

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

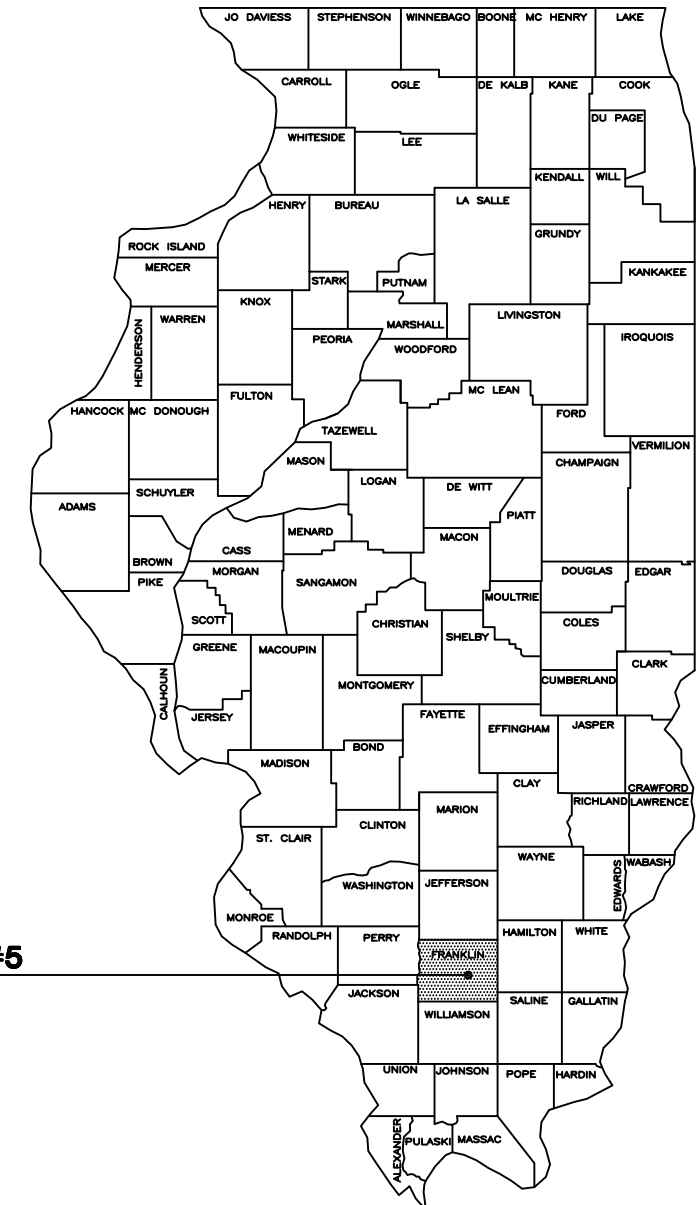
Freeman Orient #5 Mine
Reclamation Project
AML-GFrE-1704
Franklin County
4LR

SCHEDULE OF DRAWINGS:

- 1. Cover Sheet
- 2. Summary of Quantities / General Notes / Location Map
- 3. Site Information
- 4-8. Existing and Proposed Conditions
- 9-13. Cross Sections

CONTRACT NO. M1704

Certified Copy



Freeman Orient #5
Franklin County

PRE-BID MEETING

A PRE-BID MEETING IS SCHEDULED FOR THIS PROJECT ON THURSDAY, SEPTEMBER 14, 2017 AT 10:00 A.M. AT THE EXISTING MAIN BUILDING SOUTHWEST OF THE SOUTH END OF MINE 5 ROAD (SEE SHEET 3). ALL PRIME AND SUBCONTRACTORS ARE ENCOURAGED TO ATTEND.

Prepared By IDNR Staff

Approved for Bidding:

Thomas A. Benner

Thomas A. Benner, Director
Office of Mines and Minerals

Approved By:

J. Gregory Pinto

J. Gregory Pinto, Acting Manager
AMLR Division

Approved By:

Janet L. Uglum

Janet L. Uglum, P.E.
IL Licensed Professional Engineer
No. 062-054108



Summary of Quantities						
Item No.	#	Item	Section	Quantity	Unit	Rates/Remarks
NRM20110	1	SPECIAL CLEARING	201	1	L SUM	
NRM20210	2	EARTH EXCAVATION	202	24,341	CU YD	COMPACTION IN ACCORDANCE WITH SECTION 205 OF SPECIAL PROVISIONS
NRM20230	3	MINE REFUSE EXCAVATION	202	8,345	CU YD	
NRM25040	4	NITROGEN FERTILIZER NUTRIENT	250	3,220	POUND	100 LB / ACRE TWICE
NRM25050	5	PHOSPORUS FERTILIZER NUTRIENT	250	1,610	POUND	100 LB / ACRE
NRM25060	6	POTASSIUM FERTILIZER NUTRIENT	250	2,415	POUND	150 LB / ACRE
NRM25070	7	AGRICULTURAL GROUND LIMESTONE	250	80.5	TON	5 TON / ACRE
NRM25090	8	SEEDING	250	16.1	ACRE	
25100115	9	MULCH, METHOD 2, PROCEDURE 1	IDOT 251	16.1	ACRE	2 TON / ACRE
NRM25510	10	MINE REFUSE TREATMENT – LIMESTONE	255	197.9	TON	50 OR 100 TON / ACRE
NRM25810	11	MOWING	258	16.1	ACRE	
28100205	12	STONE RIPRAP, CLASS A3	IDOT 281	51.2	TON	
NRM28610	13	SPECIAL EXCELSIOR BLANKET	286	489	SQ YD	8 FT WIDTH
40200800	14	AGGREGATE SURFACE COURSE, TYPE B	IDOT 402	830.3	TON	CA-6
NRM50101	15	REMOVAL OF EXISTING STRUCTURES	501	1	L SUM	
NRM50180	16	CONCRETE FILL	501	249	CU YD	
NRM50190	17	POROUS GRANULAR BACKFILL	501	3,000.0	TON	
542C0223	18	PIPE CULVERTS, CLASS C, TYPE 1 18"	IDOT 542	100	FOOT	CORRUGATED POLYETHYLENE (PE) PIPE WITH SMOOTH INTERIOR
NRM67110	19	MOBILIZATION (MAX. 6% OF BID)	671	1	L SUM	
NRM67420	20	BOREHOLE GROUTING	674	4	EACH	

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 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 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 cleared from the site shall be disposed of onsite per Section 201 of the Special Provisions. Clearing of all trees may only occur from October 16th to March 14th. No clearing of trees outside these dates or outside the construction limits may occur. Special Clearing shall only be performed to the extent needed to perform the contract work.

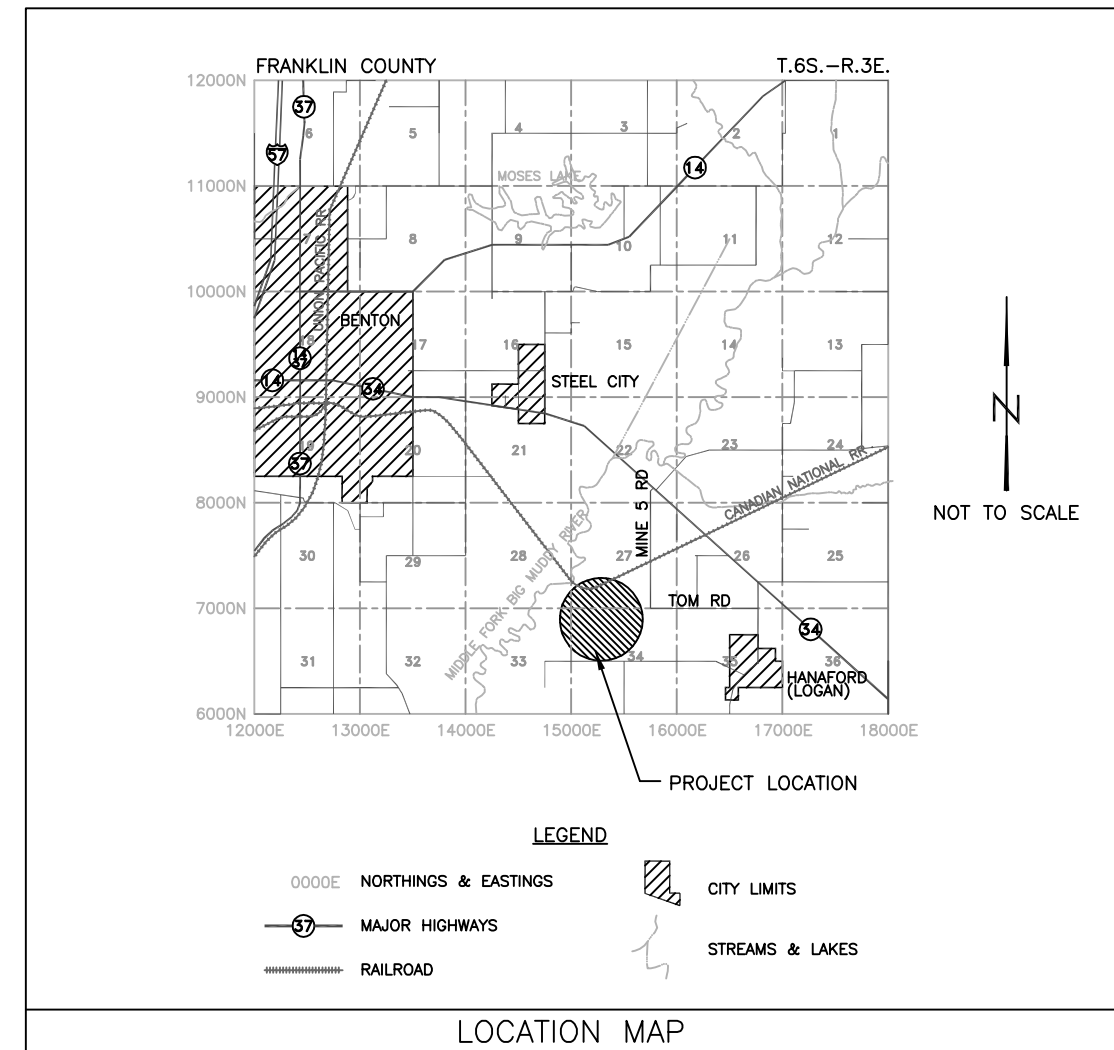
ACID WATER TREATMENT – If acid mine drainage treatment is determined necessary by the engineer, and not otherwise specified in the plans, any water treatment will be paid for in accordance with Article 109.04 of the Standard Specifications.

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.

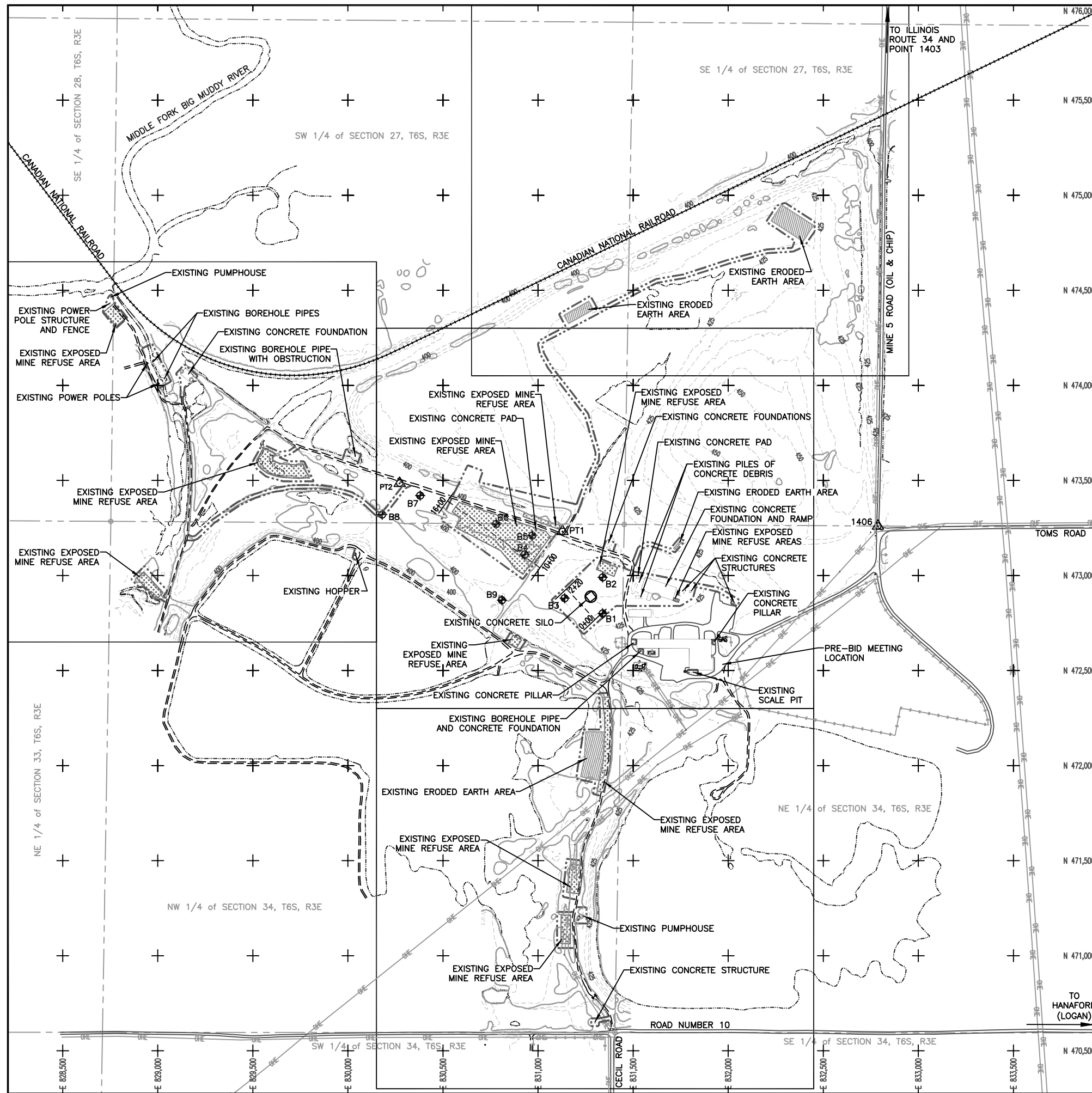
AGRICULTURAL GROUND LIMESTONE – Immediately prior to seed bed preparation, fertilizer nutrients and agricultural ground limestone shall be uniformly spread at the rates specified in the plans.

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 (on projects with mine refuse) – After mine refuse has been graded to the subgrade shown on 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 ten inches with an industrial offset disk approved by the engineer. Treated areas shall then be covered with soil as directed in the plans.



Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing				
ITEM (unit)	INITIAL APPLICATION FALL 2018 AUG 20 – SEPT 30	SECOND APPLICATION SPRING 2019 JAN 1 – MARCH 15	MOWING	TOTAL QUANTITY
SEEDING (acres)	16.1		EXACT DATE TO BE SET BY ENGINEER	16.1
AGRICULTURAL GROUND LIMESTONE (tons)	80.5			80.5
NITROGEN FERTILIZER NUTRIENT (pounds)	1,610	1,610		3,220
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	1,610			1,610
POTASSIUM FERTILIZER NUTRIENT (pounds)	2,415			2,415
MULCH, METHOD 2 PROCEDURE 1 (acres)	16.1			16.1
MOWING (acres)			16.1	16.1



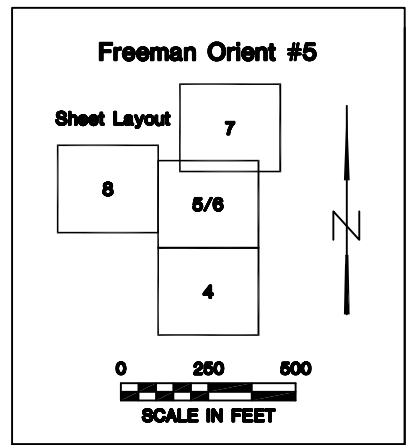
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
PT1	473,230.947	831,128.407	414.081	18" REBAR WITH CAP
PT2	473,484.328	830,272.282	395.947	18" REBAR WITH CAP
1403	476,148.790	832,844.462	420.044	PK NAIL SET IN PAVEMENT
1406	473,259.018	832,787.477	442.099	PK NAIL SET IN PAVEMENT

BASELINE INFORMATION		
STA	NORTHING	EASTING
0+00	473,230.947	831,128.407
2+20	473,484.328	830,272.282
10+00	476,148.790	832,844.462
16+50	473,259.018	832,787.477

Notes

1. EXISTING MINE SITE GRAVEL ROADS MAY BE USED FOR ACCESS ONLY AS NEEDED TO COMPLETE THE PROPOSED CONSTRUCTION. THE CONSTRUCTION LIMITS ON THESE ROADS SHALL HAVE 20' WIDTH, 10' TO EITHER SIDE OF THE ROAD CENTERLINE.

Legend	
	EXISTING CONTOUR (5' INTERVAL)
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	EXISTING MINE REFUSE
	EXISTING ERODED EARTH
	EXISTING MINE SITE ROAD, GRAVEL
	BORING
	CONTROL POINT
	EXISTING STRUCTURE



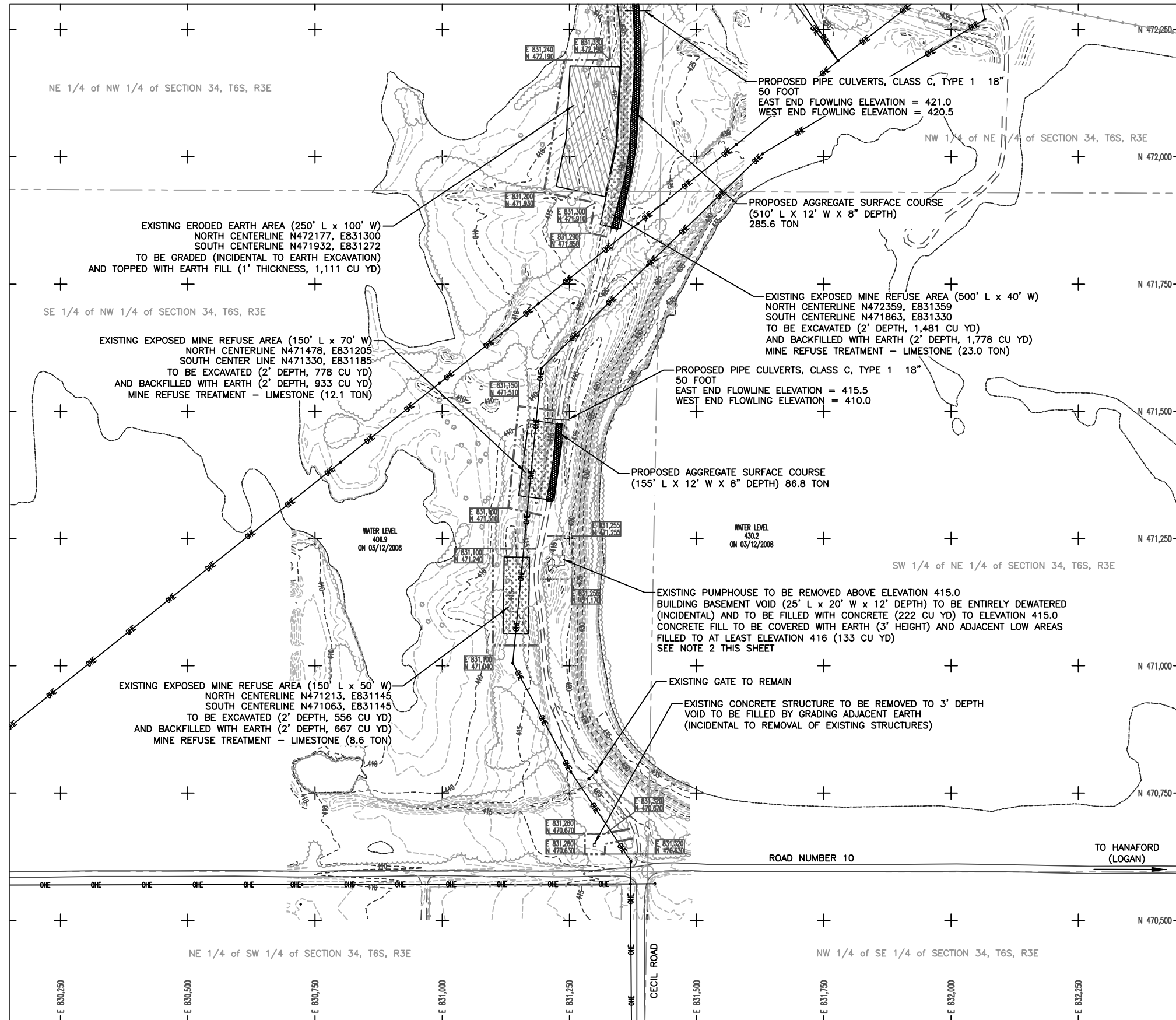
State of Illinois
Department of Natural Resources

Freeman Orient #5
Mine Reclamation Project
AML-GFrE-1704
Franklin County

Drawn By : Date : 7/21/2017
Checked By :

Site Information

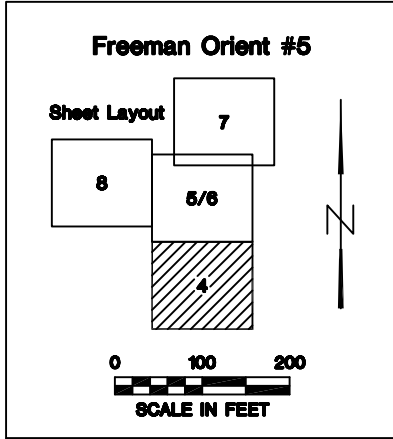
Sheet
3 of 13

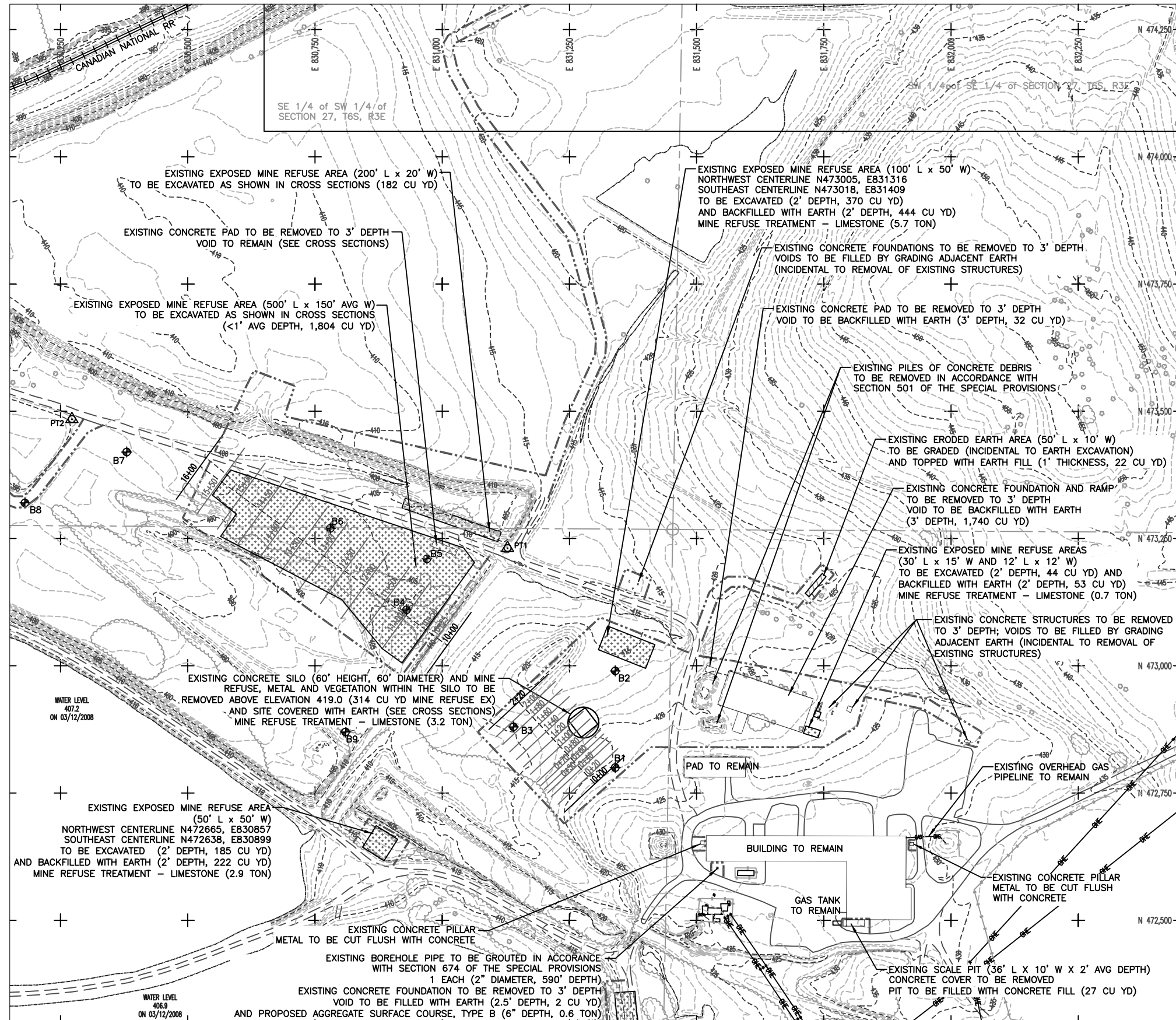


- ### Notes
1. AREAS OF MINE REFUSE EXCAVATION SHALL RECEIVE MINE REFUSE TREATMENT - LIMESTONE, AS NOTED, AT A RATE OF 50 TONS PER ACRE AND IN ACCORDANCE WITH SECTION 255 OF THE SPECIAL PROVISIONS.
 2. EXTREME CARE SHALL BE TAKEN WHILE REMOVING THE EXISTING PUMPHOUSE AND WHILE PLACING THE CONCRETE FILL TO AVOID DAMAGING THE EXISTING HIGH-PRESSURE WATER PIPES IN THE BASEMENT.
 3. EARTH FILL QUANTITIES, AS NOTED ON ALL PLAN SHEETS, ALLOW FOR 20% SHRINKAGE.

Legend

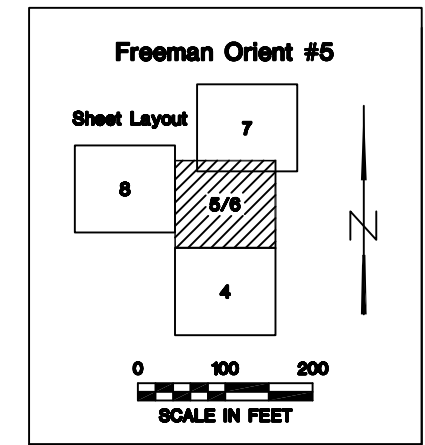
	EXISTING CONTOUR
	PROPOSED CONTOUR (SHEET 6 ONLY)
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	EXISTING MINE REFUSE
	EXISTING ERODED EARTH
	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
	EXISTING MINE SITE ROAD, GRAVEL
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

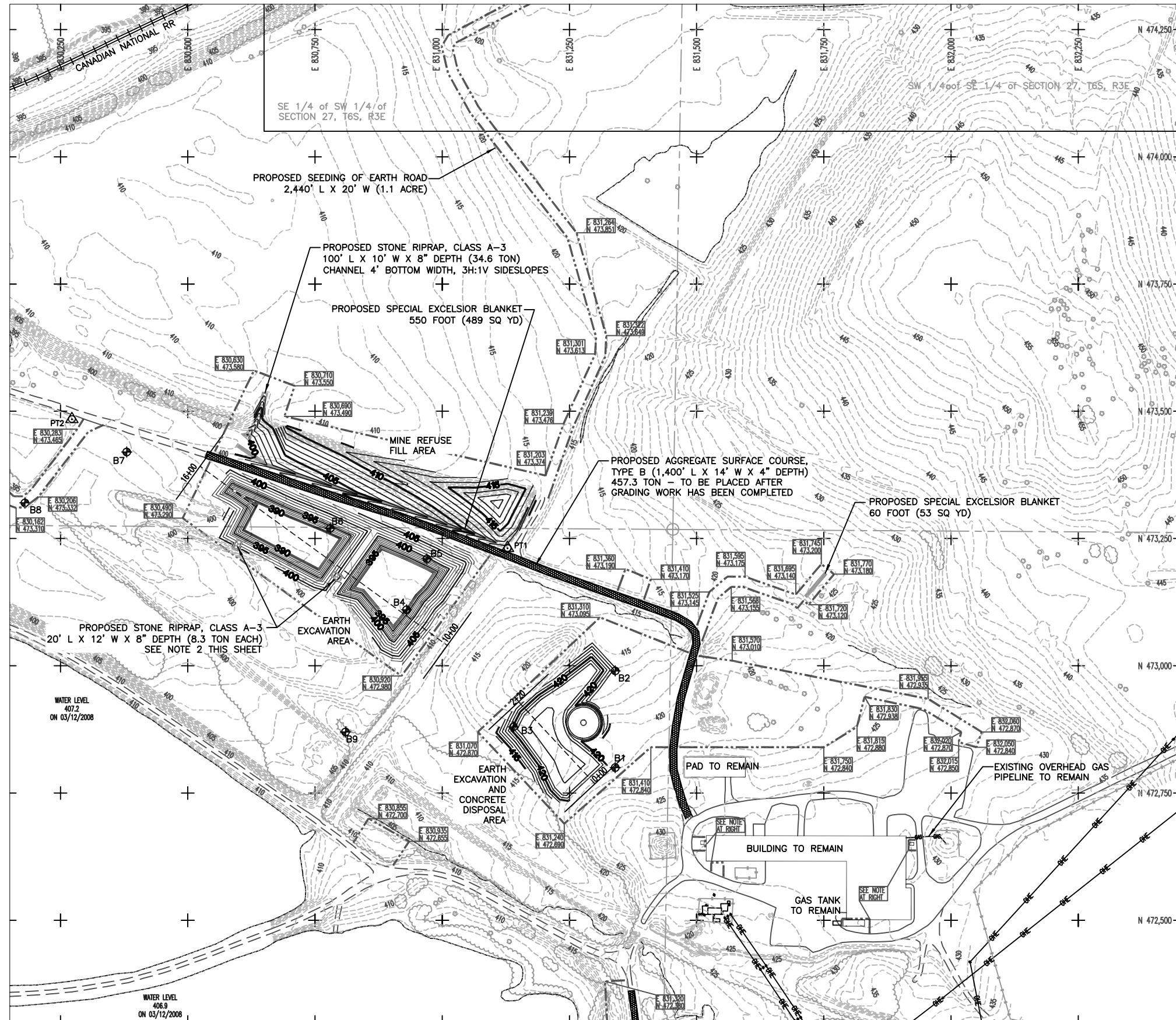




	EXISTING CONTOUR
	PROPOSED CONTOUR (SHEET 6 ONLY)
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
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	EXISTING MINE REFUSE
	EXISTING ERODED EARTH
	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
	EXISTING MINE SITE ROAD, GRAVEL
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

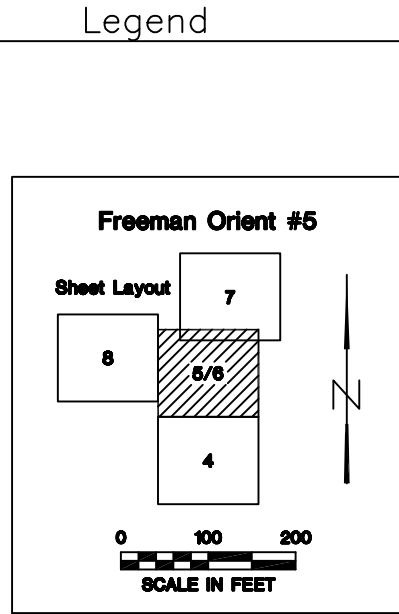
Legend

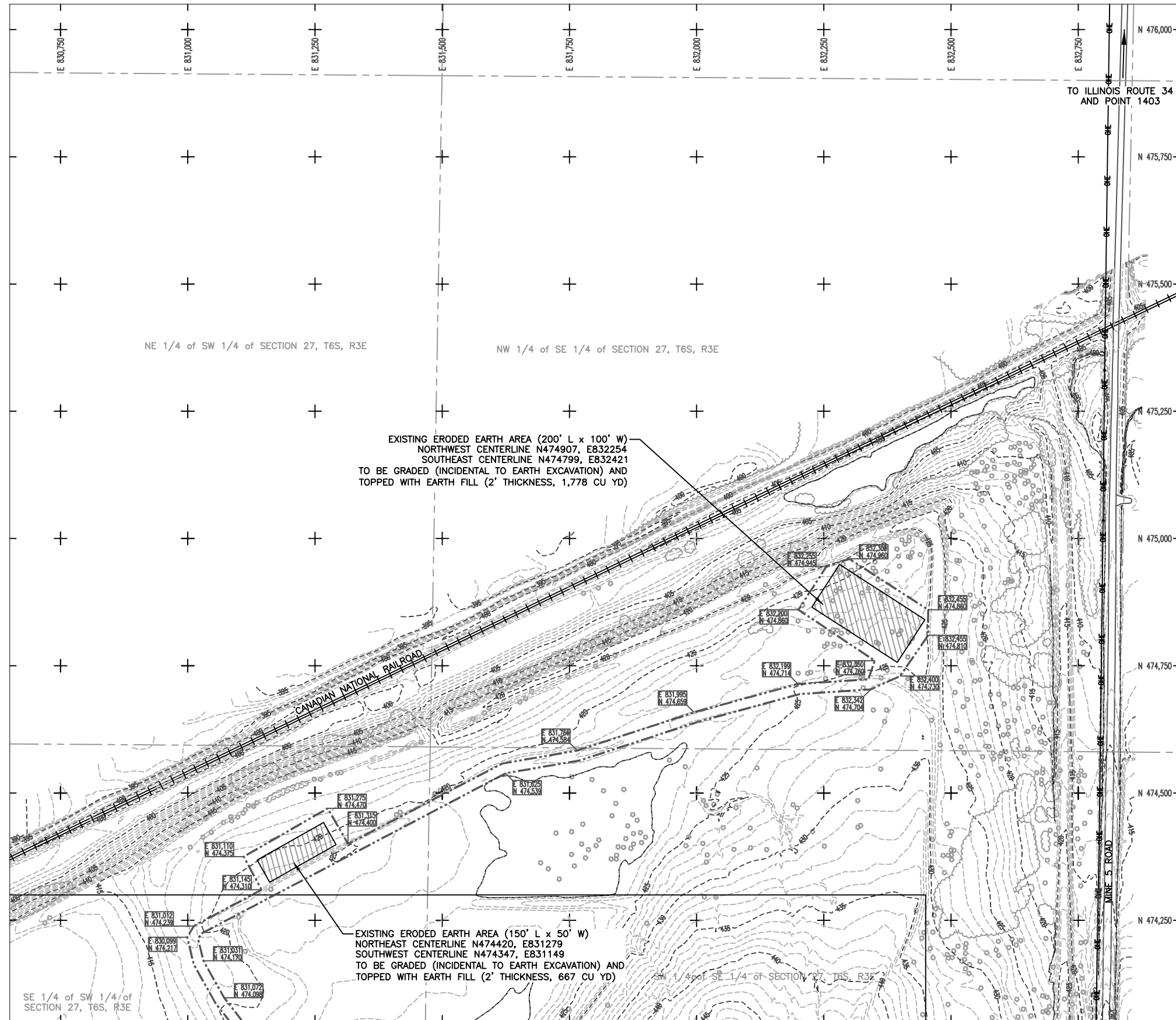


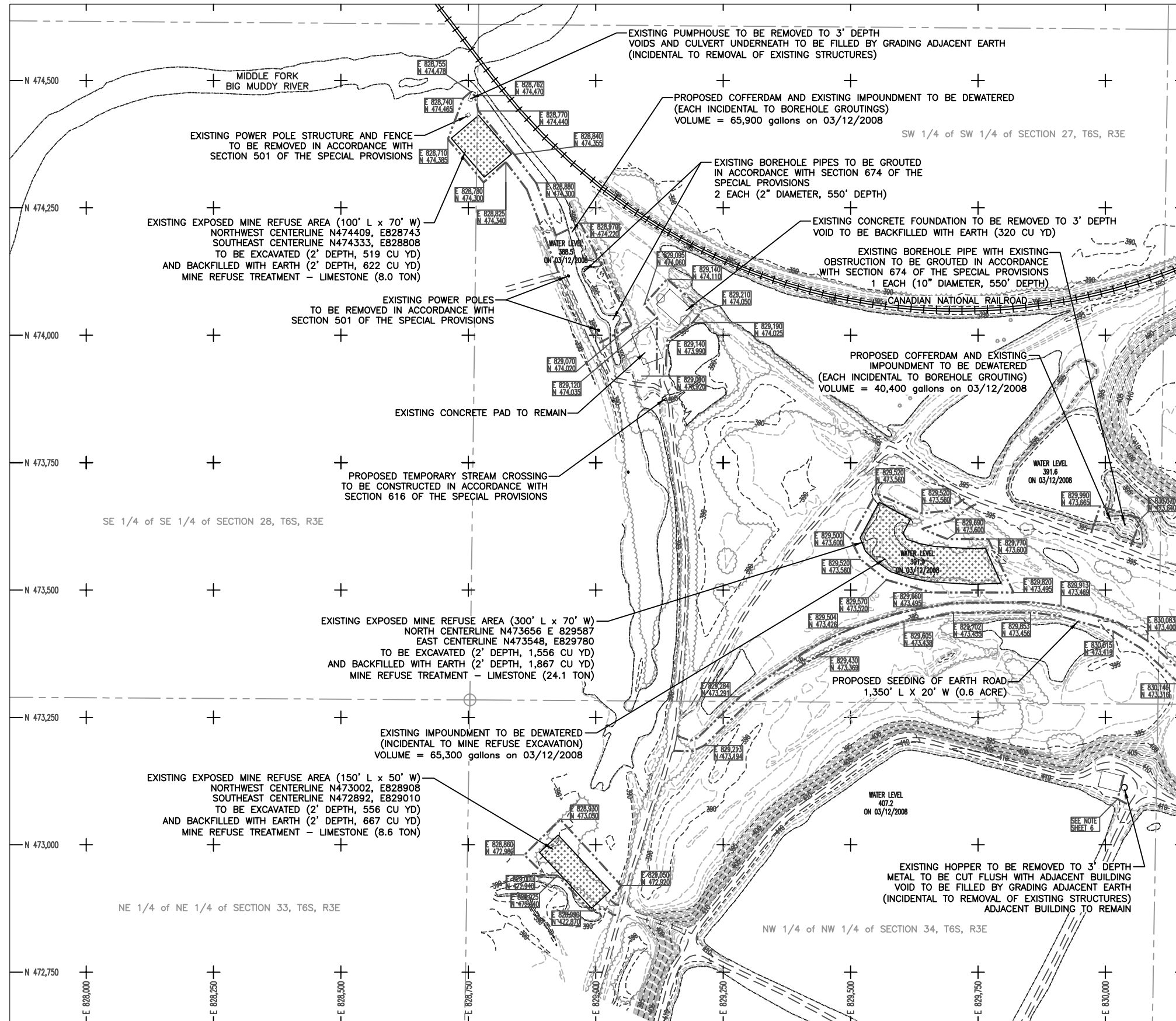


- ### Notes
1. CONSTRUCTION LIMITS NEAR EXISTING STRUCTURES NOTED AS "TO REMAIN" SHALL EXTEND NO CLOSER THAN 2' FROM THE STRUCTURE.
 2. THE EAST CELL OVERFLOW SHALL BE AT ELEVATION 401.0. THE WEST CELL OVERFLOW SHALL BE AT ELEVATION 397.0. BOTH HAVE 10' BOTTOM WIDTHS AND 3H:1V SIDESLOPES.

	EXISTING CONTOUR
	PROPOSED CONTOUR (SHEET 6 ONLY)
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	EXISTING MINE REFUSE
	EXISTING ERODED EARTH
	PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
	EXISTING MINE SITE ROAD, GRAVEL
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

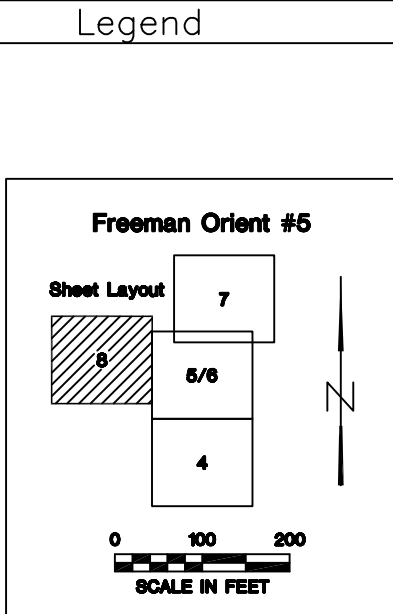






- ### Notes
1. THE COFFERDAMS SHALL BE INSTALLED, MAINTAINED AND REMOVED AS REQUIRED TO KEEP AREAS FREE OF WATER FOR ALL CONTRACT WORK.
 2. DEWATERING IMPOUNDMENTS SHALL BE PERFORMED AT A CONTROLLED RATE WHICH WILL PREVENT DOWNSTREAM FLOODING, EROSION OF EXISTING STREAM CHANNELS, TRANSPORTATION OF SEDIMENT OUTSIDE THE CONSTRUCTION LIMITS AND DAMAGE TO AQUATIC LIFE AND ITS HABITAT.

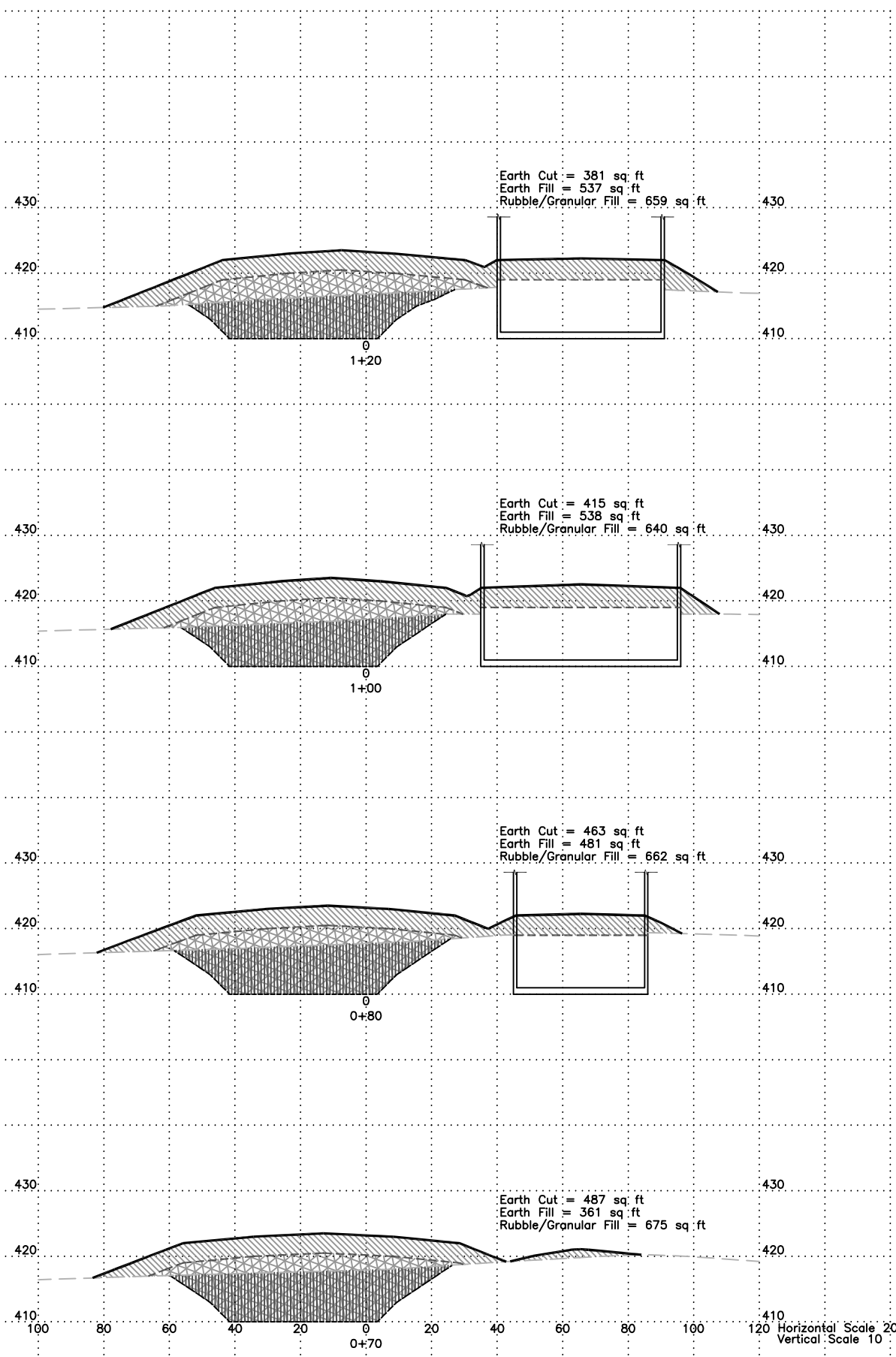
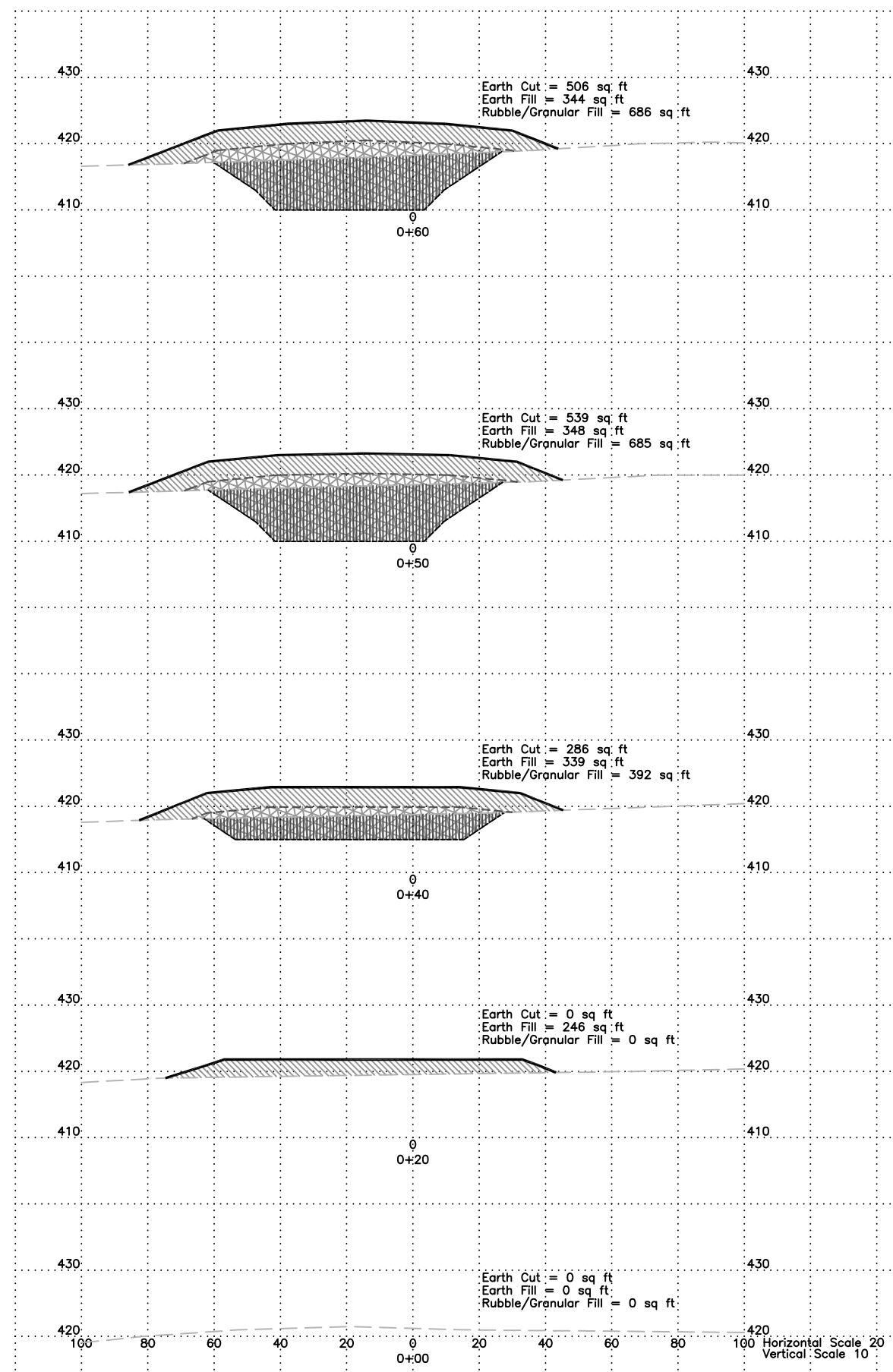
	EXISTING CONTOUR
	PROPOSED CONTOUR (SHEET 6 ONLY)
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	BASELINE FOR CROSS SECTIONS
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	EXISTING MINE SITE ROAD, GRAVEL
	BORING
	CONTROL POINT
	EXISTING STRUCTURE



LEGEND

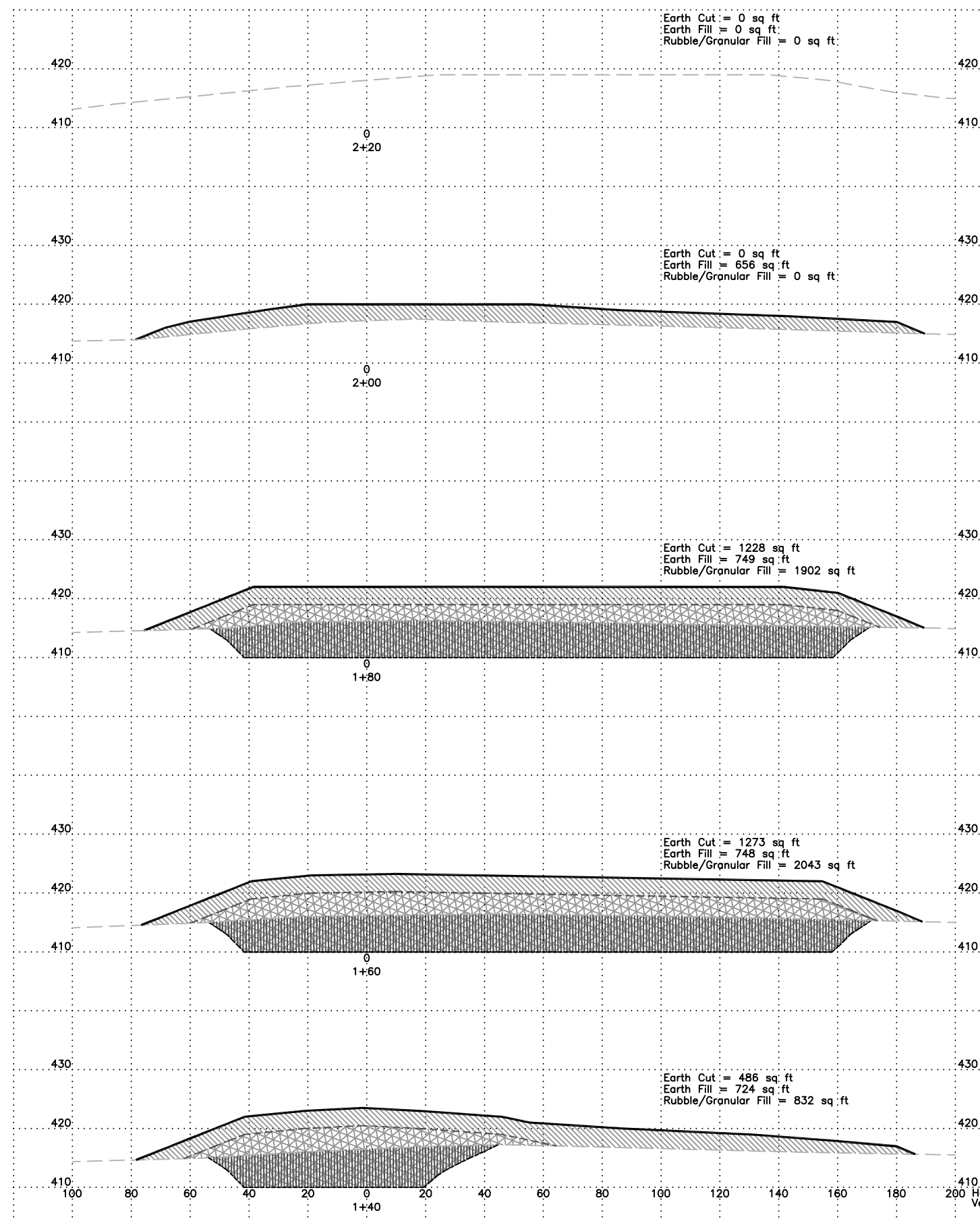
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SUBGRADE
- PROPOSED EXCAVATION
- PROPOSED SUBGRADE
- [Pattern: Dotted] MINE REFUSE CUT
- [Pattern: Diagonal lines /] MINE REFUSE FILL
- [Pattern: Vertical lines] EARTH CUT
- [Pattern: Diagonal lines \] EARTH FILL
- [Pattern: Triangular mesh] RUBBLE/GRANULAR FILL

NOTE: REFER TO BORINGS LOGS IN SPECIAL PROVISIONS FOR SUBSURFACE INFORMATION IN APPROXIMATE AREA OF EXCAVATED PIT.

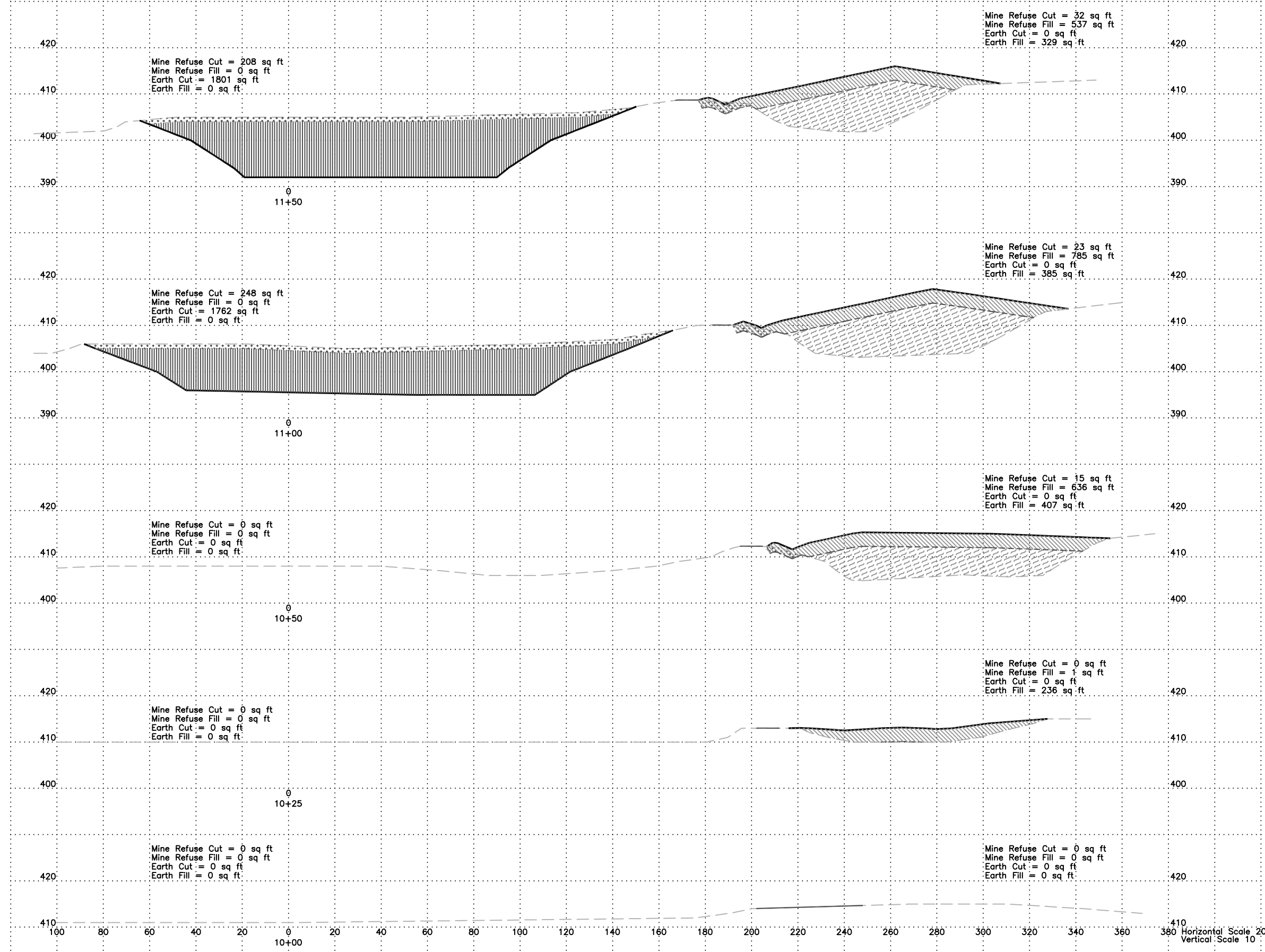


LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SUBGRADE
- PROPOSED EXCAVATION
- PROPOSED SUBGRADE
- [Pattern: Dotted] MINE REFUSE CUT
- [Pattern: Diagonal lines /] MINE REFUSE FILL
- [Pattern: Vertical lines] EARTH CUT
- [Pattern: Diagonal lines \] EARTH FILL
- [Pattern: Triangular mesh] RUBBLE/GRANULAR FILL



Horizontal Scale 20
 Vertical Scale 10

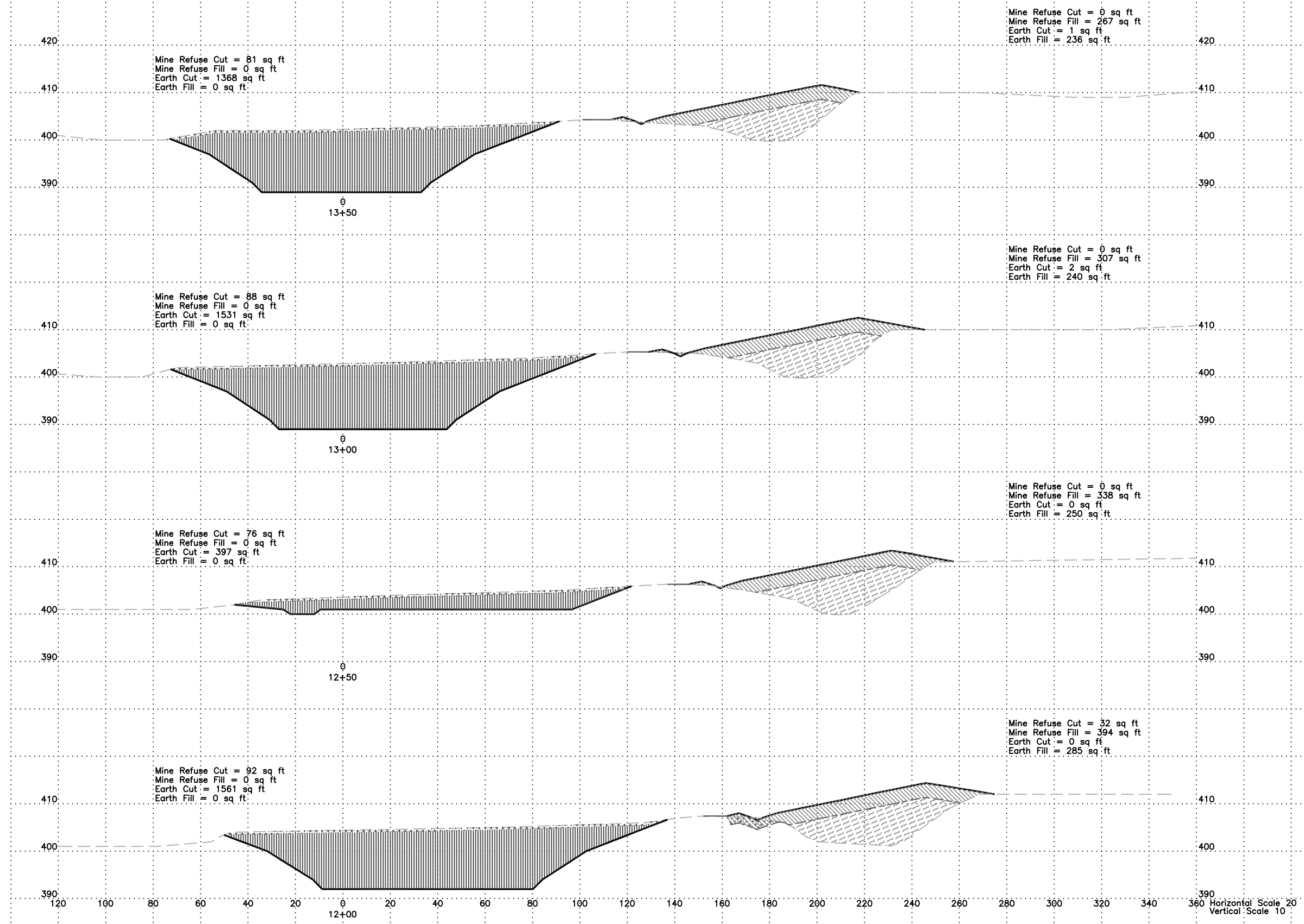


LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SUBGRADE
- PROPOSED EXCAVATION
- PROPOSED SUBGRADE
- [Pattern] MINE REFUSE CUT
- [Pattern] MINE REFUSE FILL
- [Pattern] EARTH CUT
- [Pattern] EARTH FILL
- [Pattern] RUBBLE/GRANULAR FILL

NOTE: THE TOP LAYER OF MINE REFUSE FILL SHALL INCLUDE MINE REFUSE TREATMENT - LIMESTONE AT A RATE OF 100 TON/ACRE (101.0 TON) IN ACCORDANCE WITH SECTION 255 OF THE SPECIAL PROVISIONS.

Horizontal Scale 20
 Vertical Scale 10



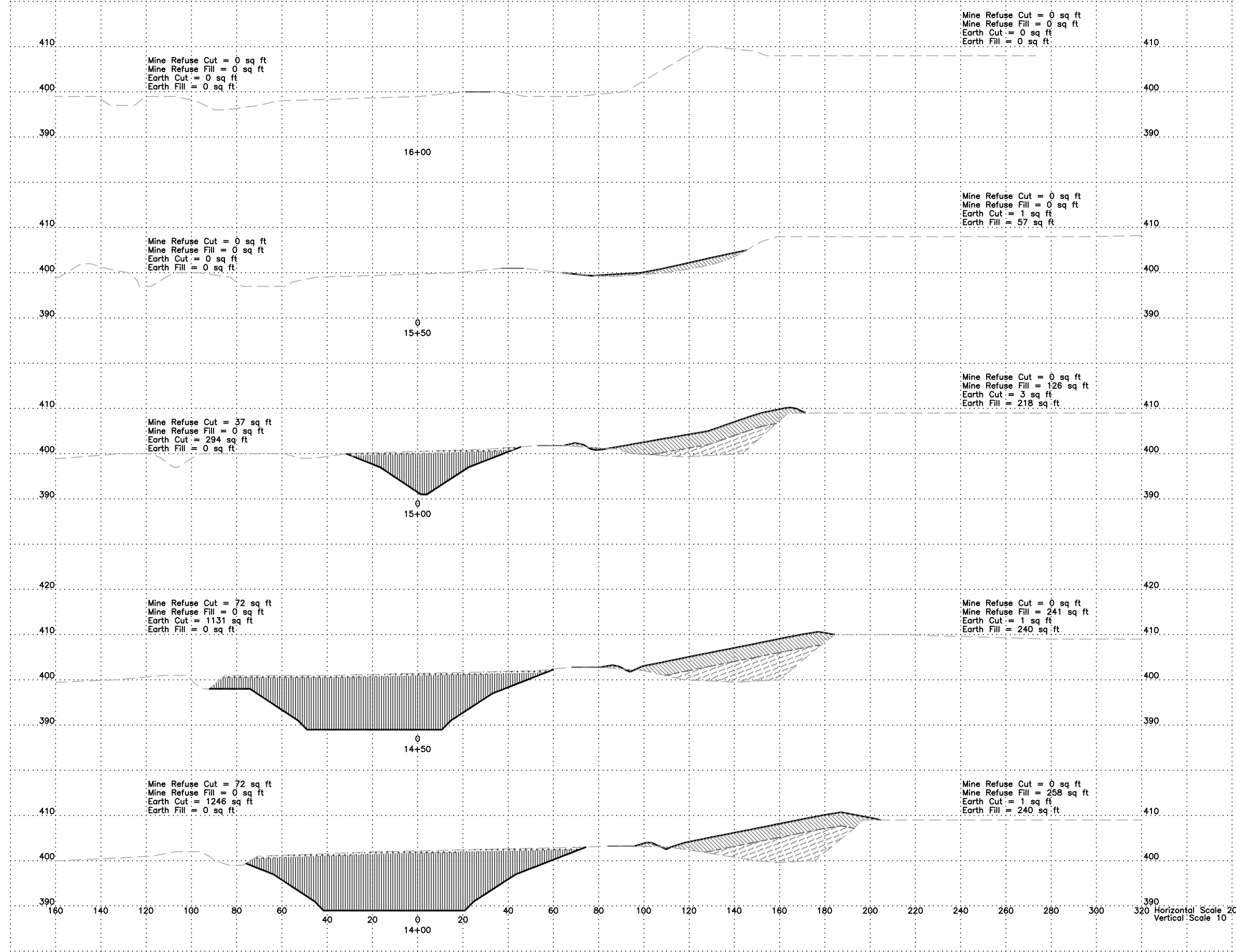
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SUBGRADE
- PROPOSED EXCAVATION
- PROPOSED SUBGRADE
- [Pattern: Dotted] MINE REFUSE CUT
- [Pattern: Diagonal lines /] MINE REFUSE FILL
- [Pattern: Vertical lines] EARTH CUT
- [Pattern: Diagonal lines \] EARTH FILL
- [Pattern: Grid] RUBBLE/GRANULAR FILL

Horizontal Scale 20
 Vertical Scale 10

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SUBGRADE
- PROPOSED EXCAVATION
- PROPOSED SUBGRADE
- [Pattern: Dotted] MINE REFUSE CUT
- [Pattern: Diagonal Lines /] MINE REFUSE FILL
- [Pattern: Vertical Lines] EARTH CUT
- [Pattern: Diagonal Lines \] EARTH FILL
- [Pattern: Cross-hatch] RUBBLE/GRANULAR FILL



Horizontal Scale 20
 Vertical Scale 10