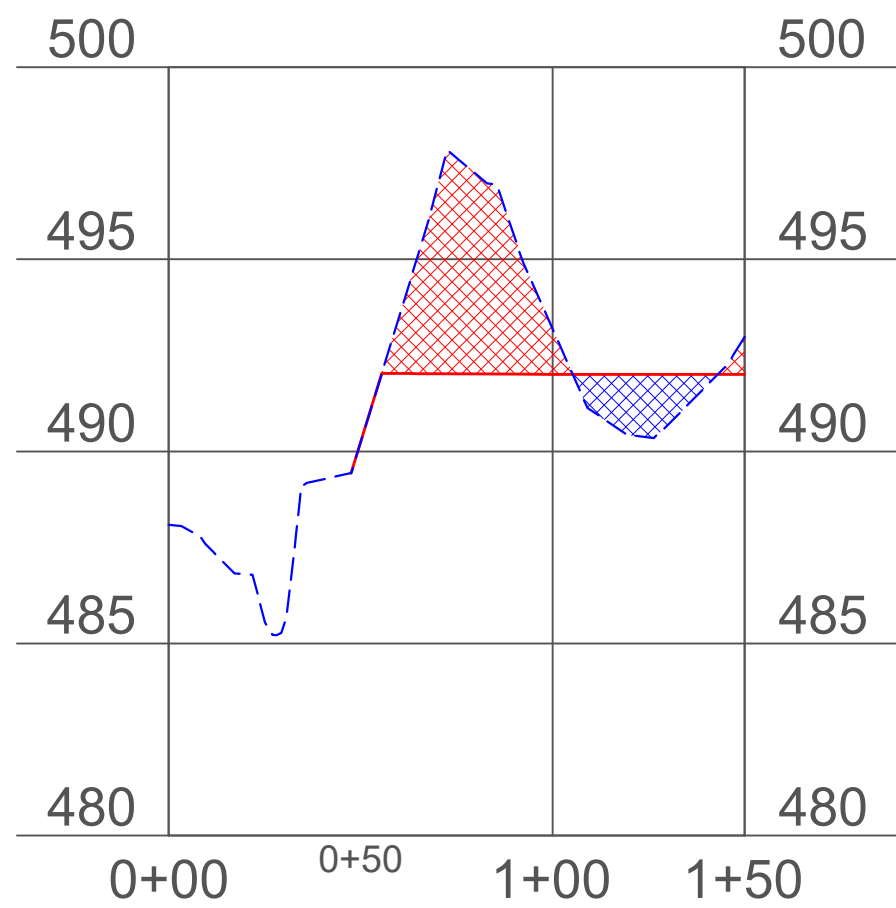
SECTION VIEW LINE (G-G')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



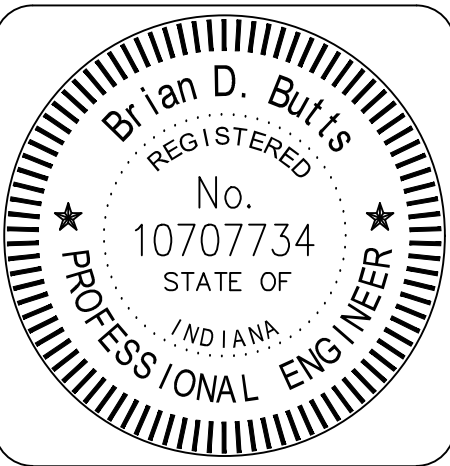
SECTION VIEW LINE (F-F')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (H-H')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (I-I')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



RECOMMENDED FOR APPROVAL: *Brian D. Butts* 03/12/2024
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SECTION VIEWS

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE
1" = 50'

PROJECT
E008-338

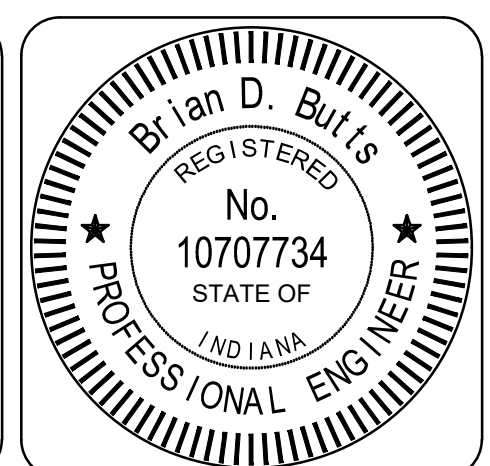
SHEET
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SITE
1836

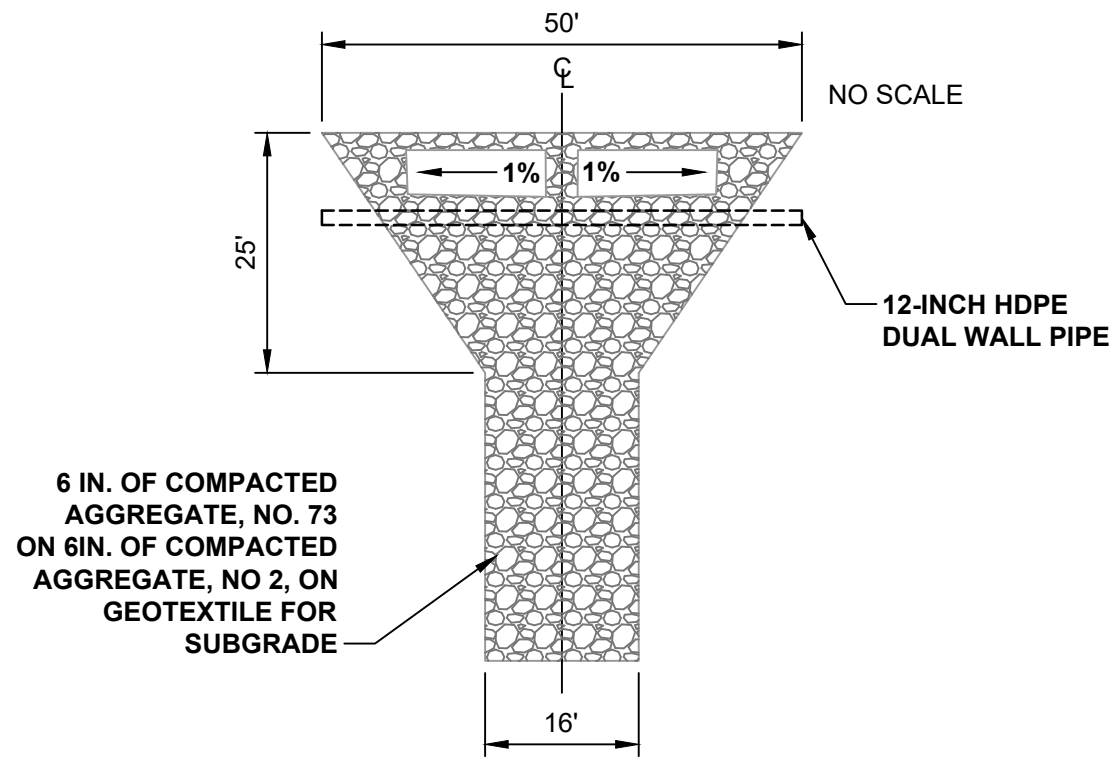


- GENERAL NOTES**
- 1) Field mix shall be placed on access routes, staging areas, grass lined channels, and all other disturbed areas not otherwise specified on revegetation map, except in riprap, coarse aggregate, and final water areas.
 - 2) Field mix shall be placed along channels to a minimum distance of 16 ft each side of its banks as well as 16 ft each side of the center of all significant drainage ways and conveyances.
 - 3) Loose fill shall be placed in the fill areas of the tree compatible mix. Loose fill shall consist of a single 4 ft. lift and one pass of a low ground pressure dozer unless otherwise approved by the Engineer.
 - 4) Prairie mix shall be placed with a drill in accordance with Std Spec 401.10
 - 5) An appropriate Cover Crop, dependant upon season, shall be planted to allow the area to be returned to crop production in the following planting season. Cover crop shall be fertilized with 150 lb/ac equivalent of 18-46-0 and 100 lb/ac equivalent of 0-0-60 and 50 ton/ac of agricultural grade limestone as part of the seeding operation..

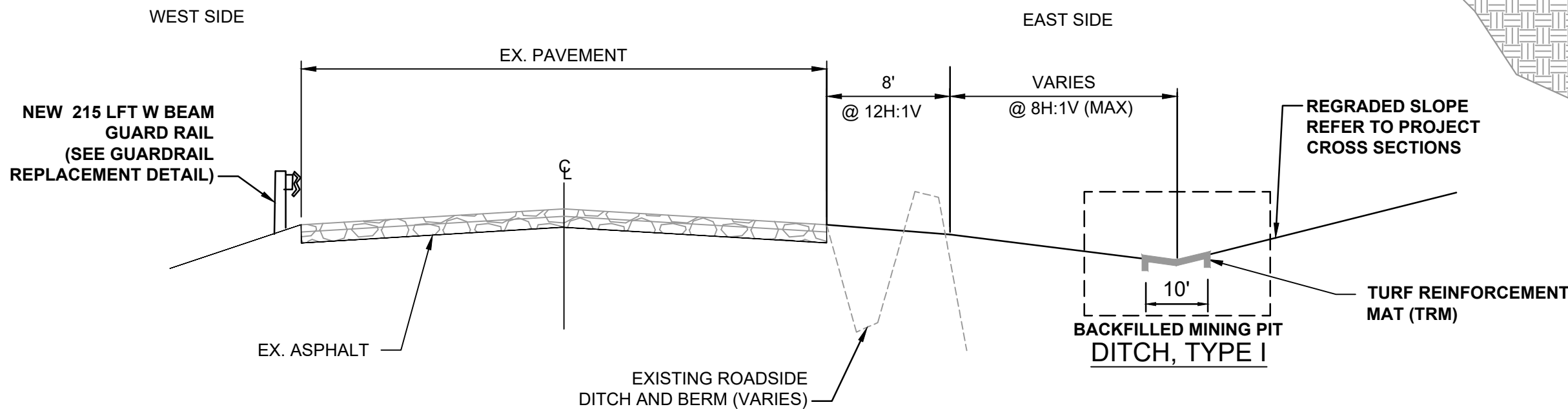
LEGEND			
	EXISTING BUILDING/STRUCTURE		PROPOSED AGGREGATE FEATURE
	EXISTING PAVED ROAD/DRIVE		PROPOSED RIPRAP FEATURE
	EXISTING UNPAVED ROAD/DRIVE		COVER CROP
	PROJECT LIMITS		PRAIRIE MIX
	EXISTING RIPRAP FEATURE		



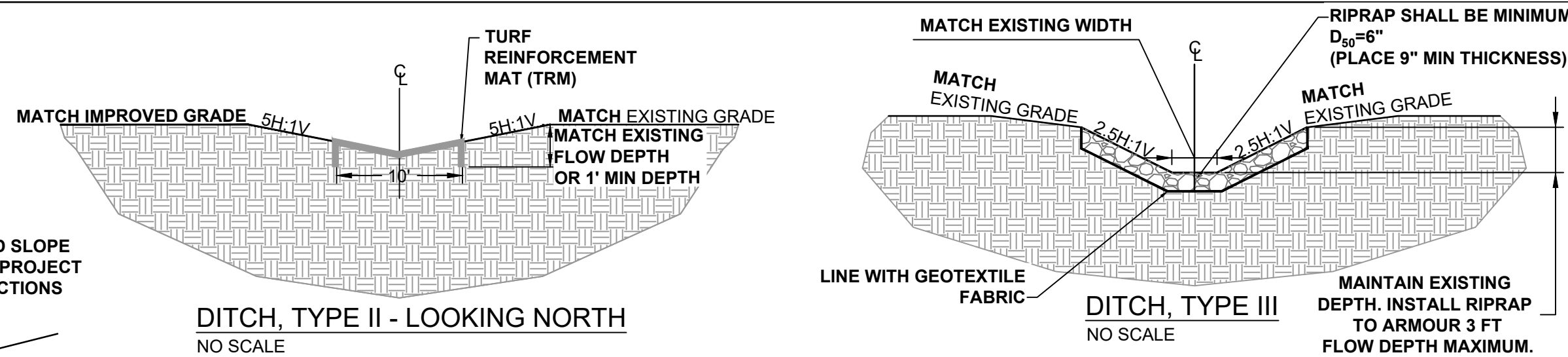
RECOMMENDED FOR APPROVAL: 03/12/2024 DATE	DATE MADE 03/12/2024	REVEGETATION PLAN	SCALE 1" = 50'	SHEET 6 of 12
DESIGNED BY BDB	DRAWN BY SAC	DATE REVISED 03/12/2024	PROJECT E008-338	SITE 1836
STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION				



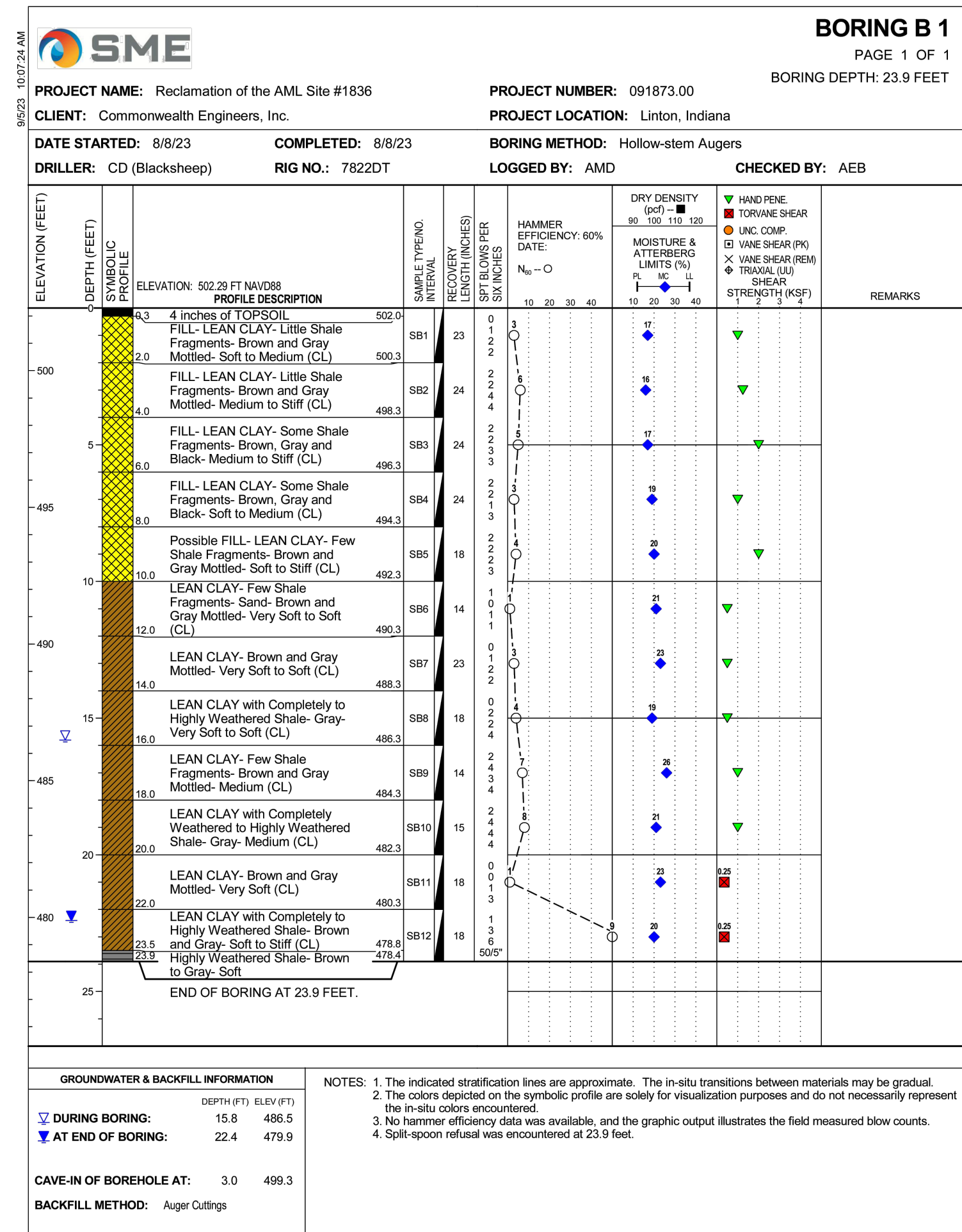
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NO SCALE



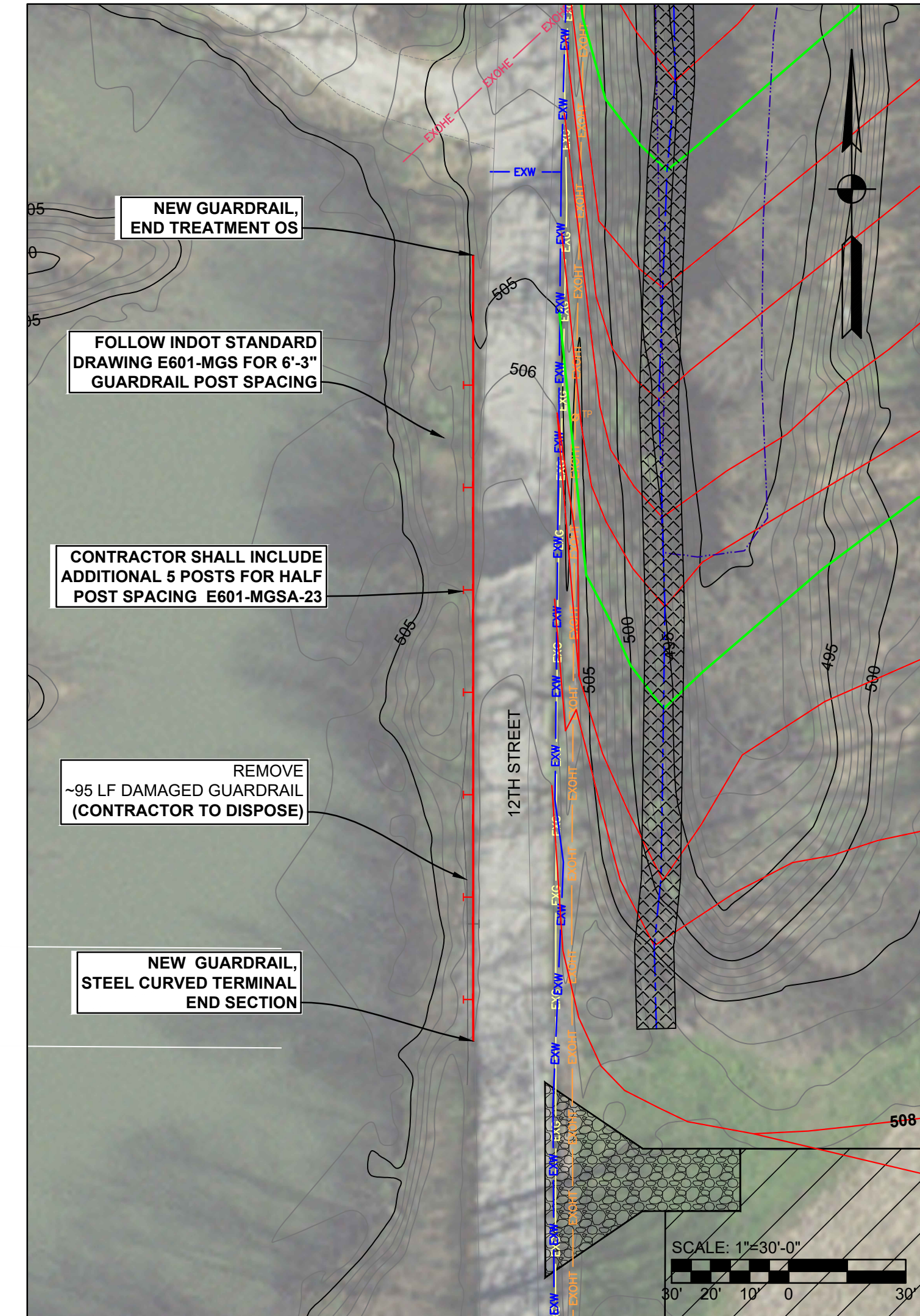
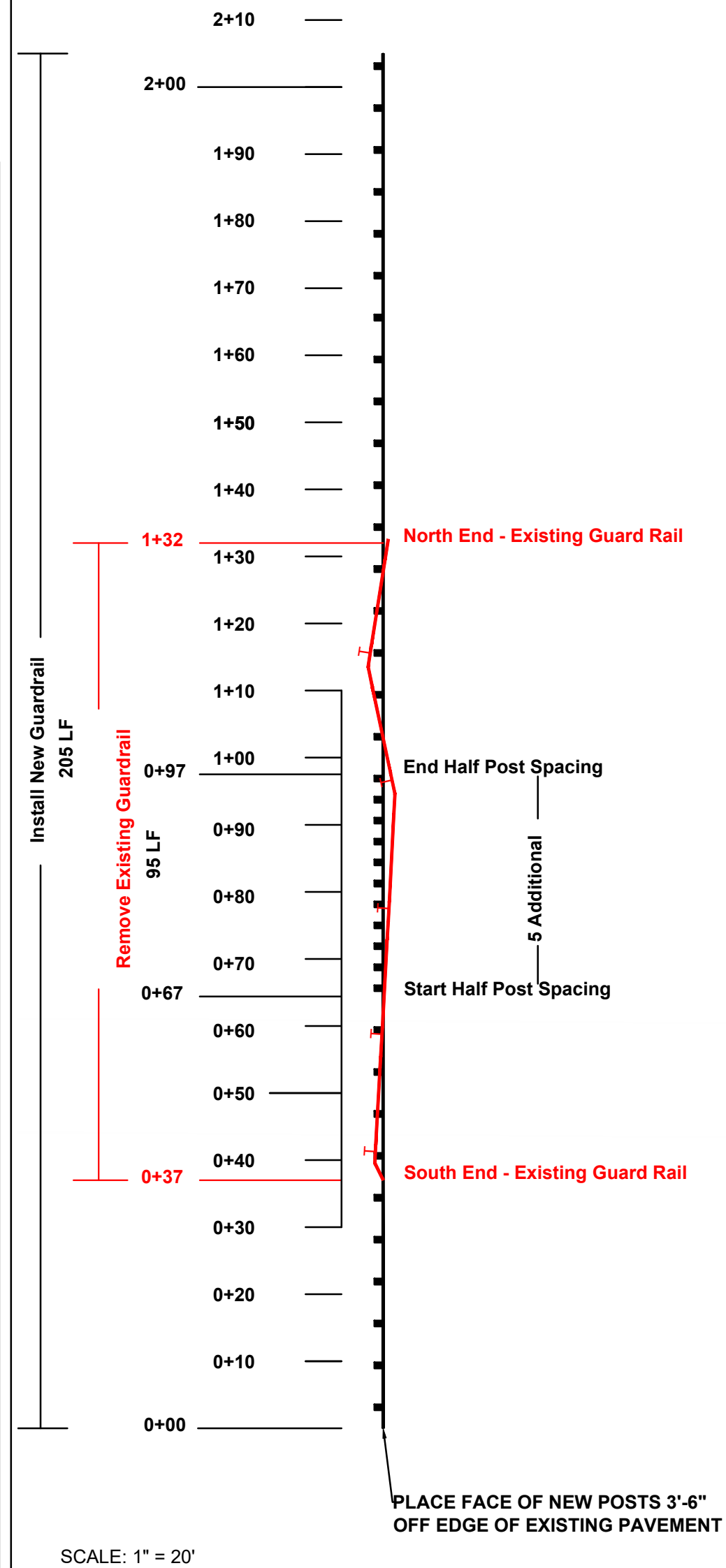
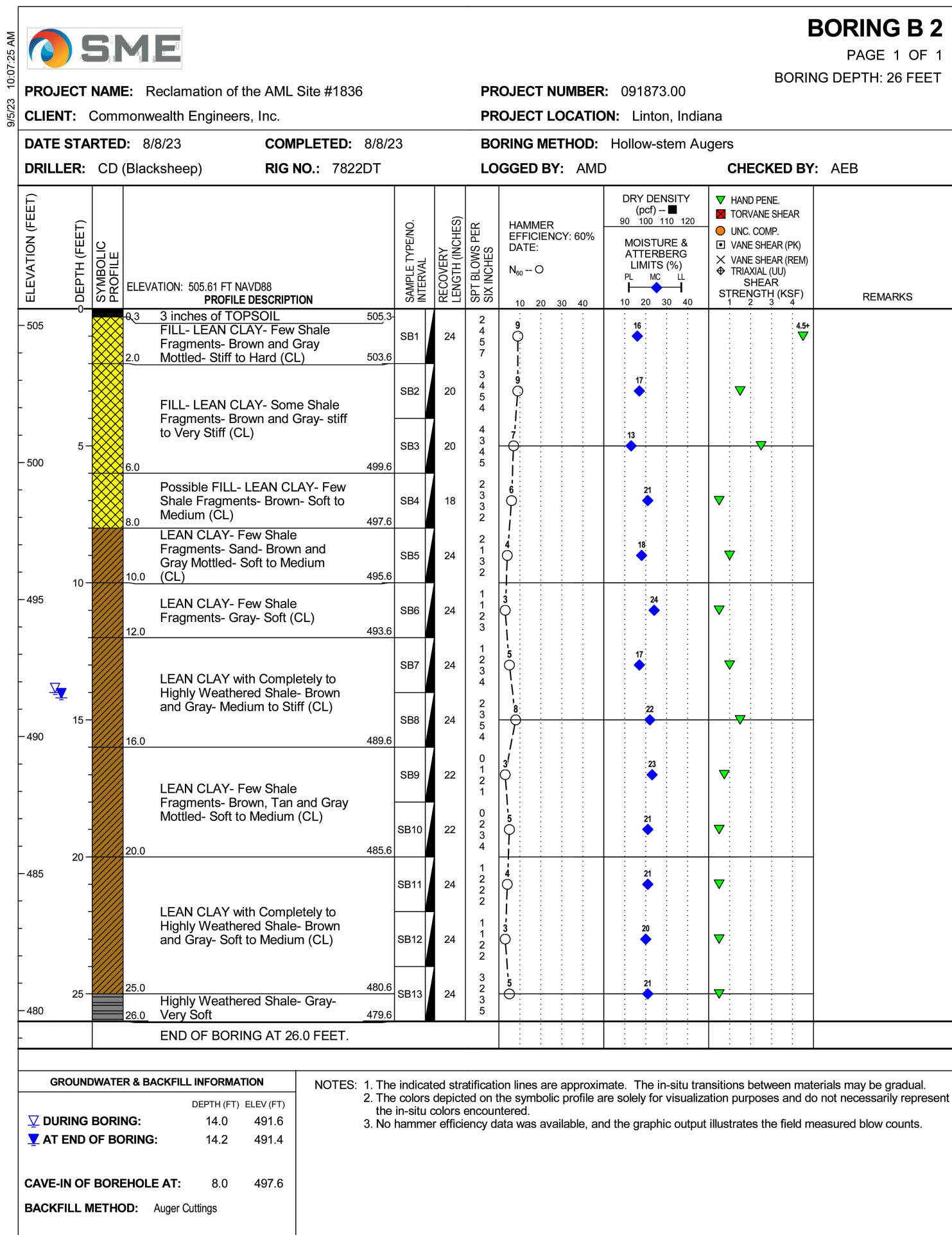
12 TH STREET - LOOKING NORTH
TYPICAL SHOULDER IMPROVEMENT DETAILS
NO SCALE



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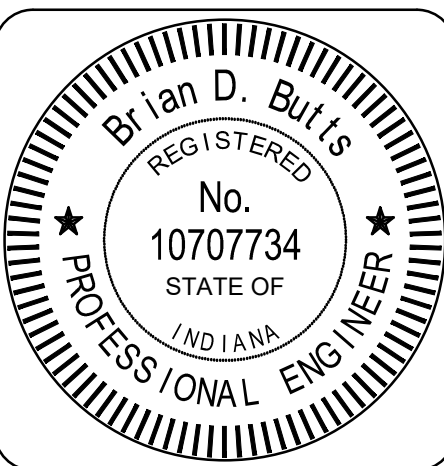
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GUARDRAIL
REPLACEMENT DETAIL



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RECOMMENDED
FOR APPROVAL:

Brian D. Butts

03/12/2024
DATE

DESIGNED BY

BDB

DRAWN BY

SAC

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03/12/2024

DATE REVISED

03/12/2024

MISC. DETAILS

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE

AS NOTED

PROJECT

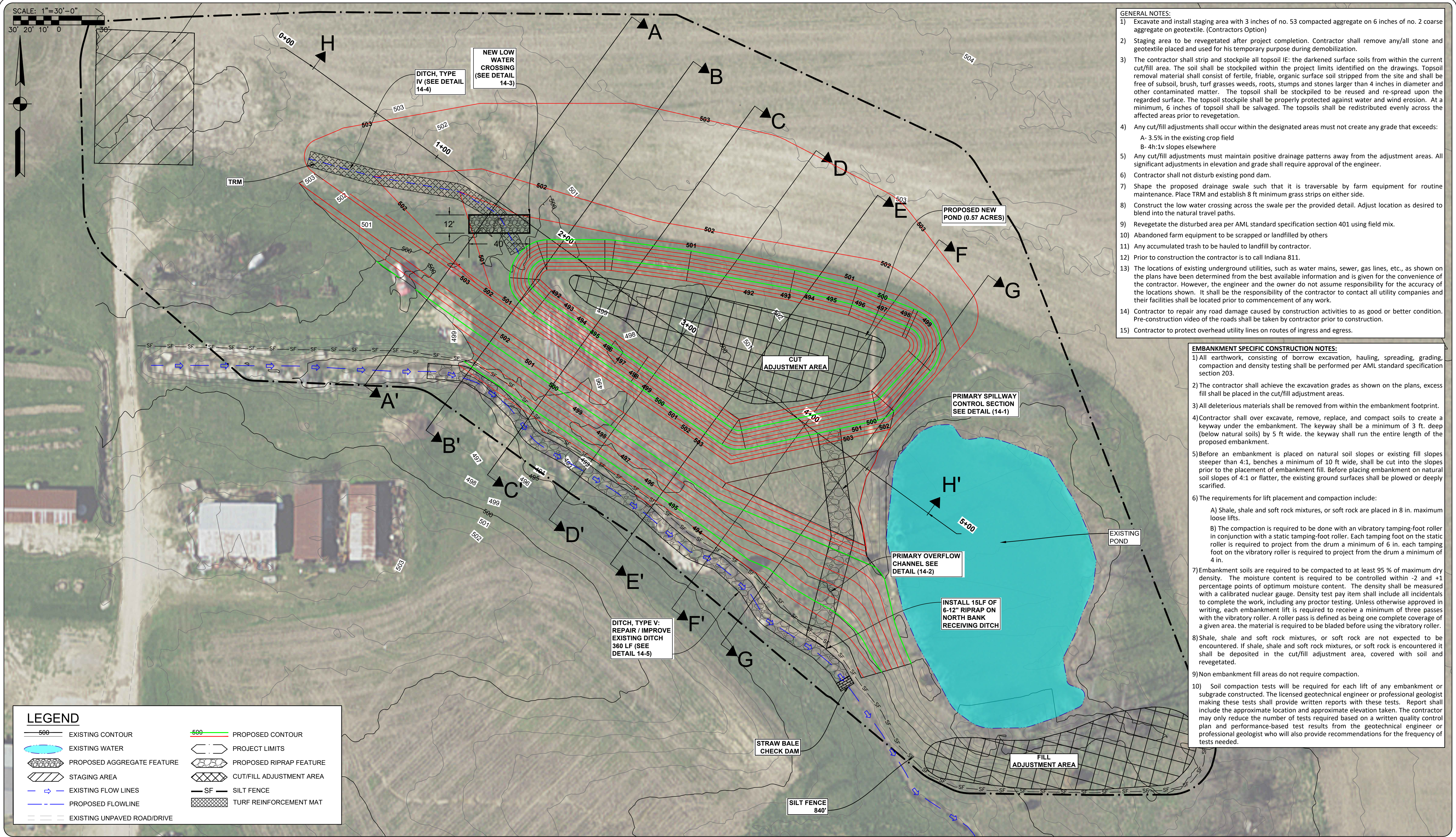
E008-338

SHEET

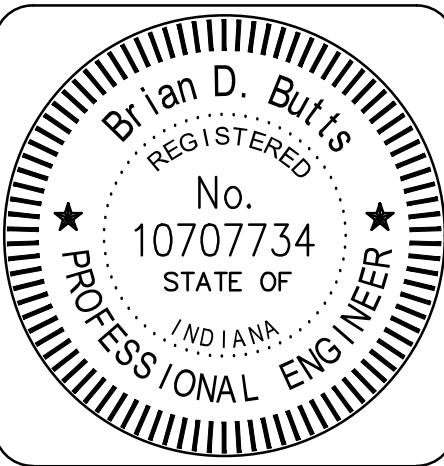
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SITE

1836



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03/12/2024
DATE

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ZAS

DATE MADE

03/12/2024

DATE REVISED

03/12/2024

REPLACEMENT
POND PLAN VIEW

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE

1" = 30'

PROJECT

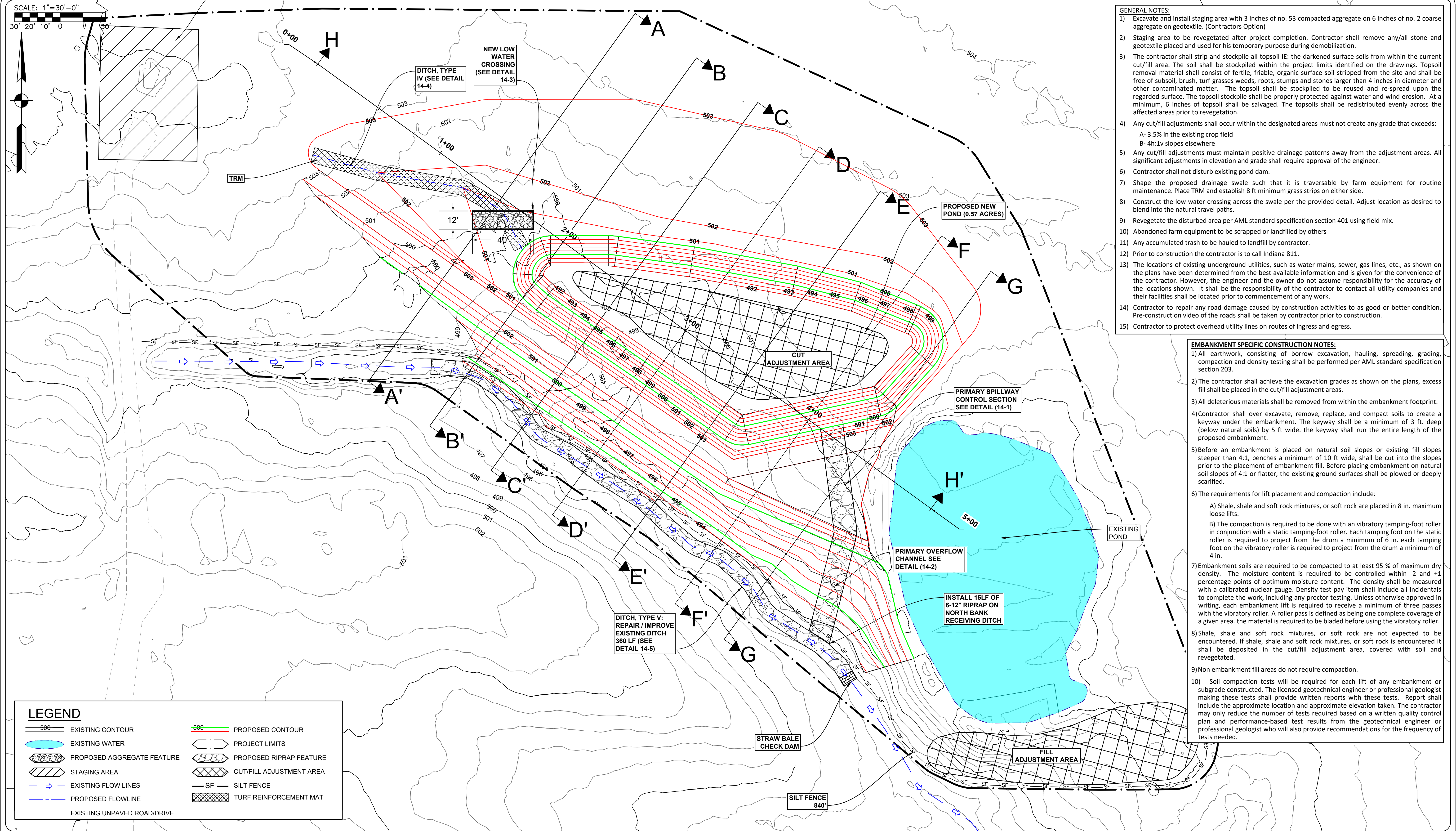
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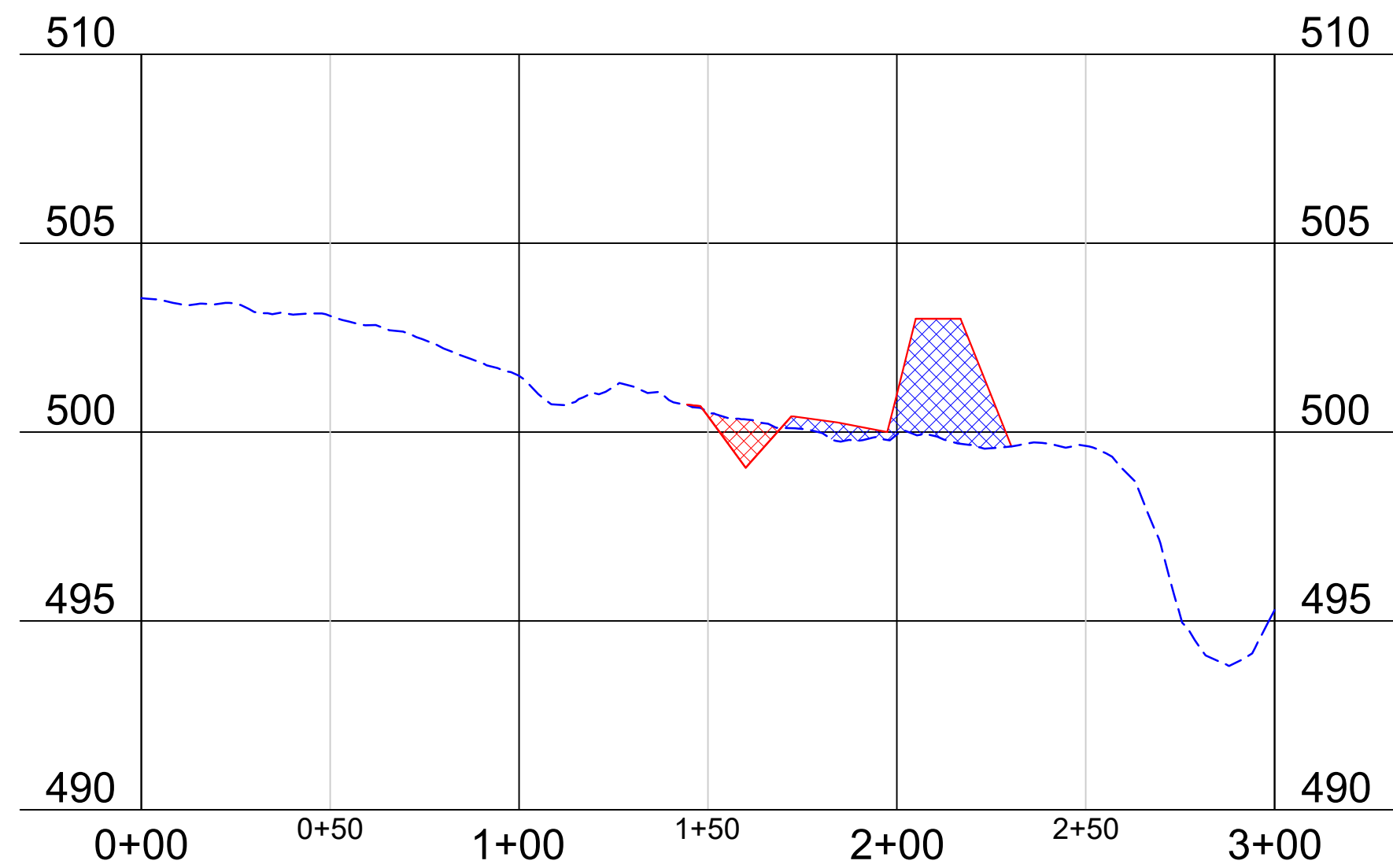
SHEET

8 OF 12

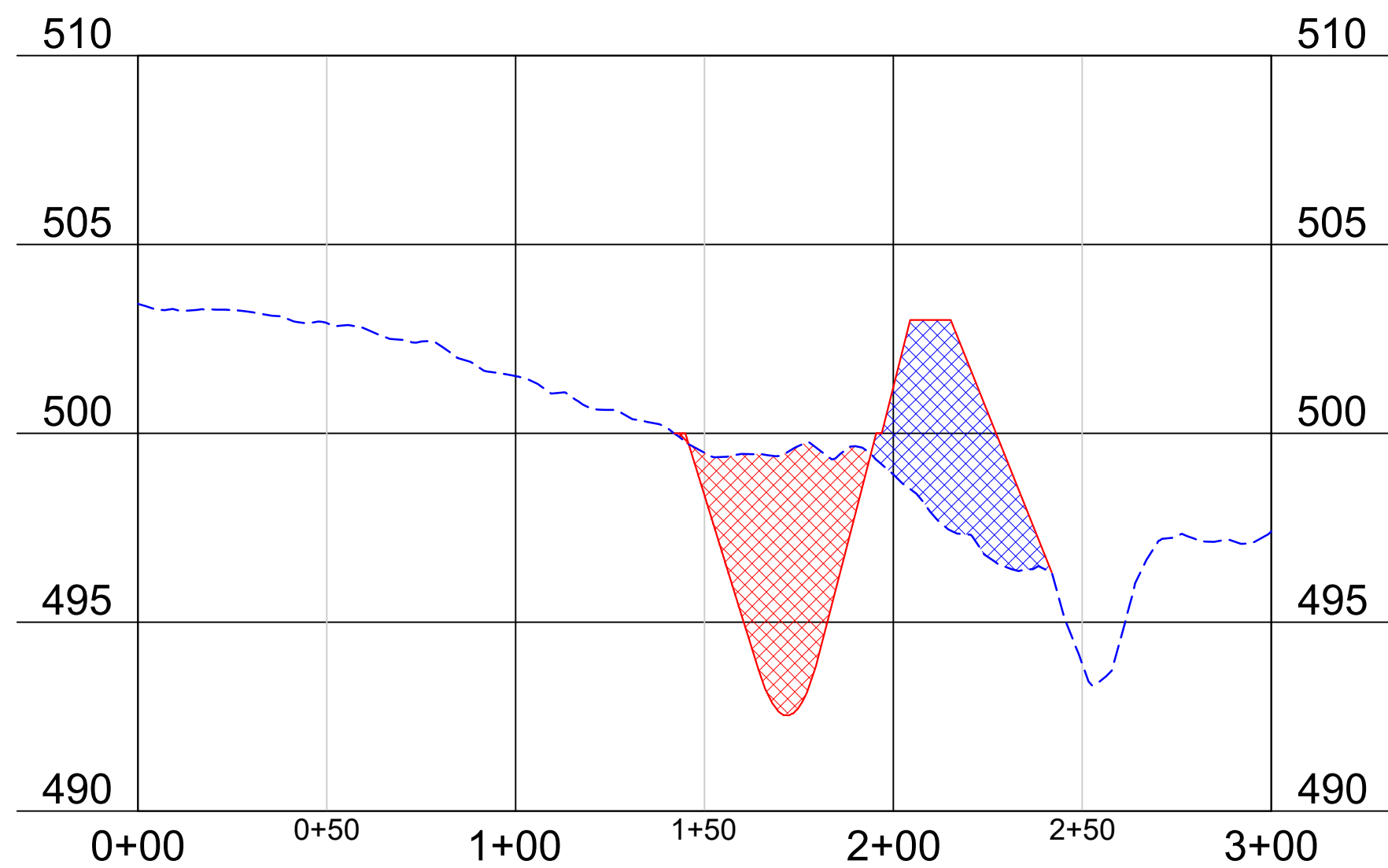
SITE

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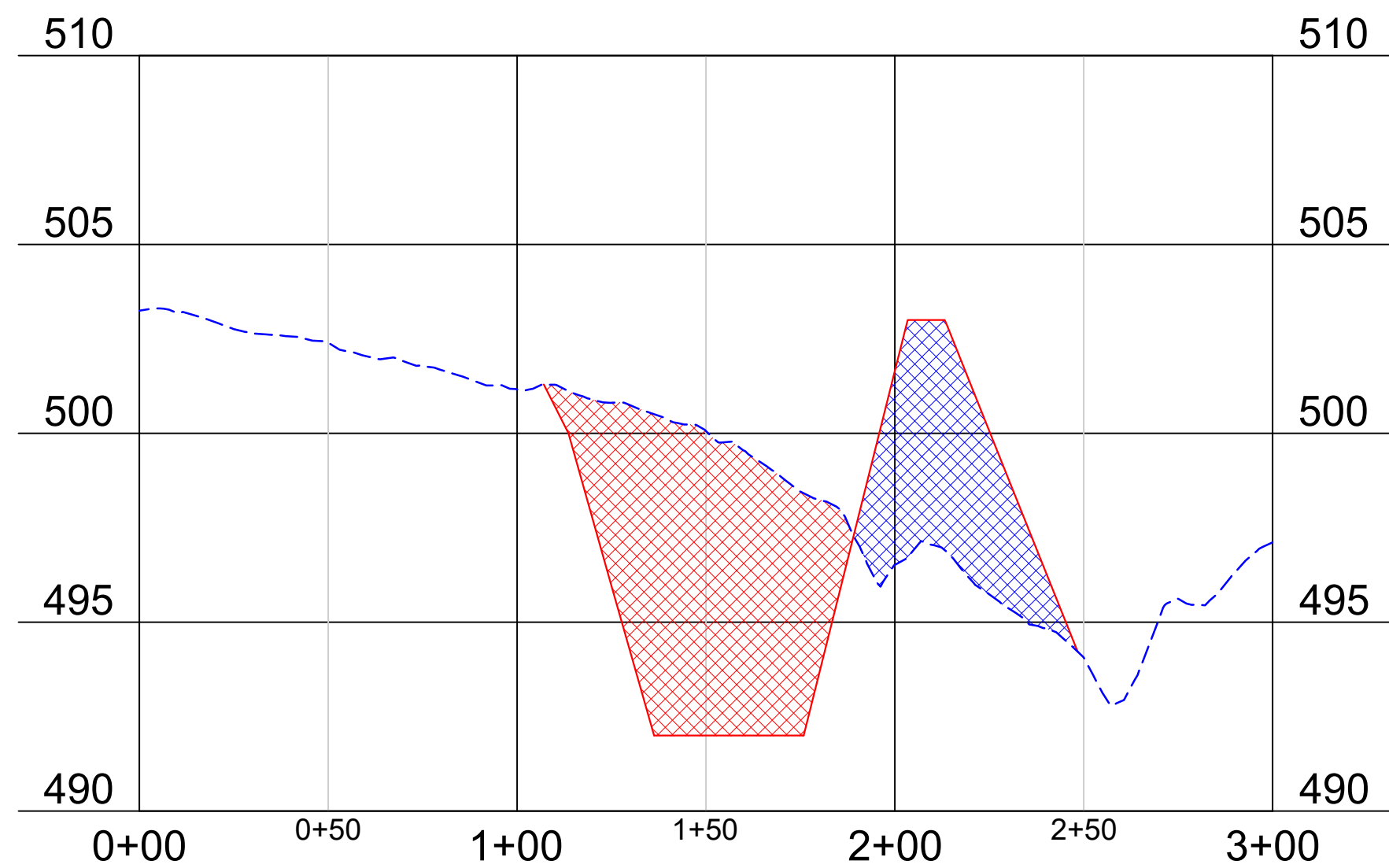




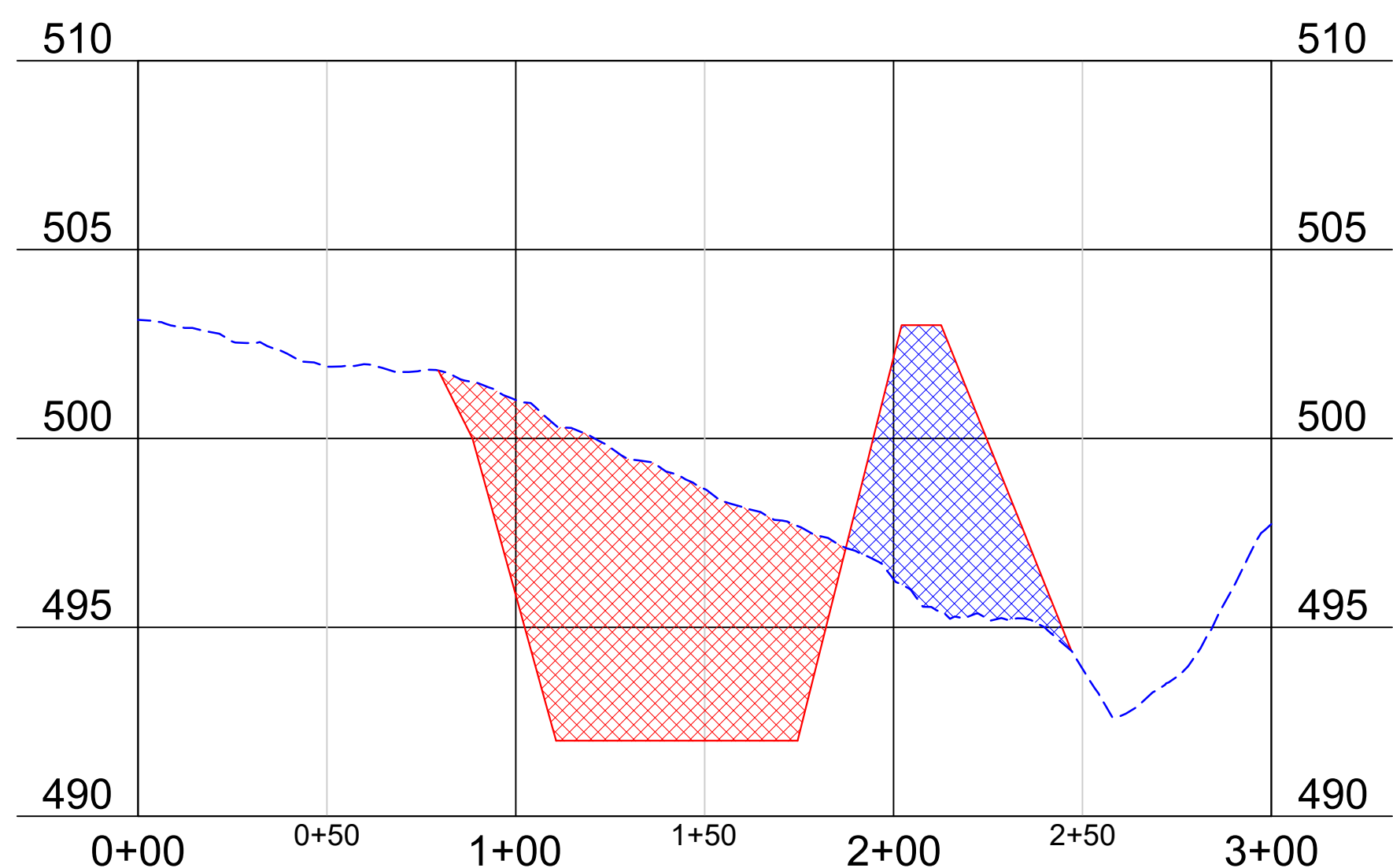
SECTION VIEW LINE (A-A')
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



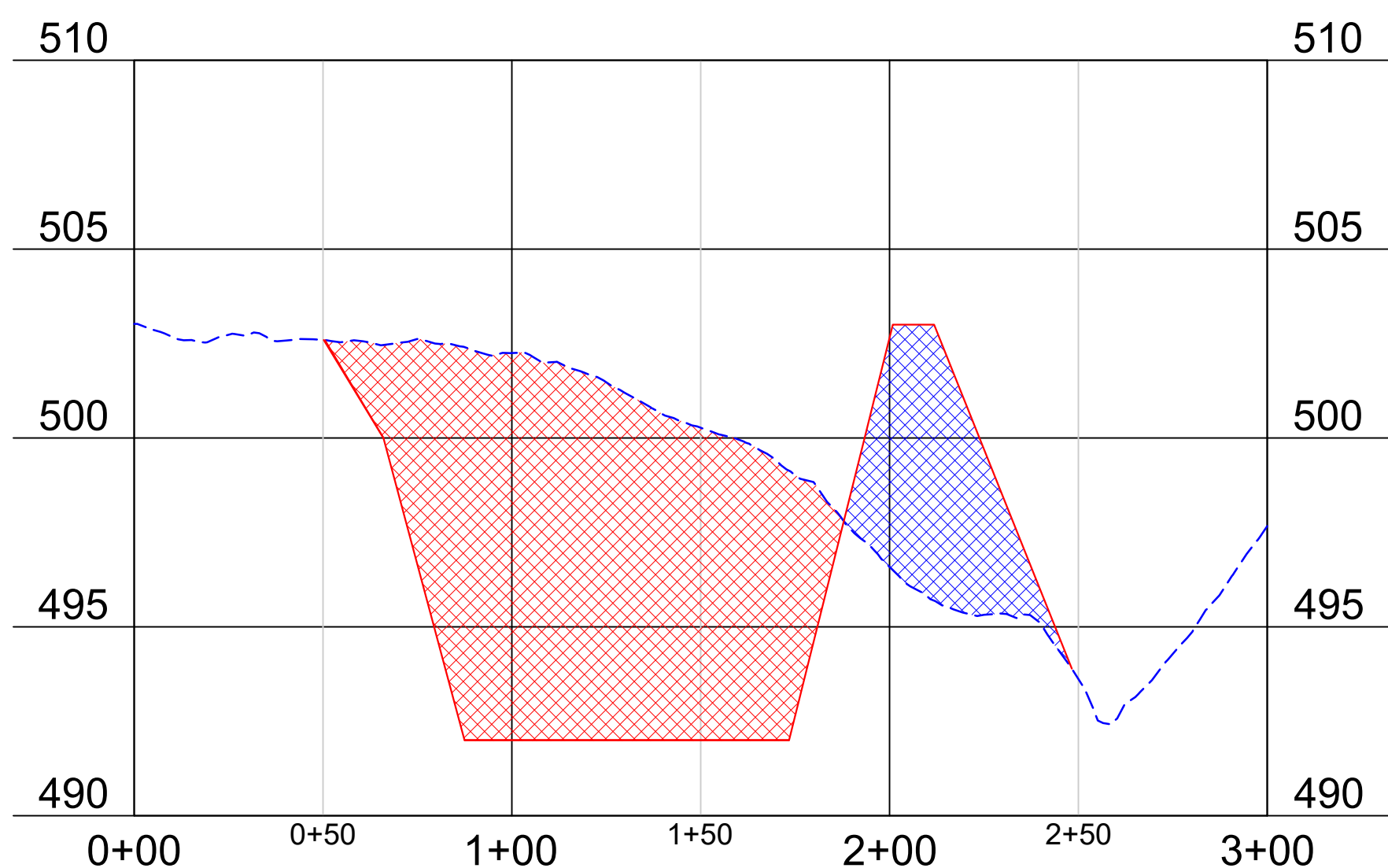
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HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



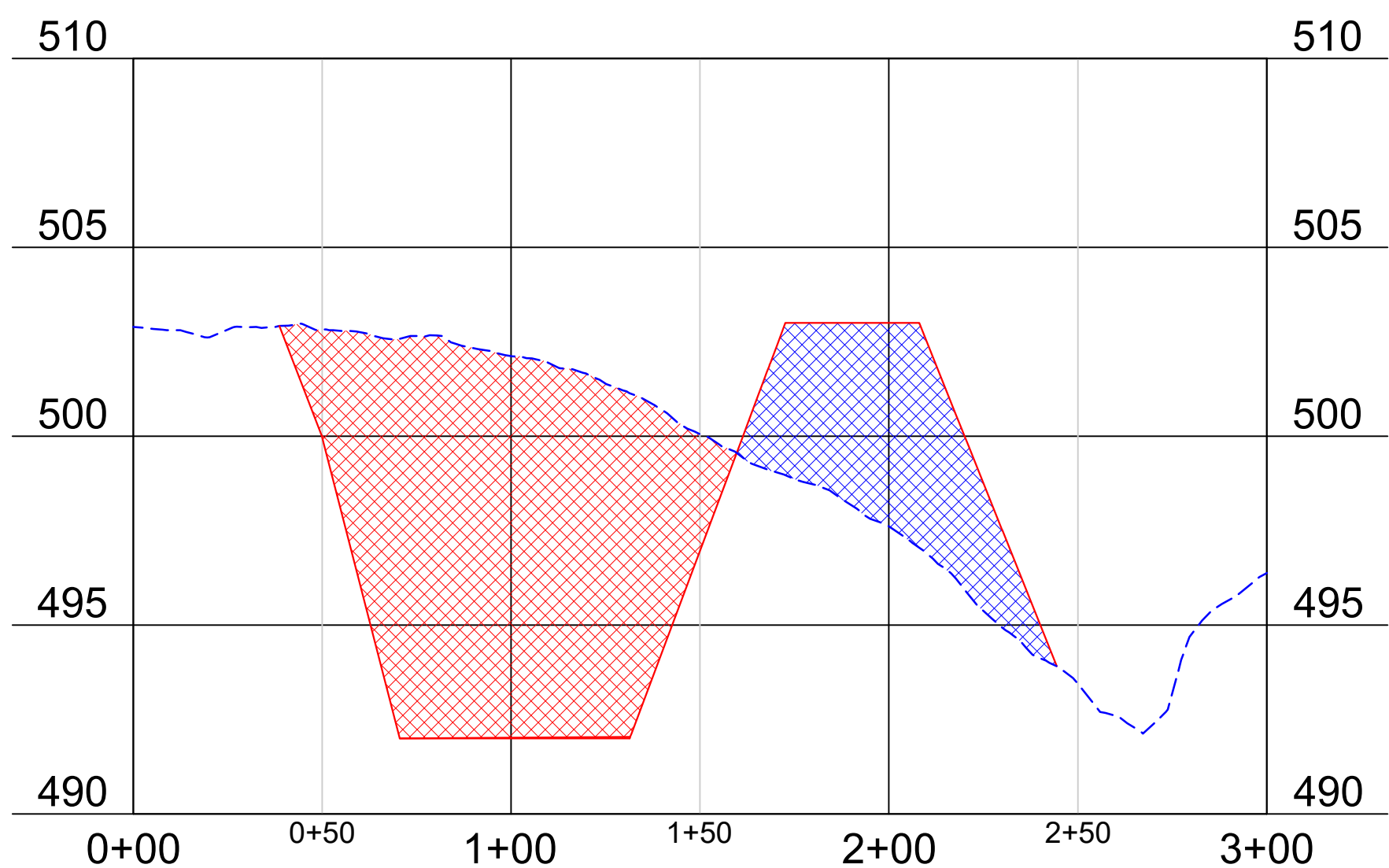
SECTION VIEW LINE (C-C')
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (D-D')
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

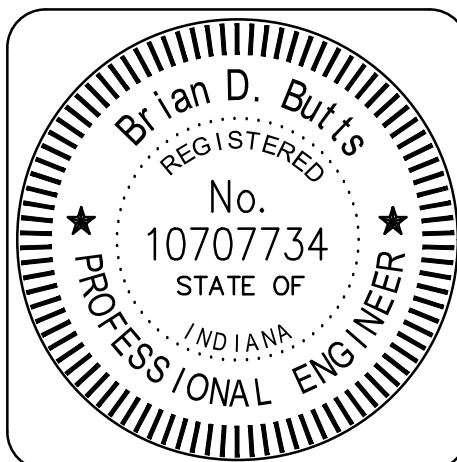


SECTION VIEW LINE (E-E')
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SECTION VIEW LINE (F-F')
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

- LEGEND**
- EX. GRADE
 - DESIGN GRADE
 - CUT
 - FILL



RECOMMENDED FOR APPROVAL: *Brian D. Butts* 03/12/2024
DATE

DESIGNED BY
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DRAWN BY
ZAS

DATE MADE
03/12/2024

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03/12/2024

PROFILE SECTIONS

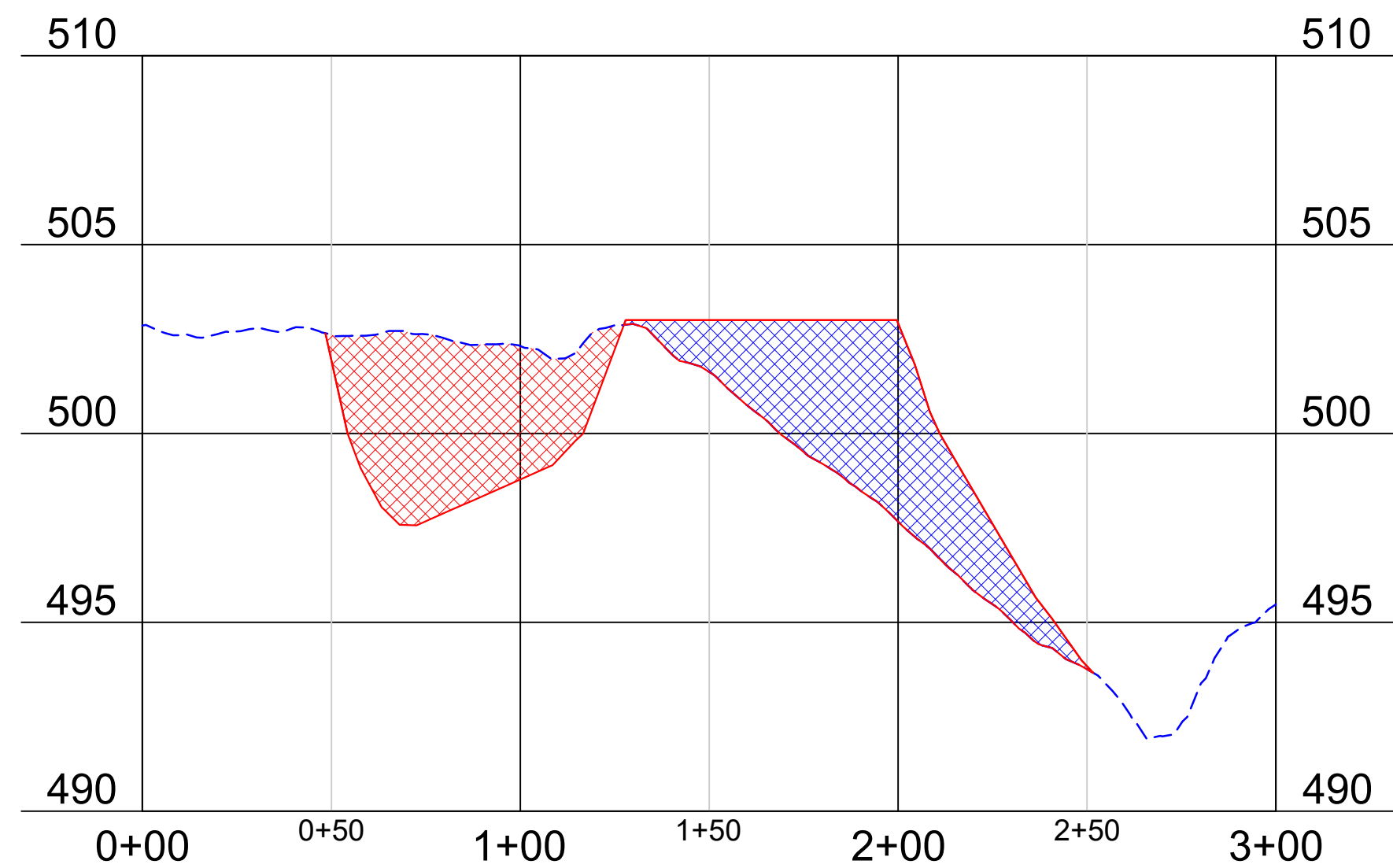
STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

SCALE
AS NOTED

PROJECT
E008-338

SHEET
10 OF 12

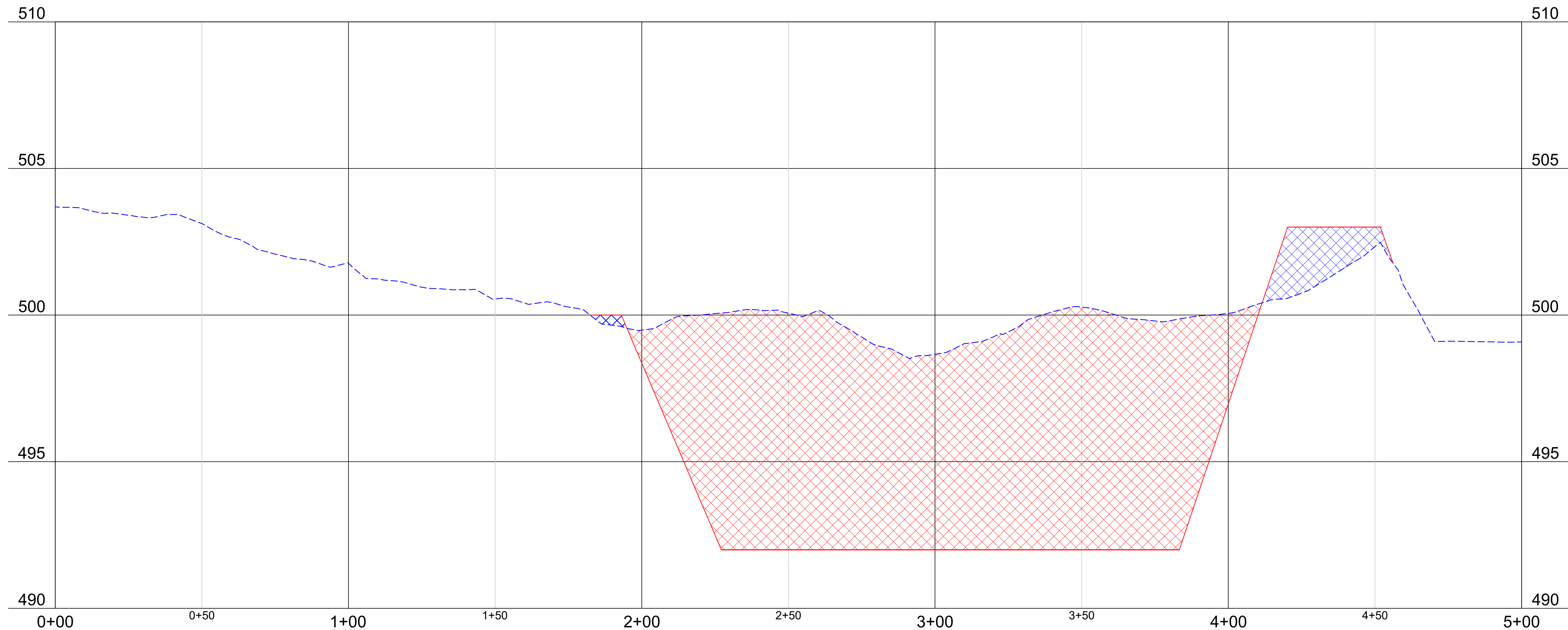
SITE
1836



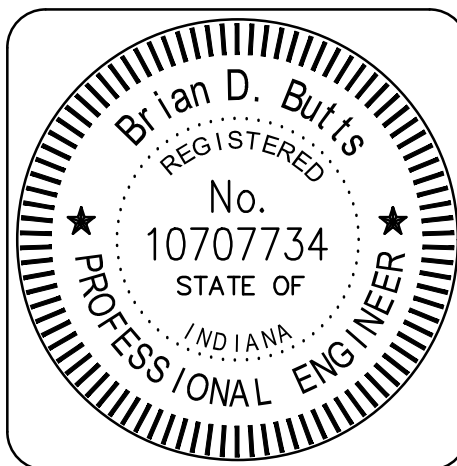
SECTION VIEW LINE (G-G')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'

LEGEND

- EX. GRADE
- DESIGN GRADE
- CUT
- FILL



SECTION VIEW LINE (H-H')
HORIZONTAL SCALE 1"=50'
VERTICAL SCALE: 1"=5'



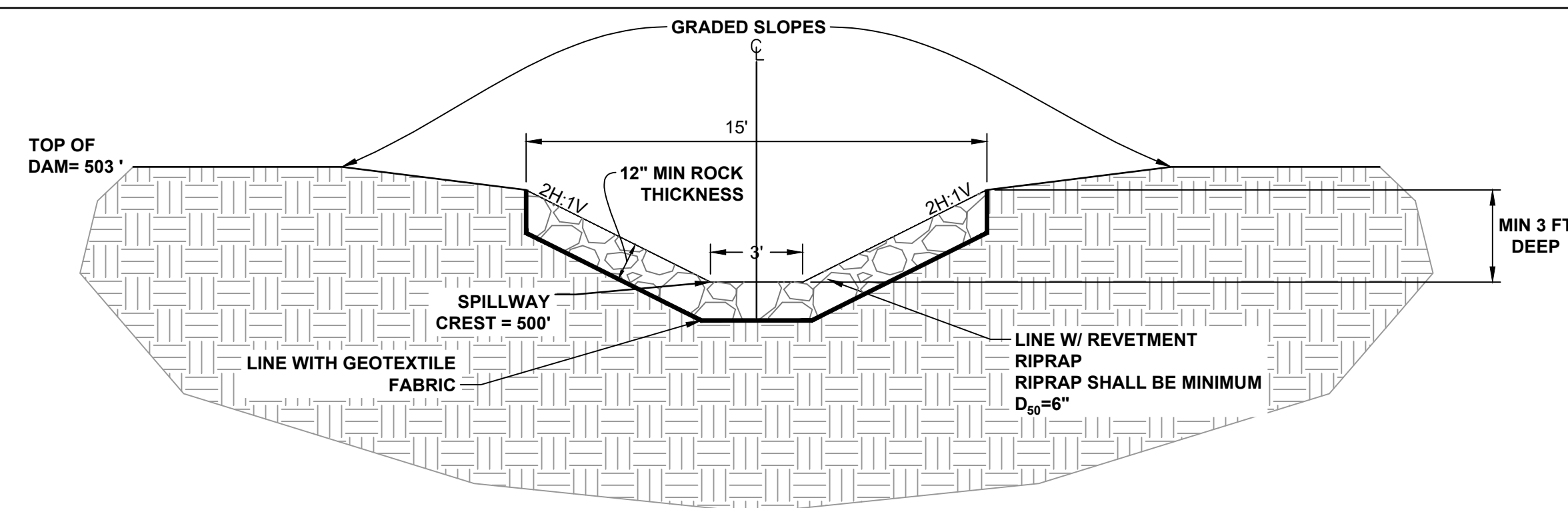
RECOMMENDED FOR APPROVAL: <i>Brian D. Butts</i> 03/12/2024 DATE	DESIGNED BY BDB	DRAWN BY ZAS
--	--------------------	-----------------

DATE MADE 03/12/2024	DATE REVISED 03/12/2024
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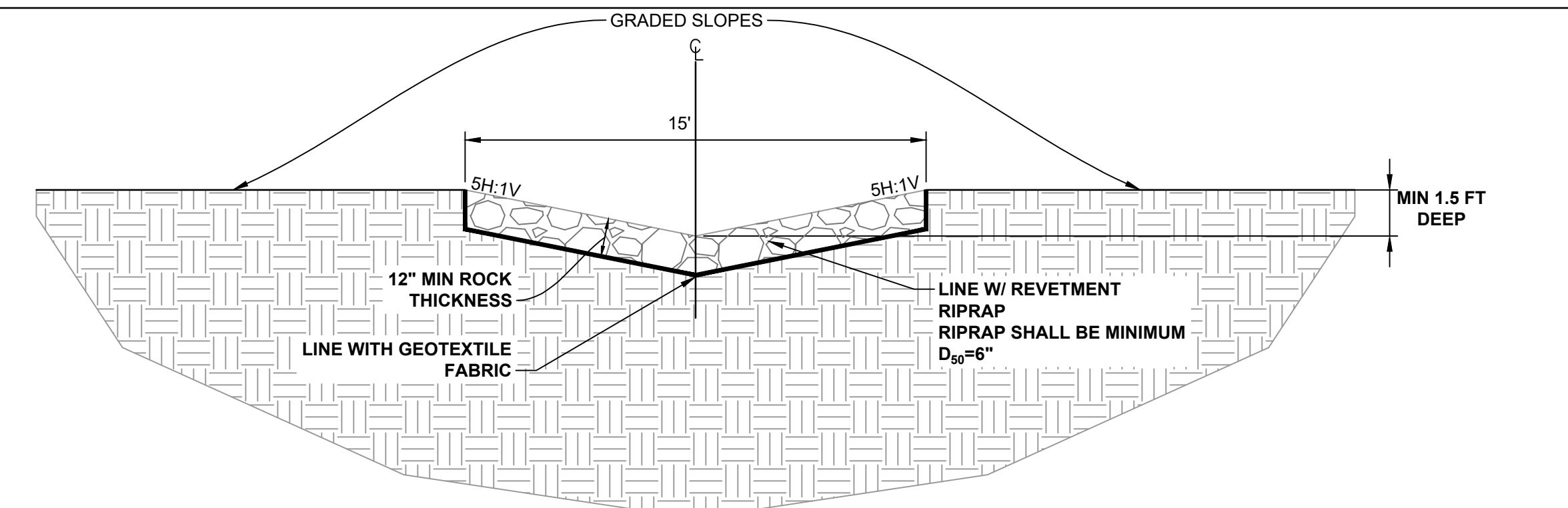
PROFILE SECTIONS	STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION
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SCALE AS NOTED	PROJECT E008-338
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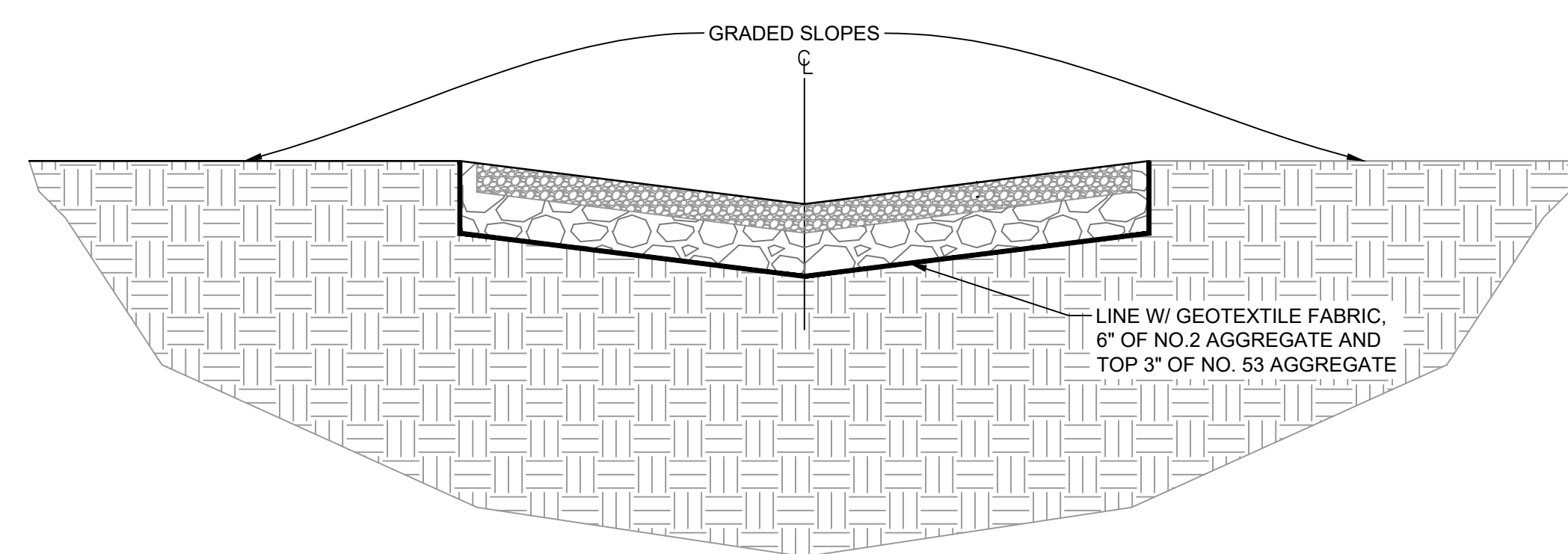
SHEET 11 OF 12	SITE 1836
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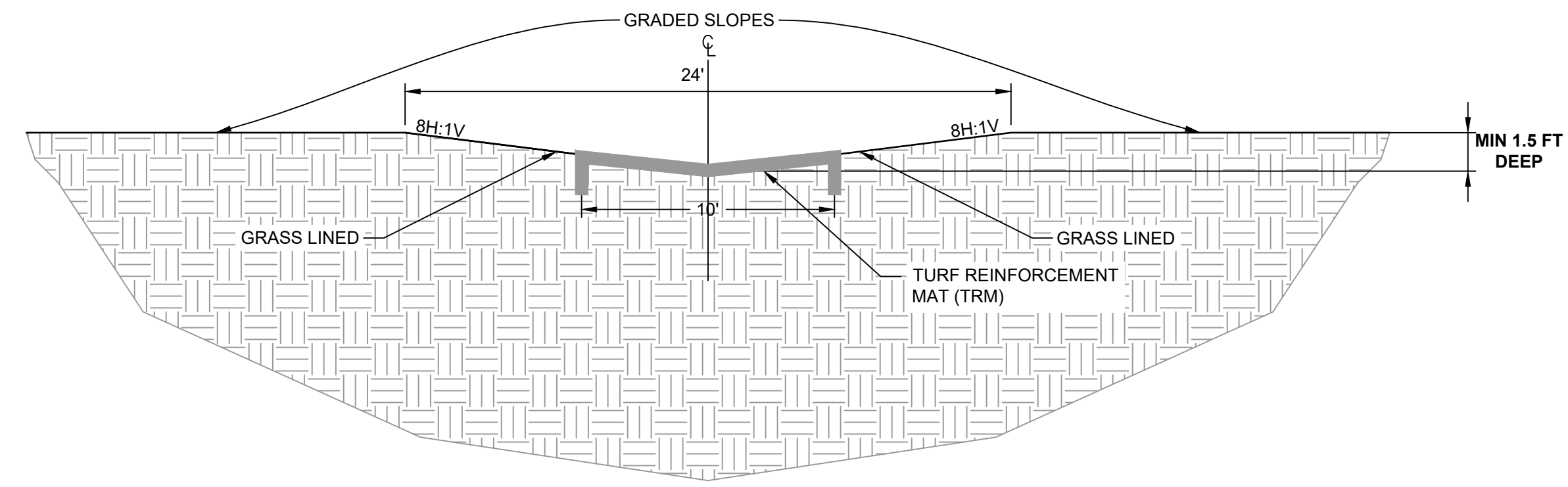
SPILLWAY CONTROL SECTION AT TOP OF DAM
NO SCALE
DETAIL 14-1



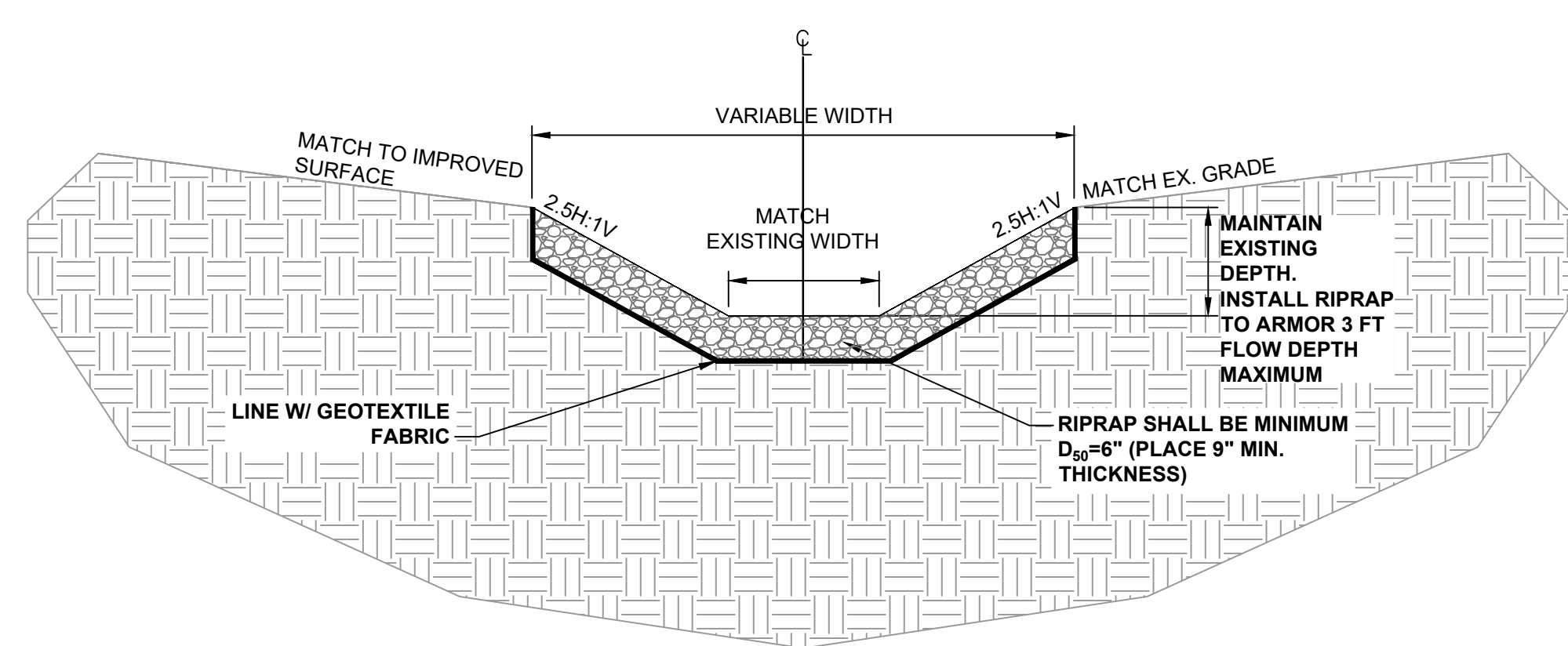
SPILLWAY CHANNEL (DOWN POND DAM)
NO SCALE
DETAIL 14-2



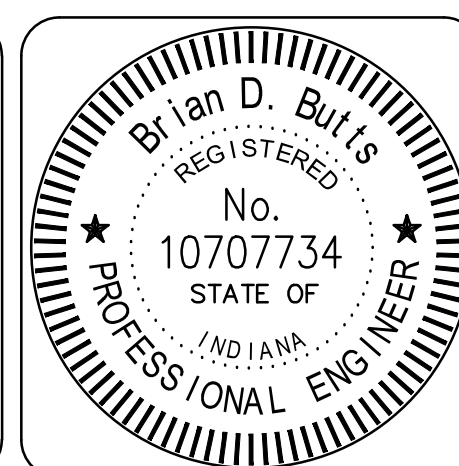
LOW WATER CROSSING
(CROSS SECTION SHOWN LOOKING IN DIRECTION OF FLOW LINE)
NO SCALE
DETAIL 14-3



DITCH, TYPE IV
NO SCALE
DETAIL 14-4



DITCH, TYPE V
EXISTING CHANNEL IMPROVEMENTS - LOOKING DOWNSTREAM
NO SCALE
DETAIL 14-5



RECOMMENDED FOR APPROVAL:	<i>Brian D. Butts</i>	03/12/2024 DATE
DESIGNED BY	BDB	
DRAWN BY	ZAS	

DATE MADE	03/12/2024	SECTIONS DETAIL	SCALE	AS NOTED	SHEET	12 OF 12
DATE REVISED	03/12/2024	STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF RECLAMATION	PROJECT	E008-338	SITE	1836