

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

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

Peabody C. C. #14 Majestic - Surefire
Reclamation Project
AML-GPeE-1413
Perry County
2LR



Peabody C.C. #14 Majestic - Surefire
Perry County

PRE-BID MEETING

A PRE-BID MEETING IS SCHEDULED FOR THIS PROJECT AT 10:00 A.M., THURSDAY, APRIL 9TH, 2015. ALL INTERESTED POTENTIAL BIDDERS ARE TO MEET AT THE ENTRANCE OF THE PROJECT SITE, ON MAJESTIC RD., APPROXIMATELY ONE MILE NORTHEAST OF OLD ILL. STATE RTE. 14 AND OLD DUQUOIN RD. INTERSECTION.

SCHEDULE OF DRAWINGS:

1. Cover Sheet
2. Summary of Quantities/General Notes/Location Map
3. Site Layout/Survey Control Point Data
- 4-7. Existing Conditions
- 8-11. Proposed Conditions
- 12.-22. Cross Sections
23. Details
24. Site Layout/Seeding

I.D.O.T. Standard 280001-07

CONTRACT NO. M1413

Prepared By IDNR Staff

Approved for Bidding:

James Hafliker, Director
 Office of Mines and Minerals

Approved By:

J. Greg Pinto, Acting Manager
 AMLR Division

Approved By:

Olga Moya Aranzubia, P.E.
 IL Licensed Professional Engineer
 No. 062-062471



Summary of Quantities

Item No.	#	Item	Section	Quantity	Unit	Rates/Remarks
NRM20110	1	SPECIAL CLEARING	201	1	L SUM	
NRM20210	2	EARTH EXCAVATION	202	305,513	CU YD	Compaction per Section 205
NRM20230	3	MINE REFUSE EXCAVATION	202	496,111	CU YD	Compaction per Section 205
NRM21510	4	SPECIAL EXCAVATION	215	620	CU YD	Compaction per Section 205
NRM21610	5	FILTER FABRIC FOR USE WITH RIPRAP	216	356	SQ YD	
NRM21621	6	CA-FILL, CA-1	216	130.0	TON	
NRM21626	7	CA-FILL, CA-6	216	850.0	TON	
NRM21643	8	ROCKFILL, RR-3	216	100.0	TON	
NRM25040	9	NITROGEN FERTILIZER NUTRIENT	250	19,600	POUND	See
NRM25050	10	PHOSPHORUS FERTILIZER NUTRIENT	250	13,720	POUND	Schedule
NRM25060	11	POTASSIUM FERTILIZER NUTRIENT	250	9,800	POUND	Below
NRM25070	12	AGRICULTURAL GROUND LIMESTONE	250	1,960.0	TON	20.0 TONS/ACRE
NRM25090	13	SEEDING	250	76.0	ACRE	SEEDING PERMANENT
NRM25091	14	SEEDING - WETLAND	250	22.0	ACRE	
25100115	15	MULCH METHOD 2	IDOT 251	98.0	ACRE	Procedure 1 - 2.0 TONS/ACRE
25301800	16	SEEDLINGS	IDOT 253	54	UNIT	100 Seedlings Per Unit 10 ft. Centers - Rows staggered
NRM25510	17	MINE REFUSE TREATMENT - LIMESTONE	255	10,800.0	TON	200.0 TONS/ACRE
NRM25810	18	MOWING	258	74.0	ACRE	Island will not require mowing
NRM28031	19	TEMPORARY DITCH CHECKS	280	220	FOOT	Hay or Straw Bales See Detail G-24
NRM28040	20	PERIMETER EROSION BARRIER	280	806	FOOT	Silt Fence Required IDOT Standard 280001-07
NRM28050	21	INLET AND PIPE PROTECTION	280	1	EACH	Silt Fence Required IDOT Standard 280001-07
28100105	22	STONE RIPRAP, CLASS A3	IDOT 281	1,369	SQ YD	
NRM28610	23	SPECIAL EXCELSIOR BLANKET	286	28,016	SQ YD	8 Feet Wide Strips
35101400	24	AGGREGATE BASE COURSE, TYPE B	IDOT 351	1,266.0	TON	CA-6, 4" Lifts, 8" Total thickness
NRM50101	25	REMOVAL OF EXISTING STRUCTURES	501	1	L SUM	
56200200	26	WATER SERVICE LINE 3/4"	IDOT 562	1,110	FOOT	PVC Pipe, 3/4" Dia., Schedule 40
NRM61310	27	CLEANING EXISTING CULVERTS	613	1	L SUM	
NRM61410	28	DEWATERING IMPOUNDMENTS	614	1	L SUM	
NRM66510	29	BARBED WIRE FENCE	665	420	FOOT	
NRM66520	30	ENTRANCE GATE	665	2	EACH	
NRM66610	31	MINE OPENING MARKER	666	2	EACH	
NRM67110	32	MOBILIZATION (MAX. 6% OF BID)	671	1	L SUM	

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 familiarizing himself 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 will be staked by the contractor prior to construction. The contractor is responsible for the repair and or restitution at his own expense for all damaged 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 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.

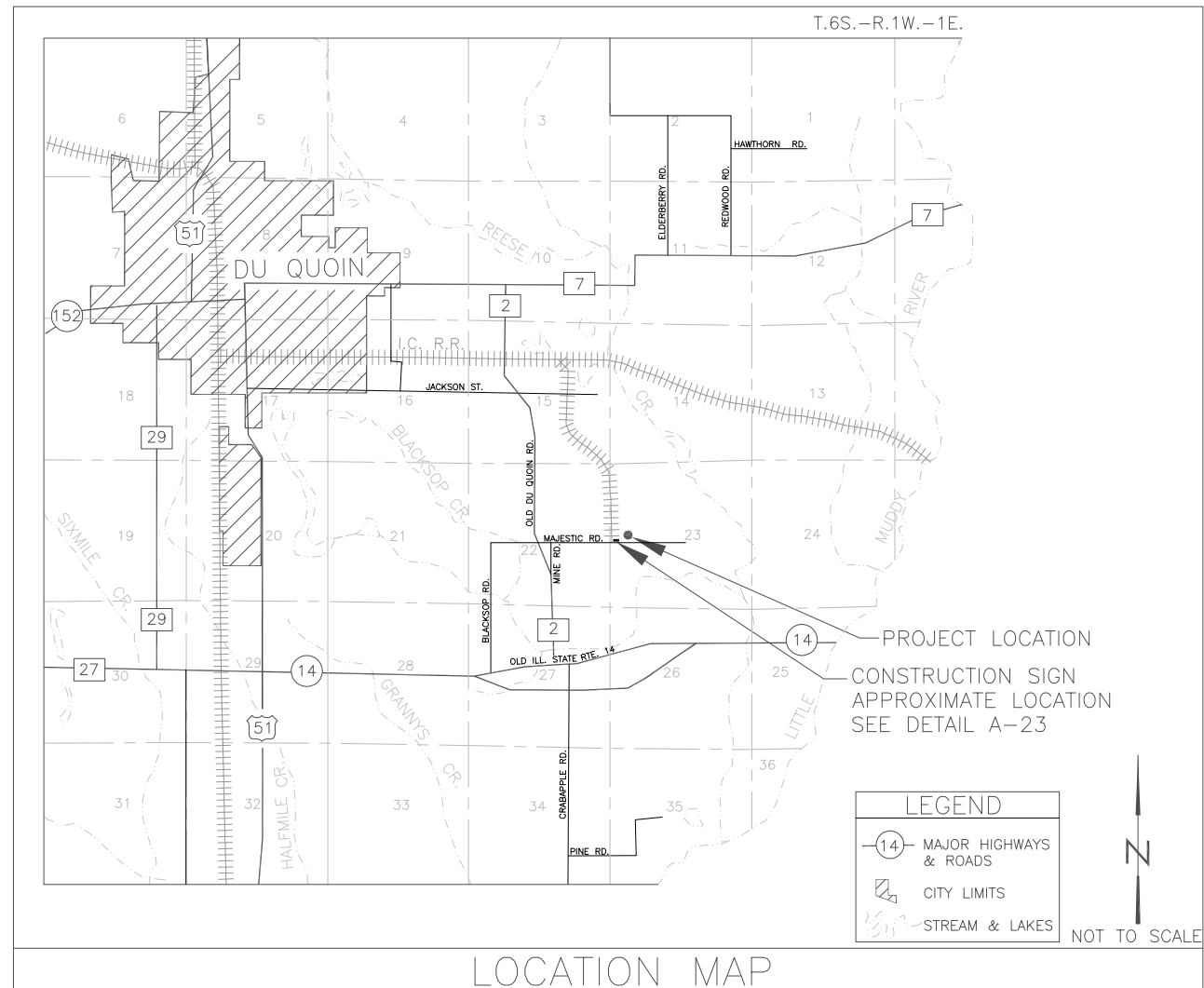
ACID WATER TREATMENT-If acid mine drainage treatment is determined necessary by the engineer, and not otherwise specified in the plans, any water treatment will be paid for in accordance with Article 109.04 of the Standard Specifications.

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.

MINE REFUSE TREATMENT-After mine refuse has been graded to the subgrade shown in the plans, agricultural ground limestone shall be uniformly spread at the rate specified in the plans. A 3 inch layer of soil shall then be spread over the mine refuse treatment area and blended to a depth of 6 inches with an industrial disk approved by the engineer. Treated areas shall then be covered with 33 inches of soil.

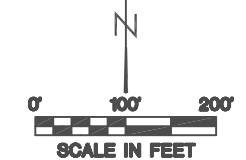


Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing

ITEM (unit)	FALL 2016 AUG. 20 - SEPT. 30	WINTER 2017 JAN. 1 - MAR. 15	SPRING 2017 MAY 15 - JUN. 15	TOTAL QUANTITY
SEEDING (acres)	76.0		Actual Date to be Approved by Engineer	76.0
WETLAND SEEDING (acres)	22.0			22.0
AGRICULTURAL GROUND LIMESTONE (tons)	1,960.0 20 T/A			1,960.0
NITROGEN FERTILIZER NUTRIENT (pounds)	9,800 100 LB./A	9,800 100 LB./A		19,600
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	13,720 140 LB./A			13,720
POTASSIUM FERTILIZER NUTRIENT (pounds)	9,800 100 LB./A			7,600
MULCH, METHOD 2 PROCEDURE 1 (acre)	98.0 2 T/A			98.0
MOWING (acres)			74.0	74.0



- NOTES:
1. ALL CLEARING SHALL BE IN ACCORDANCE WITH SECTION 201.
 2. COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 205 OF THE SPECIAL PROVISIONS. ALONG THE ACCESS ROAD, COMPACTION WILL BE REQUIRED TO THE VERY TOP OF THE SUBGRADE, INCLUDING THE TOP 12 INCHES.
 3. IMPOUNDMENTS ARE TO BE DEWATERED IN ACCORDANCE WITH SECTION 614 OF THE SPECIAL PROVISIONS. APPROXIMATE IMPOUNDMENT VOLUMES ARE SHOWN ON THE PLANS.
 4. ADDITIONAL AREAS OF SHALLOW STANDING WATER EXIST AND MAY APPEAR BEFORE AND DURING CONSTRUCTION. DEWATERING AND TREATMENT, IF NECESSARY, SHALL BE INCIDENTAL TO THE CONTRACT PRICE FOR DEWATERING IMPOUNDMENTS.
 5. SEE DETAIL SHEET 23, FOR CONSTRUCTION SIGN AND TYPICAL ROAD DETAIL.
 6. THE CONTRACTOR SHALL MAINTAIN ACCESS FOR THE PROPERTY OWNERS AT ALL TIMES, FOR THE DURATION OF THE PROJECT.
 7. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE AREA OF THE SHAFTS DUE TO THE UNKNOWN CONDITION OF THE SHAFTS AND THE UNKNOWN STABILITY OF THE AREA AROUND THE SHAFTS. THE ENGINEER RESERVES THE RIGHT TO INCREASE OR DECREASE THE VOLUME OF SPECIAL EXCAVATION AND BACKFILLING MATERIALS REQUIRED. THE ENGINEER WILL MAKE THE DETERMINATION DURING CONSTRUCTION.
 8. REMOVAL OF EXISTING STRUCTURE/FOUNDATIONS SHALL BE DISPOSED OF AS PROPOSED IN DETAIL F-23. THE CONTRACTOR SHALL CUT ALL PROTRUDING RE-BAR AND BOLTS AT THE CONCRETE SURFACE OF THOSE FOUNDATIONS THAT PROVE TO BE TOO LARGE TO EXCAVATE AND BURY AS PROPOSED ON DETAIL F-23.
 9. THE TREE SEEDLING PLANTING AND CARE SHALL BE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATION 253. PLANTING WOODY PLANTS AND THE IDOT SUPPLEMENTAL SPECIFICATION FOR SECTION 253, EXCEPT THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACING THE MARKING FLAGS AND OUTLINE THE AREA FOR PLANTING. SEEDLING SPACING SHALL BE 10 FEET CENTER TO CENTER AND ALTERNATE ROWS STAGGERED, REQUIRING 54 UNITS OR 5,400 SEEDLINGS. THE FOLLOWING VARIETIES OF SEEDLINGS AND QUANTITIES SHALL BE PLANTED: HACKBERRY (1,080 TREES), SYCAMORE (1,620 TREES), SILVER MAPLE (540 TREES), PIN OAK (540 TREES), WILLOW (270 TREES), GREEN ASH (540 TREES), RIVER BIRCH (540 TREES), SWEET GUM (270 TREES).
 10. THE APPROXIMATE LOCATION OF A RESIDENTIAL WATER SERVICE LINE IS SHOWN ON SHEET #3. PLAN EXCAVATION WILL MOST LIKELY DISTURB MOST OF THIS WATER SERVICE LINE. THE CONTRACTOR SHALL REPLACE 1,110 FEET OF THIS WATER SERVICE LINE, TO THE EDGE OF EXCAVATION LIMITS, IN ACCORDANCE WITH IDOT SECTION 562.
 11. THE EXACT LOCATION OF AN EXISTING SEWER LINE AND/OR SEPTIC SYSTEM ARE UNKNOWN. IF THE EXISTING SEWER LINE AND/OR SEPTIC SYSTEM ARE DISCOVERED THE CONTRACTOR SHALL TAKE ACTION TO PROTECT THE SEWER LINE AND/OR SEPTIC SYSTEM.
 12. THE LOCATION OF AN INACTIVE OVERHEAD POWER LINE AND RESPECTIVE POWER POLES ARE SHOWN ON SHEET #3. THE CONTRACTOR SHALL GRADE AROUND THE EXISTING POWER POLES AND AVOID ANY DISTURBANCE TO THE EXISTING POWER LINES.



6/10	7/11
4/8	5/9

SHEET LAYOUT

- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - - - CONSTRUCTION LIMITS
 - ~ ~ ~ EXISTING TREELINE
 - - - EDGE OF WATER
 - - - SECTION LINE
 - - - OVERHEAD POWER LINE
 - - - FENCE LINE
 - △ CONTROL POINT
 - ◆ BORING LOCATION
- LEGEND

CP	ELEV.	NORTHING	EASTING
#1	400.81	482211.25	2580311.39
#2	401.61	482211.84	2580835.71
#3	399.95	482264.58	2581389.24

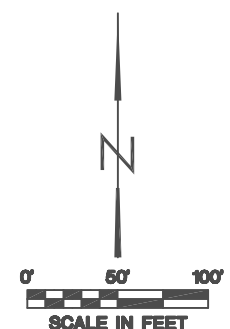
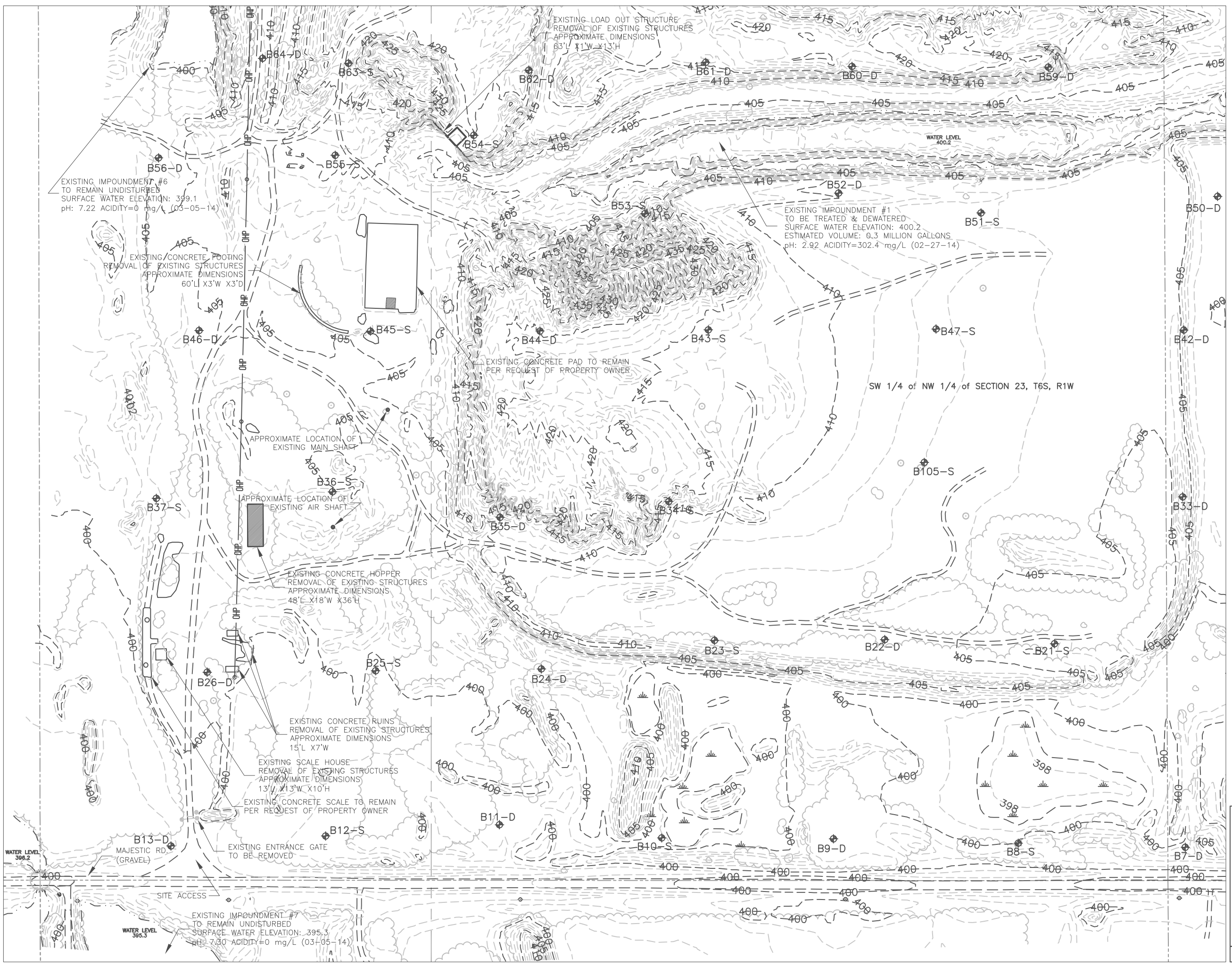
TRAVERSE LAYOUT DATA

State of Illinois
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Peabody C.C. #14
 Majestic - Sulfire
 Reclamation Project
 AML-GPeE-1413
 Perry County

Drawn By: CMA
 Checked By: _____
 Date: 06-18-15

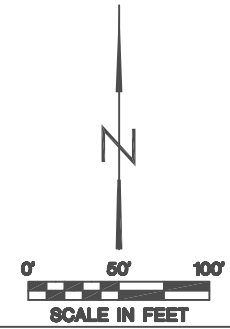
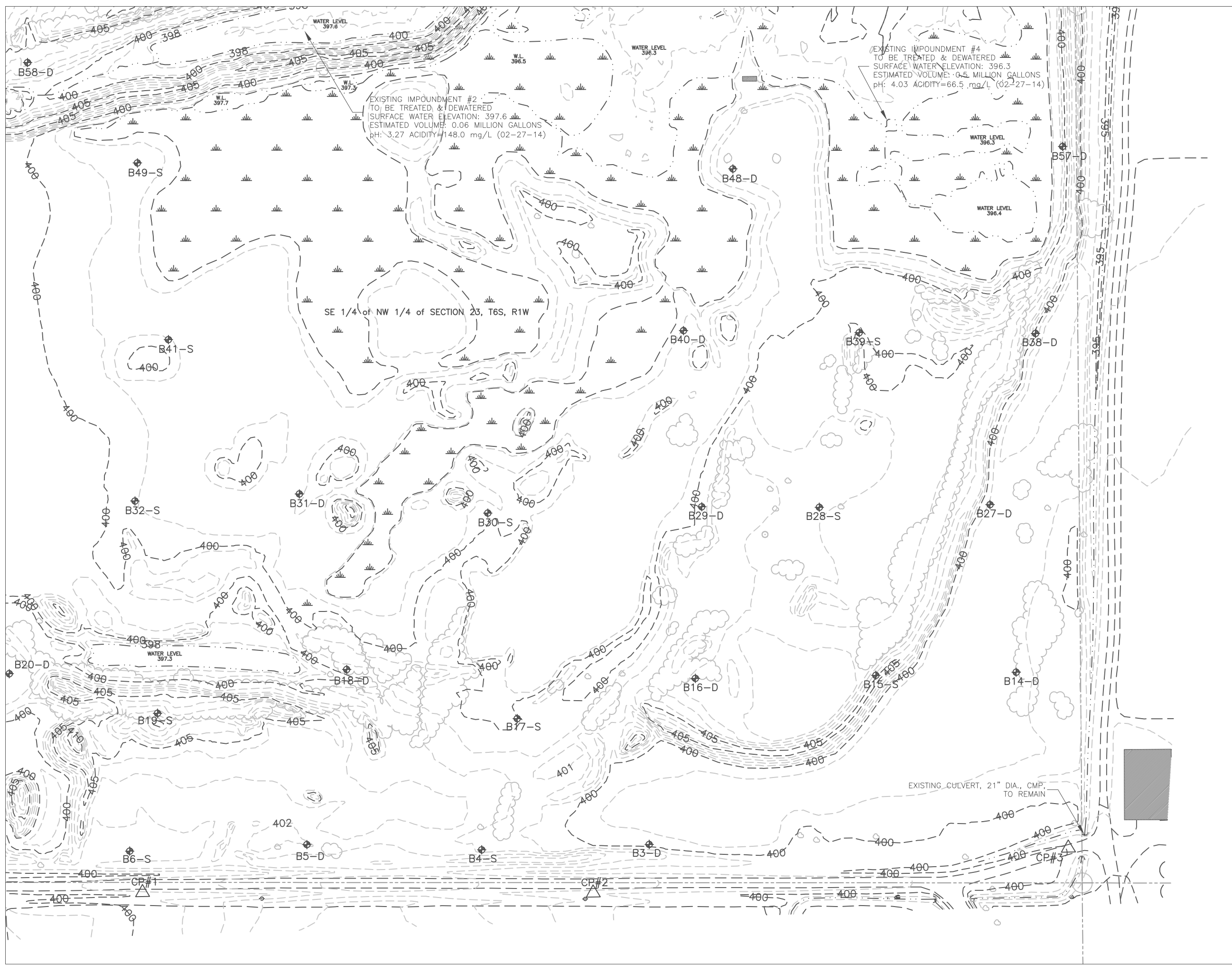
Site Layout
 Survey Control Point Data
 Sheet 3 of 24



6/10	7/11
4/8	5/9

SHEET LAYOUT

- EXISTING CONTOUR
 - ~ TREELINE
 - WATER WAY
 - SECTION LINE
 - OVERHEAD POWER LINE
 - △ CONTROL POINT
 - ◆ BORING LOCATION
- LEGEND

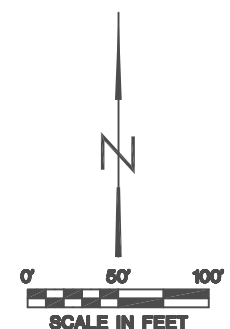


6/10	7/11
4/8	5/9

SHEET LAYOUT

---	EXISTING CONTOUR
~~~~~	TREELINE
---	WATER WAY
---	SECTION LINE
-OP-OP-	OVERHEAD POWER LINE
△	CONTROL POINT
◆	BORING LOCATION

LEGEND



6/10	7/11
4/8	5/9

SHEET LAYOUT

---	EXISTING CONTOUR
~~~~~	TREELINE
---	WATER WAY
---	SECTION LINE
---OP---OP---	OVERHEAD POWER LINE
△	CONTROL POINT
◆	BORING LOCATION

LEGEND

Existing Conditions

Sheet 6 of 24

Drawn By: OMA Date: 12-07-14
 Checked By: _____

**Peabody C.C. #14
 Majestic - Surefire
 Reclamation Project
 AML-GPeE-1413
 Perry County**

**State of Illinois
 Department of Natural Resources**



NE 1/4 of NW 1/4 of SECTION 23, T6S, R1W

EXISTING IMPOUNDMENT #3
TO REMAIN UNDISTURBED
SURFACE WATER ELEVATION: 392.2
pH: 6.80 ACIDITY=0 mg/L (02-27-14)

WATER LEVEL
392.2

WATER LEVEL
392.2

WATER LEVEL
394.2

WATER LEVEL
392.2

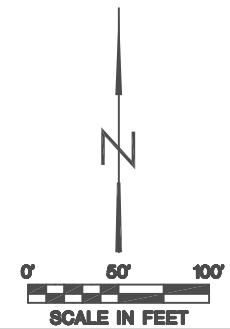
W.L.
392.3

WATER LEVEL
396.3

WATER LEVEL
397.6

WATER LEVEL
396.3

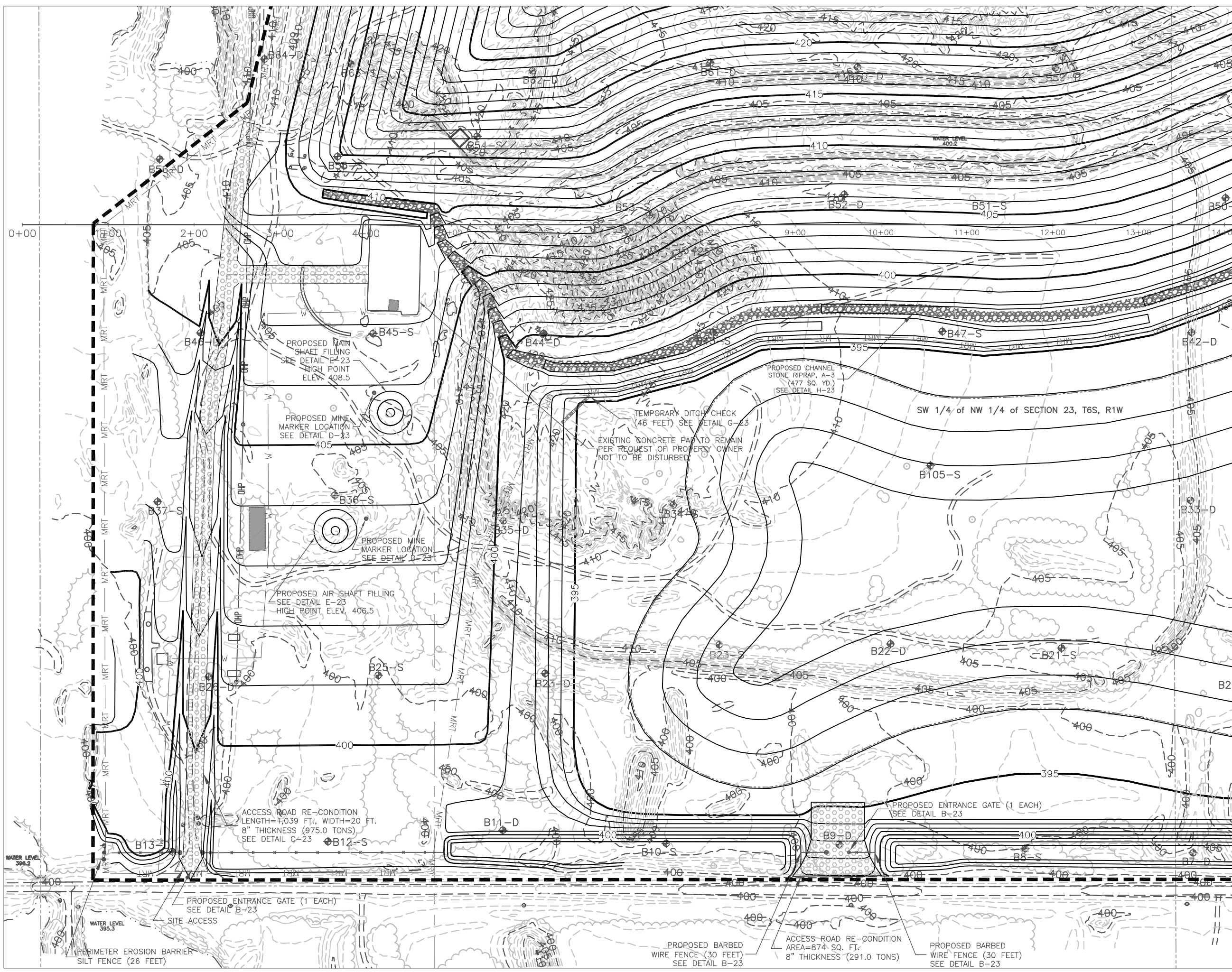
WATER LEVEL
396.3



6/10	7/11
4/8	5/9

SHEET LAYOUT

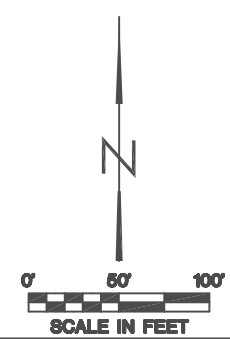
- EXISTING CONTOUR
 - TREELINE
 - WATER WAY
 - SECTION LINE
 - OVERHEAD POWER LINE
 - CONTROL POINT
 - BORING LOCATION
- LEGEND



ACCESS ROAD
LAYOUT DATA

NORTHING	EASTING
482243	2578938
482298	2578940
482750	2578955
482825	2578965
482853	2578969
482936	2578979
482936	2579088
482936	2579144
483026	2578989
483112	2579008

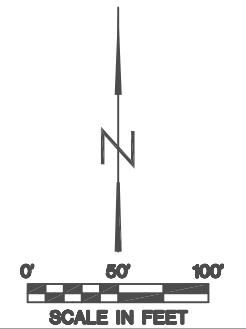
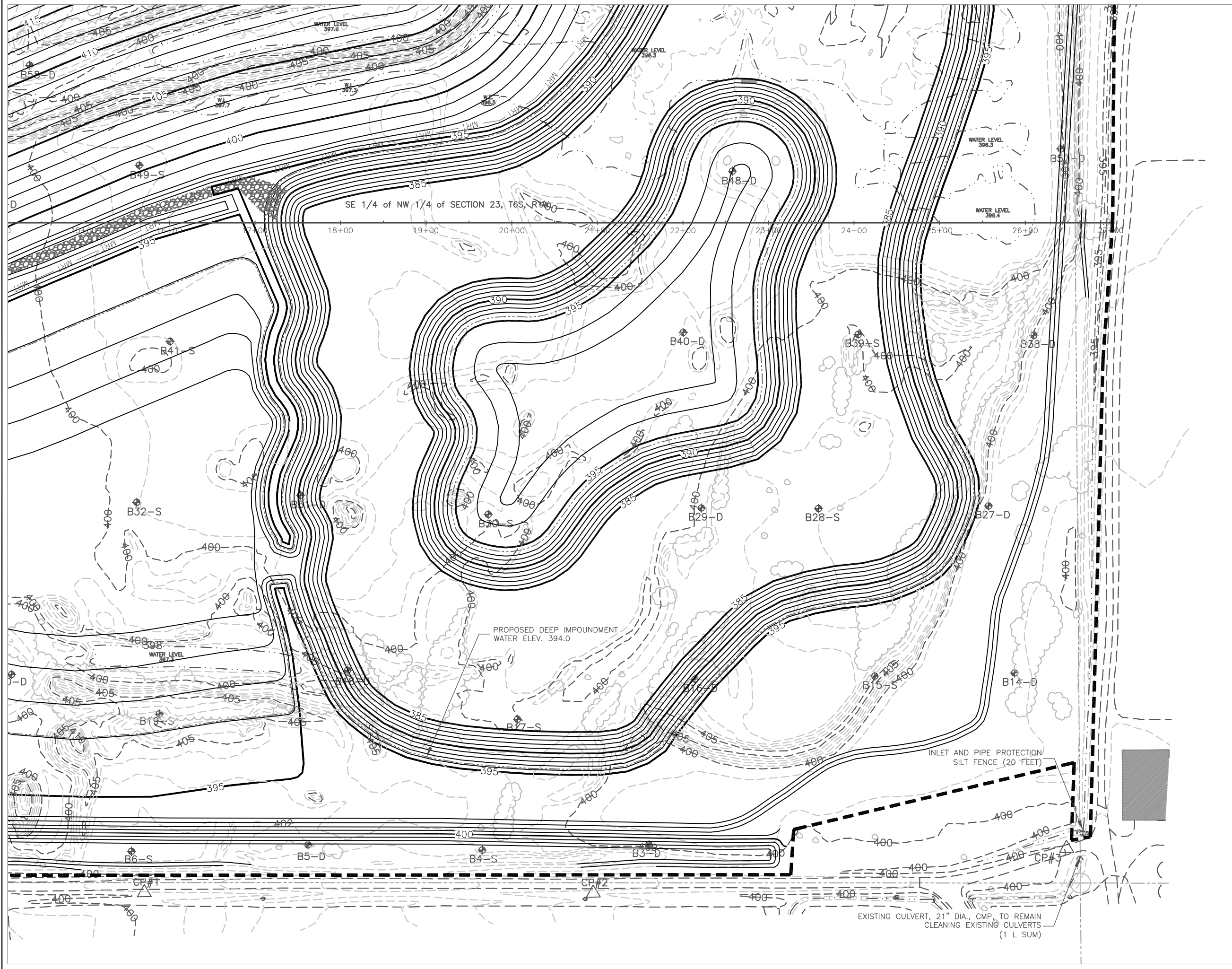
NOTES:
 1. MINE SHAFTS SHALL BE EXCAVATED AND BACKFILLED PRIOR TO TRAVELING OVER SHAFT LOCATIONS.
 2. THE CONTRACTOR SHALL DETERMINE BY SURVEY THE EXACT LOCATION OF THE EXISTING GATE AND FENCE LINE, PRIOR TO ITS REMOVAL AND REPLACEMENT SEE DETAIL B-23.



SHEET LAYOUT

6/10	7/11
4/8	5/9

- LEGEND
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - - - CONSTRUCTION LIMITS
 - ~ ~ ~ EXISTING TREELINE
 - EDGE OF WATER
 - - - SECTION LINE
 - OVERHEAD POWER LINE
 - FENCE LINE
 - △ CONTROL POINT
 - ⊕ BORING LOCATION



6/10	7/11
4/8	5/9

SHEET LAYOUT

---	EXISTING CONTOUR
—	PROPOSED CONTOUR
---	CONSTRUCTION LIMITS
~~~~~	EXISTING TREELINE
---	EDGE OF WATER
---	SECTION LINE
—o—o—	OVERHEAD POWER LINE
—x—	FENCE LINE
△	CONTROL POINT
⊕	BORING LOCATION

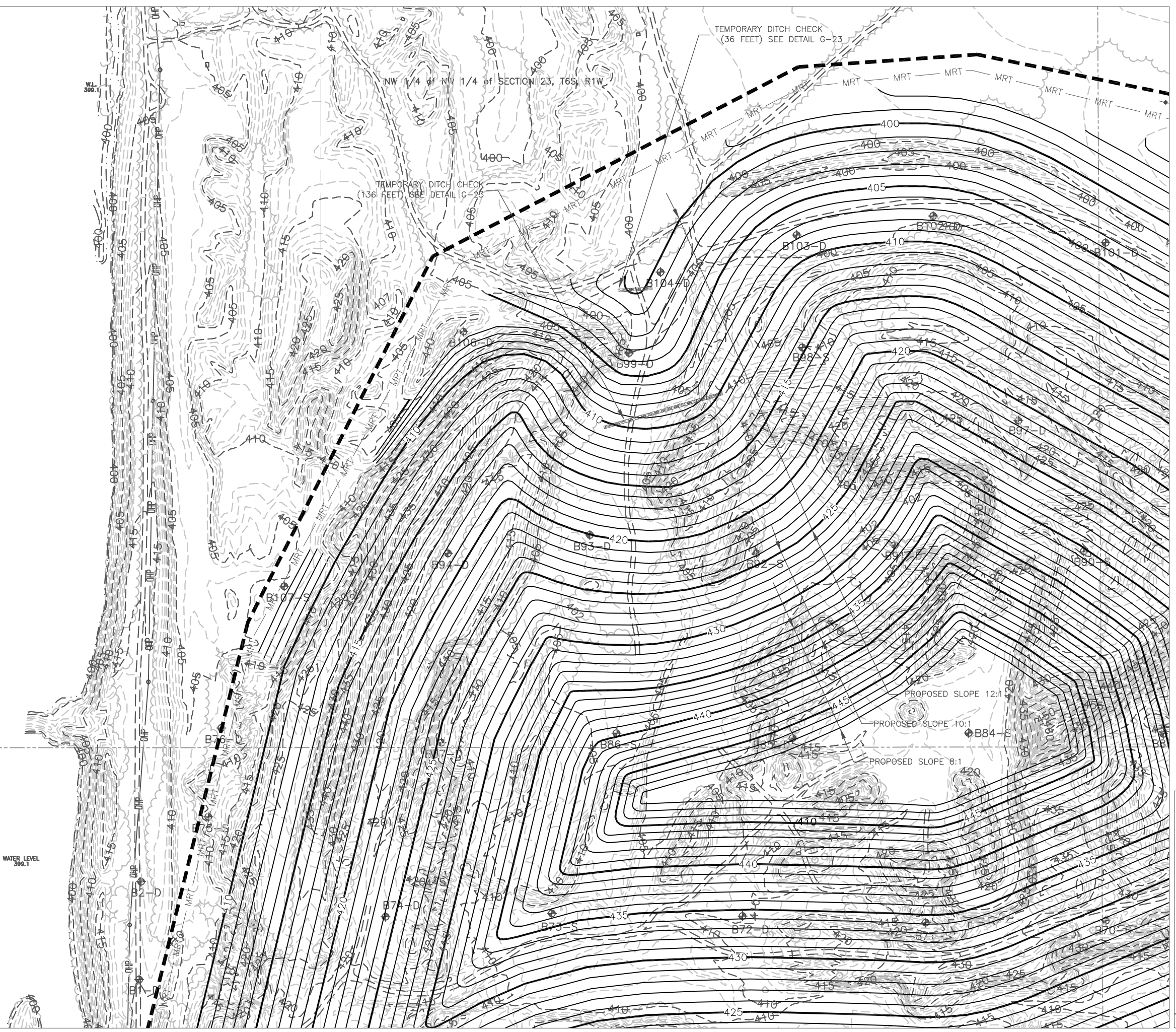
LEGEND

State of Illinois  
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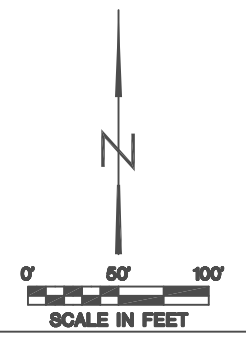
Peabody C.C. #14  
Majestic - Sulfire  
Reclamation Project  
AML-GPeE-1413  
Perry County

Drawn By: OMA Date: 08-18-16  
Checked By: _____

Proposed Conditions  
Sheet 9 of 24



WATER LEVEL  
399.1



6/10	7/11
4/8	5/9

SHEET LAYOUT

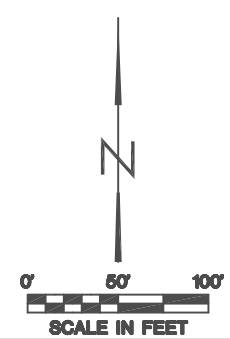
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - - - CONSTRUCTION LIMITS
  - ~ ~ ~ EXISTING TREELINE
  - EDGE OF WATER
  - - - SECTION LINE
  - — — OVERHEAD POWER LINE
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- LEGEND

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Drawn By: OMA Date: 08-18-16  
Checked By:

Proposed Conditions  
Sheet 10 of 24



6/10	7/11
4/8	5/9

SHEET LAYOUT

- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - - - CONSTRUCTION LIMITS
  - ~ ~ ~ EXISTING TREELINE
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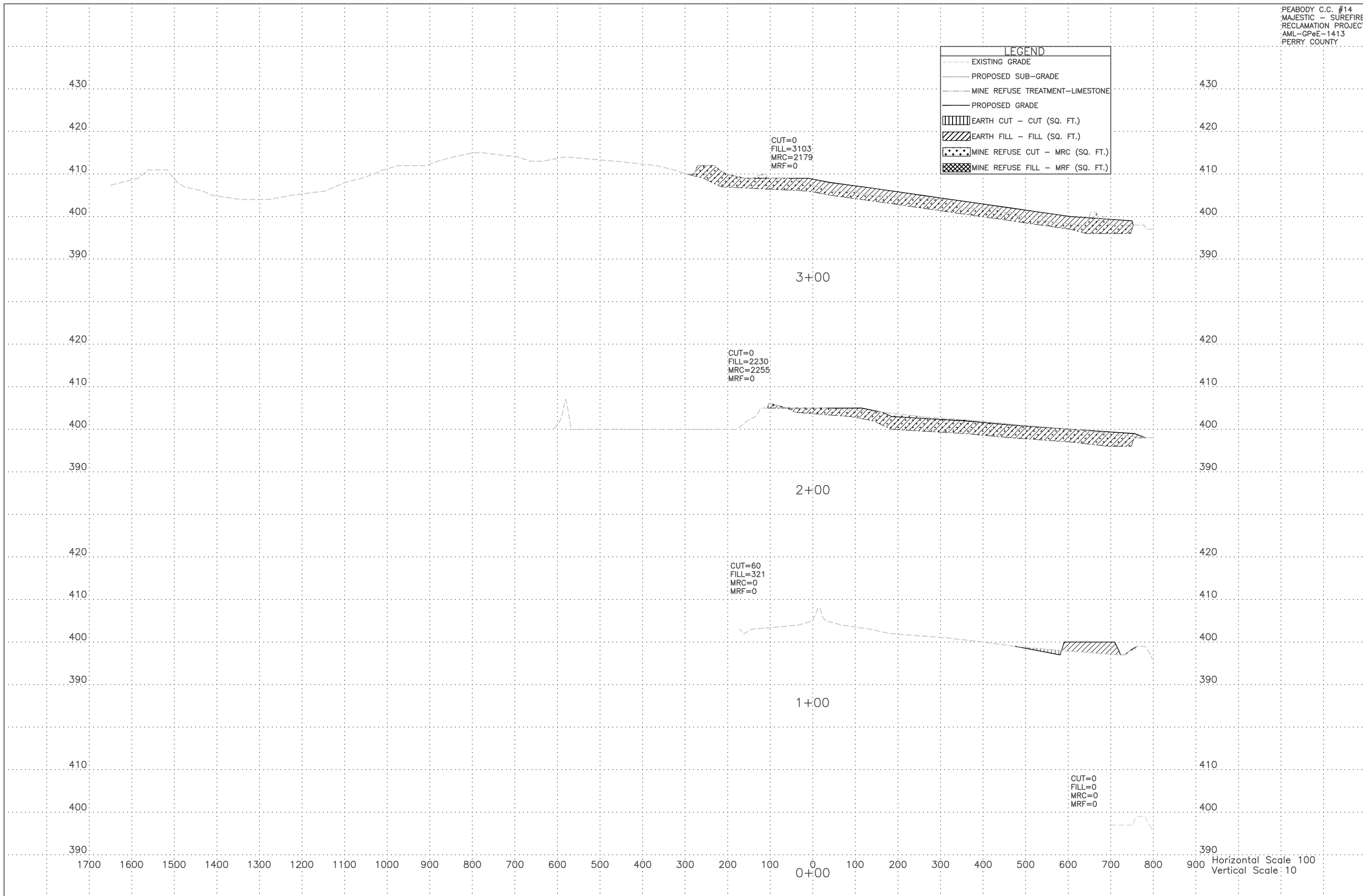
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Checked By: _____

Proposed Conditions  
Sheet 11 of 24

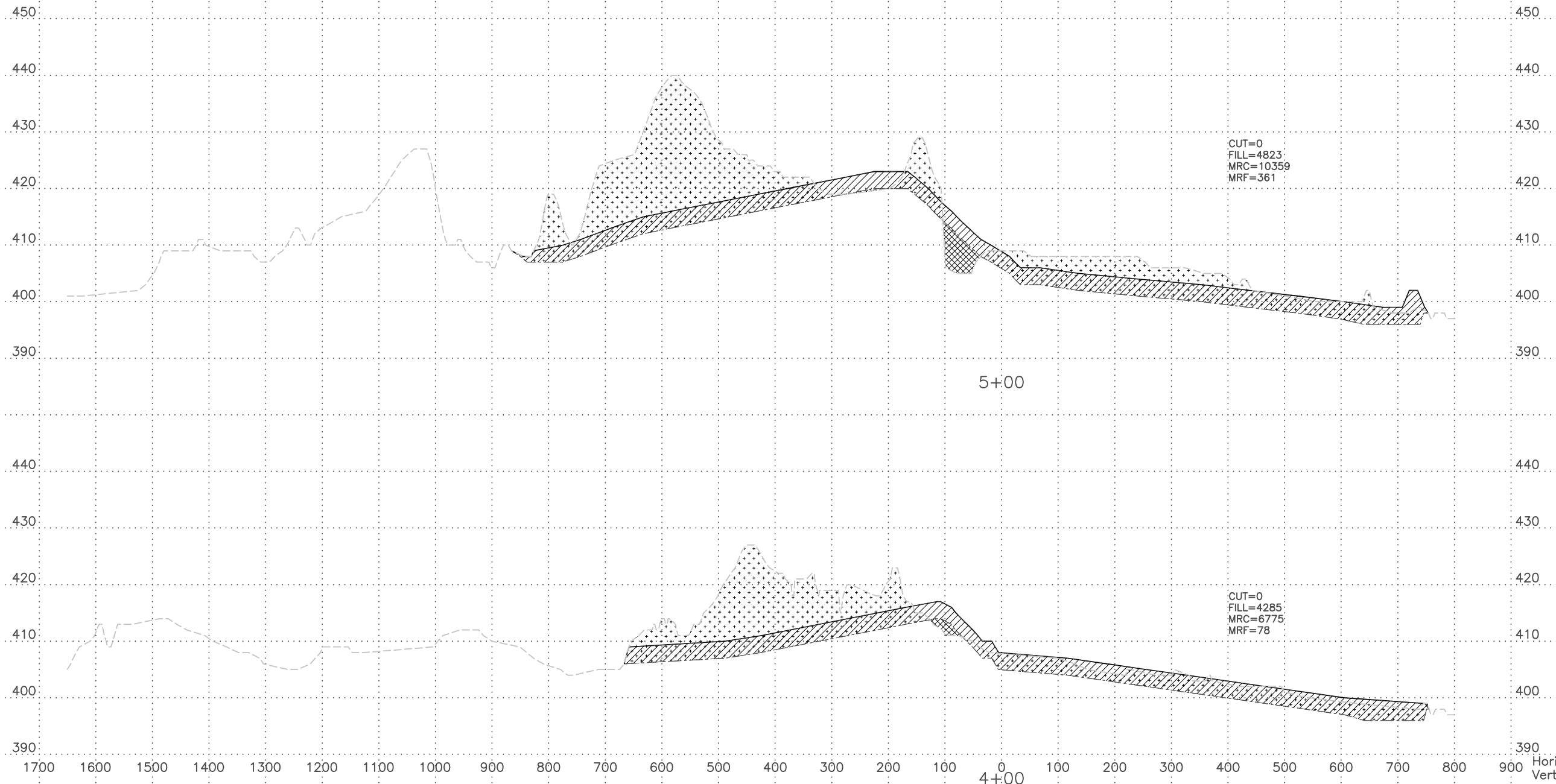
**LEGEND**

- EXISTING GRADE
- PROPOSED SUB-GRADE
- - - MINE REFUSE TREATMENT-LIMESTONE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)
- ⋄ MINE REFUSE CUT - MRC (SQ. FT.)
- ⊠ MINE REFUSE FILL - MRF (SQ. FT.)



Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
---	EXISTING GRADE
---	PROPOSED SUB-GRADE
---	MINE REFUSE TREATMENT-LIMESTONE
---	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
////	EARTH FILL - FILL (SQ. FT.)
***	MINE REFUSE CUT - MRC (SQ. FT.)
XXXX	MINE REFUSE FILL - MRF (SQ. FT.)

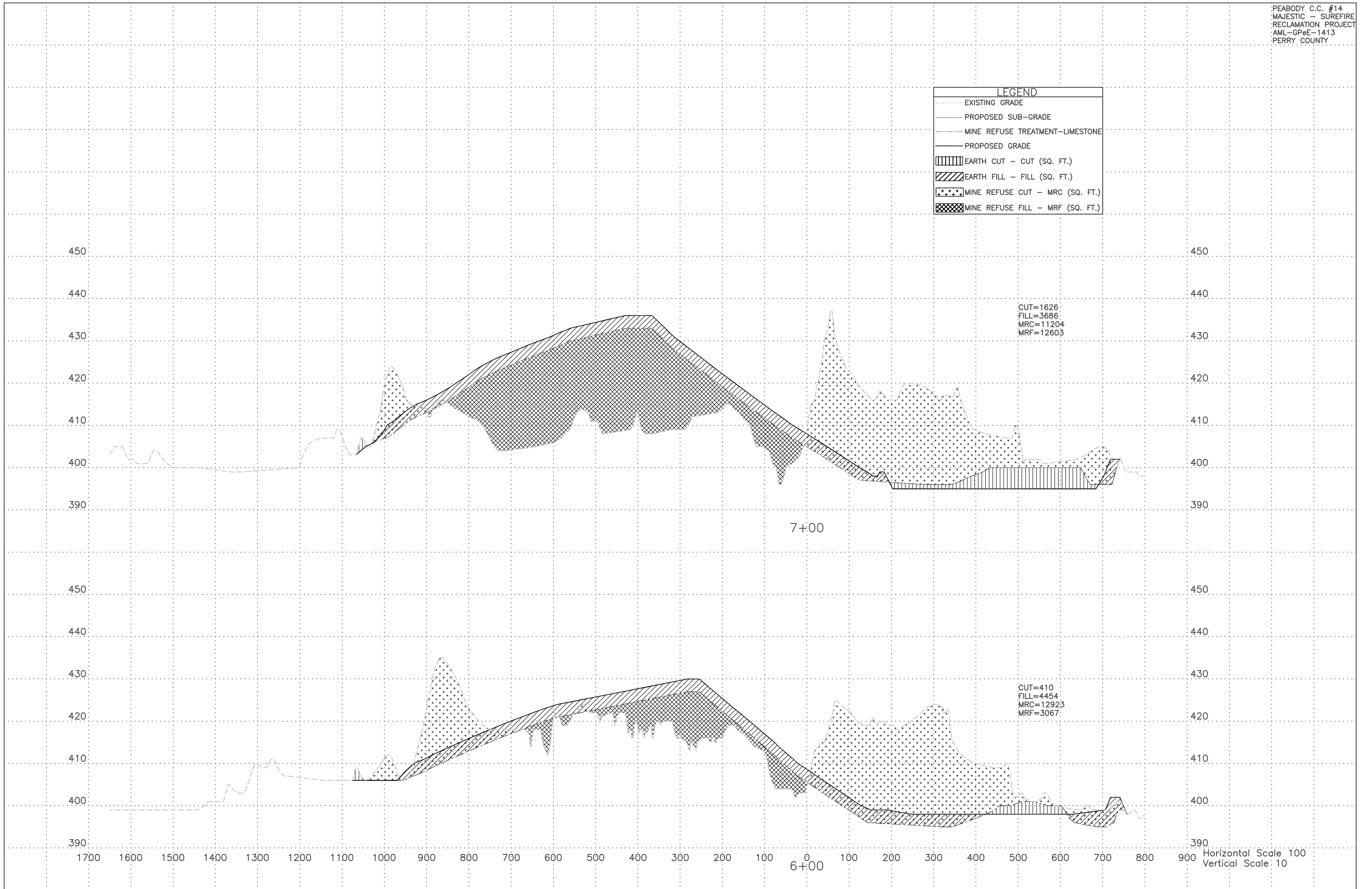


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 Vertical Scale 10

LEGEND	
---	EXISTING GRADE
---	PROPOSED SUB-GRADE
---	MINE REFUSE TREATMENT-LIMESTONE
---	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
////	EARTH FILL - FILL (SQ. FT.)
***	MINE REFUSE CUT - MRC (SQ. FT.)
XXXX	MINE REFUSE FILL - MRF (SQ. FT.)

CUT=1626  
 FILL=3686  
 MRC=11204  
 MRF=12603

CUT=410  
 FILL=4454  
 MRC=12923  
 MRF=3067



Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
---	EXISTING GRADE
---	PROPOSED SUB-GRADE
---	MINE REFUSE TREATMENT-LIMESTONE
---	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
////	EARTH FILL - FILL (SQ. FT.)
••••	MINE REFUSE CUT - MRC (SQ. FT.)
XXXX	MINE REFUSE FILL - MRF (SQ. FT.)

CUT=2857  
 FILL=3669  
 MRC=8126  
 MRF=14897

9+00

CUT=2379  
 FILL=3636  
 MRC=8870  
 MRF=16376

8+00

Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
---	EXISTING GRADE
---	PROPOSED SUB-GRADE
---	MINE REFUSE TREATMENT-LIMESTONE
---	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
////	EARTH FILL - FILL (SQ. FT.)
.....	MINE REFUSE CUT - MRC (SQ. FT.)
XXXX	MINE REFUSE FILL - MRF (SQ. FT.)

CUT=1236  
 FILL=4183  
 MRC=7317  
 MRF=14608

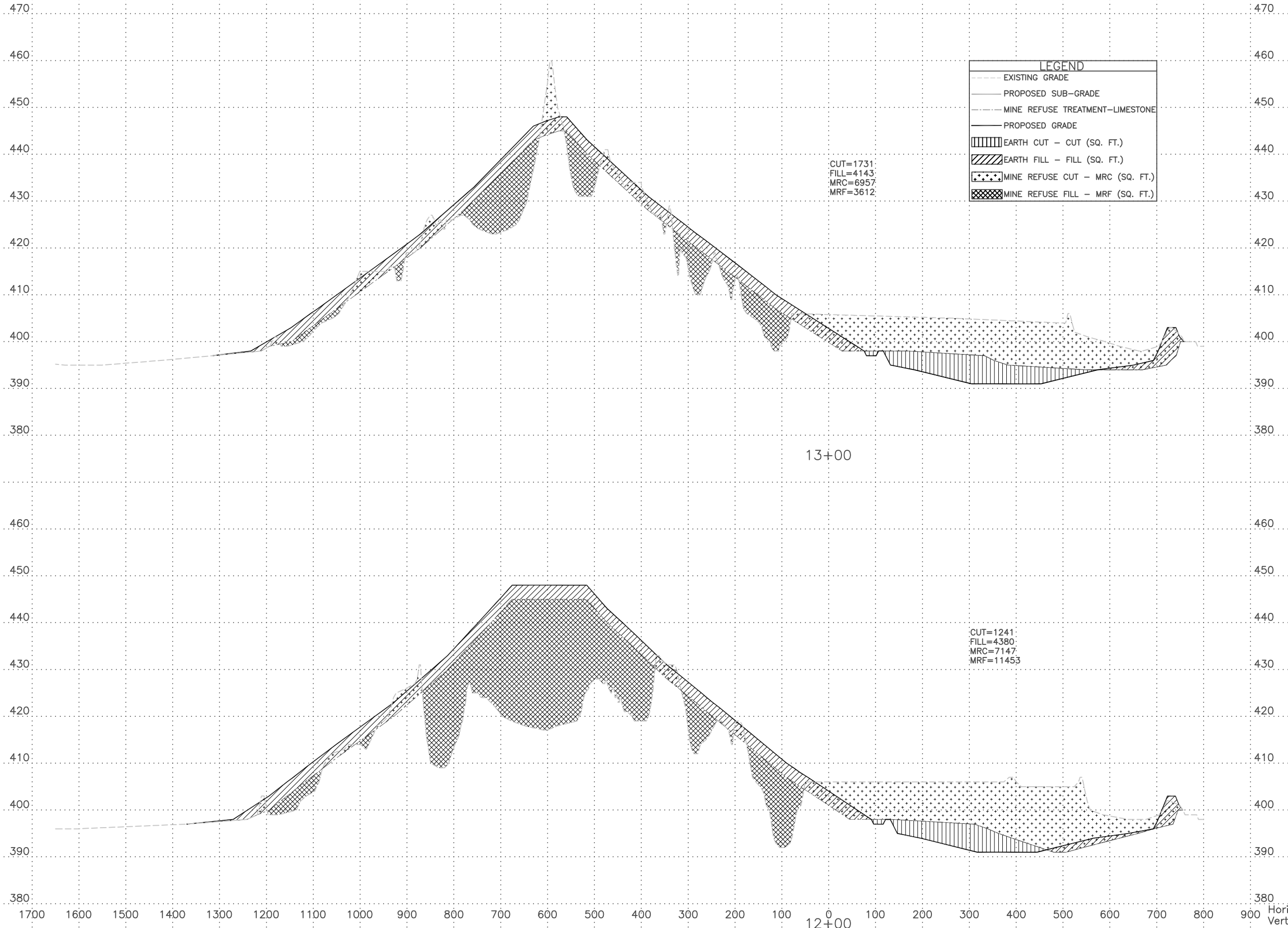
11+00

CUT=1658  
 FILL=3892  
 MRC=7774  
 MRF=15362

10+00

Horizontal Scale 100  
 Vertical Scale 10





1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0 100 200 300 400 500 600 700 800 900  
 12+00  
 Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
---	EXISTING GRADE
---	PROPOSED SUB-GRADE
---	MINE REFUSE TREATMENT-LIMESTONE
---	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
////	EARTH FILL - FILL (SQ. FT.)
***	MINE REFUSE CUT - MRC (SQ. FT.)
XXXX	MINE REFUSE FILL - MRF (SQ. FT.)

CUT=3769  
 FILL=3438  
 MRC=5342  
 MRF=1277

15+00

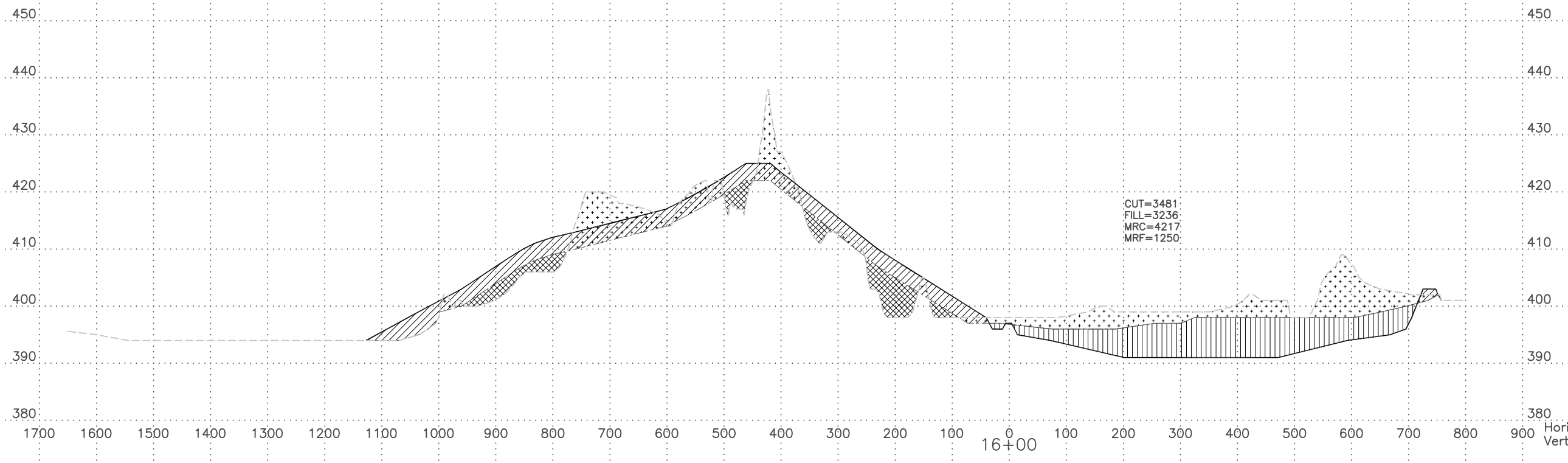
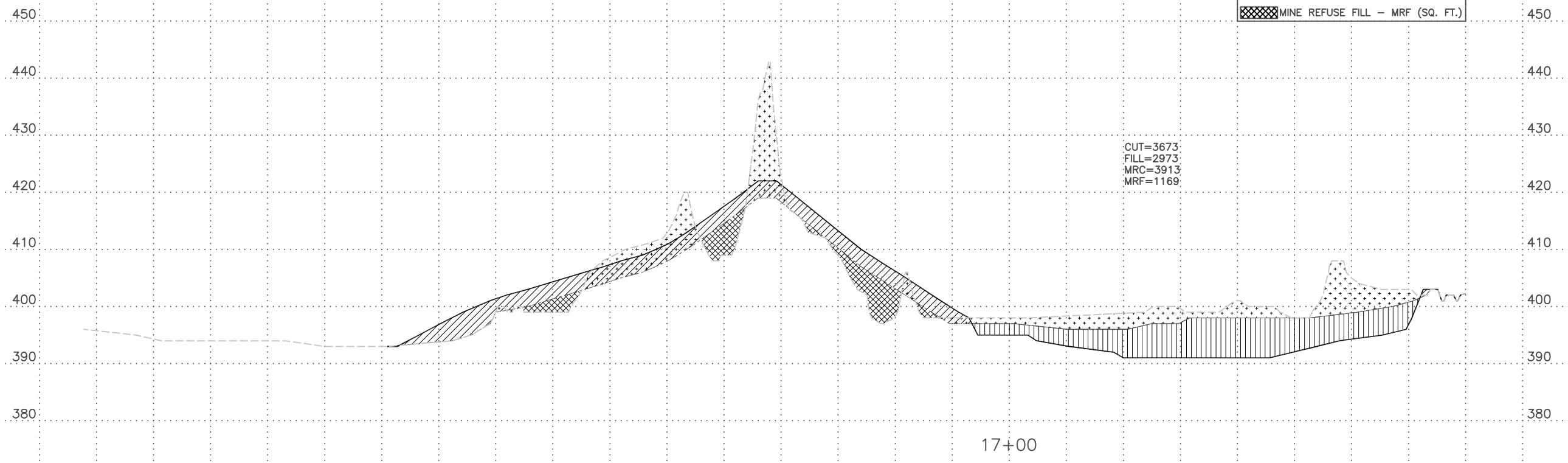
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 FILL=3757  
 MRC=4364  
 MRF=2229

14+00









Horizontal Scale 100  
 Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED SUB-GRADE
- - - MINE REFUSE TREATMENT-LIMESTONE
- PROPOSED GRADE
- ||||| EARTH CUT - CUT (SQ. FT.)
- ////// EARTH FILL - FILL (SQ. FT.)
- *** MINE REFUSE CUT - MRC (SQ. FT.)
- XXXXX MINE REFUSE FILL - MRF (SQ. FT.)



1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0 100 200 300 400 500 600 700 800 900  
 Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
	EXISTING GRADE
	PROPOSED SUB-GRADE
	MINE REFUSE TREATMENT-LIMESTONE
	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
	EARTH FILL - FILL (SQ. FT.)
	MINE REFUSE CUT - MRC (SQ. FT.)
	MINE REFUSE FILL - MRF (SQ. FT.)

420  
410  
400  
390  
380  
420  
410  
400  
390  
380  
440  
430  
420  
410  
400  
390  
380

420  
410  
400  
390  
380  
420  
410  
400  
390  
380  
440  
430  
420  
410  
400  
390  
380

20+00

CUT=5173  
 FILL=1442  
 MRC=1600  
 MRF=0









19+00

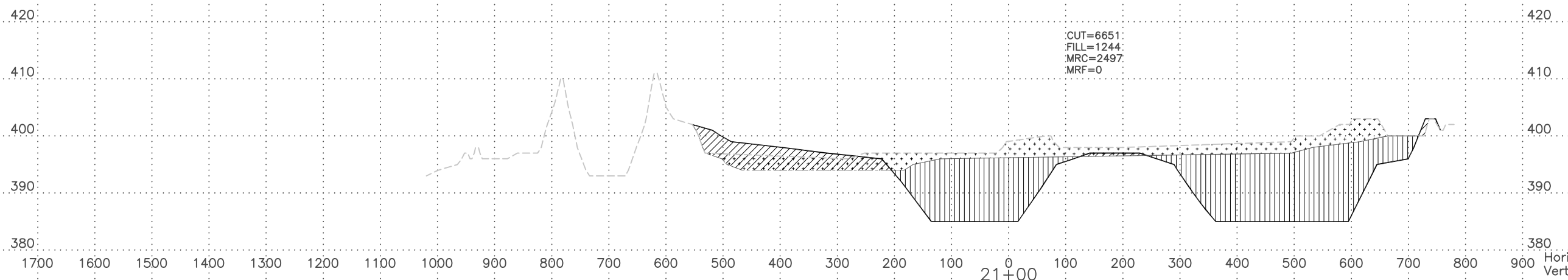
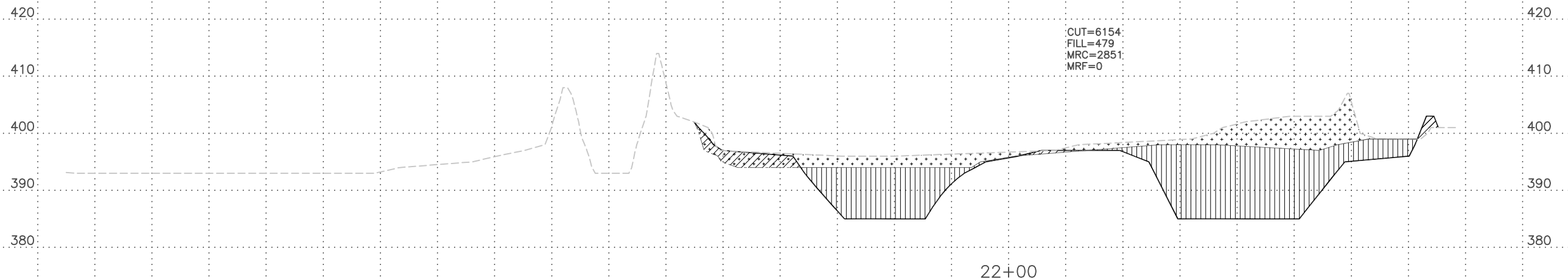
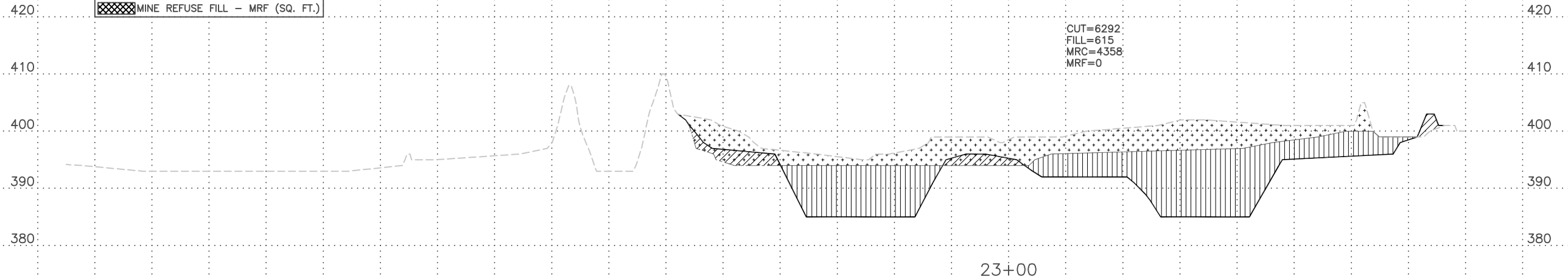
CUT=8457  
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 MRF=1920

18+00

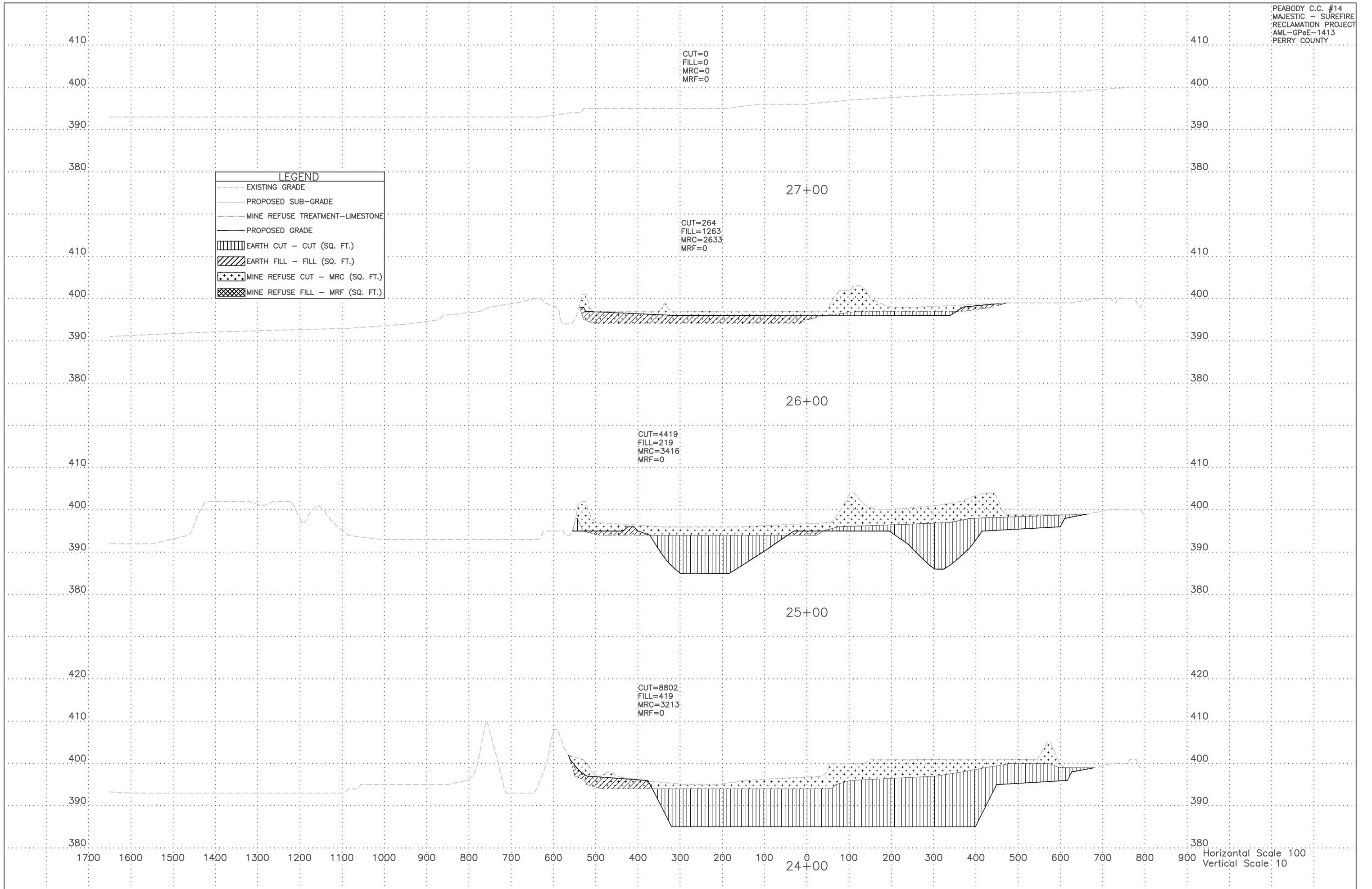
CUT=8145  
 FILL=2165  
 MRC=2095  
 MRF=1302

Horizontal Scale 100  
 Vertical Scale 10

LEGEND	
	EXISTING GRADE
	PROPOSED SUB-GRADE
	MINE REFUSE TREATMENT-LIMESTONE
	PROPOSED GRADE
	EARTH CUT - CUT (SQ. FT.)
	EARTH FILL - FILL (SQ. FT.)
	MINE REFUSE CUT - MRC (SQ. FT.)
	MINE REFUSE FILL - MRF (SQ. FT.)



1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0 100 200 300 400 500 600 700 800 900  
 Horizontal Scale 100  
 Vertical Scale 10



Horizontal Scale 100  
 Vertical Scale 10

SPACING LETTERS

4.5"
3.5"
1.5"
3.5"
2.5"
3.5"
3.5"
2.5"
1.5"
2.5"
3.0"
2.0"
1.5"
2.0"
4.5"

# ABANDONED MINED LANDS RECLAMATION PROJECT STATE OF ILLINOIS

**BRUCE RAUNER, GOVERNOR**  
Department of Natural Resources  
**Wayne A. Rosenthal, Director**

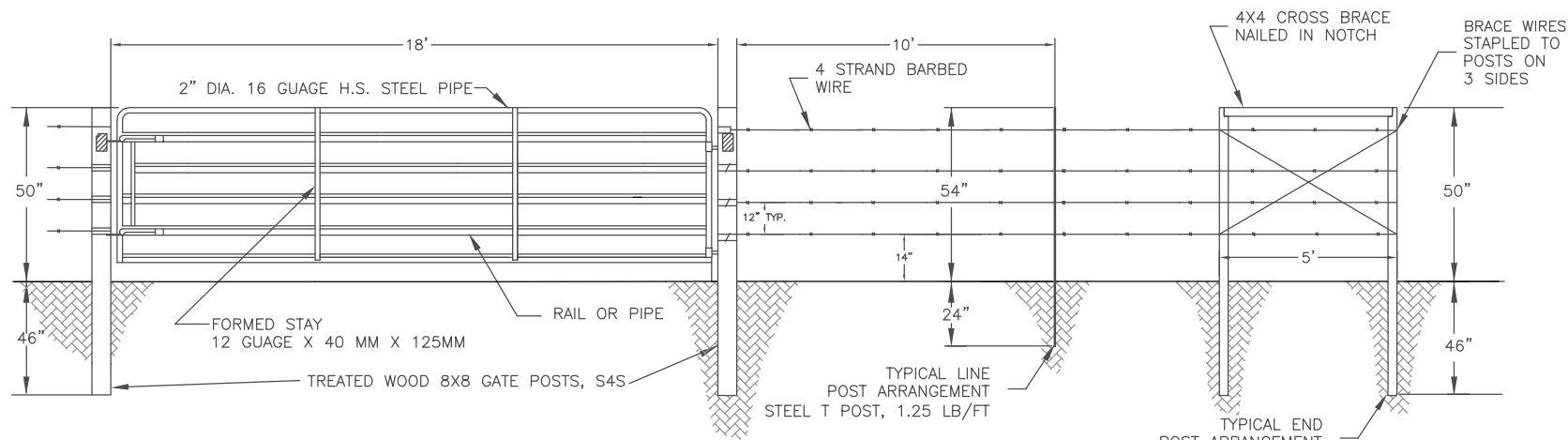


Funding provided by the US Department of the Interior  
Office of Surface Mining, with fees paid by the Coal Industry

1. Furnishing, erecting and removing the sign shall be incidental to the contract.
2. The sign shall be painted on 1/2" or thicker exterior plywood (4' x 8'), color shall be black on white, and a 10" diameter Illinois state seal shall be provided by the D.N.R.
3. The posts shall be made of 4" x 4" wood or 2.5" metal pipe, and shall be 10' long. The sign shall be securely fastened to the posts with six 2.5" long, round head wood screws (for wood posts) or four 5" long, 3/8" diameter carriage bolts (for wood or metal posts).
4. The top of the sign shall be level with the top of the posts, and the posts shall be 1' from the edges of the sign. The posts shall be set in the ground 3', so that the bottom of the sign is 3' from the ground.

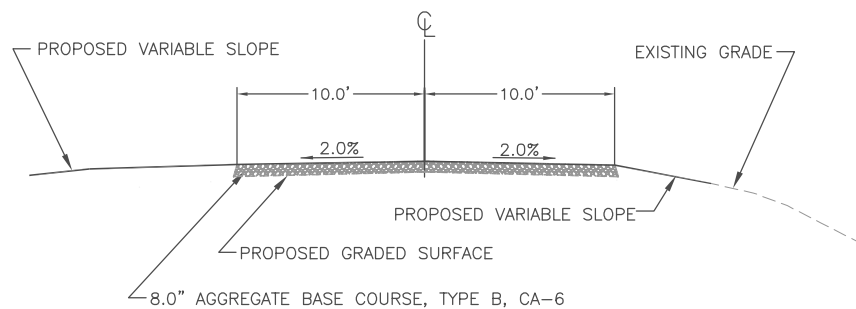
## CONSTRUCTION SIGN DETAIL

DETAIL A-23, NOT TO SCALE, EXACT LOCATION TO BE SET BY ENGINEER



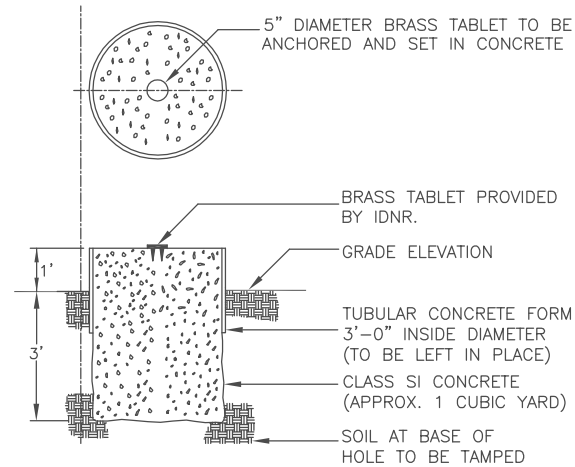
## TYPICAL SECTION - FENCE AND ENTRANCE GATE DETAIL

DETAIL B-23 - NOT TO SCALE



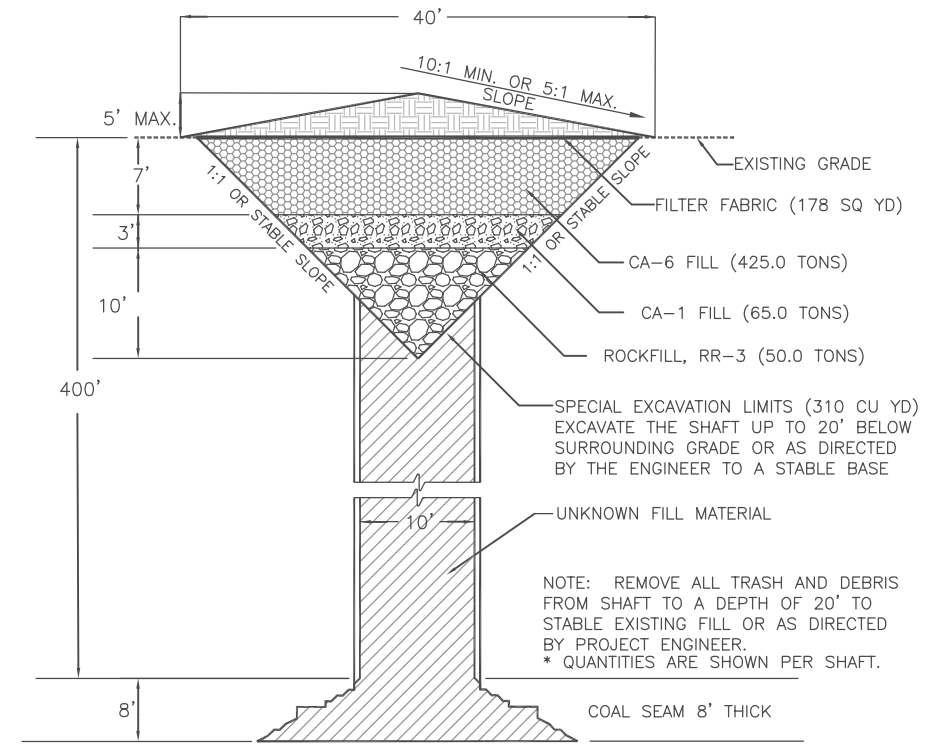
## TYPICAL SECTION DETAIL - ACCESS ROAD

C-23 - NOT TO SCALE



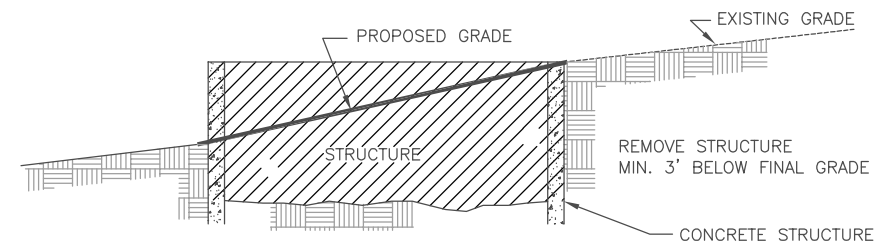
## MINE OPENING MARKER DETAIL

DETAIL D-23 - NOT TO SCALE



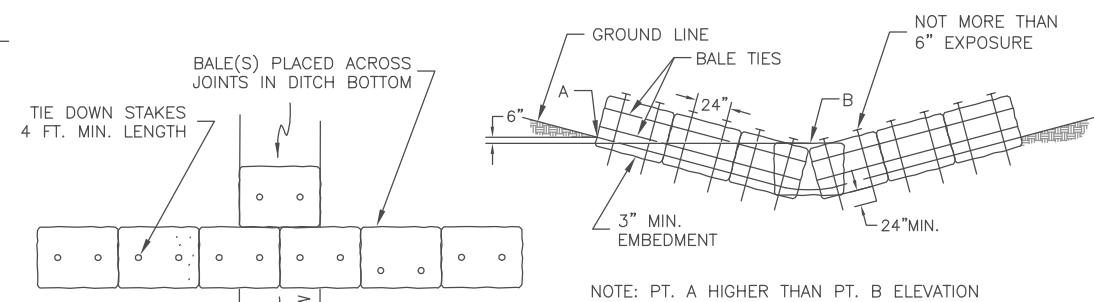
## SHAFT FILLING DETAIL

DETAIL E-23 - NOT TO SCALE



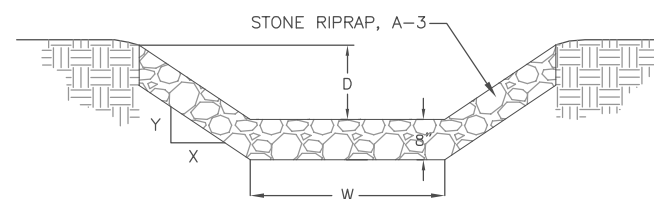
## STRUCTURE REMOVAL DETAIL

DETAIL F-23 - TYPICAL SECTION, NOT TO SCALE



## STRAW BALES FOR DITCH CHEKS

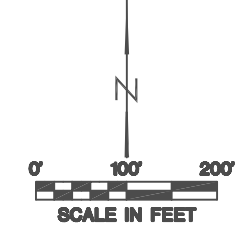
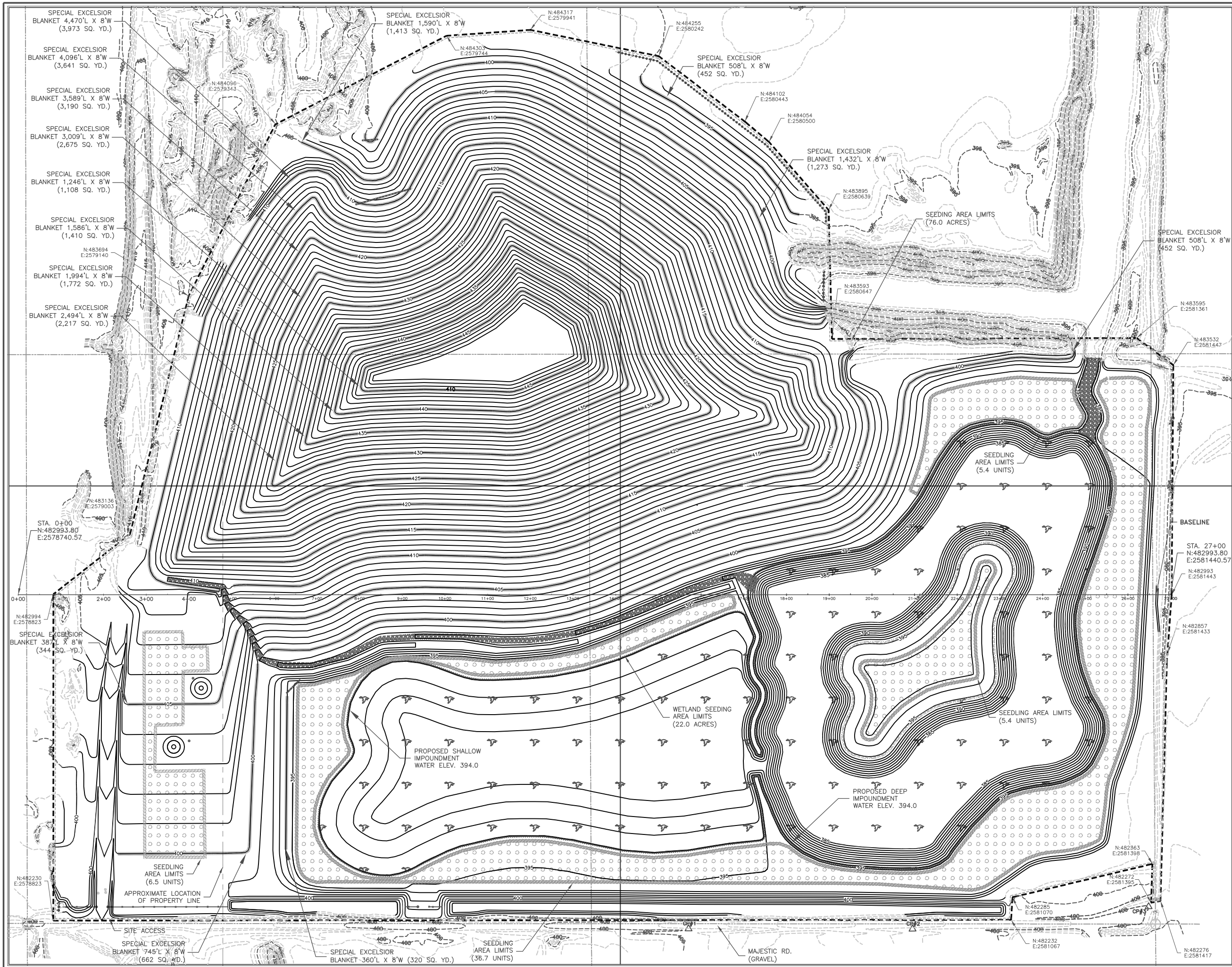
DETAIL G-23, TYPICAL SECTION, NOT TO SCALE



## STONE RIPRAP TRAPEZOIDAL CHANNEL

DETAIL H-23, TYPICAL SECTION, NOT TO SCALE

CHANNEL	"W" DIMENSION	"D" DIMENSION	"X:Y" SLOPE	LENGTH	STONE RIPRAP A-3 (*APRON QUANTITY)
MAIN	10 FT.	1 FT.	5:1	1,296 FT.	177 SQ YD
OUTLET	30 FT.	1 FT.	5:1	185 FT.	NO APRON



6/10	7/11
4/8	5/9

SHEET LAYOUT

- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - CONSTRUCTION LIMITS
  - PROP. WETLAND SEEDING
  - PROP. SEEDING
  - PROP. SEEDLING AREAS
  - PROP. WATER ELEVATION
  - ▽ PROP. WATER SURFACE AREA
  - SECTION LINE
  - × FENCE LINE
  - △ CONTROL POINT
- LEGEND

**State of Illinois**  
**Department of Natural Resources**

**Peabody C.C. #14**  
**Majestic - Sulfurfire**  
**Reclamation Project**  
**AML-GPeE-1413**  
**Perry County**

Drawn By: OMA Date: 08-18-15  
 Checked By: _____

**Site Layout**  
**Seeding**  
**Sheet 24 of 24**