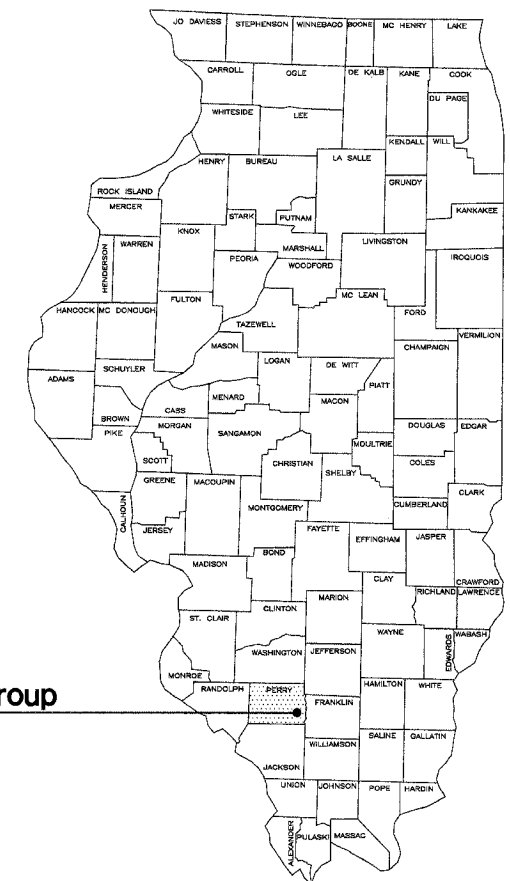


State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Division of Abandoned Mined Lands

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

Greenwood Davis Mine Group Reclamation Project
AML-GPeE-0511
Perry County
1LR




Greenwood Davis Mine Group
 Perry County

SCHEDULE OF DRAWINGS:

1. Cover Sheet
2. Summary of Quantities/General Notes/Location Map
3. Site Information
- 4.-6. Existing Conditions
- 7.-9. Proposed Conditions
- 10.-15. Cross Sections - Site A
- 16.-19. Cross Sections - Site B
- 20.-21. Details

Prepared By IDNR Staff

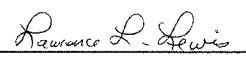
Approved for Bidding:


 Joe Angleton, Director
 Office of Mines and Minerals

Approved By:

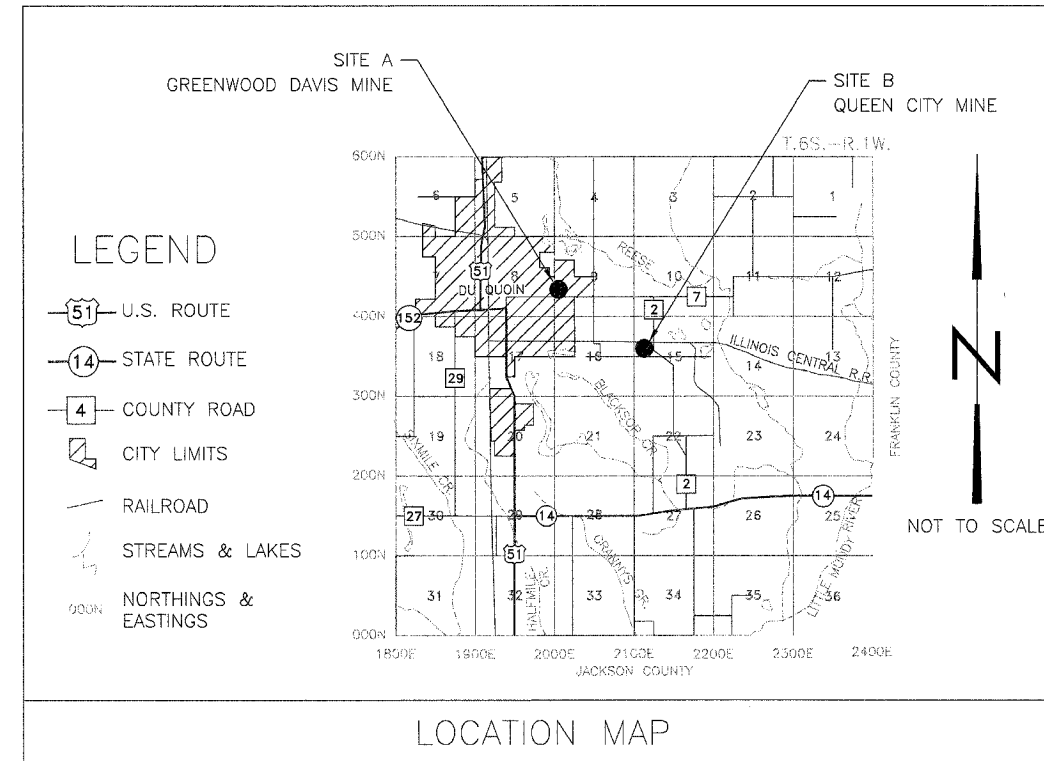

 J. Gregory Pinto, Interim Manager
 AMLR Division

Approved By:


 Lawrence L. Lewis, P.E.
 IL Licensed Professional Engineer
 No. 0062-038880



Summary of Quantities							
#	Item	Section	Quantity			Unit	Rates/Remarks
			SITE A	SITE B	TOTAL		
1	Special Clearing	201	0.8	0.2	1	L.S.	
2	Earth Excavation	202	34,570	1,469	36,039	C.Y.	
3	Earth Excavation & Hauling	202	0	200	200	C.Y.	
4	Special Excavation	214	2,384	296	2,680	C.Y.	
5	Riprap Fill, C-4	216	0	308.1	308.1	TON	
6	CA Fill, CA-2	216	0	22.2	22.2	TON	
7	Filter Fabric	216	0	45	45	S.Y.	
8	Seeding - Slope Mixture	250	9.5	4.3	13.8	ACRE	
9	Seeding - Lawn Mixture	250	5.0	0	5.0	ACRE	
10	Nitrogen Fertilizer Nutrient	250	2,900	860	3,760	POUND	100 POUND/ACRE -- TWICE
11	Phosphorus Fertilizer Nutrient	250	2,175	645	2,820	POUND	150 POUND/ACRE
12	Potassium Fertilizer Nutrient	250	5,075	1,505	6,580	POUND	350 POUND/ACRE
13	Agricultural Ground Limestone	250	72.5	21.5	94.0	TON	5 TON/ACRE
14	Mulch, Method 2, Procedure 1	IDOT 251	14.5	4.3	18.8	ACRE	
15	Mowing	258	14.5	4.3	18.8	ACRE	
16	Stone Riprap, A-3	IDOT 281	110.7	0	110.7	TON	
17	Special Excelsior Blanket	286	2,693	124	2,817	S.Y.	8' WIDTH
18	Pipe Culvert, 21" Diameter Aluminized Steel Type 2 Corrugated	IDOT 542	40	0	40	FOOT	MATERIAL & DELIVERY ONLY - SEE NOTE SHEET 8
19	Dewatering Impoundments	614	0.5	0.5	1	L.S.	
20	Mine Opening Marker	666	0	1	1	EACH	
21	Mobilization (Max. 6% of Bid)	671	0.7	0.3	1	L.S.	



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 on the plans are to be maintained to the satisfaction of the engineer.

The construction limits will be staked by the engineer prior to construction. The contractor is responsible for the repair and / or restitution at his 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.

The locations from which Borrow Excavation comes must meet the review requirements of Article 107.22 and Section 204 of the Special Provisions prior to hauling to the project sites.

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 present trash shall be disposed of in an engineer approved offsite landfill in accordance with Section 201 of the Standard Specifications and Section 501 of the Special Provisions. This work shall be incidental to the Special Excavation.

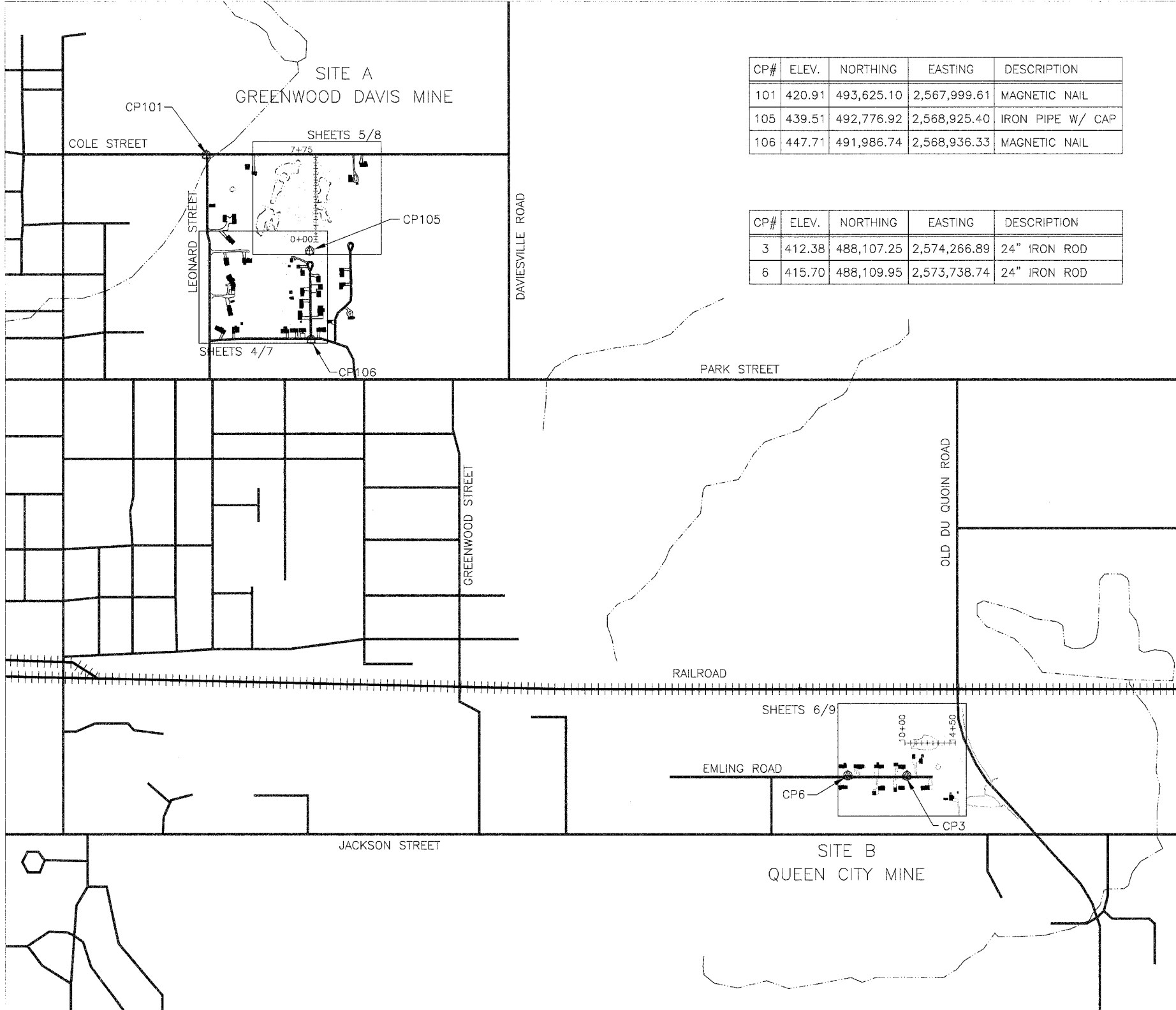
EROSION CONTROL-The contractor shall schedule his operations and take such precautions that may be necessary to prevent or minimize erosion. Failure to comply with this requirement shall cause the contractor to be fully responsible for repairing any eroded areas and cleaning up areas or drainage structures 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)	INITIAL APPLICATION SPRING 2008 JAN 1 - MARCH 15		SECOND APPLICATION FALL 2008 AUG 20 - SEPT 30		MOWING EXACT DATE TO BE SET BY ENGINEER		TOTAL QUANTITY
	SITE A	SITE B	SITE A	SITE B	SITE A	SITE B	
SEEDING (acres)	9.5 (SLOPE) 5.0 (LAWN)	4.3 (SLOPE)					18.8
NITROGEN FERTILIZER NUTRIENT (pounds)	1,450	430	1,450	430			3,760
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	2,175	645					2,820
POTASSIUM FERTILIZER NUTRIENT (pounds)	5,075	1,505					6,580
AGRICULTURAL GROUND LIMESTONE (tons)	72.5	21.5					94.0
MULCH, METHOD 2 PROCEDURE 2 (acres)	14.5	4.3					18.8
MOWING (acres)					14.5	4.3	18.8

Drawn By: _____ Date: 10/2/07
Checked By: _____



CP#	ELEV.	NORTHING	EASTING	DESCRIPTION
101	420.91	493,625.10	2,567,999.61	MAGNETIC NAIL
105	439.51	492,776.92	2,568,925.40	IRON PIPE W/ CAP
106	447.71	491,986.74	2,568,936.33	MAGNETIC NAIL

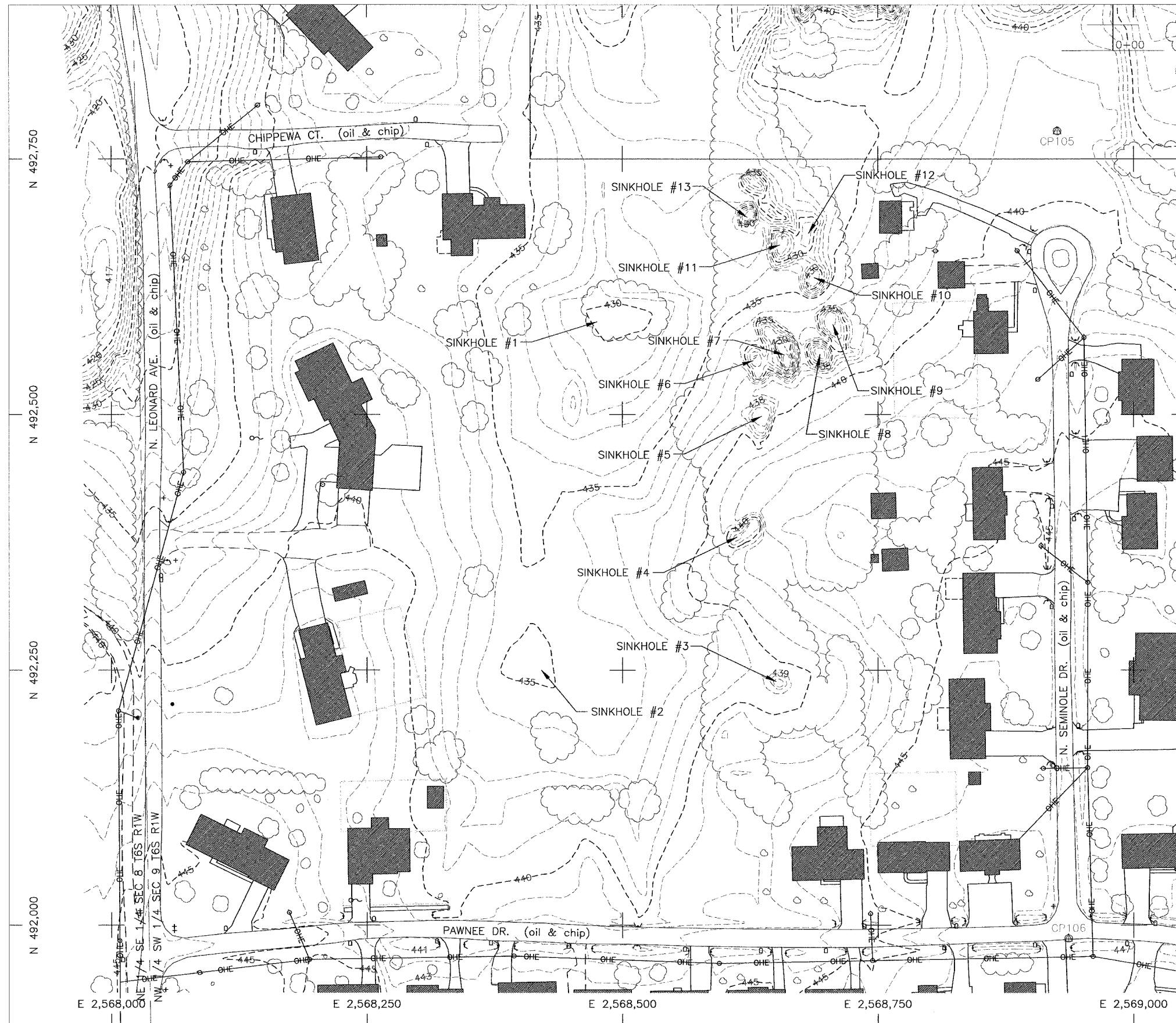
CP#	ELEV.	NORTHING	EASTING	DESCRIPTION
3	412.38	488,107.25	2,574,266.89	24" IRON ROD
6	415.70	488,109.95	2,573,738.74	24" IRON ROD

Legend

- EXISTING CONTOUR (5' INTERVAL)
- BASELINE FOR CROSS SECTIONS
- - - - - EDGE OF WATER
- ⊕ CONTROL POINT
- EXISTING STRUCTURE

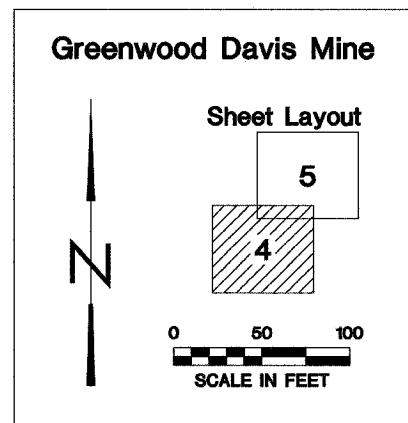
Greenwood Davis Mine Group

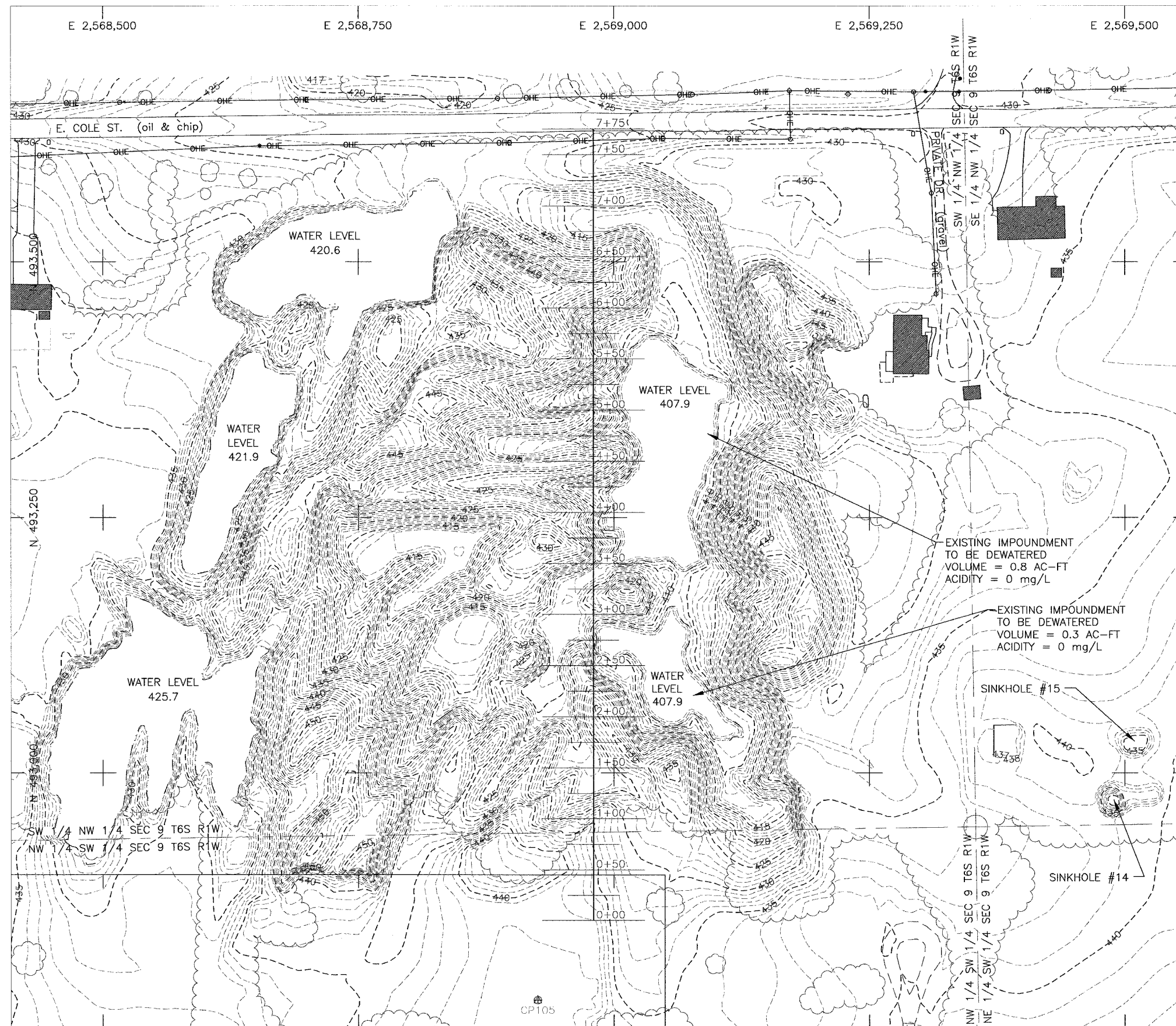
SCALE IN FEET



--- 418 ---	EXISTING CONTOUR
---	BASELINE FOR CROSS SECTIONS
~~~~~	TREE LINE
---	SECTION LINE
—OHE—	OVERHEAD ELECTRIC LINE
---	EDGE OF WATER
⊕	CONTROL POINT
⊙	EXISTING UTILITY POLE
■	EXISTING STRUCTURE

Legend





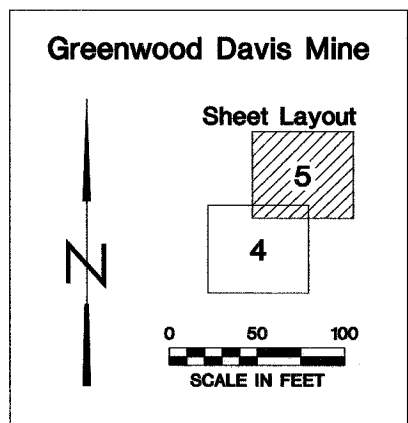
STA	NORTHING	EASTING
0+00	492,855	2,568,980
7+75	493,630	2,568,980

**Notes**

1. THE IMPOUNDMENTS ARE TO REMAIN DEWATERED UNTIL PERMANENT SEEDING IS COMPLETED. SUBSEQUENT DEWATERING ACTIVITIES AFTER THE INITIAL DEWATERING SHALL BE INCIDENTAL TO DEWATERING IMPOUNDMENTS.

**Legend**

--- 410 ---	EXISTING CONTOUR
—	BASELINE FOR CROSS SECTIONS
~~~~~	TREE LINE
---	SECTION LINE
—OHE—	OVERHEAD ELECTRIC LINE
---	EDGE OF WATER
⊕	CONTROL POINT
⊙	EXISTING UTILITY POLE
■	EXISTING STRUCTURE



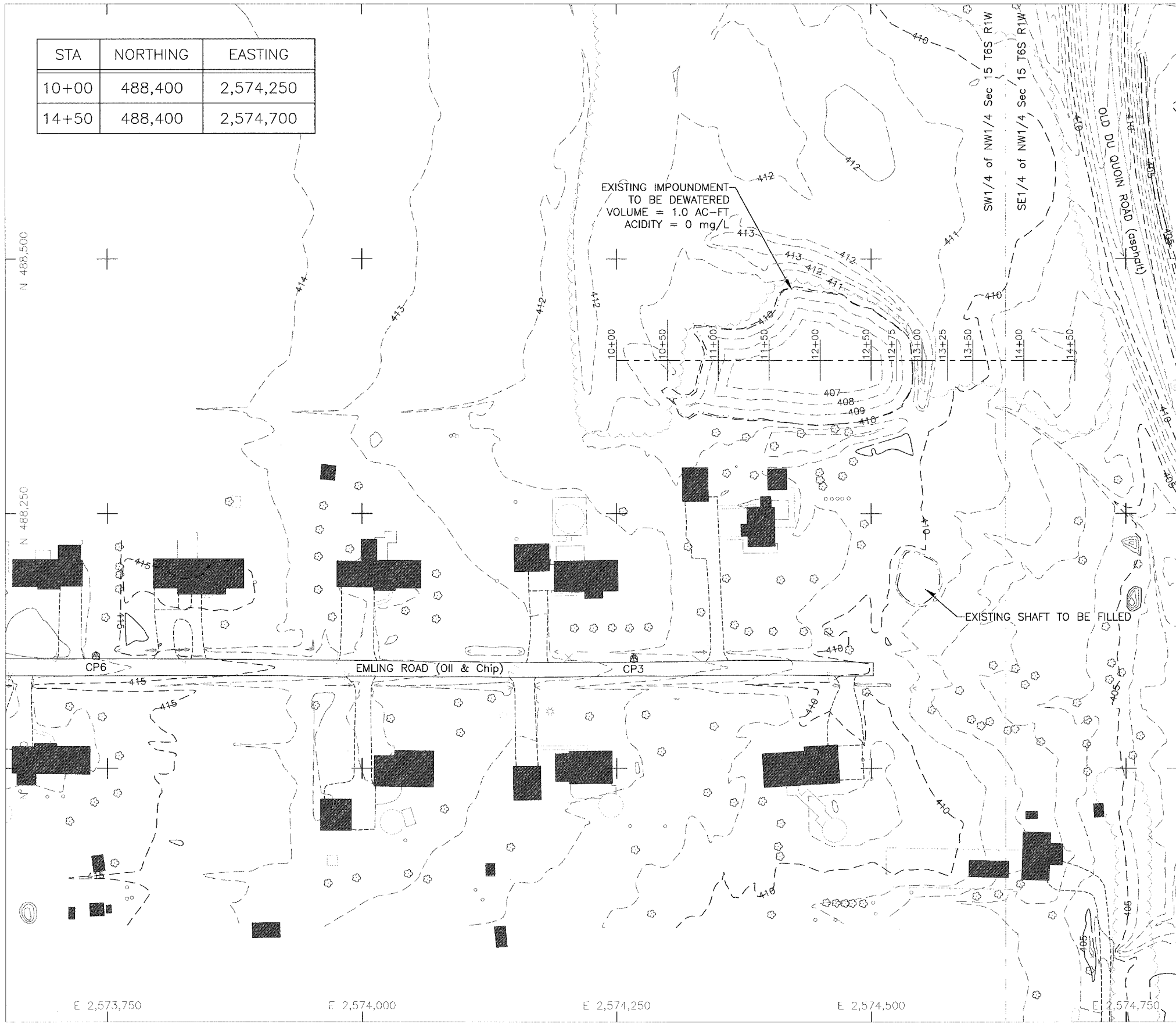
State of Illinois
Department of Natural Resources

Greenwood Davis Mine Group
Reclamation Project
AML-GPeE-0511
Perry County

Drawn By: JULU Date: 9/28/07
Checked By:

Existing Conditions
Sheet 5 of 21

STA	NORTHING	EASTING
10+00	488,400	2,574,250
14+50	488,400	2,574,700

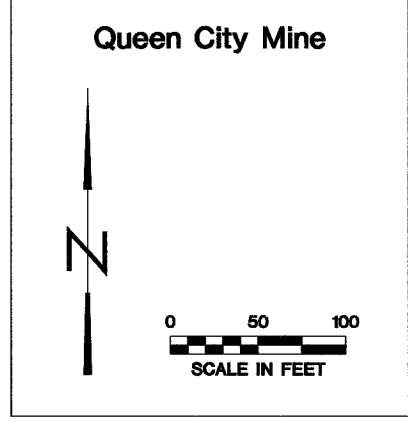


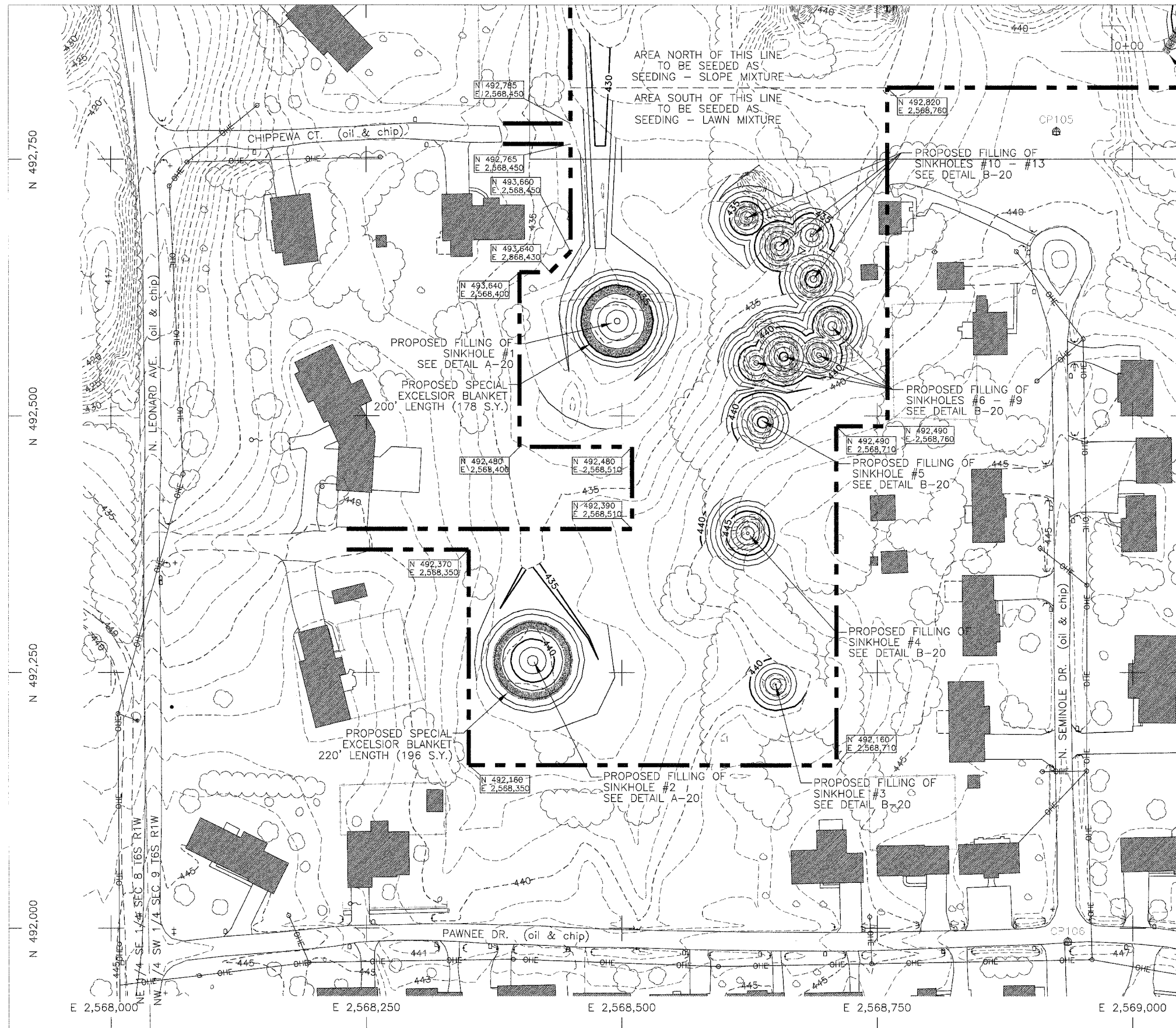
Notes

1. STANDING WATER MAY BE PRESENT AT THE SHAFT DURING CONSTRUCTION. ANY REQUIRED DEWATERING SHALL BE INCIDENTAL TO THE SPECIAL EXCAVATION OF THE SHAFT.

Legend

	EXISTING CONTOUR
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	CONTROL POINT
	EXISTING UTILITY POLE
	EXISTING STRUCTURE



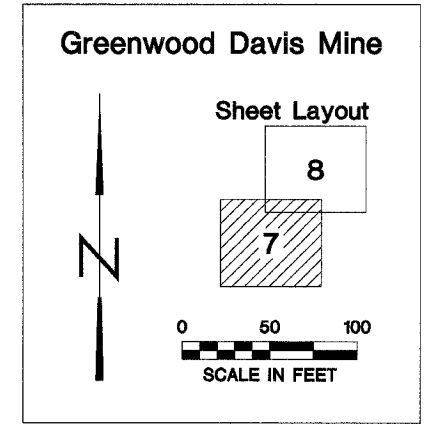


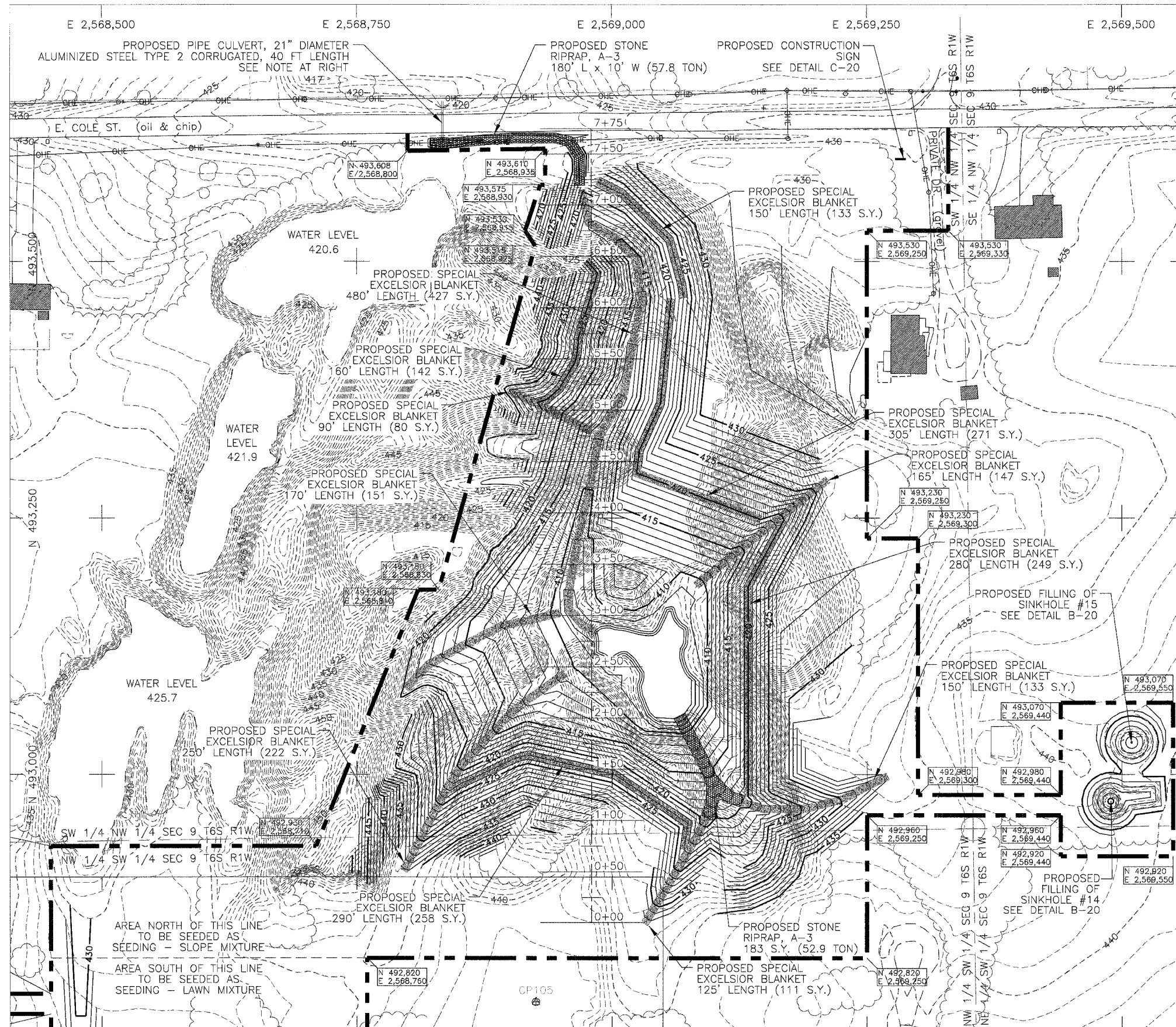
Notes

1. EXCAVATION OF EARTH AT THE BASE OF THE FILLED SINKHOLES, AS SHOWN WITH THE GIVEN CONTOURS, SHALL BE CONSIDERED INCIDENTAL TO THE SPECIAL EXCAVATION OF THE SINKHOLES.

Legend

--- 410 ---	EXISTING CONTOUR
--- 412 ---	PROPOSED CONTOUR
---	PROPOSED CONSTRUCTION LIMITS
---	BASILINE FOR CROSS SECTIONS
---	TREE LINE
---	SECTION LINE
OHE	OVERHEAD ELECTRIC LINE
---	EDGE OF WATER
---	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
---	PROPOSED STONE RIPRAP, A-3 (8 INCH THICKNESS)
⊕	CONTROL POINT
⊙	EXISTING UTILITY POLE
■	EXISTING STRUCTURE



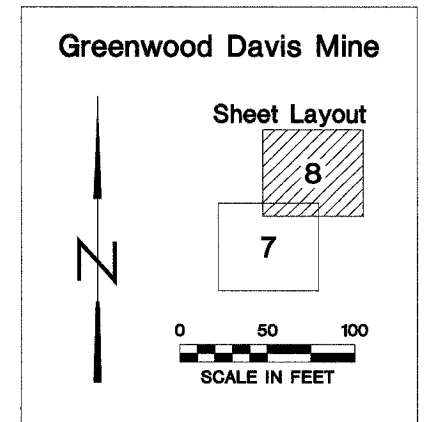


Notes

1. THE CONTRACTOR IS RESPONSIBLE FOR THE MATERIAL AND DELIVERY OF THE PIPE CULVERT, WHILE THE INSTALLATION OF THE PIPE CULVERT SHALL BE COMPLETED BY THE DU QUOIN STREET DEPARTMENT. THE CONTRACTOR SHALL WORK WITH THE STREET DEPARTMENT ON THE DELIVERY AND STORAGE OF THE CULVERT. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL PREPARE THE UPSTREAM CHANNEL TO ENSURE CULVERT INLET ELEVATION IS AT OR BELOW 419.0.

Legend

--- 410 ---	EXISTING CONTOUR
--- 412 ---	PROPOSED CONTOUR
--- ---	PROPOSED CONSTRUCTION LIMITS
---	BASELINE FOR CROSS SECTIONS
~~~~~	TREE LINE
---	SECTION LINE
OHE	OVERHEAD ELECTRIC LINE
---	EDGE OF WATER
	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
	PROPOSED STONE RIPRAP, A-3 (8 INCH THICKNESS)
⊕	CONTROL POINT
⊕	EXISTING UTILITY POLE
■	EXISTING STRUCTURE





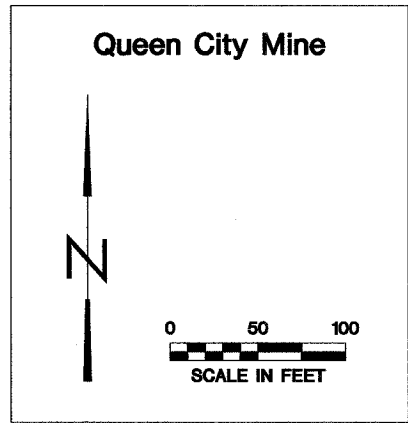


**Notes**

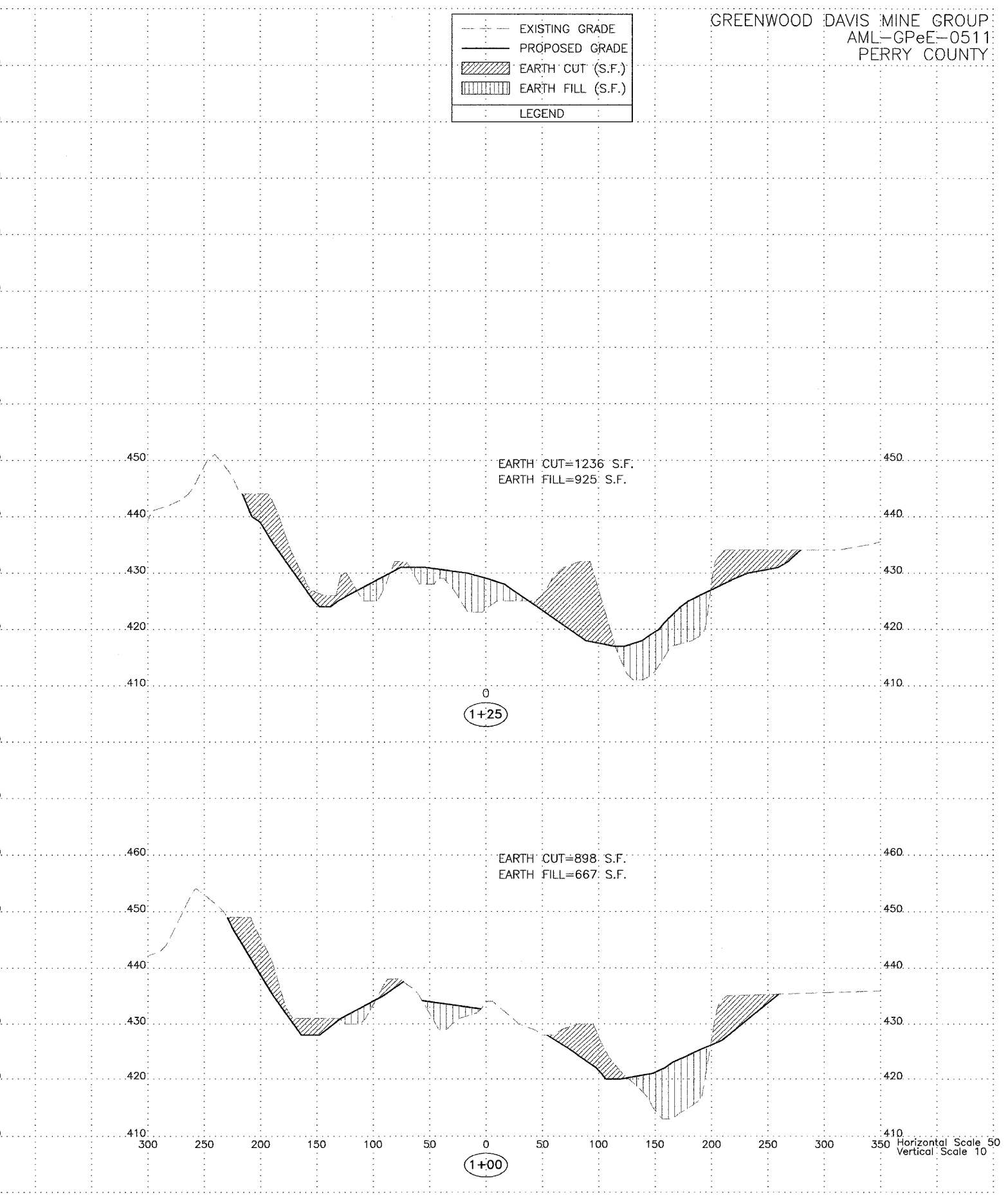
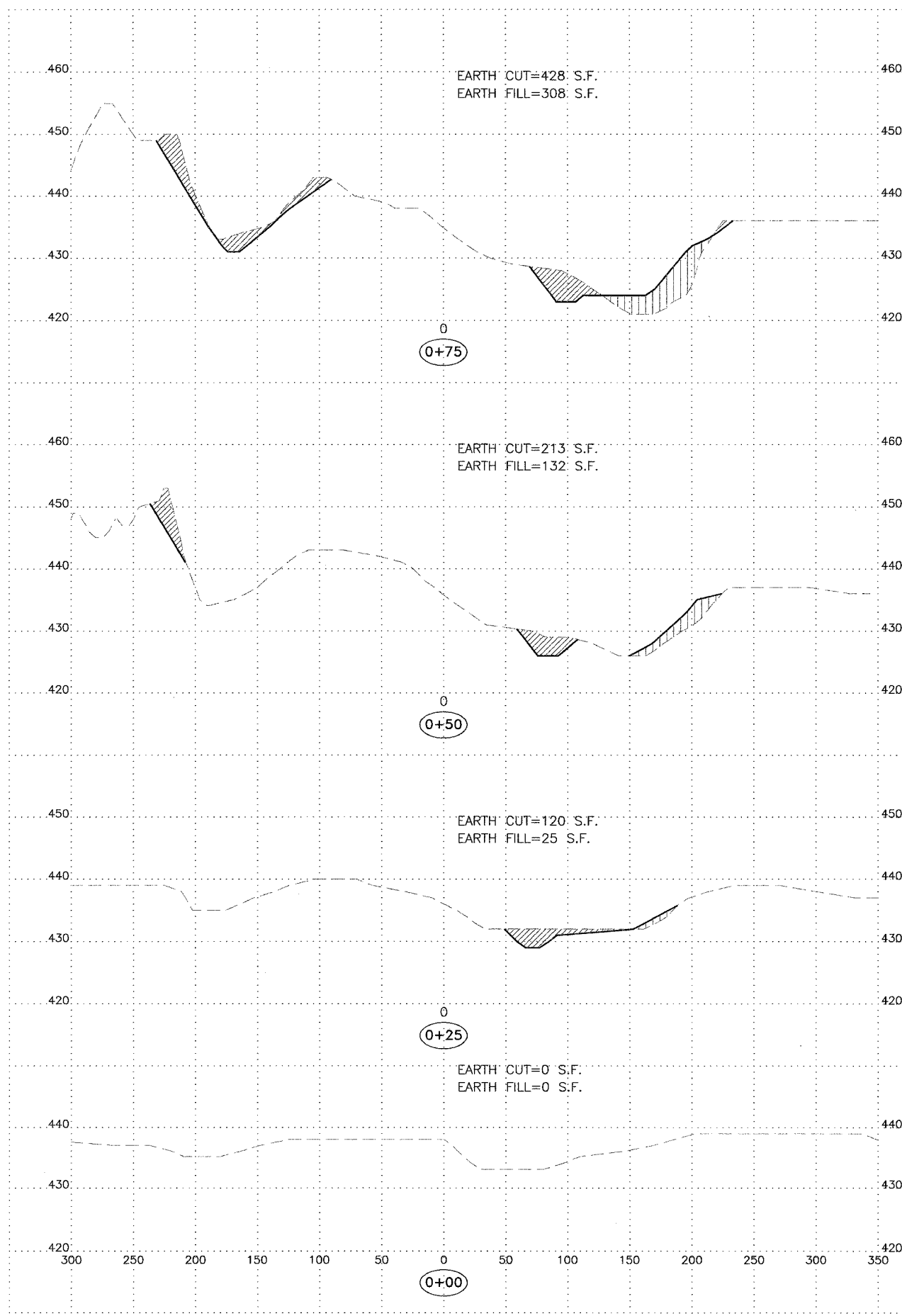
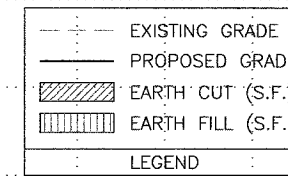
1. UNSUITABLE MATERIAL IS TO BE REMOVED FROM SITE PER SECTION 202 OF THE SPECIAL PROVISIONS.
2. EXCAVATED RUBBLE MAY BE BURIED ON SITE IN ACCORDANCE WITH SECTION 202 OR THE SPECIAL PROVISIONS.

**Legend**

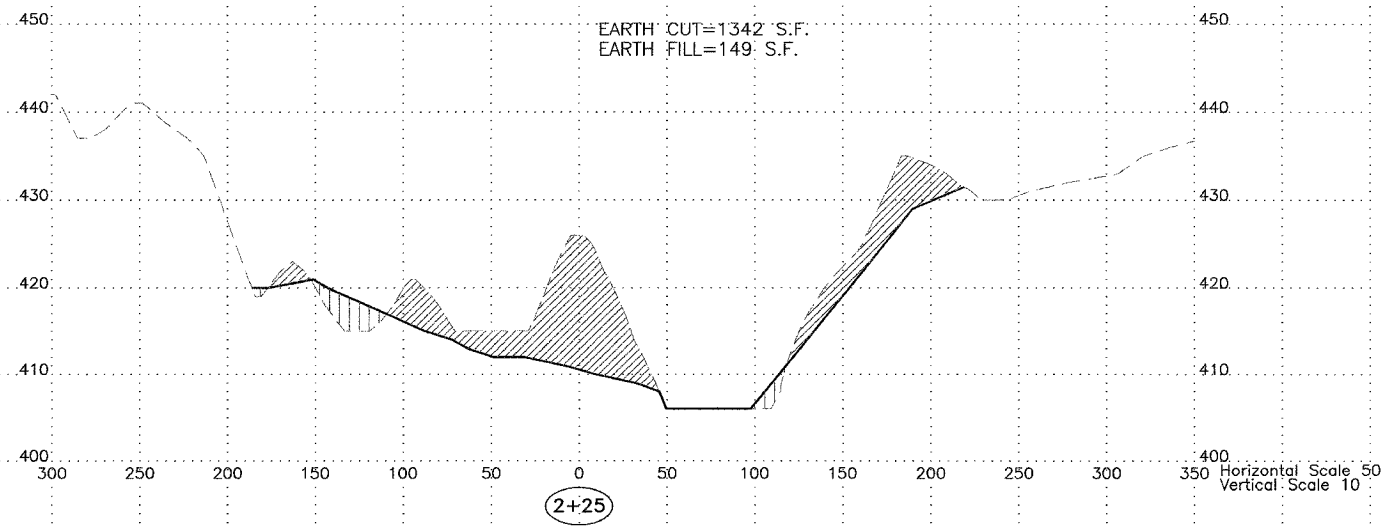
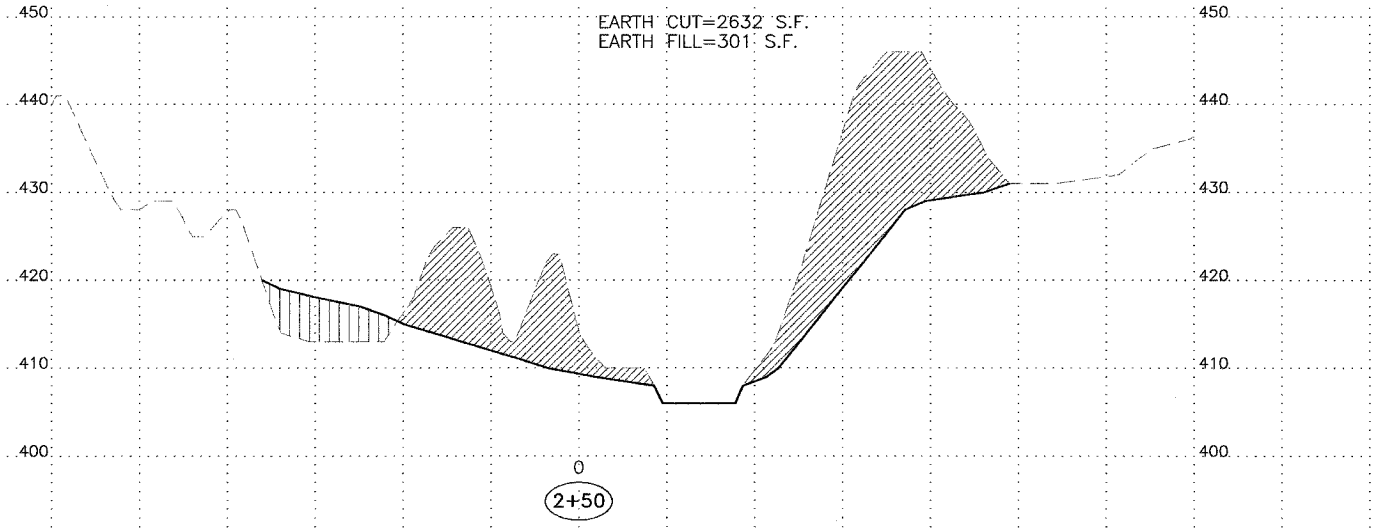
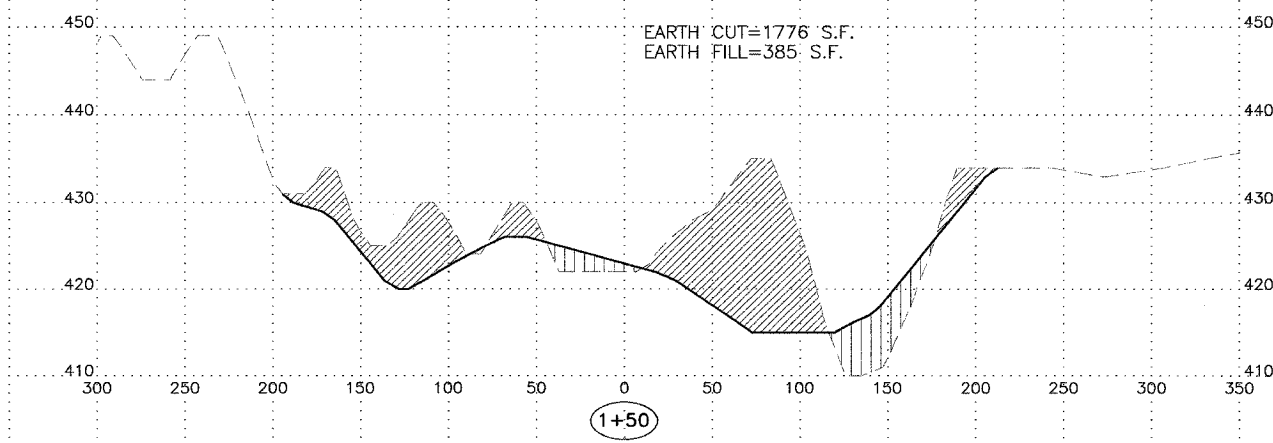
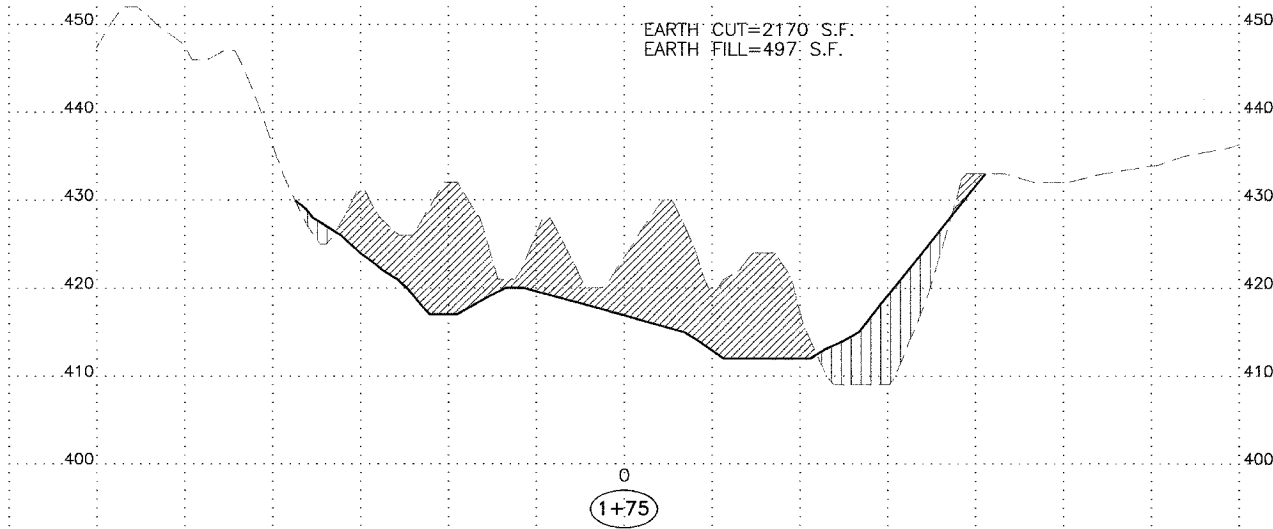
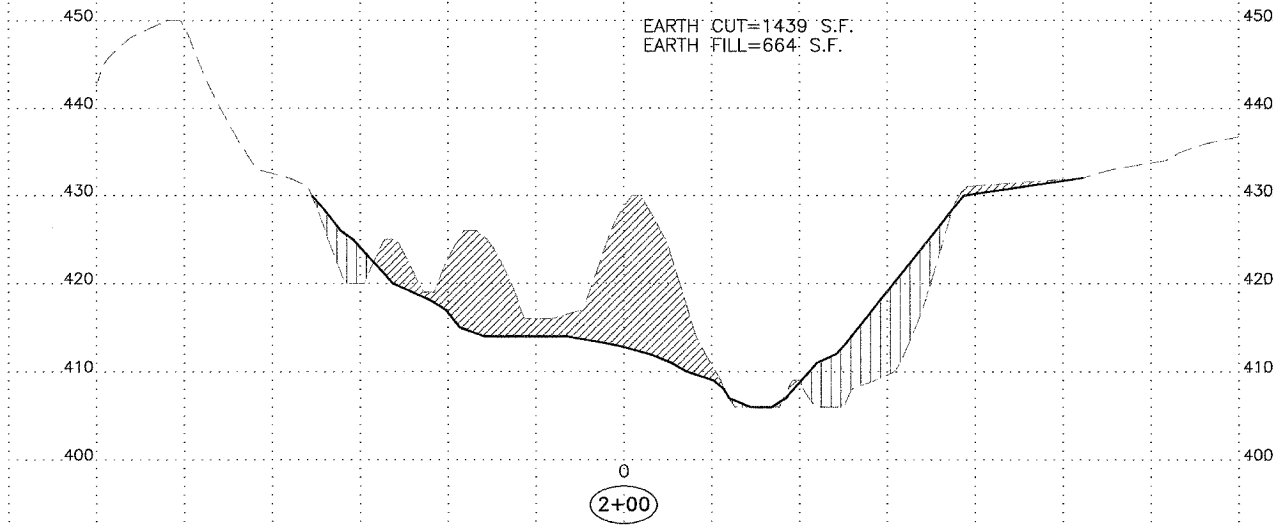
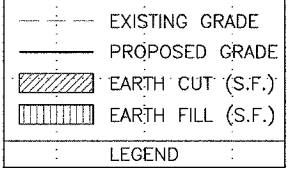
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	PROPOSED CONTOUR
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
	CONTROL POINT
	EXISTING UTILITY POLE
	EXISTING STRUCTURE

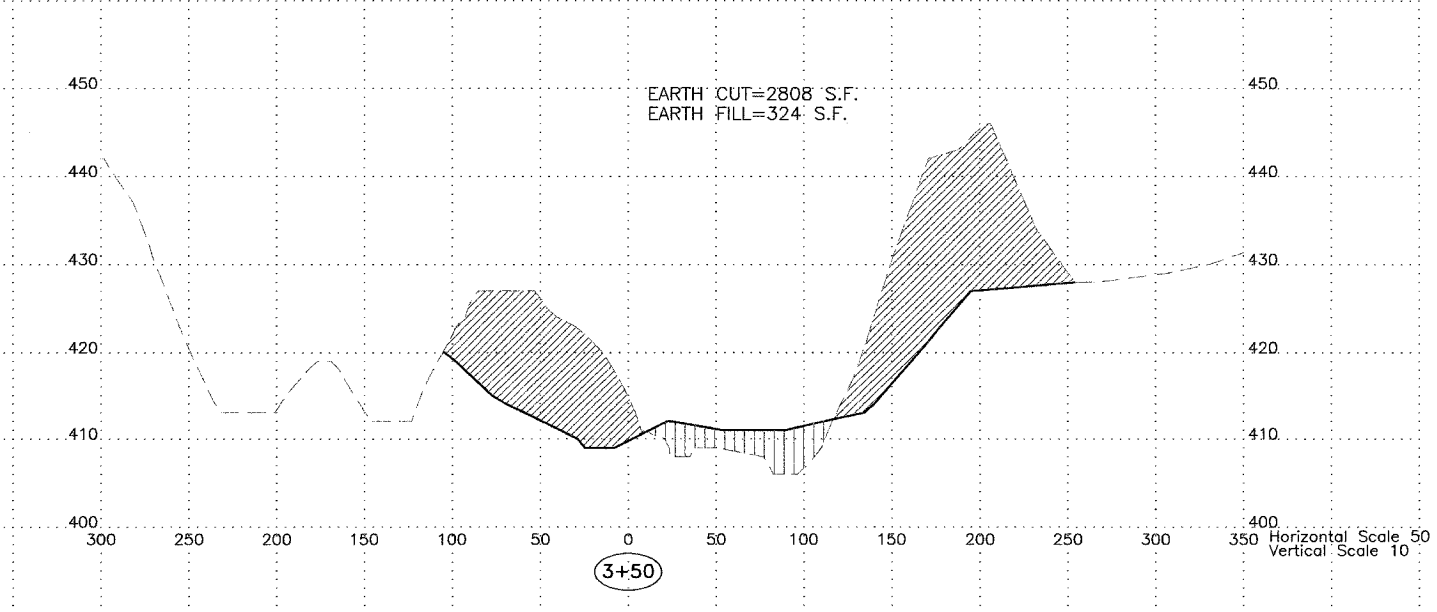
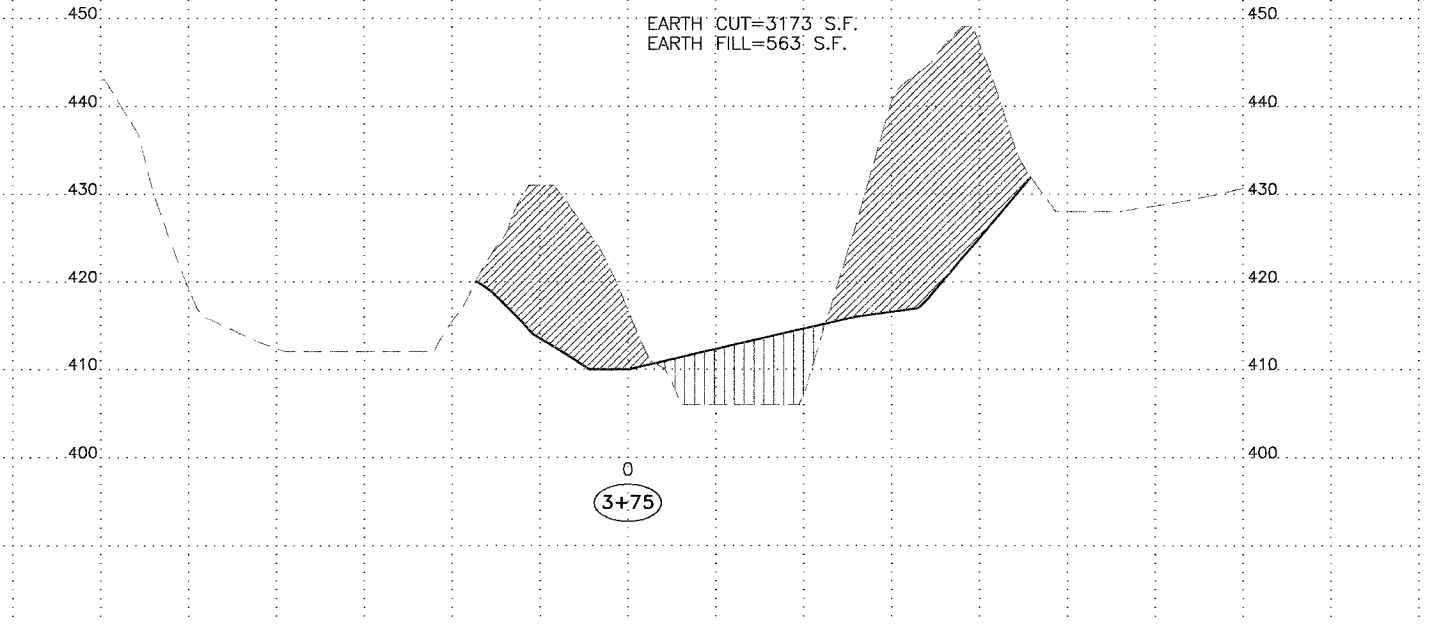
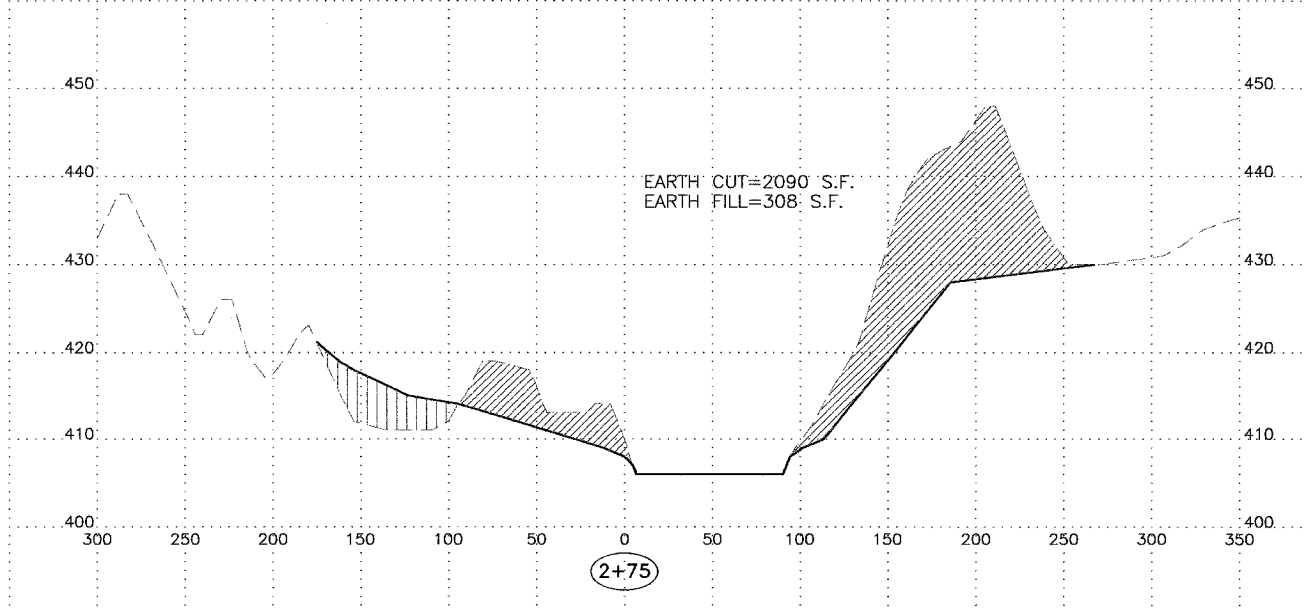
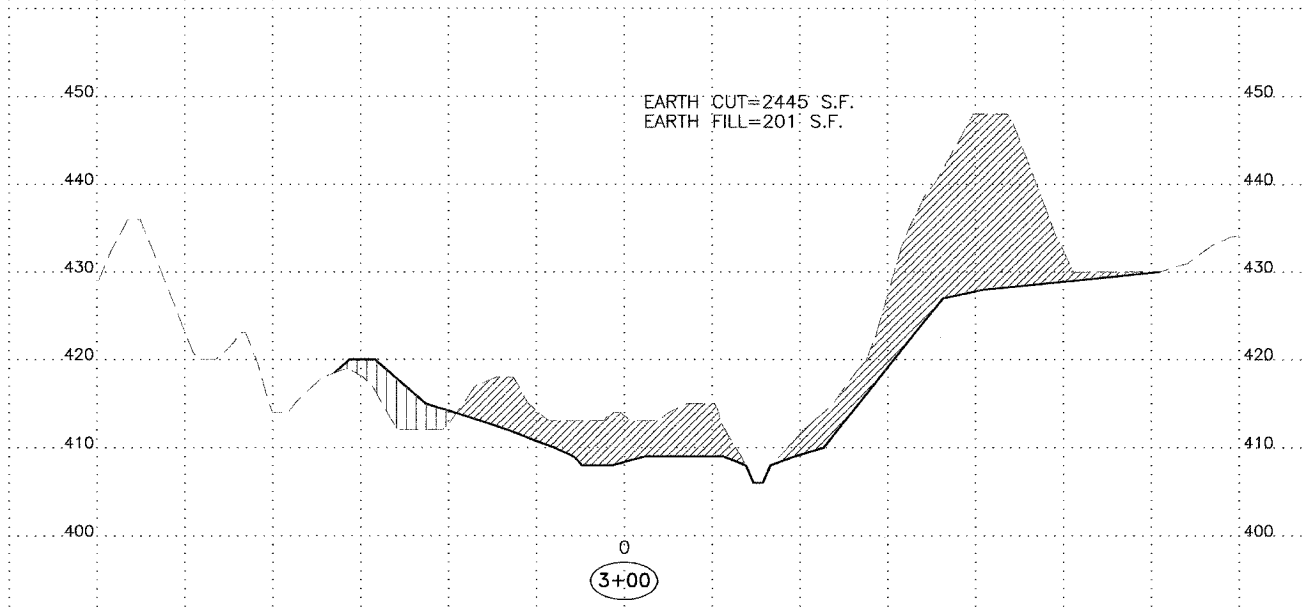
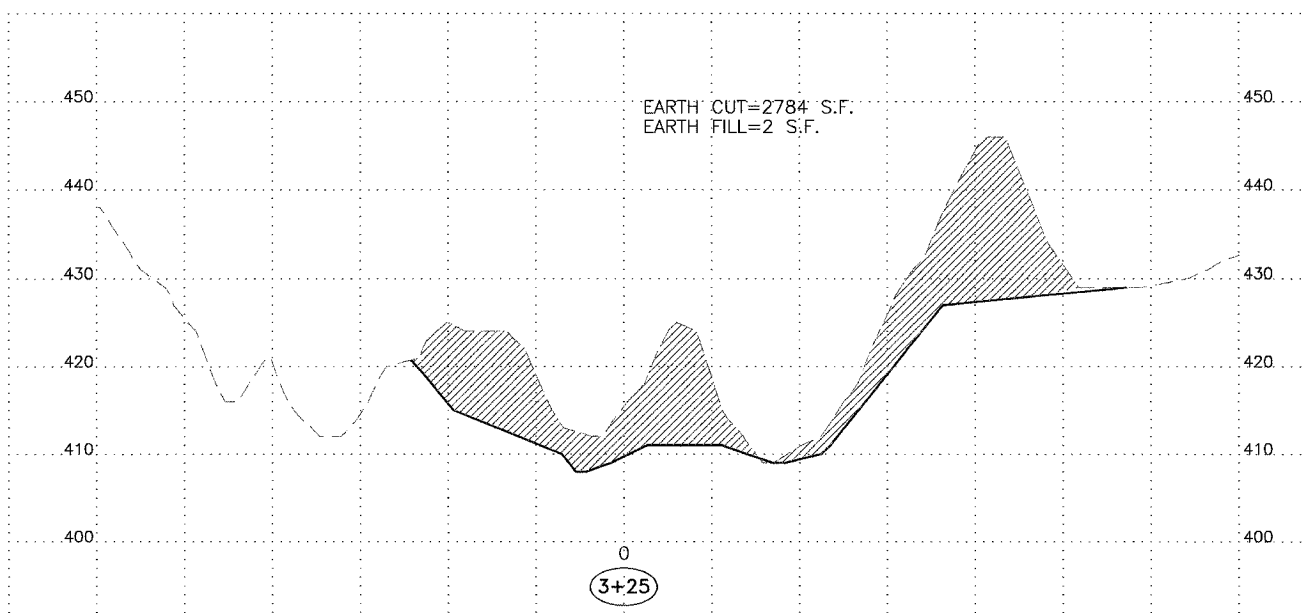
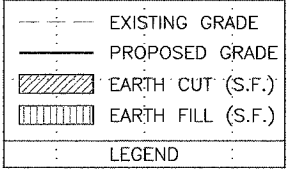


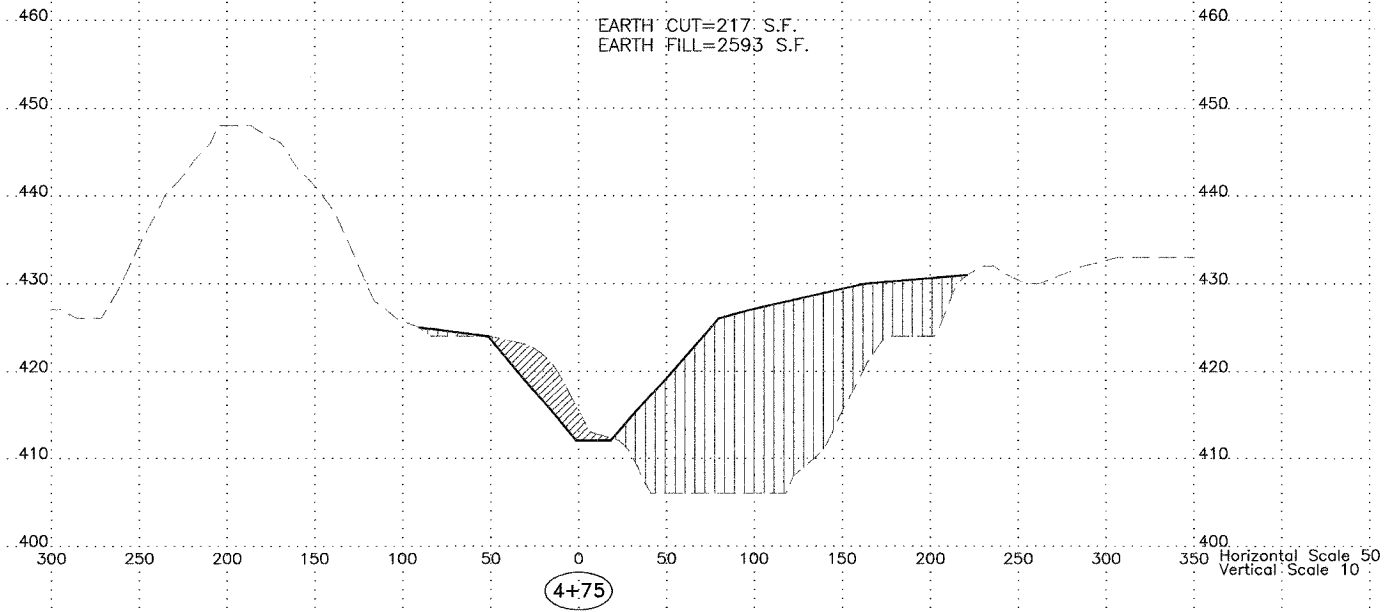
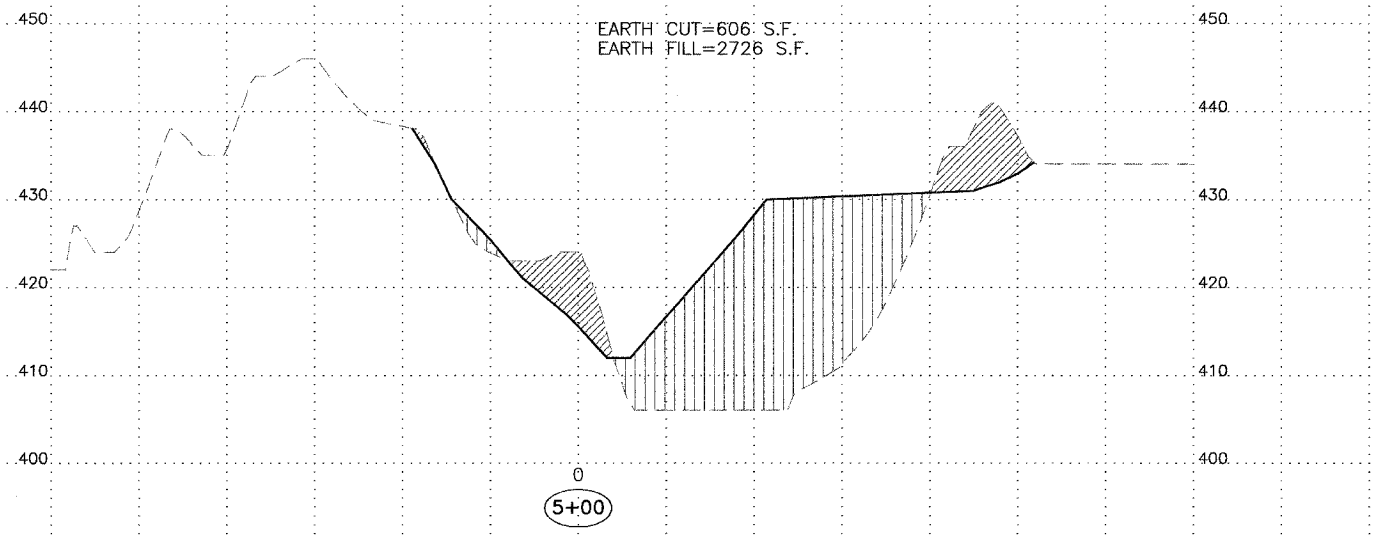
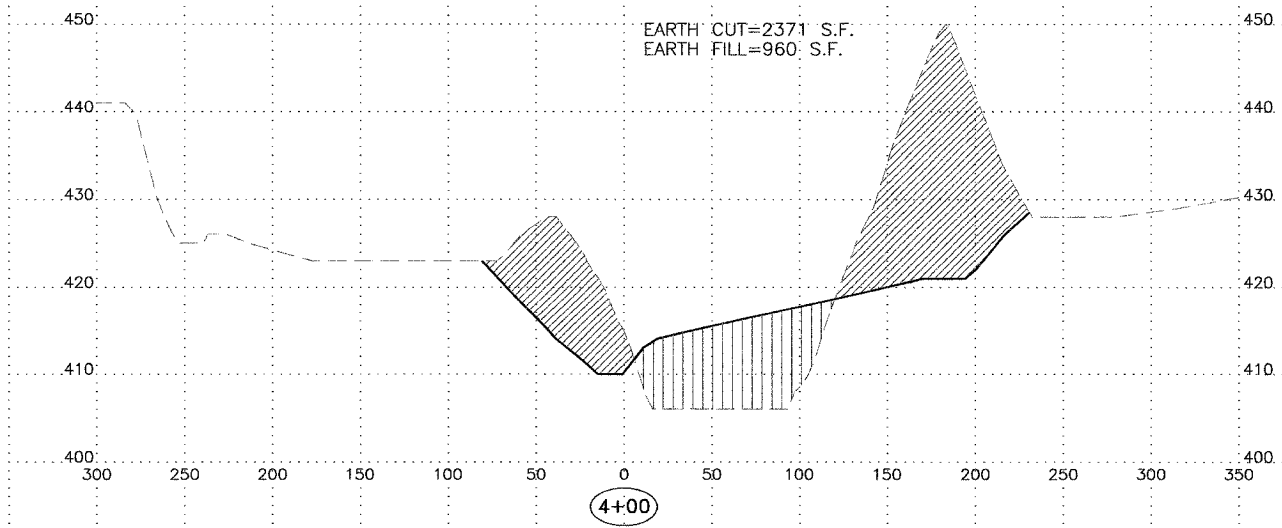
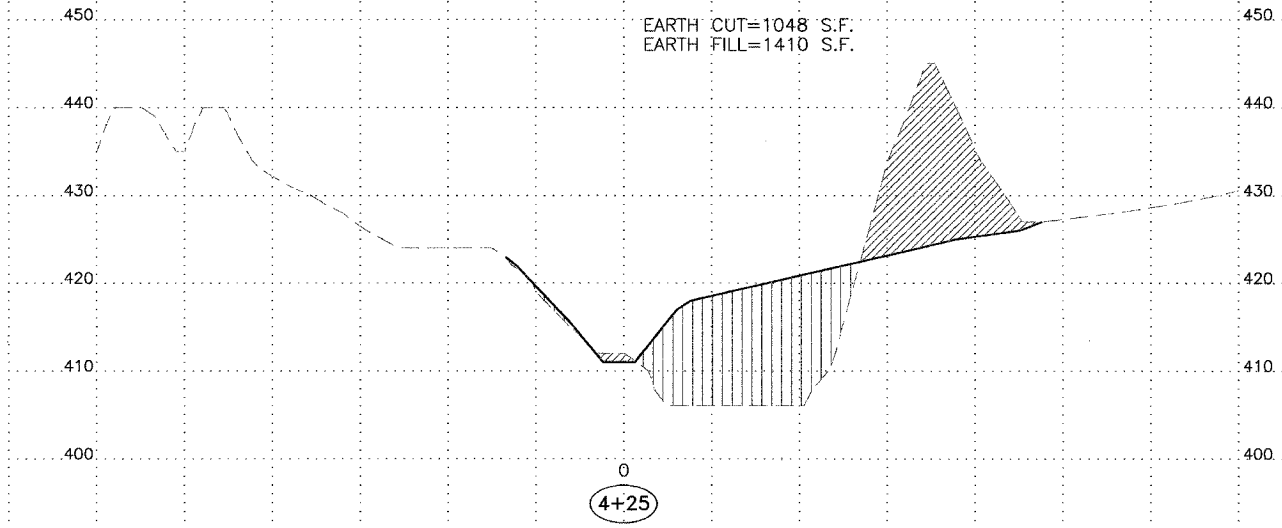
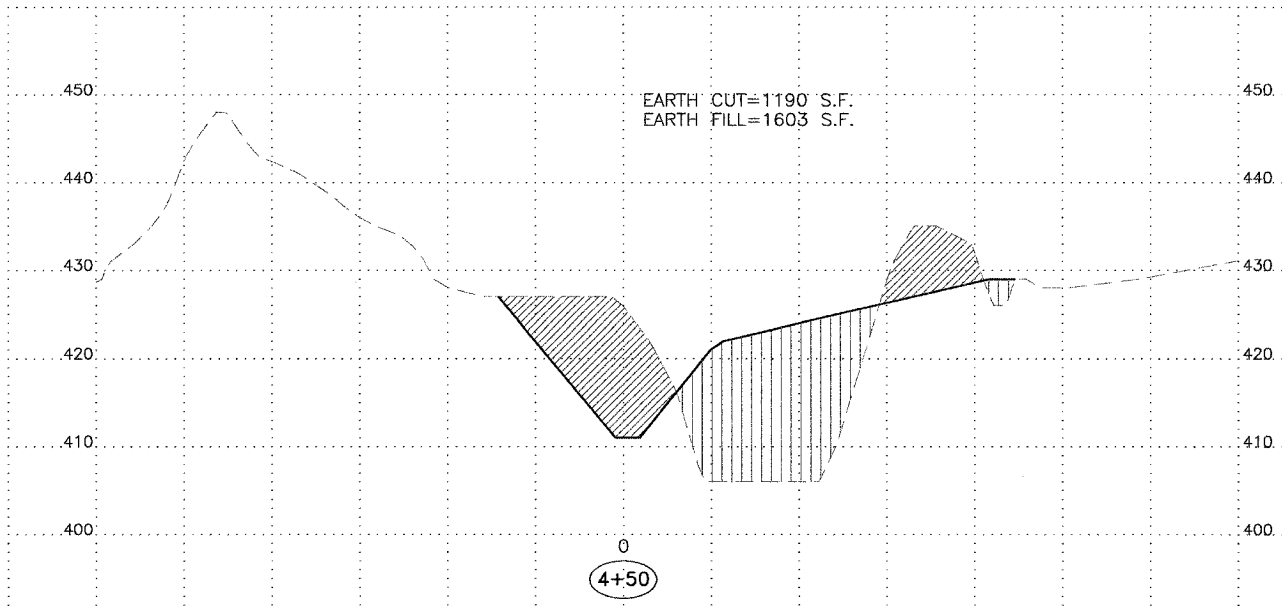
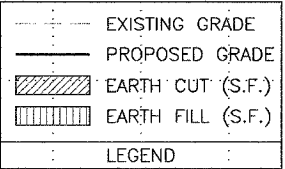
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Checked By: _____

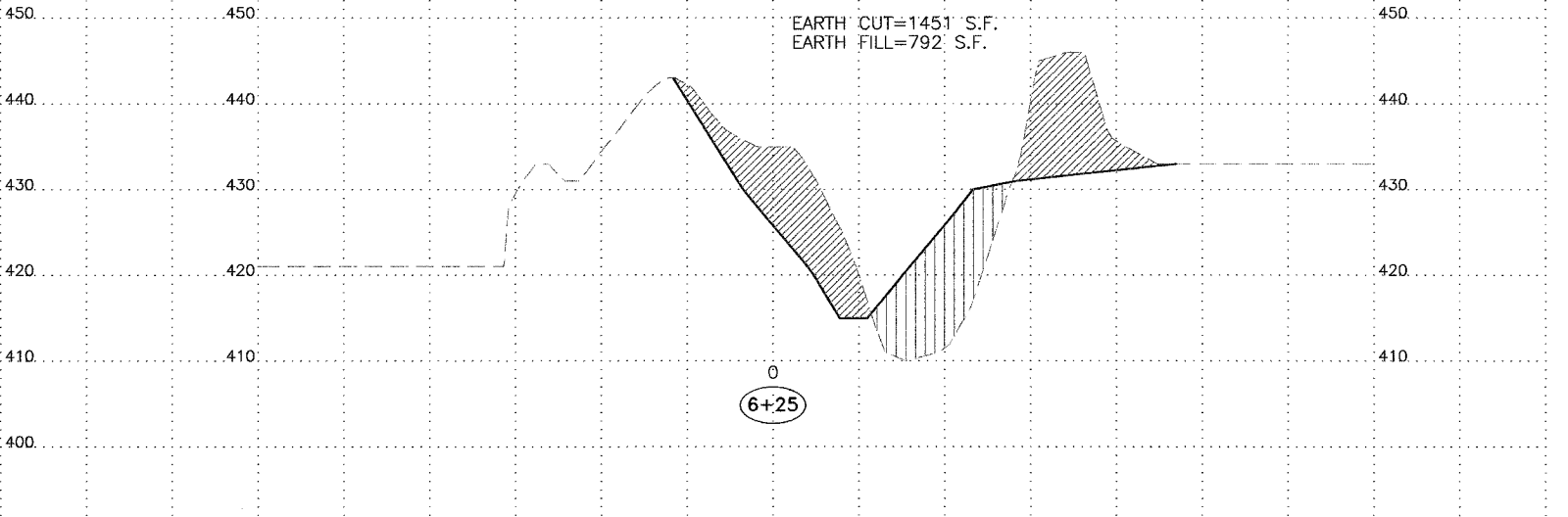
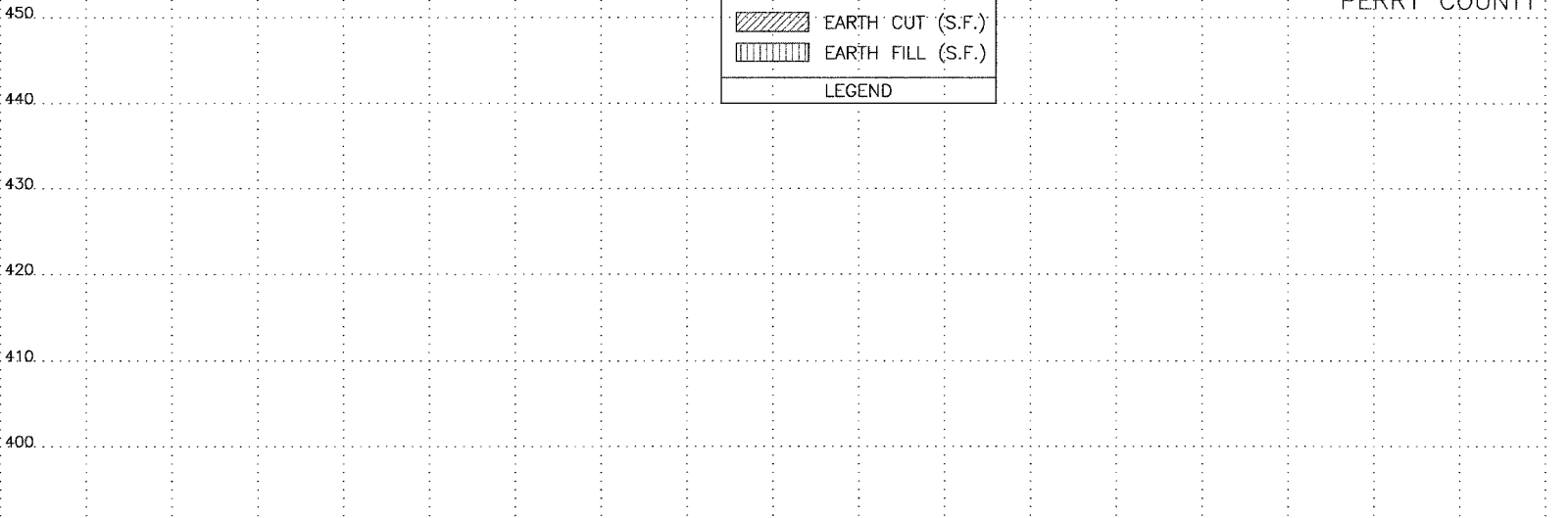
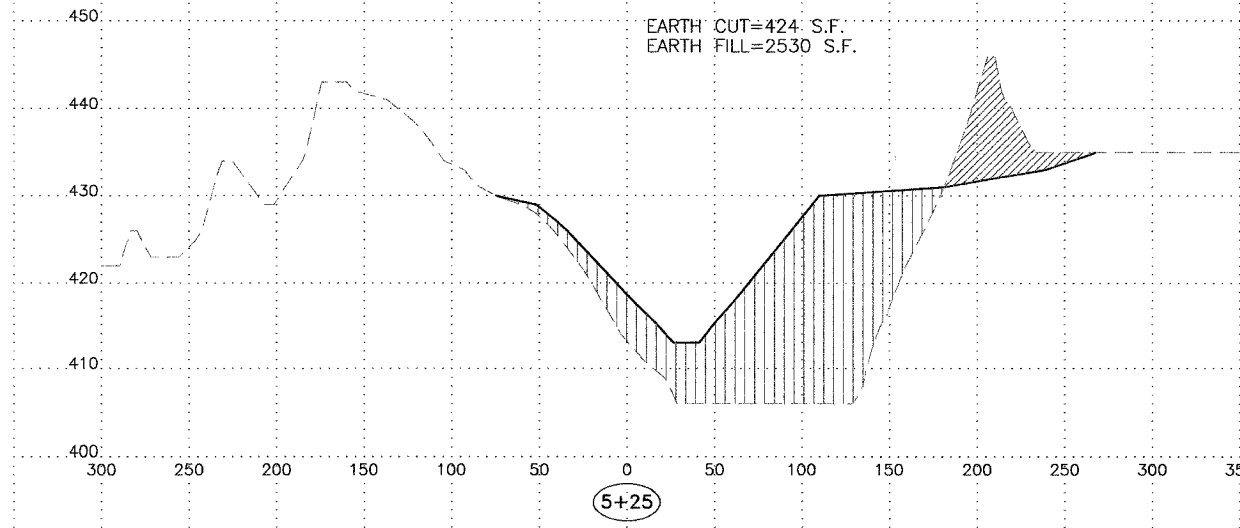
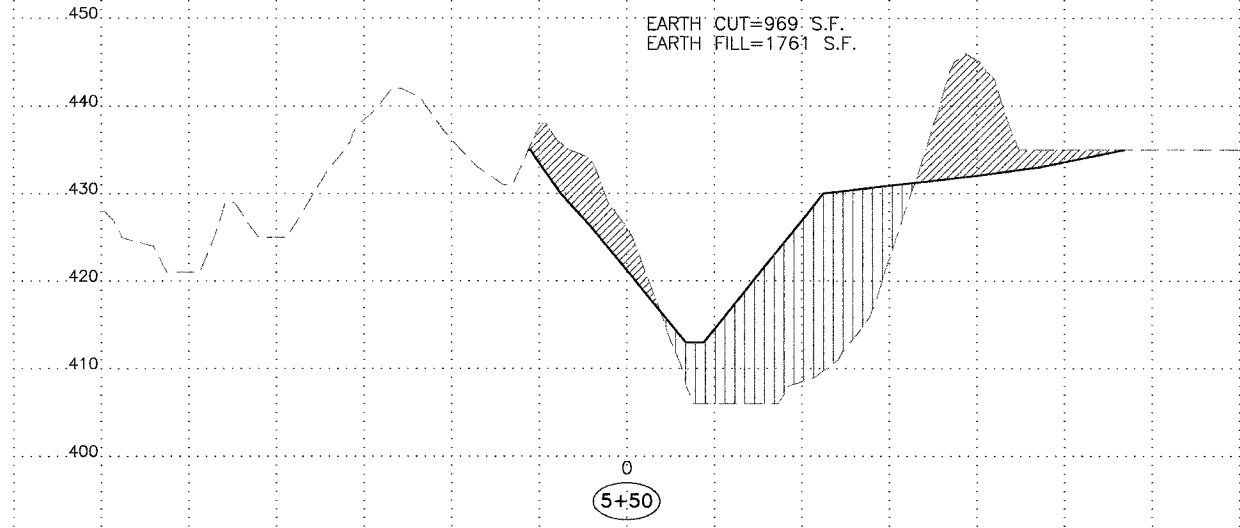
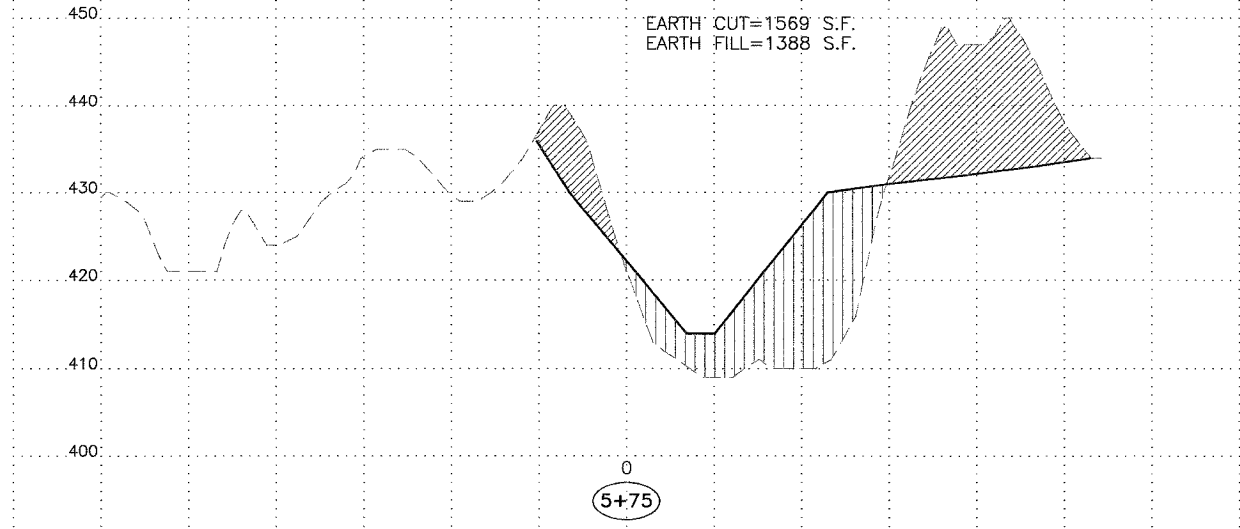
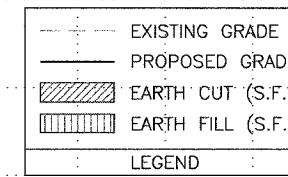


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 Vertical Scale 10

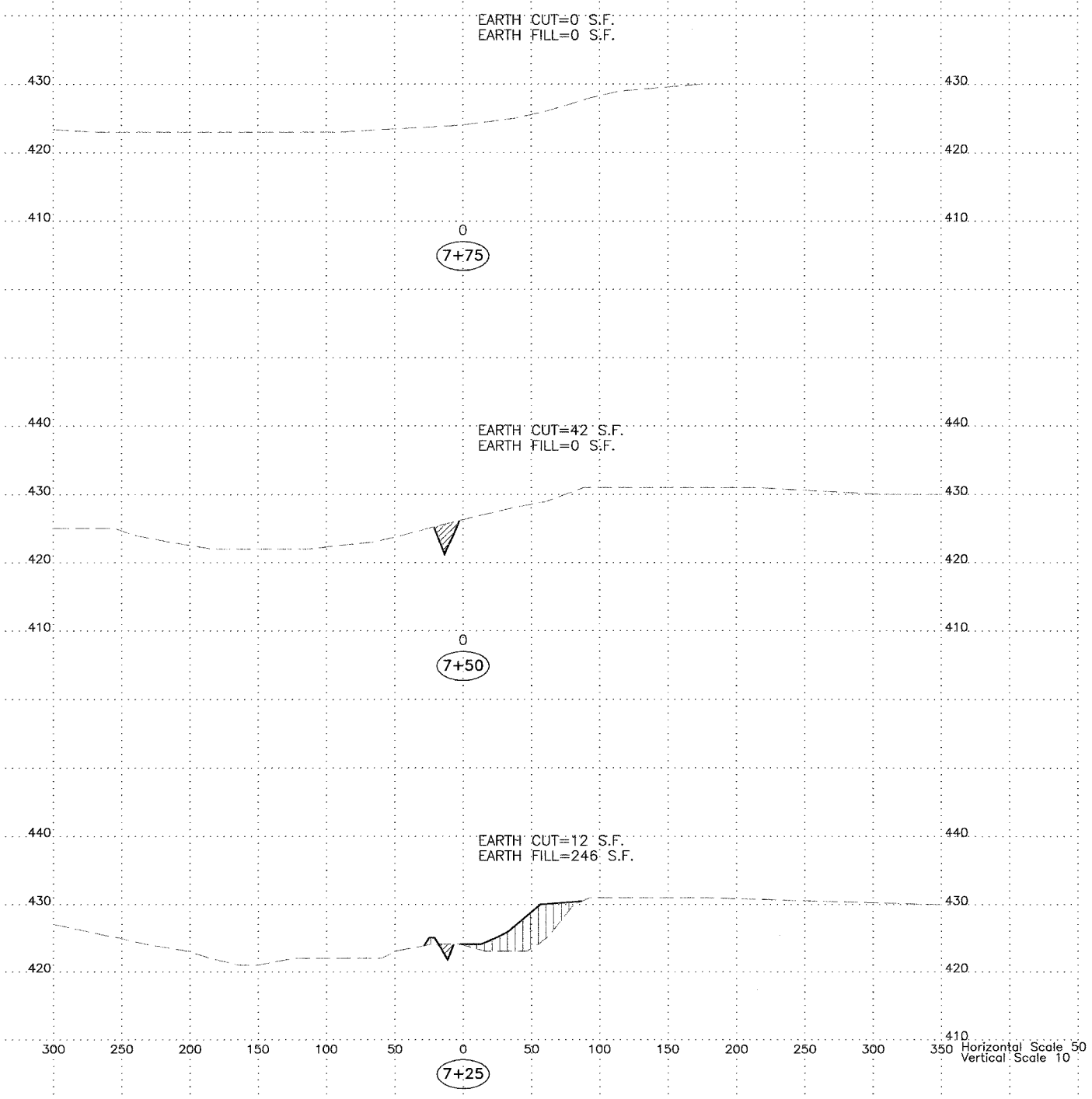
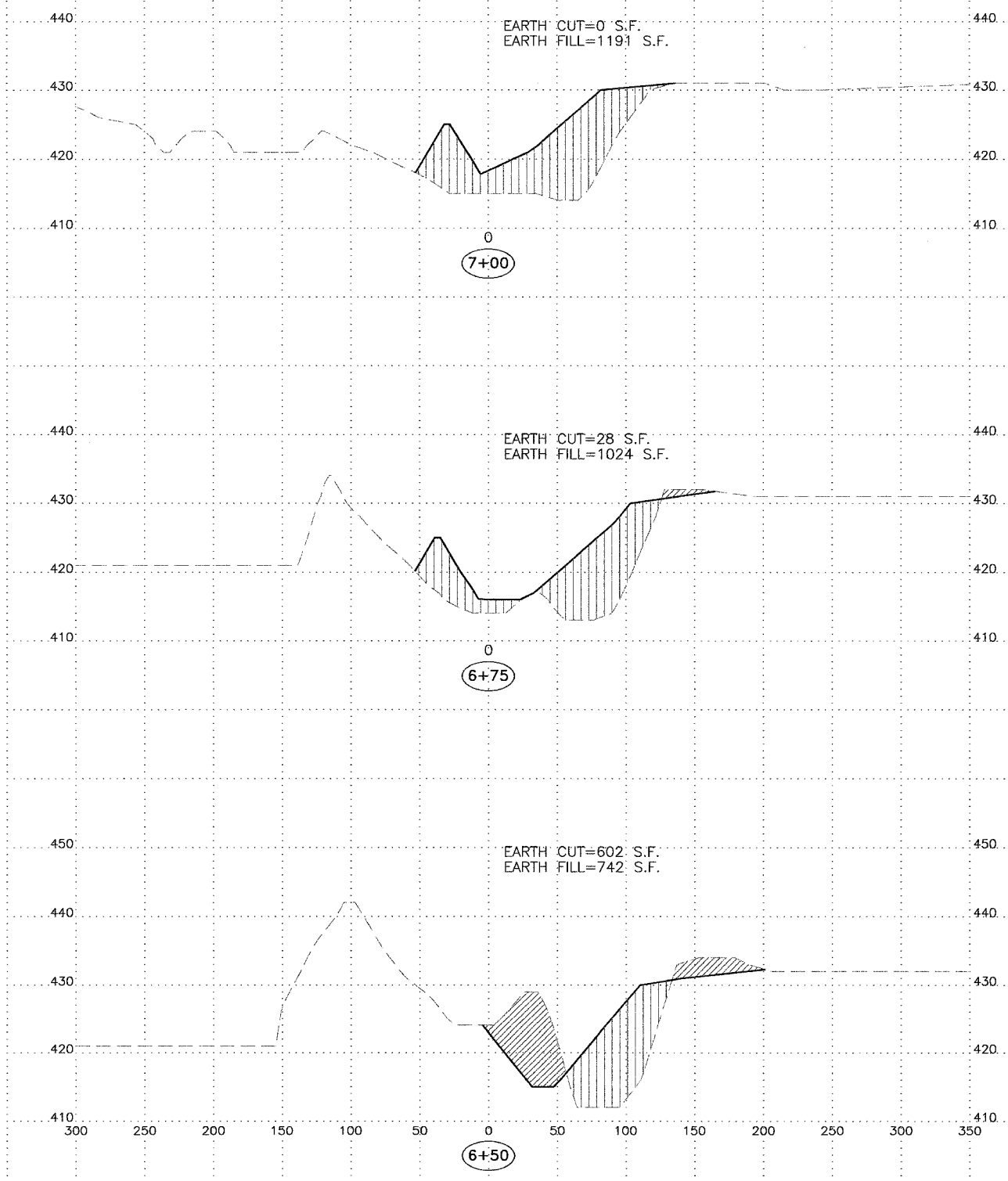
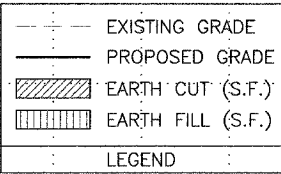




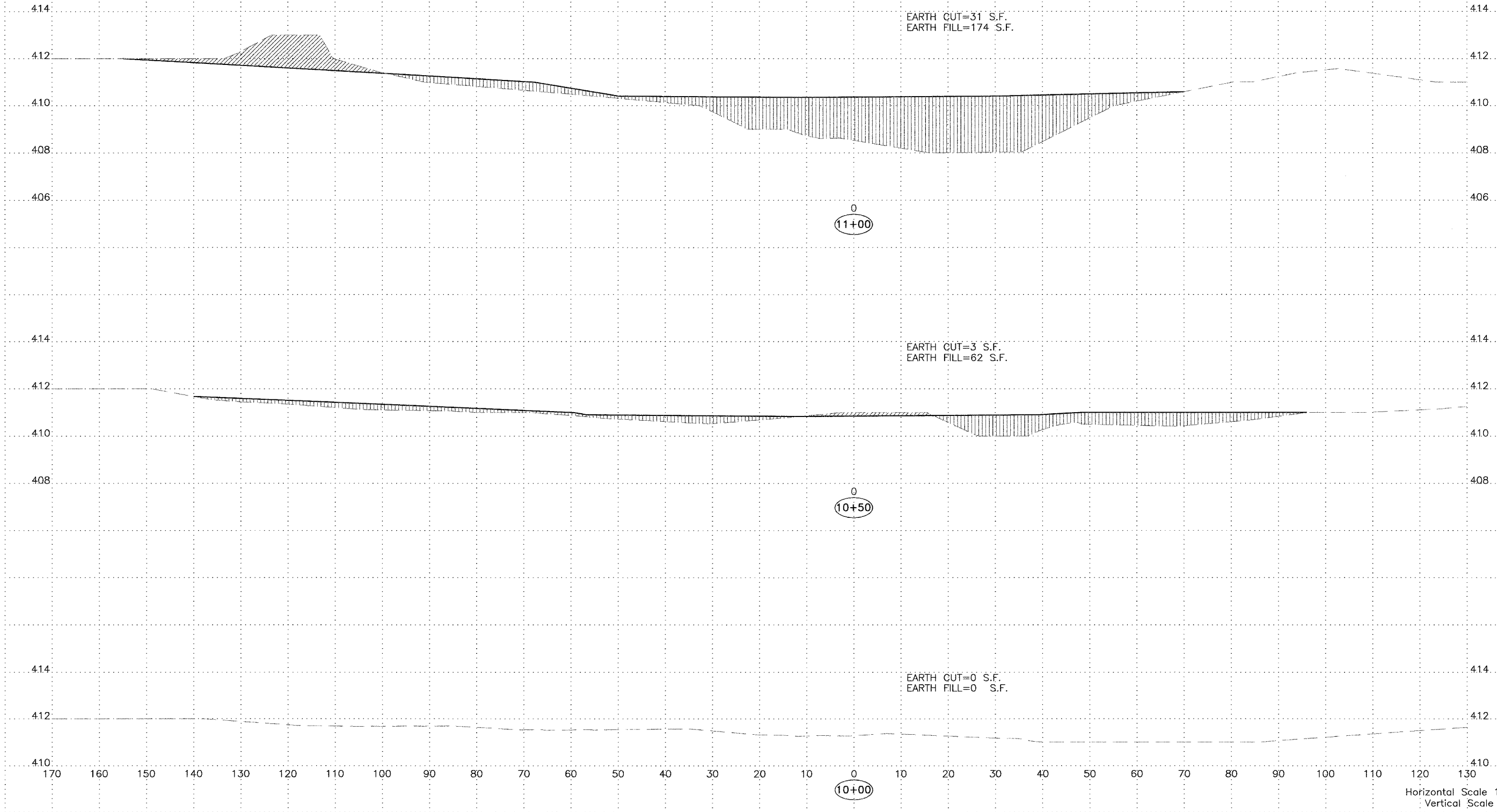
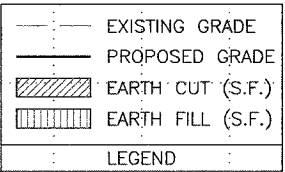




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 Vertical Scale 10'

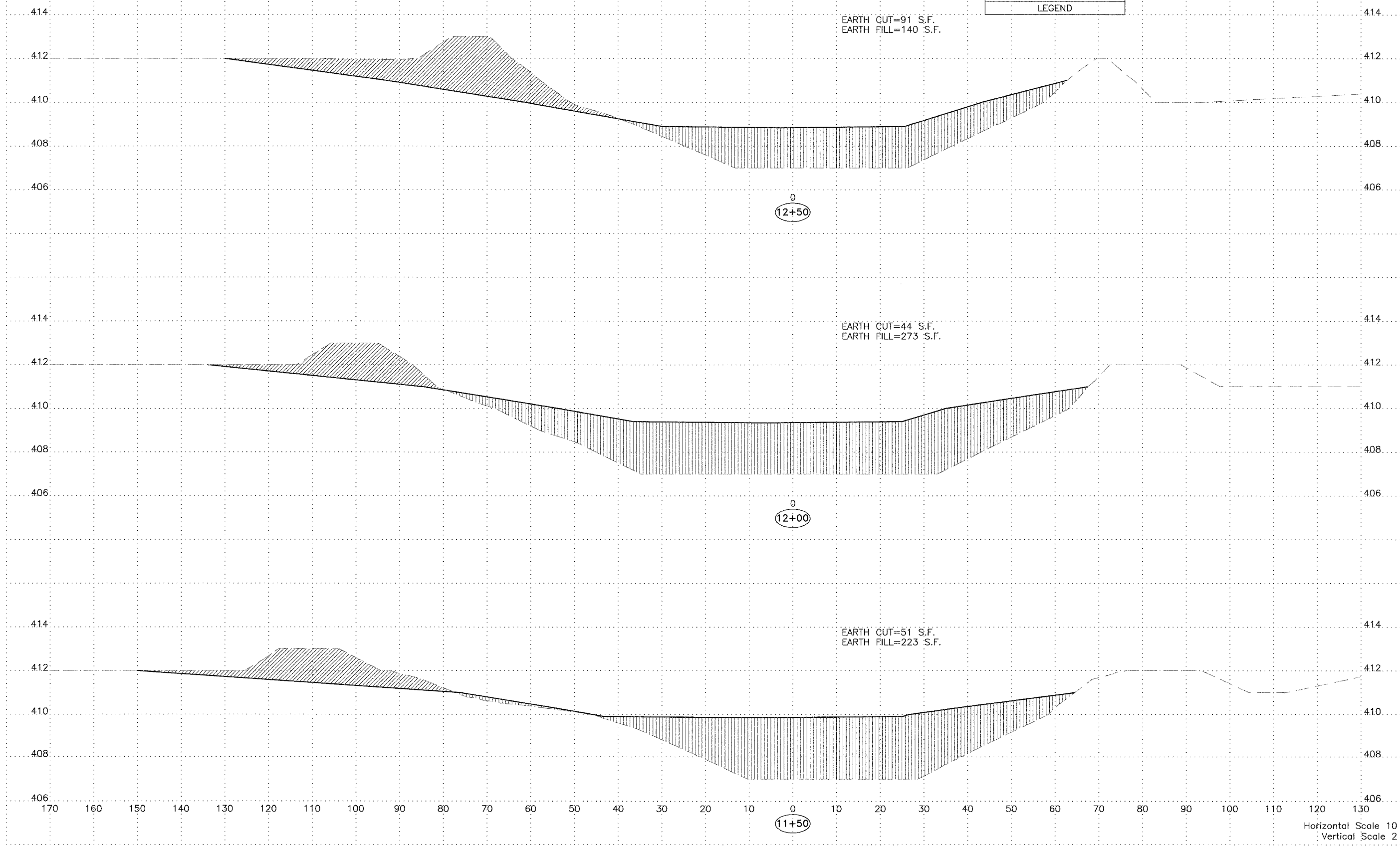


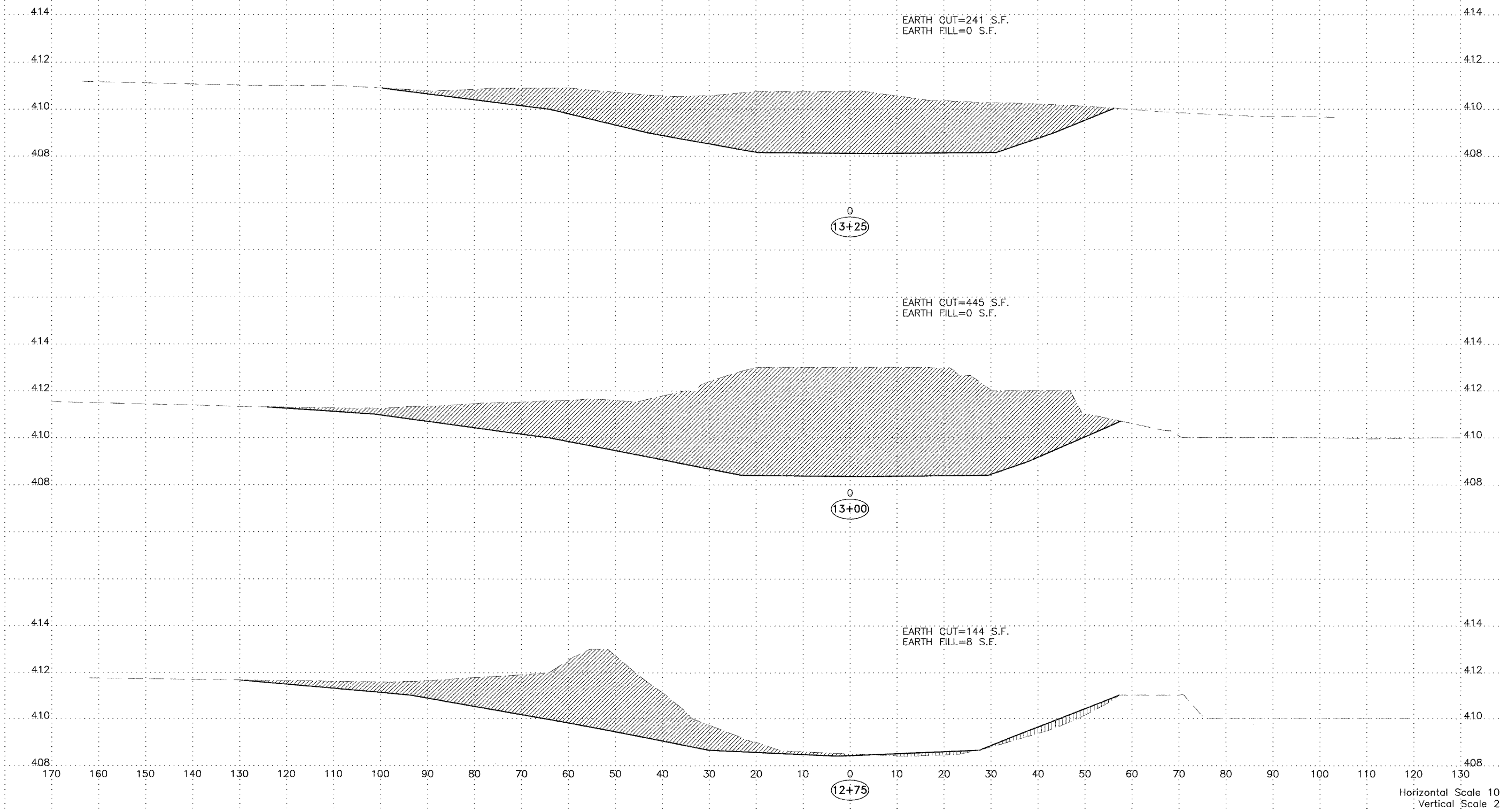
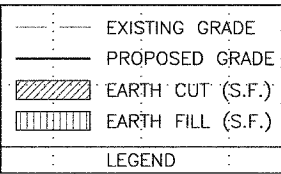
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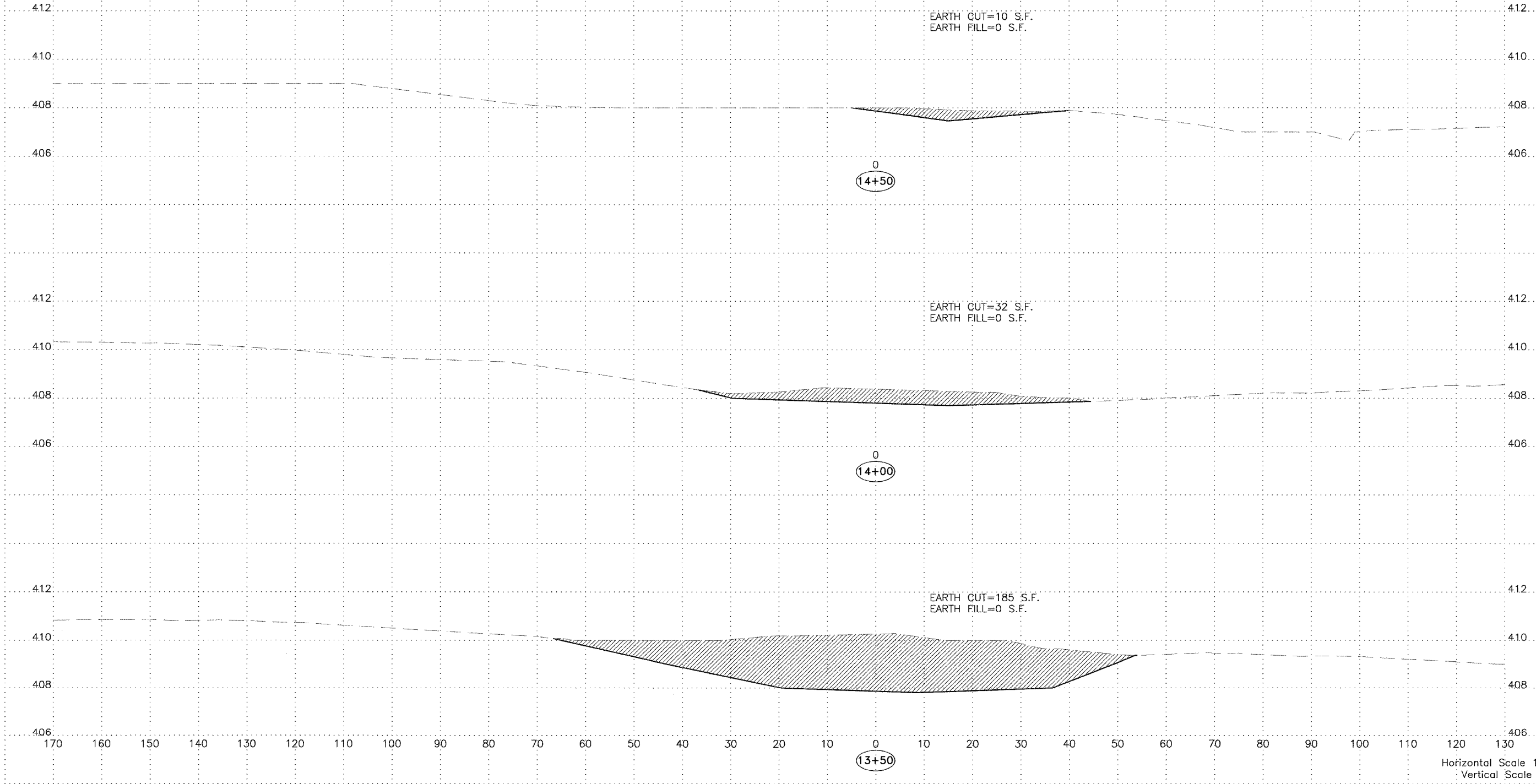
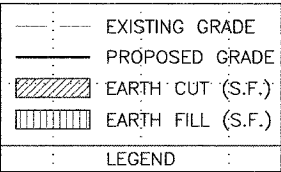


— — — EXISTING GRADE  
— — — PROPOSED GRADE  
▨ EARTH CUT (S.F.)  
▤ EARTH FILL (S.F.)  
— — — LEGEND

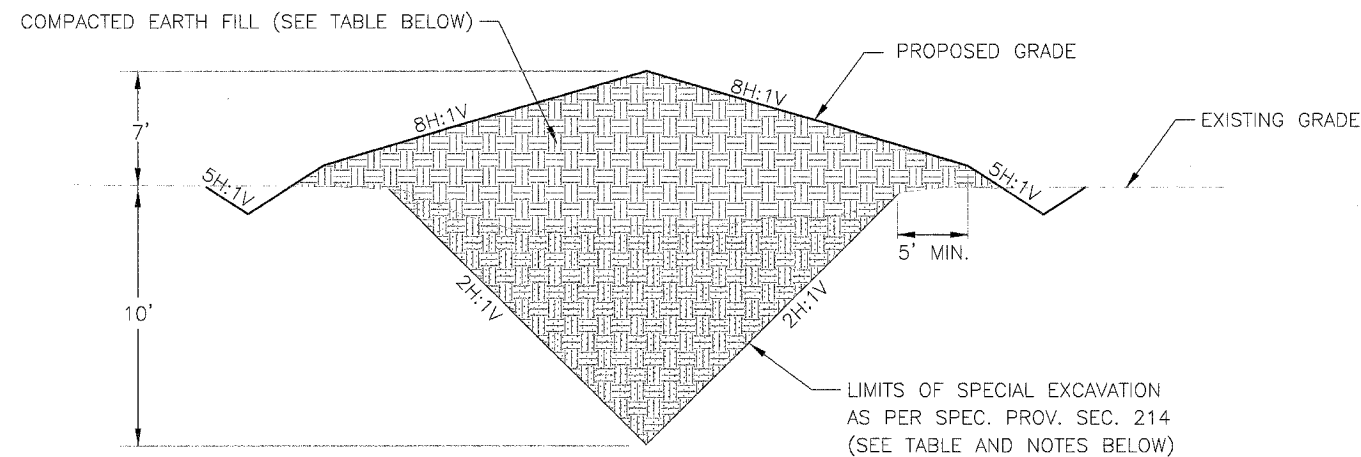




Horizontal Scale 10  
Vertical Scale 2



Horizontal Scale 10  
Vertical Scale 2



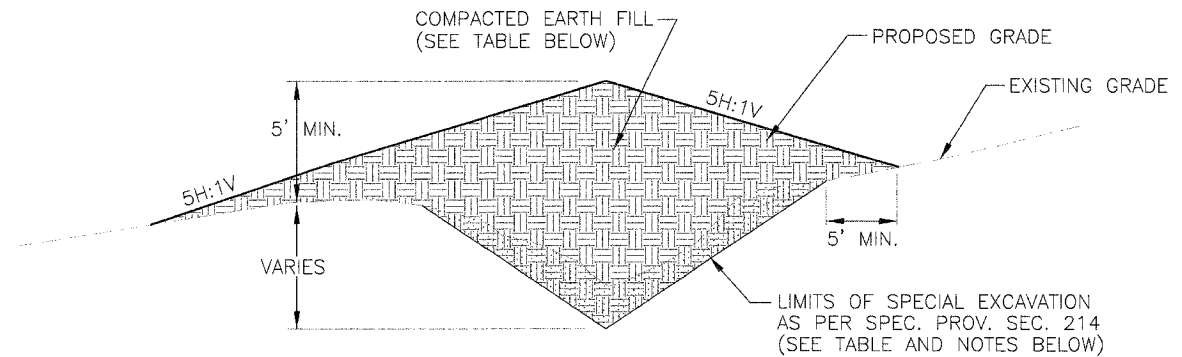
A-20 SEALED SINKHOLE DETAIL, #1 AND #2  
NOT TO SCALE

SINKHOLES #1 AND #2	
SPECIAL EXCAVATION VOLUMES	
SINKHOLE #1	309 C.Y.
SINKHOLE #2	562 C.Y.
EARTH FILL VOLUMES	
SINKHOLE #1	1750 C.Y.
SINKHOLE #2	1610 C.Y.

SINKHOLES #3-#15			
SPECIAL EXCAVATION VOLUMES		EARTH FILL VOLUMES	
SINKHOLE #3	66 C.Y.	SINKHOLE #3	275 C.Y.
SINKHOLE #4	171 C.Y.	SINKHOLE #4	660 C.Y.
SINKHOLE #5	248 C.Y.	SINKHOLE #5	615 C.Y.
SINKHOLE #6	94 C.Y.	SINKHOLE #6,7,8&9	2350 C.Y.
SINKHOLE #7	249 C.Y.	SINKHOLE #10,11,12&13	1640 C.Y.
SINKHOLE #8	50 C.Y.	SINKHOLE #14	720 C.Y.
SINKHOLE #9	132 C.Y.	SINKHOLE #15	475 C.Y.
SINKHOLE #10	68 C.Y.		
SINKHOLE #11	92 C.Y.		
SINKHOLE #12	82 C.Y.		
SINKHOLE #13	45 C.Y.		
SINKHOLE #14	97 C.Y.		
SINKHOLE #15	119 C.Y.		

NOTES:

1. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE SINKHOLE AREAS DUE TO THE UNKNOWN CONDITION OF THE SINKHOLES AND THE UNKNOWN STABILITY OF THE SURROUNDING AREAS.
2. THE ENGINEER RESERVES THE RIGHT TO INCREASE OR DECREASE THE VOLUME OF SPECIAL EXCAVATION AND BACKFILLING OF MATERIALS REQUIRED. THE ENGINEER WILL MAKE THE DETERMINATION DURING CONSTRUCTION BASED UPON THE CONDITIONS ENCOUNTERED DURING THE SPECIAL EXCAVATION PROCESS.




B-20 TYPICAL FILLED SINKHOLE DETAIL, #3-15  
NOT TO SCALE

SPACING LETTERS

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

RECLAMATION PROJECT  
of the  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF ILLINOIS

ROD R. BLAGOJEVICH, GOVERNOR

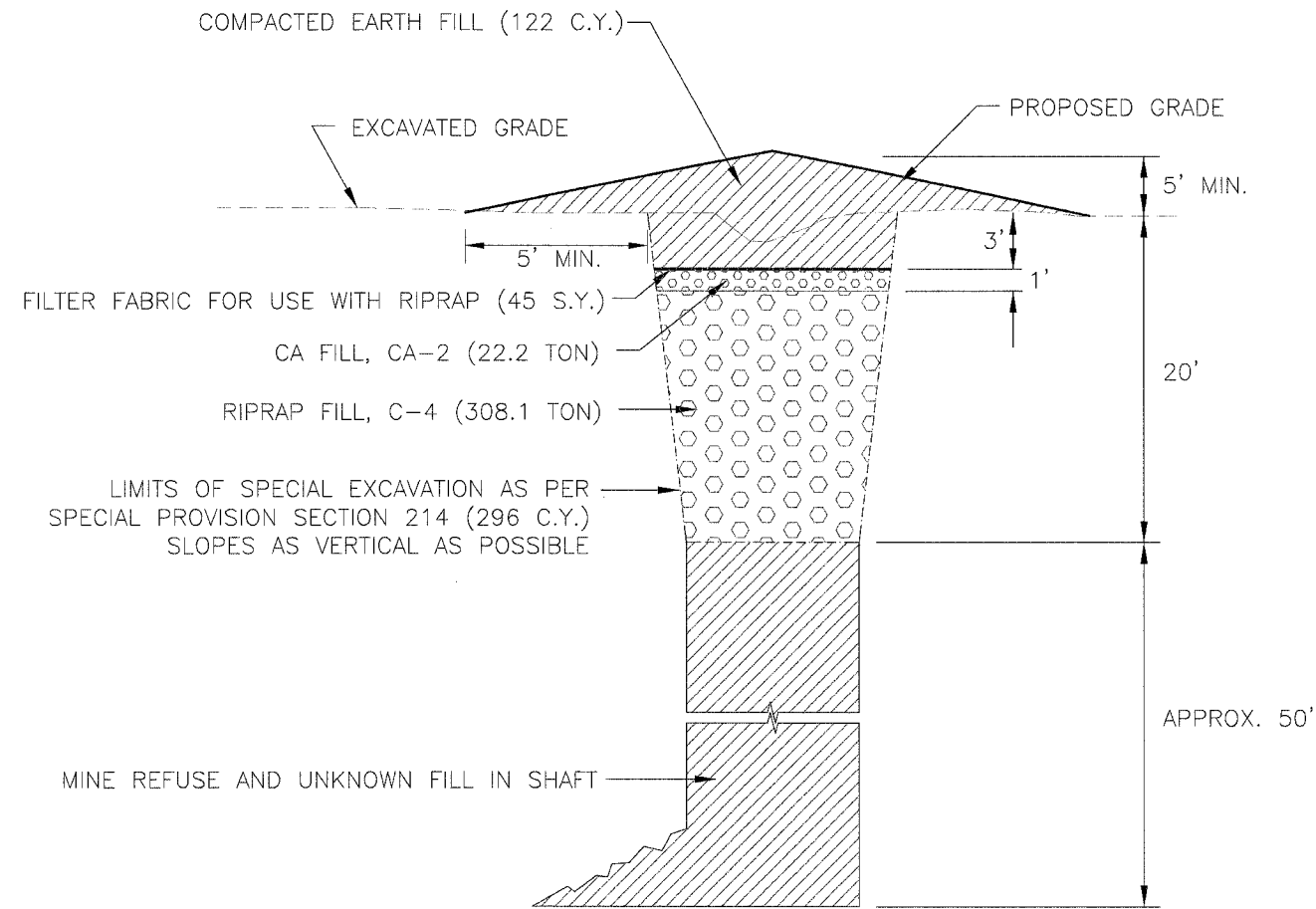
 Sam Flood, Acting Director  
Department of Natural Resources

In cooperation with the Office of Surface Mining  
United States Department of the Interior

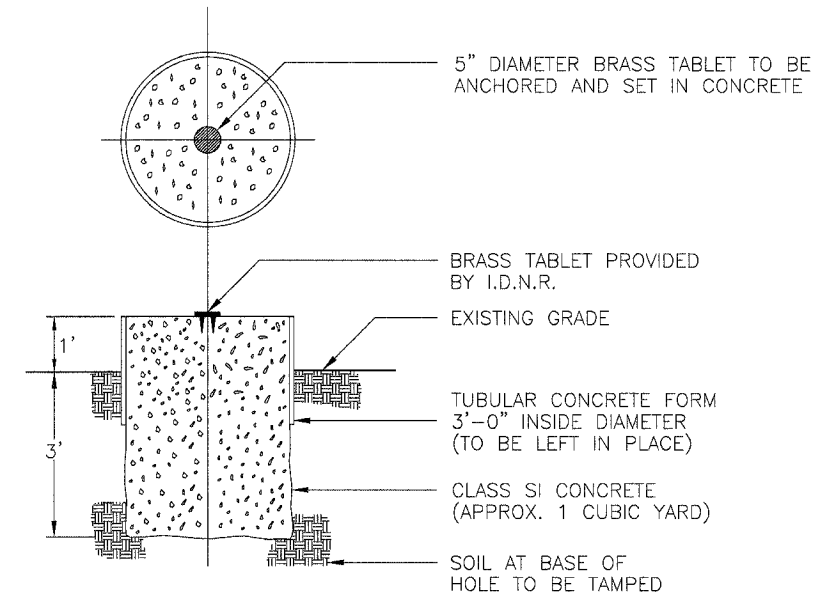
1. Furnishing, erecting and removing the sign shall be incidental to the contract.
2. The sign shall be painted on 1/2" or thicker exterior plywood (4' x 8'), color shall be black on white, and a 10" diameter Illinois state seal shall be provided by the D.N.R.
3. The posts shall be made of 4" x 4" wood 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.

C-20 CONSTRUCTION SIGN DETAIL

NOT TO SCALE  
EXACT LOCATION TO BE SET BY ENGINEER



D-21 MAIN SHAFT FILLING DETAIL  
NOT TO SCALE



E-21 MINE OPENING MARKER DETAIL  
NOT TO SCALE  
EXACT LOCATION TO BE SET BY ENGINEER

NOTES:

1. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE SHAFT AREA DUE TO THE UNKNOWN CONDITION OF THE SHAFT AND THE UNKNOWN STABILITY OF THE SURROUNDING AREAS.
2. THE ENGINEER RESERVES THE RIGHT TO INCREASE OR DECREASE THE VOLUME OF SPECIAL EXCAVATION AND BACKFILLING OF MATERIALS REQUIRED. THE ENGINEER WILL MAKE THE DETERMINATION DURING CONSTRUCTION BASED UPON THE CONDITIONS ENCOUNTERED DURING THE SPECIAL EXCAVATION PROCESS.
3. THE DIMENSIONS OF THE MAIN SHAFT ARE ESTIMATED TO BE 20' X 20'. AFTER THE RIPRAP FILL, C-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 RIPRAP FILL, C-4.