

State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Abandoned Mined Lands Reclamation Division

Funded by the
 United States Department of Interior
 Federal Office of Surface Mining

Kickapoo SRA Embankments
 Reclamation Project
 AML-GVeE-1904
 Vermilion County
 1LR



Kickapoo SRA Embankments
 Vermilion County

PRE-BID MEETING

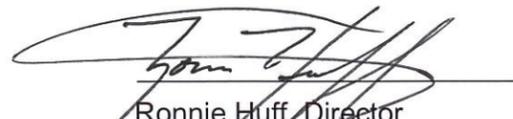
A voluntary pre-bid meeting is scheduled for this project at 11 a.m. on Thursday, February 11, 2021. All interested potential bidders are to meet at the project site, along Kickapoo Park Road, east of the entrance to Kickapoo State Recreation Area (SRA).

SCHEDULE OF DRAWINGS:

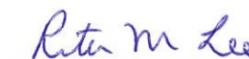
1. Cover Sheet
 2. Summary of Quantities / General Notes / Location Map
 3. Embankment Area - Existing Conditions
 4. Embankment Area - Proposed Conditions
 5. Borrow Area - Existing Conditions
 6. Borrow Area - Proposed Conditions
 - 7-9. Embankment Area - Cross Sections
 10. Borrow Area - Cross Sections
- IDOT Standard 701011-04 Off-Rd Moving Operations 2L, 2W, Day Only

Prepared By AMLRD Staff

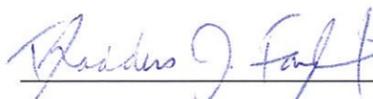
Approved for Bidding:


 Ronnie Huff, Director
 Office of Mines and Minerals
 Illinois Dept. of Natural Resources

Approved By:


 Rita M. Lee, Manager
 AMLR Division
 Office of Mines and Minerals

Approved By:


 Thaddeus J. Faught
 IL Licensed Professional Engineer
 No. 062.069058



Certified Copy

Contract No. M1904

Summary of Quantities

Item No.	#	Item	Section	Quantity	Unit	Rates/Remarks
NRM20110	1	Special Clearing	201	1	L SUM	
NRM20210	2	Earth Excavation	202	28,636	CU YD	Compaction in accordance with Sec. 205
NRM25040	3	Nitrogen Fertilizer Nutrient	250	1,080	POUND	120 pounds/acre-application
NRM25050	4	Phosphorus Fertilizer Nutrient	250	900	POUND	100 pounds/acre-application
NRM25060	5	Potassium Fertilizer Nutrient	250	3,150	POUND	350 pounds/acre-application
NRM25070	6	Agricultural Ground Limestone	250	45	TON	10 tons/acre
25000300	7	Seeding Class 3	IDOT 250	2.2	ACRE	Northern Illinois Slope Mixture - Embankment Area
25000322	8	Seeding Class 5A	IDOT 250	2.3	ACRE	Large Flower Native Forb Mixture - Borrow Area
25100115	9	Mulch Method 2, Procedure 1	IDOT 251	2.6	ACRE	2 tons/acre, Procedure 1
NRM25810	10	Mowing	258	2.6	ACRE	
NRM28040	11	Perimeter Erosion Barrier (Rolled Excelsior)	280	1,005	FOOT	Rolled Excelsior, 12" DIA
NRM28045	12	Perimeter Erosion Barrier (Silt Filter Fence)	280	718	FOOT	
28100107	13	Stone RR, Class A4 (for ditches)	IDOT 281	167	SQ YD	
28100801	14	Stone Dumped Riprap, Class A1	IDOT 281	1,321	TON	
28100805	15	Stone Dumped Riprap, Class A3	IDOT 281	16,881	TON	
28200200	16	Filter Fabric	IDOT 282	3,322	SQ YD	
NRM28610	17	Special Excelsior Blanket	286	8,949	SQ YD	No mulch over special excelsior blanket
40200800	18	Aggregate Surface Course, Type B	IDOT 402	415	TON	See special note below.
542C0215	19	Pipe Culverts, Class C, Type 1, 10"	IDOT 542	25	FOOT	
54261910	20	Aluminum Flared End Sections, 10"	IDOT 542	2	EACH	
NRM56303	21	Adjusting Water Service Lines	563	704	FOOT	
NRM56304	22	Adjusting Fiber Optic Lines	563	704	FOOT	
NRM67110	23	Mobilization (Max. 6% of Bid)	671	1	L SUM	
44201683	24	Class D Patches, Type III, 3 inch	IDOT 442	2,000	SQ YD	Ndesign = 50

GENERAL NOTES

Unless otherwise noted on the plans, all disturbed areas within the construction limits will be amended with agricultural ground limestone, fertilizer nutrients, seeded, and mulched at the required rates specified in the plans.

The Contractor is responsible for visiting the site and getting familiar with the existing conditions and the proposed reclamation work prior to submitting a bid.

The Contractor shall provide and pay for all field engineering services to execute the project as specified in the Field Engineering section of the Special Provisions.

The Contractor is responsible for locating and protecting all existing utility lines pertaining to the work.

Unless noted on the plans, all onsite access roads may be used for construction and must be maintained during construction and restored to original or better condition at the completion of work by the Contractor. Access roads to the site as designated in the plans are to be maintained to the satisfaction of the Engineer.

The construction limits shall be staked by the Contractor prior to construction. The Contractor is responsible for the repair and/or restitution at his/her own expense for all damages done to any area outside the construction limits.

Application rates specified in the plans are shown in the Summary of Quantities - Rates/Remarks column.

CONSTRUCTION NOTES

BURIAL/REMOVAL OF MATERIAL - Concrete and masonry debris designated for burial by the Engineer shall be buried at least three feet below the proposed final grade. Onsite organic debris and trash shall be disposed of in an Engineer approved offsite landfill in accordance with Sections 201 and 501 of the Special Provisions.

TREE REMOVAL - Trees removed shall be disposed of onsite per Section 201 of the Special Provisions.

EROSION CONTROL - The Contractor shall schedule his operations and take such precautions that may be necessary to prevent or minimize erosion. Failure to comply with this requirement shall cause the Contractor to be fully responsible for repairing any eroded areas and cleaning up areas or drainage structures that have become silted in or damaged.

AGRICULTURAL GROUND LIMESTONE - Immediately prior to seed bed preparation, fertilizer nutrients and agricultural ground limestone shall be uniformly spread at the rates specified in the plans.

MULCHING - Within 24 hours from the time seeding has been performed, the seeded area shall be given a covering of mulch at the rates specified in the plans. The mulch is to be anchored into the soil in accordance with the requirements for Method 2, Procedure 1 of Article 251.03 of the Standard Specifications. If Excelsior or Special Excelsior Blanket is to be used, the blanket shall be placed the same day that the areas are seeded.

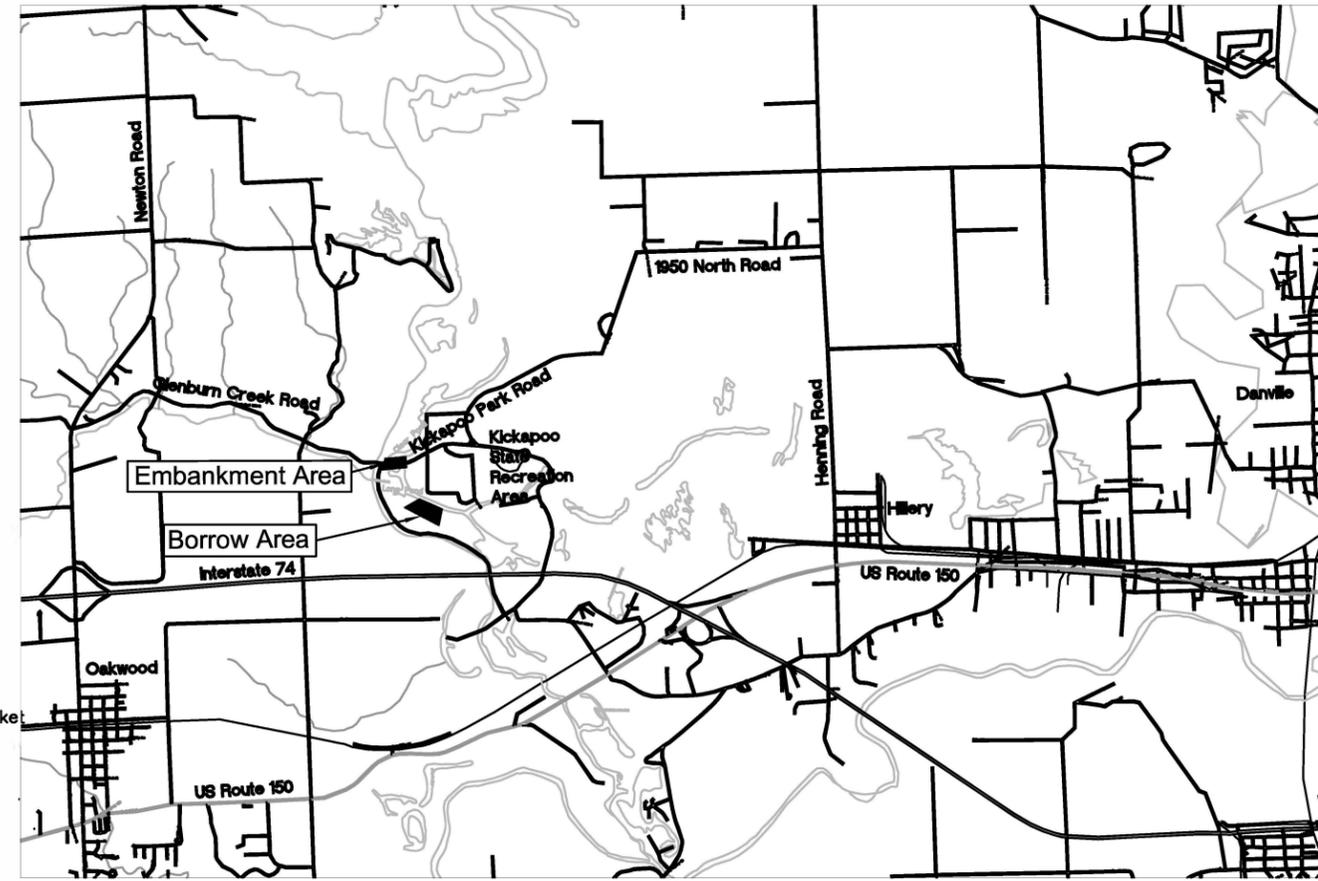
Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing

ITEM (Unit)	October 15th, 2020 - December 1st, 2020	Mowing Date to be set by Engineer	May 15th, 2021 - June 30th, 2021	TOTAL QUANTITY
SEEDING (Acres)	2.2 Acres (Class 3) 2.3 Acres (Class 5A)			4.5 Acres
AGRICULTURAL GROUND LIMESTONE (Tons)	45 Tons (10 Tons/Acre)			45 Tons
NITROGEN FERTILIZER NUTRIENT (Pounds)	540 Pounds (120 Pounds/Acre)		540 Pounds (120 Pounds/Acre)	1,080 Pounds
PHOSPHORUS FERTILIZER NUTRIENT (Pounds)	450 Pounds (100 Pounds/Acre)		450 Pounds (100 Pounds/Acre)	900 Pounds
POTASSIUM FERTILIZER NUTRIENT (Pounds)	1,575 Pounds (350 Pounds/Acre)		1,575 Pounds (350 Pounds/Acre)	3,150 Pounds
MULCH, METHOD 2 PROCEDURE 1 (Acres)	2.6 Acres (2 Tons/Acre)			2.6 Acres
MOWING (Acres)		2.3 Acres		2.3 Acres

SPECIAL NOTE

Rock quantities to be placed as fill below the water level are based on average end areas of cross sections plus 30% to account for estimated losses.

415 tons of Aggregate Surface Course, Type B are available for any necessary roadway repairs, including the Redear Campground near the borrow area.



Location Map

State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Abandoned Mined Lands Reclamation Division

Kickapoo SRA Embankments
Reclamation Project
AML-GVeE-1904
Vermilion County

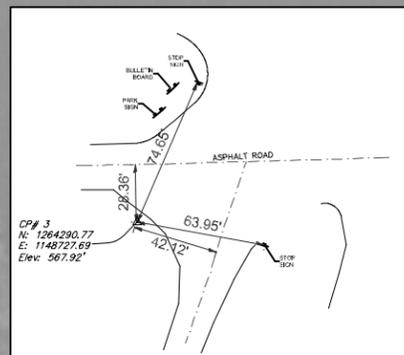
Drawn By: M-L Flowers Date: 04/2019
Checked By: T. Fought Date: 04/2020
Reviewed By: B. Johnson Date: 07/2020

Summary of Quantities/
General Notes/Location Map
Sheet
2 of 10

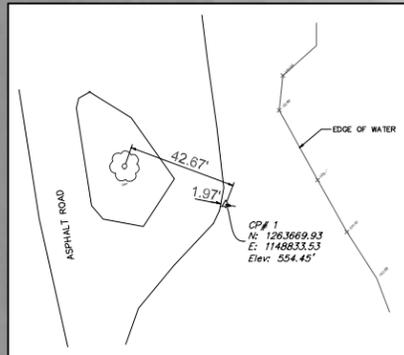


NE1/4 of SW1/4 Sec 5 T19N R12W

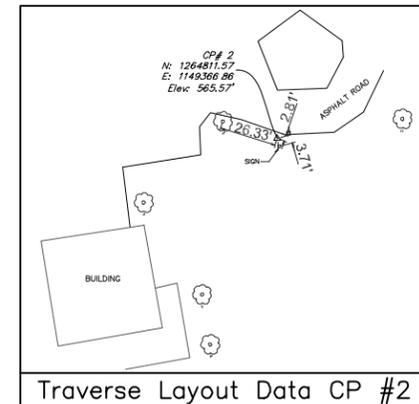
NW1/4 of SE1/4 Sec 5 T19N R12W



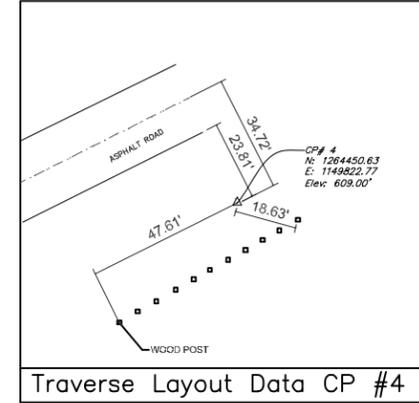
Traverse Layout Data CP #3



Traverse Layout Data CP #1



Traverse Layout Data CP #2

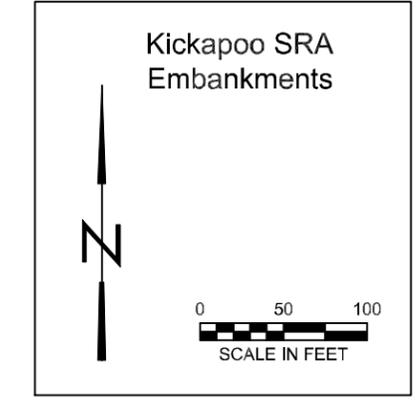


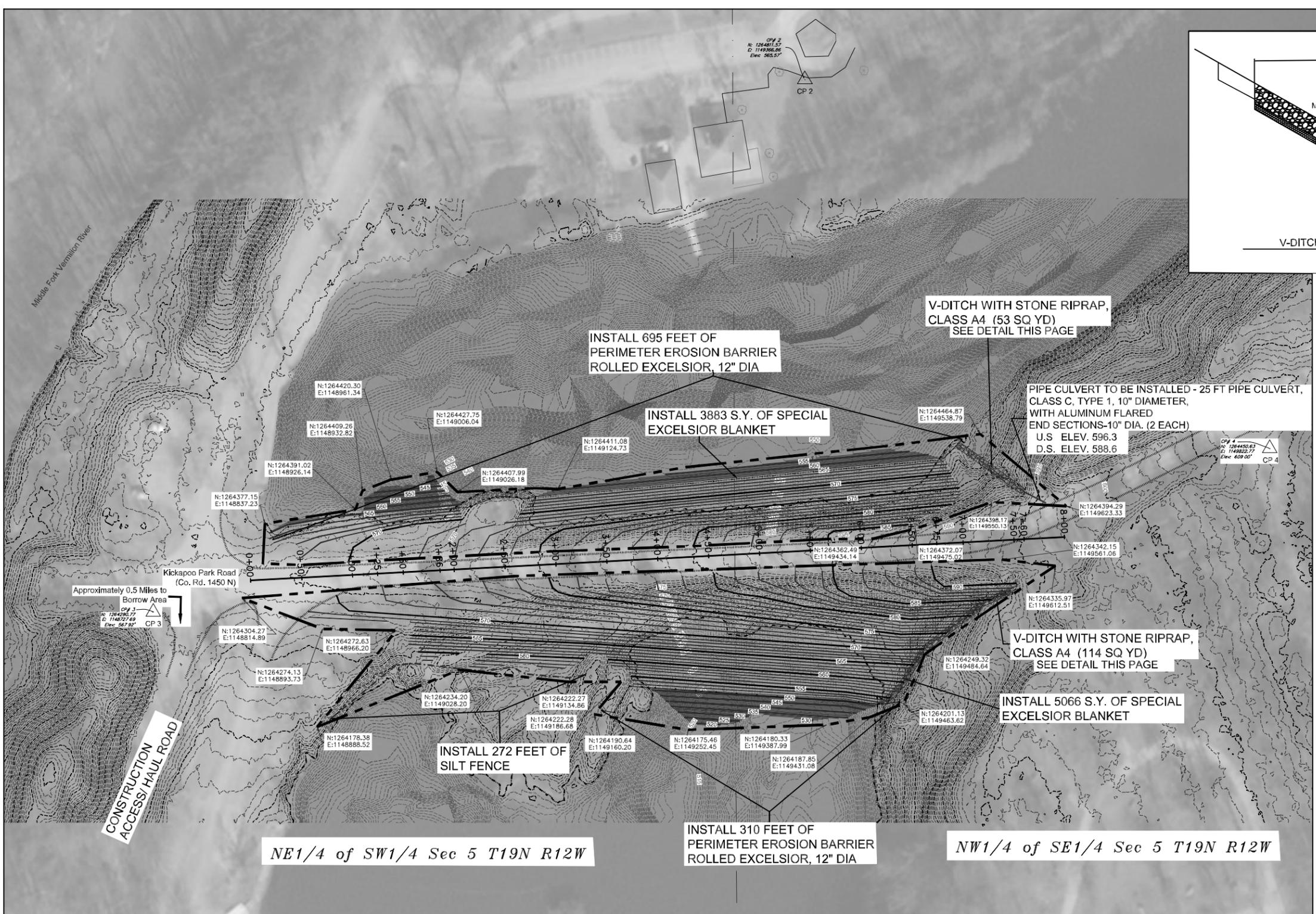
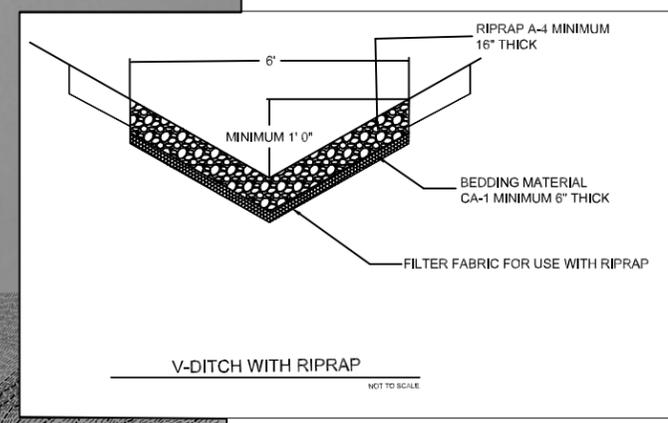
Traverse Layout Data CP #4

CP#	ELEV.	NORTHING	EASTING
1	554.45	1263669.93	1148833.53
2	565.57	1264811.57	1149366.86
3	567.92	1264290.77	1148727.69
4	609.00	1264450.63	1149822.77

Traverse Layout Data

- 400----- EXISTING CONTOUR
 - CONSTRUCTION LIMITS
 - EDGE OF ROAD
 - EDGE OF WATER
 - △ CP 1 SURVEY CONTROL POINT
- Legend





-----400-----	EXISTING CONTOUR
———400———	PROPOSED CONTOUR
-----	CONSTRUCTION LIMITS
△	SURVEY CONTROL POINT

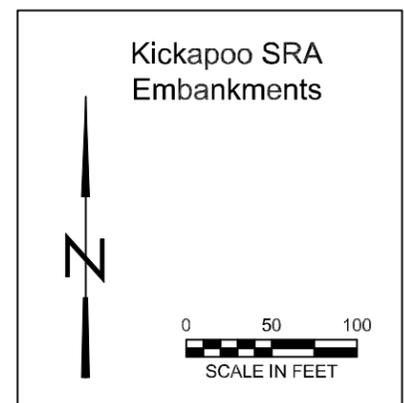
Legend

THE BASE FOR THE EMBANKMENT SHALL BE INCREASED BY BACKFILLING AREAS OF THE IMPOUNDMENTS WITH STONE DUMPED RIPRAP, CLASS A3, TO THE ELEVATION OF THE WATER SURFACE. A ONE FOOT THICK LAYER OF STONE DUMPED RIPRAP, CLASS A1, SHALL BE PLACED ON THE TOP SURFACE OF THE LARGER STONE. FILTER FABRIC SHALL BE PLACED OVER THE SURFACE OF THE STONE DUMPED RIPRAP, CLASS A1 LAYER. THE REMAINDER OF THE EMBANKMENT STABILIZATION SHALL BE COMPLETED WITH COMPACTED EARTH THAT HAS BEEN EXCAVATED FROM MINE SPOIL AREAS AS SHOWN ON THESE PLANS.

ASSUMED WATER ELEVATION \ TRANSITION FROM A3 TO A1 STONE:
 NORTH: ELEV. 564
 SOUTH: ELEV. 551

ALL DISTURBED AREAS SHALL BE AMENDED WITH AGRICULTURAL GROUND LIMESTONE AND FERTILIZER NUTRIENTS PRIOR TO SEEDING. AREAS WITH A STEEP SLOPE (~3:1) SHALL BE COVERED WITH SPECIAL EXCELSIOR BLANKET AS INDICATED ON THESE PLANS. AREAS NOT AS STEEP SHALL BE COVERED WITH STRAW (MULCH METHOD 2, PROCEDURE 1 AT THE RATE OF TWO TONS PER ACRE).

NOTE: UNDERGROUND UTILITIES EXIST ON BOTH SIDES OF THE ROAD. PRECAUTIONS SHALL BE TAKEN TO AVOID DISTURBANCE OR DAMAGE TO UNDERGROUND UTILITIES.



SW1/4 of SE1/4 Sec 5 T19N R12W



-----400----- EXISTING CONTOUR
 - - - - - CONSTRUCTION LIMITS

Legend

Kickapoo SRA
 Embankments

0 40 80
 SCALE IN FEET

State of Illinois

Department of Natural Resources

Office of Mines and Minerals

Abandoned Mined Lands Reclamation Division

Kickapoo SRA Embankments

Reclamation Project

AML-GVeE-1904

Vermilion County

Drawn By: N.L. Lowrey

Checked By: T. Faught

Dates: 2/2020
 4/2020

Existing Conditions

Borrow Area

Sheet

5 of 10

SW1/4 of SE1/4 Sec 5 T19N R12W

INSTALL 446 FEET OF PERIMETER EROSION BARRIER SILT FENCE



Approximately 0.5 Miles to
Kickapoo Park Road

	400	EXISTING CONTOUR
	400	PROPOSED CONTOUR
		CONSTRUCTION LIMITS

Legend

Kickapoo SRA
Embankments

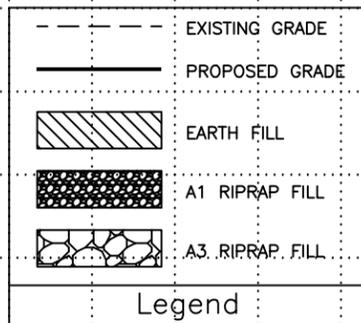
SCALE IN FEET

State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Abandoned Mined Lands Reclamation Division

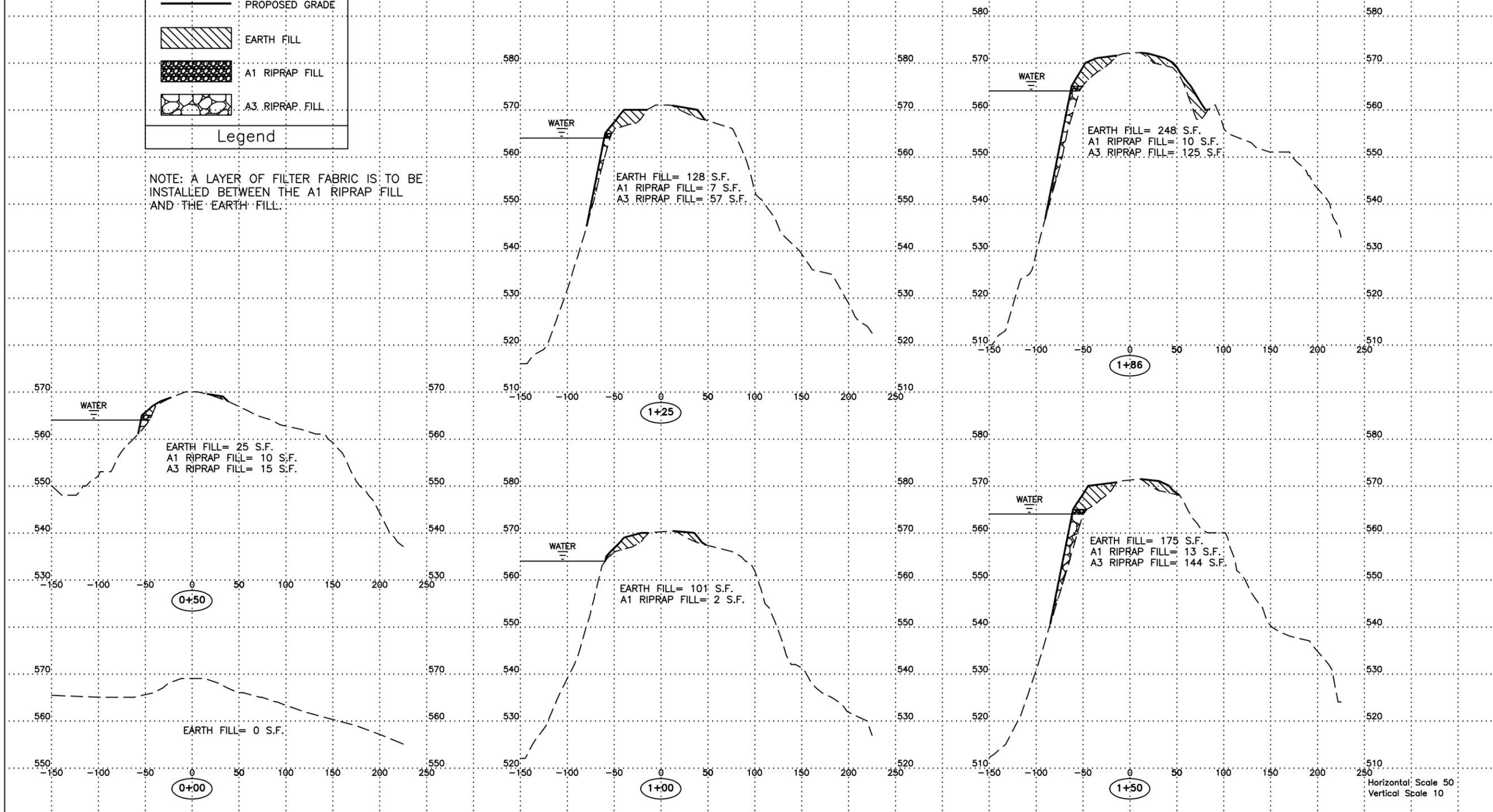
Kickapoo SRA Embankments
Reclamation Project
AML-GVeE-1904
Vermillion County

Drawn By: N. Lowrey
Checked By: T. Faught
Date: 2/2020
4/2020

Proposed Conditions
Borrow Area
Sheet
6 of 10



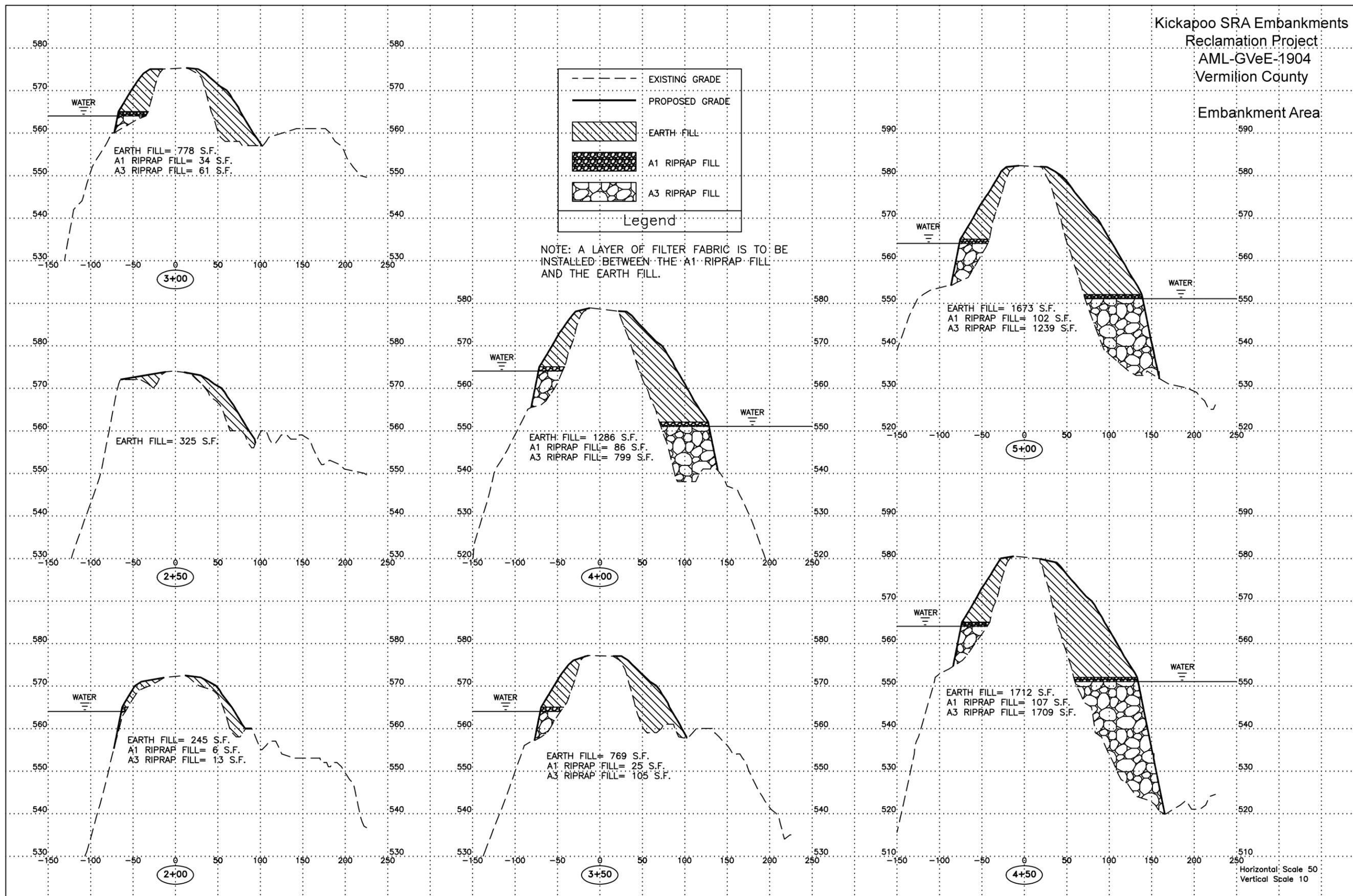
NOTE: A LAYER OF FILTER FABRIC IS TO BE INSTALLED BETWEEN THE A1 RIPRAP FILL AND THE EARTH FILL.



Horizontal Scale 50
Vertical Scale 10

Kickapoo SRA Embankments
Reclamation Project
AML-GVeE-1904
Vermilion County

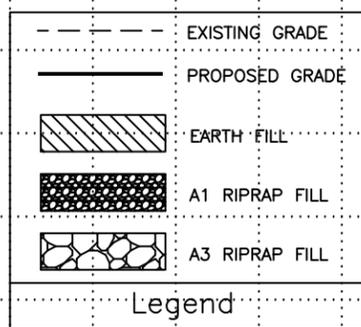
Embankment Area



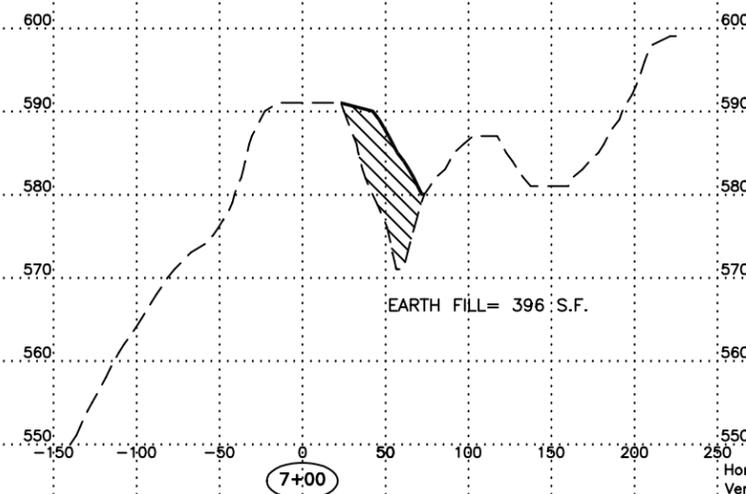
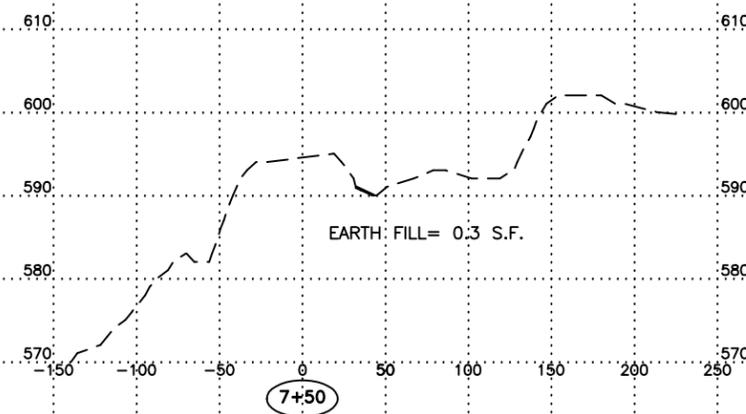
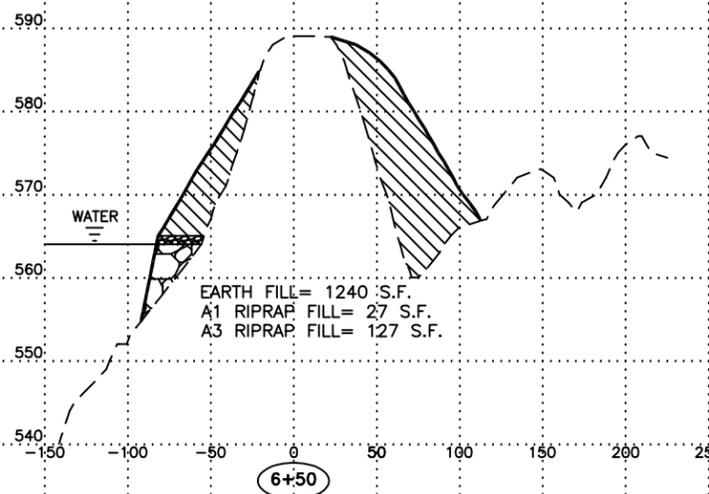
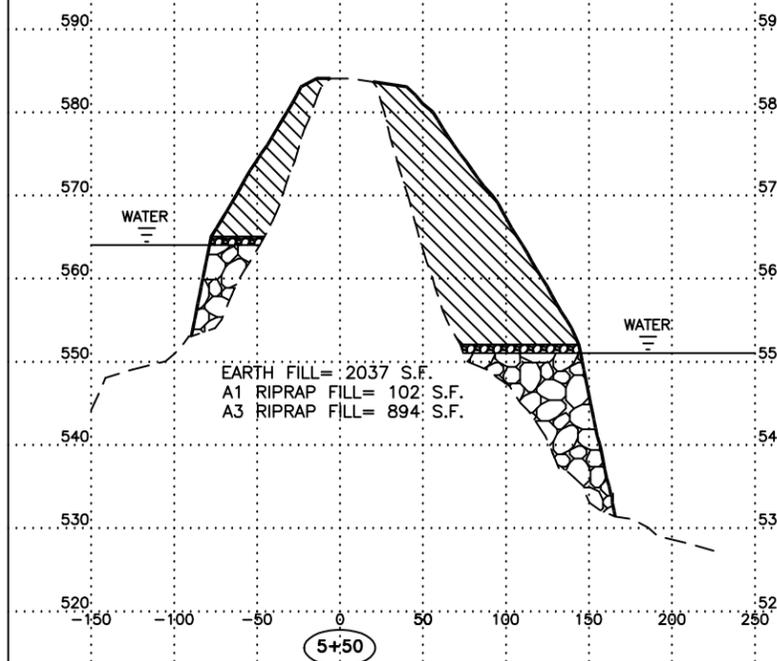
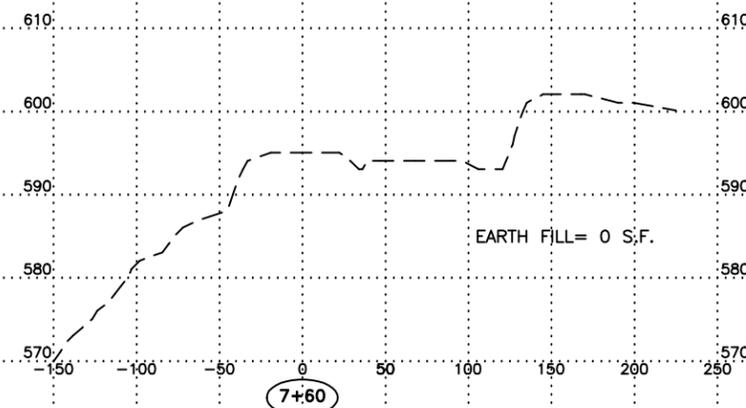
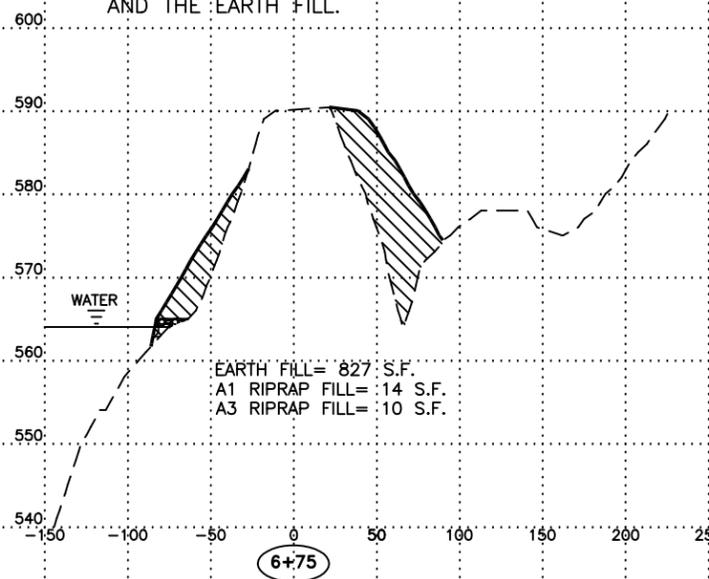
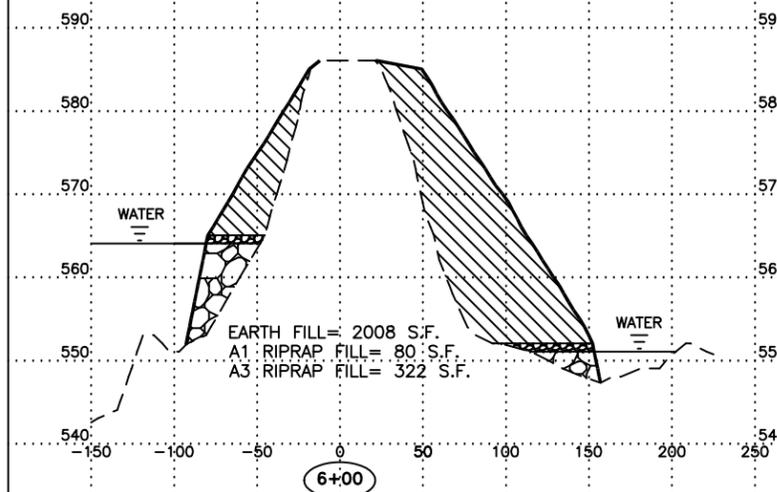
Horizontal Scale 50
Vertical Scale 10

Kickapoo SRA Embankments
Reclamation Project
AML-GVeE-1904
Vermilion County

Embankment Area



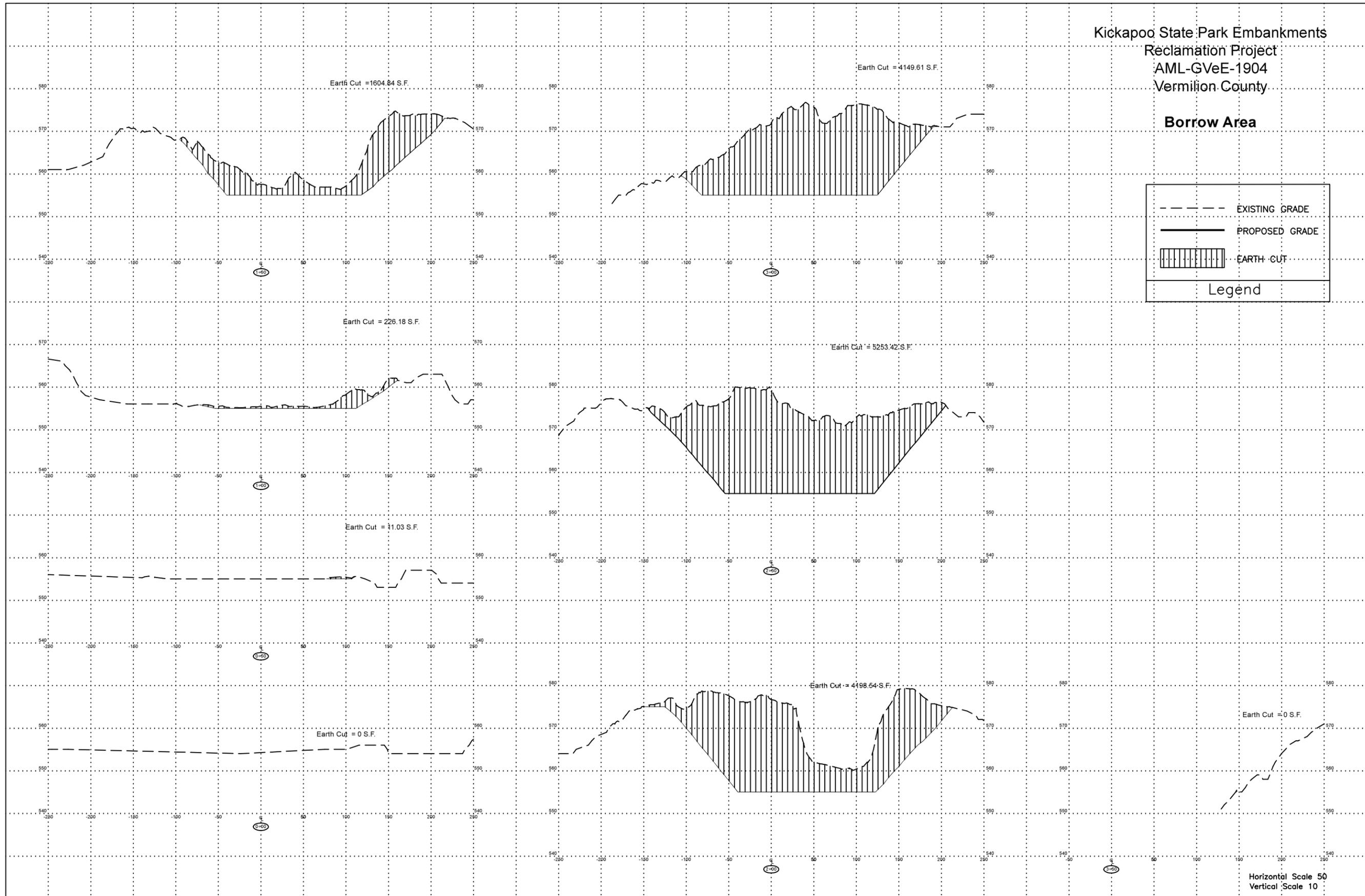
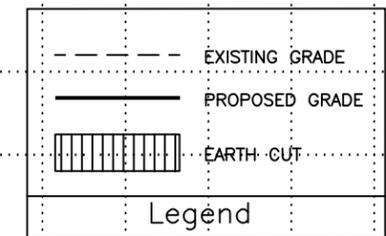
NOTE: A LAYER OF FILTER FABRIC IS TO BE INSTALLED BETWEEN THE A1 RIPRAP FILL AND THE EARTH FILL.



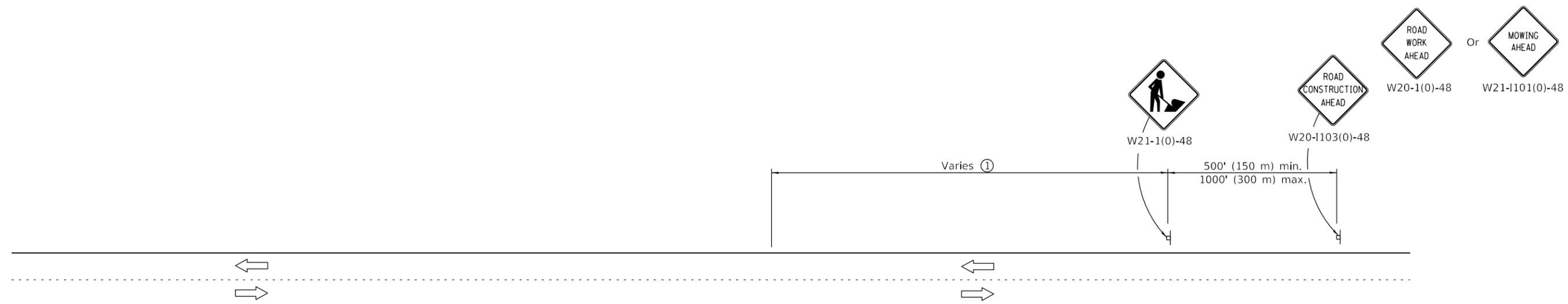
Horizontal Scale 50
Vertical Scale 10

Kickapoo State Park Embankments
 Reclamation Project
 AML-GVeE-1904
 Vermilion County

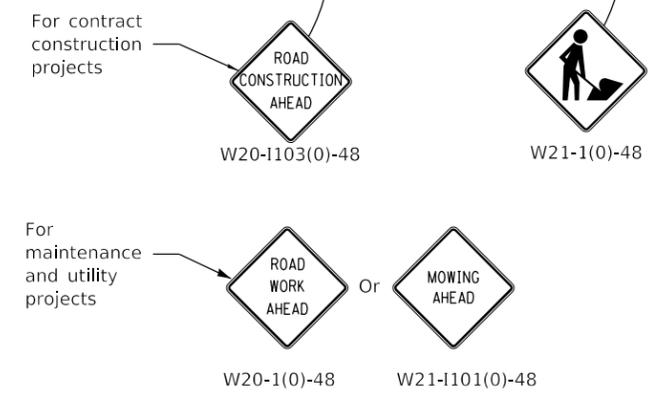
Borrow Area



Horizontal Scale 50
 Vertical Scale 10



TYPICAL APPLICATIONS
Shoulder work
Utility operations



SYMBOLS

-  Work area
-  Sign
-  Flagger with traffic control sign when required

① Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed 1/2 the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

When the work operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-14	Revised workers sign number to agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.

**OFF-RD MOVING OPERATIONS,
2L, 2W, DAY ONLY**

STANDARD 701011-04

Illinois Department of Transportation

PASSED January 1, 2014
[Signature]
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2014
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97