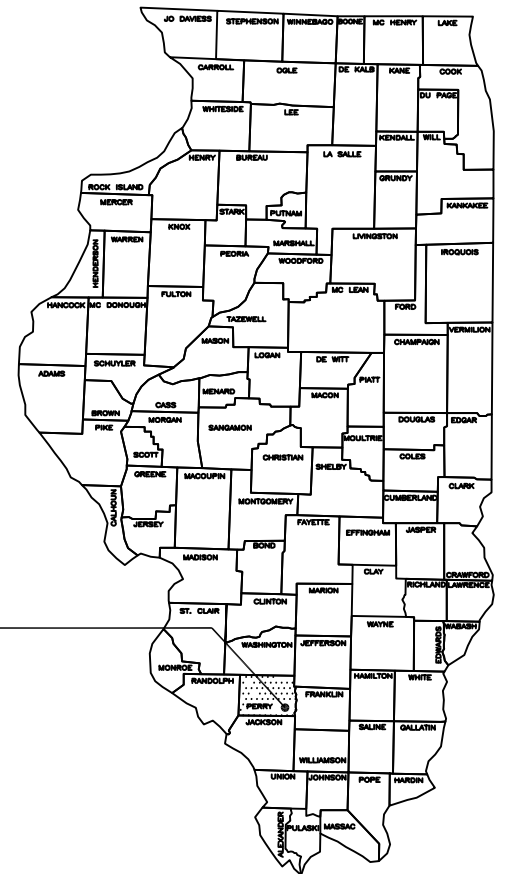


State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Division of Abandoned Mined Lands Reclamation

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

Jewel Mine #1
Reclamation Project
AML-GPeE-1604
Perry County
2 LR



Jewel Mine #1
Perry County

Certified Copy

SCHEDULE OF DRAWINGS:

1. Cover Sheet
2. Summary of Quantities/General Notes
3. Jewel Mine #1 - Existing Conditions
4. Jewel Mine #1 - Proposed Conditions
- 5-8. Jewel Mine #1 - Cross Sections
9. Details

I.D.O.T Standard 280001-07

CONTRACT NO. M1604

PRE-BID MEETING

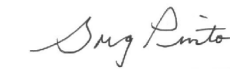
A PRE-BID MEETING IS SCHEDULED FOR THIS PROJECT AT 10:00 A.M., TUESDAY, OCTOBER 25, 2016. ALL INTERESTED POTENTIAL BIDDERS ARE TO MEET AT THE ENTRANCE OF THE PROJECT SITE, AT THE INTERSECTION OF CHESTNUT ST. AND WALNUT ST. IN DUQUOIN.

Prepared By IDNR Staff


Approved for Bidding:


 James Haflinger, Director
 Office of Mines and Minerals

Approved By:


 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	28,396	CU YD	COMPACTION PER SECTION 205
NRM20230	3	MINE REFUSE EXCAVATION	202	9,578	CU YD	
NRM21510	4	SPECIAL EXCAVATION	215	1,530	CU YD	
NRM21621	5	CA-FILL, CA-1	216	192	TON	CA-1
NRM21644	6	ROCK FILL, RR-4	216	1,164.8	TON	
NRM25040	7	NITROGEN FERTILIZER NUTRIENT	250	800	POUND	
NRM25050	8	PHOSPHOROUS FERTILIZER NUTRIENT	250	960	POUND	SEE SCHEDULE BELOW
NRM25060	9	POTASSIUM FERTILIZER NUTRIENT	250	2,000	POUND	
NRM25070	10	AGRICULTURAL GROUND LIMESTONE	250	40	TON	5.0 TON / ACRE
NRM25090	11	SEEDING-FALL	250	5.9	ACRE	
NRM25091	12	SEEDING-WETLAND	250	2.1	ACRE	
NRM25092	13	INTERSEEDING	250	5.9	ACRE	
25100115	14	MULCH, METHOD 2	IDOT 251	8.0	ACRE	PROCEDURE 1, 2 TON/ACRE
A2002714	15	TREE, CARYA OVATA, 1 3/4" BALL & BURLAP	IDOT 253	10	EACH	SHAGBARK HICKORY
A2006414	16	TREE, QUERCUS ALBA, 1 3/4" BALL & BURLAP	IDOT 253	10	EACH	WHITE OAK
NRM25510	17	MINE REFUSE TREATMENT - LIMESTONE	255	11.5	TON	11.5 TON / ACRE
NRM25810	18	MOWING	258	5.9	ACRE	
NRM28040	19	PERIMETER EROSION BARRIER	280	2,380	FOOT	SILT FENCE IDOT 280001-07
40200800	20	AGGREGATE SURFACE COURSE, TYPE B	IDOT 402	171.7	TON	CA-6, 6" LIFT, 6" TOTAL THICKNESS
NRM50101	21	REMOVAL OF EXISTING STRUCTURES	501	1	L SUM	
54214512	22	PRC FLARED END SECTIONS EQ RS 27"	IDOT 542	4	EACH	
542A5482	23	PIPE CULVERT CLASS A TYPE 1 EQ RS 27"	IDOT 542	32	FOOT	
NRM61410	24	DEWATERING IMPOUNDMENTS	614	1	L SUM	
NRM66610	25	MINE OPENING MARKER	666	2	EACH	
NRM67110	26	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 per Section 201 and 202 of the Special Provisions.

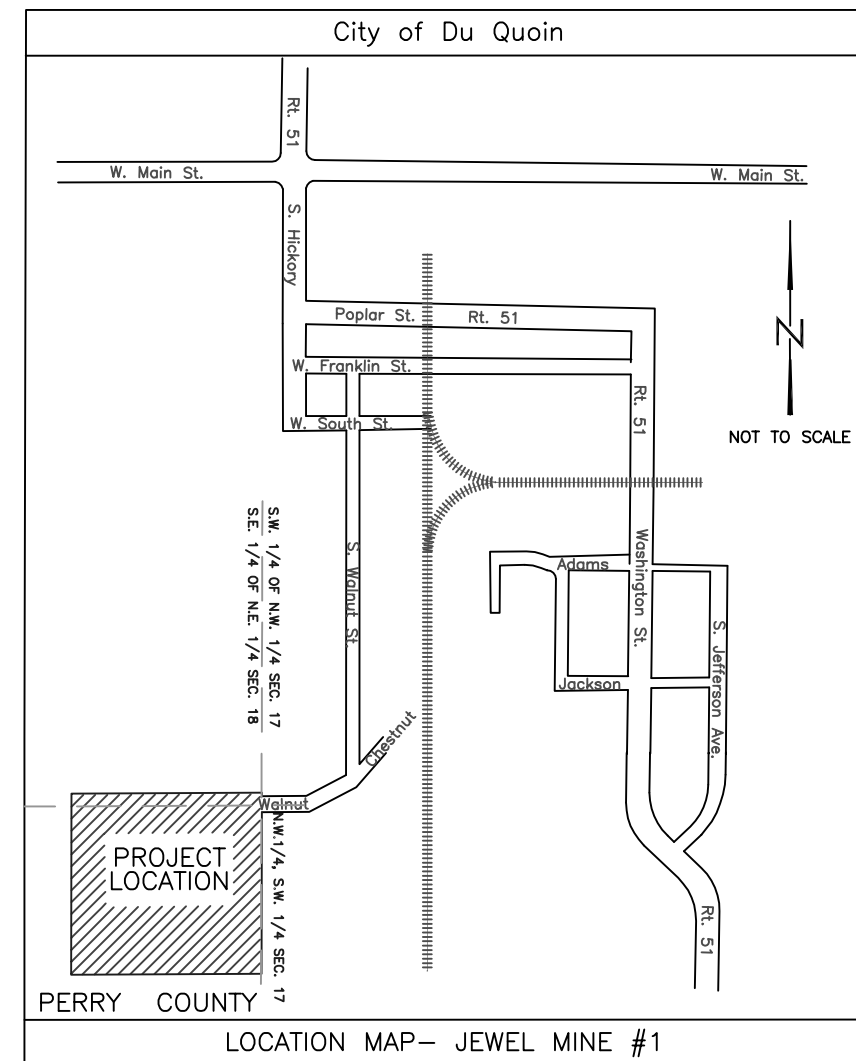
ACID WATER TREATMENT - If acid mine drainage treatment is determined necessary by the engineer, and not otherwise specified in the plans, any water treatment will be paid for in accordance with Article 109.04 of the Standard Specifications.

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. Areas shall be brought to finish grade and temporary seeding completed per the NPDES permit.

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 offset disc approved by the Engineer. Treated areas shall then be covered with 33 inches of soil.



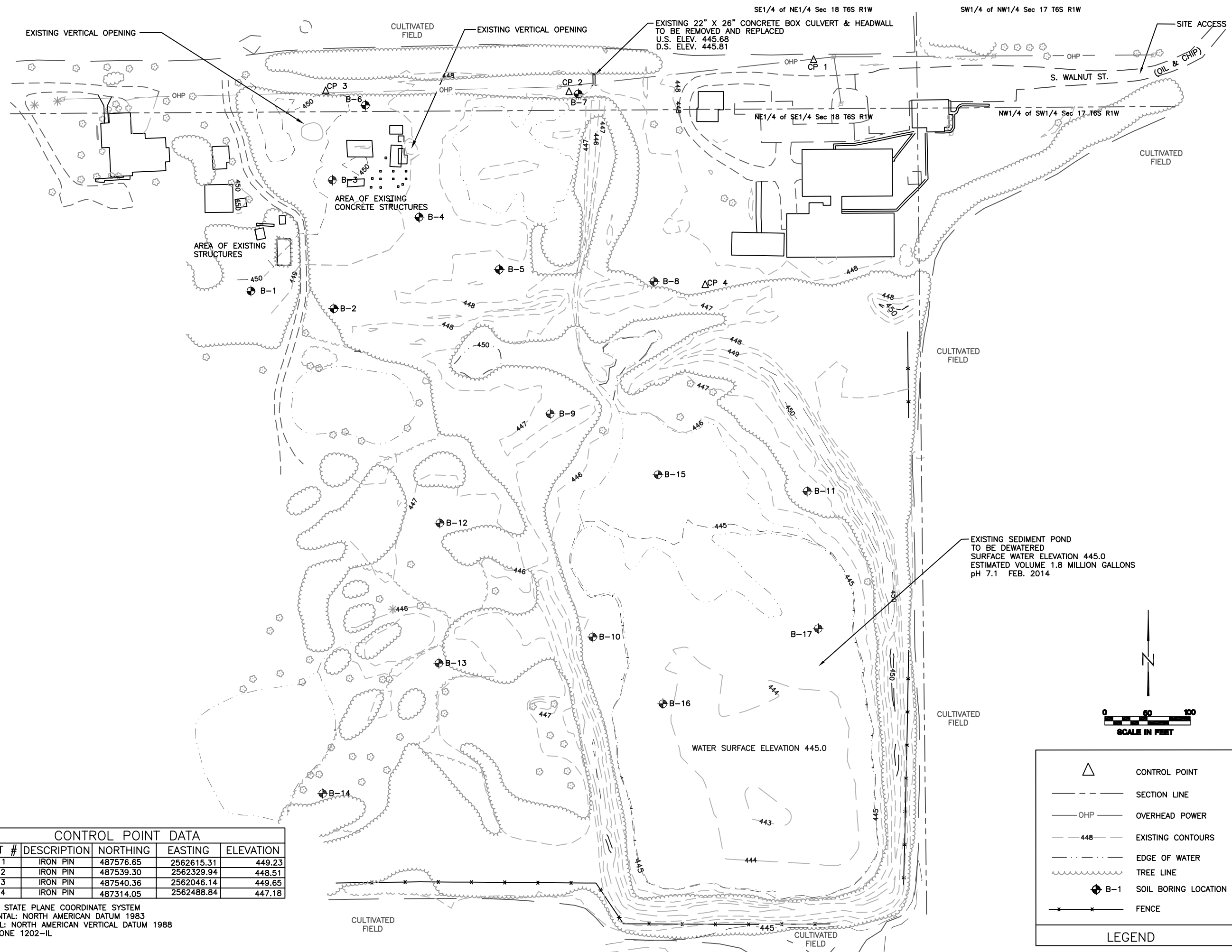
ITEM (unit)	INITIAL APPLICATION AUG. 20-SEPT. 30 2017	FINAL APPLICATION JAN. 1-MARCH 15, 2018	TOTAL QUANTITY
SEEDING-FALL (acres)	5.9		5.9
SEEDING-WETLAND (acres)	2.1		2.1
INTERSEEDING (acres)		5.9	5.9
AGRICULTURAL GROUND LIMESTONE (tons)	40.0 5.0 T/A		40.0
NITROGEN FERTILIZER NUTRIENT (pounds)	800 100 Lb./A		800
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	960 120 Lb./A		960
POTASSIUM FERTILIZER NUTRIENT (pounds)	2,000 250 Lb./A		2,000
MULCH, METHOD 2 PROCEDURE 1 (acres)	8.0 2 T/A		8.0
MOWING (acres)		5.9 ACRES ONCE IN JUNE	5.9

State of Illinois
Department of Natural Resources

Jewel Mine #1
Reclamation Project
AML-GPeE-1604
Perry County

Drawn By: AW Date: 06/14/2014
Checked By: MT Date: 6/30/2016

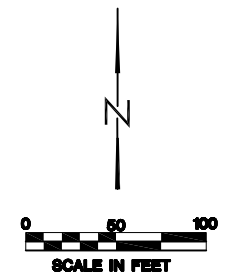
Summary of Quantities/
General Notes/Location Map
Sheet 2 of 9



CONTROL POINT DATA				
POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 1	IRON PIN	487576.65	2562615.31	449.23
CP 2	IRON PIN	487539.30	2562329.94	448.51
CP 3	IRON PIN	487540.36	2562046.14	449.65
CP 4	IRON PIN	487314.05	2562488.84	447.18

ILLINOIS STATE PLANE COORDINATE SYSTEM
 HORIZONTAL: NORTH AMERICAN DATUM 1983
 VERTICAL: NORTH AMERICAN VERTICAL DATUM 1988
 WEST ZONE 1202-IL

EXISTING SEDIMENT POND
 TO BE DEWATERED
 SURFACE WATER ELEVATION 445.0
 ESTIMATED VOLUME 1.8 MILLION GALLONS
 pH 7.1 FEB. 2014



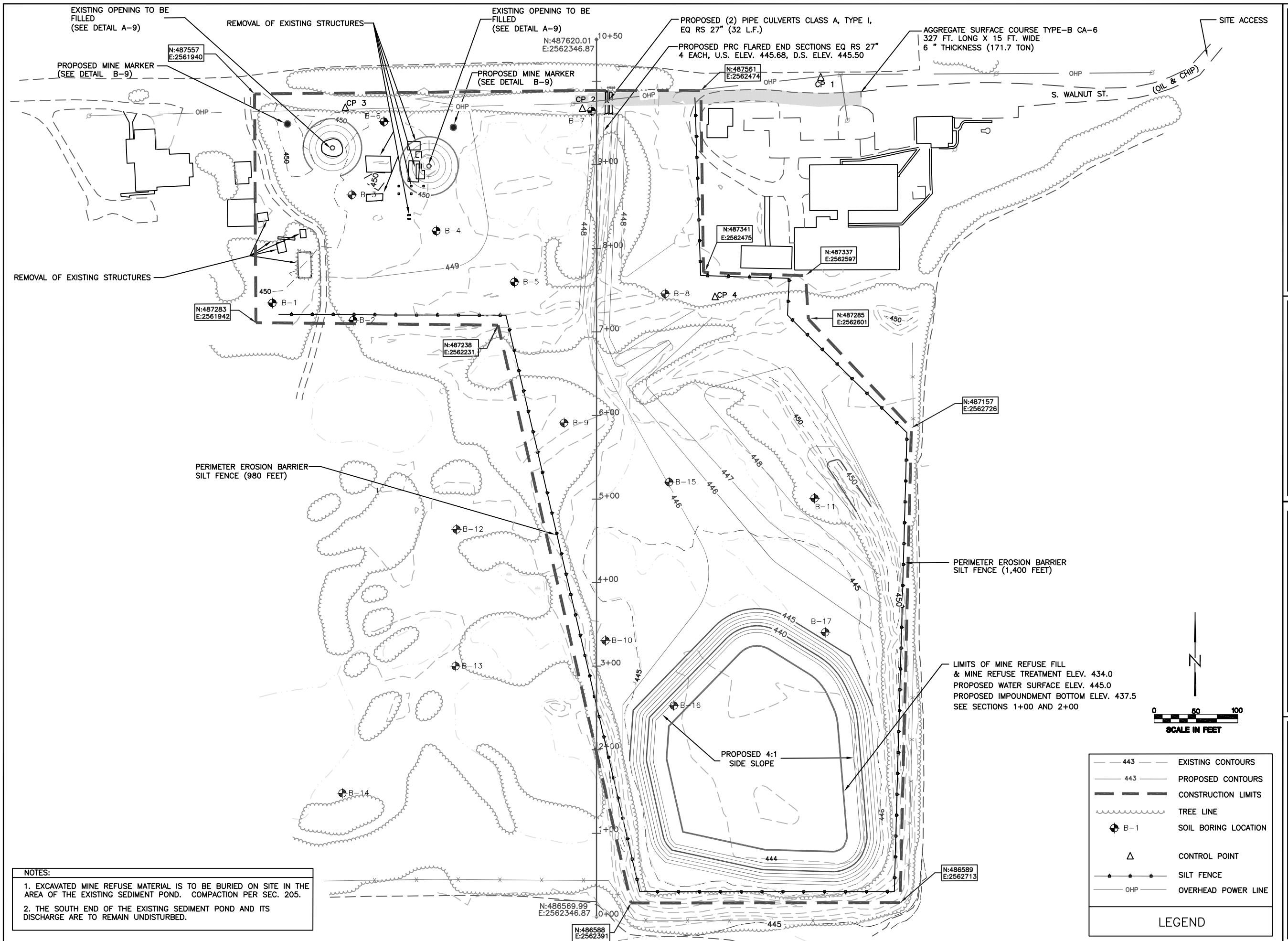
LEGEND	
	CONTROL POINT
	SECTION LINE
	OVERHEAD POWER
	EXISTING CONTOURS
	EDGE OF WATER
	TREE LINE
	SOIL BORING LOCATION
	FENCE









State of Illinois
 Department of Natural Resources

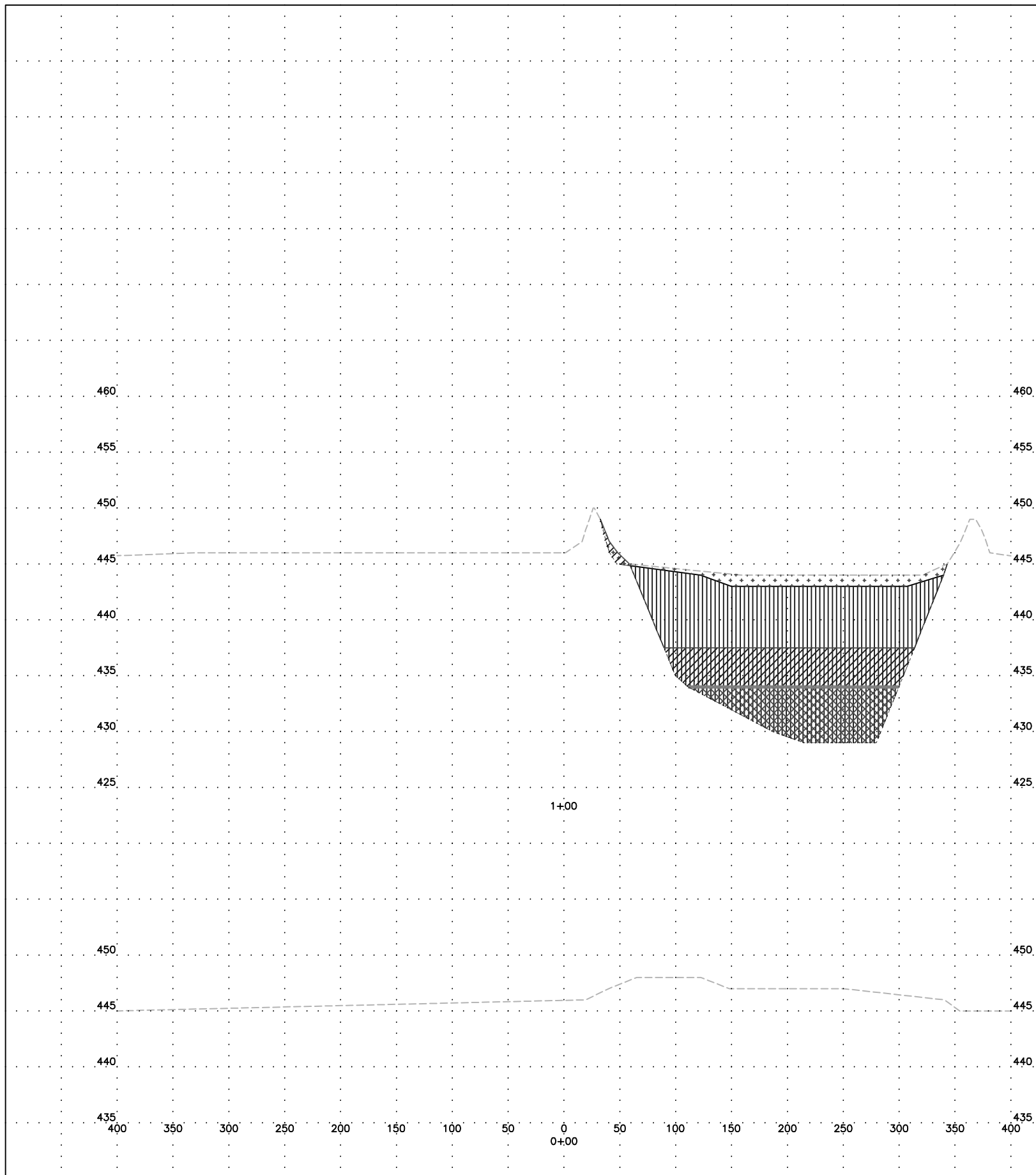
Jewel Mine #1
 Reclamation Project
 AML-GPeE-1604
 Perry County

Drawn By: AW
 Checked By: FR
 Date: 02-20-15
 Date: 02-20-15

Jewel Mine #1
 Existing Conditions
 Sheet 3 of 9



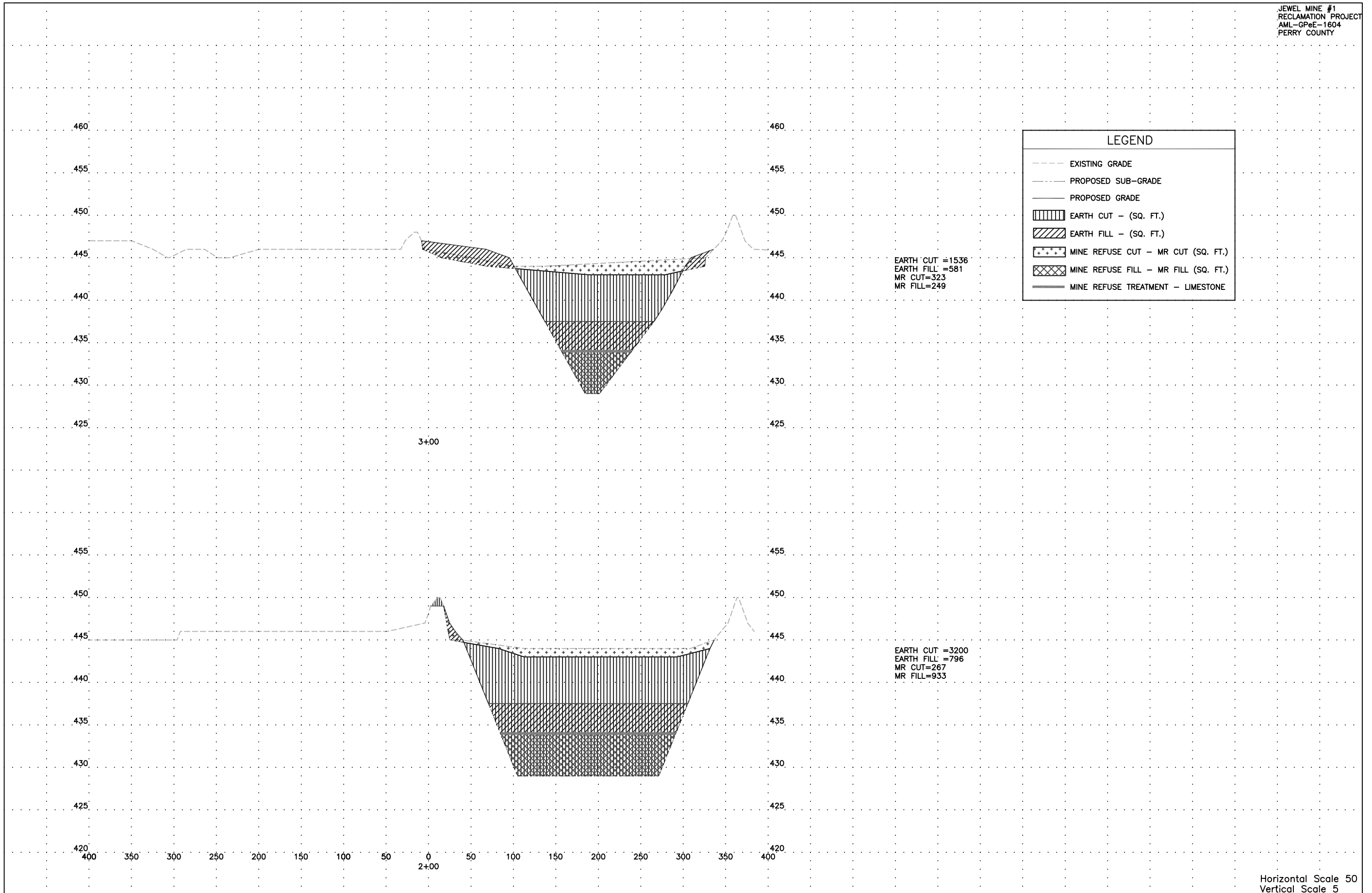
LEGEND	
	EXISTING GRADE
	PROPOSED SUB-GRADE
	PROPOSED GRADE
	EARTH CUT - (SQ. FT.)
	EARTH FILL - (SQ. FT.)
	MINE REFUSE CUT - MR CUT (SQ. FT.)
	MINE REFUSE FILL - MR FILL (SQ. FT.)
	MINE REFUSE TREATMENT - LIMESTONE



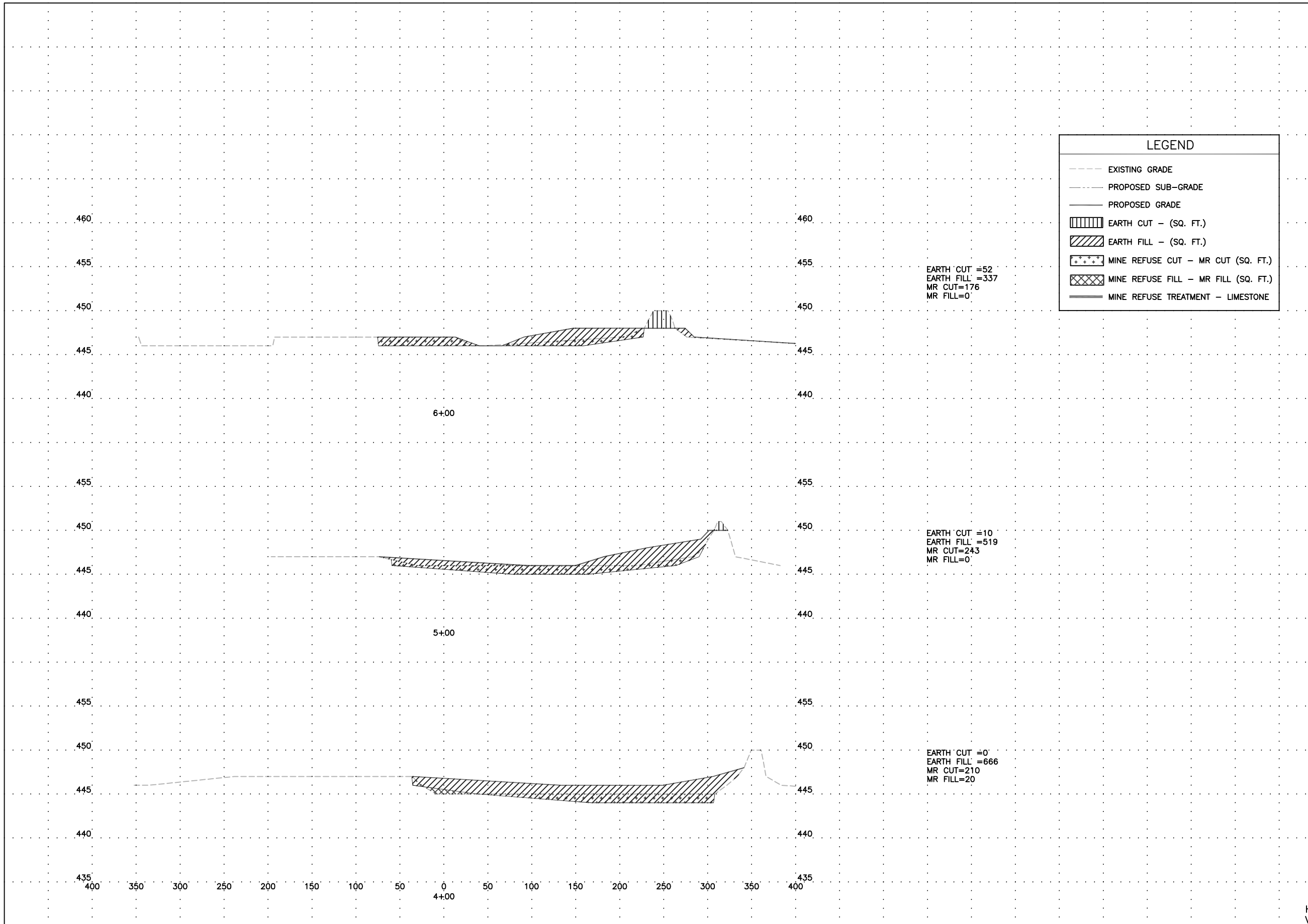
EARTH CUT =2849
 EARTH FILL =750
 MR CUT=238
 MR FILL=651

EARTH CUT =0
 EARTH FILL =0
 MR CUT=0
 MR FILL=0

Horizontal Scale 50
 Vertical Scale 5



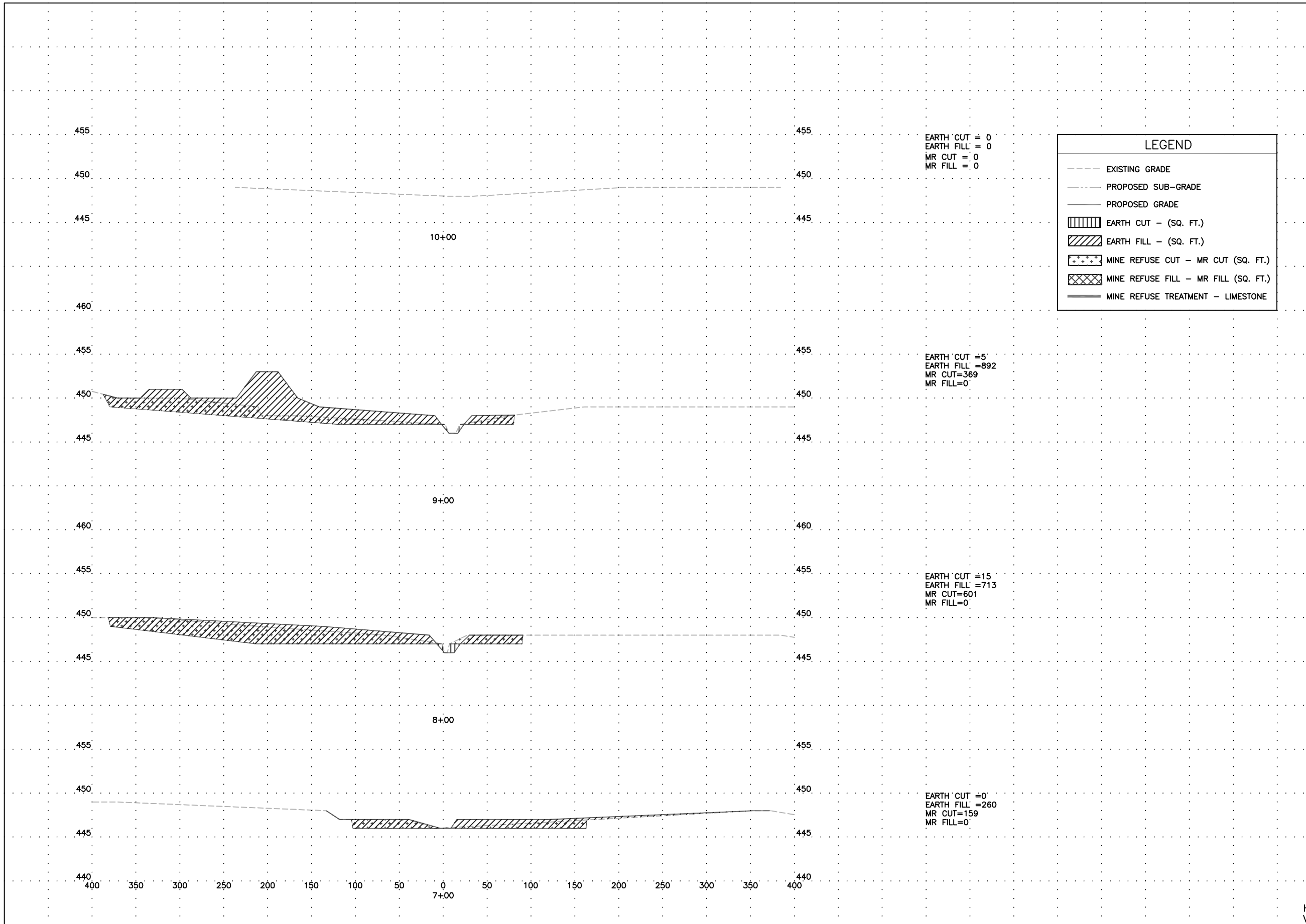
Horizontal Scale 50
 Vertical Scale 5



LEGEND

- EXISTING GRADE
- PROPOSED SUB-GRADE
- PROPOSED GRADE
- [Vertical Lines] EARTH CUT - (SQ. FT.)
- [Diagonal Lines] EARTH FILL - (SQ. FT.)
- [Stippled] MINE REFUSE CUT - MR CUT (SQ. FT.)
- [Cross-hatched] MINE REFUSE FILL - MR FILL (SQ. FT.)
- MINE REFUSE TREATMENT - LIMESTONE

Horizontal Scale 50
 Vertical Scale 5



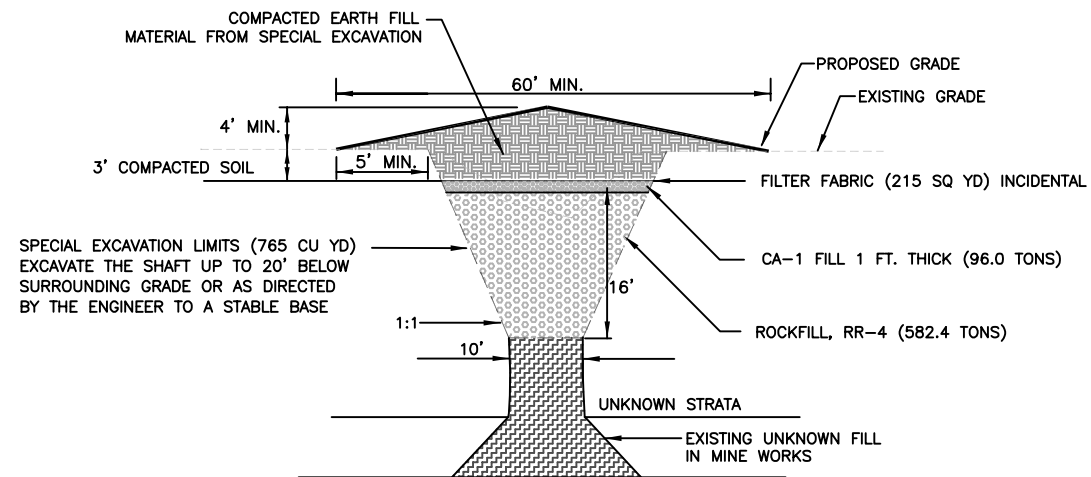
LEGEND

- EXISTING GRADE
- PROPOSED SUB-GRADE
- PROPOSED GRADE
- [Vertical Hatching] EARTH CUT - (SQ. FT.)
- [Diagonal Hatching] EARTH FILL - (SQ. FT.)
- [Star Pattern] MINE REFUSE CUT - MR CUT (SQ. FT.)
- [Cross-Hatch] MINE REFUSE FILL - MR FILL (SQ. FT.)
- MINE REFUSE TREATMENT - LIMESTONE

Horizontal Scale 50
 Vertical Scale 5

NOTES:

1. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VERTICAL OPENING AREAS DUE TO THE UNKNOWN CONDITIONS OF THE OPENINGS AND THE UNKNOWN STABILITY OF THE SURROUNDING AREAS.
2. BASED UPON CONDITIONS ENCOUNTERED AS THE SPECIAL EXCAVATION PROCESS IS COMPLETED, THE ENGINEER RESERVES THE RIGHT TO INCREASE OR DECREASE THE VOLUME OF SPECIAL EXCAVATION AND BACKFILLING OF MATERIALS, AND THE ENGINEER RESERVES THE RIGHT TO ALTER THE METHOD OF BACKFILLING.
3. THE DIMENSIONS OF JEWEL MINE #1 VERTICAL OPENINGS ARE ESTIMATED TO BE 10' X 10'.
4. AFTER THE ROCK FILL, RR-4, HAS BEEN PLACED, THE CONTRACTOR SHALL SECURE THE AREA WITH TEMPORARY FENCING FOR A THREE DAY PERIOD TO ALLOW FOR SETTLEMENT BEFORE PROCEEDING WITH THE BACKFILLING. THE TEMPORARY FENCING SHALL BE INCIDENTAL TO THE ROCK FILL, RR-4.

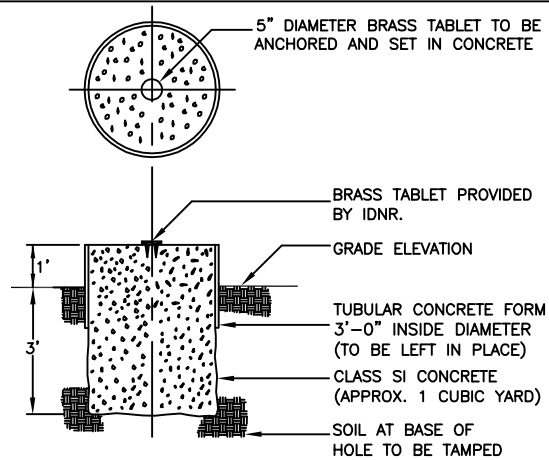


SPECIAL EXCAVATION LIMITS (765 CU YD) EXCAVATE THE SHAFT UP TO 20' BELOW SURROUNDING GRADE OR AS DIRECTED BY THE ENGINEER TO A STABLE BASE

A
9 VERTICAL OPENING FILLING DETAIL IN UNKNOWN STRATA
NOT TO SCALE

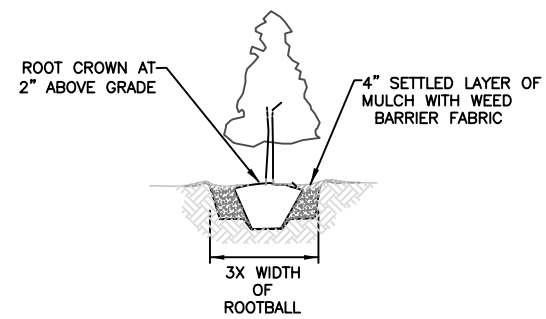
NOTE: REMOVE ALL TRASH AND DEBRIS FROM THE SHAFT TO A DEPTH OF 20 FT. OR TO STABLE EXISTING FILL OR AS DIRECTED BY THE PROJECT ENGINEER.

* QUANTITIES ARE SHOWN PER SHAFT.



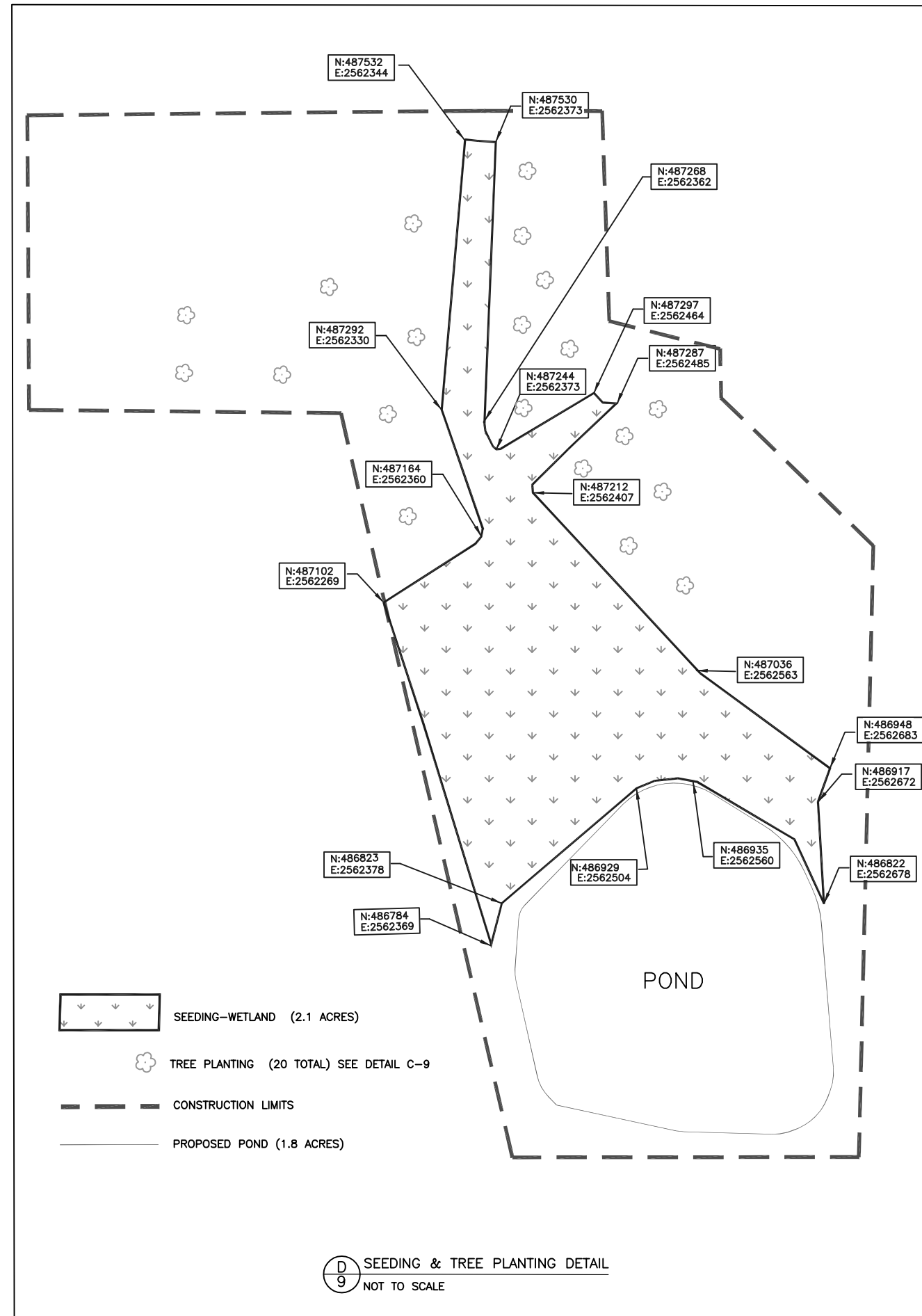
B
9 MINE OPENING MARKER DETAIL
NOT TO SCALE

EXACT LOCATION TO BE DETERMINED BY THE ENGINEER



C
9 TREE PLANTING DETAIL
NOT TO SCALE

TREES SHALL BE BALLED & BURLAP OF 1" - 2" CALIPER. (10) EACH WHITE OAKS, (10) EACH SHAGBARK HICKORY



D
9 SEEDING & TREE PLANTING DETAIL
NOT TO SCALE