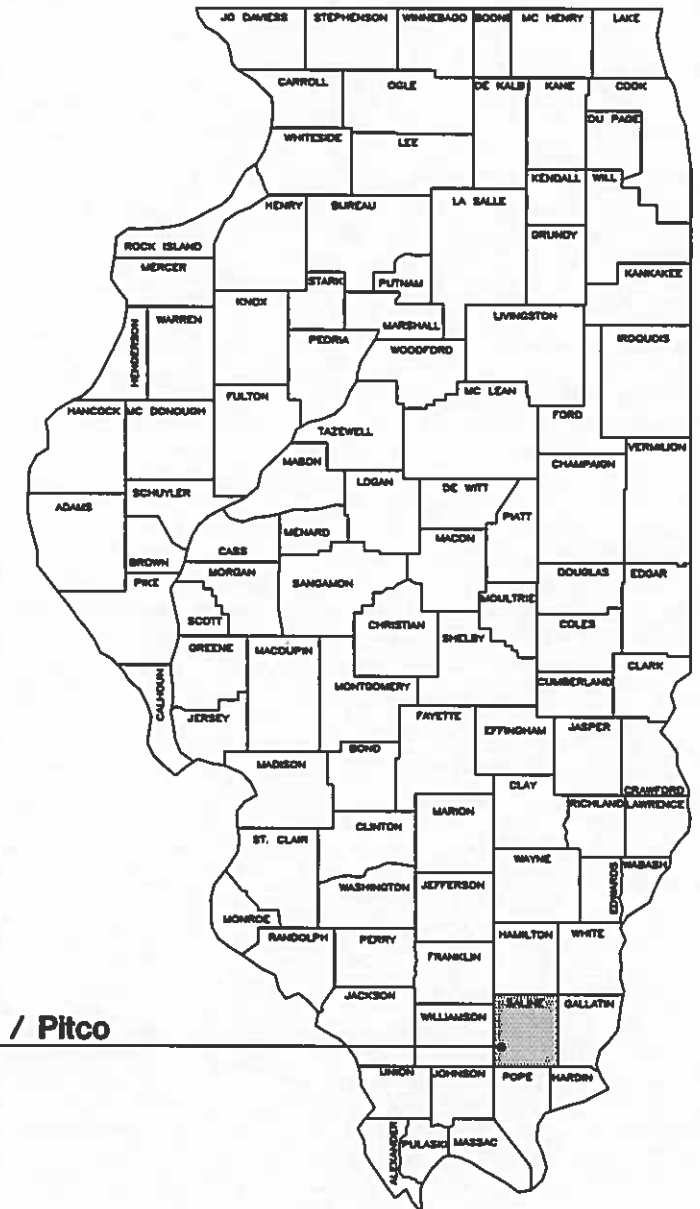


**State of Illinois**  
**Department of Natural Resources**  
**Office of Mines and Minerals**  
**Division of Abandoned Mined Lands Reclamation**

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

**Bluebird 5 & 6 / Pitco**  
**Mine Reclamation Project**  
**AML-GSIE-1907**  
**Saline County**  
**2LR**



**Bluebird 5 & 6 / Pitco**  
**Saline County**

**SCHEDULE OF DRAWINGS:**

- 1. Cover Sheet
  - 2. Summary of Quantities / General Notes / Location Map
  - 3. Site Information North of Legion Road
  - 4. Site Information South of Legion Road
  - 5.-10. Existing Conditions North of Legion Road
  - 11.-16. Proposed Conditions North of Legion Road
  - 17.-22. Existing Conditions South of Legion Road
  - 23.-28. Proposed Conditions South of Legion Road
  - 29.-81. Cross Sections
  - 82. Details
- IDOT STANDARD 701006-05  
 IDOT STANDARD B.L.R. 22-7

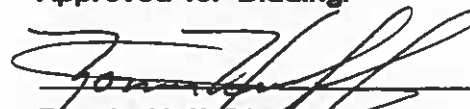
CONTRACT NO. M1907

PRE-BID MEETING

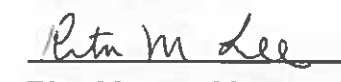
A PRE-BID MEETING IS SCHEDULED FOR THIS PROJECT ON WEDNESDAY, FEBRUARY 24, 2021 AT 9:00 A.M. ALONG LEGION ROAD (SEE SHEET 3). ALL PRIME AND SUBCONTRACTORS ARE ENCOURAGED TO ATTEND.

Prepared By IDNR Staff

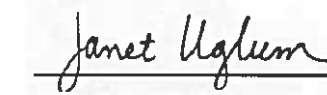
Approved for Bidding:

  
 Ronnie Huff, Director  
 Office of Mines and Minerals

Approved By:

  
 Rita M. Lee, Manager  
 AMLR Division

Approved By:

  
 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	720,108	CU YD	COMPACTION IN ACCORDANCE WITH SECTION 205 OF SPECIAL PROVISIONS
NRM20230	3	MINE REFUSE EXCAVATION	202	377,870	CU YD	
NRM25040	4	NITROGEN FERTILIZER NUTRIENT	250	35,880	POUND	100 LB / ACRE TWICE
NRM25050	5	PHOSPHORUS FERTILIZER NUTRIENT	250	26,910	POUND	150 LB / ACRE
NRM25060	6	POTASSIUM FERTILIZER NUTRIENT	250	53,820	POUND	300 LB / ACRE
NRM25070	7	AGRICULTURAL GROUND LIMESTONE	250	1,794.0	TON	10 TON / ACRE
NRM25090	8	SEEDING	250	159.8	ACRE	
25000314	9	SEEDING CLASS 4B	IDOT 250	19.6	ACRE	
25100115	10	MULCH, METHOD 2	IDOT 251	179.4	ACRE	PROCEDURE 1
NRM25510	11	MINE REFUSE TREATMENT - LIMESTONE	255	71,729.0	TON	SEE PLAN NOTES
NRM25810	12	MOWING	258	159.8	ACRE	
28000305	13	TEMPORARY DITCH CHECKS	IDOT 280	60	FOOT	SECTION 280 OF THE SPECIAL PROVISIONS ALSO APPLIES
28000315	14	AGGREGATE DITCH CHECKS	IDOT 280	636.8	TON	
28000400	15	PERIMETER EROSION BARRIER	IDOT 280	260	FOOT	
28100205	16	STONE RIPRAP, CLASS A3	IDOT 281	5,887.0	TON	
NRM28610	17	SPECIAL EXCELSIOR BLANKET	286	49,784	SQ YD	8 FT WIDTH
35101400	18	AGGREGATE BASE COURSE, TYPE B	IDOT 351	1,041.2	TON	CA-1, 8" THICKNESS
40200800	19	AGGREGATE SURFACE COURSE, TYPE B	IDOT 402	2,724.8	TON	CA-6, 6" THICKNESS
40300200	20	BITUMINOUS MATERIALS (PRIME COAT)	IDOT 403	2.6	TON	
40300400	21	BITUMINOUS MATERIALS (COVER/SEAL COATS)	IDOT 403	5.7	TON	
40300500	22	COVER COAT AGGREGATE	IDOT 403	17.1	TON	
40300600	23	SEAL COAT AGGREGATE	IDOT 403	17.1	TON	
NRM50101	24	REMOVAL OF EXISTING STRUCTURES	501	1	L SUM	
NRM50180	25	CONCRETE FILL	501	10	CU YD	
54001001	26	BOX CULVERTS END SECTIONS, CULVERT NO.1	IDOT 540	2	EACH	SINGLE CELL PRECAST BOX CULVERT TAPERED END
54010402	27	PRECAST CONCRETE BOX CULVERTS, 4'X2'	IDOT 540	40	FOOT	
542C0217	28	PIPE CULVERTS, CLASS C, TYPE 1 12"	IDOT 542	170	FOOT	CORRUGATED POLYETHYLENE (PE) PIPE WITH SMOOTH INTERIOR
542C0223	29	PIPE CULVERTS, CLASS C, TYPE 1 18"	IDOT 542	130	FOOT	
542C0229	30	PIPE CULVERTS, CLASS C, TYPE 1 24"	IDOT 542	115	FOOT	
NRM61310	31	CLEANING EXISTING CULVERTS	613	1	L SUM	
NRM61410	32	DEWATERING IMPOUNDMENTS	614	1	L SUM	
NRM61610	33	COFFERDAMS	616	1	L SUM	
NRM66510	34	BARBED WIRE FENCE	665	130	FOOT	
NRM66520	35	ENTRANCE GATES	665	2	EACH	
NRM66540	36	TEMPORARY SAFETY FENCE	665	300	FOOT	
NRM66610	37	MINE OPENING MARKER	666	2	EACH	
NRM67110	38	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 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 31st, except in areas specifically exempt from this requirement as noted in the Special Provisions. In non-exempted areas, 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.

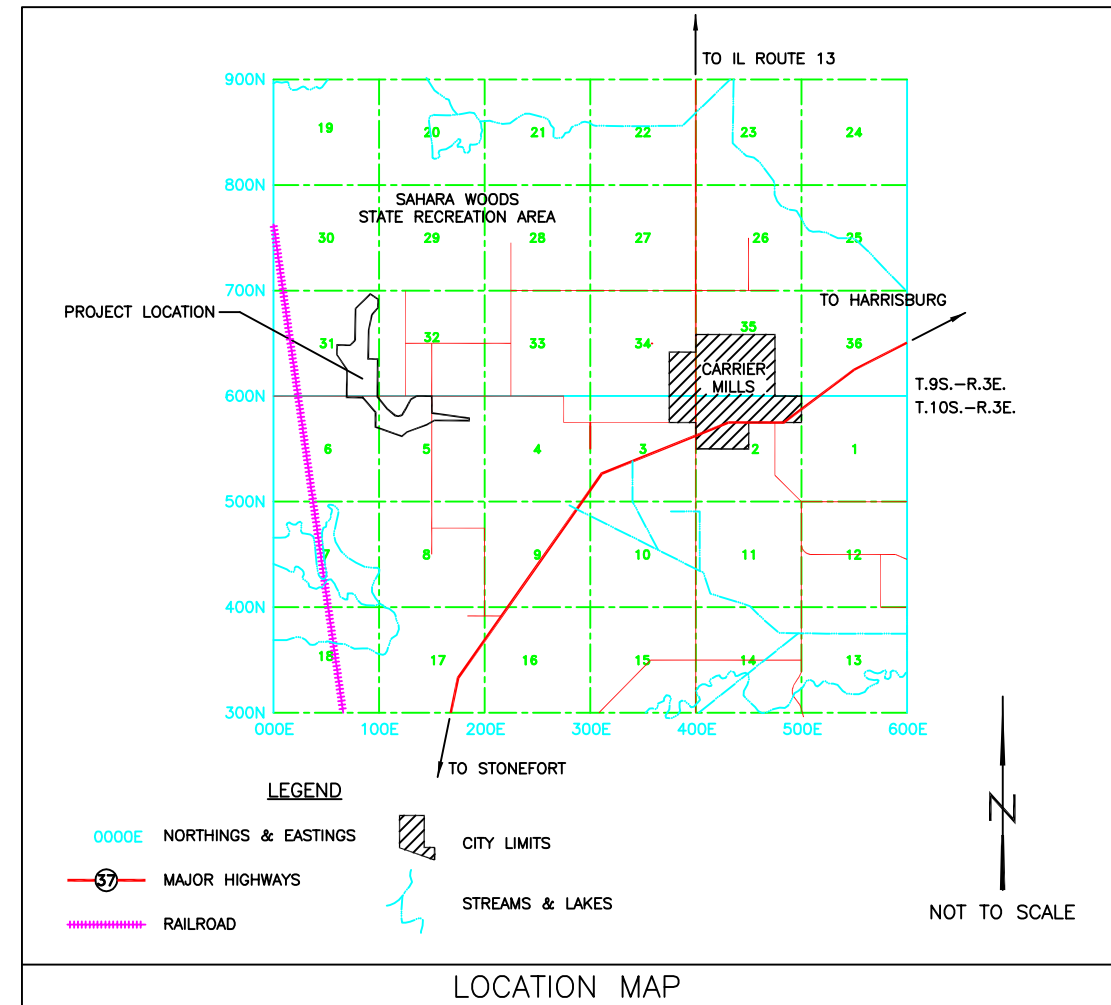
ACID WATER TREATMENT - If acid mine drainage treatment is determined necessary by the engineer, and not otherwise specified in the plans, any water treatment will be paid for in accordance with Article 109.04 of the Standard Specifications.

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.

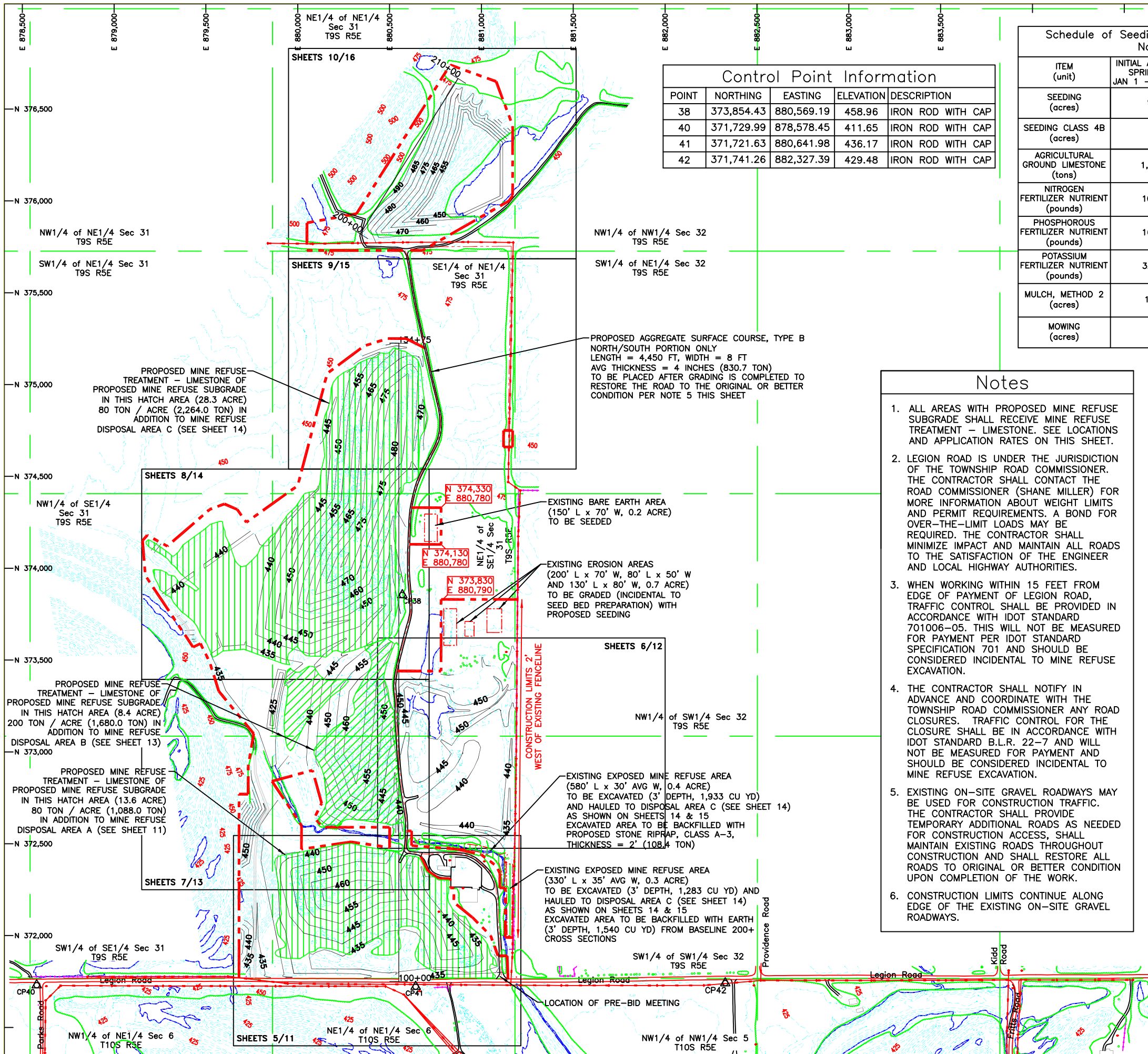
AGRICULTURAL GROUND LIMESTONE - Immediately prior to seed bed preparation, fertilizer nutrients and agricultural ground limestone shall be uniformly spread at the rates specified in the plans.

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.



Drawn By : JLU Date : 8/31/2020  
Checked By : \_\_\_\_\_



### Control Point Information

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
38	373,854.43	880,569.19	458.96	IRON ROD WITH CAP
40	371,729.99	878,578.45	411.65	IRON ROD WITH CAP
41	371,721.63	880,641.98	436.17	IRON ROD WITH CAP
42	371,741.26	882,327.39	429.48	IRON ROD WITH CAP

### Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing North of Legion Road ONLY

ITEM (unit)	INITIAL APPLICATION	SECOND APPLICATION	MOWING	TOTAL QUANTITY
	SPRING 2022 JAN 1 - MARCH 15	FALL 2022 AUG 20 - SEPT 30		
SEEDING (acres)	94.2		EXACT DATE TO BE SET BY ENGINEER	94.2
SEEDING CLASS 4B (acres)	14.3			14.3
AGRICULTURAL GROUND LIMESTONE (tons)	1,085.0			1,085.0
NITROGEN FERTILIZER NUTRIENT (pounds)	10,850	10,850		21,700
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	16,275			16,275
POTASSIUM FERTILIZER NUTRIENT (pounds)	32,550			32,550
MULCH, METHOD 2 (acres)	108.5			108.5
MOWING (acres)			94.2	94.2

- ### Notes
- ALL AREAS WITH PROPOSED MINE REFUSE SUBGRADE SHALL RECEIVE MINE REFUSE TREATMENT - LIMESTONE. SEE LOCATIONS AND APPLICATION RATES ON THIS SHEET.
  - LEGION ROAD IS UNDER THE JURISDICTION OF THE TOWNSHIP ROAD COMMISSIONER. THE CONTRACTOR SHALL CONTACT THE ROAD COMMISSIONER (SHANE MILLER) FOR MORE INFORMATION ABOUT WEIGHT LIMITS AND PERMIT REQUIREMENTS. A BOND FOR OVER-THE-LIMIT LOADS MAY BE REQUIRED. THE CONTRACTOR SHALL MINIMIZE IMPACT AND MAINTAIN ALL ROADS TO THE SATISFACTION OF THE ENGINEER AND LOCAL HIGHWAY AUTHORITIES.
  - WHEN WORKING WITHIN 15 FEET FROM EDGE OF PAYMENT OF LEGION ROAD, TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH IDOT STANDARD 701006-05. THIS WILL NOT BE MEASURED FOR PAYMENT PER IDOT STANDARD SPECIFICATION 701 AND SHOULD BE CONSIDERED INCIDENTAL TO MINE REFUSE EXCAVATION.
  - THE CONTRACTOR SHALL NOTIFY IN ADVANCE AND COORDINATE WITH THE TOWNSHIP ROAD COMMISSIONER ANY ROAD CLOSURES. TRAFFIC CONTROL FOR THE CLOSURE SHALL BE IN ACCORDANCE WITH IDOT STANDARD B.L.R. 22-7 AND WILL NOT BE MEASURED FOR PAYMENT AND SHOULD BE CONSIDERED INCIDENTAL TO MINE REFUSE EXCAVATION.
  - EXISTING ON-SITE GRAVEL ROADWAYS MAY BE USED FOR CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL PROVIDE TEMPORARY ADDITIONAL ROADS AS NEEDED FOR CONSTRUCTION ACCESS, SHALL MAINTAIN EXISTING ROADS THROUGHOUT CONSTRUCTION AND SHALL RESTORE ALL ROADS TO ORIGINAL OR BETTER CONDITION UPON COMPLETION OF THE WORK.
  - CONSTRUCTION LIMITS CONTINUE ALONG EDGE OF THE EXISTING ON-SITE GRAVEL ROADWAYS.

### Baseline Information

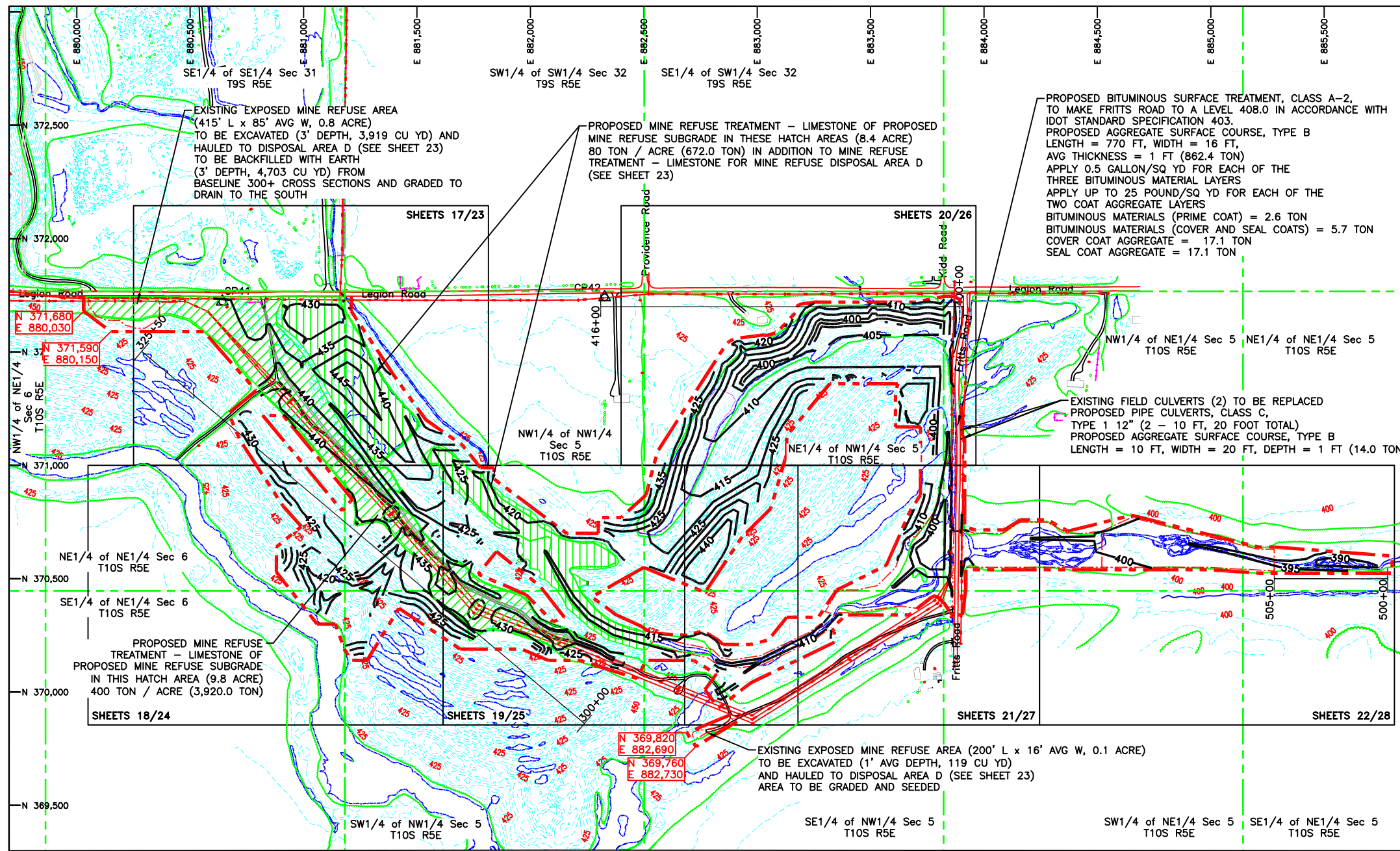
STATION	NORTHING	EASTING
100+00	371,750	880,550
134+75	375,225	880,550
200+00	375,820	880,340
210+00	376,667	880,872

### Legend

- 425 --- EXISTING CONTOUR 5' ONLY
- 410 --- PROPOSED CONTOUR 5' ONLY
- - - - - PROPOSED CONSTRUCTION LIMITS
- - - - - CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
- - - - - TREE LINE
- - - - - SECTION LINE
- OHE- -OHE- OVERHEAD ELECTRIC LINE
- - - - - EDGE OF WATER
- - - - - EXISTING EXPOSED MINE REFUSE AREA - SEE CALL OUTS
- PROPOSED MINE REFUSE TREATMENT - LIMESTONE AREA
- EXISTING STRUCTURE

### Bluebird 5 & 6 / Pitco North of Legion Road

SCALE IN FEET



- ### Notes
- ALL AREAS WITH PROPOSED MINE REFUSE SUBGRADE SHALL RECEIVE MINE REFUSE TREATMENT - LIMESTONE. SEE LOCATIONS AND APPLICATION RATES ON THIS SHEET AND SHEETS 27 AND 28.
  - LEGION AND FRITTS ROAD ARE UNDER THE JURISDICTION OF THE TOWNSHIP ROAD COMMISSION. THE CONTRACTOR SHALL CONTACT THE ROAD COMMISSIONER (SHANE MILLER) FOR MORE INFORMATION ABOUT WEIGHT LIMITS AND PERMIT REQUIREMENTS. A BOND FOR OVER-THE-LIMIT LOADS MAY BE REQUIRED. THE CONTRACTOR SHALL MINIMIZE IMPACT AND MAINTAIN ALL ROADS TO THE SATISFACTION OF THE ENGINEER AND LOCAL HIGHWAY AUTHORITIES.
  - WHEN WORKING WITHIN 15 FEET FROM EDGE OF PAYMENT OF LEGION AND FRITTS ROADS, TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH IDOT STANDARD 701006-05. THIS WILL NOT BE MEASURED FOR PAYMENT PER IDOT STANDARD SPECIFICATION 701 AND SHOULD BE CONSIDERED INCIDENTAL TO MINE REFUSE EXCAVATION.
  - THE CONTRACTOR SHALL NOTIFY IN ADVANCE AND COORDINATE WITH THE TOWNSHIP ROAD COMMISSIONER ANY TEMPORARY ROAD CLOSURES. TRAFFIC CONTROL FOR THE CLOSURE SHALL BE IN ACCORDANCE WITH IDOT STANDARD B.L.R. 22-7 AND WILL NOT BE MEASURED FOR PAYMENT AND SHOULD BE CONSIDERED INCIDENTAL TO MINE REFUSE EXCAVATION.
  - EXISTING ON-SITE GRAVEL ROADWAYS MAY BE USED FOR CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL PROVIDE TEMPORARY ADDITIONAL ROADS AS NEEDED FOR CONSTRUCTION ACCESS, SHALL MAINTAIN EXISTING ROADS THROUGHOUT CONSTRUCTION AND SHALL RESTORE ALL ROADS TO ORIGINAL OR BETTER CONDITION UPON COMPLETION OF THE WORK.

**State of Illinois  
Department of Natural Resources**

**Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County**

Drawn By : JLU Date : 8/7/2020  
Checked By :

**Site Information  
South of Legion Road  
Sheet  
4 of 82**

**Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing  
South of Legion Road ONLY**

ITEM (unit)	INITIAL APPLICATION FALL 2022 AUG 20 - SEPT 30	SECOND APPLICATION SPRING 2023 JAN 1 - MARCH 15	MOWING	TOTAL QUANTITY
SEEDING (acres)	65.6		EXACT DATE TO BE SET BY ENGINEER	65.6
SEEDING CLASS 4B (acres)	5.3			5.3
AGRICULTURAL GROUND LIMESTONE (tons)	709.0			709.0
NITROGEN FERTILIZER NUTRIENT (pounds)	7,090	7,090		14,180
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	10,635			10,635
POTASSIUM FERTILIZER NUTRIENT (pounds)	21,270			21,270
MULCH, METHOD 2 (acres)	70.9			70.9
MOWING (acres)			65.6	65.6

**Baseline  
Information**

STATION	NORTHING	EASTING
300+00	369,860	882,240
325+50	371,501	880,288
400+00	371,700	883,910
416+00	371,700	882,310
500+00	370,500	885,780
505+00	370,500	885,280

**Control Point Information**

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
38	373,854.43	880,569.19	458.96	IRON ROD WITH CAP
40	371,729.99	878,578.45	411.65	IRON ROD WITH CAP
41	371,721.63	880,641.98	436.17	IRON ROD WITH CAP
42	371,741.26	882,327.39	429.48	IRON ROD WITH CAP

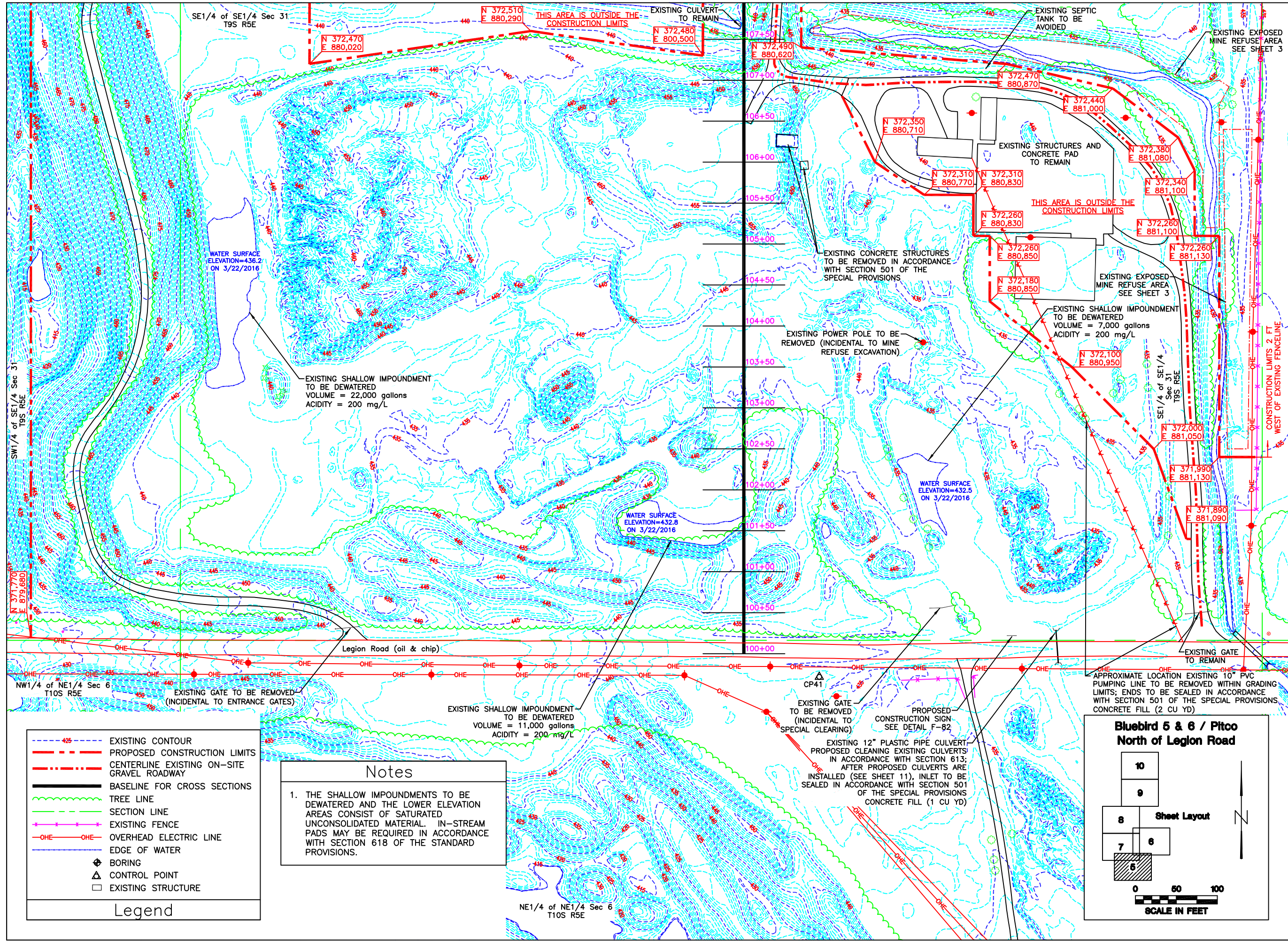
**Legend**

- 425 EXISTING CONTOUR 5' ONLY
- 410 PROPOSED CONTOUR 5' ONLY
- PROPOSED CONSTRUCTION LIMITS
- CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
- TREE LINE
- SECTION LINE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- EXISTING EXPOSED MINE REFUSE AREA - SEE CALL OUTS
- PROPOSED MINE REFUSE TREATMENT - LIMESTONE AREA
- EXISTING STRUCTURE

**Bluebird 5 & 6 / Pitco  
South of Legion Road**

N

0 250 500  
SCALE IN FEET



Symbol/Line Style	Description
--- 425 ---	EXISTING CONTOUR
---	PROPOSED CONSTRUCTION LIMITS
- . - . - .	CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
---	BASELINE FOR CROSS SECTIONS
---	TREE LINE
---	SECTION LINE
---	EXISTING FENCE
--- OHE ---	OVERHEAD ELECTRIC LINE
---	EDGE OF WATER
⊕	BORING
△	CONTROL POINT
□	EXISTING STRUCTURE

Legend

**Notes**

1. THE SHALLOW IMPOUNDMENTS TO BE DEWATERED AND THE LOWER ELEVATION AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE STANDARD PROVISIONS.

**Bluebird 5 & 6 / Pitco North of Legion Road**

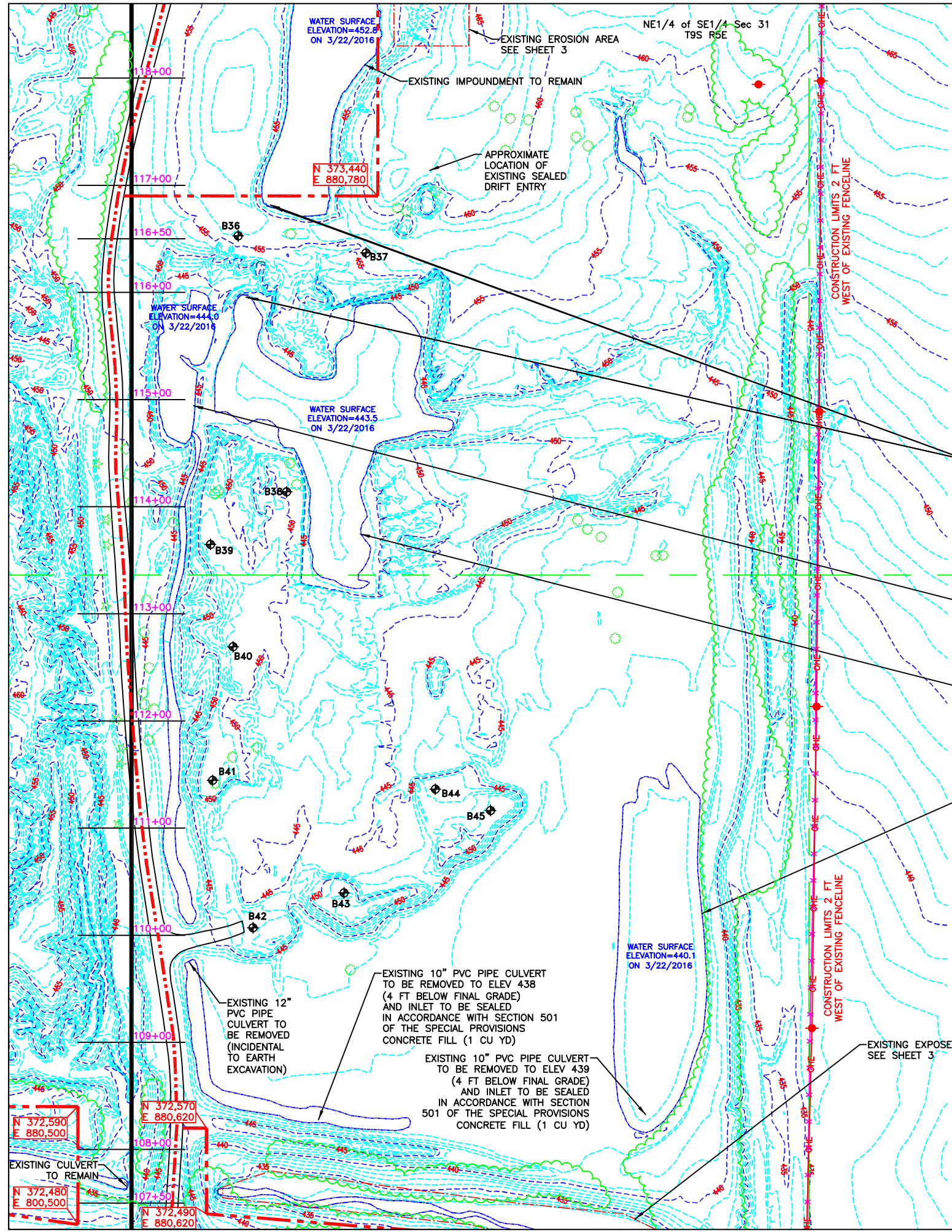
Sheet Layout

SCALE IN FEET

0 50 100

Drawn By : \_\_\_\_\_ Date : 8/5/2020

Checked By : \_\_\_\_\_



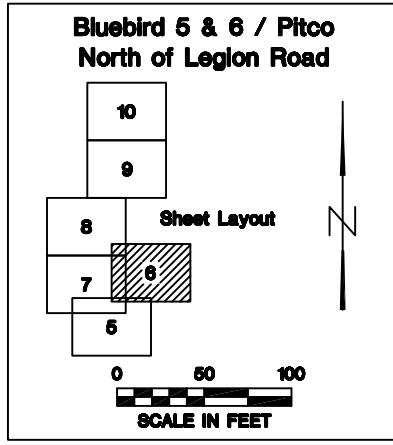
- ### Notes
1. EXISTING SHALLOW IMPOUNDMENTS WILL SEASONALLY VARY IN AREA AND VOLUME. REFER TO SECTION 614 DEWATERING IMPOUNDMENTS OF THE SPECIAL PROVISIONS.
  2. DEWATERING IMPOUNDMENTS SHALL BE PERFORMED AT A CONTROLLED RATE WHICH WILL PREVENT DOWNSTREAM FLOODING, EROSION OF EXISTING STREAM CHANNELS, TRANSPORTATION OF SEDIMENT OUTSIDE THE CONSTRUCTION LIMITS AND DAMAGE TO AQUATIC LIFE AND ITS HABITAT.
  3. THE CONSTRUCTION LIMITS ARE 5 FEET FROM THE BASE OF THE EXISTING UTILITY POLES. THE POLES NORTH OF LEGION ROAD CARRY LINES WITH 12,470 VOLTS.

NW1/4 of SW1/4 Sec 32  
T9S R5E

SW1/4 of SW1/4 Sec 32  
T9S R5E

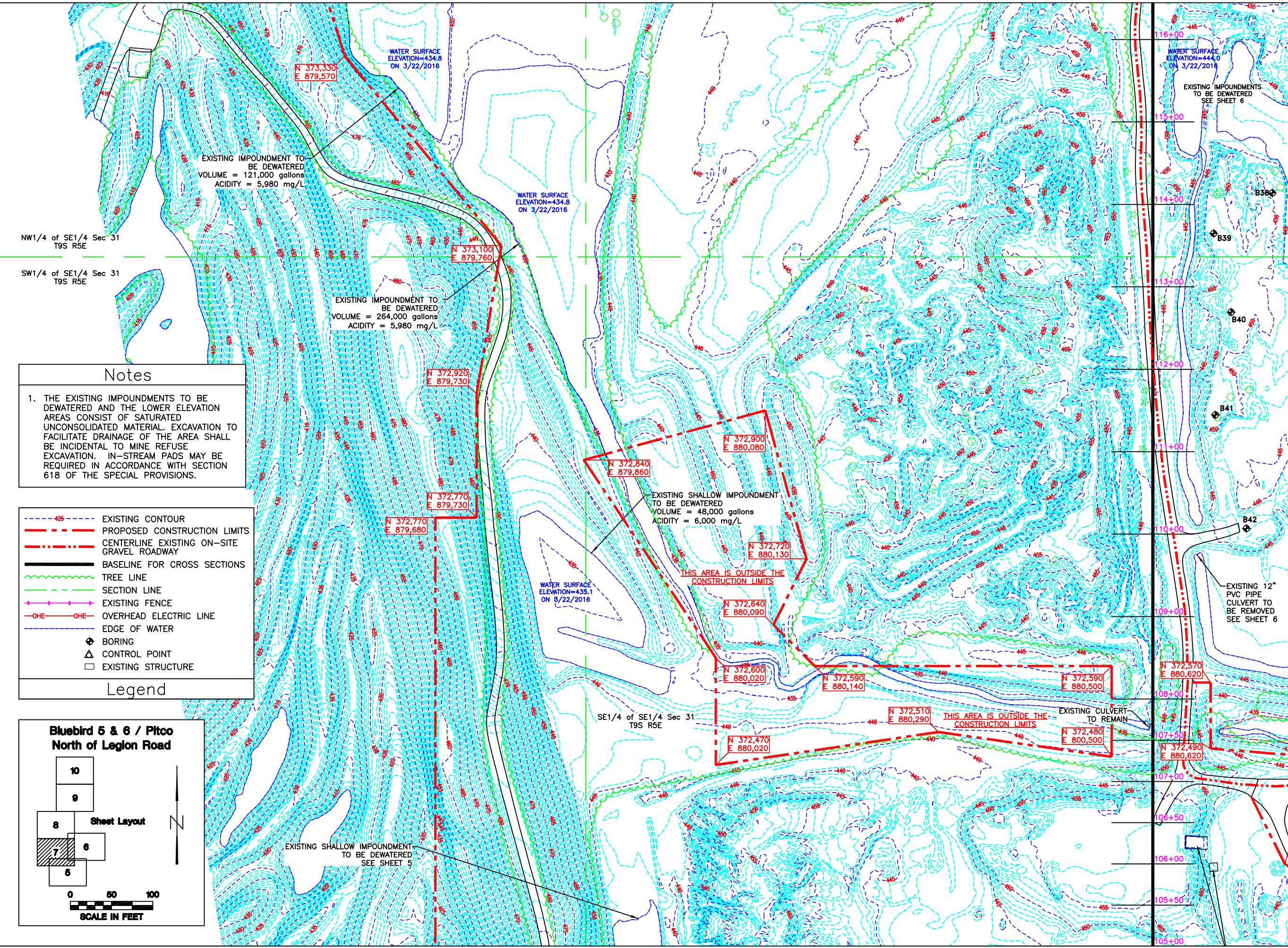
	EXISTING CONTOUR
	PROPOSED CONSTRUCTION LIMITS
	CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

Legend



Drawn By :            Date : 8/31/2020

Checked By :



NW1/4 of SE1/4 Sec 31  
T9S R5E  
  
SW1/4 of SE1/4 Sec 31  
T9S R5E

**Notes**

1. THE EXISTING IMPOUNDMENTS TO BE DEWATERED AND THE LOWER ELEVATION AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. EXCAVATION TO FACILITATE DRAINAGE OF THE AREA SHALL BE INCIDENTAL TO MINE REFUSE EXCAVATION. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.

- Legend**
- 425 --- EXISTING CONTOUR
  - --- PROPOSED CONSTRUCTION LIMITS
  - --- CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
  - --- BASELINE FOR CROSS SECTIONS
  - --- TREE LINE
  - --- SECTION LINE
  - --- EXISTING FENCE
  - --- OVERHEAD ELECTRIC LINE
  - --- EDGE OF WATER
  - ⊕ BORING
  - △ CONTROL POINT
  - EXISTING STRUCTURE

**Bluebird 5 & 6 / Pitco  
North of Legion Road**

Sheet Layout

SCALE IN FEET

0 60 100

EXISTING SHALLOW IMPONDMENT  
TO BE DEWATERED  
SEE SHEET 5

EXISTING 12"  
PVC PIPE  
CULVERT TO  
BE REMOVED  
SEE SHEET 6

EXISTING CULVERT  
TO REMAIN

THIS AREA IS OUTSIDE THE  
CONSTRUCTION LIMITS

THIS AREA IS OUTSIDE THE  
CONSTRUCTION LIMITS

EXISTING SHALLOW IMPONDMENT  
TO BE DEWATERED  
VOLUME = 48,000 gallons  
ACIDITY = 6,000 mg/L

EXISTING IMPONDMENT TO  
BE DEWATERED  
VOLUME = 121,000 gallons  
ACIDITY = 5,980 mg/L

EXISTING IMPONDMENT TO  
BE DEWATERED  
VOLUME = 264,000 gallons  
ACIDITY = 5,980 mg/L

EXISTING IMPONDMENTS  
TO BE DEWATERED  
SEE SHEET 6

N 373,330  
E 879,570

N 373,100  
E 879,760

N 372,920  
E 879,730

N 372,770  
E 879,730

N 372,770  
E 879,680

N 372,840  
E 879,860

N 372,900  
E 880,080

N 372,720  
E 880,130

N 372,640  
E 880,090

N 372,600  
E 880,020

N 372,590  
E 880,140

N 372,510  
E 880,290

N 372,590  
E 880,500

N 372,480  
E 800,500

N 372,570  
E 880,620

N 372,490  
E 880,620

WATER SURFACE  
ELEVATION=434.8  
ON 3/22/2016

WATER SURFACE  
ELEVATION=435.1  
ON 3/22/2016

WATER SURFACE  
ELEVATION=444.0  
ON 3/22/2016

SE1/4 of SE1/4 Sec 31  
T9S R5E

116+00

115+00

114+00

113+00

112+00

111+00

110+00

109+00

108+00

107+00

106+50

106+00

105+50

105+00

B38

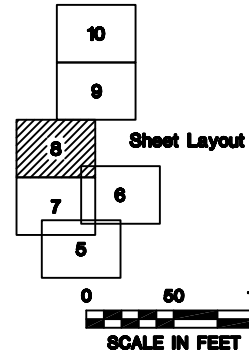
B39

B40

B41

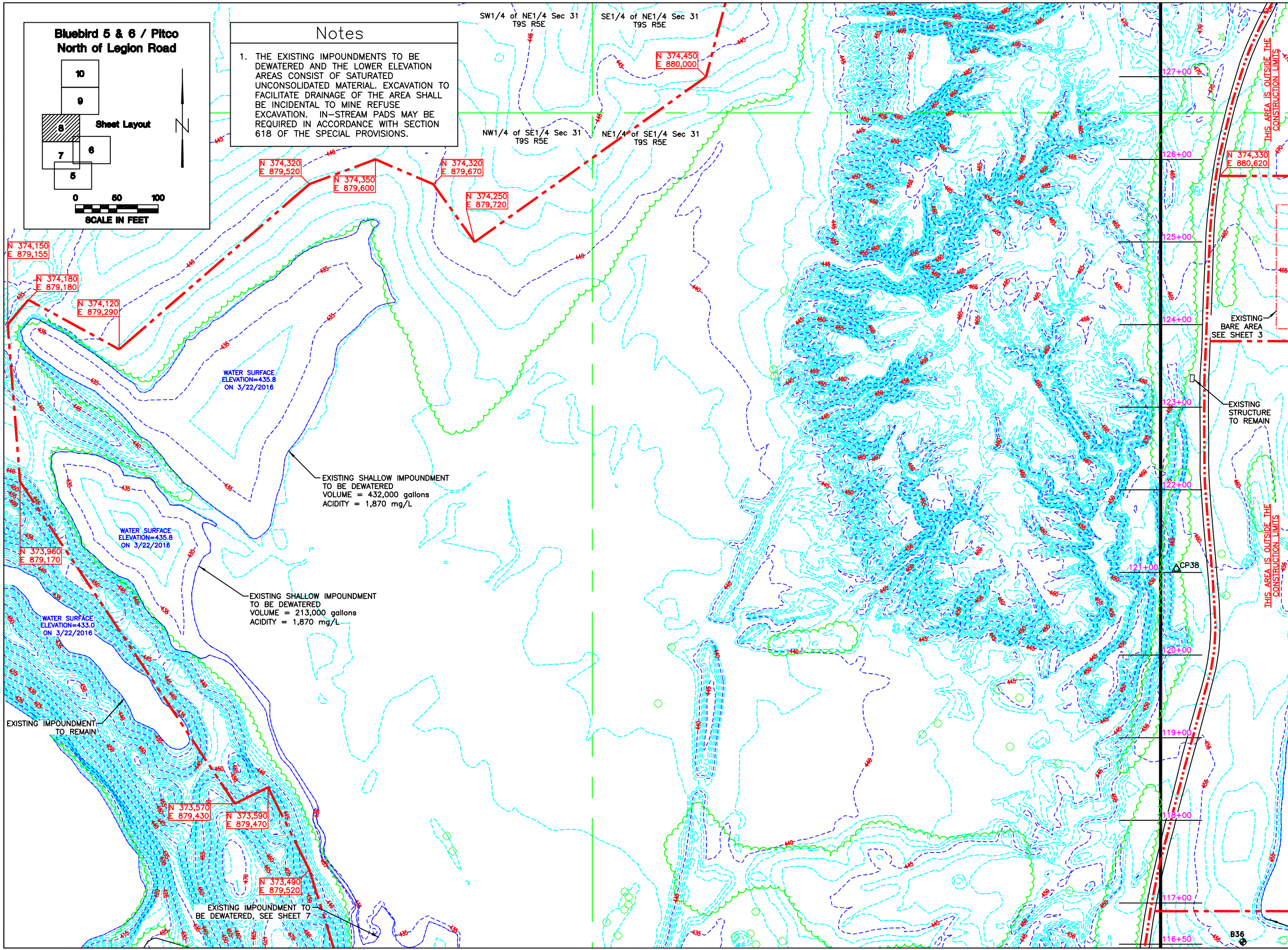
B42

**Bluebird 5 & 6 / Pitco  
North of Legion Road**



**Notes**

1. THE EXISTING IMPOUNDMENTS TO BE DEWATERED AND THE LOWER ELEVATION AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. EXCAVATION TO FACILITATE DRAINAGE OF THE AREA SHALL BE INCIDENTAL TO MINE REFUSE EXCAVATION. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.



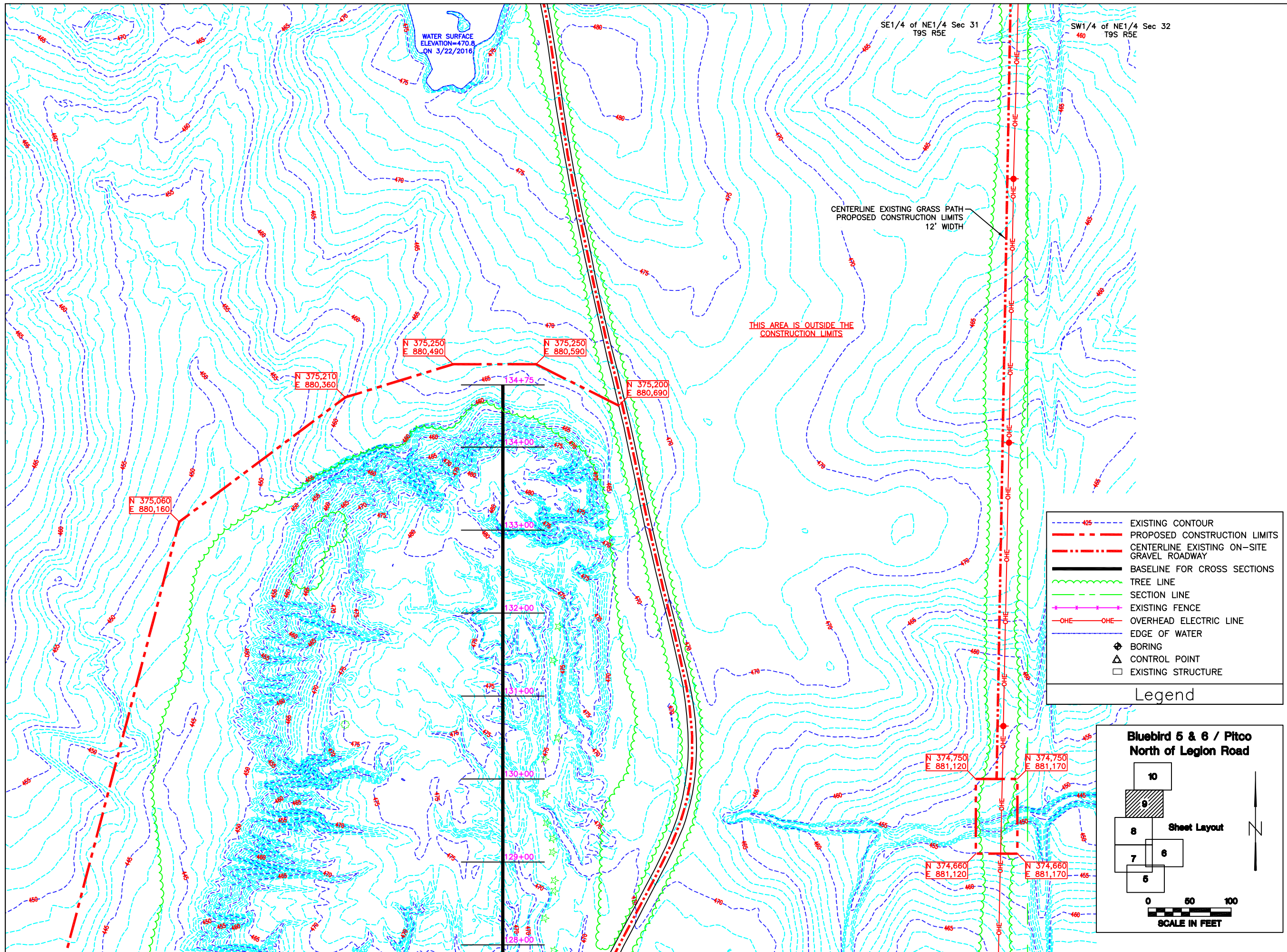
State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By :            Date : 7/30/2020  
Checked By :           

Existing Conditions  
North of Legion Road  
Sheet  
8 of 82



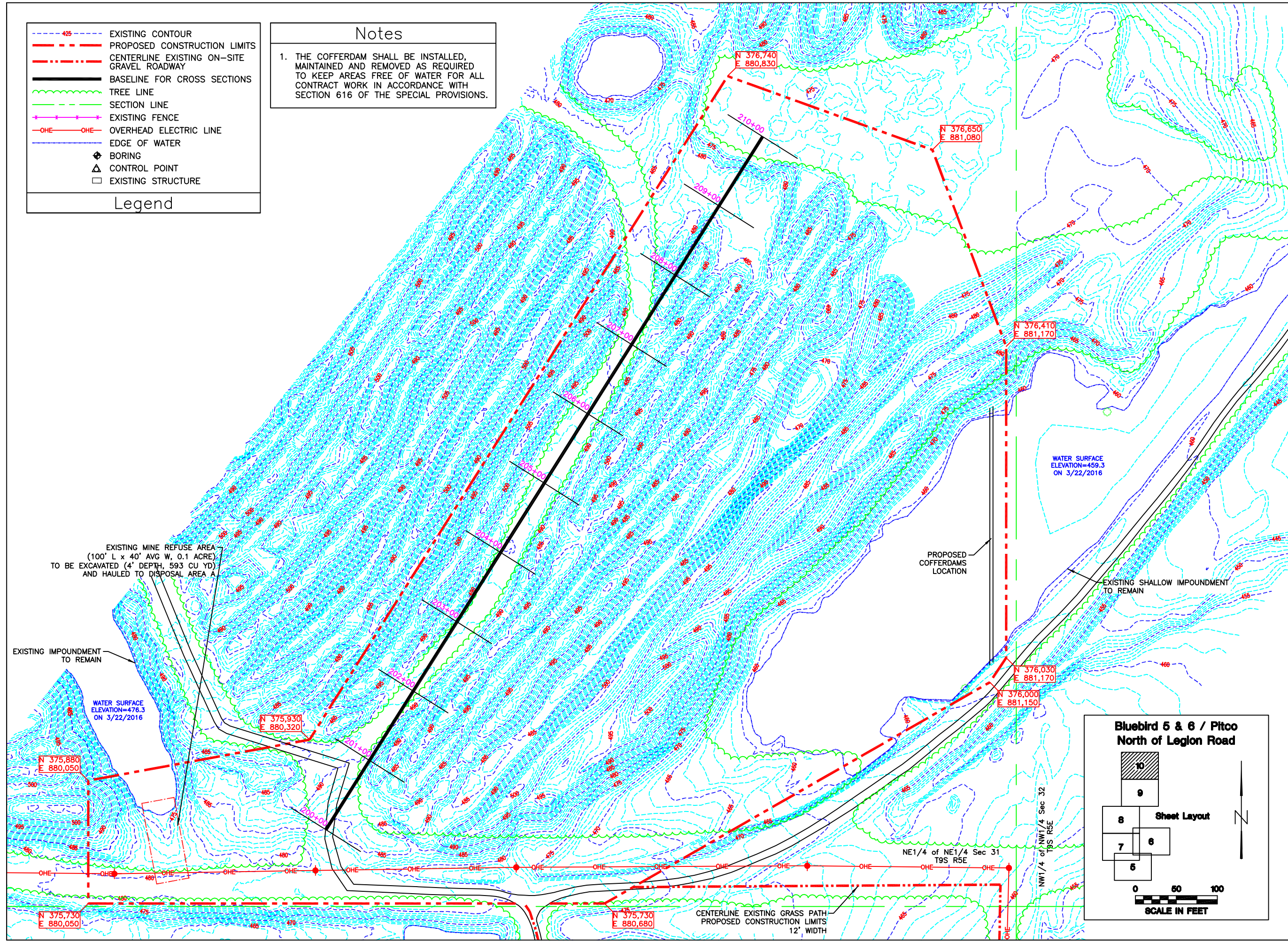


	EXISTING CONTOUR
	PROPOSED CONSTRUCTION LIMITS
	CENTERLINE EXISTING ON-SITE GRAVEL ROADWAY
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

**Notes**

1. THE COFFERDAM SHALL BE INSTALLED, MAINTAINED AND REMOVED AS REQUIRED TO KEEP AREAS FREE OF WATER FOR ALL CONTRACT WORK IN ACCORDANCE WITH SECTION 616 OF THE SPECIAL PROVISIONS.

Legend

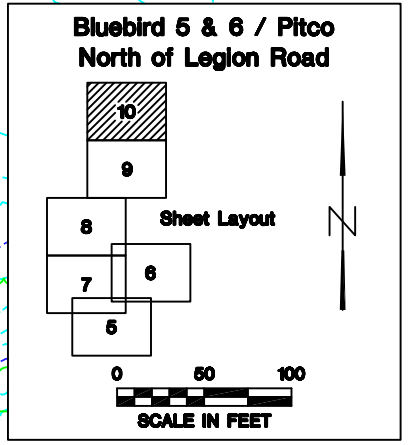


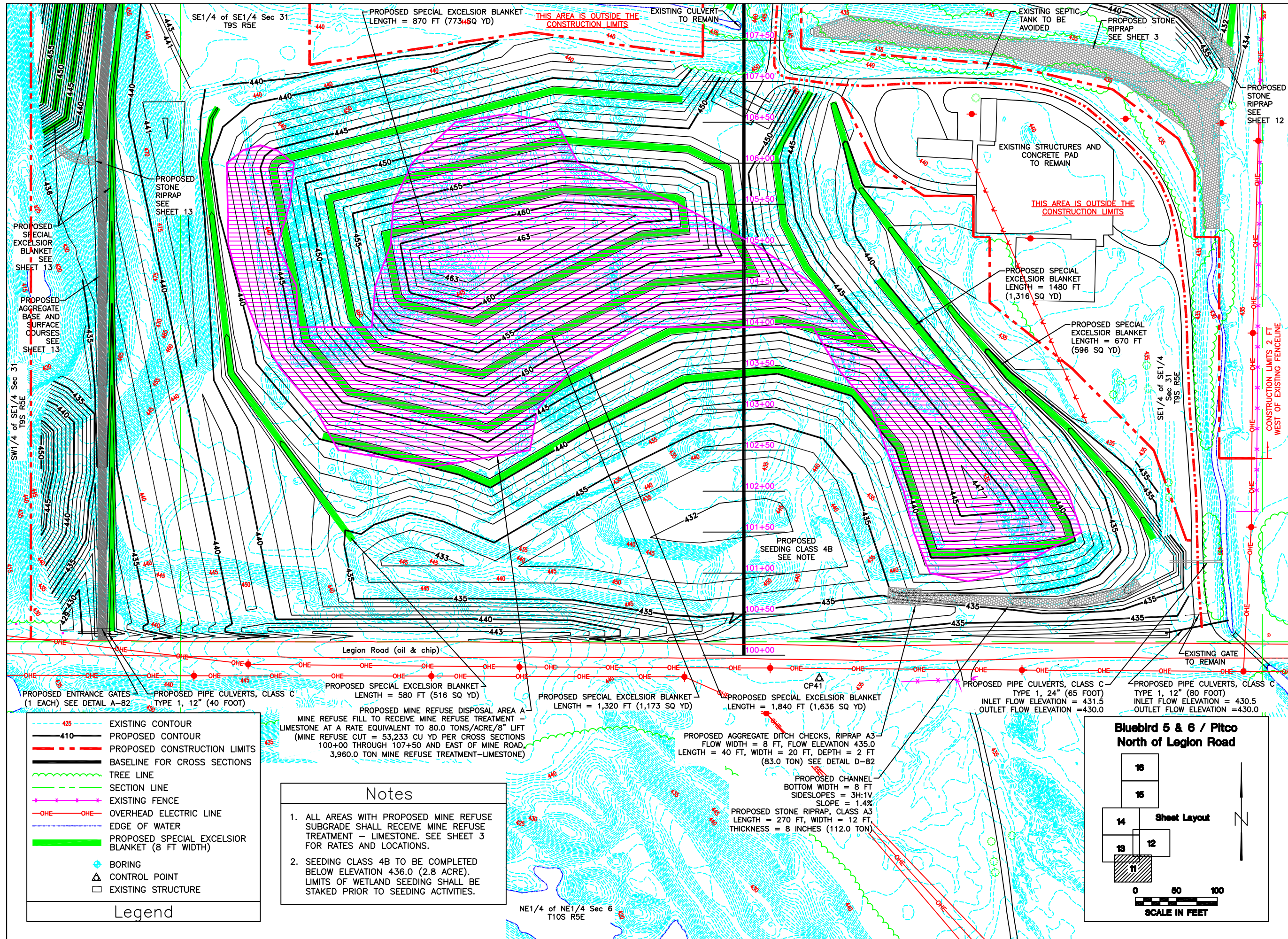
State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By : JLU Date : 8/31/2020  
Checked By :

Existing Conditions  
North of Legion Road  
Sheet  
10 of 82





SE1/4 of SE1/4 Sec 31  
T9S R5E

SW1/4 of SE1/4 Sec 31  
T9S R5E

NE1/4 of NE1/4 Sec 6  
T10S R5E

Proposed Conditions  
North of Legion Road  
Sheet  
11 of 82

State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By : JLU  
Checked By :  
Date : 8/6/2020

Proposed Conditions  
North of Legion Road  
Sheet  
11 of 82

- Legend**
- 425 --- EXISTING CONTOUR
  - 410 --- PROPOSED CONTOUR
  - - - - - PROPOSED CONSTRUCTION LIMITS
  - — — — — BASELINE FOR CROSS SECTIONS
  - — — — — TREE LINE
  - — — — — SECTION LINE
  - — — — — EXISTING FENCE
  - OHE — OHE OVERHEAD ELECTRIC LINE
  - — — — — EDGE OF WATER
  - — — — — PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
  - ⊕ BORING
  - △ CONTROL POINT
  - EXISTING STRUCTURE

- Notes**
1. ALL AREAS WITH PROPOSED MINE REFUSE SUBGRADE SHALL RECEIVE MINE REFUSE TREATMENT - LIMESTONE. SEE SHEET 3 FOR RATES AND LOCATIONS.
  2. SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 436.0 (2.8 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.

PROPOSED ENTRANCE GATES (1 EACH) SEE DETAIL A-82

PROPOSED PIPE CULVERTS, CLASS C TYPE 1, 12" (40 FOOT)

PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 580 FT (516 SQ YD)

PROPOSED MINE REFUSE DISPOSAL AREA A MINE REFUSE FILL TO RECEIVE MINE REFUSE TREATMENT - LIMESTONE AT A RATE EQUIVALENT TO 80.0 TONS/ACRE/8" LIFT (MINE REFUSE CUT = 53,233 CU YD PER CROSS SECTIONS 100+00 THROUGH 107+50 AND EAST OF MINE ROAD, 3,960.0 TON MINE REFUSE TREATMENT-LIMESTONE)

PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 1,320 FT (1,173 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 1,840 FT (1,636 SQ YD)

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3 FLOW WIDTH = 8 FT, FLOW ELEVATION 435.0 LENGTH = 40 FT, WIDTH = 20 FT, DEPTH = 2 FT (83.0 TON) SEE DETAIL D-82

PROPOSED CHANNEL BOTTOM WIDTH = 8 FT SIDESLOPES = 3H:1V SLOPE = 1.4%

PROPOSED STONE RIPRAP, CLASS A3 LENGTH = 270 FT, WIDTH = 12 FT, THICKNESS = 8 INCHES (112.0 TON)

PROPOSED PIPE CULVERTS, CLASS C TYPE 1, 24" (65 FOOT) INLET FLOW ELEVATION = 431.5 OUTLET FLOW ELEVATION = 430.0

PROPOSED PIPE CULVERTS, CLASS C TYPE 1, 12" (40 FOOT) INLET FLOW ELEVATION = 430.5 OUTLET FLOW ELEVATION = 430.0

PROPOSED ENTRANCE GATES (1 EACH) SEE DETAIL A-82

PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 870 FT (773.46 SQ YD)

EXISTING CULTURE TO REMAIN

EXISTING SEPTIC TANK TO BE AVOIDED

PROPOSED STONE RIPRAP SEE SHEET 3

EXISTING STRUCTURES AND CONCRETE PAD TO REMAIN

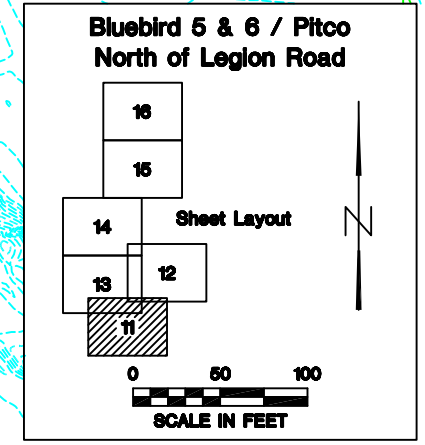
PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 1480 FT (1,316 SQ YD)

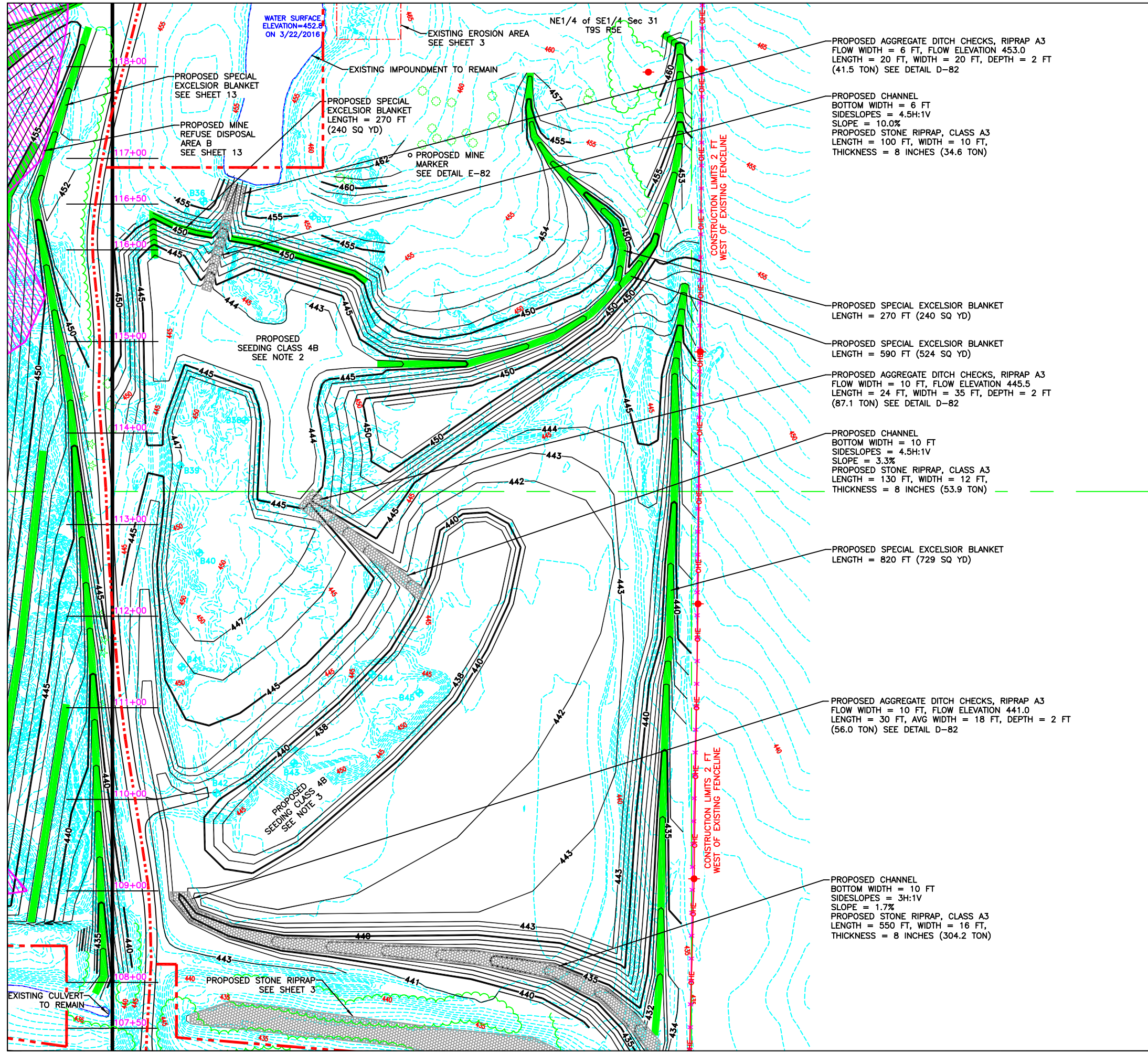
PROPOSED SPECIAL EXCELSIOR BLANKET LENGTH = 670 FT (596 SQ YD)

PROPOSED SEEDING CLASS 4B SEE NOTE

PROPOSED STONE RIPRAP SEE SHEET 12

CONSTRUCTION LIMITS 2 FT WEST OF EXISTING FENCELINE





WATER SURFACE ELEVATION=452.8 ON 3/22/2016

NE1/4 of SE1/4 Sec 31 T9S R5E

- ### Notes
- ALL MINE REFUSE CUT FROM THIS AREA EAST OF THE MINE ROAD (6,664 CU YD PER CROSS SECTIONS) SHALL BE HAULED TO DISPOSAL AREA A AS SHOWN ON SHEET 11.
  - SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 445.5 AT THE MIDDLE IMPOUNDMENT (1.1 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.
  - SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 442.0 AT THE SOUTH IMPOUNDMENT (2.8 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 6 FT, FLOW ELEVATION 453.0  
LENGTH = 20 FT, WIDTH = 20 FT, DEPTH = 2 FT  
(41.5 TON) SEE DETAIL D-82

PROPOSED CHANNEL  
BOTTOM WIDTH = 6 FT  
SIDESLOPES = 4.5H:1V  
SLOPE = 10.0%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 100 FT, WIDTH = 10 FT,  
THICKNESS = 8 INCHES (34.6 TON)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 270 FT (240 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 590 FT (524 SQ YD)

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 10 FT, FLOW ELEVATION 445.5  
LENGTH = 24 FT, WIDTH = 35 FT, DEPTH = 2 FT  
(87.1 TON) SEE DETAIL D-82

PROPOSED CHANNEL  
BOTTOM WIDTH = 10 FT  
SIDESLOPES = 4.5H:1V  
SLOPE = 3.3%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 130 FT, WIDTH = 12 FT,  
THICKNESS = 8 INCHES (53.9 TON)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 820 FT (729 SQ YD)

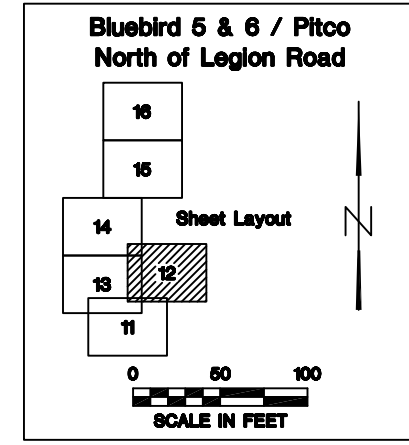
PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 10 FT, FLOW ELEVATION 441.0  
LENGTH = 30 FT, AVG WIDTH = 18 FT, DEPTH = 2 FT  
(56.0 TON) SEE DETAIL D-82

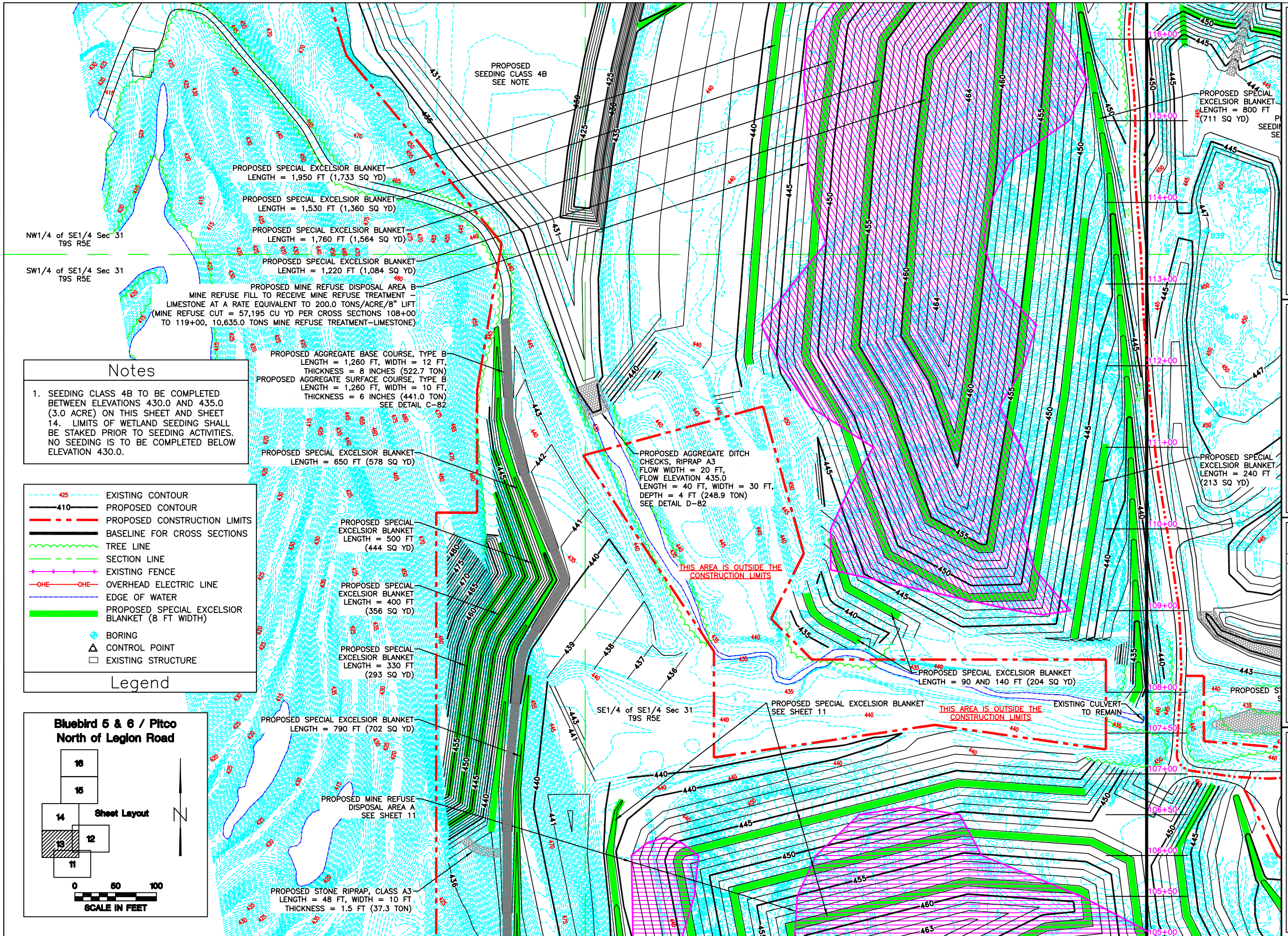
PROPOSED CHANNEL  
BOTTOM WIDTH = 10 FT  
SIDESLOPES = 3H:1V  
SLOPE = 1.7%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 550 FT, WIDTH = 16 FT,  
THICKNESS = 8 INCHES (304.2 TON)

NW1/4 of SW1/4 Sec 32 T9S R5E  
SW1/4 of SW1/4 Sec 32 T9S R5E

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

Legend





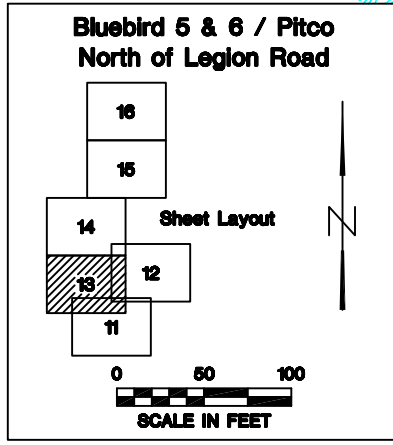
NW1/4 of SE1/4 Sec 31  
T9S R5E

SW1/4 of SE1/4 Sec 31  
T9S R5E

**Notes**

1. SEEDING CLASS 4B TO BE COMPLETED BETWEEN ELEVATIONS 430.0 AND 435.0 (3.0 ACRE) ON THIS SHEET AND SHEET 14. LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES. NO SEEDING IS TO BE COMPLETED BELOW ELEVATION 430.0.

- Legend**
- 425 EXISTING CONTOUR
  - 410 PROPOSED CONTOUR
  - PROPOSED CONSTRUCTION LIMITS
  - BASELINE FOR CROSS SECTIONS
  - TREE LINE
  - SECTION LINE
  - EXISTING FENCE
  - OHE OVERHEAD ELECTRIC LINE
  - EDGE OF WATER
  - PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
  - + BORING
  - Δ CONTROL POINT
  - EXISTING STRUCTURE



PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,950 FT (1,733 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,530 FT (1,360 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,760 FT (1,564 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,220 FT (1,084 SQ YD)

PROPOSED MINE REFUSE DISPOSAL AREA B  
MINE REFUSE FILL TO RECEIVE MINE REFUSE TREATMENT - LIMESTONE AT A RATE EQUIVALENT TO 200.0 TONS/ACRE/8" LIFT (MINE REFUSE CUT = 57,195 CU YD PER CROSS SECTIONS 108+00 TO 119+00, 10,635.0 TONS MINE REFUSE TREATMENT-LIMESTONE)

PROPOSED AGGREGATE BASE COURSE, TYPE B  
LENGTH = 1,260 FT, WIDTH = 12 FT, THICKNESS = 8 INCHES (522.7 TON)

PROPOSED AGGREGATE SURFACE COURSE, TYPE B  
LENGTH = 1,260 FT, WIDTH = 10 FT, THICKNESS = 6 INCHES (441.0 TON) SEE DETAIL C-82

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 650 FT (578 SQ YD)

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 20 FT, FLOW ELEVATION 435.0  
LENGTH = 40 FT, WIDTH = 30 FT, DEPTH = 4 FT (248.9 TON) SEE DETAIL D-82

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 800 FT (711 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 240 FT (213 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 500 FT (444 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 400 FT (356 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 330 FT (293 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 790 FT (702 SQ YD)

PROPOSED MINE REFUSE DISPOSAL AREA A  
SEE SHEET 11

PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 48 FT, WIDTH = 10 FT, THICKNESS = 1.5 FT (37.3 TON)

PROPOSED SEEDING CLASS 4B  
SEE NOTE

THIS AREA IS OUTSIDE THE CONSTRUCTION LIMITS

THIS AREA IS OUTSIDE THE CONSTRUCTION LIMITS

SE1/4 of SE1/4 Sec 31  
T9S R5E

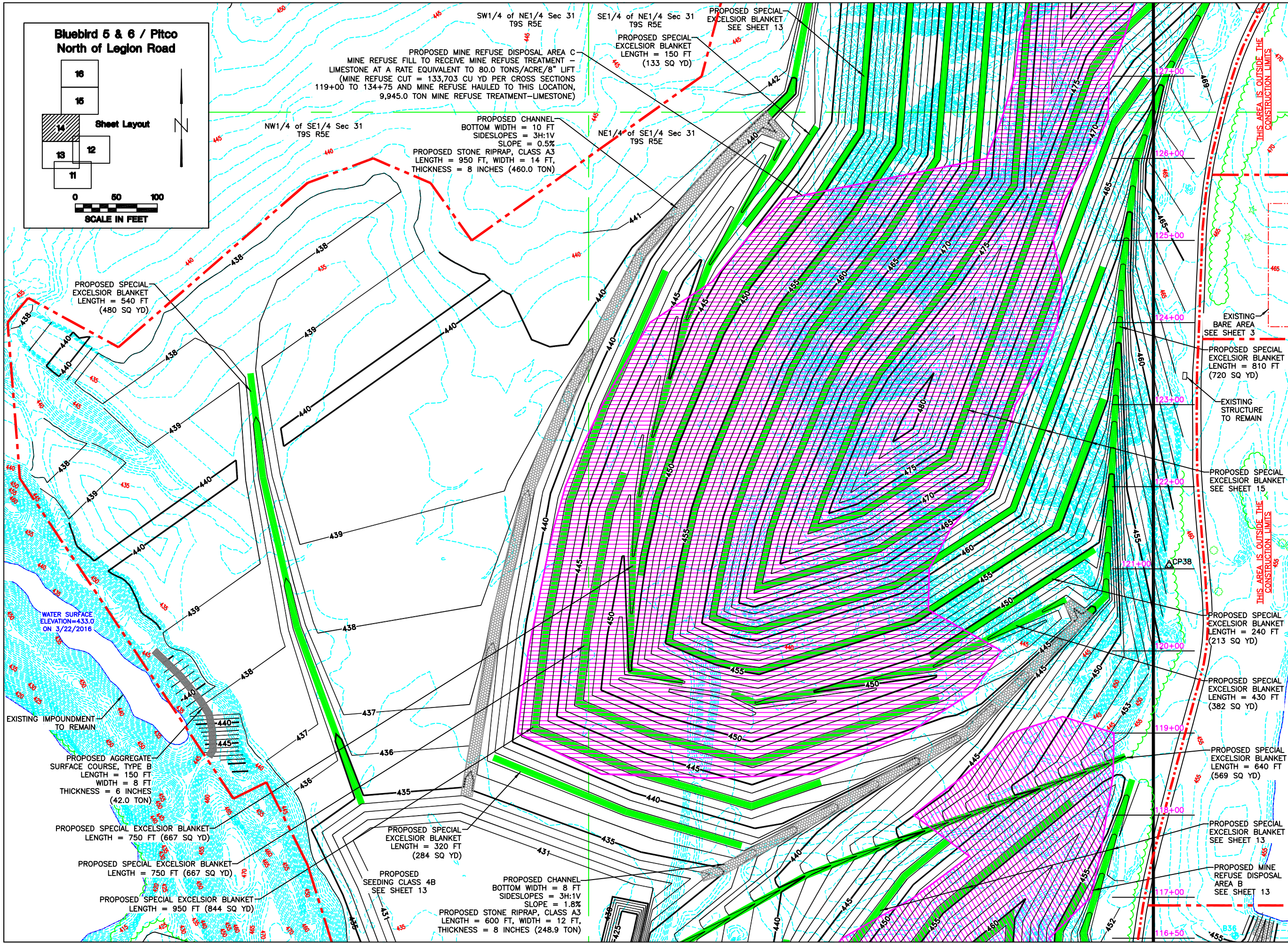
PROPOSED SPECIAL EXCELSIOR BLANKET  
SEE SHEET 11

EXISTING CULVERT TO REMAIN

**Bluebird 5 & 6 / Pitco  
North of Legion Road**

**Sheet Layout**

0 60 100  
**SCALE IN FEET**



SW1/4 of NE1/4 Sec 31  
T9S R5E

SE1/4 of NE1/4 Sec 31  
T9S R5E

PROPOSED MINE REFUSE DISPOSAL AREA C  
MINE REFUSE FILL TO RECEIVE MINE REFUSE TREATMENT -  
LIMESTONE AT A RATE EQUIVALENT TO 80.0 TONS/ACRE/8" LIFT  
(MINE REFUSE CUT = 133,703 CU YD PER CROSS SECTIONS  
119+00 TO 134+75 AND MINE REFUSE HAULED TO THIS LOCATION,  
9,945.0 TON MINE REFUSE TREATMENT-LIMESTONE)

PROPOSED CHANNEL  
BOTTOM WIDTH = 10 FT  
SIDESLOPES = 3H:1V  
SLOPE = 0.5%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 950 FT, WIDTH = 14 FT,  
THICKNESS = 8 INCHES (460.0 TON)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 540 FT  
(480 SQ YD)

WATER SURFACE  
ELEVATION=433.0  
ON 3/22/2016

EXISTING IMPONDMENT  
TO REMAIN

PROPOSED AGGREGATE  
SURFACE COURSE, TYPE B  
LENGTH = 150 FT  
WIDTH = 8 FT  
THICKNESS = 6 INCHES  
(42.0 TON)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 750 FT (667 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 750 FT (667 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 950 FT (844 SQ YD)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 320 FT  
(284 SQ YD)

PROPOSED  
SEEDING CLASS 4B  
SEE SHEET 13

PROPOSED CHANNEL  
BOTTOM WIDTH = 8 FT  
SIDESLOPES = 3H:1V  
SLOPE = 1.8%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 600 FT, WIDTH = 12 FT,  
THICKNESS = 8 INCHES (248.9 TON)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
SEE SHEET 13

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 150 FT  
(133 SQ YD)

EXISTING  
BARE AREA  
SEE SHEET 3

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 810 FT  
(720 SQ YD)

EXISTING  
STRUCTURE  
TO REMAIN

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
SEE SHEET 15

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 240 FT  
(213 SQ YD)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 430 FT  
(382 SQ YD)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
LENGTH = 640 FT  
(569 SQ YD)

PROPOSED SPECIAL  
EXCELSIOR BLANKET  
SEE SHEET 13

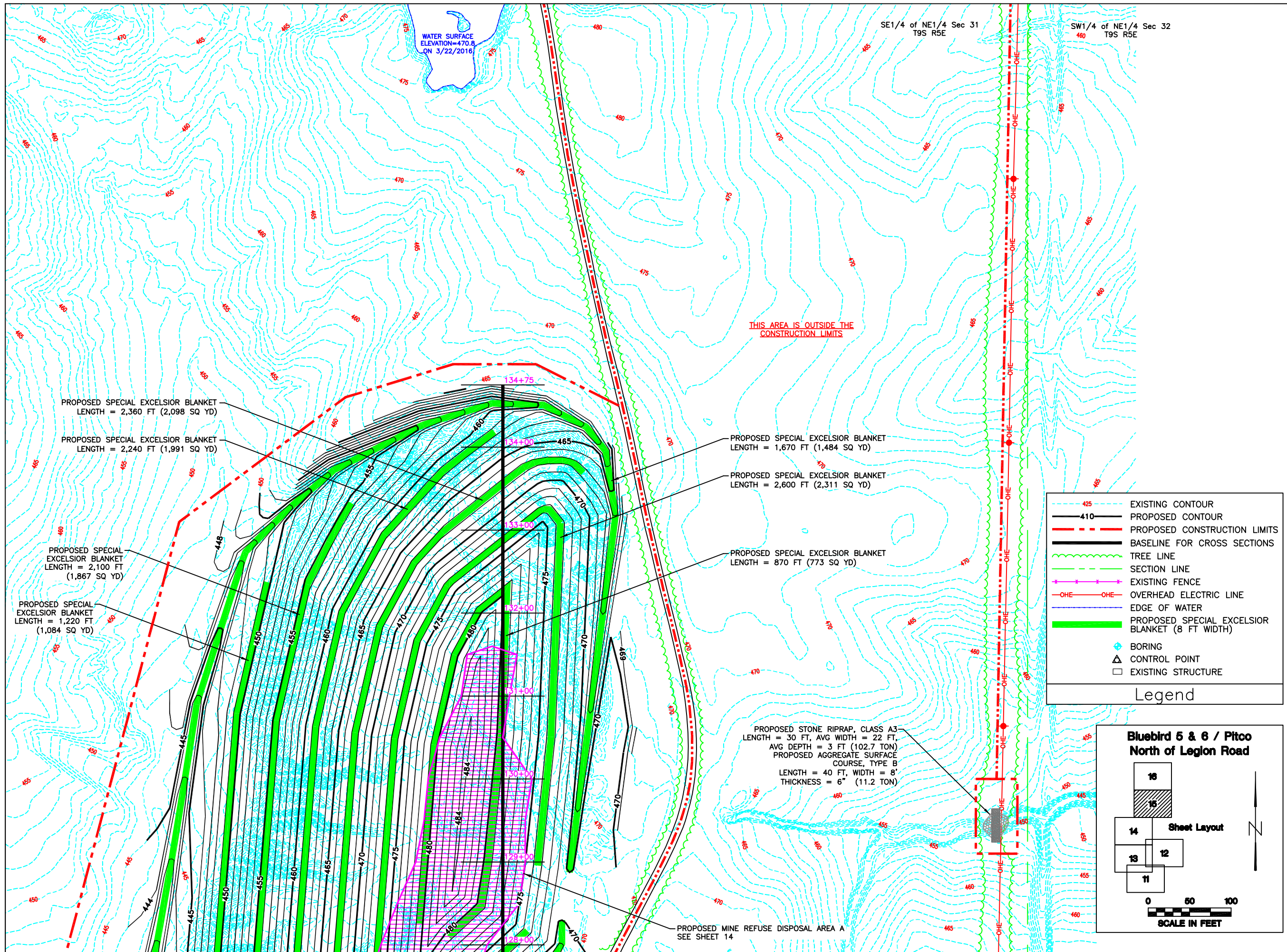
PROPOSED MINE  
REFUSE DISPOSAL  
AREA B  
SEE SHEET 13

State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By : JLU  
Checked By :  
Date : 8/6/2020

Proposed Conditions  
North of Legion Road  
Sheet  
14 of 82

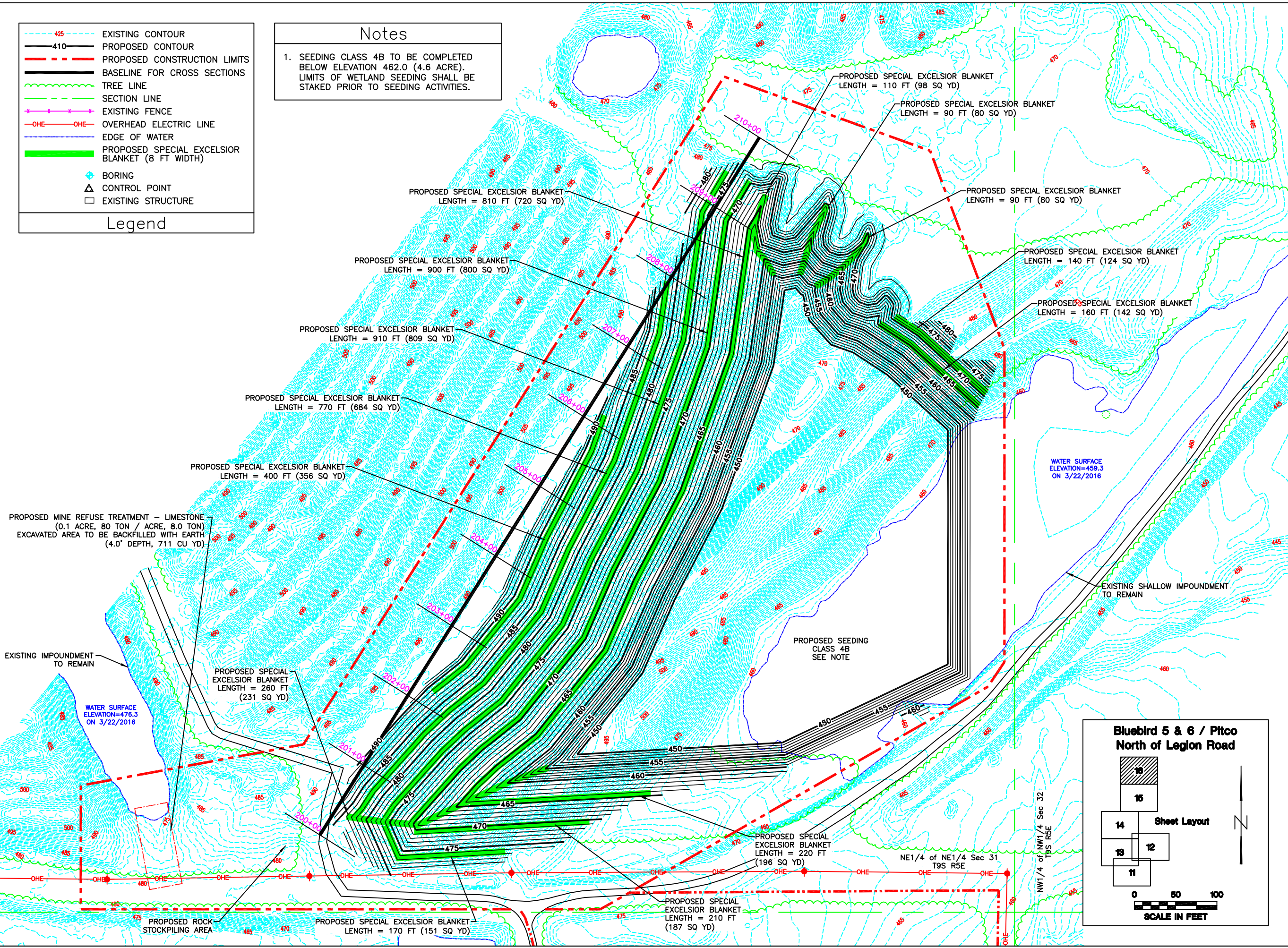


**Legend**

- 425 EXISTING CONTOUR
- 410 PROPOSED CONTOUR
- - - PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- PROPOSED SPECIAL EXCELSIOR BLANKET (8' FT WIDTH)
- + BORING
- △ CONTROL POINT
- EXISTING STRUCTURE

**Notes**

1. SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 462.0 (4.6 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.



**Bluebird 5 & 6 / Pitco North of Legion Road**

Sheet Layout

0 50 100  
SCALE IN FEET



	EXISTING CONTOUR
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

Legend

**Notes**

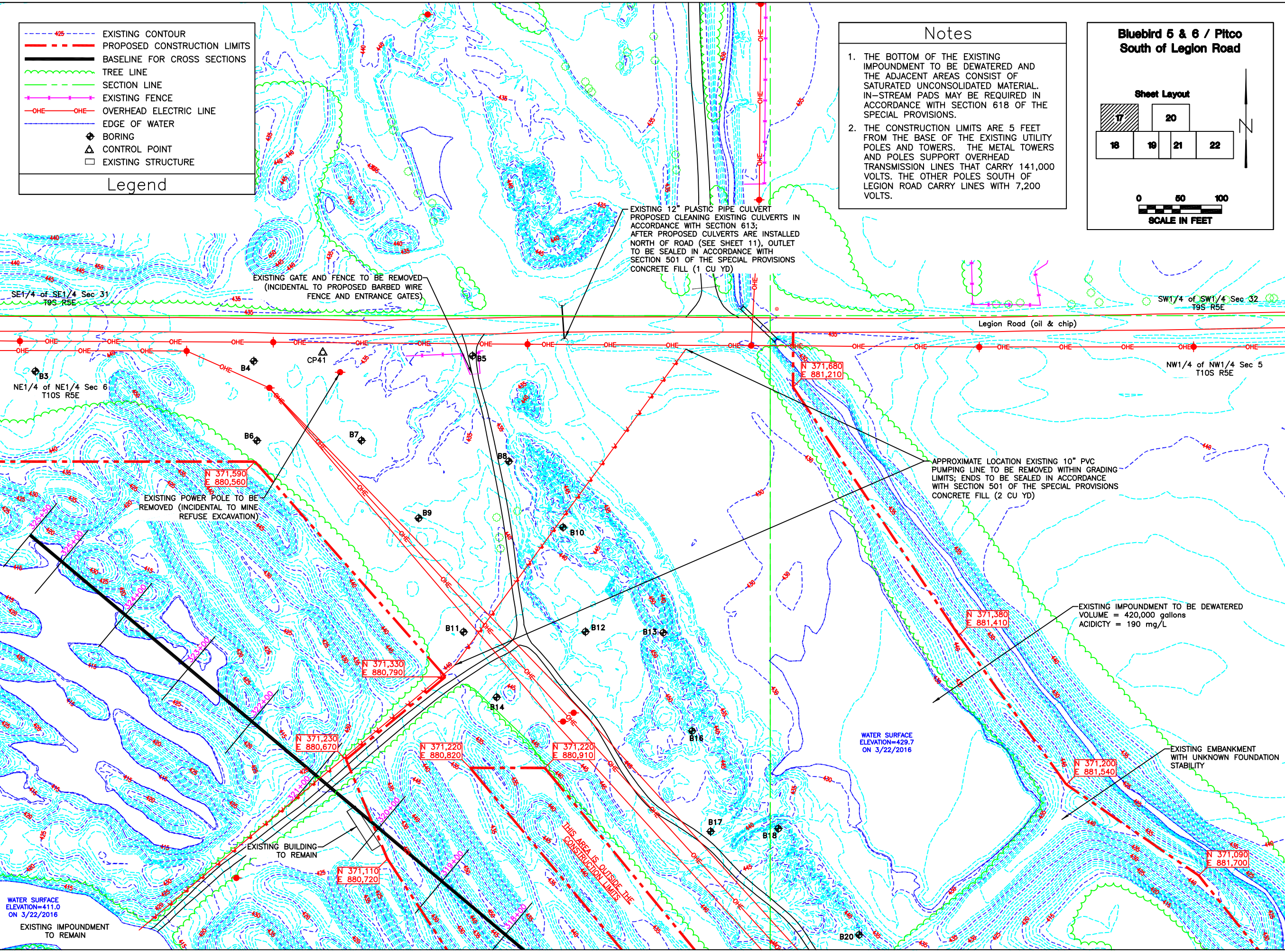
1. THE BOTTOM OF THE EXISTING IMPOUNDMENT TO BE DEWATERED AND THE ADJACENT AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.
2. THE CONSTRUCTION LIMITS ARE 5 FEET FROM THE BASE OF THE EXISTING UTILITY POLES AND TOWERS. THE METAL TOWERS AND POLES SUPPORT OVERHEAD TRANSMISSION LINES THAT CARRY 141,000 VOLTS. THE OTHER POLES SOUTH OF LEGION ROAD CARRY LINES WITH 7,200 VOLTS.

**Bluebird 5 & 6 / Pitco South of Legion Road**

**Sheet Layout**

17	20		
18	19	21	22

0 50 100  
SCALE IN FEET



Drawn By :            Date: 12/28/2020  
Checked By :

**Legend**

- 425 EXISTING CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- ⊕ BORING
- △ CONTROL POINT
- EXISTING STRUCTURE

NE1/4 of NE1/4 Sec 6  
T10S R5E

SE1/4 of NE1/4 Sec 6  
T10S R5E

WATER SURFACE  
ELEVATION=411.0  
ON 3/22/2016  
EXISTING IMPOUNDMENT  
TO REMAIN

SE1/4 of NE1/4 Sec 6  
T10S R5E

SW1/4 of NW1/4 Sec 5  
T10S R5E

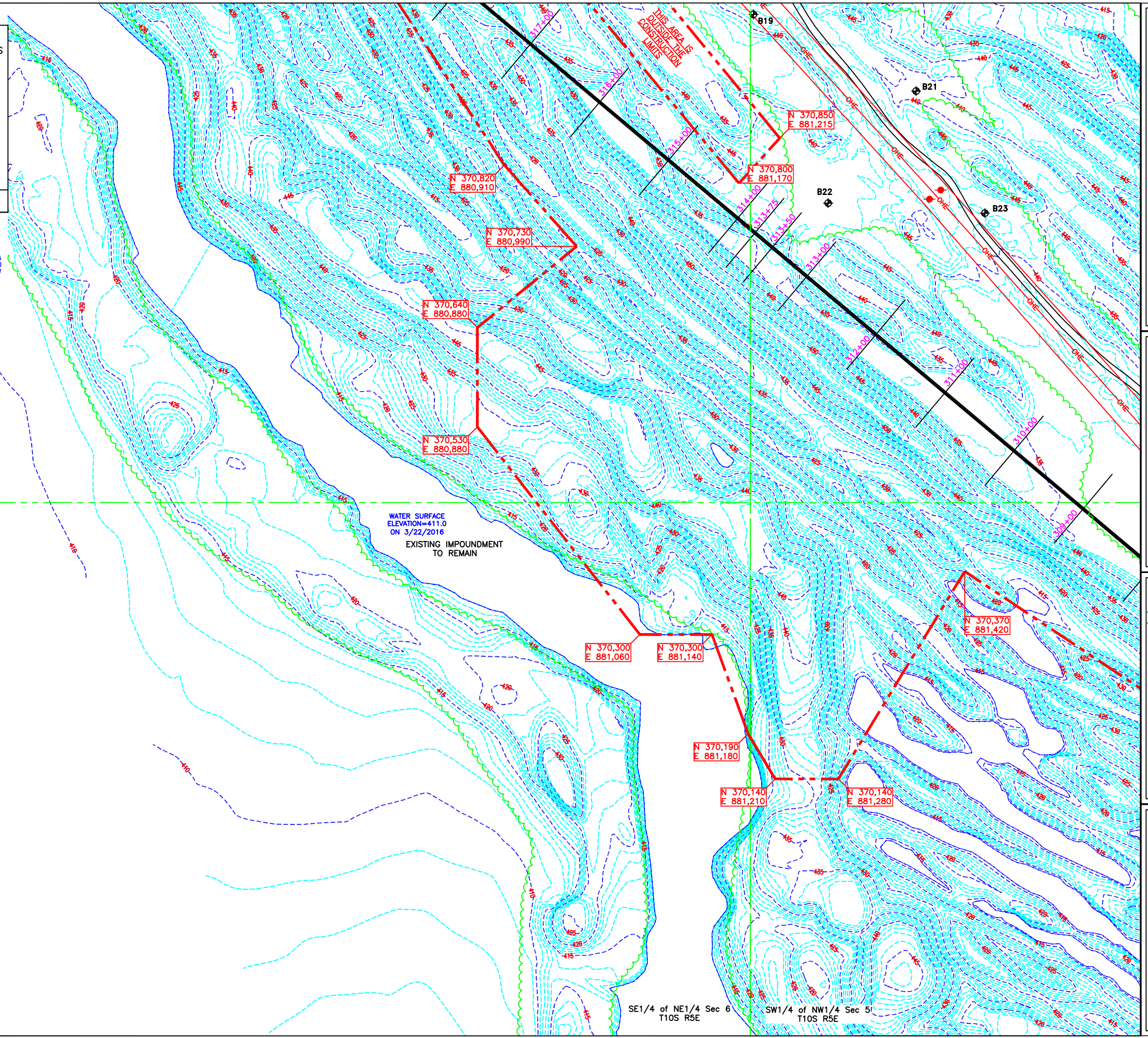
**Bluebird 5 & 6 / Pitco  
South of Legion Road**

**Sheet Layout**

17	20
18	21
19	22

N

0 60 100  
SCALE IN FEET



**Notes**

1. THE EXISTING DRAINAGEWAY AND ADJACENT AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.

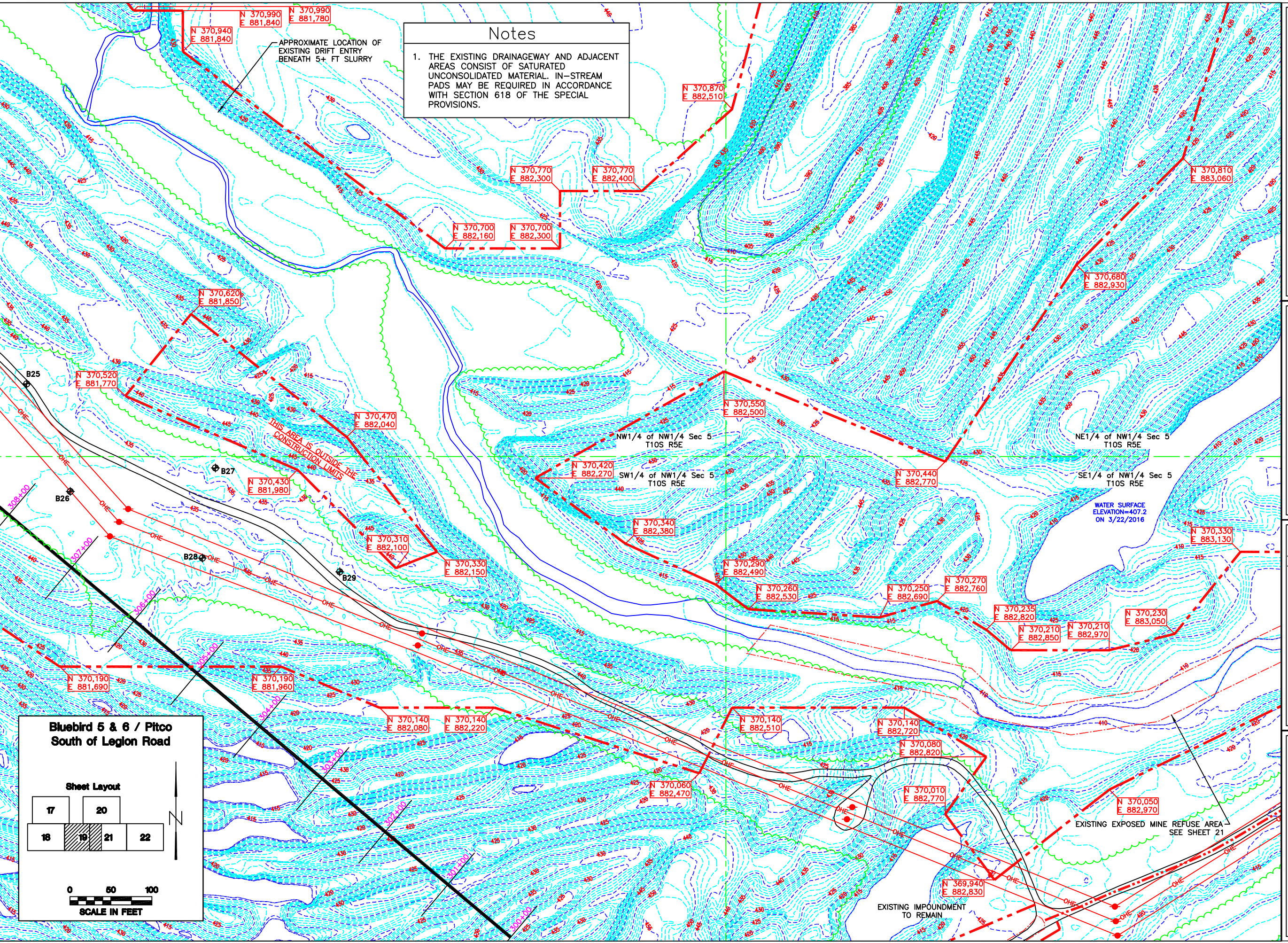
APPROXIMATE LOCATION OF EXISTING DRIFT ENTRY BENEATH 5+ FT SLURRY

THIS AREA IS OUTSIDE THE CONSTRUCTION LIMITS

WATER SURFACE ELEVATION=407.2 ON 3/22/2016

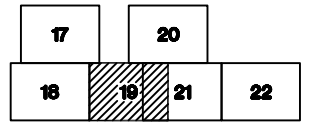
EXISTING EXPOSED MINE REFUSE AREA SEE SHEET 21

EXISTING IMPOUNDMENT TO REMAIN



**Bluebird 5 & 6 / Pitco  
South of Legion Road**

Sheet Layout



**Legend**

- EXISTING CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- BORING
- CONTROL POINT
- EXISTING STRUCTURE

**Notes**

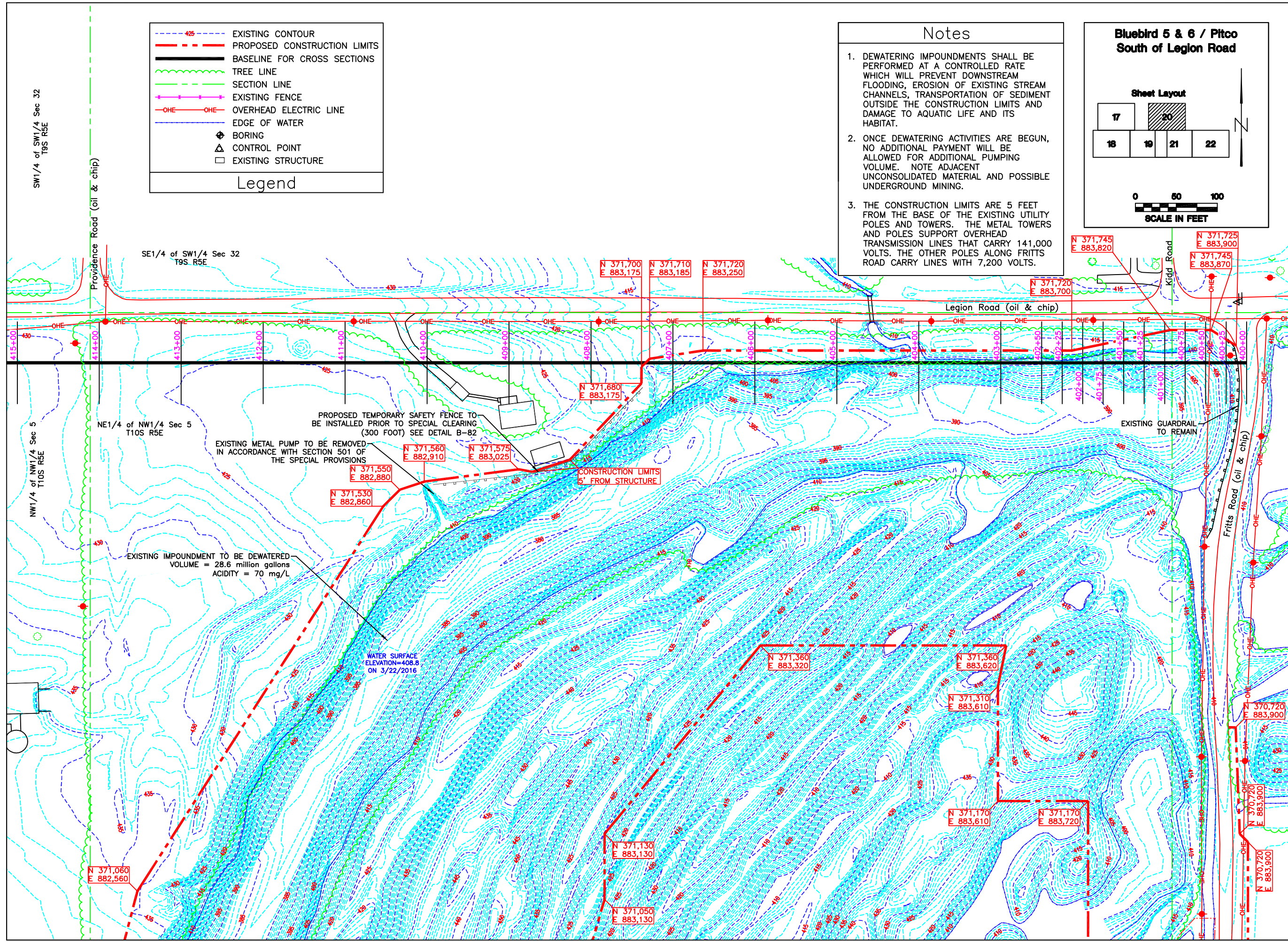
- DEWATERING IMPOUNDMENTS SHALL BE PERFORMED AT A CONTROLLED RATE WHICH WILL PREVENT DOWNSTREAM FLOODING, EROSION OF EXISTING STREAM CHANNELS, TRANSPORTATION OF SEDIMENT OUTSIDE THE CONSTRUCTION LIMITS AND DAMAGE TO AQUATIC LIFE AND ITS HABITAT.
- ONCE DEWATERING ACTIVITIES ARE BEGUN, NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR ADDITIONAL PUMPING VOLUME. NOTE ADJACENT UNCONSOLIDATED MATERIAL AND POSSIBLE UNDERGROUND MINING.
- THE CONSTRUCTION LIMITS ARE 5 FEET FROM THE BASE OF THE EXISTING UTILITY POLES AND TOWERS. THE METAL TOWERS AND POLES SUPPORT OVERHEAD TRANSMISSION LINES THAT CARRY 141,000 VOLTS. THE OTHER POLES ALONG FRITTS ROAD CARRY LINES WITH 7,200 VOLTS.

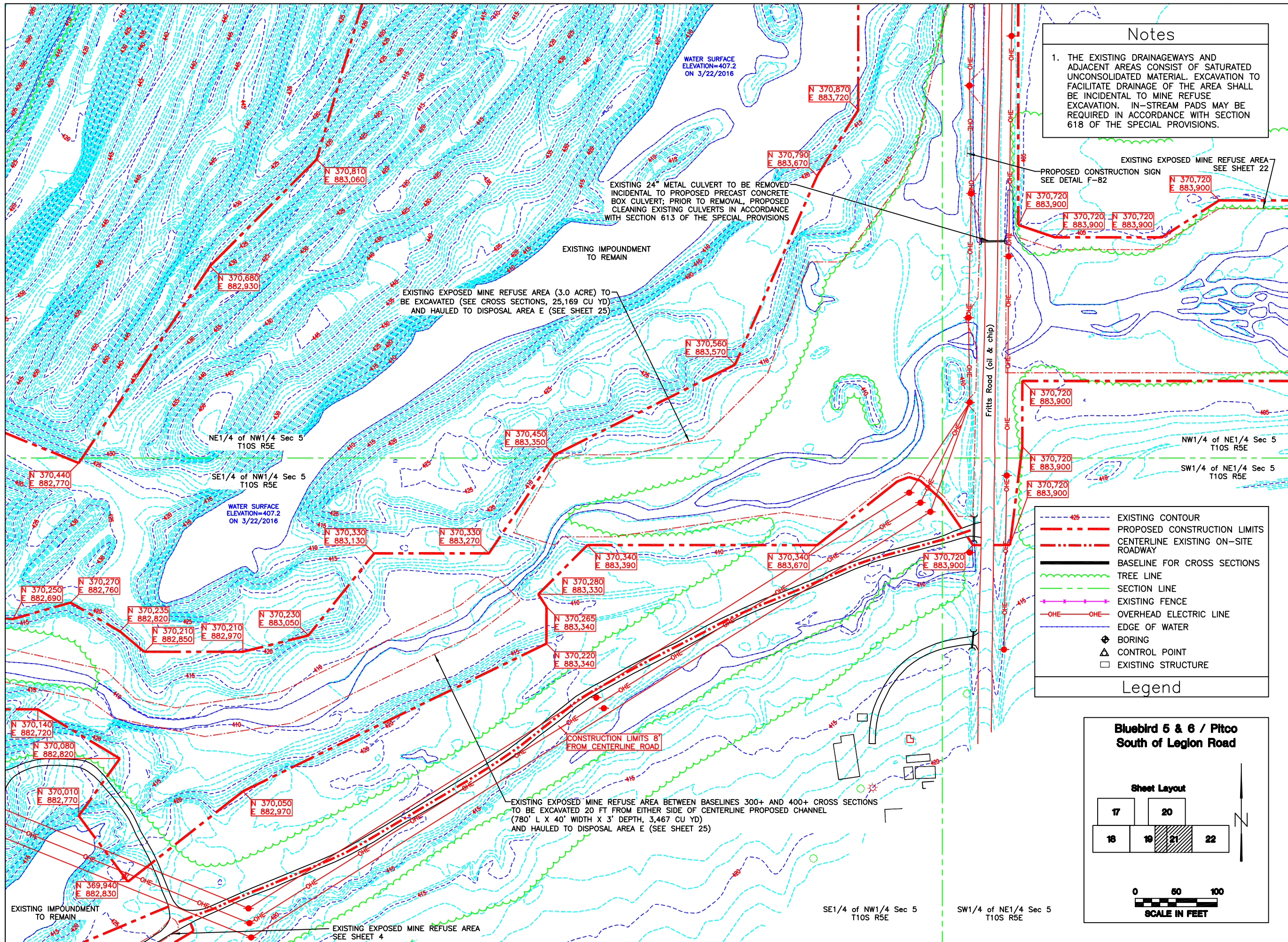
**Bluebird 5 & 6 / Pitco  
South of Legion Road**

**Sheet Layout**

17	20
18	21 22

0 50 100  
SCALE IN FEET





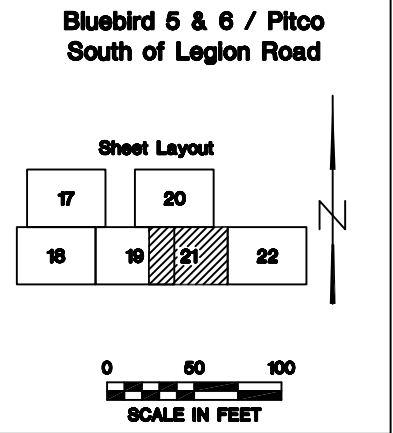
**Notes**

1. THE EXISTING DRAINAGEWAYS AND ADJACENT AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. EXCAVATION TO FACILITATE DRAINAGE OF THE AREA SHALL BE INCIDENTAL TO MINE REFUSE EXCAVATION. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.

EXISTING EXPOSED MINE REFUSE AREA SEE SHEET 22  
 PROPOSED CONSTRUCTION SIGN SEE DETAIL F-82  
 N 370,720 E 883,900  
 N 370,720 E 883,900  
 N 370,720 E 883,900

NW1/4 of NE1/4 Sec 5 T10S R5E  
 SW1/4 of NE1/4 Sec 5 T10S R5E  
 N 370,720 E 883,900  
 N 370,720 E 883,900  
 N 370,720 E 883,900

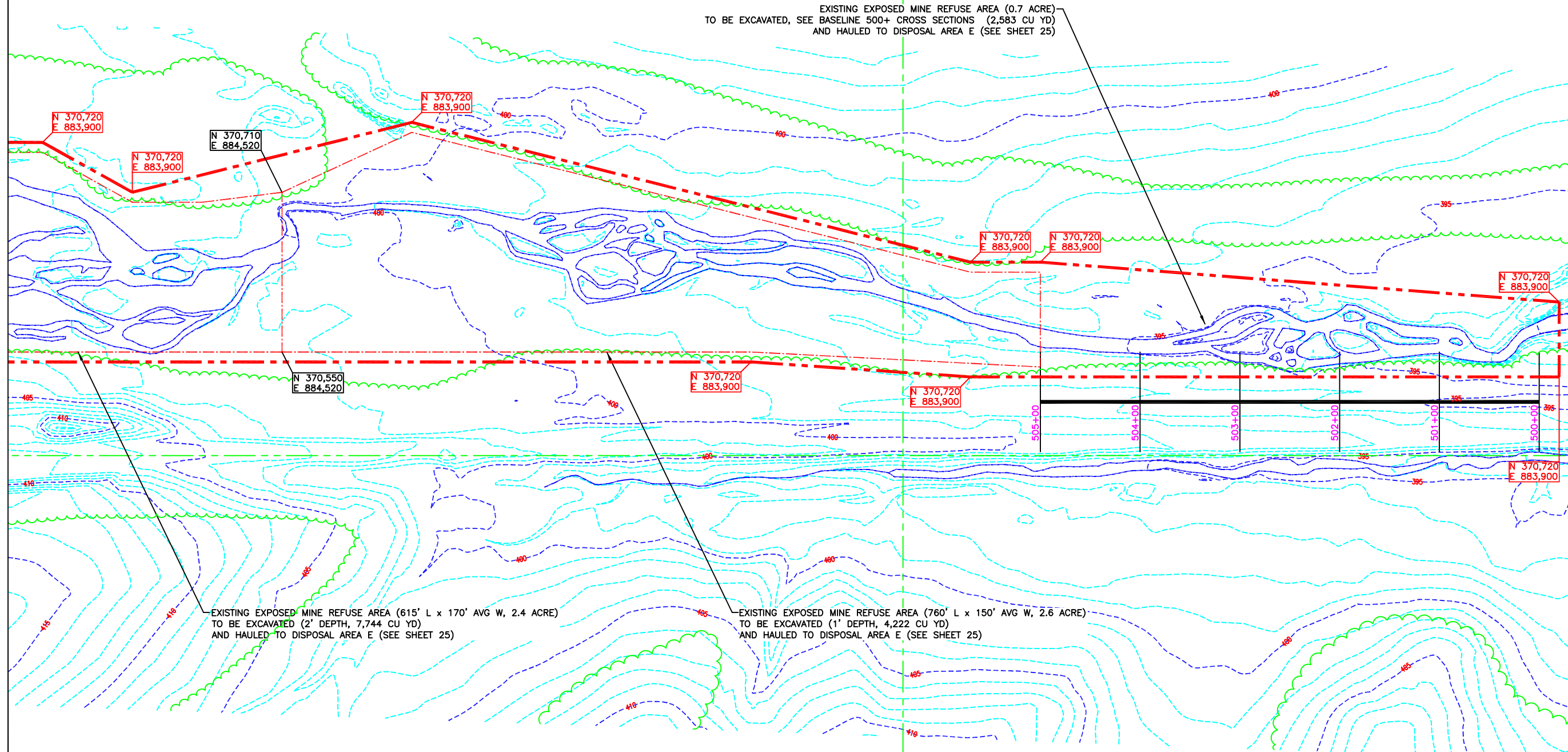
- Legend**
- - - 425 - - - EXISTING CONTOUR
  - - - - - PROPOSED CONSTRUCTION LIMITS
  - - - - - CENTERLINE EXISTING ON-SITE ROADWAY
  - BASELINE FOR CROSS SECTIONS
  - TREE LINE
  - SECTION LINE
  - EXISTING FENCE
  - OHE-OHE- OVERHEAD ELECTRIC LINE
  - EDGE OF WATER
  - ⊕ BORING
  - △ CONTROL POINT
  - EXISTING STRUCTURE



NW1/4 of NE1/4 Sec 5  
T10S R5E

NE1/4 of NE1/4 Sec 5  
T10S R5E

EXISTING EXPOSED MINE REFUSE AREA (0.7 ACRE)  
TO BE EXCAVATED, SEE BASELINE 500+ CROSS SECTIONS (2,583 CU YD)  
AND HAULED TO DISPOSAL AREA E (SEE SHEET 25)



EXISTING EXPOSED MINE REFUSE AREA (615' L x 170' AVG W, 2.4 ACRE)  
TO BE EXCAVATED (2' DEPTH, 7,744 CU YD)  
AND HAULED TO DISPOSAL AREA E (SEE SHEET 25)

EXISTING EXPOSED MINE REFUSE AREA (760' L x 150' AVG W, 2.6 ACRE)  
TO BE EXCAVATED (1' DEPTH, 4,222 CU YD)  
AND HAULED TO DISPOSAL AREA E (SEE SHEET 25)

SW1/4 of NE1/4 Sec 5  
T10S R5E

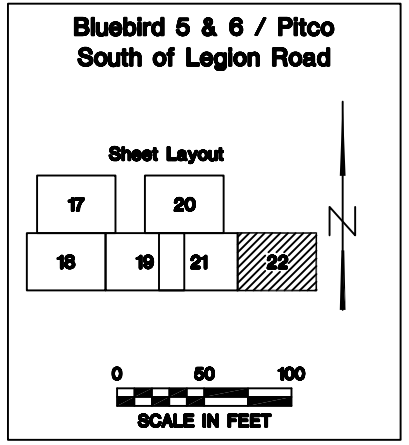
SE1/4 of NE1/4 Sec 5  
T10S R5E

	EXISTING CONTOUR
	PROPOSED CONSTRUCTION LIMITS
	BASELINE FOR CROSS SECTIONS
	TREE LINE
	SECTION LINE
	EXISTING FENCE
	OVERHEAD ELECTRIC LINE
	EDGE OF WATER
	BORING
	CONTROL POINT
	EXISTING STRUCTURE

Legend

Notes

1. THE EXISTING DRAINAGEWAY AND ADJACENT AREAS CONSIST OF SATURATED UNCONSOLIDATED MATERIAL. EXCAVATION TO FACILITATE DRAINAGE OF THE AREA SHALL BE INCIDENTAL TO MINE REFUSE EXCAVATION. IN-STREAM PADS MAY BE REQUIRED IN ACCORDANCE WITH SECTION 618 OF THE SPECIAL PROVISIONS.



State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By :            Date : 8/6/2020  
Checked By :           

Existing Conditions  
South of Leglon Road  
Sheet  
22 of 82

**Legend**

- 425 EXISTING CONTOUR
- 410 PROPOSED CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
- BORING
- ▲ CONTROL POINT
- EXISTING STRUCTURE

**Notes**

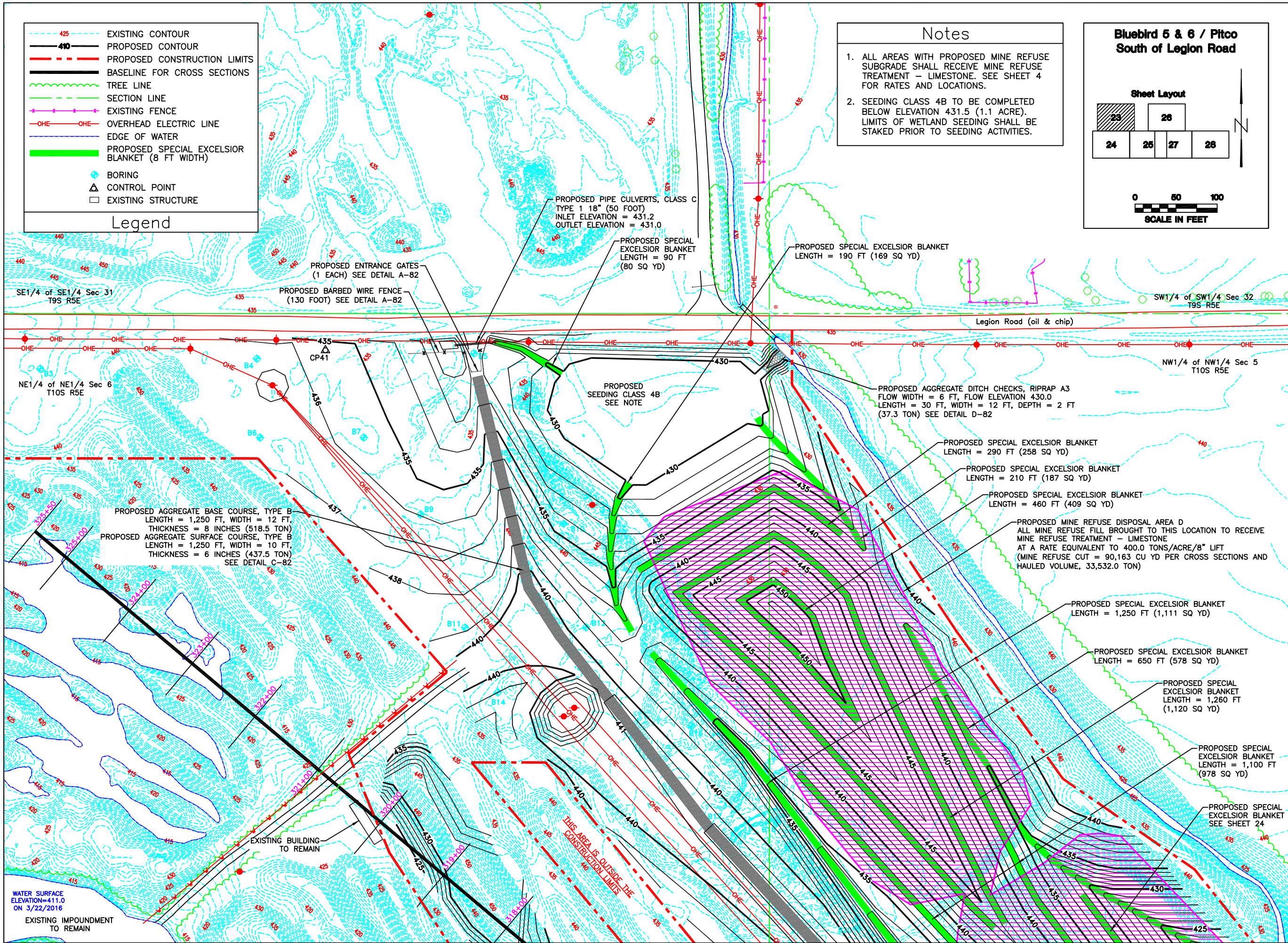
- ALL AREAS WITH PROPOSED MINE REFUSE SUBGRADE SHALL RECEIVE MINE REFUSE TREATMENT - LIMESTONE. SEE SHEET 4 FOR RATES AND LOCATIONS.
- SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 431.5 (1.1 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.

**Bluebird 5 & 6 / Pitco South of Legion Road**

**Sheet Layout**

23	26		
24	25	27	28

0 50 100  
SCALE IN FEET



PROPOSED ENTRANCE GATES (1 EACH) SEE DETAIL A-82

PROPOSED BARBED WIRE FENCE (130 FOOT) SEE DETAIL A-82

PROPOSED PIPE CULVERTS, CLASS C TYPE 1 18" (50 FOOT)  
INLET ELEVATION = 431.2  
OUTLET ELEVATION = 431.0

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 90 FT  
(80 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 190 FT (169 SQ YD)

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 6 FT, FLOW ELEVATION 430.0  
LENGTH = 30 FT, WIDTH = 12 FT, DEPTH = 2 FT  
(37.3 TON) SEE DETAIL D-82

PROPOSED AGGREGATE BASE COURSE, TYPE B  
LENGTH = 1,250 FT, WIDTH = 12 FT,  
THICKNESS = 8 INCHES (518.5 TON)  
PROPOSED AGGREGATE SURFACE COURSE, TYPE B  
LENGTH = 1,250 FT, WIDTH = 10 FT,  
THICKNESS = 6 INCHES (437.5 TON)  
SEE DETAIL C-82

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 290 FT (258 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 210 FT (187 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 460 FT (409 SQ YD)

PROPOSED MINE REFUSE DISPOSAL AREA D  
ALL MINE REFUSE FILL BROUGHT TO THIS LOCATION TO RECEIVE  
MINE REFUSE TREATMENT - LIMESTONE  
AT A RATE EQUIVALENT TO 400.0 TONS/ACRE/8" LIFT  
(MINE REFUSE CUT = 90,163 CU YD PER CROSS SECTIONS AND  
HAULED VOLUME, 33,532.0 TON)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,250 FT (1,111 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 650 FT (578 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,260 FT  
(1,120 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
LENGTH = 1,100 FT  
(978 SQ YD)

PROPOSED SPECIAL EXCELSIOR BLANKET  
SEE SHEET 24

THIS AREA IS OUTSIDE THE  
CONSTRUCTION LIMITS

WATER SURFACE  
ELEVATION=411.0  
ON 3/22/2016  
EXISTING IMPOUNDMENT  
TO REMAIN

Drawn By :            Date : 8/31/2020  
Checked By :

**Legend**

- 425 EXISTING CONTOUR
- 410 PROPOSED CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- PROPOSED SPECIAL EXCELSIOR BLANKET (8' FT WIDTH)
- + BORING
- △ CONTROL POINT
- EXISTING STRUCTURE

NE1/4 of NE1/4 Sec 6  
T10S R5E

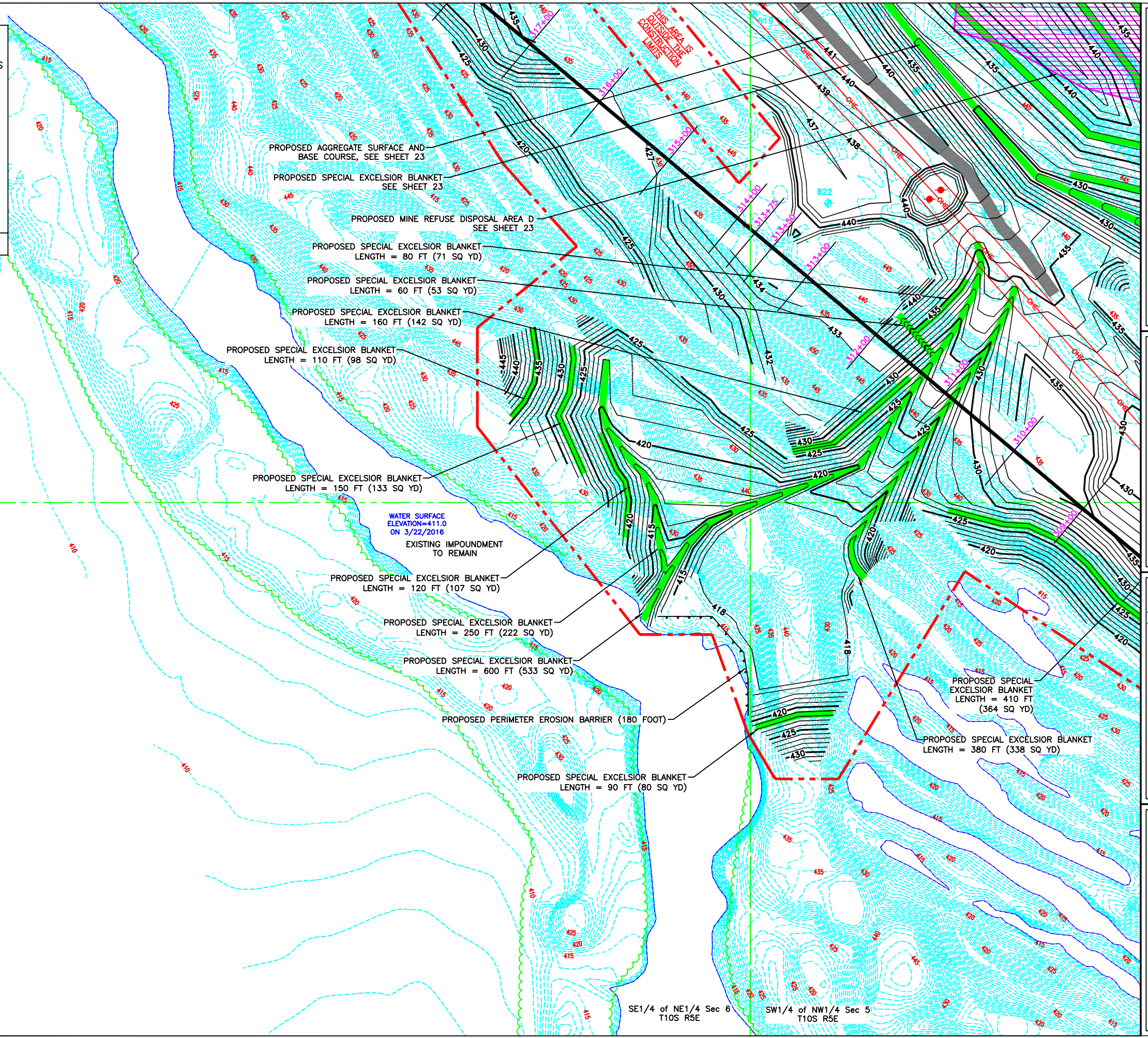
SE1/4 of NE1/4 Sec 6  
T10S R5E

**Bluebird 5 & 6 / Pitco  
South of Legion Road**

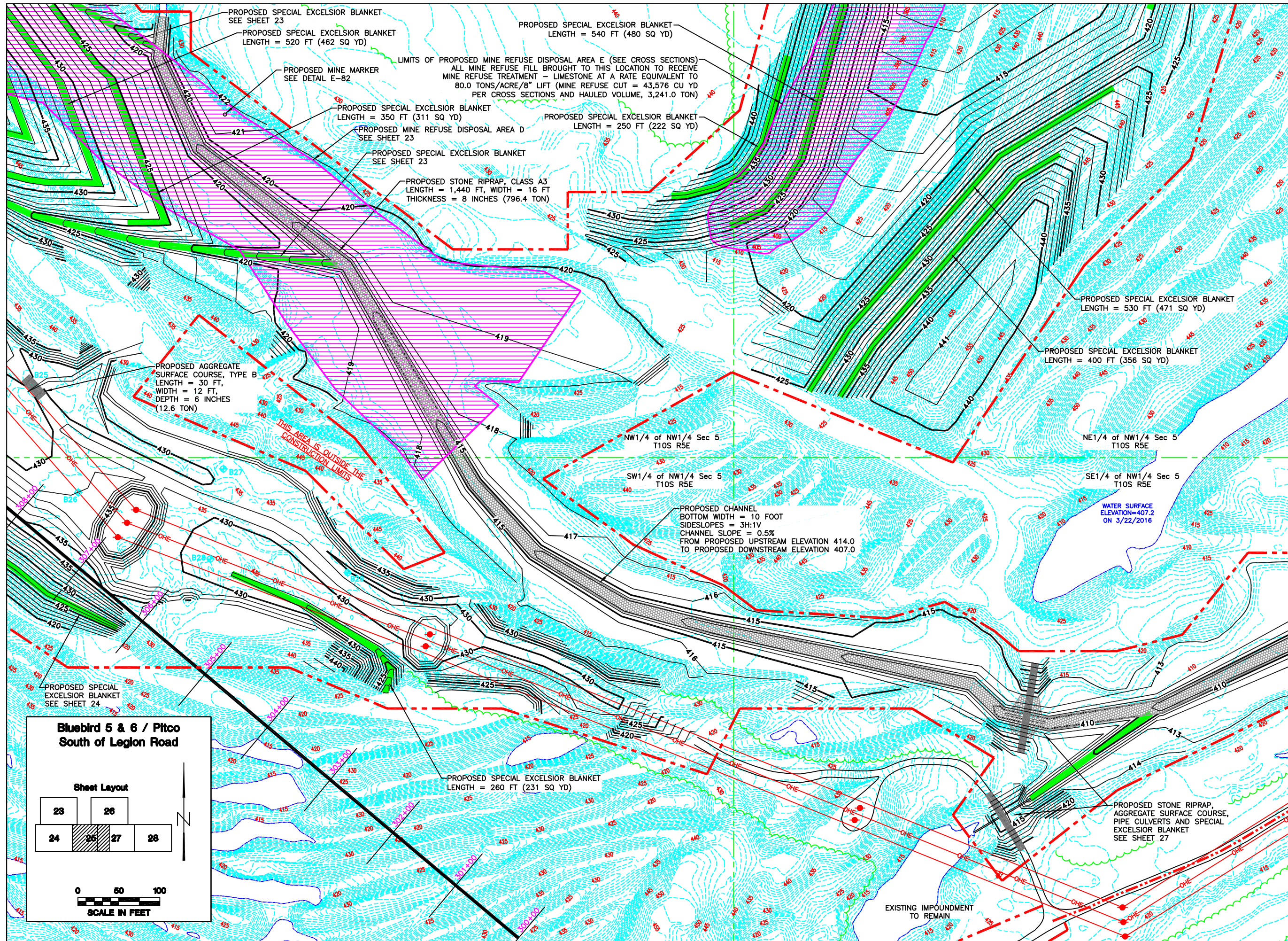
**Sheet Layout**

23	26
24	25
27	28

0 60 100  
SCALE IN FEET







**Bluebird 5 & 6 / Pitco  
South of Legion Road**

Sheet Layout

23	26
24	25
27	28

0 60 100  
SCALE IN FEET

**Legend**

- 425 EXISTING CONTOUR
- 410 PROPOSED CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
- ◆ BORING
- ▲ CONTROL POINT
- EXISTING STRUCTURE

**Notes**

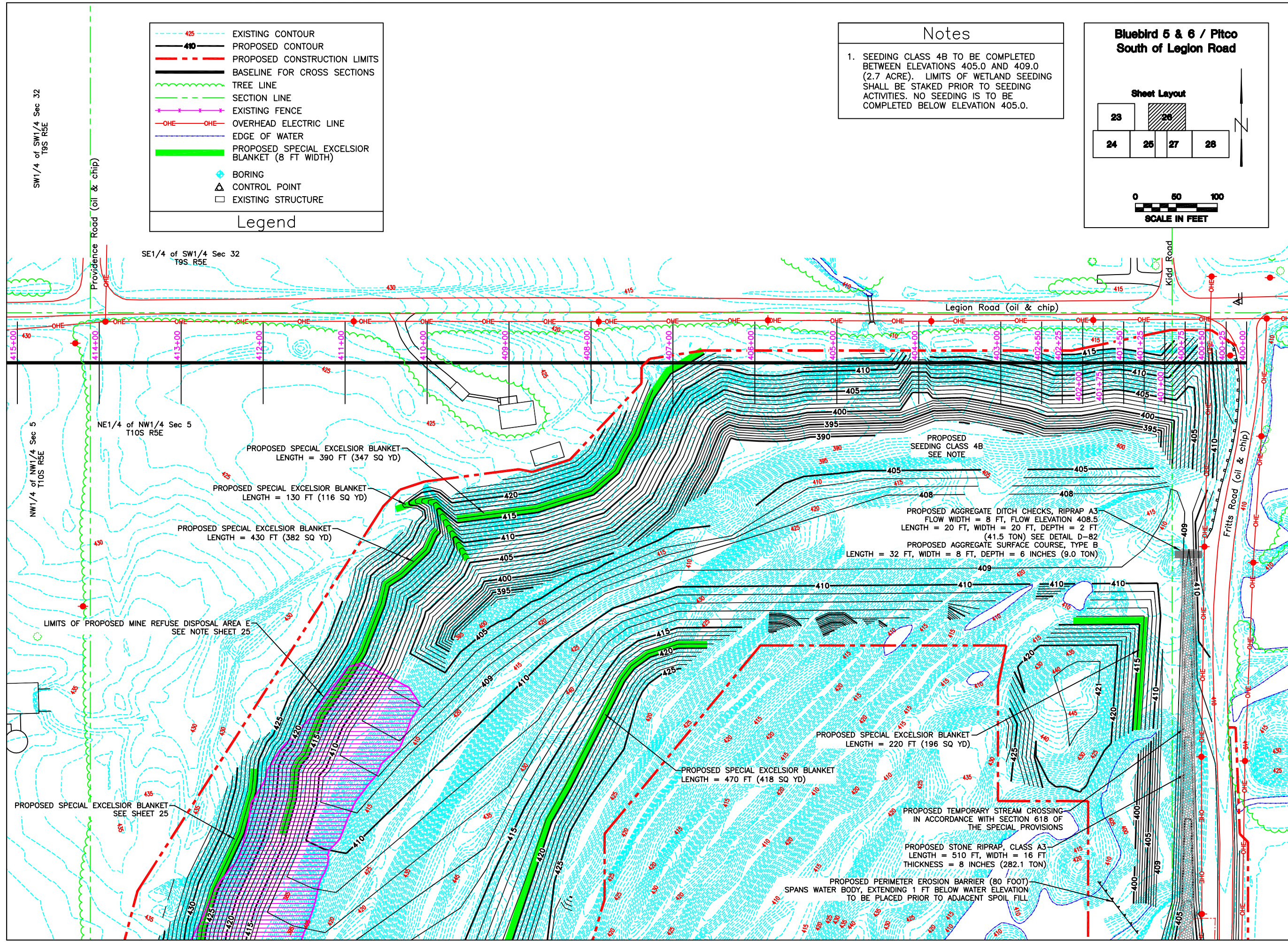
- SEEDING CLASS 4B TO BE COMPLETED BETWEEN ELEVATIONS 405.0 AND 409.0 (2.7 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES. NO SEEDING IS TO BE COMPLETED BELOW ELEVATION 405.0.

**Bluebird 5 & 6 / Pitco South of Legion Road**

**Sheet Layout**

23	26		
24	25	27	28

0 50 100  
SCALE IN FEET

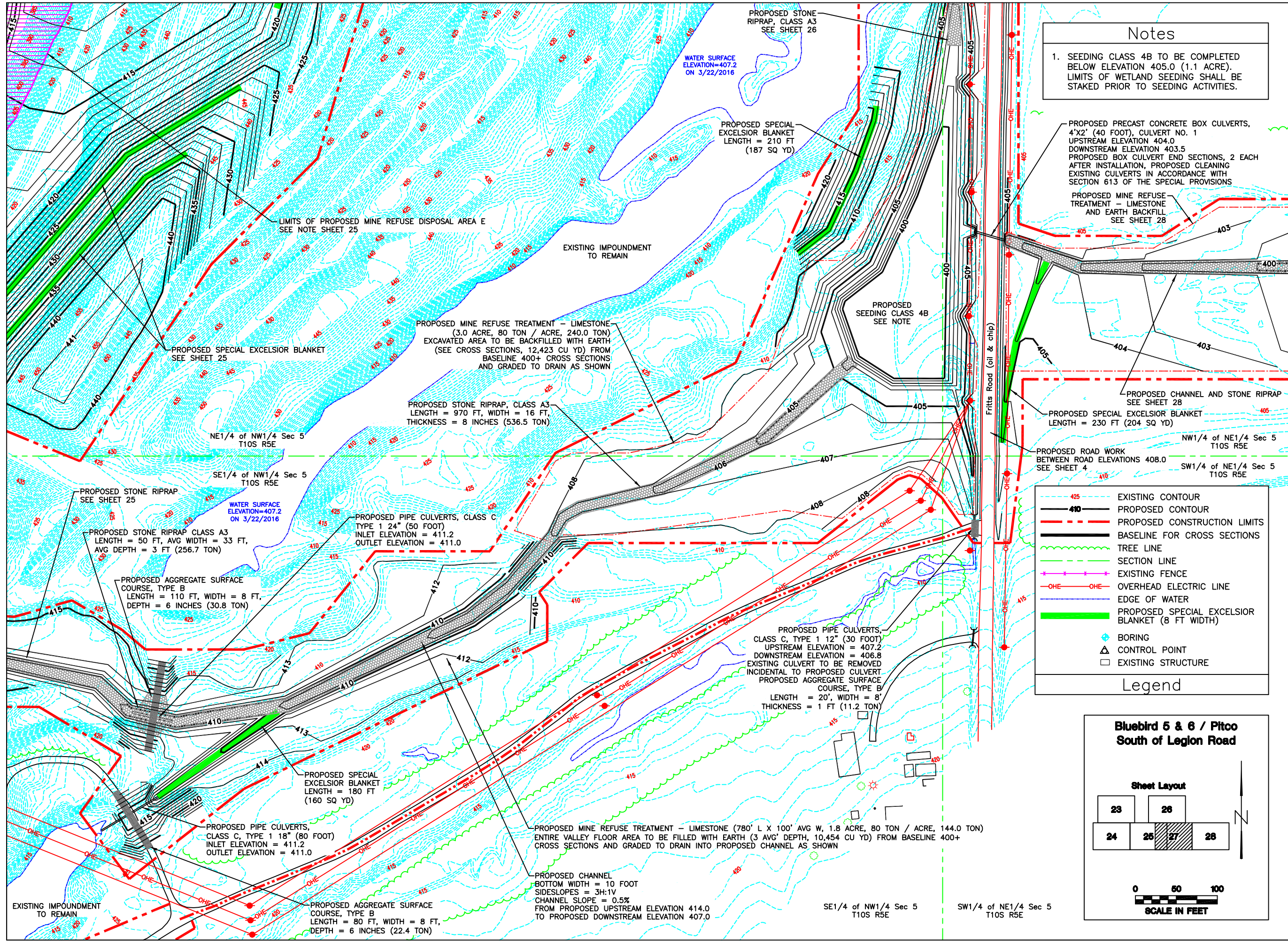


State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

Drawn By : \_\_\_\_\_ Date : 8/6/2020  
Checked By : \_\_\_\_\_

Proposed Conditions  
South of Legion Road  
Sheet  
26 of 82



**Notes**

- SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 405.0 (1.1 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.

PROPOSED PRECAST CONCRETE BOX CULVERTS, 4'x2' (40 FOOT), CULVERT NO. 1  
 UPSTREAM ELEVATION 404.0  
 DOWNSTREAM ELEVATION 403.5  
 PROPOSED BOX CULVERT END SECTIONS, 2 EACH  
 AFTER INSTALLATION, PROPOSED CLEANING EXISTING CULVERTS IN ACCORDANCE WITH SECTION 613 OF THE SPECIAL PROVISIONS

PROPOSED MINE REFUSE TREATMENT - LIMESTONE AND EARTH BACKFILL  
 SEE SHEET 28

PROPOSED CHANNEL AND STONE RIPRAP  
 SEE SHEET 28

PROPOSED SPECIAL EXCELSIOR BLANKET  
 LENGTH = 230 FT (204 SQ YD)

PROPOSED ROAD WORK BETWEEN ROAD ELEVATIONS 408.0  
 SEE SHEET 4

PROPOSED STONE RIPRAP CLASS A3  
 LENGTH = 50 FT, AVG WIDTH = 33 FT, AVG DEPTH = 3 FT (256.7 TON)

PROPOSED AGGREGATE SURFACE COURSE, TYPE B  
 LENGTH = 110 FT, WIDTH = 8 FT, DEPTH = 6 INCHES (30.8 TON)

PROPOSED PIPE CULVERTS, CLASS C TYPE 1 24" (50 FOOT)  
 INLET ELEVATION = 411.2  
 OUTLET ELEVATION = 411.0

PROPOSED PIPE CULVERTS, CLASS C, TYPE 1 12" (30 FOOT)  
 UPSTREAM ELEVATION = 407.2  
 DOWNSTREAM ELEVATION = 406.8  
 EXISTING CULVERT TO BE REMOVED INCIDENTAL TO PROPOSED CULVERT  
 PROPOSED AGGREGATE SURFACE COURSE, TYPE B  
 LENGTH = 20', WIDTH = 8', THICKNESS = 1 FT (11.2 TON)

PROPOSED PIPE CULVERTS, CLASS C, TYPE 1 18" (80 FOOT)  
 INLET ELEVATION = 411.2  
 OUTLET ELEVATION = 411.0

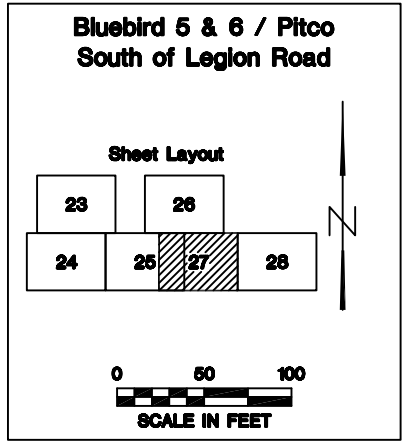
PROPOSED MINE REFUSE TREATMENT - LIMESTONE (780' L X 100' AVG W, 1.8 ACRE, 80 TON / ACRE, 144.0 TON)  
 ENTIRE VALLEY FLOOR AREA TO BE FILLED WITH EARTH (3 AVG' DEPTH, 10,454 CU YD) FROM BASELINE 400+  
 CROSS SECTIONS AND GRADED TO DRAIN INTO PROPOSED CHANNEL AS SHOWN

PROPOSED CHANNEL  
 BOTTOM WIDTH = 10 FOOT  
 SIDESLOPES = 3H:1V  
 CHANNEL SLOPE = 0.5%  
 FROM PROPOSED UPSTREAM ELEVATION 414.0 TO PROPOSED DOWNSTREAM ELEVATION 407.0

PROPOSED AGGREGATE SURFACE COURSE, TYPE B  
 LENGTH = 80 FT, WIDTH = 8 FT, DEPTH = 6 INCHES (22.4 TON)

**Legend**

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



Drawn By : JLU Date : 8/6/2020  
 Checked By : \_\_\_\_\_

NW1/4 of NE1/4 Sec 5  
T10S R5E

NE1/4 of NE1/4 Sec 5  
T10S R5E

PROPOSED CHANNEL  
BOTTOM WIDTH = 8 FT  
SIDESLOPES = 3H:1V  
SLOPE = 0.7%  
PROPOSED STONE RIPRAP, CLASS A3  
LENGTH = 1,550 FT, WIDTH = 16 FT,  
THICKNESS = 8 INCHES (857.3 TON)

PROPOSED AGGREGATE DITCH CHECKS, RIPRAP A3  
FLOW WIDTH = 10 FT, FLOW ELEVATION 391.0  
LENGTH = 20 FT, WIDTH = 20 FT, DEPTH = 2 FT  
(41.5 TON) SEE DETAIL D-82

PROPOSED TEMPORARY DITCH CHECKS  
ROLLED EXCELSIOR  
THREE 20 FT CHECKS, 100 FT APART (60 FOOT)

PROPOSED SEEDING  
CLASS 4B - SEE NOTE

PROPOSED MINE REFUSE TREATMENT - LIMESTONE (2.4 ACRE, 80 TON / ACRE, 192.0 TON)  
EXCAVATED AREA TO BE BACKFILLED WITH EARTH (1.5 AVG' DEPTH, 6,970 CU YD) FROM  
BASELINE 400+ CROSS SECTIONS AND GRADED TO DRAIN AS SHOWN

PROPOSED MINE REFUSE TREATMENT - LIMESTONE (2.6 ACRE, 80 TON / ACRE, 208.0 TON)  
EXCAVATED AREA TO BE BACKFILLED WITH EARTH (0.5' AVG DEPTH, 2,517 CU YD) FROM  
BASELINE 400+ CROSS SECTIONS AND GRADED TO DRAIN AS SHOWN

SW1/4 of NE1/4 Sec 5  
T10S R5E

SE1/4 of NE1/4 Sec 5  
T10S R5E

**Legend**

- 425 EXISTING CONTOUR
- 410 PROPOSED CONTOUR
- PROPOSED CONSTRUCTION LIMITS
- BASELINE FOR CROSS SECTIONS
- TREE LINE
- SECTION LINE
- EXISTING FENCE
- OHE OVERHEAD ELECTRIC LINE
- EDGE OF WATER
- PROPOSED SPECIAL EXCELSIOR BLANKET (8 FT WIDTH)
- + BORING
- ▲ CONTROL POINT
- EXISTING STRUCTURE

**Notes**

1. SEEDING CLASS 4B TO BE COMPLETED BELOW ELEVATION 392.0 (0.4 ACRE). LIMITS OF WETLAND SEEDING SHALL BE STAKED PRIOR TO SEEDING ACTIVITIES.

**Bluebird 5 & 6 / Pitco  
South of Leglon Road**

**Sheet Layout**

23	26
24	25 27 28

0 50 100  
SCALE IN FEET






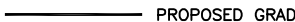
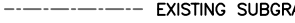

State of Illinois  
Department of Natural Resources

Bluebird 5 & 6 / Pitco  
Mine Reclamation Project  
AML-GSIE-1907  
Saline County

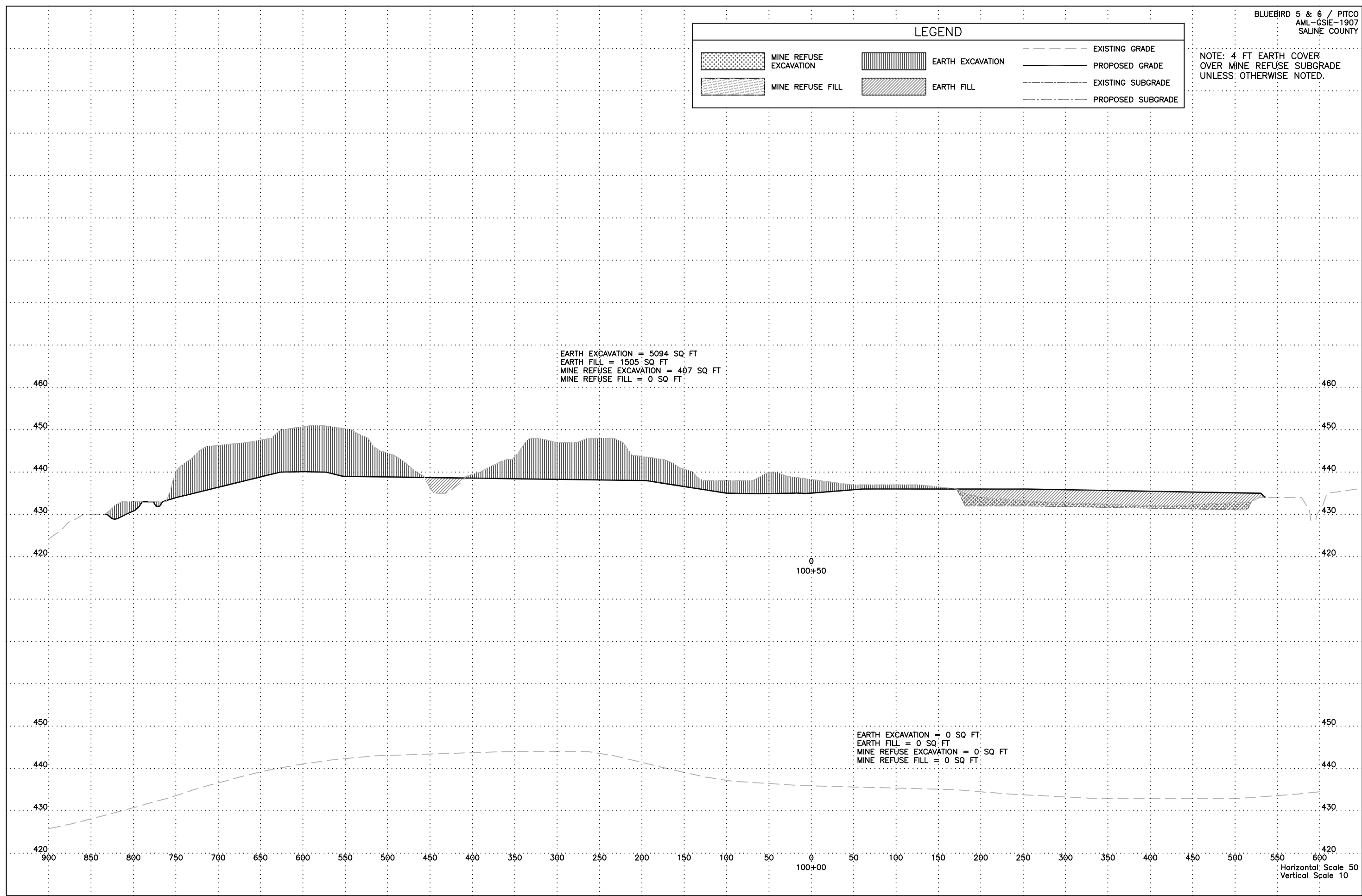
Drawn By :            Date : 8/6/2020  
Checked By :           

Proposed Conditions  
South of Leglon Road  
Sheet  
28 of 82









**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

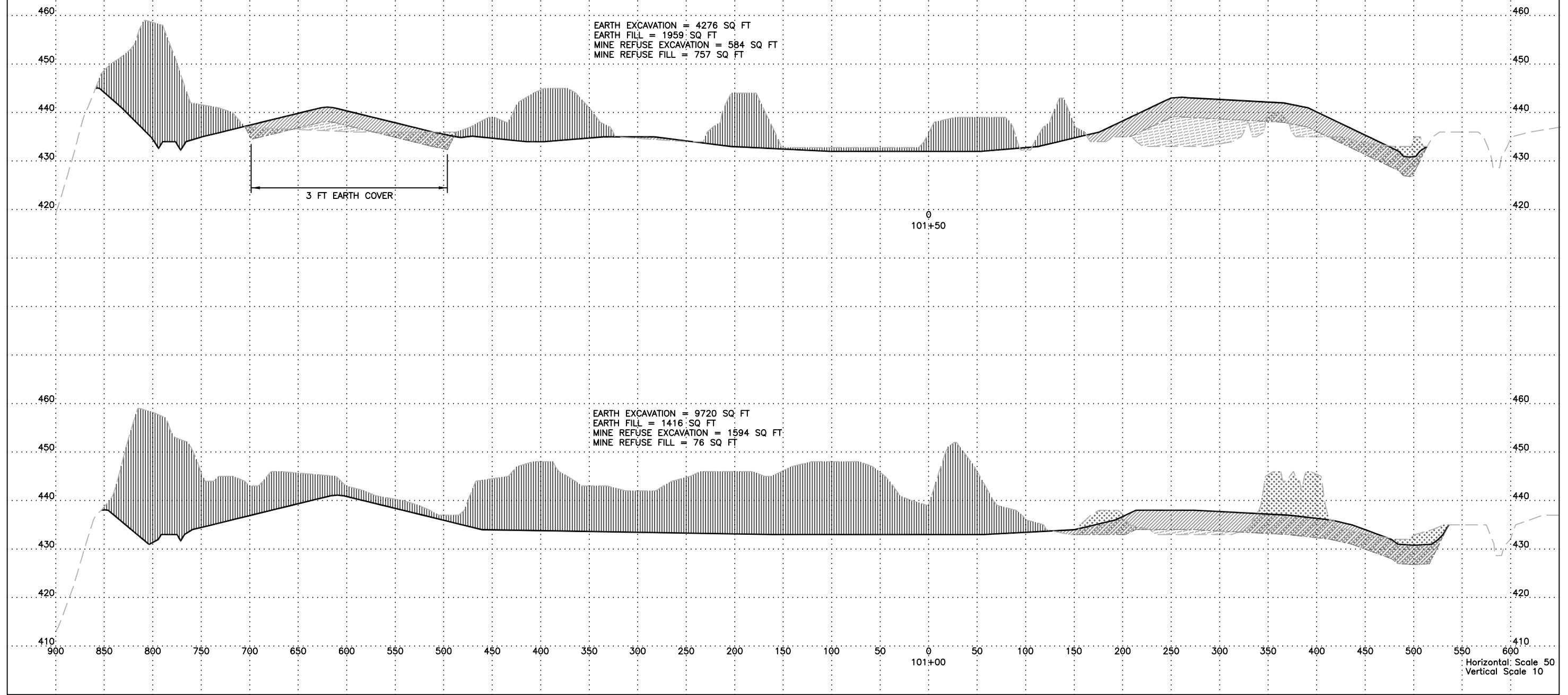
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.











**LEGEND**

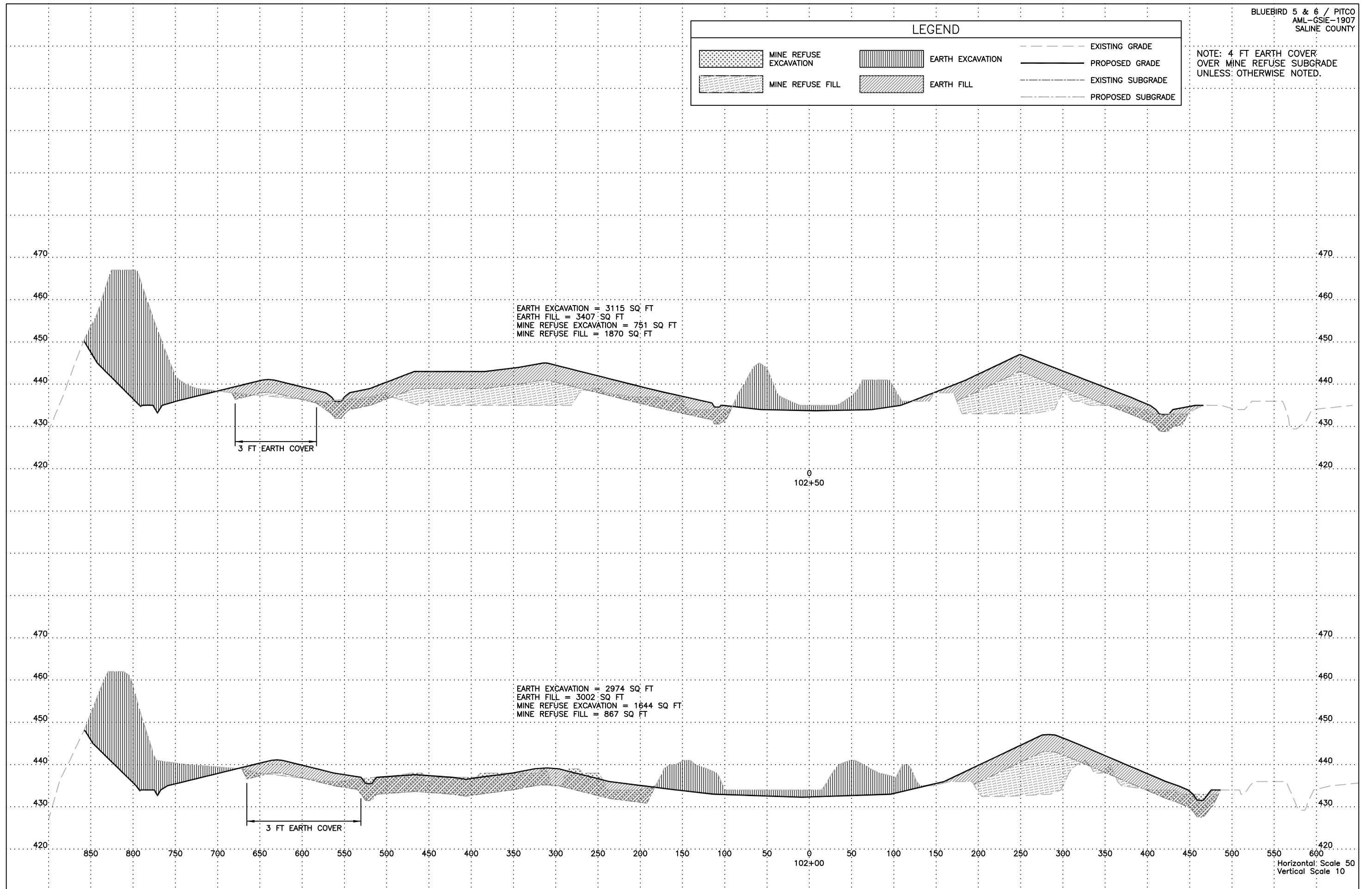
 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.











LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

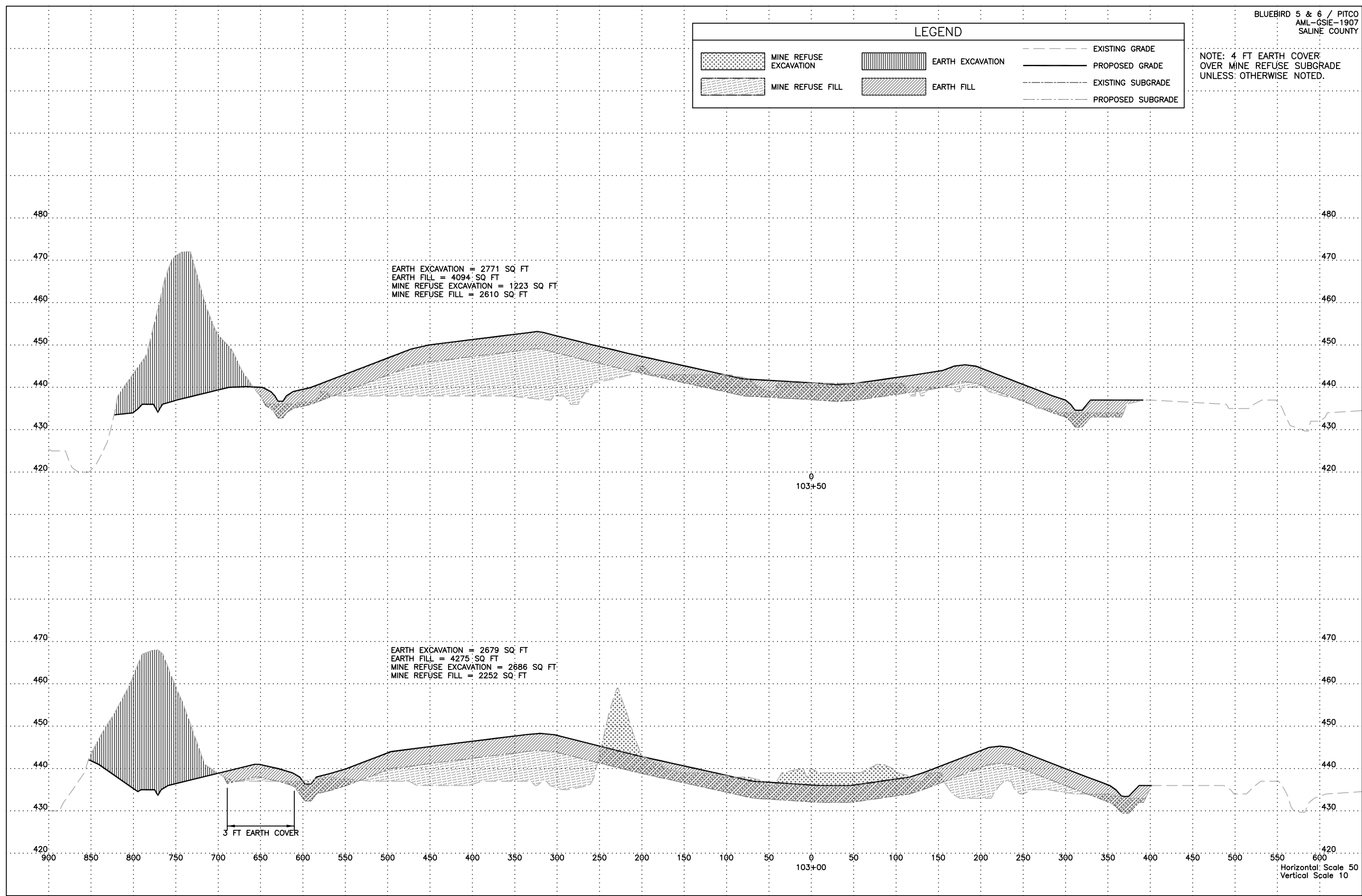
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



**LEGEND**






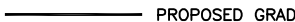


 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.





**LEGEND**

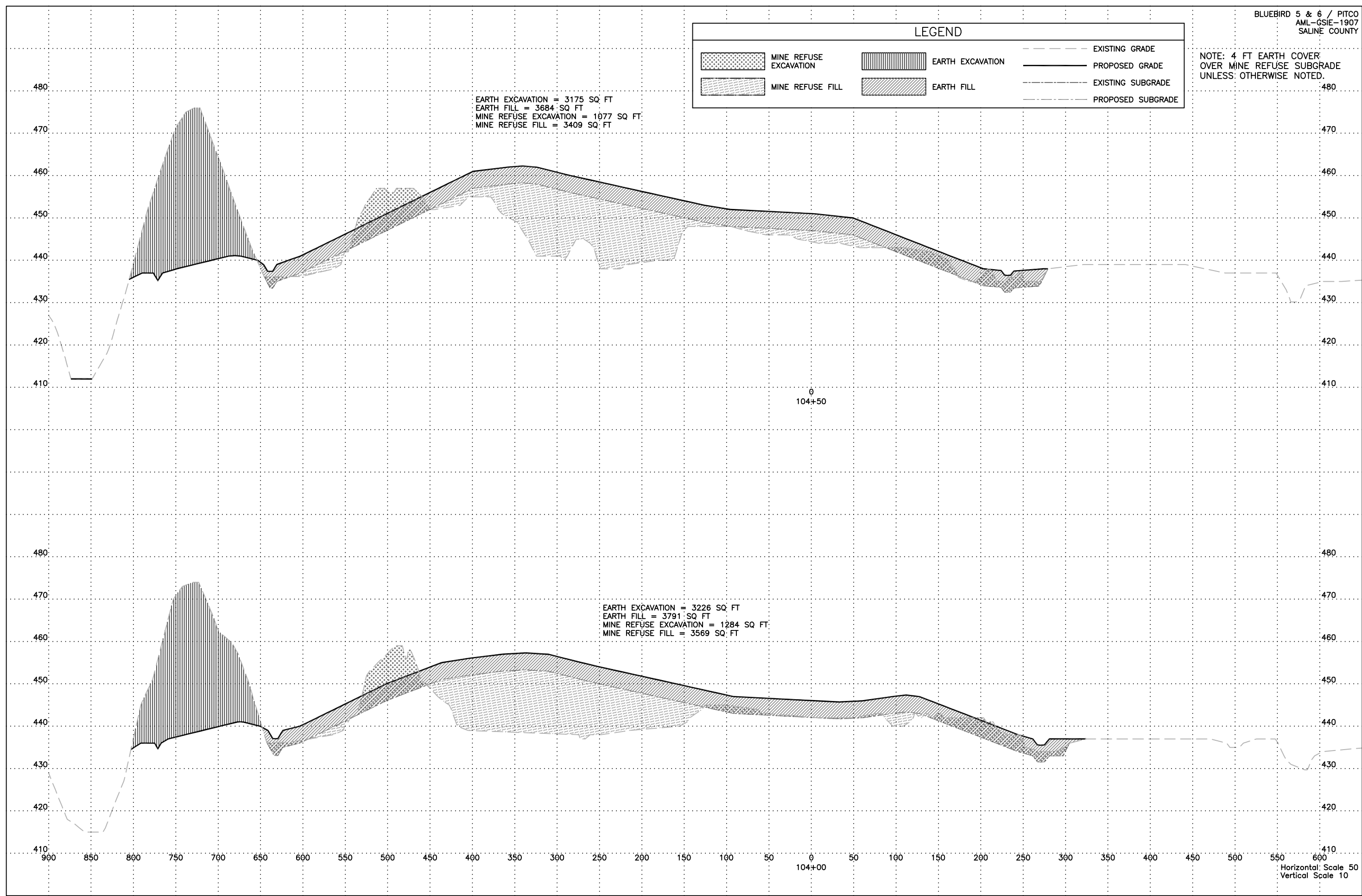
 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

EARTH EXCAVATION = 3175 SQ. FT  
 EARTH FILL = 3684 SQ. FT  
 MINE REFUSE EXCAVATION = 1077 SQ. FT  
 MINE REFUSE FILL = 3409 SQ. FT









0  
 104+50

EARTH EXCAVATION = 3226 SQ. FT  
 EARTH FILL = 3791 SQ. FT  
 MINE REFUSE EXCAVATION = 1284 SQ. FT  
 MINE REFUSE FILL = 3569 SQ. FT



Horizontal: Scale 50  
 Vertical: Scale 10

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

EARTH EXCAVATION = 4349 SQ. FT.  
 EARTH FILL = 3402 SQ. FT.  
 MINE REFUSE EXCAVATION = 2319 SQ. FT.  
 MINE REFUSE FILL = 2863 SQ. FT.









EARTH EXCAVATION = 3588 SQ. FT.  
 EARTH FILL = 3747 SQ. FT.  
 MINE REFUSE EXCAVATION = 1732 SQ. FT.  
 MINE REFUSE FILL = 4551 SQ. FT.

0  
 105+50

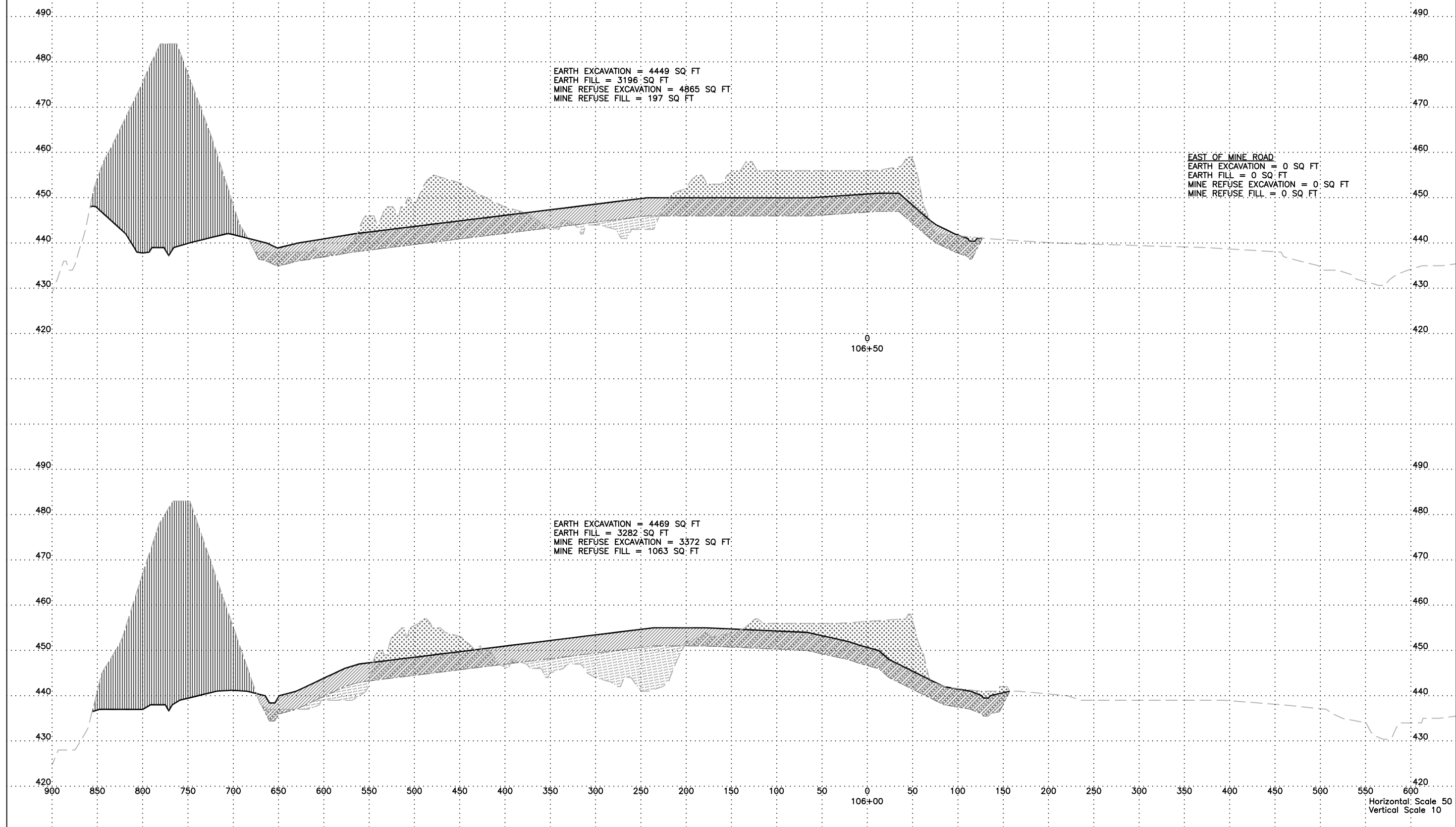
0  
 105+00

Horizontal Scale 50  
 Vertical Scale 10

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



EARTH EXCAVATION = 4449 SQ FT  
 EARTH FILL = 3196 SQ FT  
 MINE REFUSE EXCAVATION = 4865 SQ FT  
 MINE REFUSE FILL = 197 SQ FT

0  
 106+50



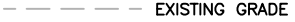


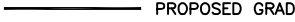
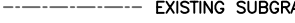
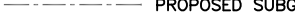
EAST OF MINE ROAD:  
 EARTH EXCAVATION = 0 SQ FT  
 EARTH FILL = 0 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

EARTH EXCAVATION = 4469 SQ FT  
 EARTH FILL = 3282 SQ FT  
 MINE REFUSE EXCAVATION = 3372 SQ FT  
 MINE REFUSE FILL = 1063 SQ FT

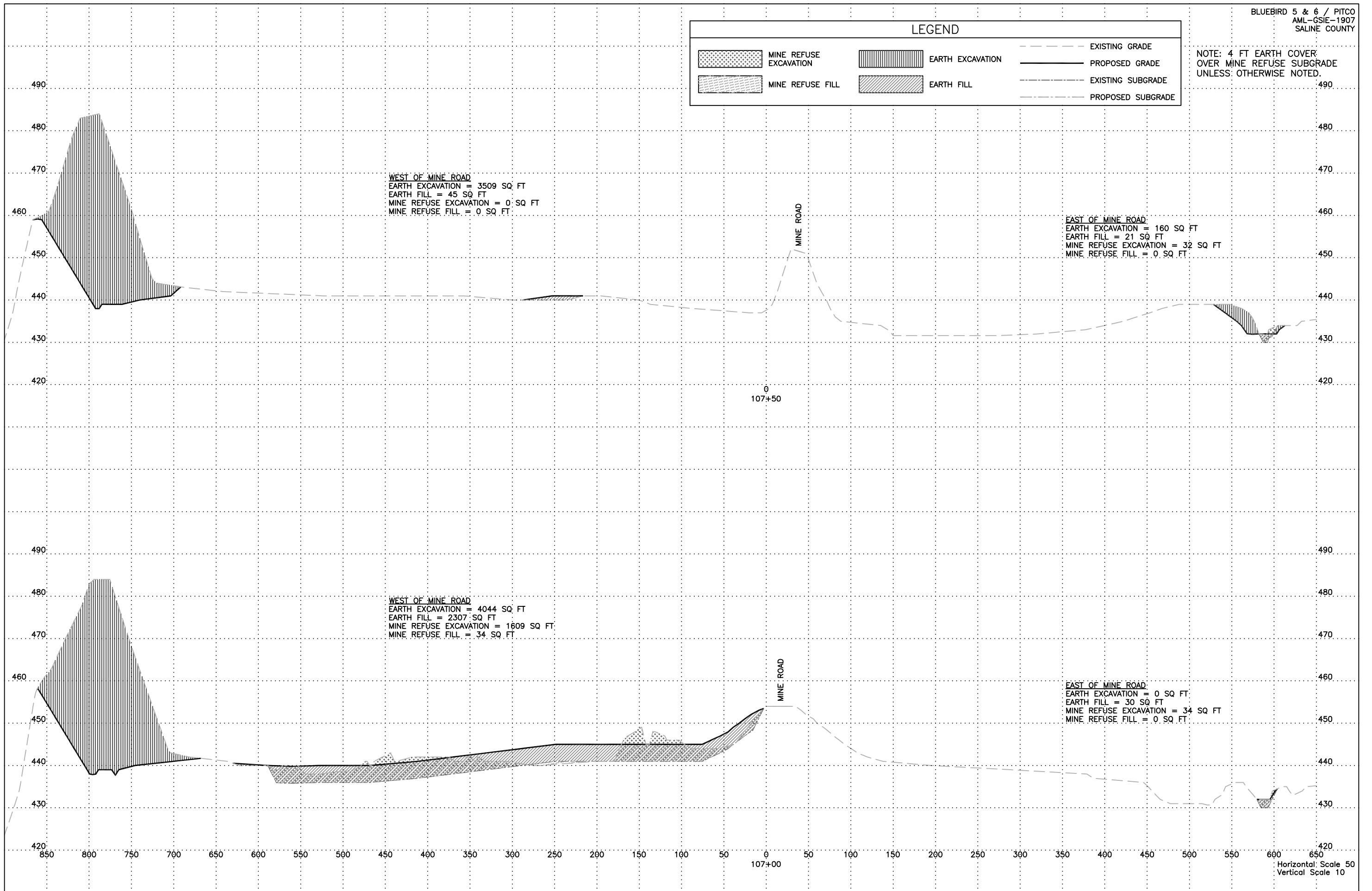
106+00

Horizontal: Scale 50  
 Vertical: Scale 10

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

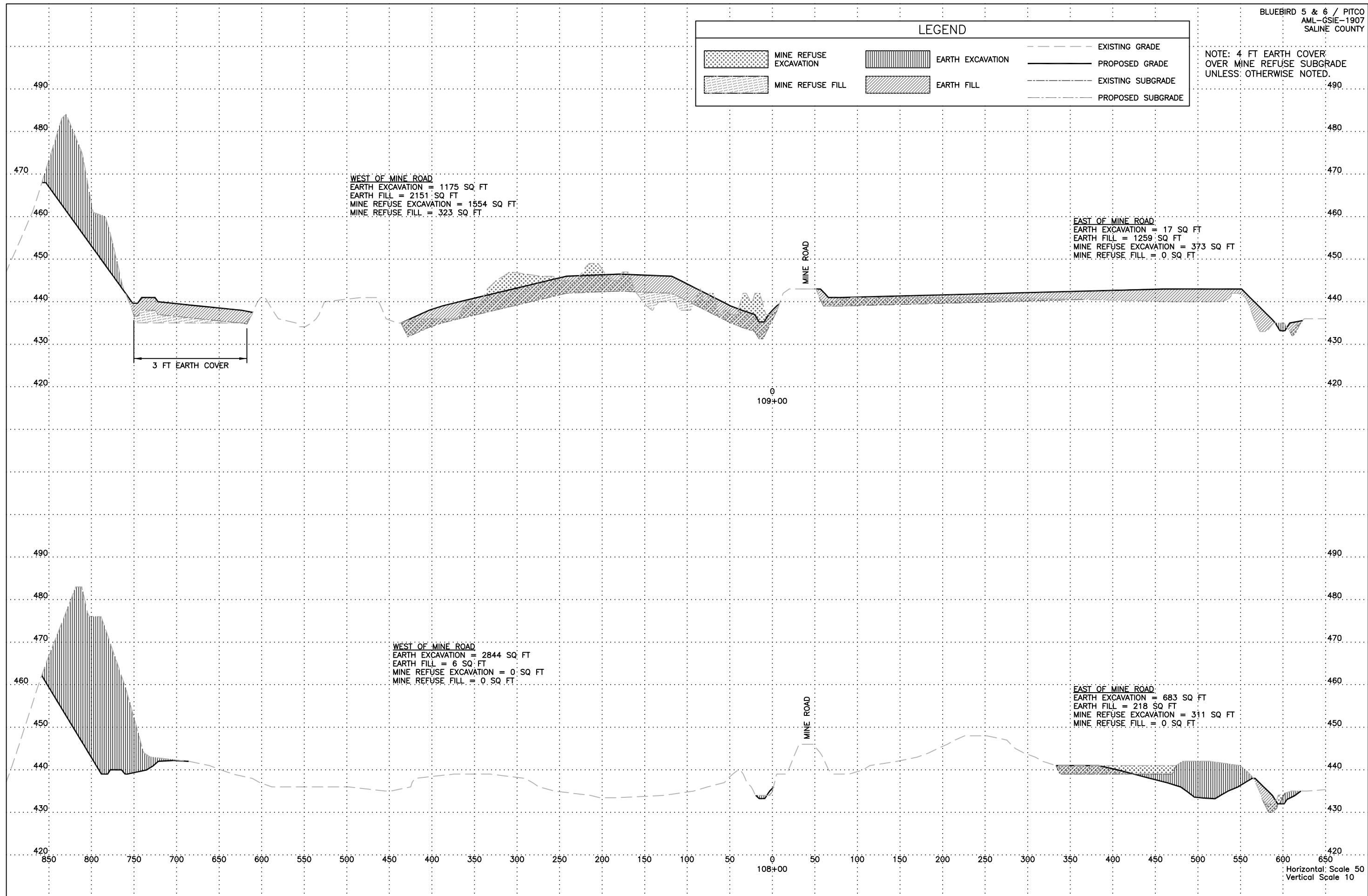
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.





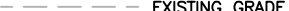





**LEGEND**

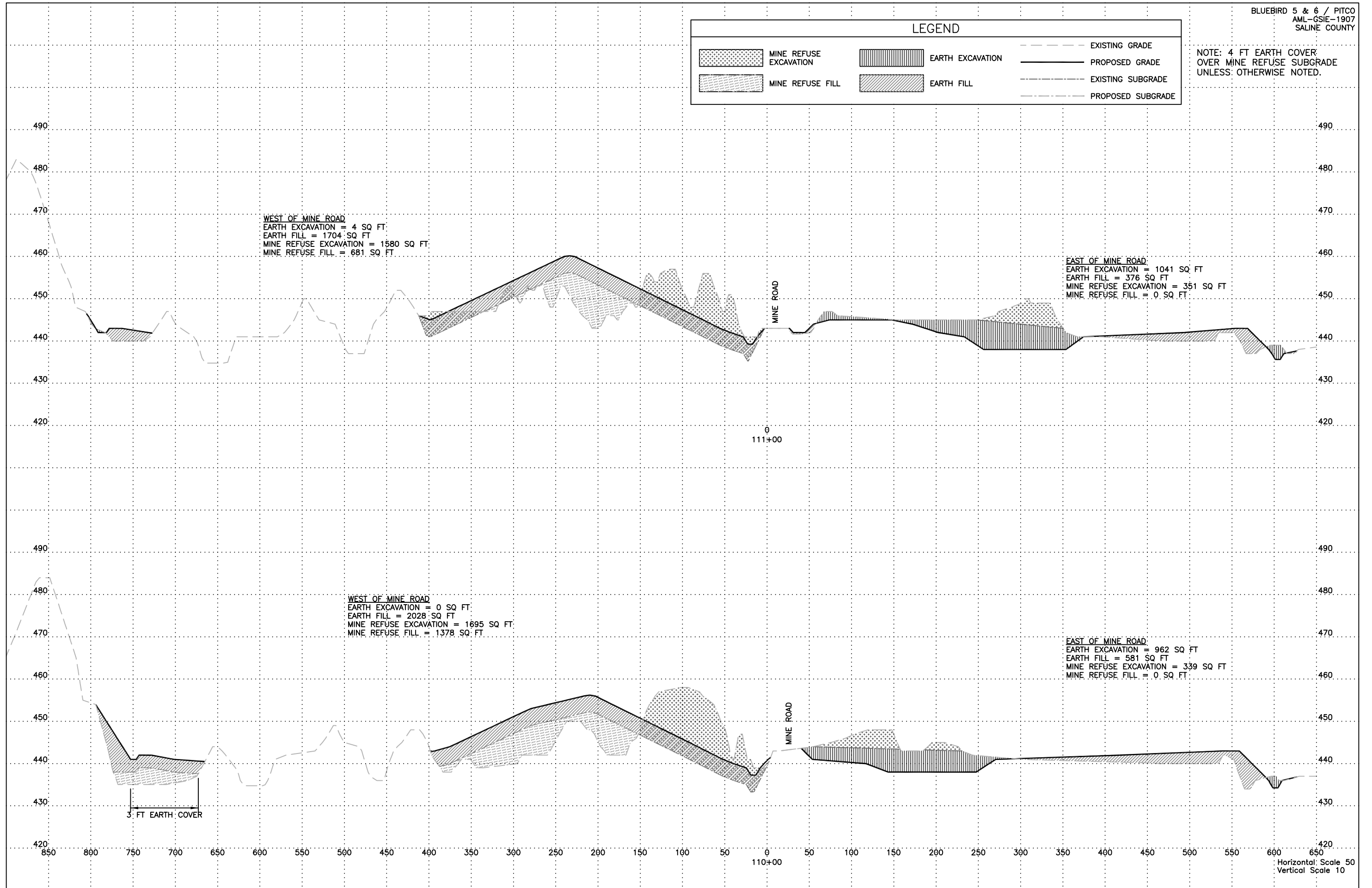
MINE REFUSE EXCAVATION	EARTH EXCAVATION	EXISTING GRADE	PROPOSED GRADE
MINE REFUSE FILL	EARTH FILL	EXISTING SUBGRADE	PROPOSED SUBGRADE









NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



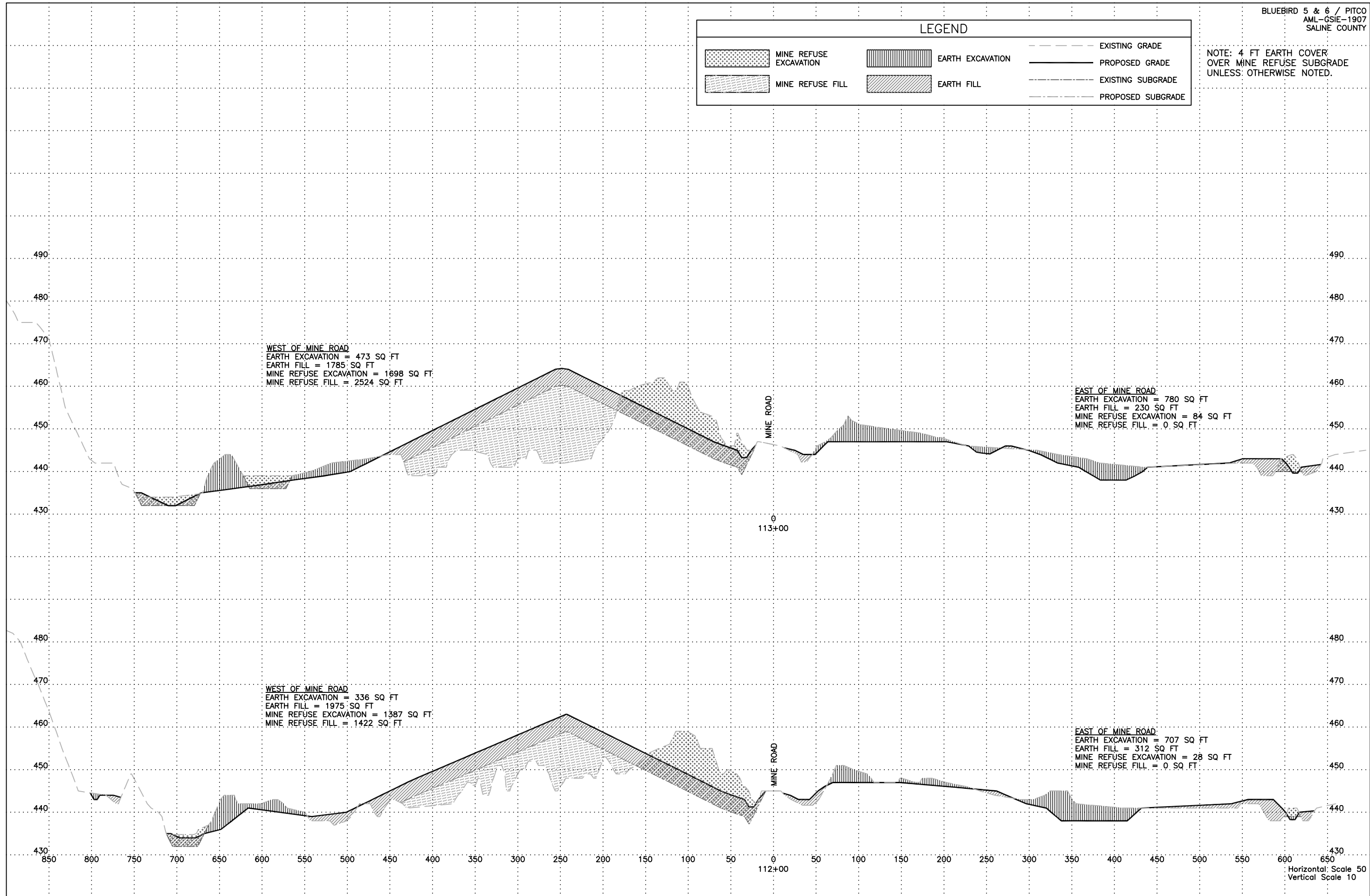
LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
	EXISTING GRADE		PROPOSED GRADE
	EXISTING SUBGRADE		PROPOSED SUBGRADE








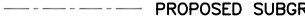
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



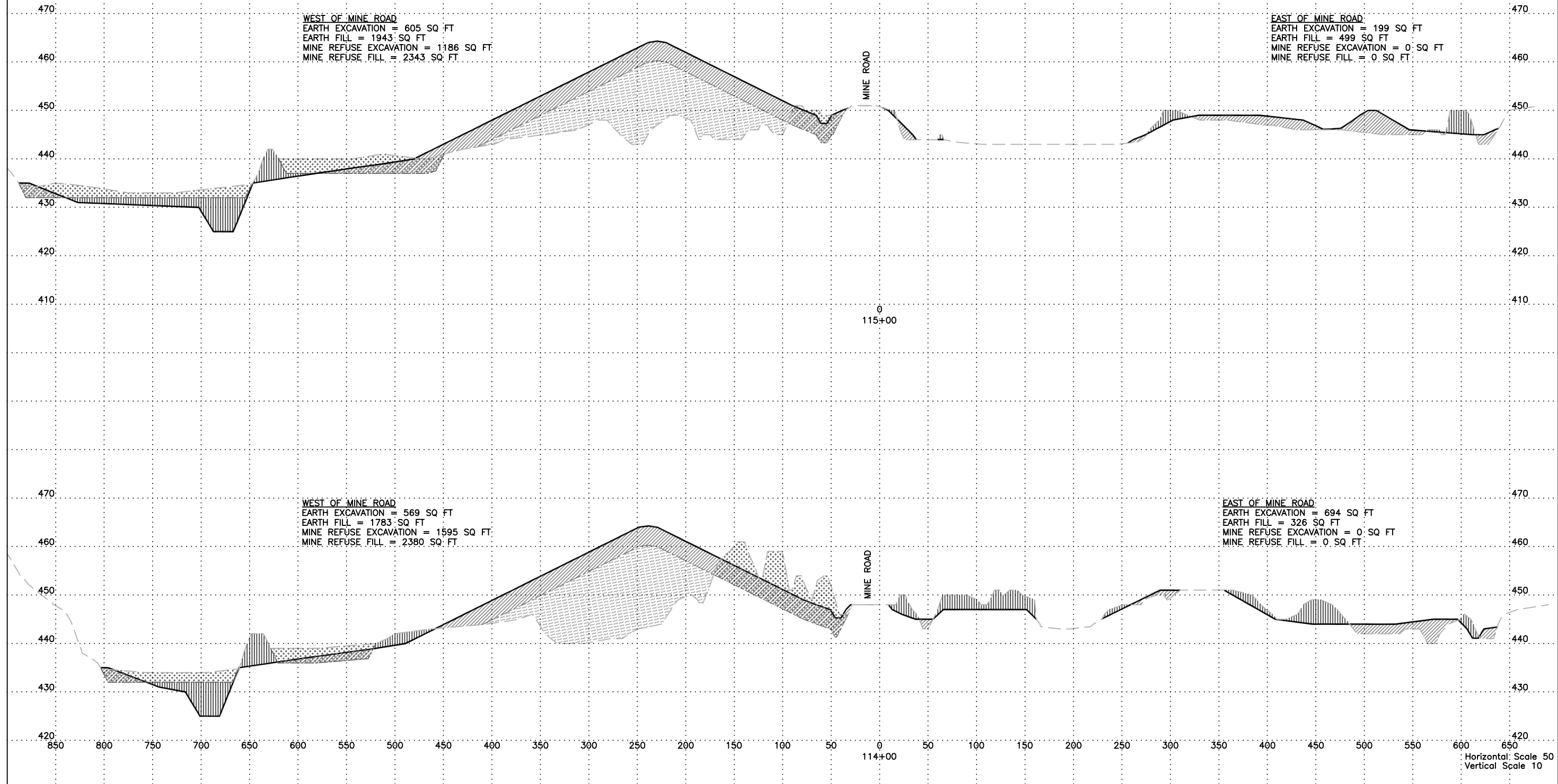
LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
	EXISTING GRADE		PROPOSED GRADE
	EXISTING SUBGRADE		PROPOSED SUBGRADE

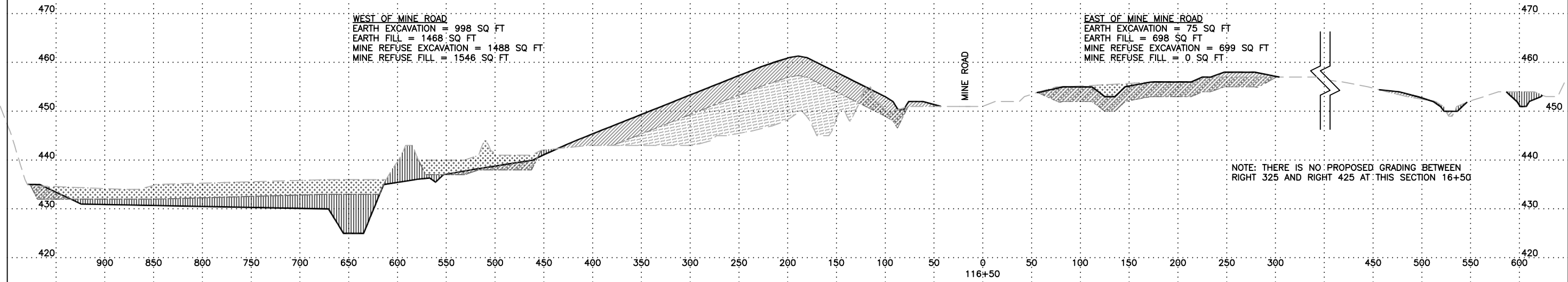
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.









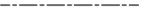



LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

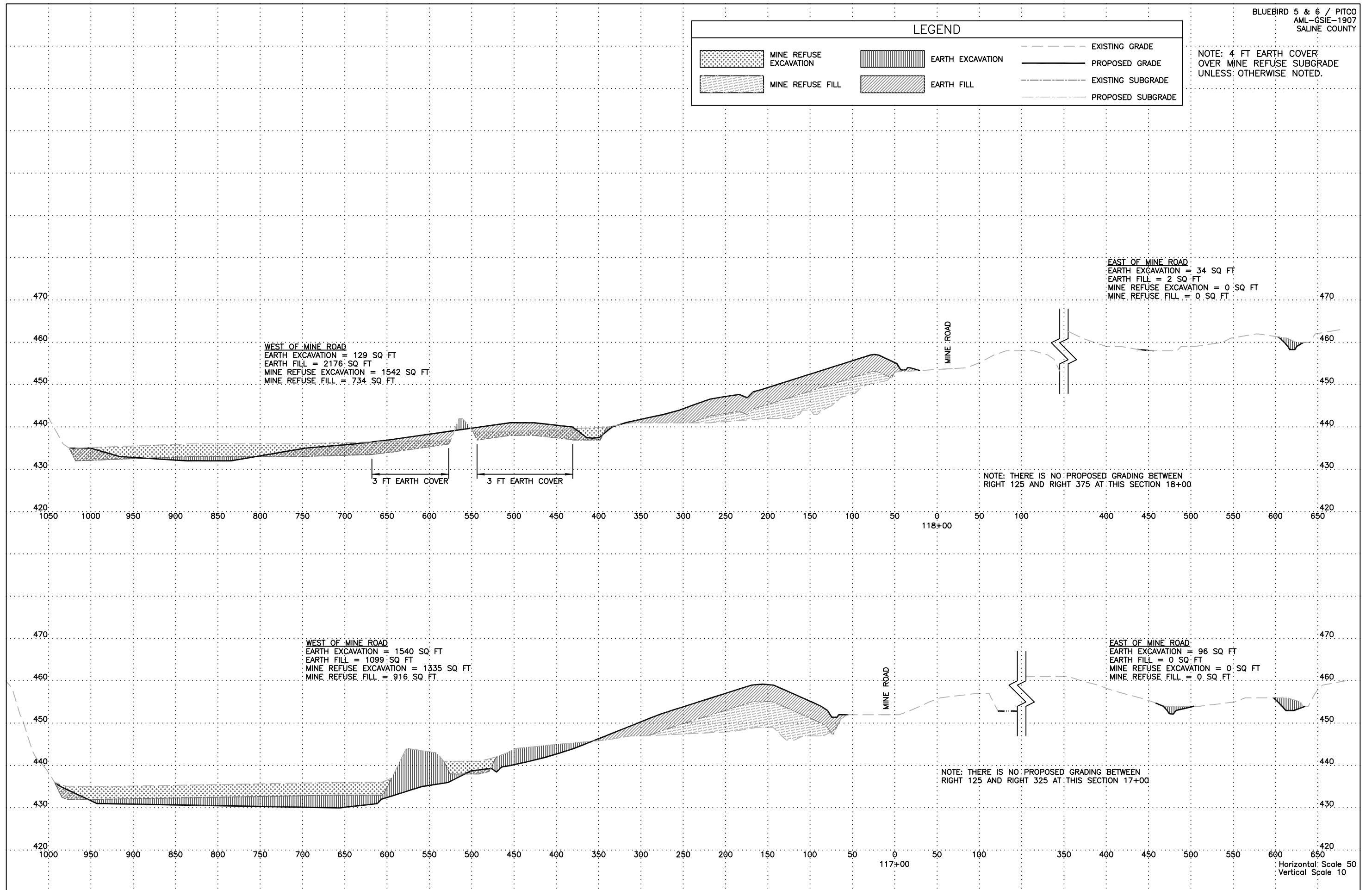
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.











Horizontal Scale 50  
 Vertical Scale 10

LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
	EXISTING GRADE		PROPOSED GRADE
	EXISTING SUBGRADE		PROPOSED SUBGRADE

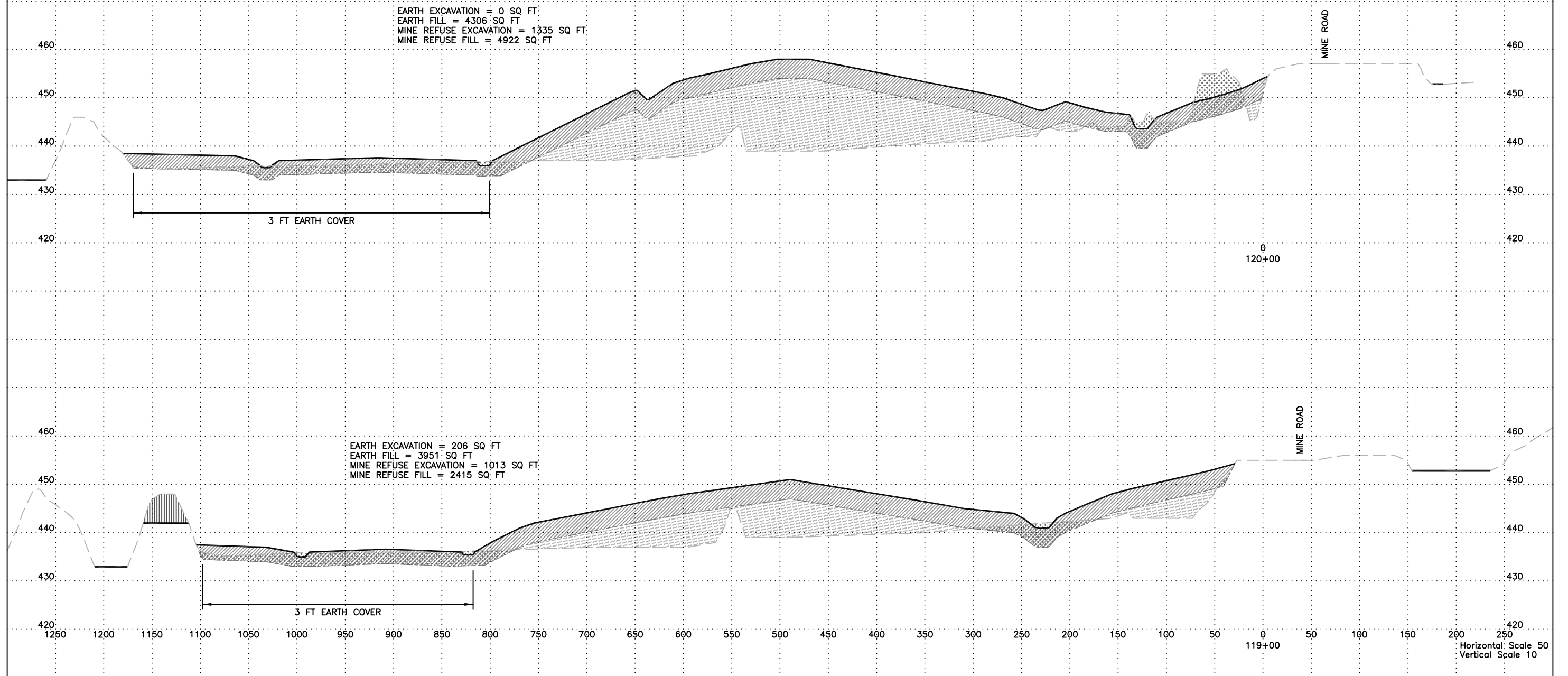
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.








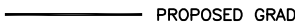
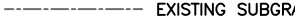

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

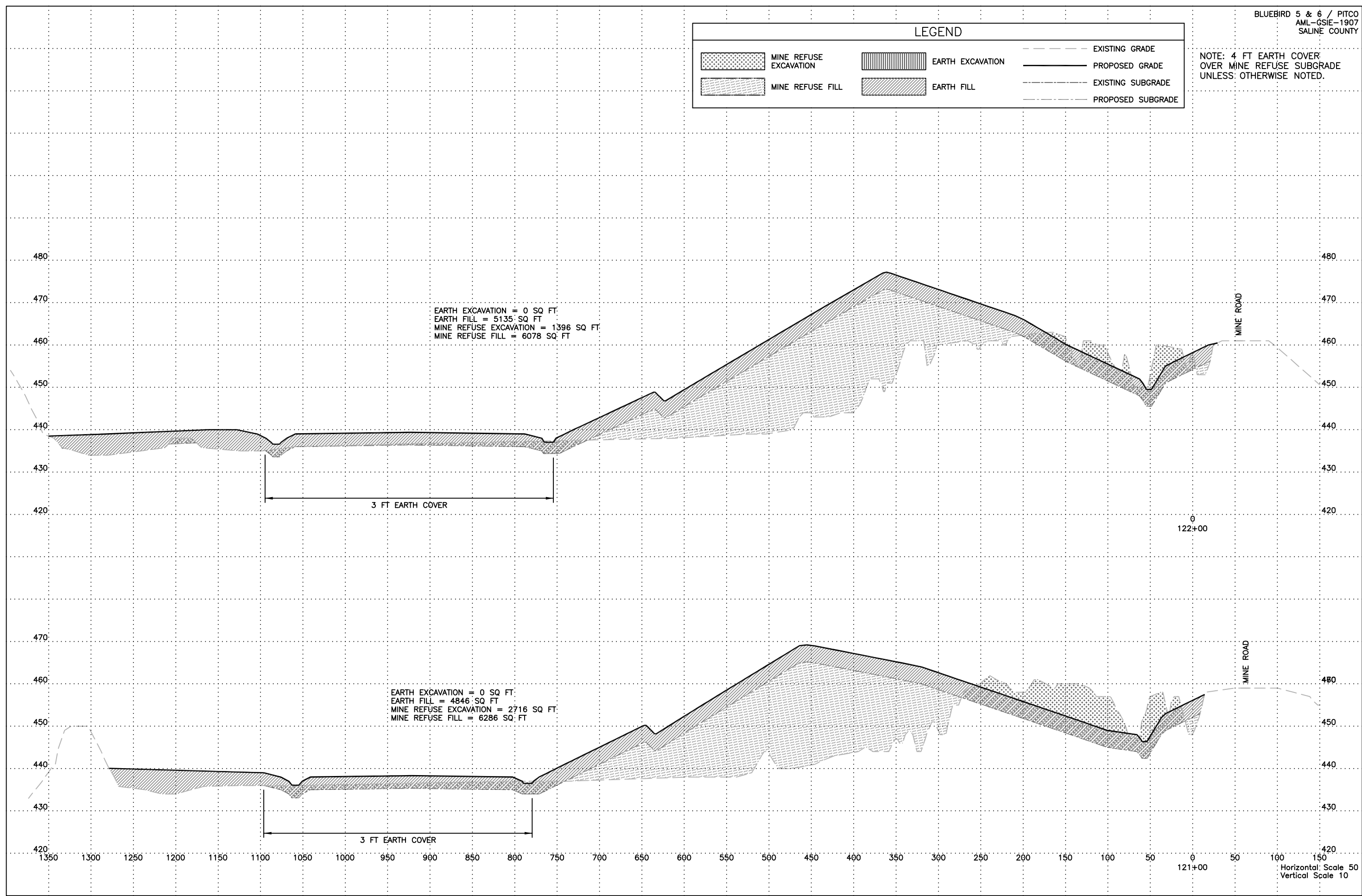
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.











Horizontal Scale 50  
 Vertical Scale 10

LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

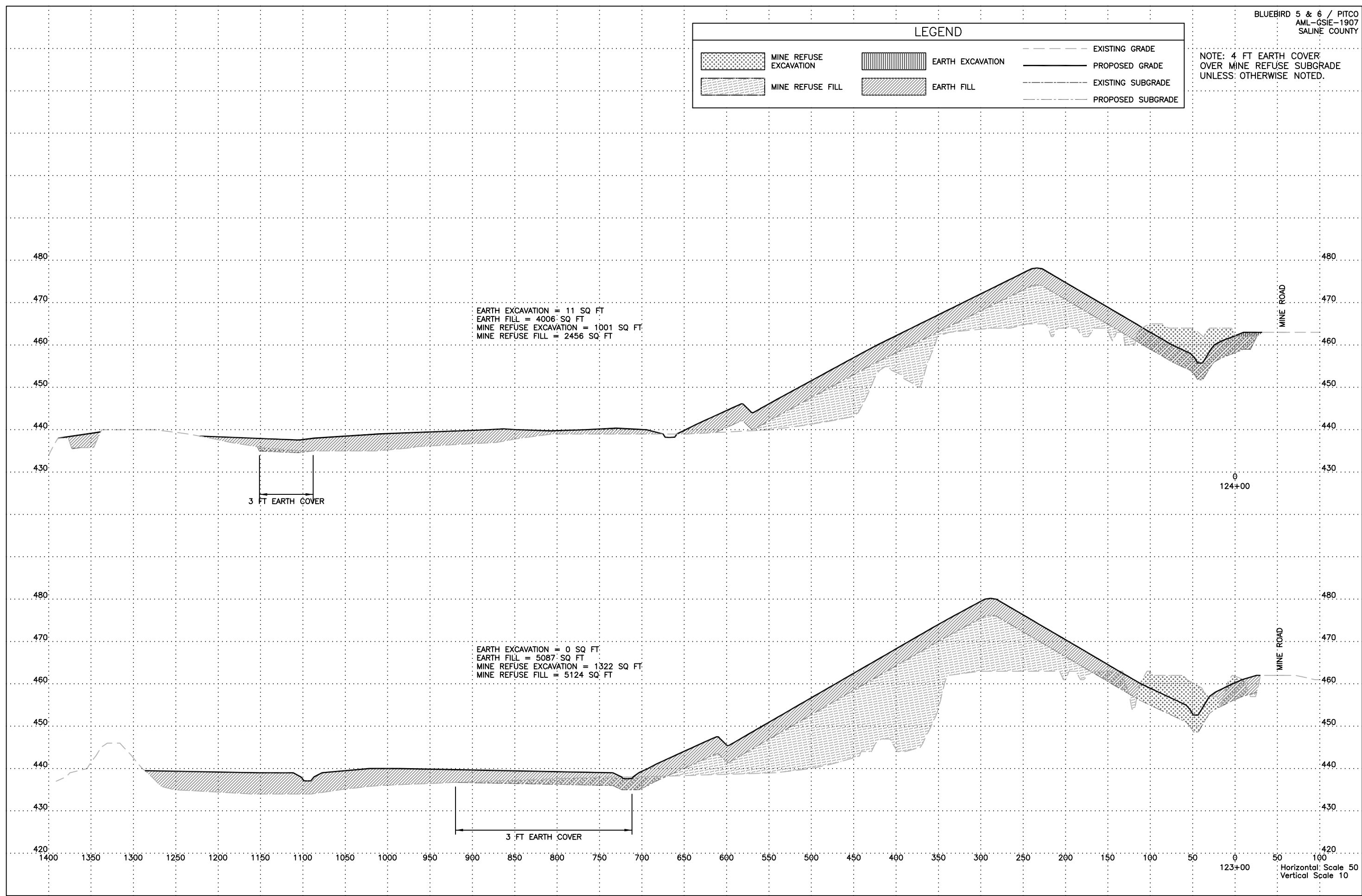
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.











**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

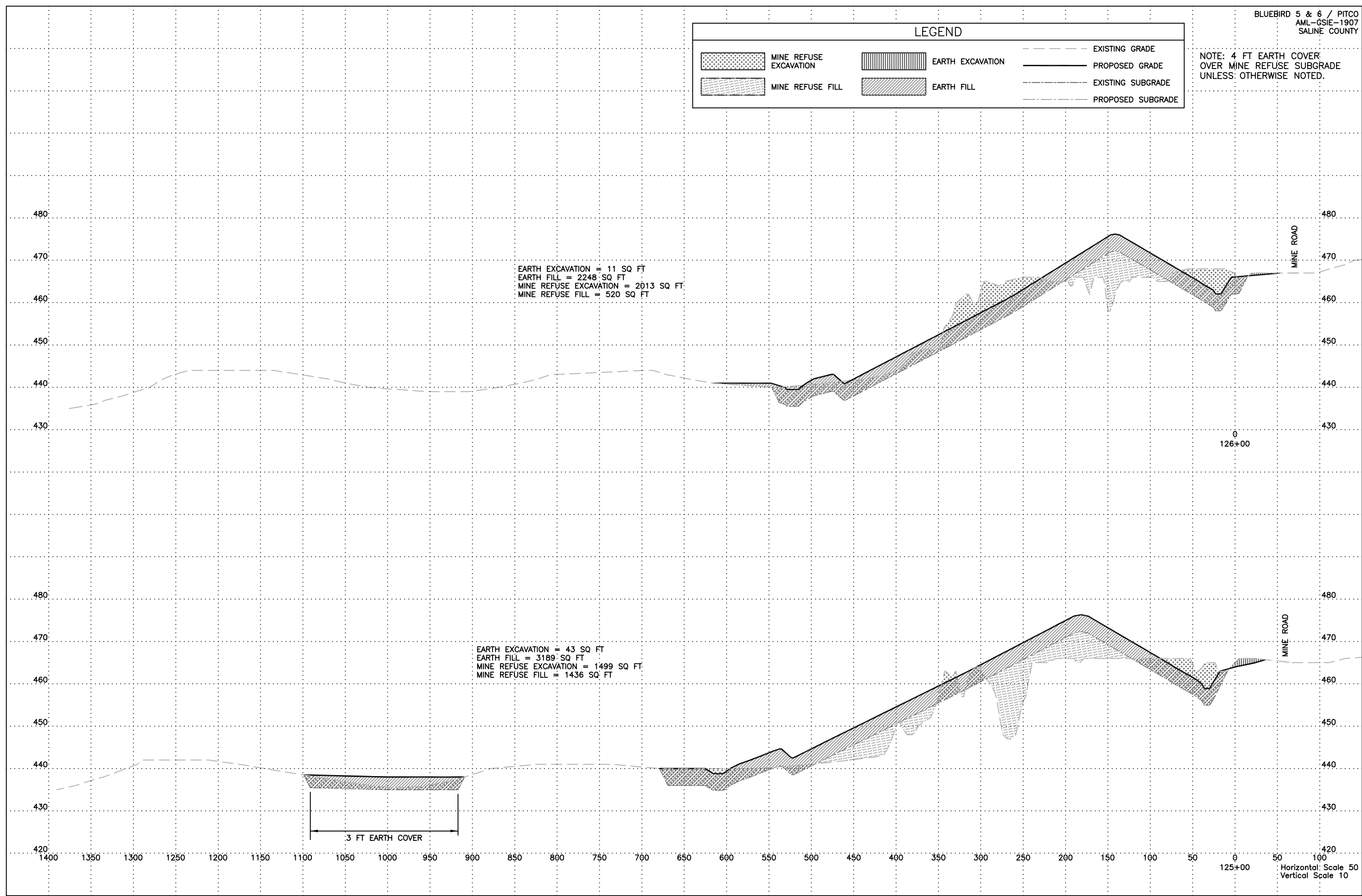
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.








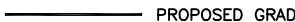
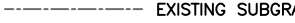

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

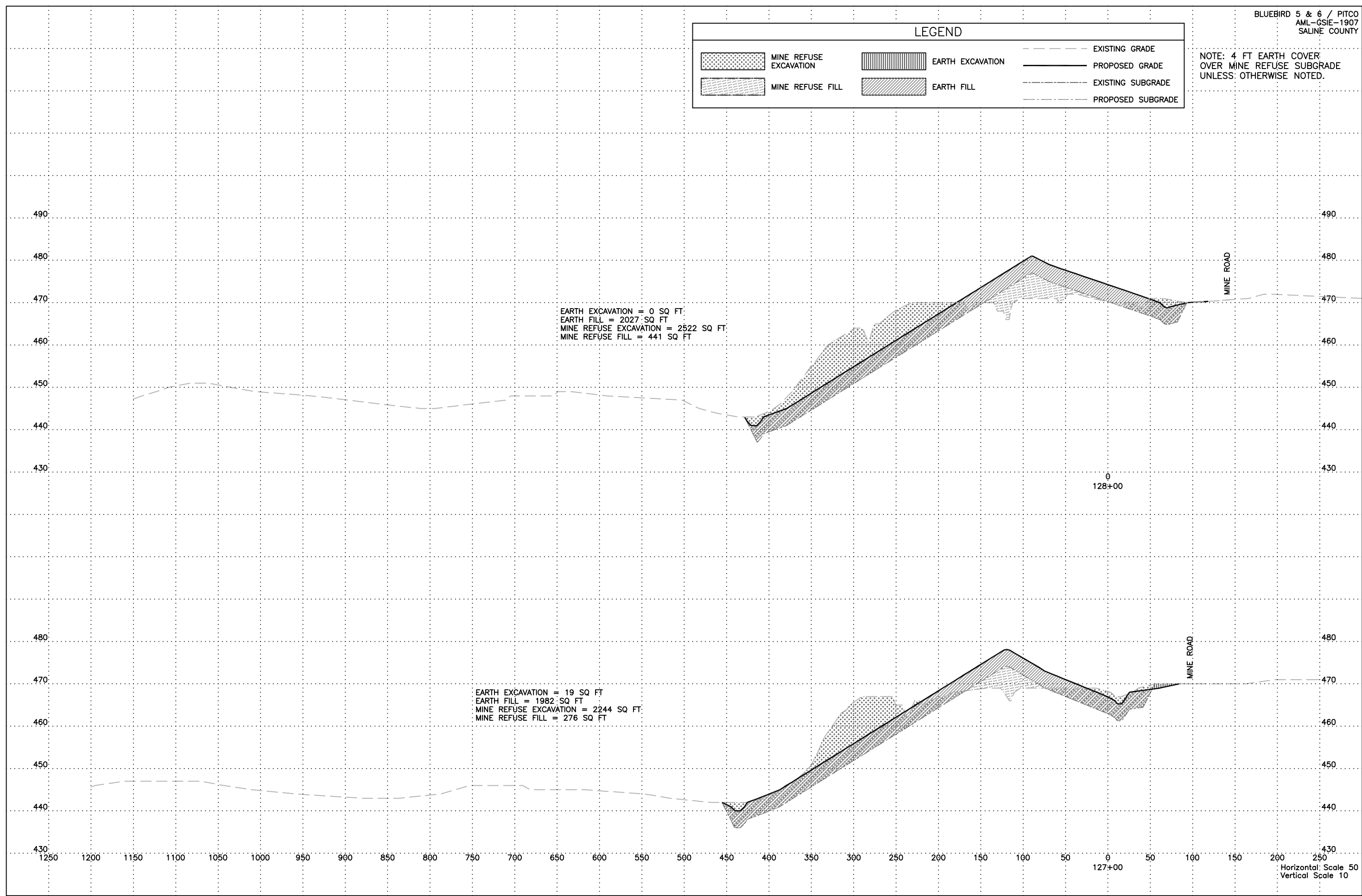
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



**LEGEND**






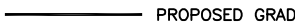
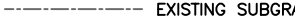

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

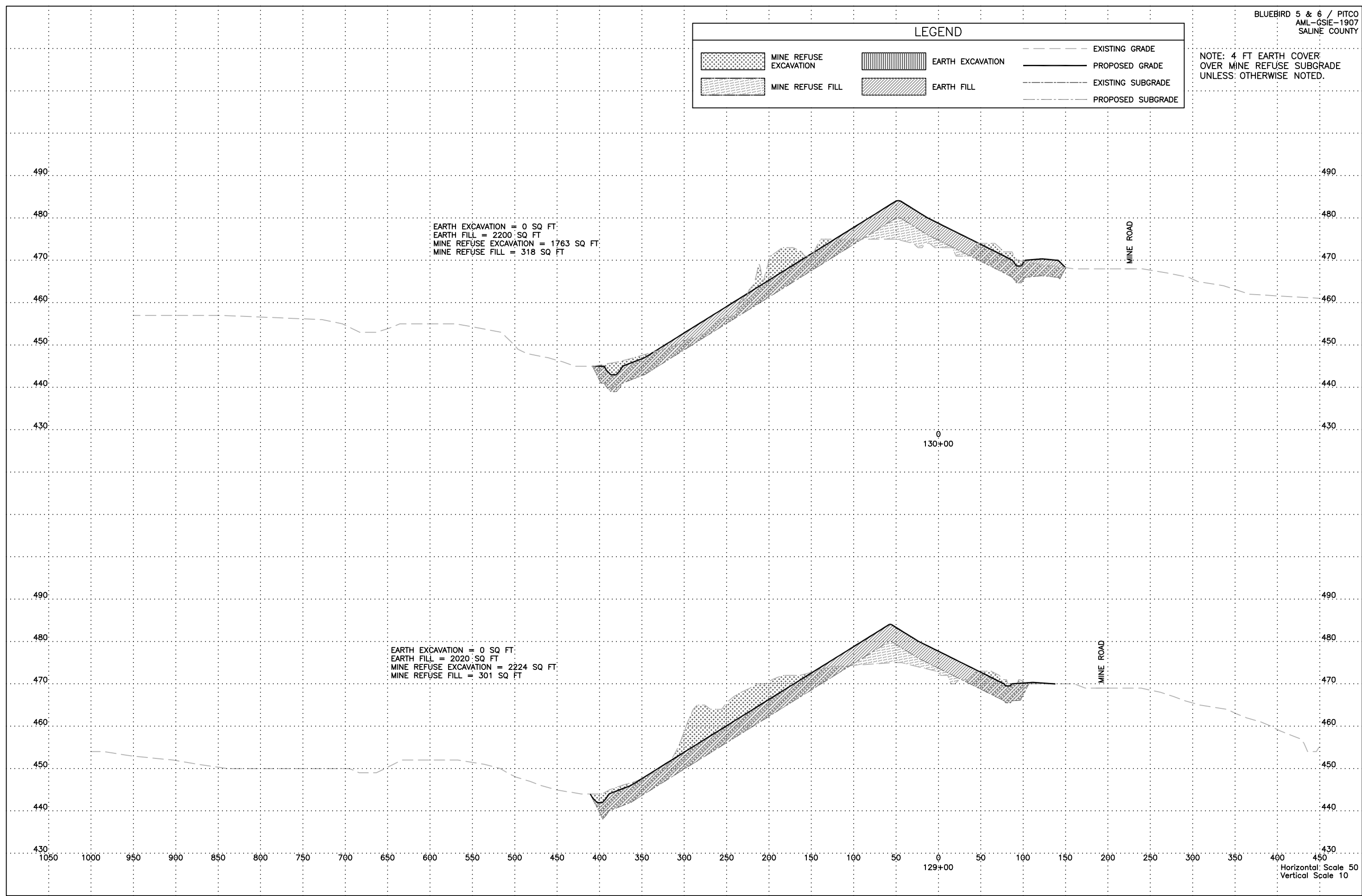


Horizontal Scale 50  
 Vertical Scale 10





**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

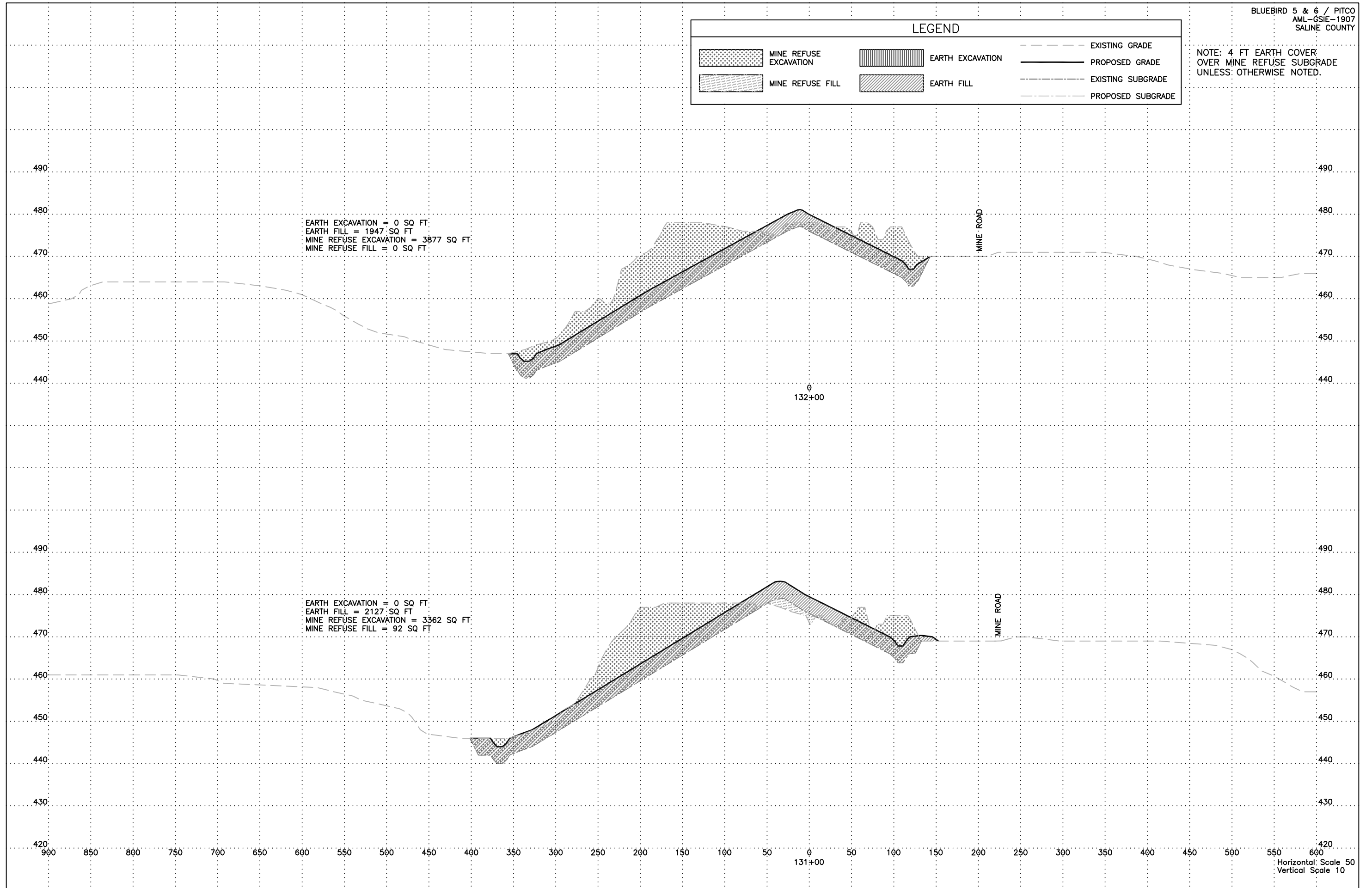
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.













LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
---		EXISTING GRADE	
—		PROPOSED GRADE	
---		EXISTING SUBGRADE	
---		PROPOSED SUBGRADE	

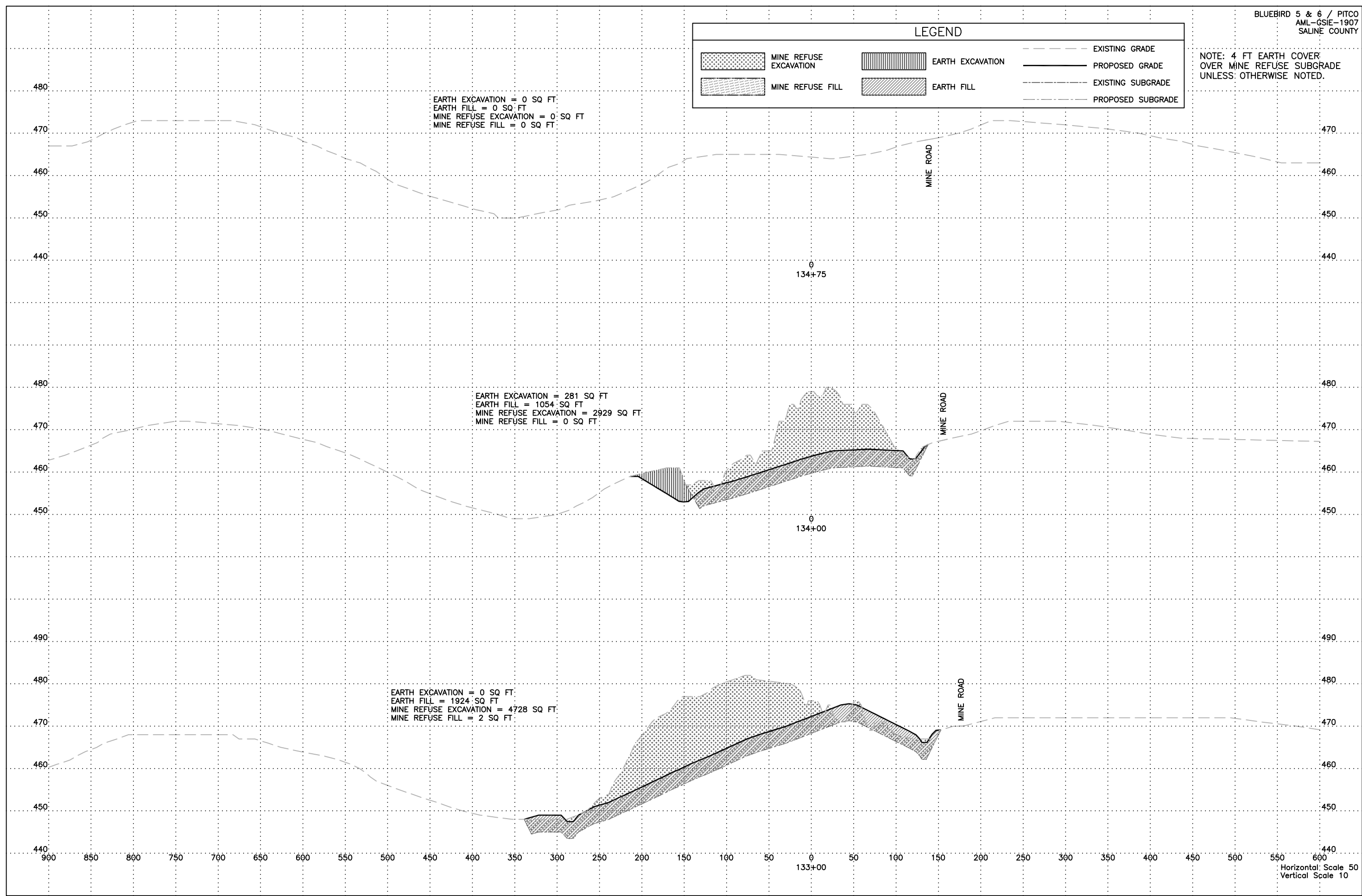
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



**LEGEND**





 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

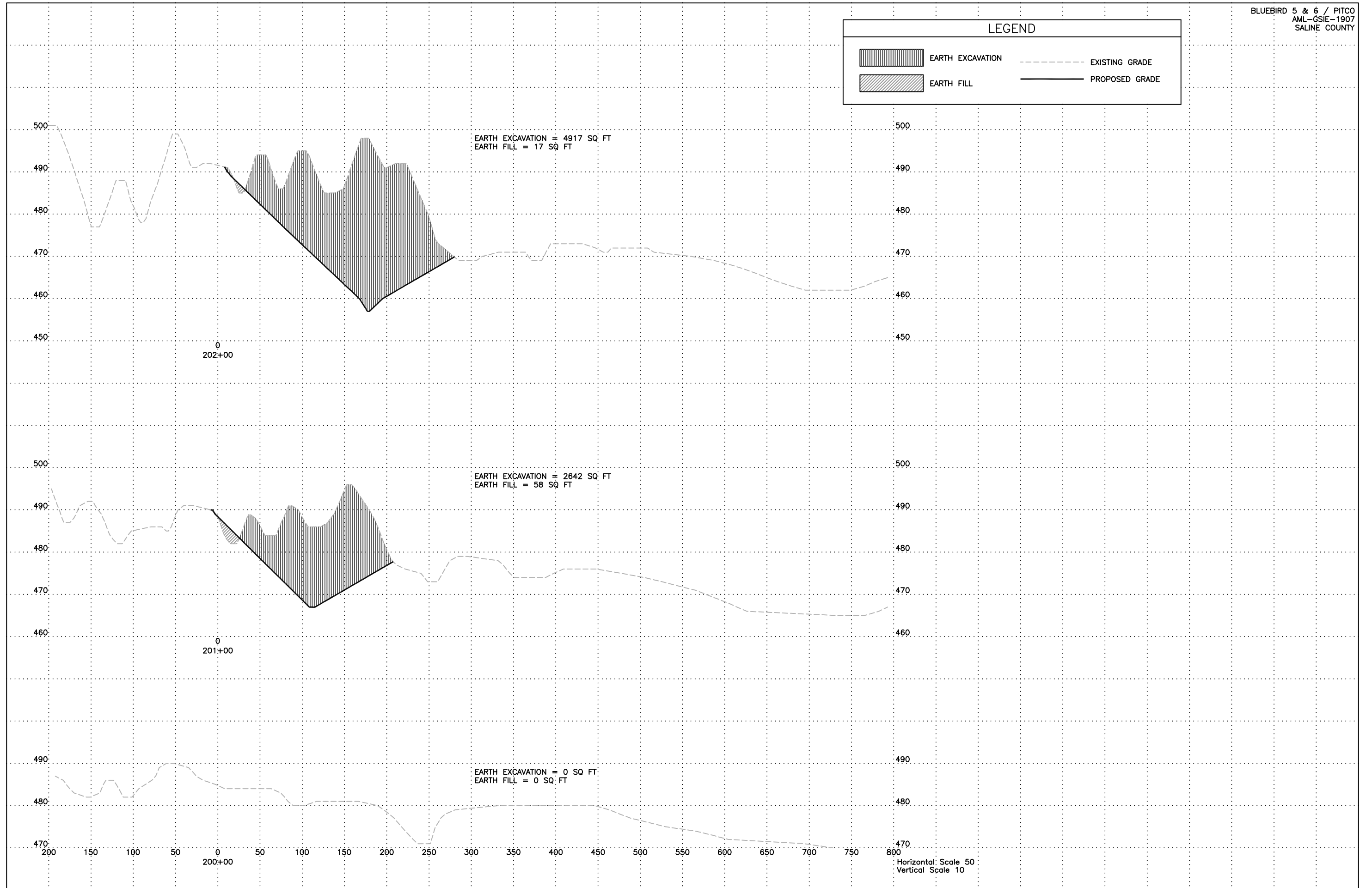
NOTE: 4 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



Horizontal: Scale 50  
 Vertical Scale 10





LEGEND

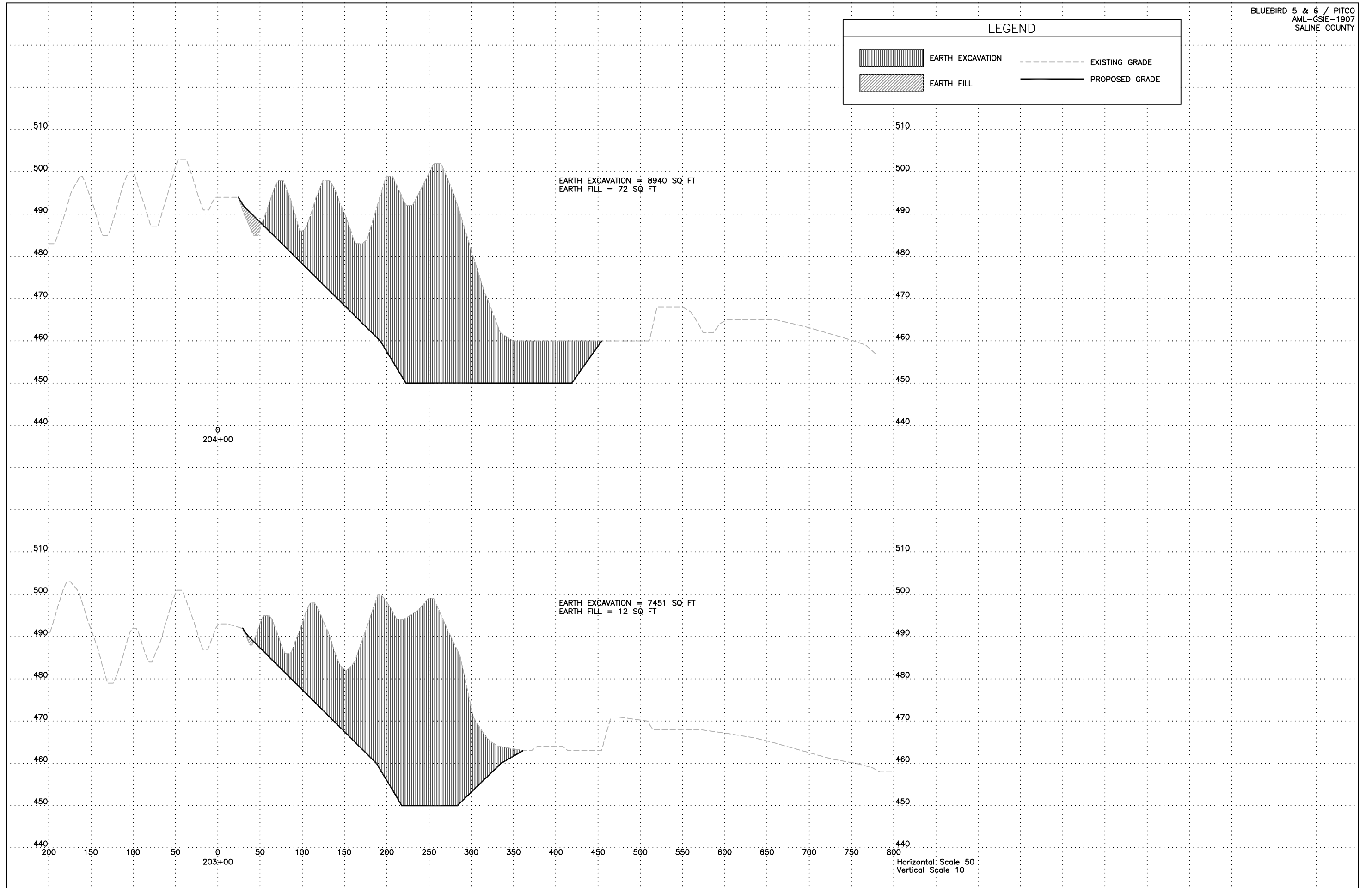
	EARTH EXCAVATION		EXISTING GRADE
	EARTH FILL		PROPOSED GRADE







Horizontal Scale 50  
Vertical Scale 10

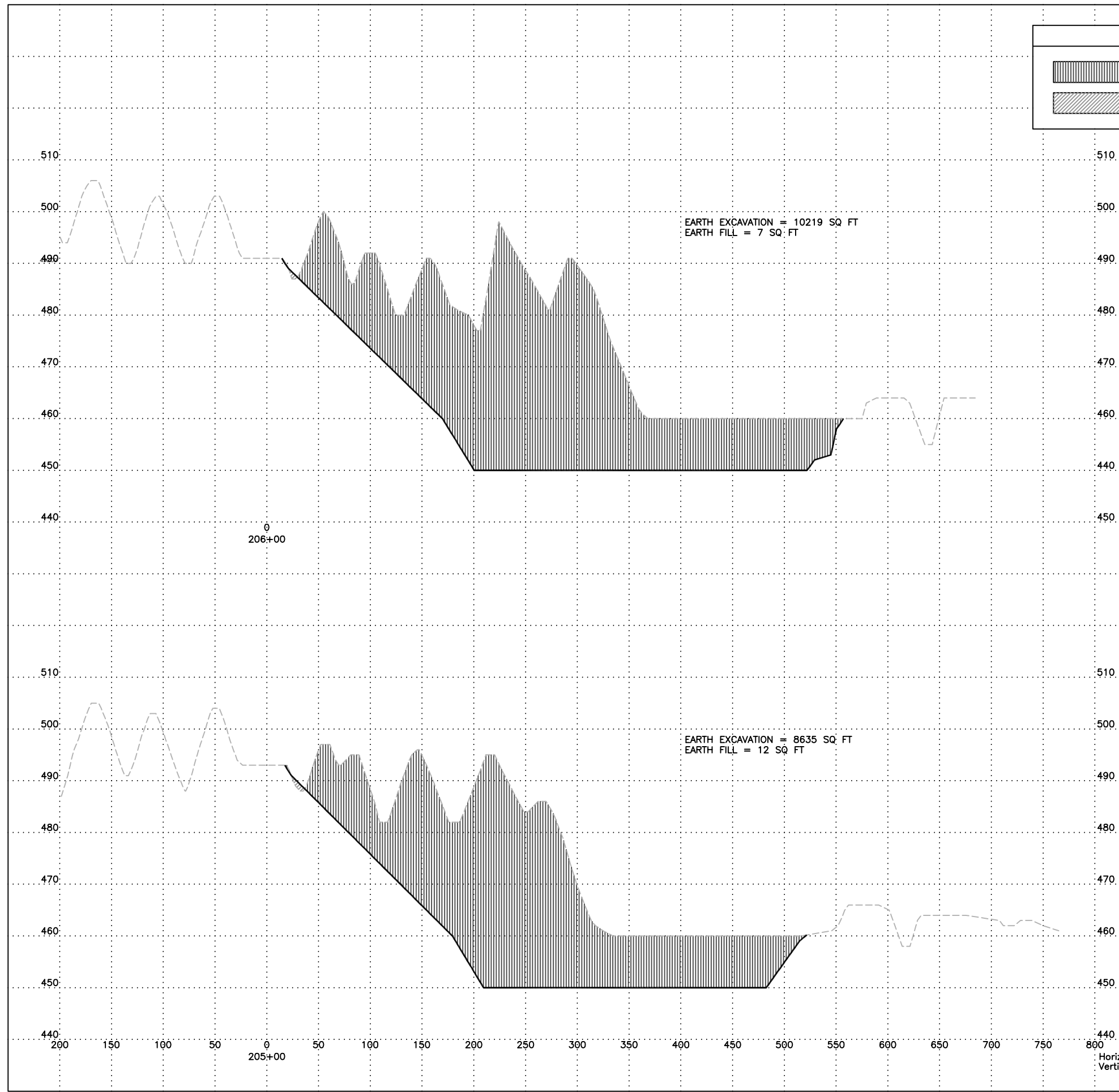
LEGEND

	EARTH EXCAVATION		EXISTING GRADE
	EARTH FILL		PROPOSED GRADE







LEGEND

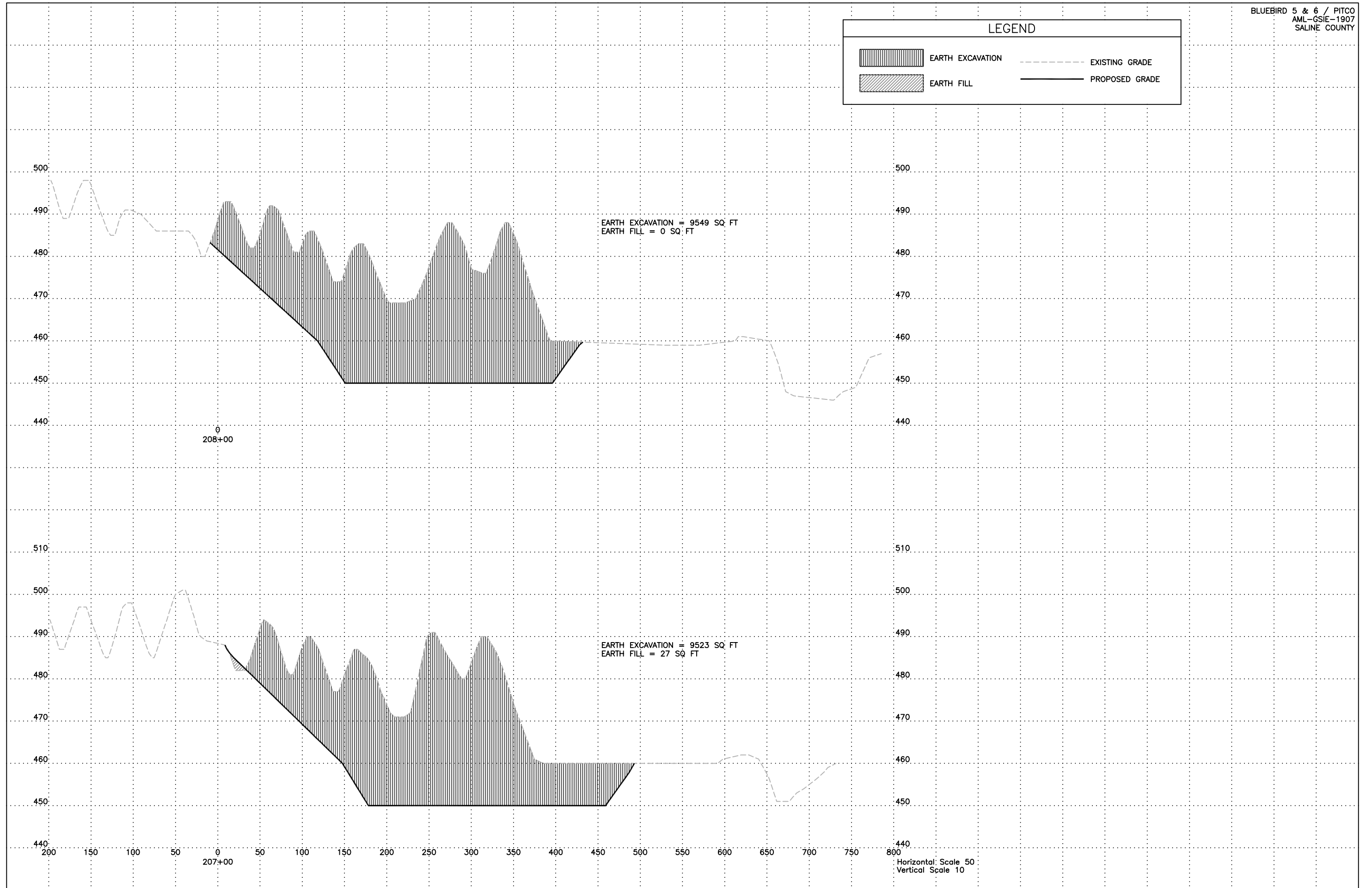
	EARTH EXCAVATION		EXISTING GRADE
	EARTH FILL		PROPOSED GRADE







Horizontal: Scale 50  
Vertical Scale 10

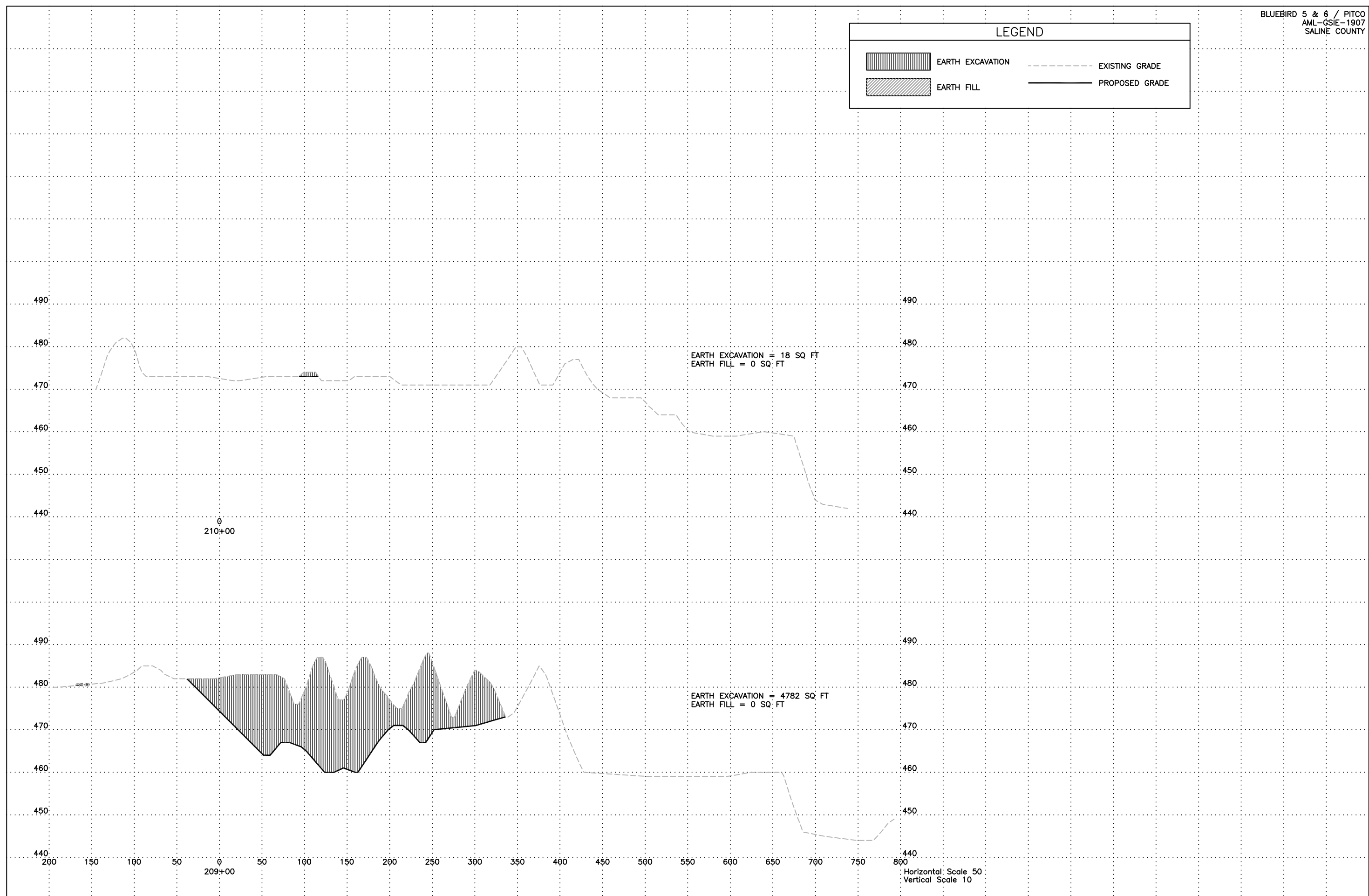
LEGEND

	EARTH EXCAVATION		EXISTING GRADE
	EARTH FILL		PROPOSED GRADE







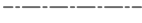



LEGEND

	EARTH EXCAVATION		EXISTING GRADE
	EARTH FILL		PROPOSED GRADE



**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.









EARTH EXCAVATION = 350 SQ FT  
 EARTH FILL = 326 SQ FT  
 MINE REFUSE EXCAVATION = 57 SQ FT  
 MINE REFUSE FILL = 82 SQ FT

0  
 301+00

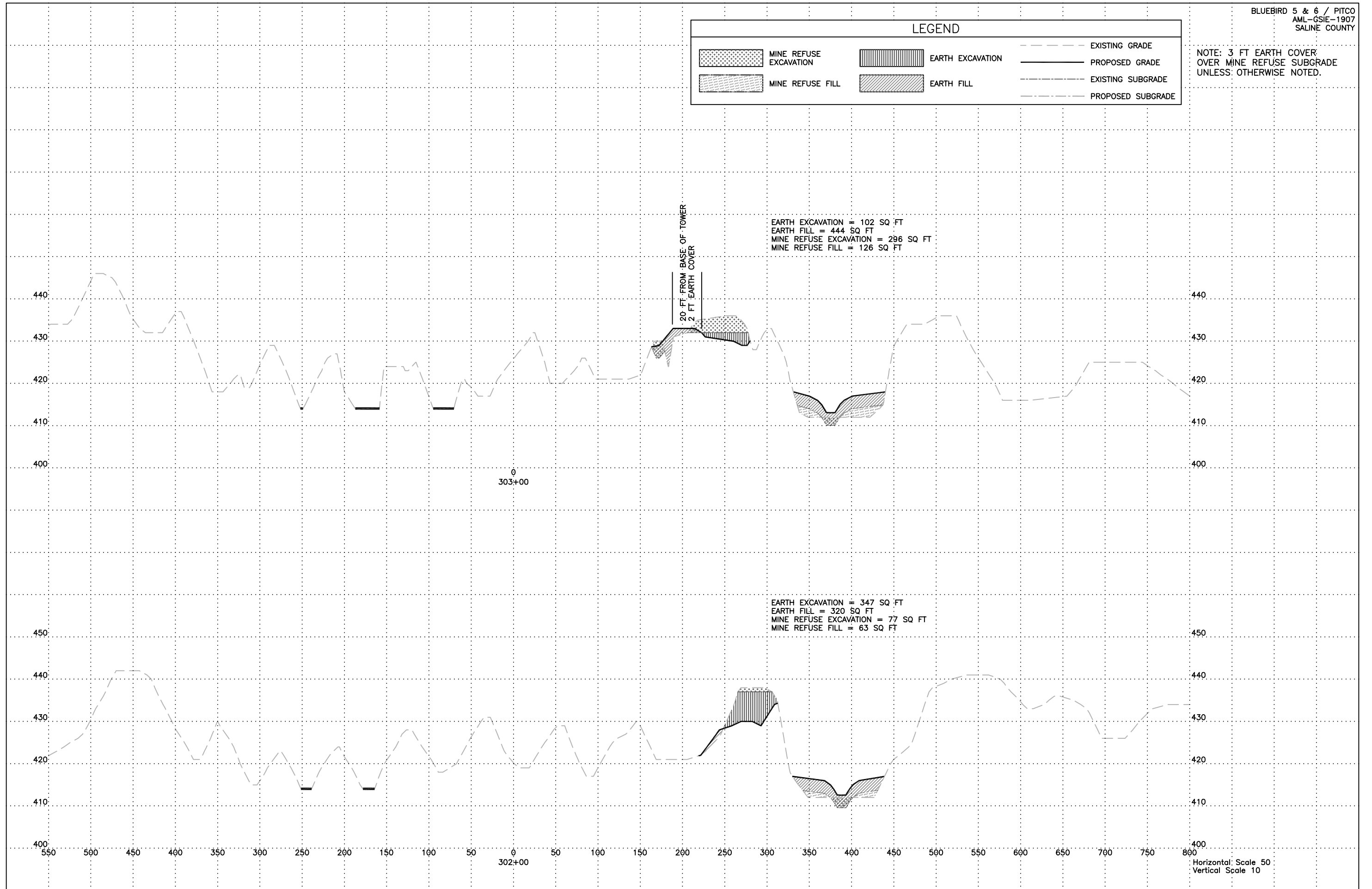
EARTH EXCAVATION = 4 SQ FT  
 EARTH FILL = 268 SQ FT  
 MINE REFUSE EXCAVATION = 43 SQ FT  
 MINE REFUSE FILL = 44 SQ FT

Horizontal Scale 50  
 Vertical Scale 10











LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
	EXISTING GRADE		PROPOSED GRADE
	EXISTING SUBGRADE		PROPOSED SUBGRADE

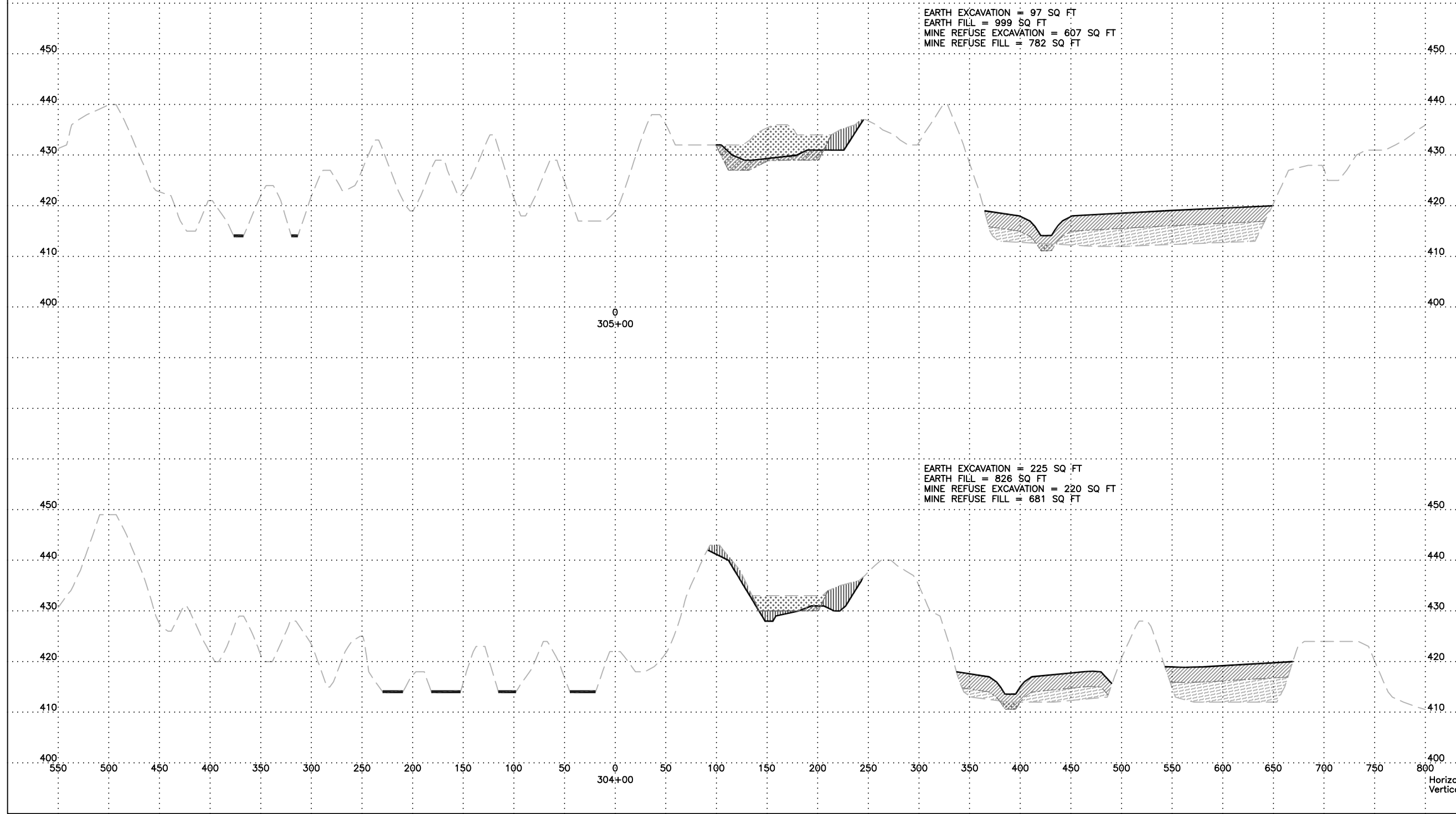
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



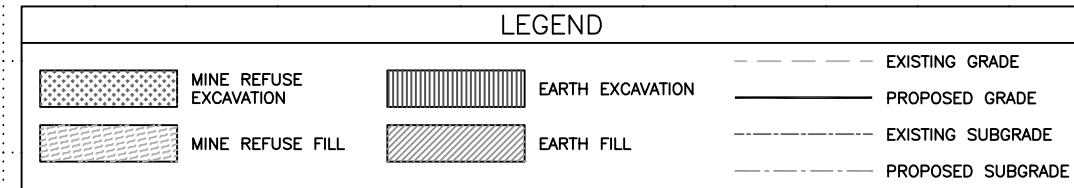
Horizontal Scale 50  
 Vertical Scale 10

LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

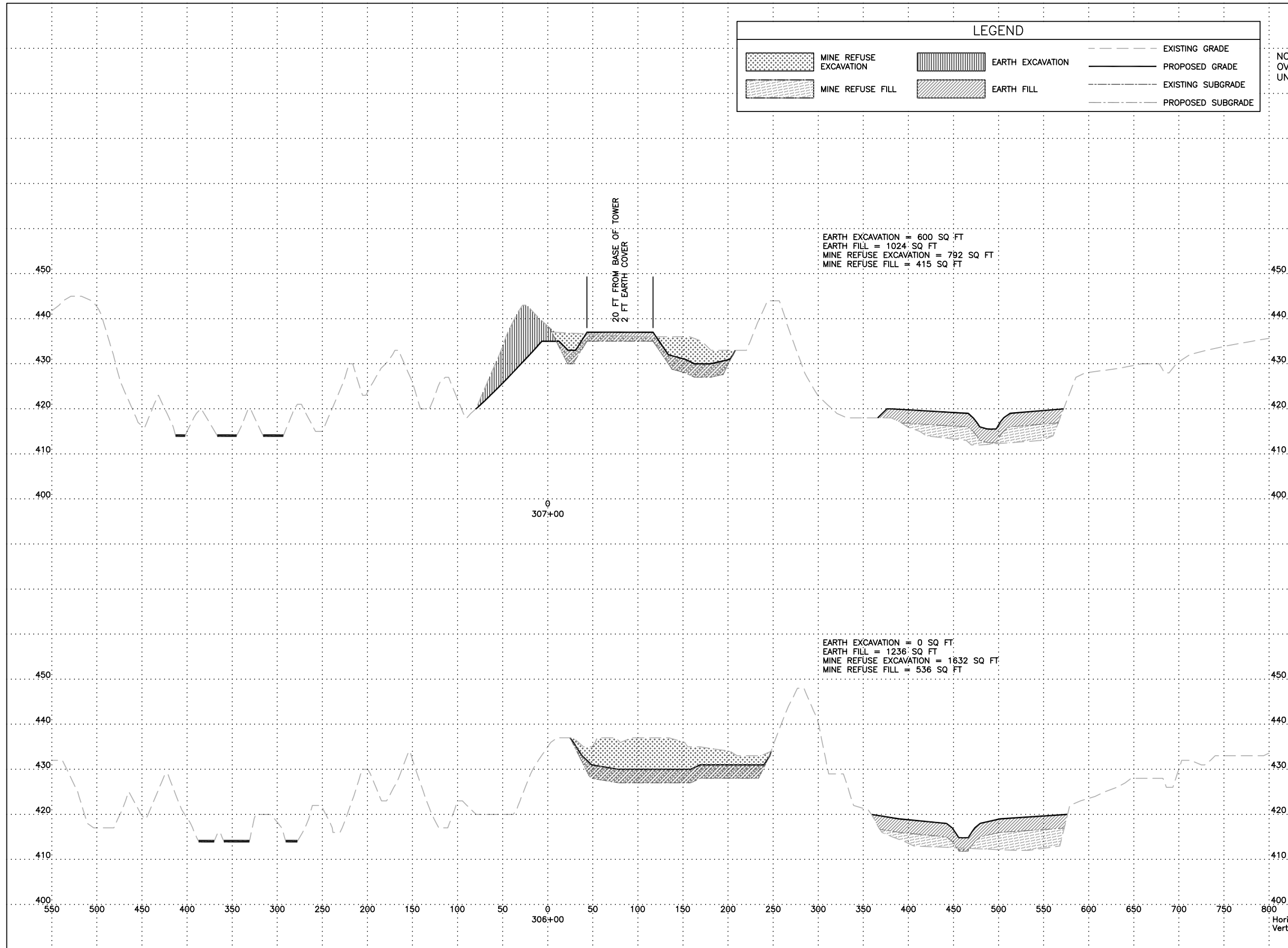
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



Horizontal Scale 50  
 Vertical Scale 10






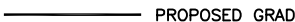

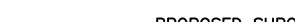


NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



Horizontal Scale 50  
 Vertical Scale 10

**LEGEND**

 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

EARTH EXCAVATION = 740 SQ FT  
 EARTH FILL = 976 SQ FT  
 MINE REFUSE EXCAVATION = 1259 SQ FT  
 MINE REFUSE FILL = 545 SQ FT

0  
 309+00

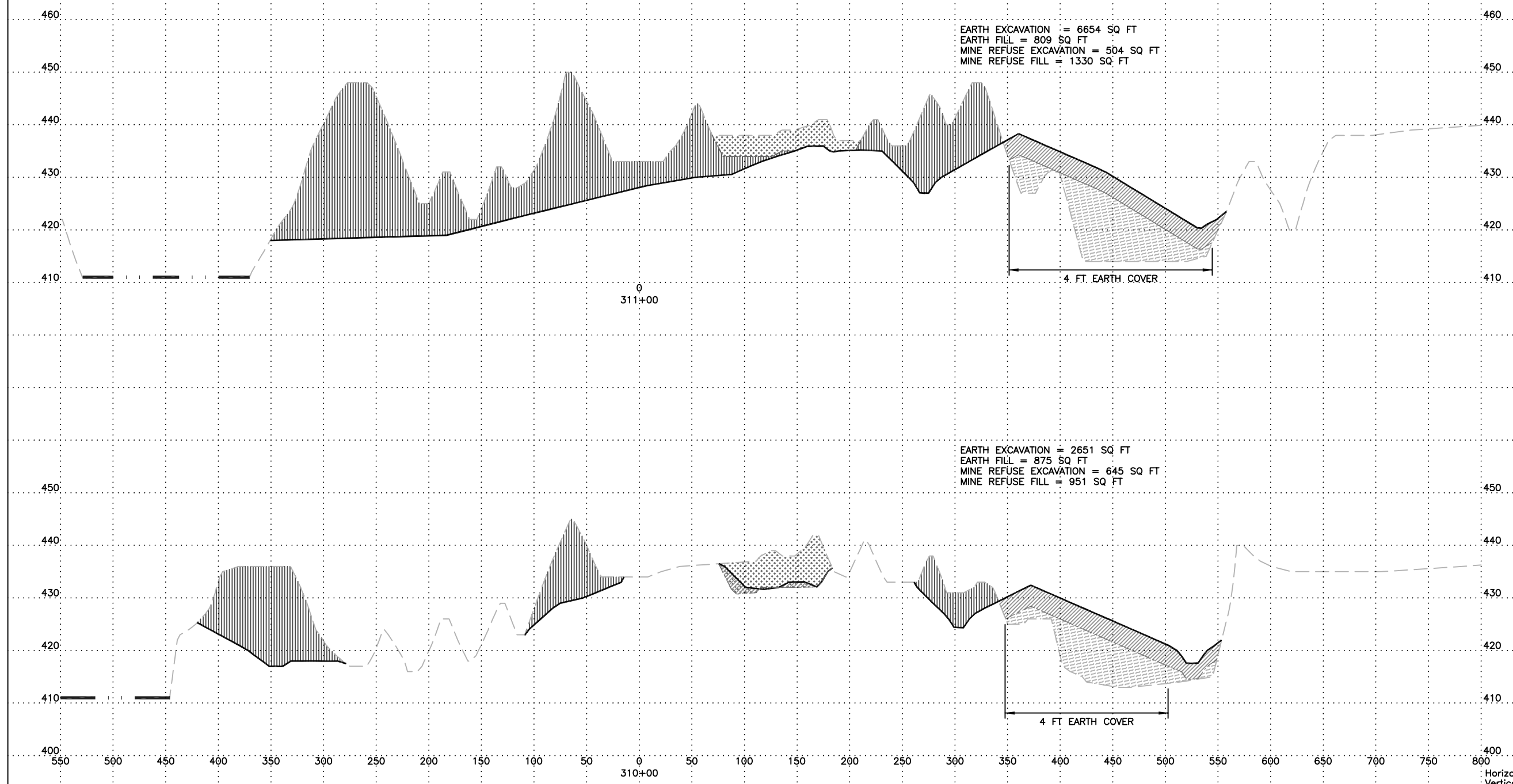
EARTH EXCAVATION = 629 SQ FT  
 EARTH FILL = 1025 SQ FT  
 MINE REFUSE EXCAVATION = 1427 SQ FT  
 MINE REFUSE FILL = 450 SQ FT

0  
 308+00









Horizontal Scale 50  
 Vertical Scale 10

LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
	EXISTING GRADE		PROPOSED GRADE
	EXISTING SUBGRADE		PROPOSED SUBGRADE

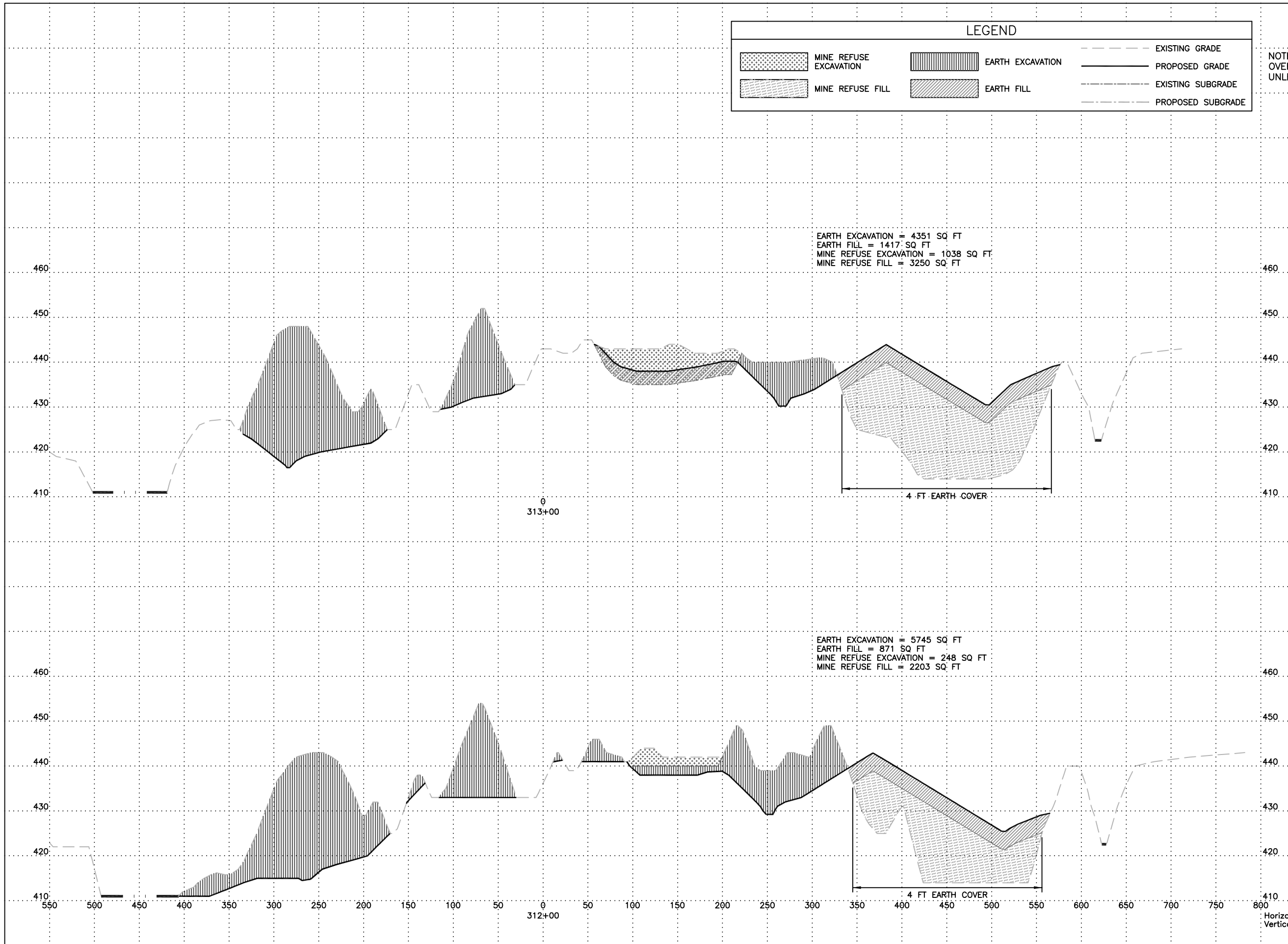
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.








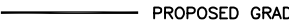


Horizontal Scale 50  
 Vertical Scale 10

LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

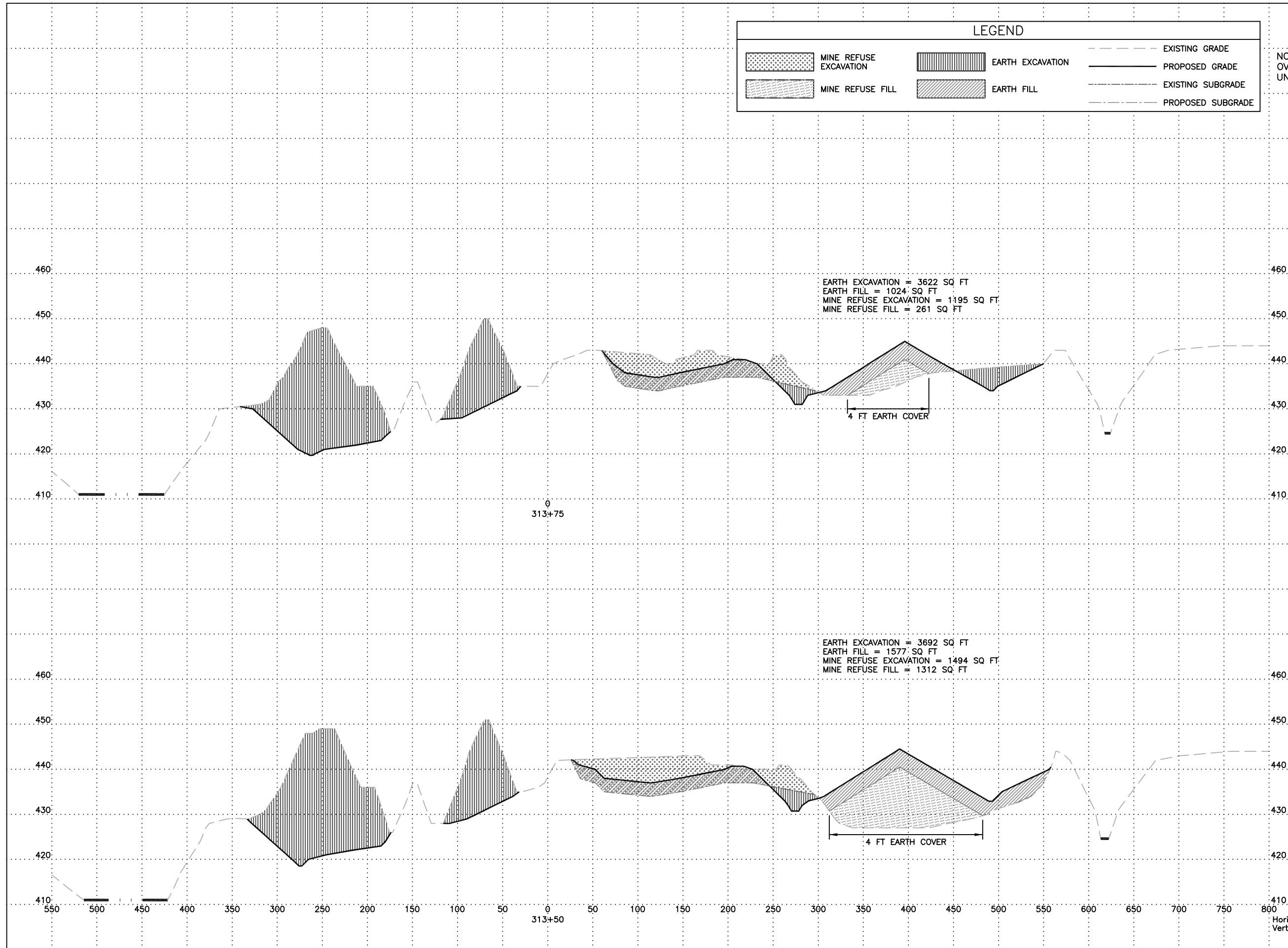
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

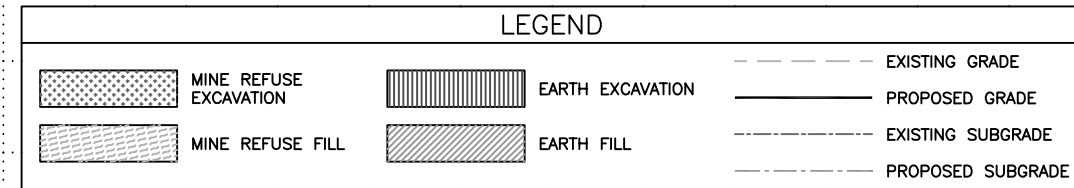


**LEGEND**

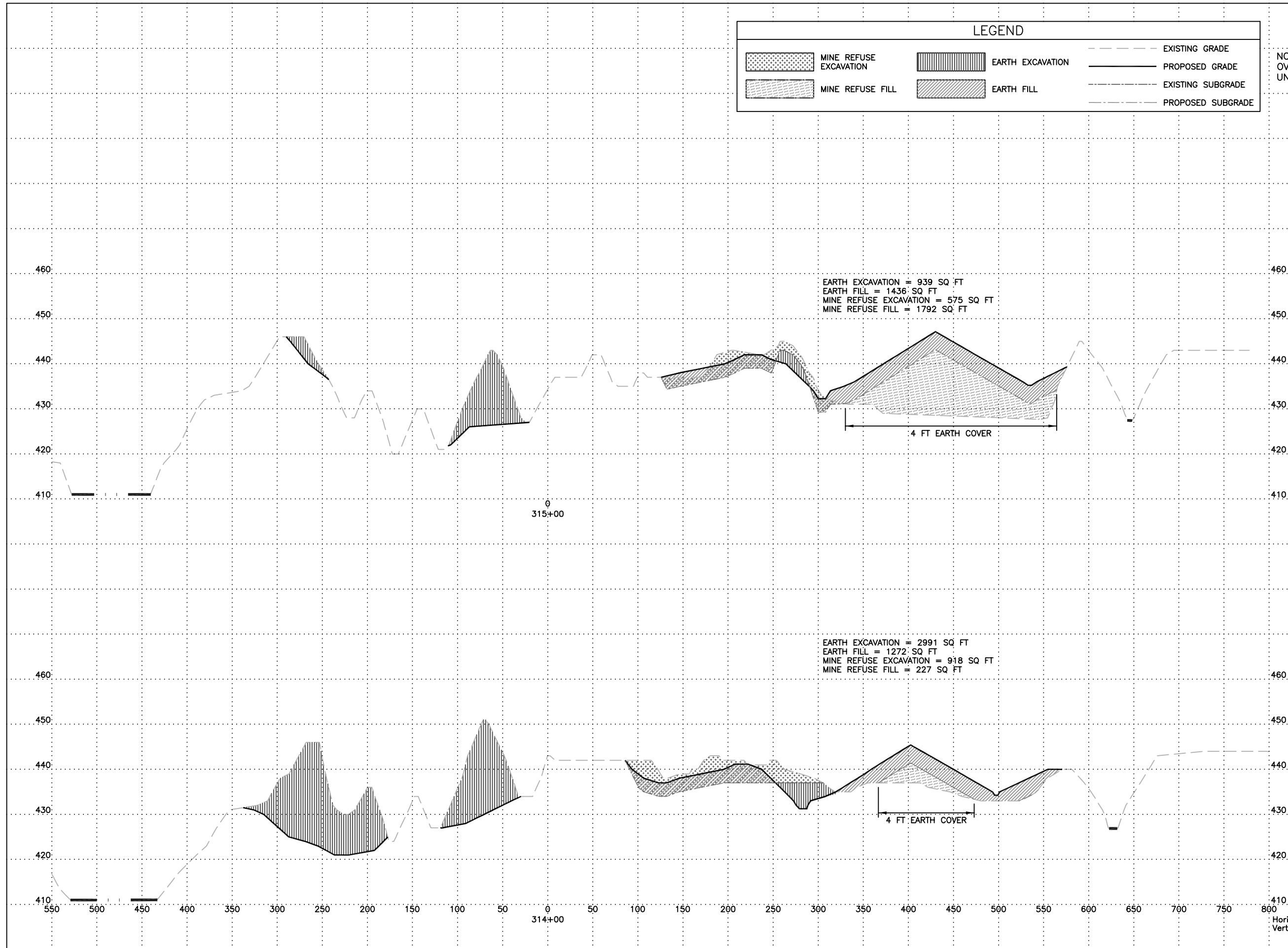
 MINE REFUSE EXCAVATION	 EARTH EXCAVATION	 EXISTING GRADE
 MINE REFUSE FILL	 EARTH FILL	 PROPOSED GRADE
		 EXISTING SUBGRADE
		 PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.









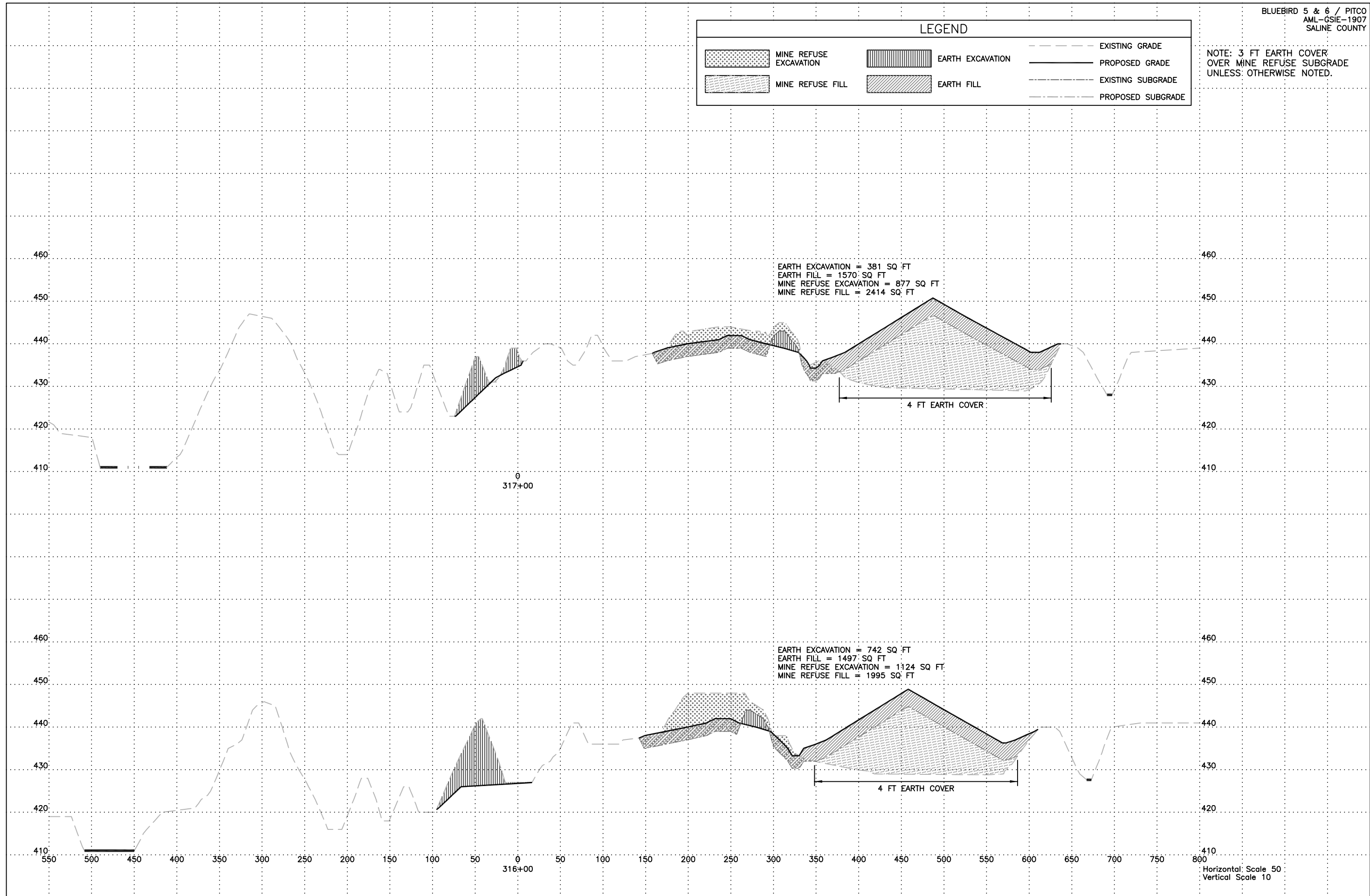
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.

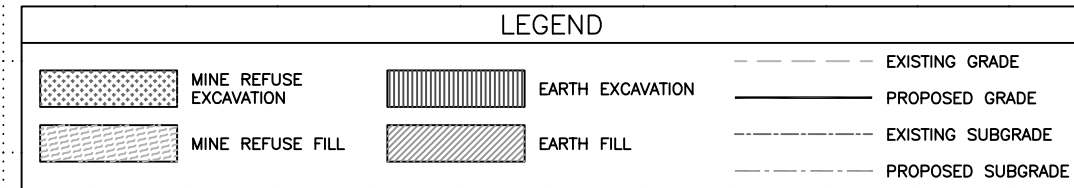




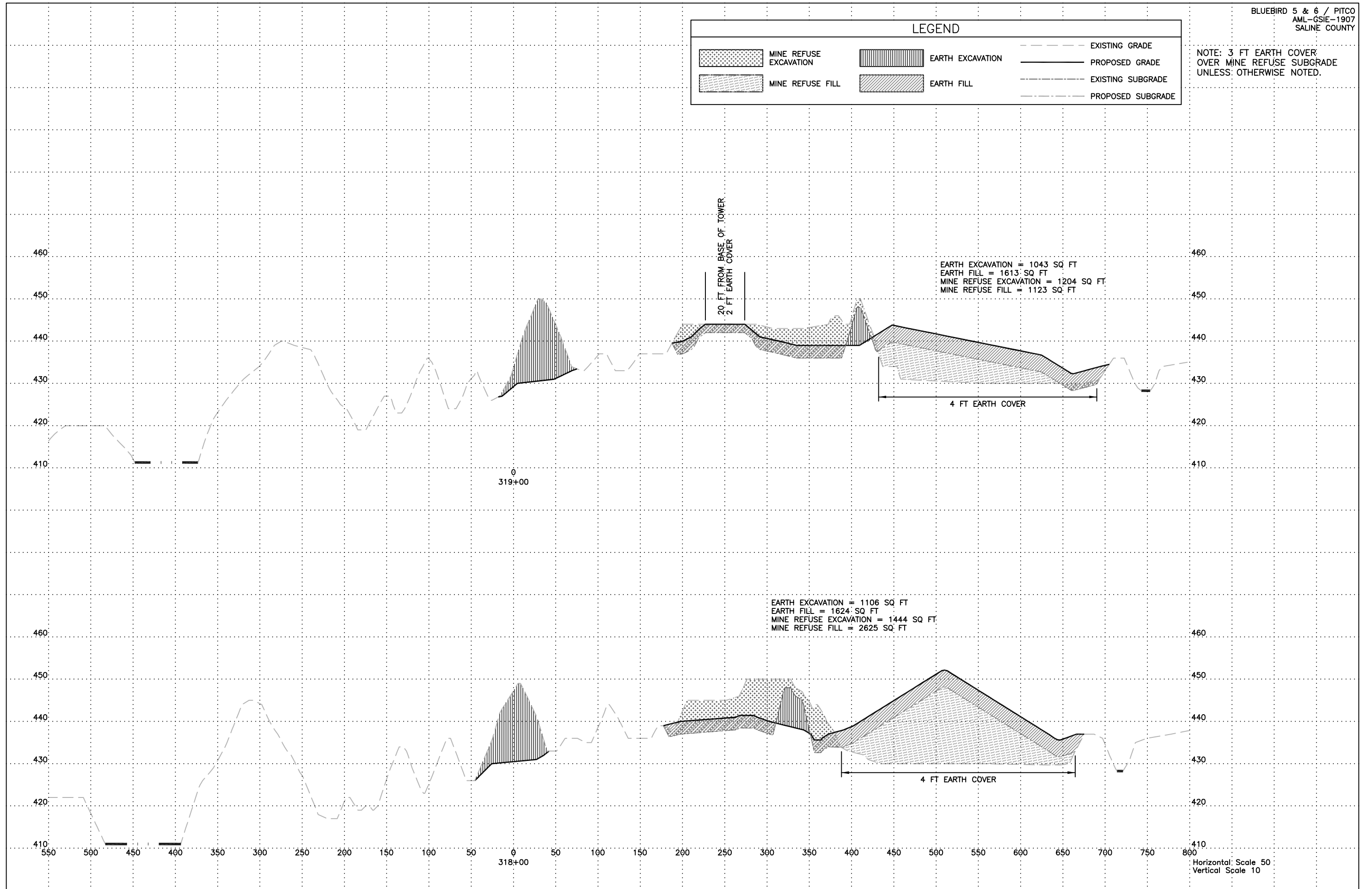
LEGEND			
	MINE REFUSE EXCAVATION		EARTH EXCAVATION
	MINE REFUSE FILL		EARTH FILL
---		---	
---		---	
---		---	
---		---	



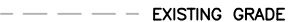


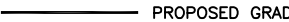
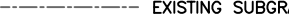
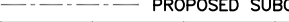
NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



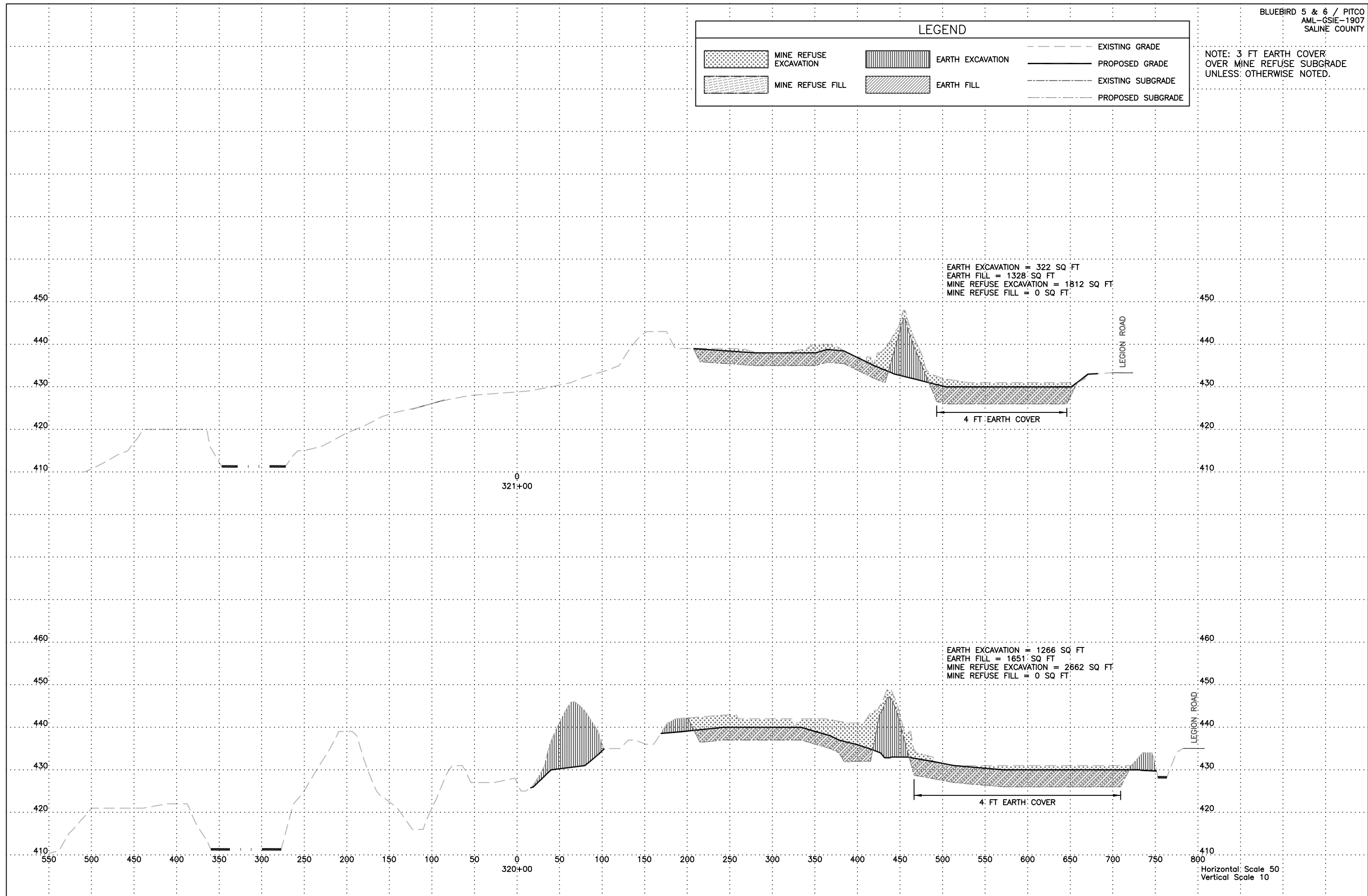










NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



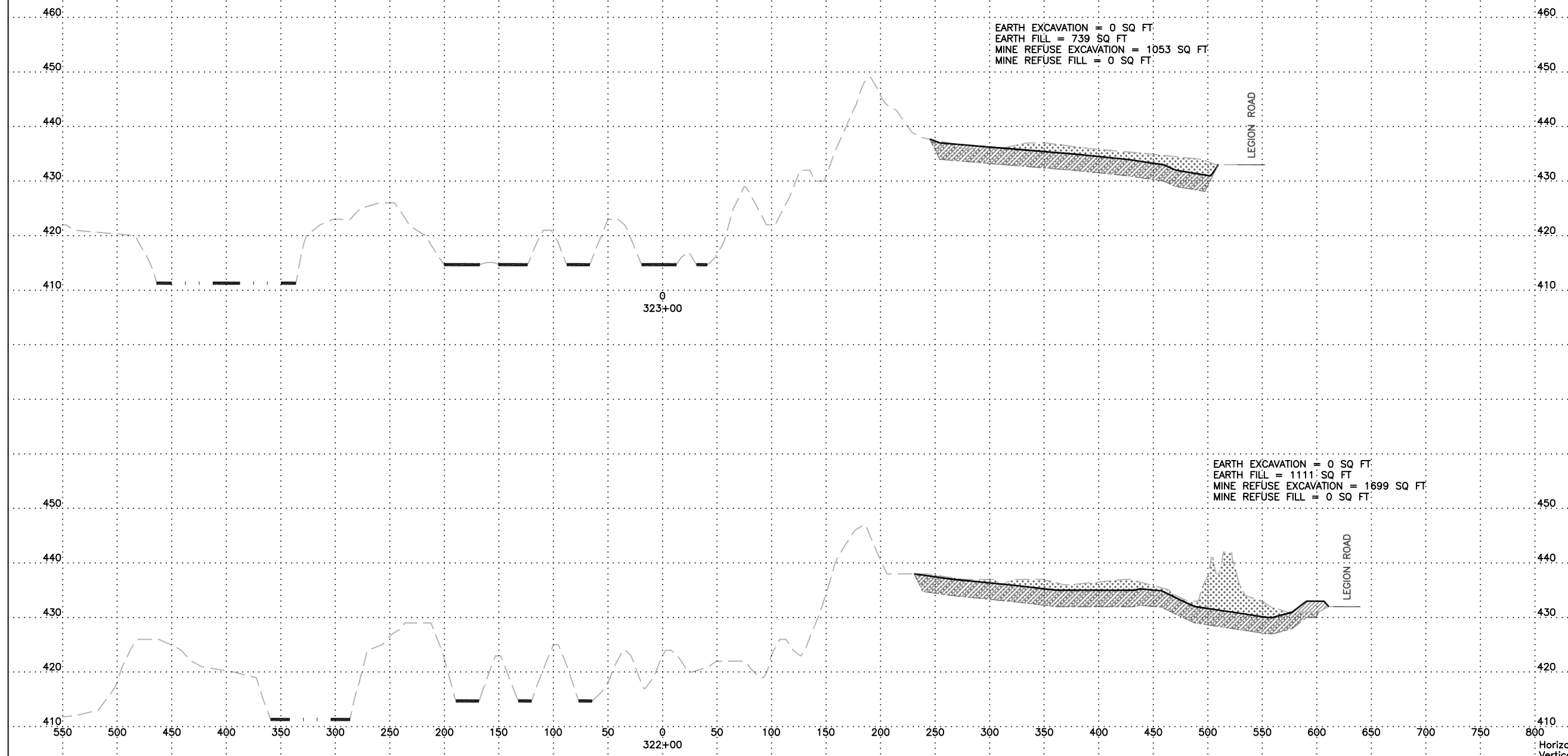
LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.



LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER  
 OVER MINE REFUSE SUBGRADE  
 UNLESS OTHERWISE NOTED.






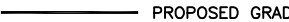

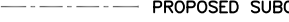


EARTH EXCAVATION = 0 SQ FT  
 EARTH FILL = 739 SQ FT  
 MINE REFUSE EXCAVATION = 1053 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

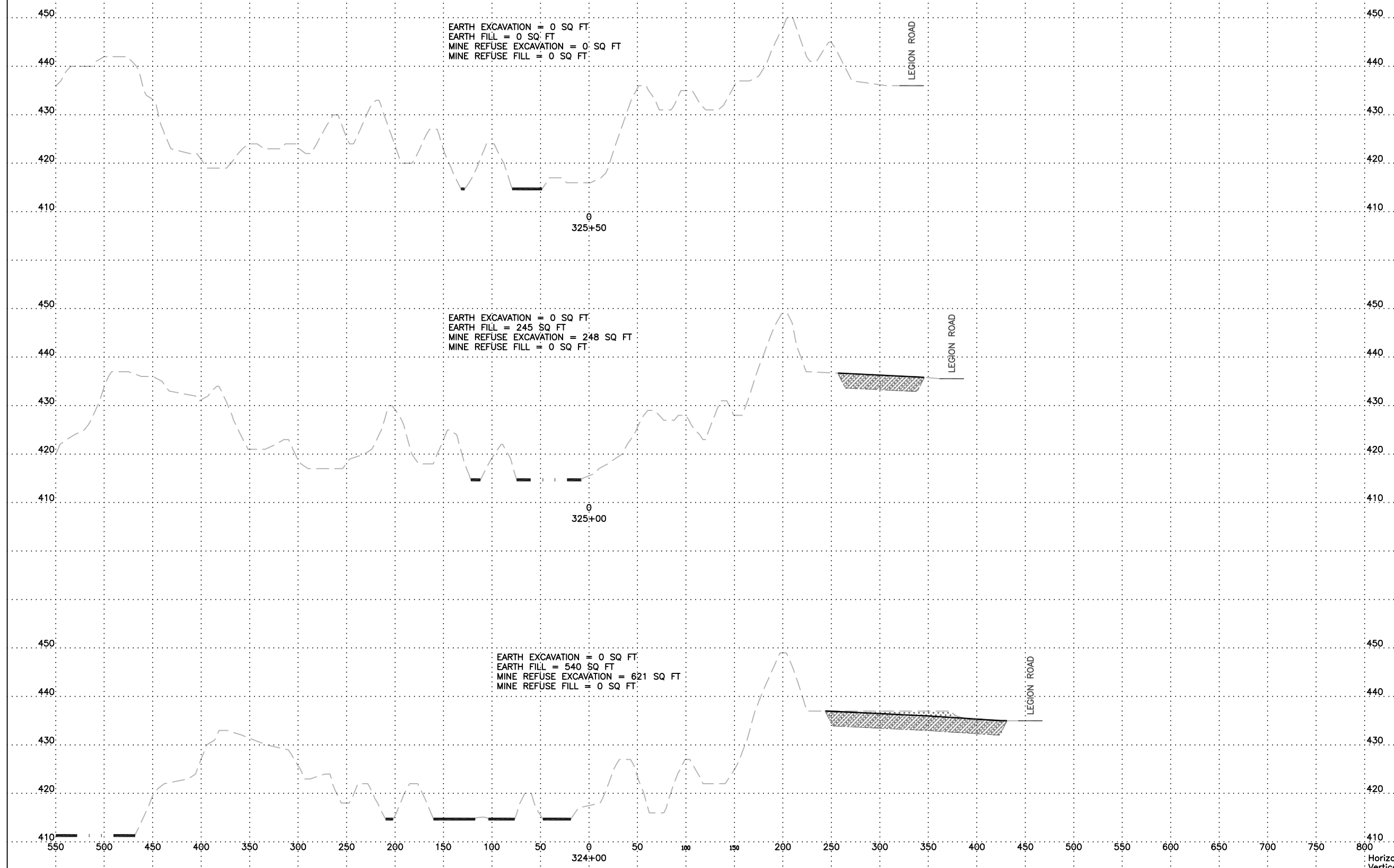
EARTH EXCAVATION = 0 SQ FT  
 EARTH FILL = 1111 SQ FT  
 MINE REFUSE EXCAVATION = 1699 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

Horizontal Scale 50  
 Vertical Scale 10

**LEGEND**

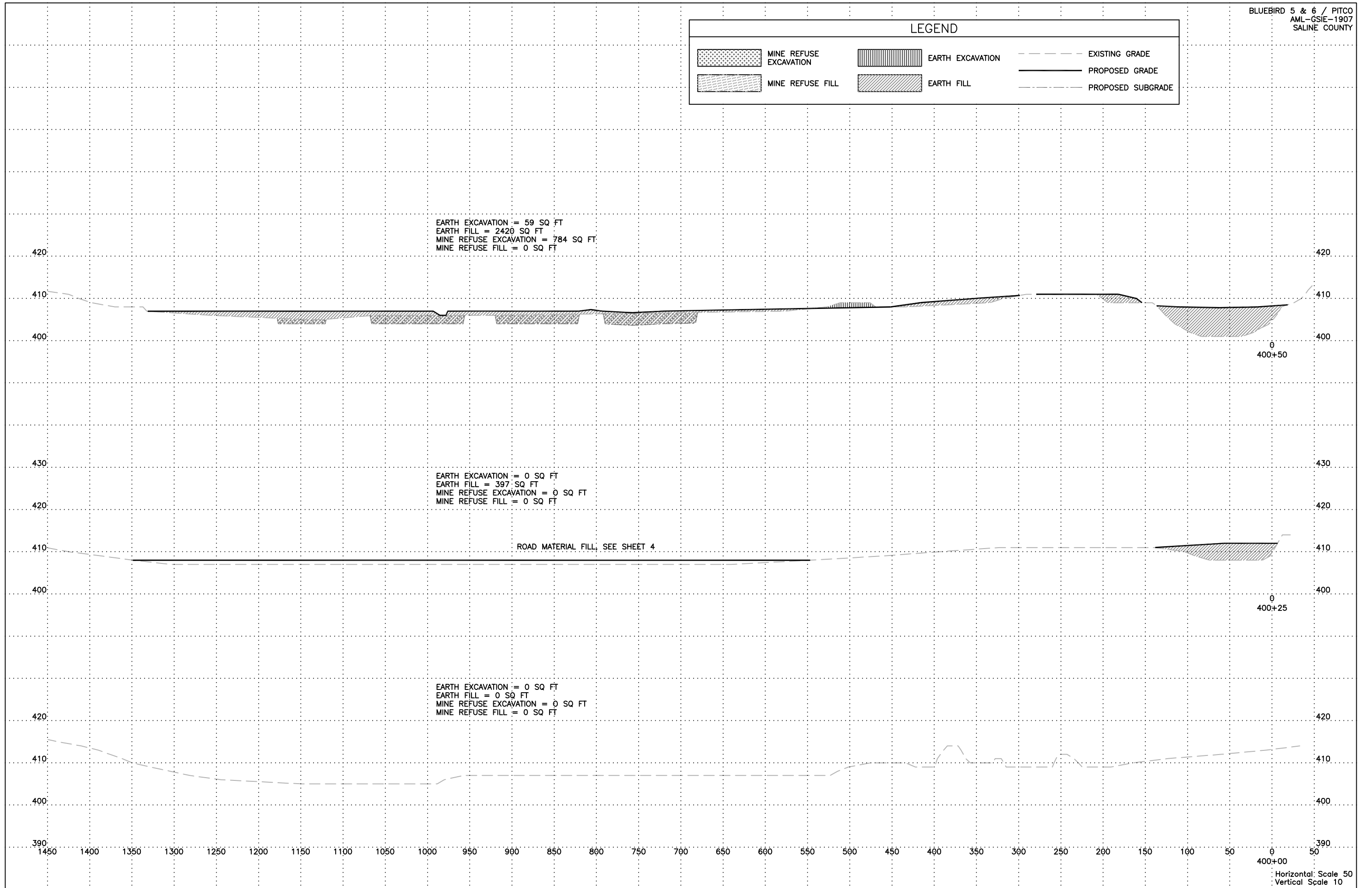
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					EXISTING SUBGRADE
					PROPOSED SUBGRADE

NOTE: 3 FT EARTH COVER OVER MINE REFUSE SUBGRADE UNLESS OTHERWISE NOTED.

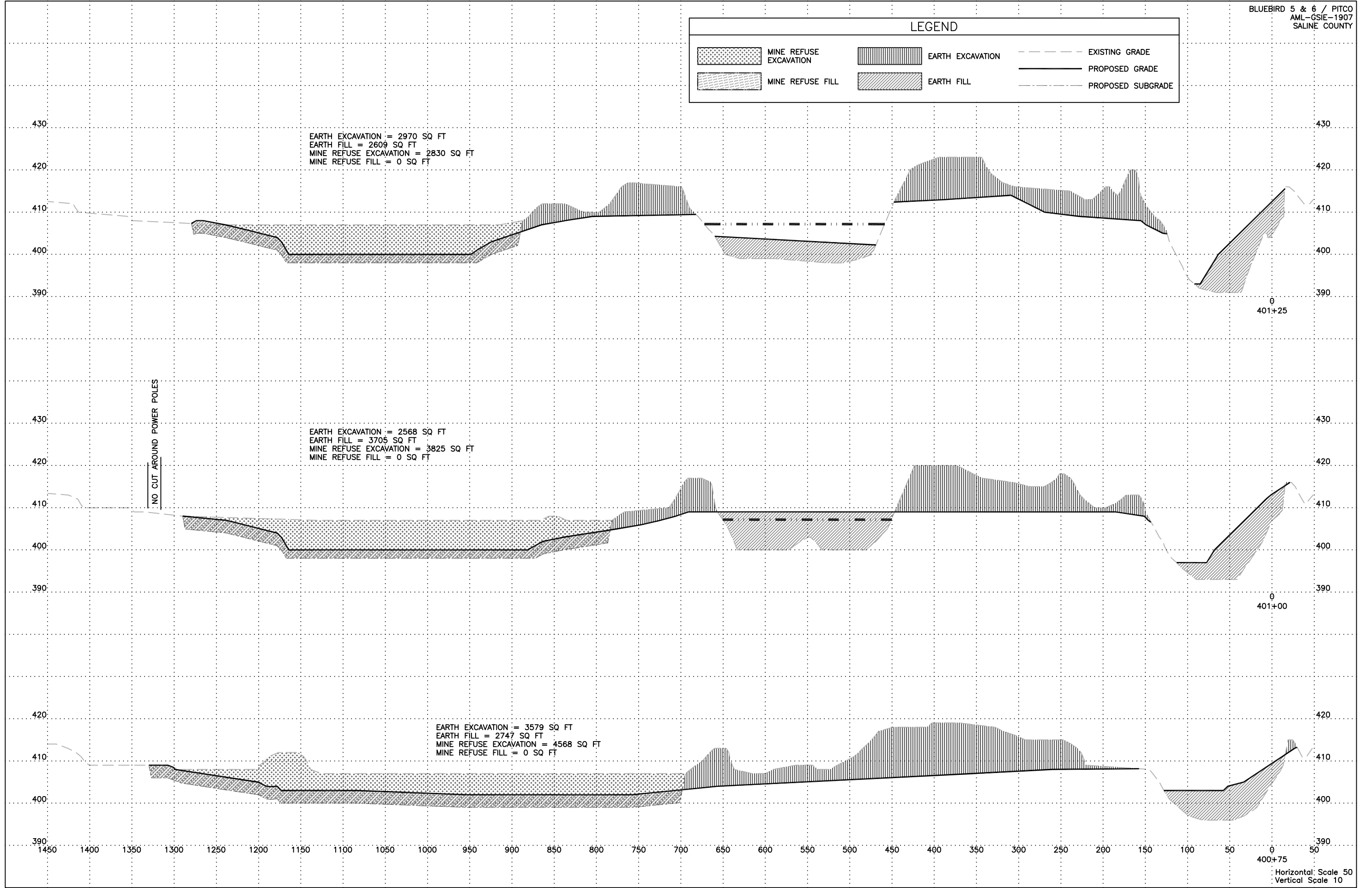
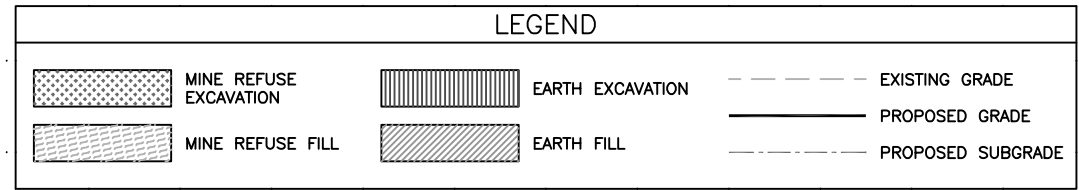


Horizontal Scale 50  
 Vertical Scale 10

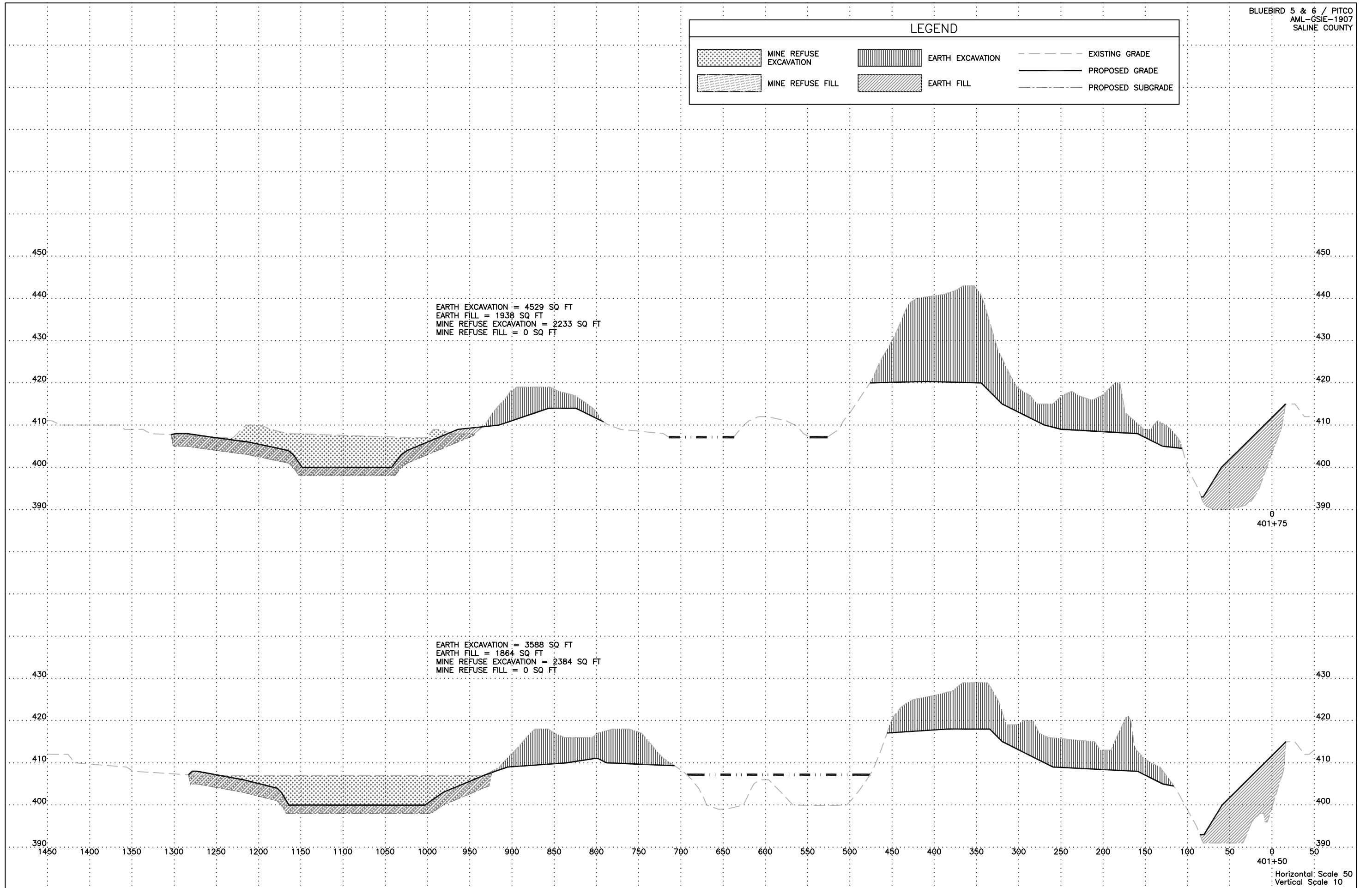
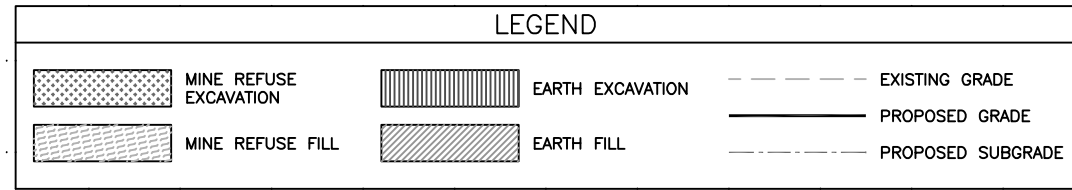
LEGEND		
	MINE REFUSE EXCAVATION	
	MINE REFUSE FILL	
	EXISTING GRADE	



Horizontal Scale 50  
 Vertical Scale 10

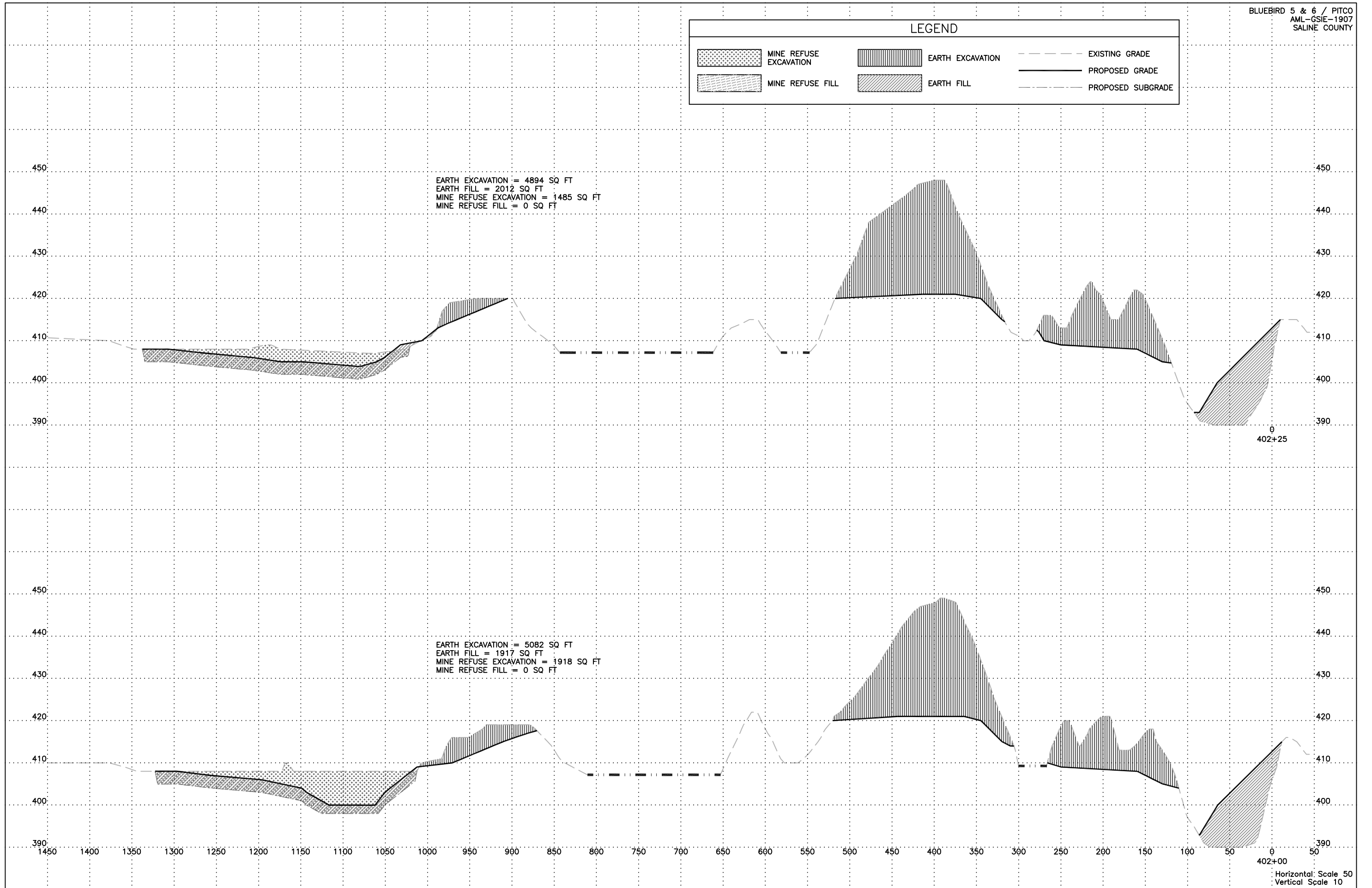
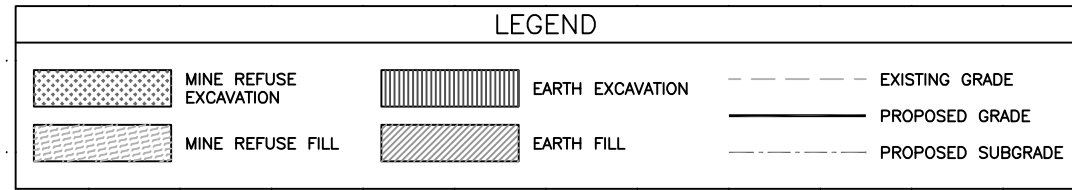


Horizontal Scale 50  
 Vertical Scale 10

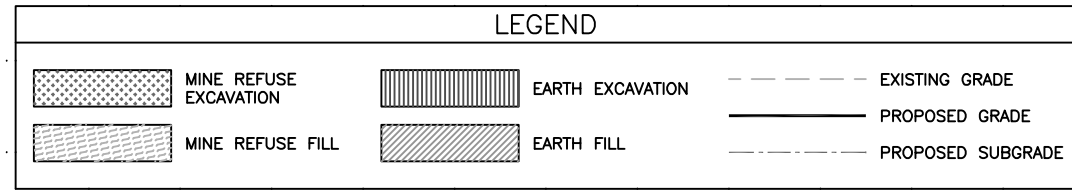


Horizontal Scale 50  
 Vertical Scale 10



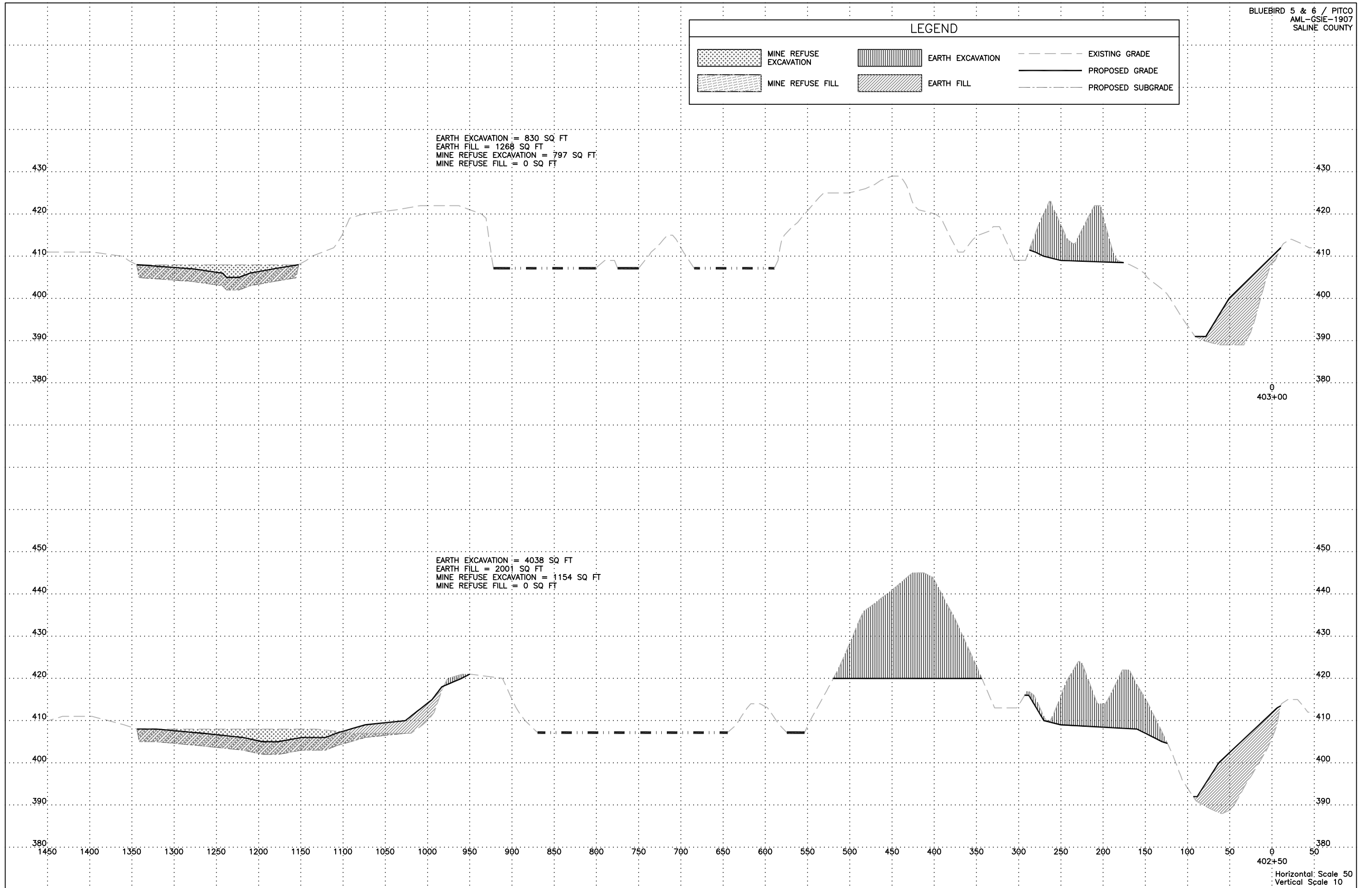


Horizontal Scale 50  
 Vertical Scale 10

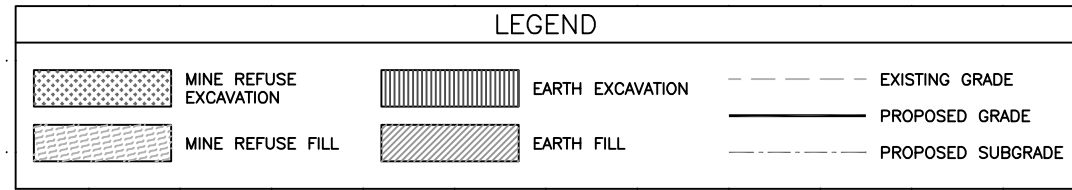


EARTH EXCAVATION = 830 SQ FT  
 EARTH FILL = 1268 SQ FT  
 MINE REFUSE EXCAVATION = 797 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

EARTH EXCAVATION = 4038 SQ FT  
 EARTH FILL = 2001 SQ FT  
 MINE REFUSE EXCAVATION = 1154 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

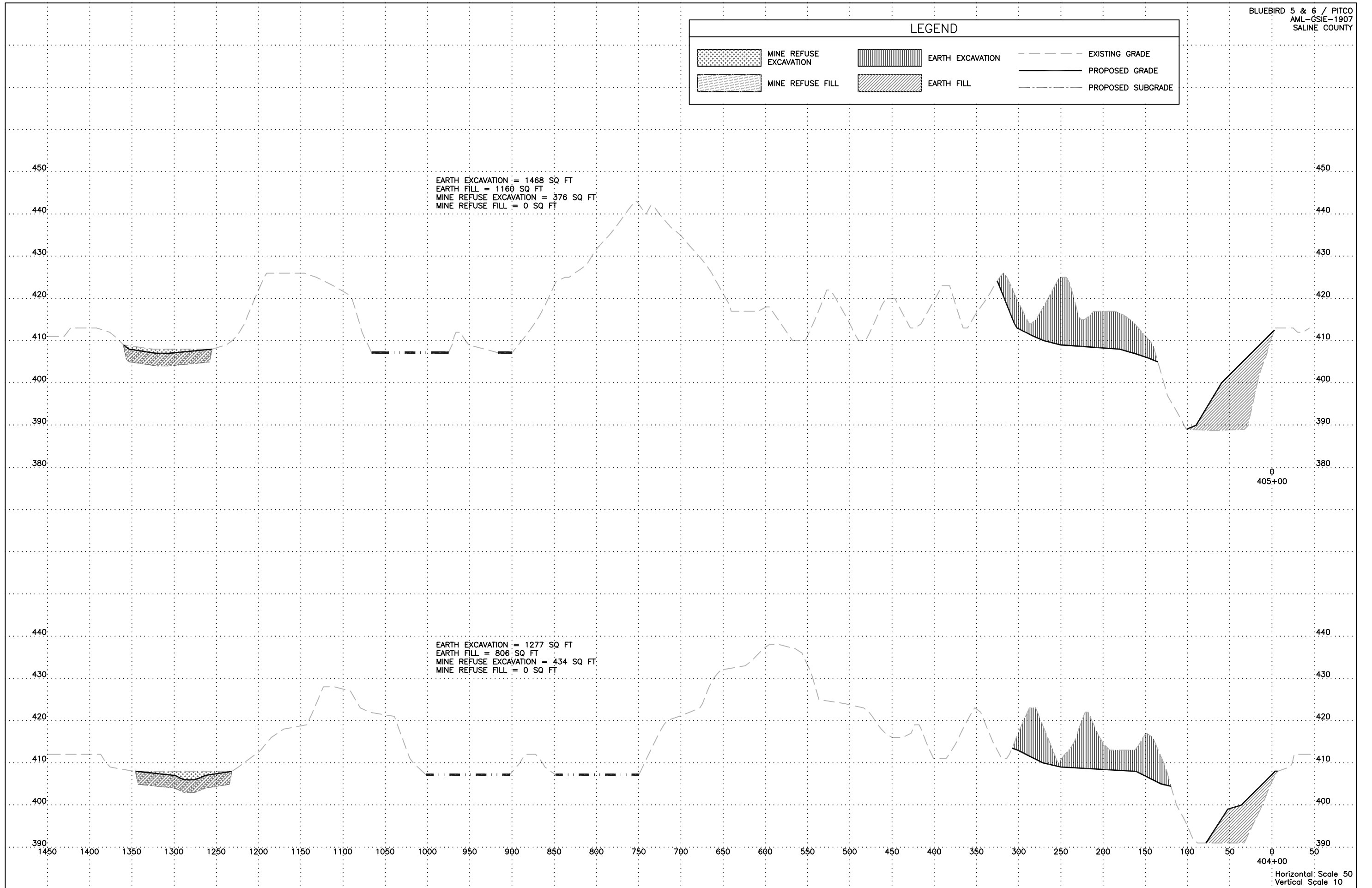


Horizontal Scale 50  
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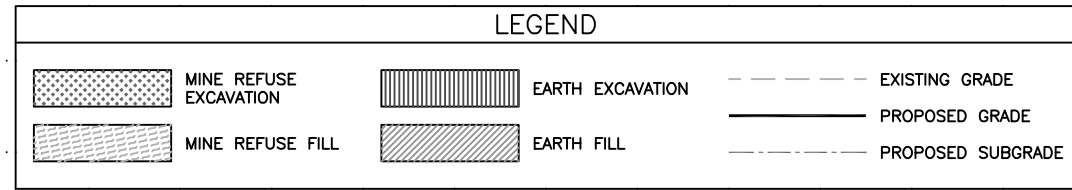


EARTH EXCAVATION = 1468 SQ FT  
 EARTH FILL = 1160 SQ FT  
 MINE REFUSE EXCAVATION = 376 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

EARTH EXCAVATION = 1277 SQ FT  
 EARTH FILL = 806 SQ FT  
 MINE REFUSE EXCAVATION = 434 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

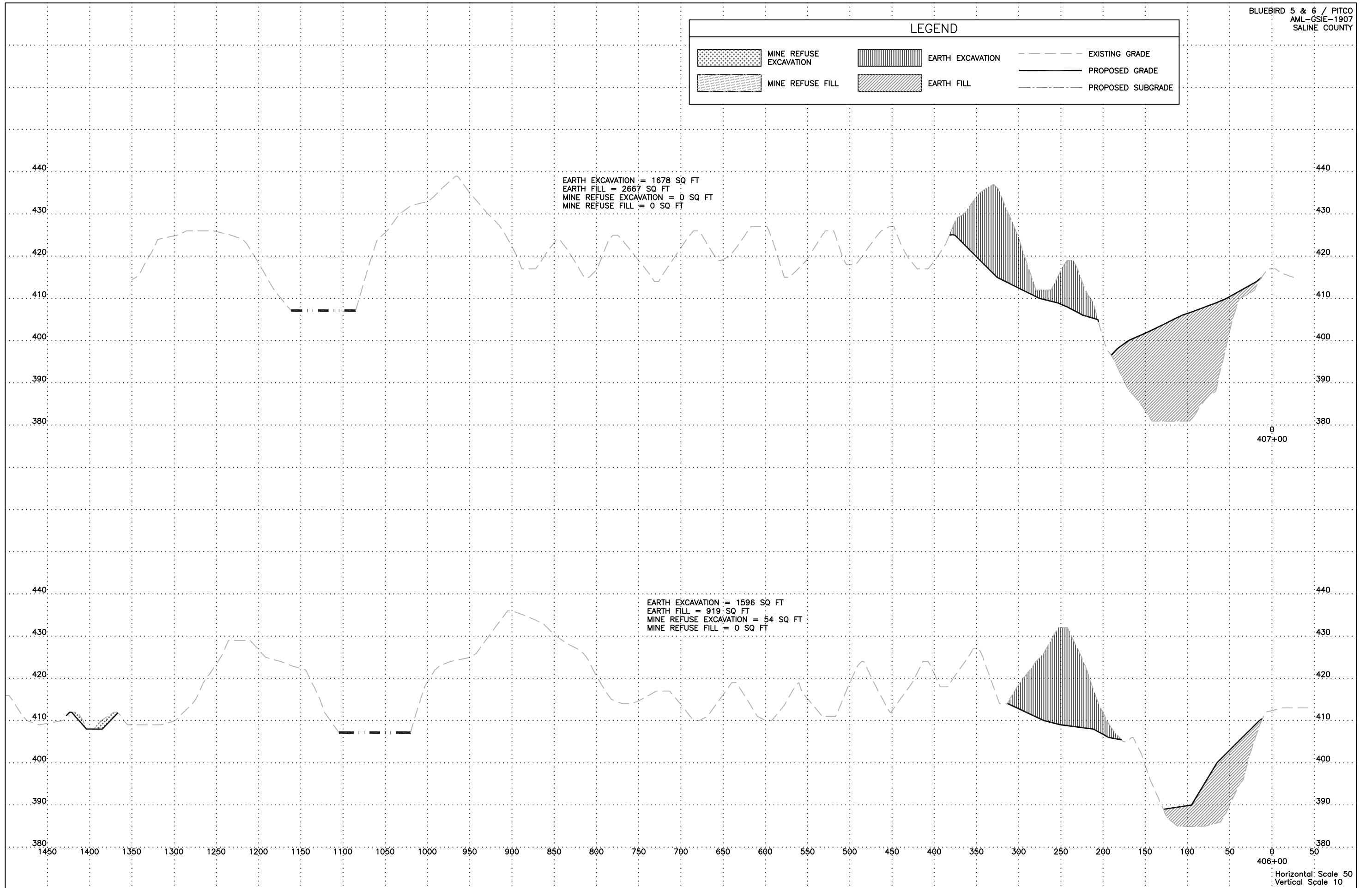


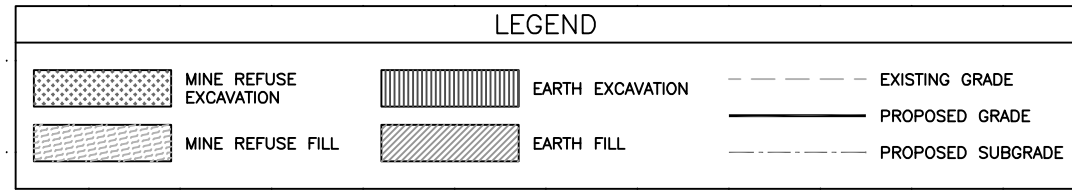
Horizontal Scale 50  
 Vertical Scale 10



EARTH EXCAVATION = 1678 SQ FT  
 EARTH FILL = 2667 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

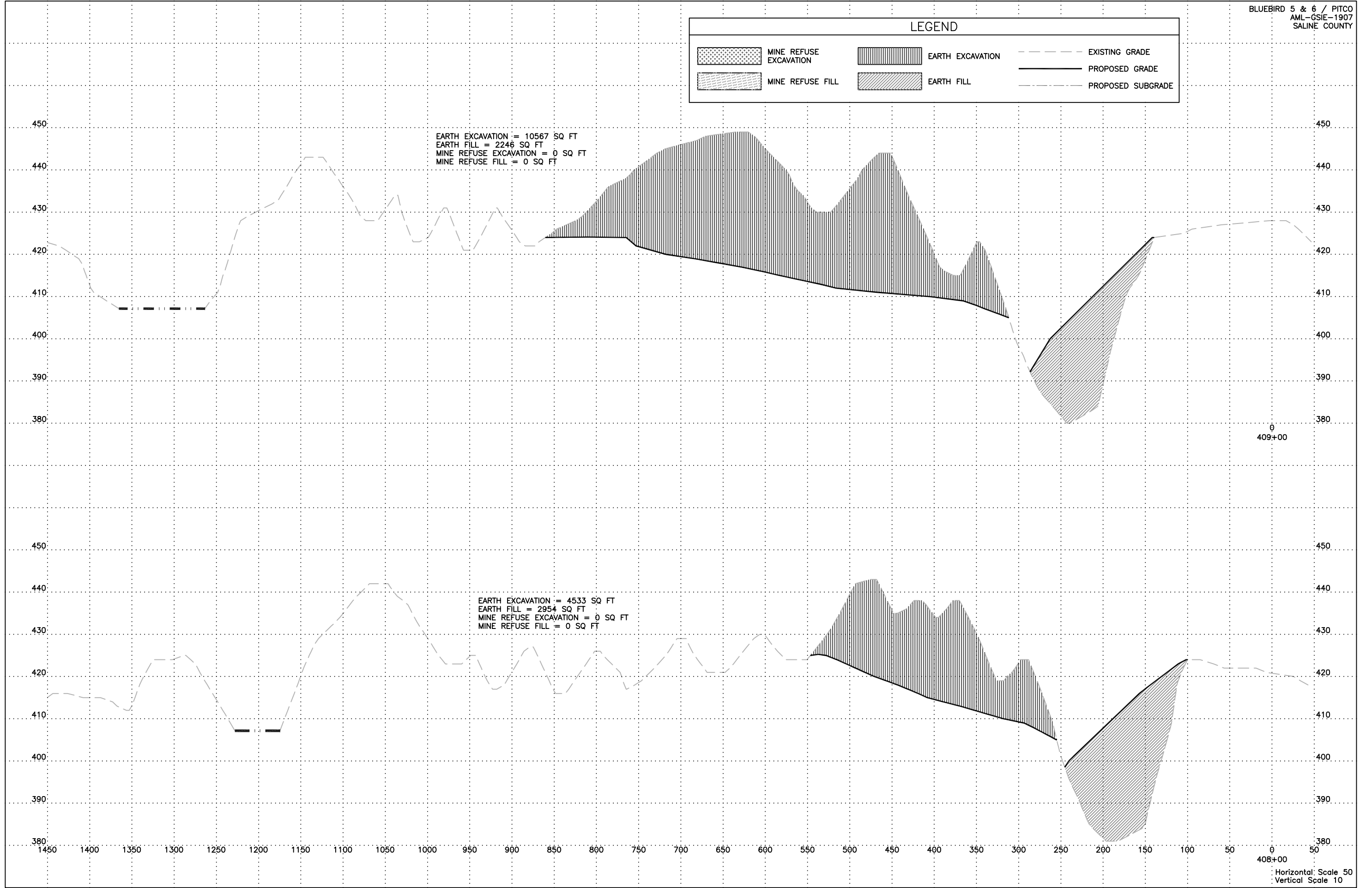
EARTH EXCAVATION = 1596 SQ FT  
 EARTH FILL = 919 SQ FT  
 MINE REFUSE EXCAVATION = 54 SQ FT  
 MINE REFUSE FILL = 0 SQ FT





EARTH EXCAVATION = 10567 SQ FT  
 EARTH FILL = 2246 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

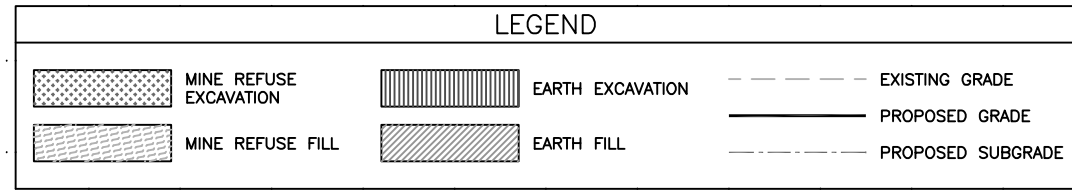
EARTH EXCAVATION = 4533 SQ FT  
 EARTH FILL = 2954 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 0 SQ FT



0  
 409+00

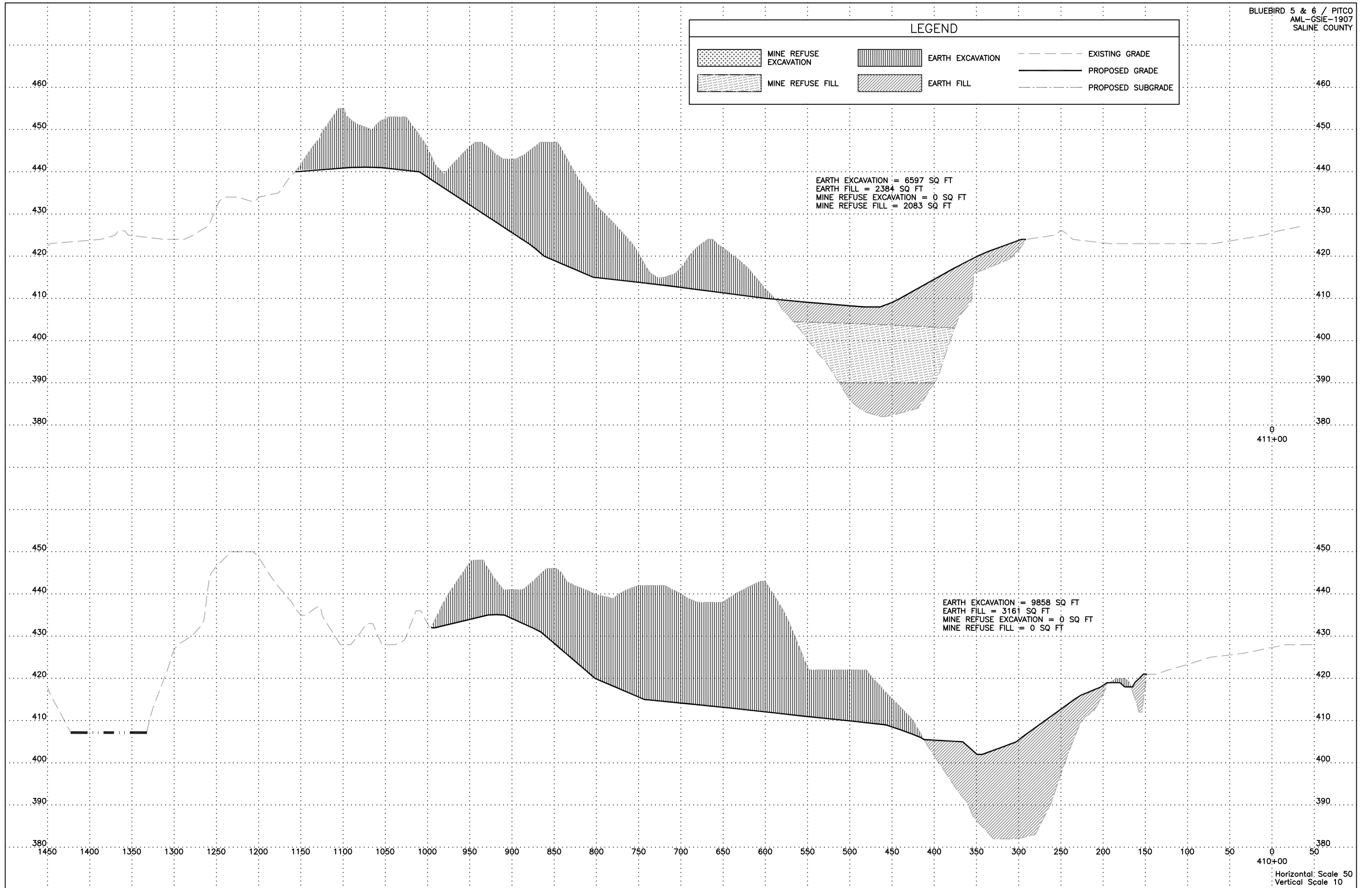
0  
 408+00

Horizontal Scale 50  
 Vertical Scale 10



EARTH EXCAVATION = 6597 SQ FT  
 EARTH FILL = 2384 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 2083 SQ FT







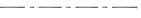
EARTH EXCAVATION = 9858 SQ FT  
 EARTH FILL = 3161 SQ FT  
 MINE REFUSE EXCAVATION = 0 SQ FT  
 MINE REFUSE FILL = 0 SQ FT

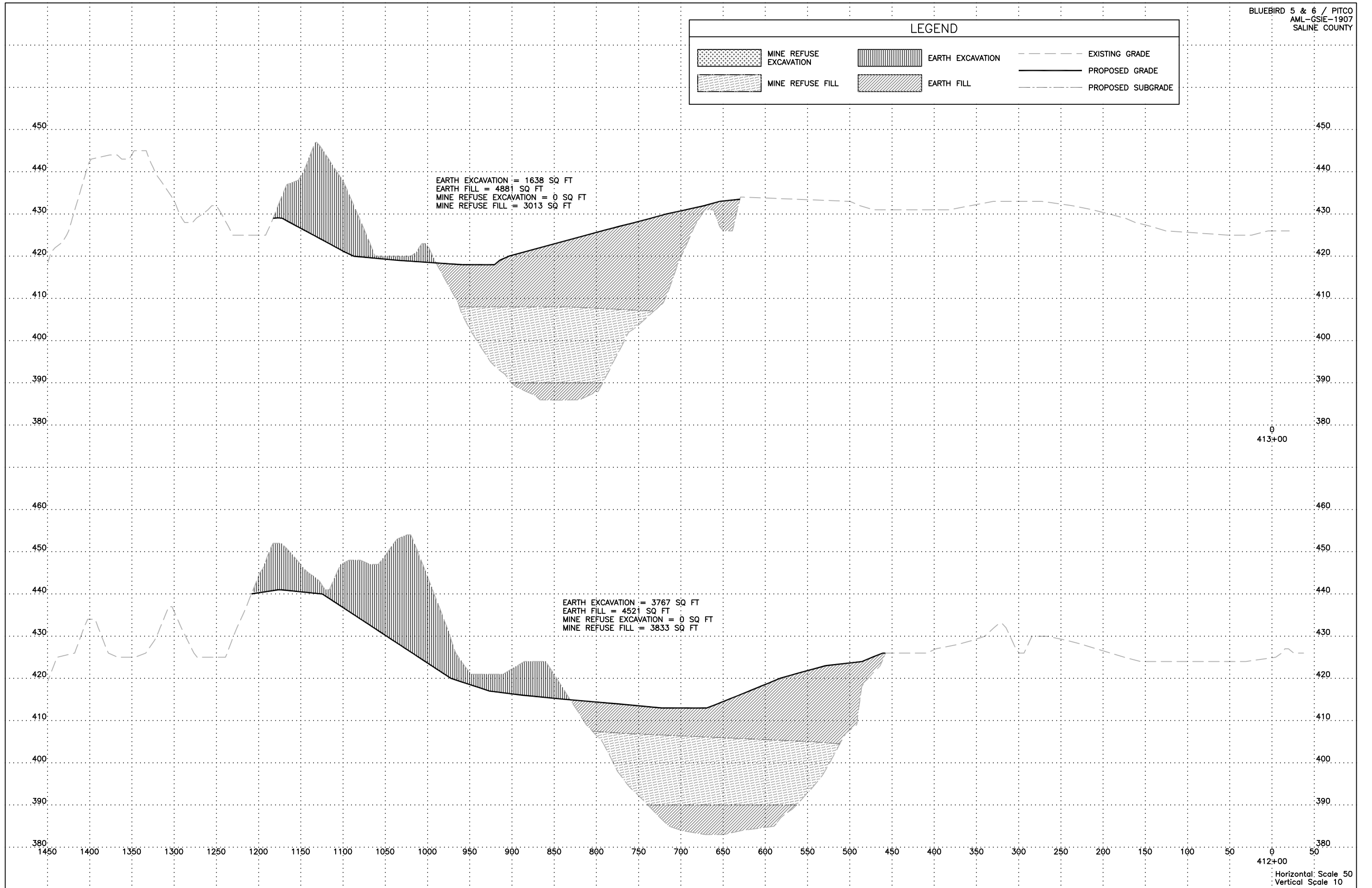


0  
 411+00

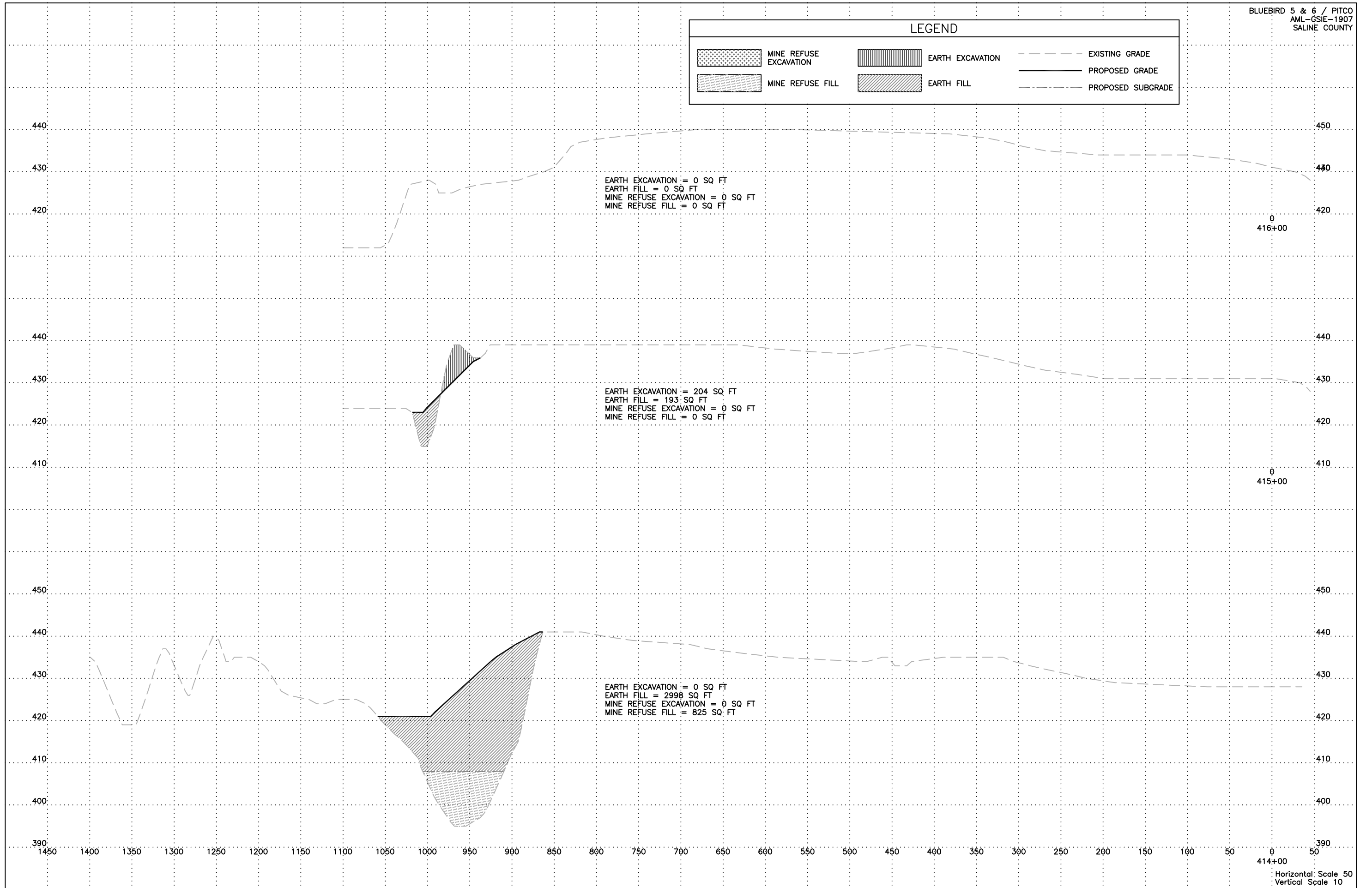
0  
 410+00

Horizontal Scale 50  
 Vertical Scale 10

LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					PROPOSED SUBGRADE



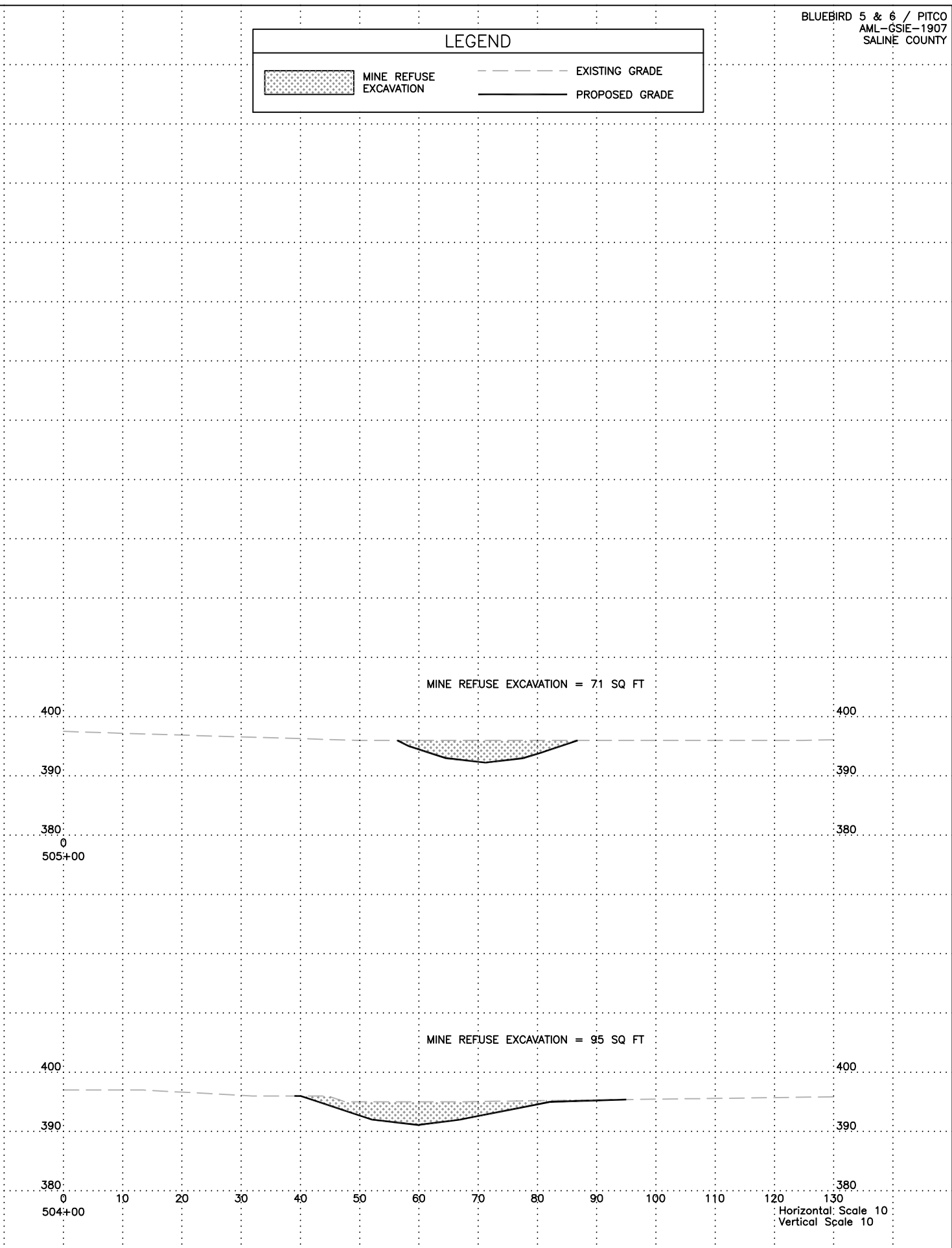
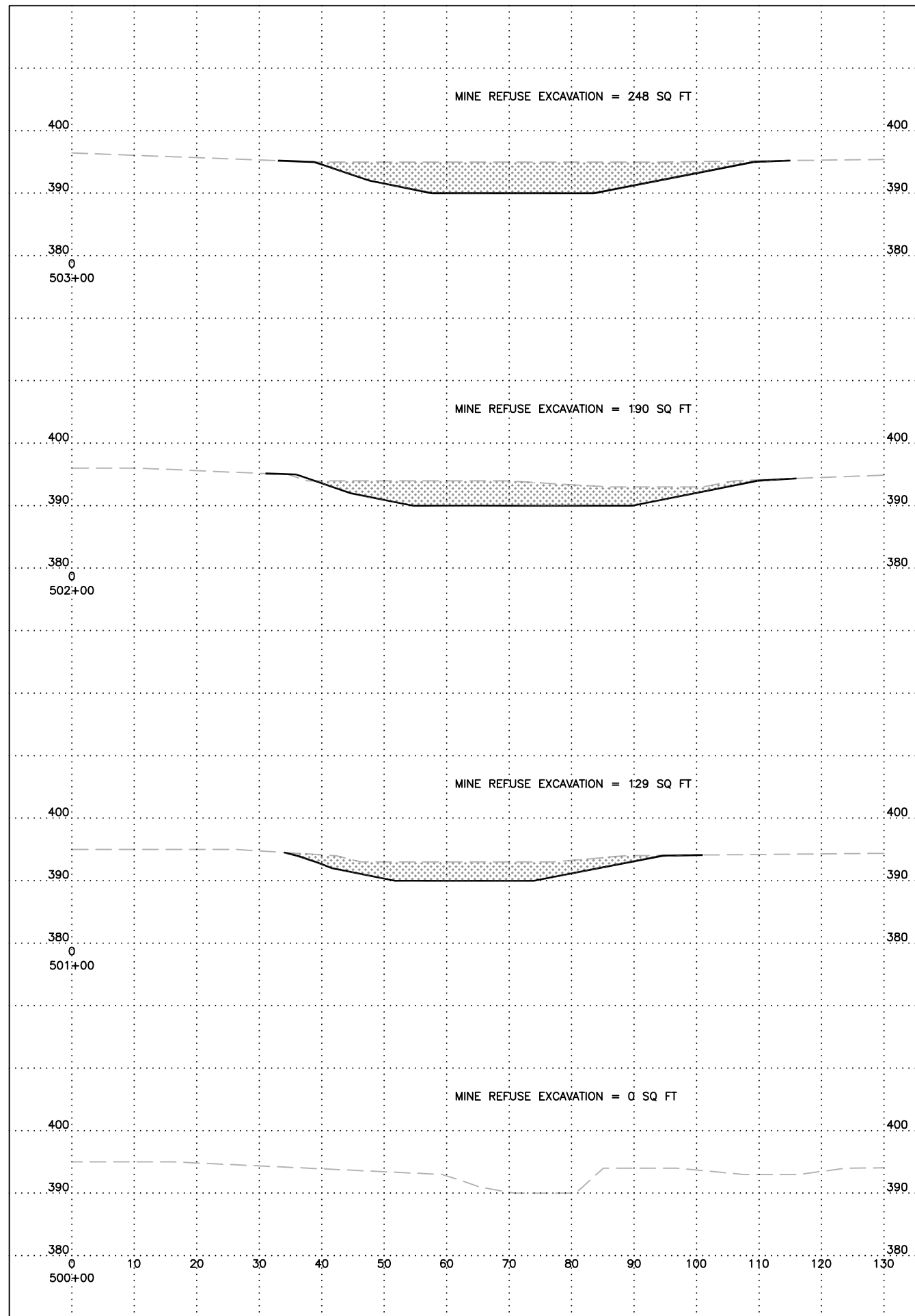
LEGEND					
	MINE REFUSE EXCAVATION		EARTH EXCAVATION		EXISTING GRADE
	MINE REFUSE FILL		EARTH FILL		PROPOSED GRADE
					PROPOSED SUBGRADE





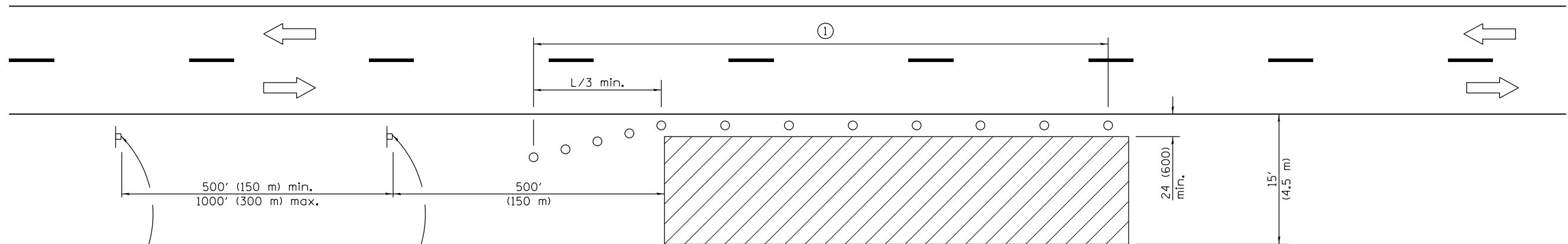
LEGEND

	MINE REFUSE EXCAVATION		EXISTING GRADE
			PROPOSED GRADE



Horizontal Scale 10  
Vertical Scale 10





For contract construction projects



W20-I103(O)-48



W21-1(O)-48

For maintenance and utility projects

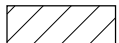




W20-1(O)-48

### TYPICAL APPLICATIONS

- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

### SYMBOLS

-  Work area
-  Sign
-  Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

### GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600 mm) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L = (W)(S)$	$L = 0.65(W)(S)$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

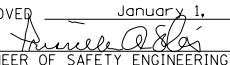
All dimensions are in inches (millimeters) unless otherwise shown.

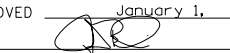
DATE	REVISIONS
1-1-14	Revised workers sign number to agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.

**OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE**

**STANDARD 701006-05**

Illinois Department of Transportation

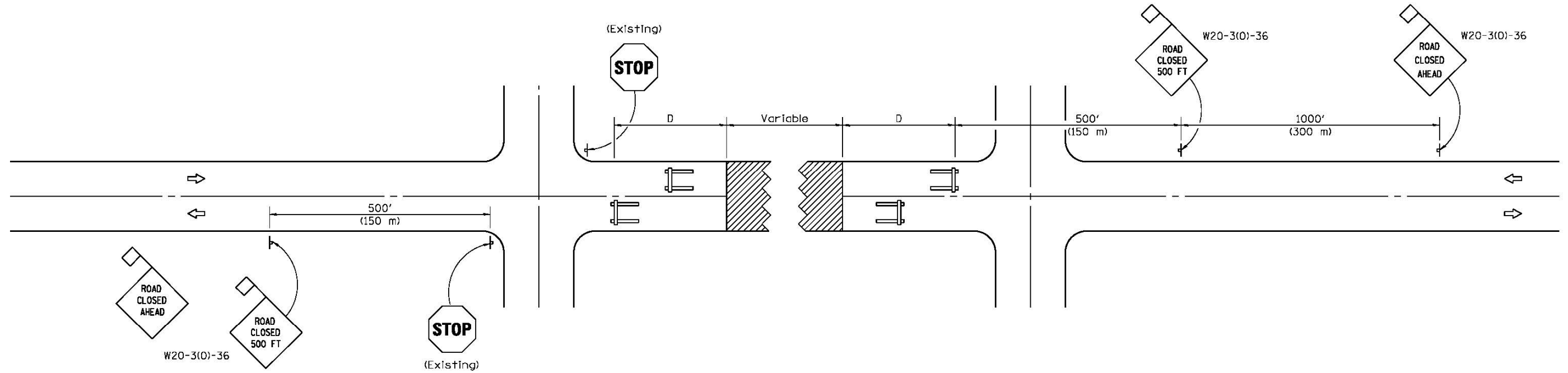
APPROVED January 1, 2014  
  
 ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2014  
  
 ENGINEER OF DESIGN AND ENVIRONMENT




ISSUED 1-1-97

**CONDITION I  
APPROACH TRAFFIC STOPPED**

**CONDITION II  
APPROACH TRAFFIC  
DOES NOT STOP**



**SYMBOLS**

-  Work area
-  Type III Barricade
-  Sign with 18x18 (450x450) min. orange flag attached

**GENERAL NOTES**

Type III Barricades and R11-4-6030 signs shall be positioned as shown in the "Road Closed To All Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' (600 m), an additional set of barricades and R11-4-6030 shall be placed at each end of the work area.

Two Type A Low Intensity Flashing Lights shall be used on each approach in advance of the work area. One light shall be installed above each barricade. If only one barricade is required, the other light shall be installed above the first advance warning sign.

All warning signs shall have minimum dimensions of 36 x 36 (900 x 900) and have a black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

Longitudinal dimensions may be adjusted to fit field conditions.

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

DATE	REVISIONS
1-1-12	Omitted two notes from GENERAL NOTES.
1-1-09	Revised General Notes and switched units to English (metric).

**TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)**

**STANDARD B.L.R. 22-7**

Illinois Department of Transportation

APPROVED January 1, 2012  
*Daniel Lewis*  
 ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2012  
*Scott Smith*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97