

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

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

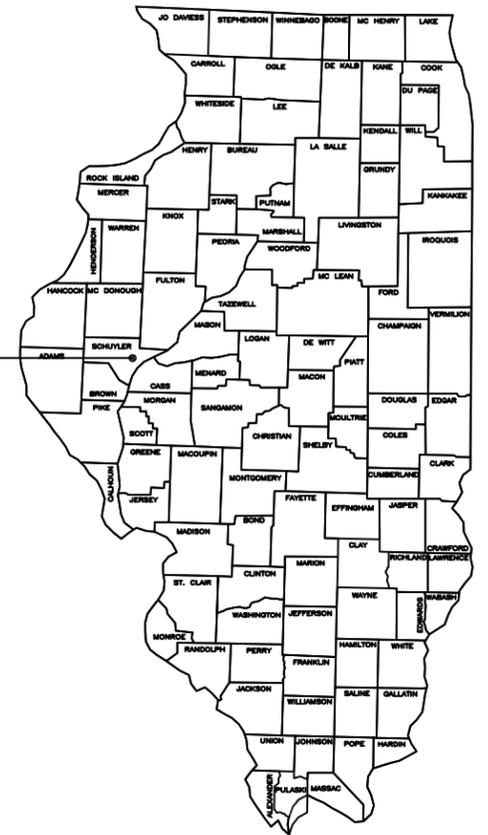
**Demaree Highwall & Peabody Key Mine
Reclamation Project
AML-GSyE-1502
Schuyler County
1LR**

SCHEDULE OF DRAWINGS:

1. Cover Sheet
 2. Summary of Quantities/General Notes
 - 3-4. Location Map & Survey Control Points
 5. Existing & Proposed Conditions - Demaree Highwall
 - 6-17. Existing & Proposed Conditions - Peabody Key Mine
 - 18-20. Cross Sections - Demaree Highwall
 - 21-58. Cross Sections - Peabody Key Mine
 59. Details
- IDOT Standard 542301-03 - Precast Reinforced Concrete Flared End Section
IDOT Standard 542606-02 - Reinforced Concrete Pipe Tee
IDOT Standard 602401-03 - Manhole Type A
IDOT Standard 665001-02 - Woven Wire Fence
IDOT Standard 701301-04 - Lane Closure, 2L, 2W, Short Time Operations
IDOT Standard 701901-04 - Traffic Control Devices
IDOT Standard 720011-01 - Metal Posts for Signs, Markers & Delineators
IDOT Standard B.L.R. 17-4 - Traffic Control Devices - Day Labor Construction
IDOT Standard B.L.R. 21-9 - Typical Application of Traffic Control Devices
for construction on Rural Local Highways.

Contract No. M1502

Demaree Highwall & Peabody Key Mine
Schuyler County



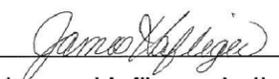
Pre-Bid Meeting:

A pre-bid meeting is scheduled for this project at 10:30 A.M., Wednesday, October 28, 2015, beginning at the Demaree Road Highwall site.

Certified Copy

Prepared By IDNR Staff

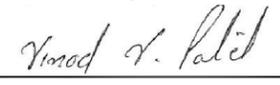
Approved for Bidding:


James Haflinger, Acting Director
Office of Mines and Minerals

Approved By:


Greg Pinto, Acting Manager
AMLR Division

Approved By:


Vinodchandra V. Patel
IL Licensed Professional Engineer
No. 062.046043



SUMMARY OF QUANTITIES

| Item No. | Item | Section | Demaree | | Peabody Key Strip | | | | | | | | | | | | | | Unit | Total | Rate/ Remarks |
|----------|--|----------|---------|---------|-------------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|------|------|-------|--------|--|
| | | | Area #1 | Area #2 | Area #3 | Area #4 | Area #5 | Area #6 | Area #7 | Area #8 | Area #9 | Area #10 | Area #11 | Area #12 | Area #13 | Area #14 | | | | | |
| NRM20110 | 1 SPECIAL CLEARING | 201 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | L SUM | 1 | |
| NRM20210 | 2 EARTH EXCAVATION | 202 | - | - | 4,417 | 4,657 | 22,069 | 3,317 | 1,213 | - | 2,446 | 14,107 | 143 | 228 | - | 435 | - | 435 | CU YD | 53,032 | COMPACTION REQUIRED PER SECTION 205 |
| 20800150 | 3 TRENCH BACKFILL | IDOT 208 | - | - | 153.9 | - | - | 36.3 | 46.0 | 12.0 | 17.8 | - | 12.5 | 7.5 | - | 40.4 | - | 40.4 | CU YD | 326 | |
| 25000305 | 4 SEEDING - CLASS 3A | IDOT 250 | - | - | 1.2 | 2.0 | 3.9 | 2.0 | - | - | - | - | - | - | - | - | 0.03 | - | ACRE | 9.1 | SOUTHERN ILLINOIS SLOPE MIXTURE |
| 25000330 | 5 SEEDING - CLASS 6 | IDOT 250 | - | - | - | 1.8 | - | - | 2.1 | 0.01 | 1.41 | 4.4 | 0.17 | 0.31 | 0.24 | 0.33 | - | - | ACRE | 10.8 | CONSERVATION MIXTURE |
| 25000400 | 6 NITROGEN FERTILIZER NUTRIENT | IDOT 250 | - | - | 288 | 912 | 936 | 480 | 504 | 2 | 338 | 1,056 | 41 | 74 | 58 | 86 | - | - | POUND | 4,776 | 120 POUND/ACRE PER APPLICATION (2) |
| 25000500 | 7 PHOSPHOROUS FERTILIZER NUTRIENT | IDOT 250 | - | - | 240 | 760 | 780 | 400 | 420 | 2 | 282 | 880 | 34 | 62 | 48 | 72 | - | - | POUND | 3,980 | 100 POUND/ACRE PER APPLICATION (2) |
| 25000600 | 8 POTASSIUM FERTILIZER NUTRIENT | IDOT 250 | - | - | 840 | 2,660 | 2,730 | 1,400 | 1,470 | 7 | 987 | 3,080 | 119 | 217 | 168 | 252 | - | - | POUND | 13,930 | 350 POUND/ACRE PER APPLICATION (2) |
| 25000700 | 9 AGRICULTURAL GROUND LIMESTONE | IDOT 250 | - | - | 12 | 38 | 39 | 20 | 21 | 0.1 | 14.1 | 44.0 | 1.7 | 3.1 | 2.4 | 3.6 | - | - | TON | 199 | 10 TON/ACRE |
| 25100115 | 10 MULCH, METHOD 2 | IDOT 251 | - | - | - | 1.8 | - | - | 2.1 | 0.01 | 1.41 | 4.40 | 0.17 | 0.31 | 0.24 | 0.33 | - | - | ACRE | 10.8 | 2 TON/ACRE*, PROCEDURE 1 |
| NRM25510 | 11 MINE REFUSE TREATMENT - LIMESTONE | 255 | - | - | - | - | - | - | - | - | 7.0 | 52.5 | - | - | - | - | - | - | TON | 59.5 | 35 TON/ACRE FOR DESIGNATED AREAS |
| NRM28031 | 12 TEMPORARY DITCH CHECK | 280 | - | - | 46 | 315 | 241 | 340 | - | 10 | 61 | 28 | 12 | 25 | - | 13 | - | - | FOOT | 1,091 | ROLLED EXCELSIOR, 12" DIA |
| NRM28040 | 13 PERIMETER EROSION BARRIER | 280 | - | - | 171 | 341 | - | 366 | 1,347 | - | 501 | 690 | - | - | - | - | - | - | FOOT | 3,416 | SILT FILTER FENCE |
| 28100107 | 14 STONE RIPRAP, CLASS A4 | IDOT 281 | - | - | 471 | 929 | 509 | 504 | - | - | 57 | 419 | 56 | - | - | 212 | - | - | SQ YD | 3,157 | |
| 28100801 | 15 STONE DUMPED RIPRAP, CLASS A1 | IDOT 281 | 470 | 1,157 | - | 275 | 195 | 131 | - | - | - | - | - | - | - | - | - | - | TON | 2,228 | |
| 28100805 | 16 STONE DUMPED RIPRAP, CLASS A3 | IDOT 281 | - | - | - | 1,012 | - | 1,481 | - | - | - | - | - | - | - | - | - | - | TON | 2,493 | |
| 28100807 | 17 STONE DUMPED RIPRAP, CLASS A4 | IDOT 281 | - | - | - | 154 | 114 | 208 | - | 31 | 31 | - | 31 | 242 | - | - | - | - | TON | 811 | |
| 28200200 | 18 FILTER FABRIC | IDOT 282 | - | - | 471 | 1,577 | 509 | 1,792 | - | - | 57 | 419 | 56 | - | - | 212 | - | - | SQ YD | 5,093 | |
| NRM28610 | 19 SPECIAL EXCELSIOR BLANKET | 286 | - | - | 4,008 | 6,745 | 7,892 | 3,553 | - | - | - | 178 | - | - | - | 147 | - | - | SQ YD | 22,523 | *NO MULCH OVER SPECIAL EXCELSIOR BLANKET |
| 50105220 | 20 PIPE CULVERT REMOVAL | IDOT 501 | - | - | 100 | - | - | - | 40 | 45 | 51 | - | 66 | 41 | - | 134 | - | - | FOOT | 477 | |
| 542A0241 | 21 PIPE CULVERTS, CLASS A, TYPE 1, 36" | IDOT 542 | - | - | - | - | - | - | - | - | - | - | - | - | - | 86 | - | - | FOOT | 86 | REINFORCED CONCRETE PIPE |
| 542A1063 | 22 PIPE CULVERTS, CLASS A, TYPE 2, 18" | IDOT 542 | - | - | - | - | - | 91 | 40 | 45 | 78 | - | - | 41 | - | - | - | - | FOOT | 295 | REINFORCED CONCRETE PIPE |
| 542A1909 | 23 PIPE CULVERTS, CLASS A, TYPE 3, 24" | IDOT 542 | - | - | 106 | - | - | - | - | - | - | - | 48 | - | - | - | - | - | FOOT | 154 | REINFORCED CONCRETE PIPE |
| 54213663 | 24 PRECAST REINFORCED CONC. FLARED END SECTIONS - 18" DIA | IDOT 542 | - | - | - | - | - | 2 | 2 | 1 | 2 | - | - | 2 | - | - | - | - | EACH | 9 | |
| 54213669 | 25 PRECAST REINFORCED CONC. FLARED END SECTIONS - 24" DIA | IDOT 542 | - | - | 2 | - | - | - | - | - | - | - | 2 | - | - | - | - | - | EACH | 4 | |
| 54213681 | 26 PRECAST REINFORCED CONC. FLARED END SECTIONS - 36" DIA | IDOT 542 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | - | - | EACH | 2 | |
| 60219000 | 27 MANHOLES, TYPE A, 4'-DIA, TYPE B GRATE | IDOT 602 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | EACH | 1 | |
| 63500105 | 28 DELINEATORS | IDOT 635 | - | - | - | - | - | - | - | - | - | - | - | - | 7 | - | - | - | EACH | 7 | |
| NRM66510 | 29 BARBED WIRE FENCE | 665 | - | - | 325 | 387 | - | 572 | - | - | 105 | 787 | - | - | 158 | - | - | - | FOOT | 2,334 | |
| NRM66530 | 30 WOVEN WIRE FENCE, 4' HIGH | 665 | - | - | - | - | 1,034 | - | - | - | - | - | - | - | - | - | - | - | FOOT | 1,034 | |
| NRM67110 | 31 MOBILIZATION | 671 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | - | - | L SUM | 1 | |
| NRM67310 | 32 TEMPORARY ACCESS/HAUL ROAD | 673 | - | - | - | 0.33 | 0.33 | 0.33 | - | - | - | - | - | - | - | - | - | - | L SUM | 1 | |
| NRM70110 | 33 TRAFFIC CONTROL AND PROTECTION, STDs B.L.R. 17-4 & 21-9 | 701 | - | - | 0.13 | - | - | 0.13 | 0.13 | 0.13 | 0.13 | - | 0.13 | 0.13 | - | 0.13 | - | - | L SUM | 1 | |

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 removed shall be disposed of onsite per Section 201 of the Special Provisions. All tree removal shall be completed before April 1, 2016.

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 in the plans, agricultural ground limestone shall be uniformly spread at the rate specified in the plans. A three-inch layer of soil shall then be spread over the mine refuse treatment area and blended to a depth of six inches with an industrial offset disk approved by the engineer.

SPECIAL NOTE

Stone dumped riprap quantities being placed as fill below the water level are based on average end areas of cross sections plus 40% to account for estimated losses.

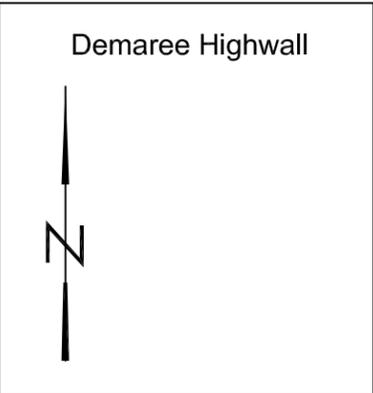
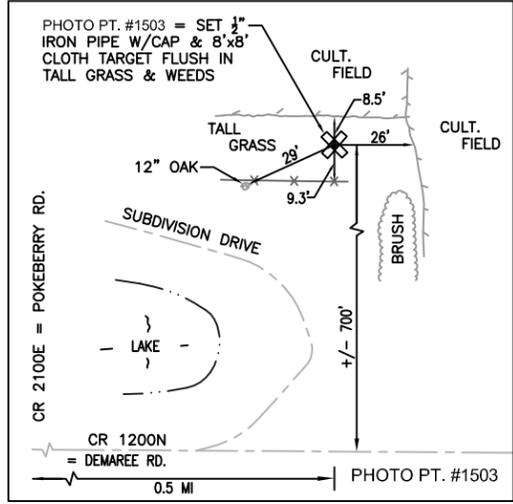
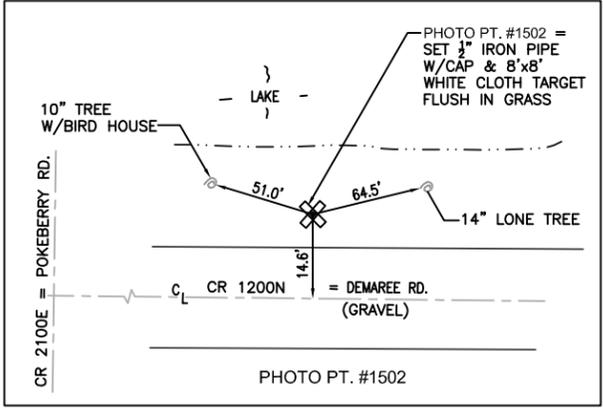
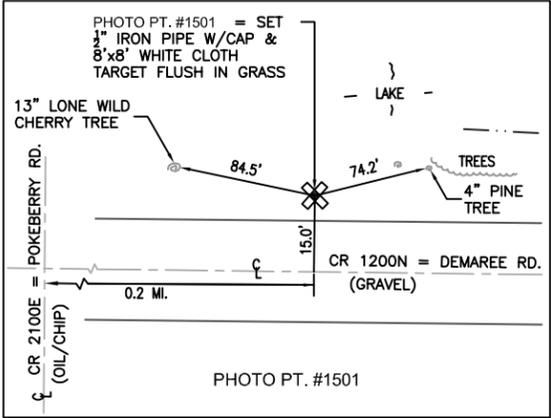
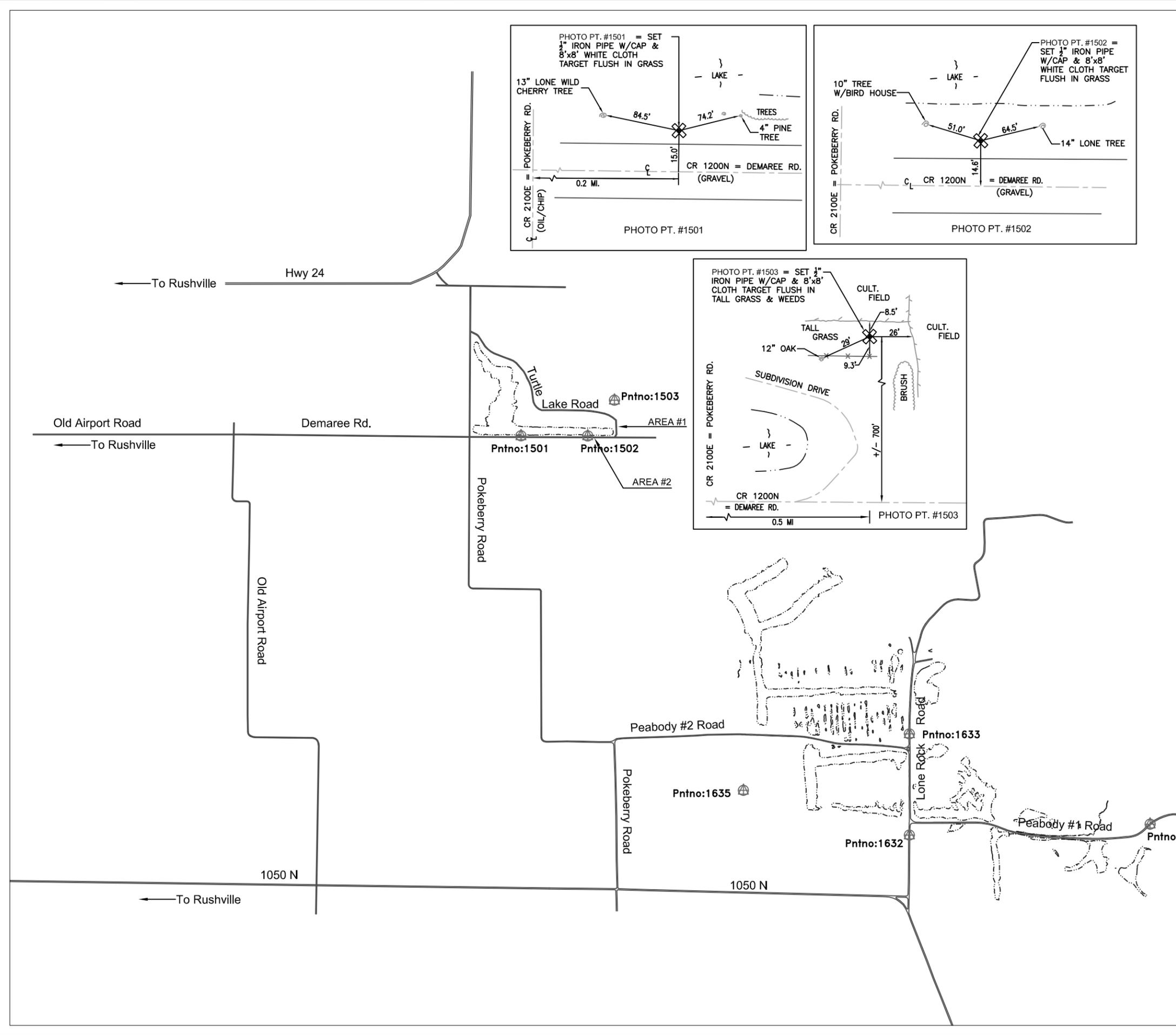
| ITEM (unit) | Aug. 15, 2016 thru Sept. 15, 2016 | March 15, 2017 thru April 10, 2017 | TOTAL QUANTITY |
|--|-----------------------------------|------------------------------------|----------------|
| SEEDING (acres) | 19.9 | | 19.9 |
| AGRICULTURAL GROUND LIMESTONE (tons) | 199 | | 199 |
| NITROGEN FERTILIZER NUTRIENT (pounds) | 2,388 | 2,388 | 4,776 |
| PHOSPHOROUS FERTILIZER NUTRIENT (pounds) | 1,990 | 1,990 | 3,980 |
| POTASSIUM FERTILIZER NUTRIENT (pounds) | 6,965 | 6,965 | 13,930 |
| MULCH, METHOD 2 PROCEDURE 1 (tons) | 21.6 | | 21.6 |

State of Illinois
Department of Natural Resources

Demaree Highway & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

Drawn By: B. JOHNSRUD
Checked By: _____
Date: 10/01/2015

Summary of Quantities/
General Notes
Sheet
2 of 59

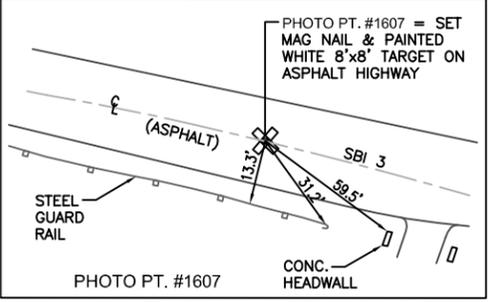
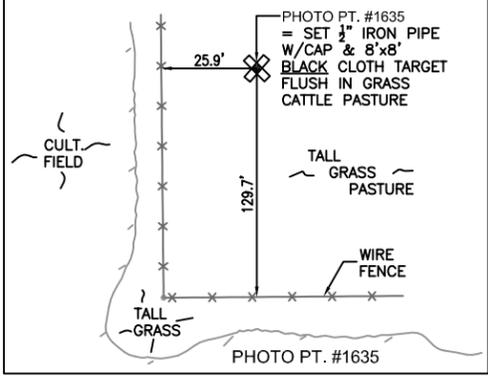
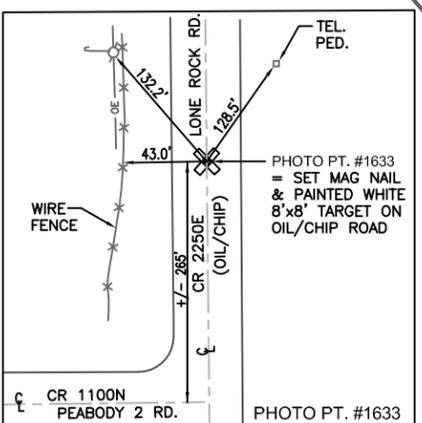
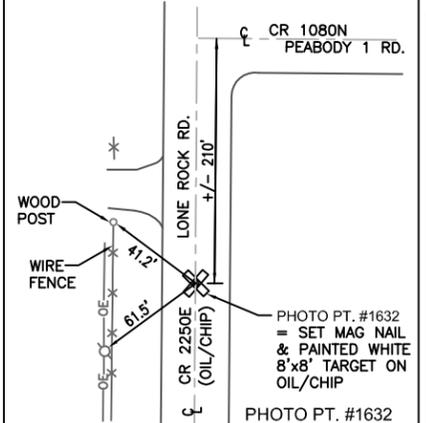
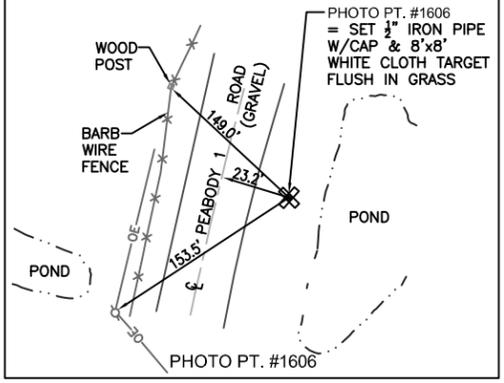
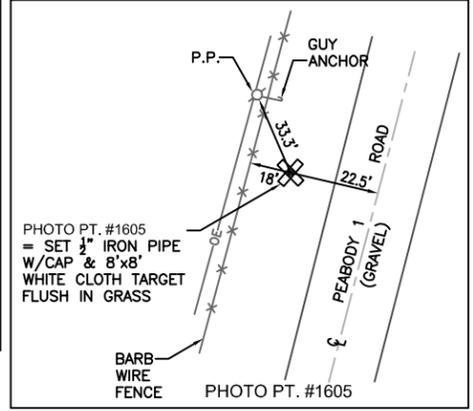
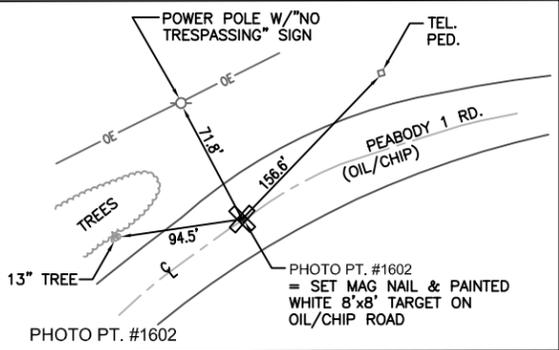
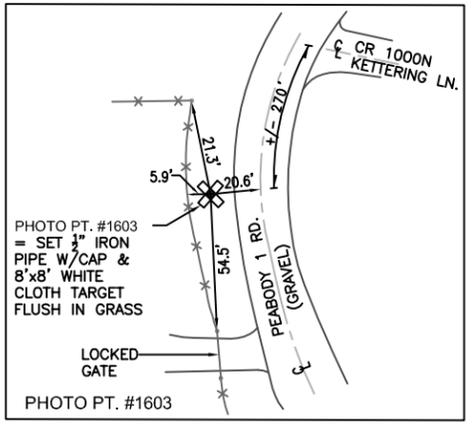
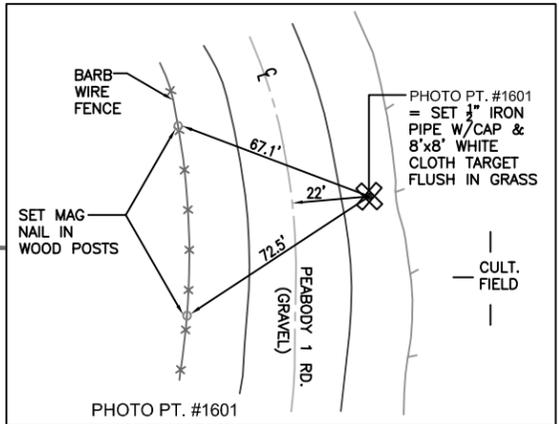
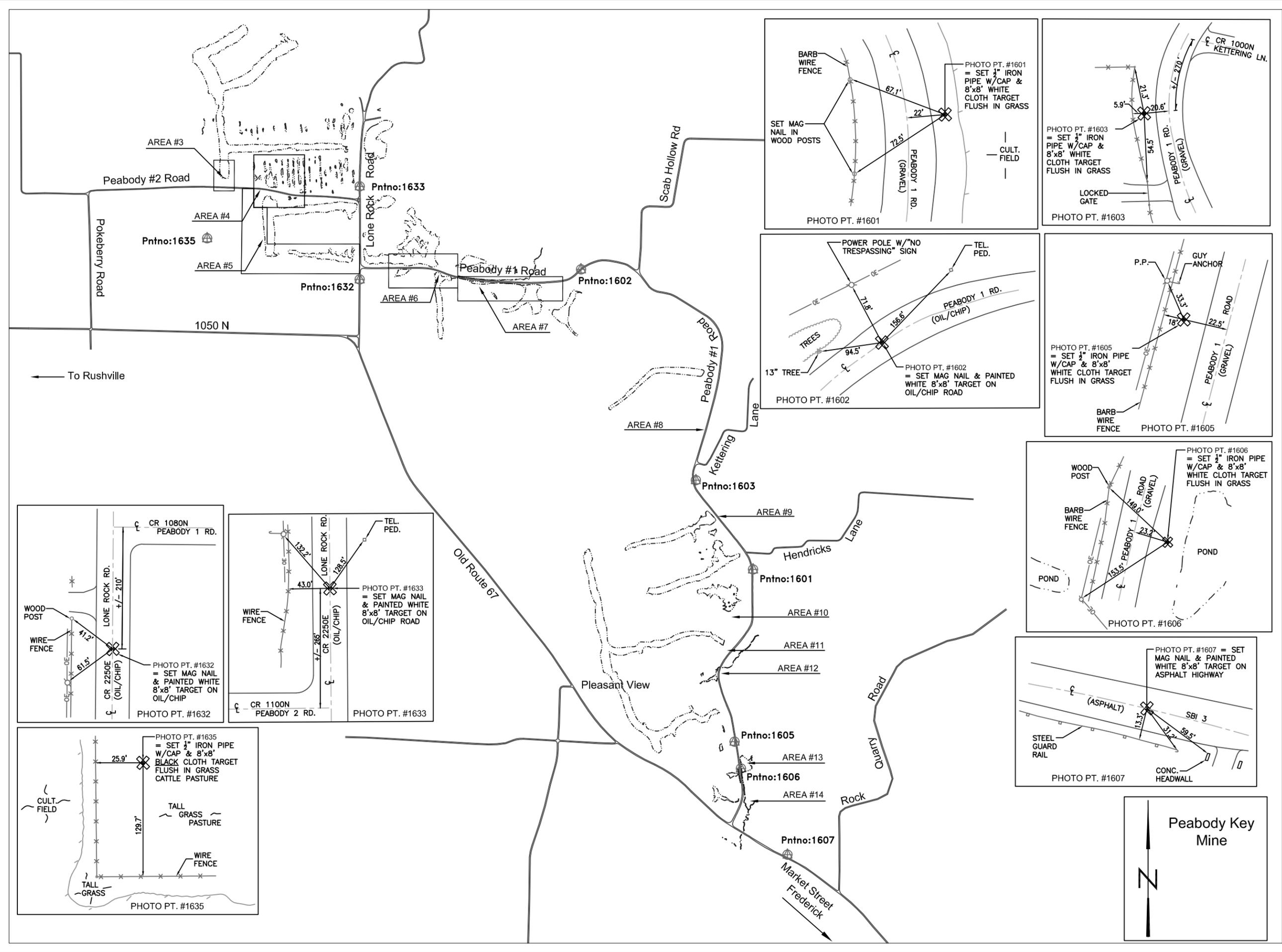


State of Illinois
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Demaree Highwall & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

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Checked By: _____
Date: 9/25/2015

Location Map &
Survey Control Points
Sheet
3 of 59



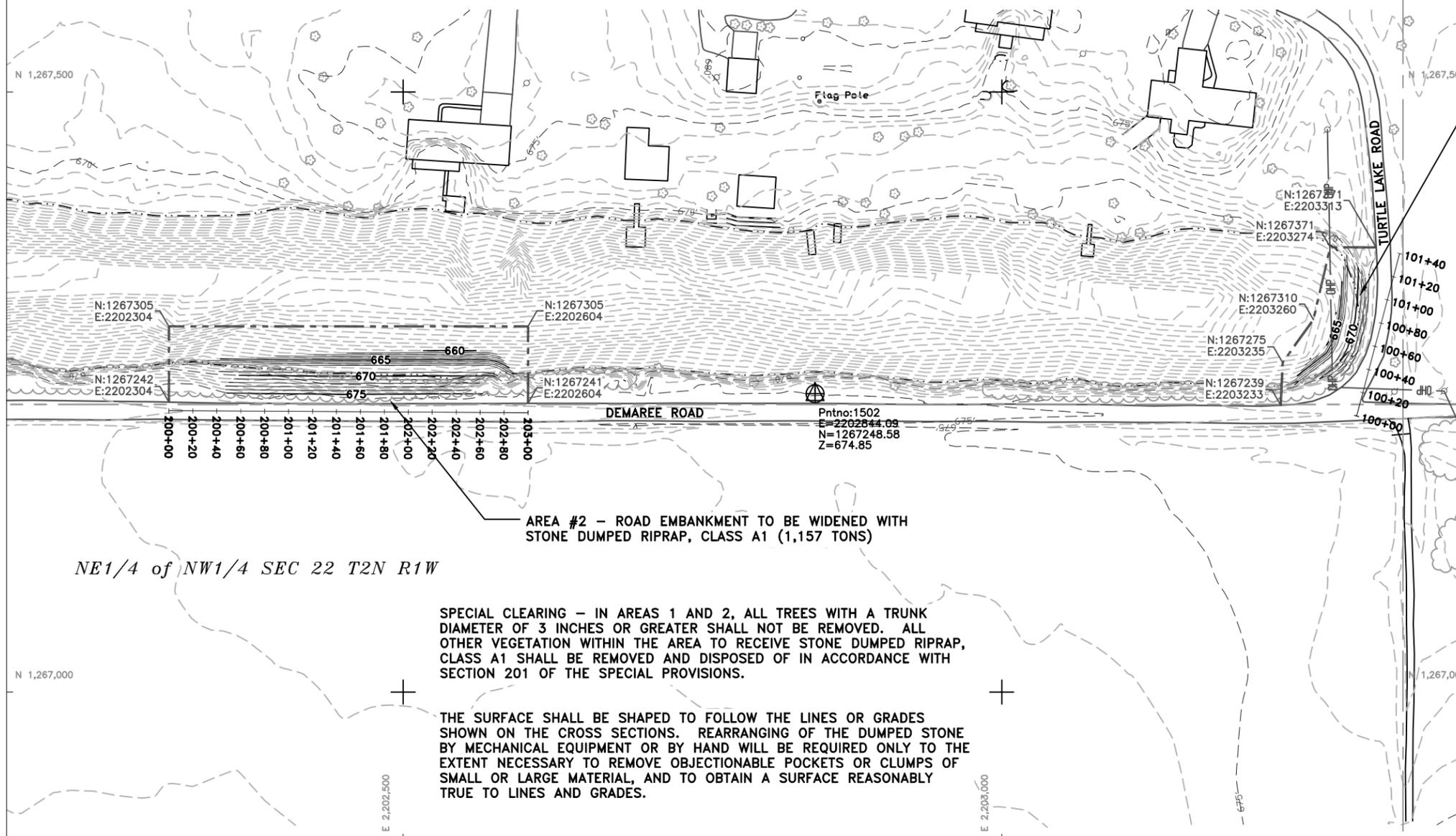
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Location Map &
 Survey Control Points
 Sheet
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SE1/4 of SW1/4 SEC 15 T2N R1W



Pntno:1503
E=2203319.21
N=1267882.01
Z=670.14

Pntno:1502
E=2202844.03
N=1267248.58
Z=674.85

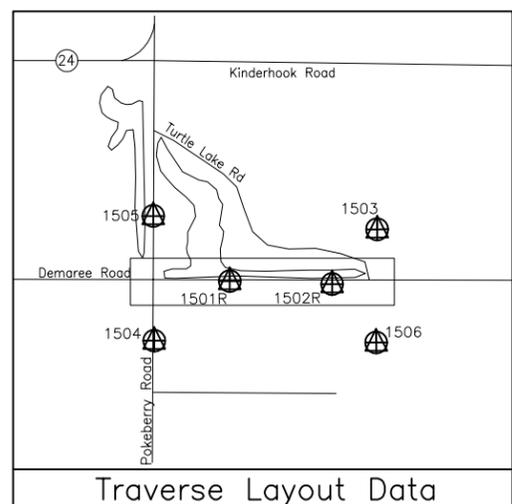
AREA #1 - ROAD EMBANKMENT TO BE WIDENED WITH STONE DUMPED RIPRAP, CLASS A1 (470 TONS)

AREA #2 - ROAD EMBANKMENT TO BE WIDENED WITH STONE DUMPED RIPRAP, CLASS A1 (1,157 TONS)

NE1/4 of NW1/4 SEC 22 T2N R1W

SPECIAL CLEARING - IN AREAS 1 AND 2, ALL TREES WITH A TRUNK DIAMETER OF 3 INCHES OR GREATER SHALL NOT BE REMOVED. ALL OTHER VEGETATION WITHIN THE AREA TO RECEIVE STONE DUMPED RIPRAP, CLASS A1 SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH SECTION 201 OF THE SPECIAL PROVISIONS.

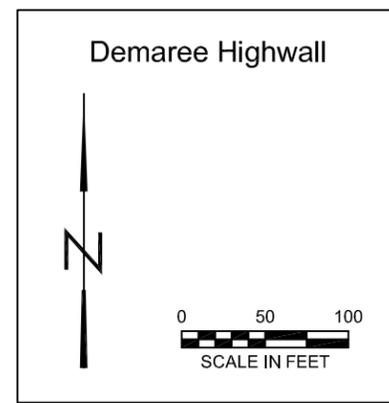
THE SURFACE SHALL BE SHAPED TO FOLLOW THE LINES OR GRADES SHOWN ON THE CROSS SECTIONS. REARRANGING OF THE DUMPED STONE BY MECHANICAL EQUIPMENT OR BY HAND WILL BE REQUIRED ONLY TO THE EXTENT NECESSARY TO REMOVE OBJECTIONABLE POCKETS OR CLUMPS OF SMALL OR LARGE MATERIAL, AND TO OBTAIN A SURFACE REASONABLY TRUE TO LINES AND GRADES.



Traverse Layout Data

| | |
|---------------|----------------------|
| --- 400 --- | EXISTING CONTOUR |
| — 400 — | PROPOSED CONTOUR |
| - - - - - | CONSTRUCTION LIMITS |
| — — — — — | EDGE OF ROAD |
| ~~~~~ | TREELINE |
| - · - · - · - | EDGE OF WATER |
| — OHP — | OVERHEAD POWER |
| ⊕ | SURVEY CONTROL POINT |

Legend



Demaree Highwall

State of Illinois
Department of Natural Resources

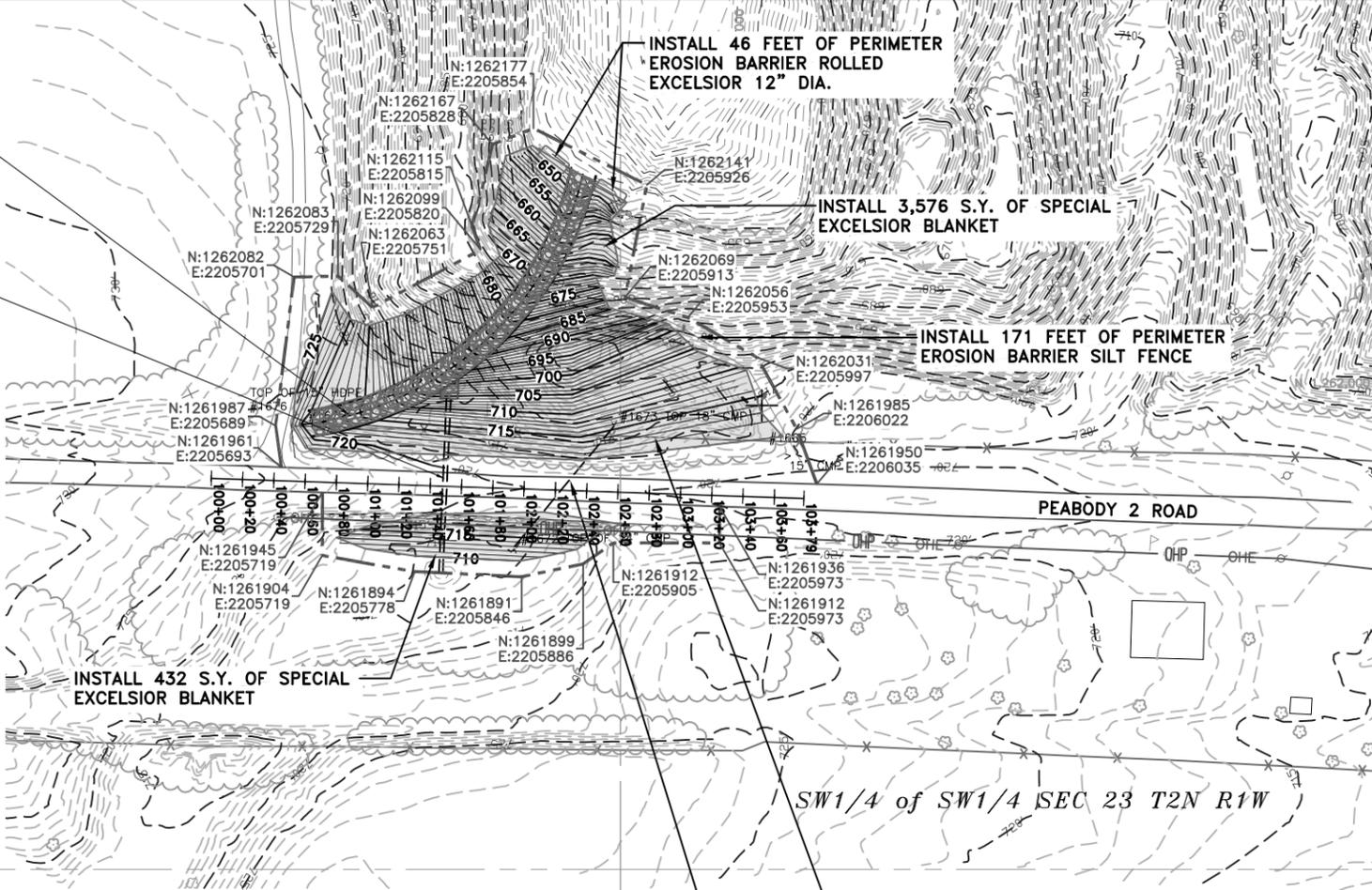
Demaree Highwall & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

Drawn By: V.P., M-LF
Checked By: _____
Date: 10/7/2015

Existing & Proposed
Conditions
Sheet
5 of 59

10' FLAT BOTTOM TRAPEZOIDAL DRAINAGEWAY WITH STONE RIPRAP, CLASS A-4 (471 S.Y.)
SEE DETAIL **B**
59

PIPE CULVERT TO BE INSTALLED. 106 FT PIPE CULVERTS, CLASS A, TYPE 3-24" DIA WITH PRECAST REINFORCED CONCRETE FLARED END SECTION-24" DIA (2 EACH)
U.S.ELEV 707.00
D.S.ELEV 706.00



SE1/4 of SE1/4 SEC 22 T2N R1W

SW1/4 of SW1/4 SEC 23 T2N R1W

AREA #3 - NARROW SECTION OF ROAD EMBANKMENT TO BE WIDENED. ON THE NORTH SIDE OF THE ROAD, THE EMBANKMENT SHALL BE WIDENED BY FIRST BACKFILLING PART OF THE STRIP MINE IMPOUNDMENT WITH STONE DUMPED RIPRAP, CLASS A3 TO THE ELEVATION OF THE WATER SURFACE. A ONE FOOT THICK LAYER OF STONE DUMPED RIPRAP, CLASS A1 SHALL BE PLACED ON THE TOP SURFACE OF THE LARGER STONE. FILTER FABRIC SHALL BE PLACED OVER THE SURFACE OF THE STONE DUMPED RIPRAP, CLASS A1 LAYER. THE REMAINDER OF THE EMBANKMENT WIDENING SHALL BE COMPLETED WITH COMPACTED EARTH THAT HAS BEEN EXCAVATED FROM MINE SPOIL AREAS AS SHOWN ON THESE PLANS.

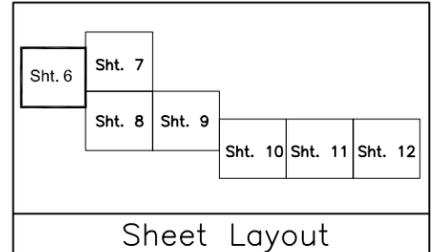
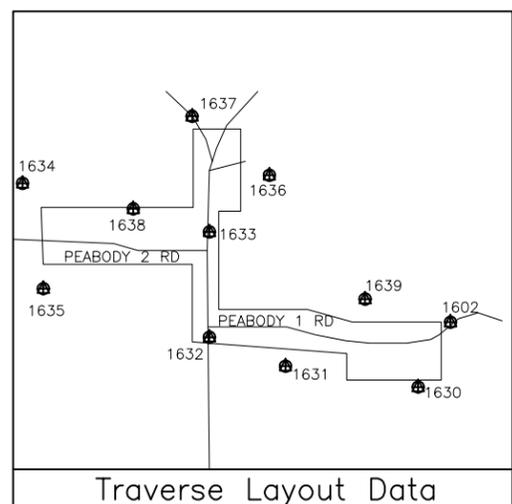
ALL DISTURBED AREAS SHALL BE AMENDED WITH AGRICULTURAL GROUND LIMESTONE AND FERTILIZER NUTRIENTS PRIOR TO SEEDING. AREAS WITH A SLOPE OF 3:1 (H:V) OR STEEPER SHALL BE COVERED WITH SPECIAL EXCELSIOR BLANKET. AREAS NOT AS STEEP SHALL BE COVERED WITH STRAW (MULCH METHOD 2, PROCEDURE 1 AT THE RATE OF TWO TONS PER ACRE.

NE1/4 of NE1/4 SEC 27 T2N R1W

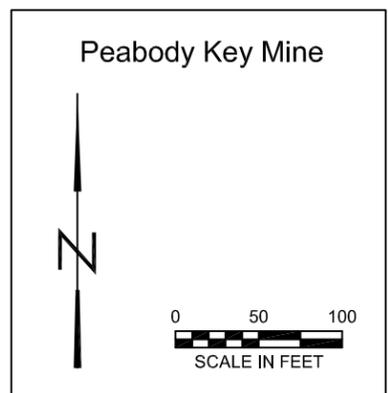
NW1/4 of NW1/4 SEC 26 T2N R1W

EXISTING FENCE TO BE REMOVED AND REPLACED (325 FEET BARBED WIRE FENCE (3 STRANDS))

EXISTING CULVERT TO BE REMOVED (100 FEET PIPE CULVERT REMOVAL)



| | |
|---------------|----------------------|
| ---400--- | EXISTING CONTOUR |
| —400— | PROPOSED CONTOUR |
| - - - - - | EDGE OF MINE REFUSE |
| — — — — — | CONSTRUCTION LIMITS |
| — — — — — | EDGE OF ROAD |
| ~~~~~ | TREELINE |
| - · - · - · - | EDGE OF WATER |
| — OHP — | OVERHEAD POWER |
| ⊕ | SURVEY CONTROL POINT |

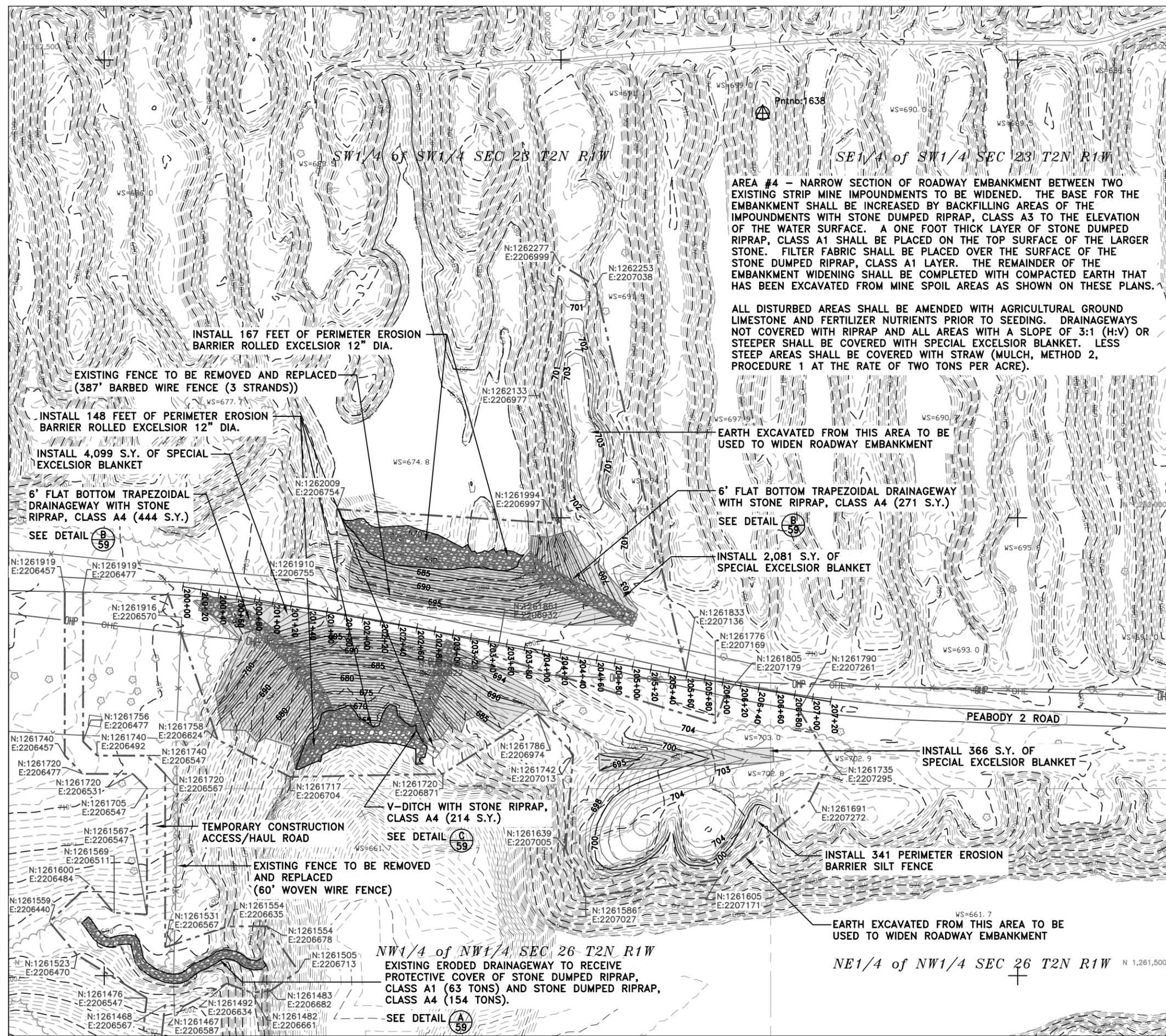


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Checked By: _____
Date: 10/7/2015

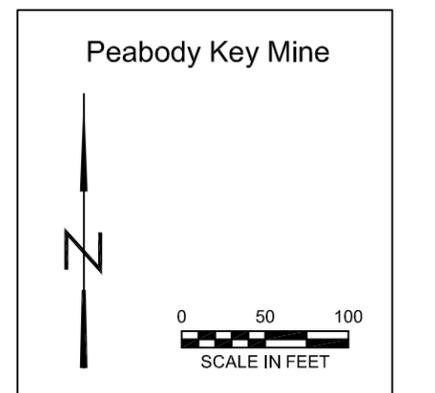
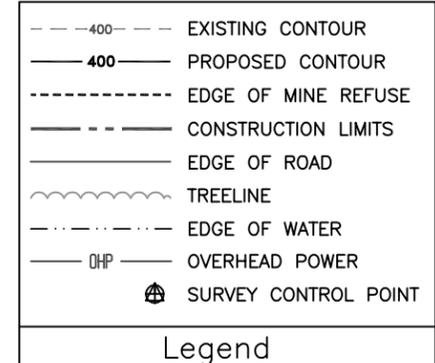
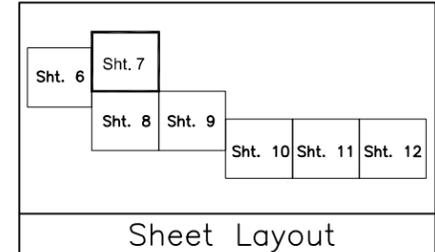
Existing & Proposed
Conditions - Area #3
Sheet
6 of 59

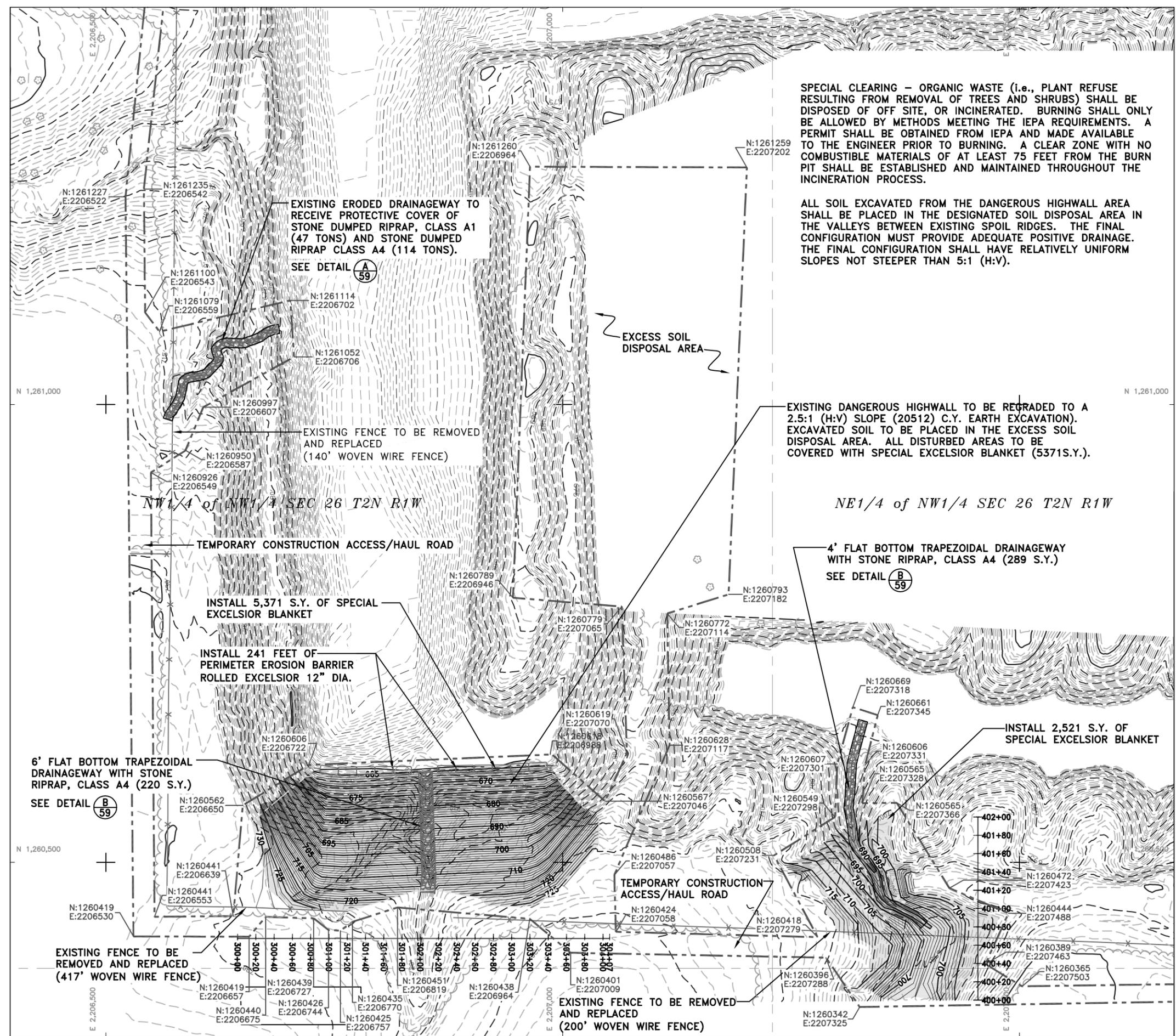


NOTE: FILTER FABRIC SHALL NOT BE REQUIRED FOR DRAINAGEWAYS DESIGNATED TO RECEIVE A PROTECTIVE COVER OF STONE DUMPED RIPRAP. THE STONE DUMPED RIPRAP SURFACE SHALL BE SHAPED TO FOLLOW THE GRADE OF THE EXISTING SLOPE OR CHANNEL. REARRANGING OF THE DUMPED STONE BY MECHANICAL EQUIPMENT OR BY HAND WILL BE REQUIRED ONLY TO THE EXTENT NECESSARY TO REMOVE OBJECTIONABLE POCKETS OR CLUMPS OF SMALL OR LARGE MATERIAL, AND TO OBTAIN A SURFACE REASONABLY TRUE TO LINE AND GRADE.

AREA #4 - NARROW SECTION OF ROADWAY EMBANKMENT BETWEEN TWO EXISTING STRIP MINE IMPOUNDMENTS TO BE WIDENED. THE BASE FOR THE EMBANKMENT SHALL BE INCREASED BY BACKFILLING AREAS OF THE IMPOUNDMENTS WITH STONE DUMPED RIPRAP, CLASS A3 TO THE ELEVATION OF THE WATER SURFACE. A ONE FOOT THICK LAYER OF STONE DUMPED RIPRAP, CLASS A1 SHALL BE PLACED ON THE TOP SURFACE OF THE LARGER STONE. FILTER FABRIC SHALL BE PLACED OVER THE SURFACE OF THE STONE DUMPED RIPRAP, CLASS A1 LAYER. THE REMAINDER OF THE EMBANKMENT WIDENING SHALL BE COMPLETED WITH COMPACTED EARTH THAT HAS BEEN EXCAVATED FROM MINE SPOIL AREAS AS SHOWN ON THESE PLANS.

ALL DISTURBED AREAS SHALL BE AMENDED WITH AGRICULTURAL GROUND LIMESTONE AND FERTILIZER NUTRIENTS PRIOR TO SEEDING. DRAINAGEWAYS NOT COVERED WITH RIPRAP AND ALL AREAS WITH A SLOPE OF 3:1 (H:V) OR STEEPER SHALL BE COVERED WITH SPECIAL EXCELSIOR BLANKET. LESS STEEP AREAS SHALL BE COVERED WITH STRAW (MULCH, METHOD 2, PROCEDURE 1 AT THE RATE OF TWO TONS PER ACRE).

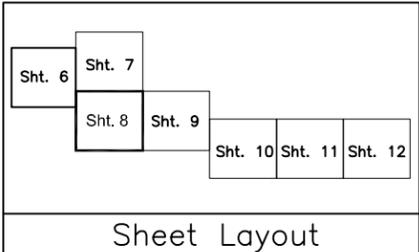




SPECIAL CLEARING - ORGANIC WASTE (i.e., PLANT REFUSE RESULTING FROM REMOVAL OF TREES AND SHRUBS) SHALL BE DISPOSED OF OFF SITE, OR INCINERATED. BURNING SHALL ONLY BE ALLOWED BY METHODS MEETING THE IEPA REQUIREMENTS. A PERMIT SHALL BE OBTAINED FROM IEPA AND MADE AVAILABLE TO THE ENGINEER PRIOR TO BURNING. A CLEAR ZONE WITH NO COMBUSTIBLE MATERIALS OF AT LEAST 75 FEET FROM THE BURN PIT SHALL BE ESTABLISHED AND MAINTAINED THROUGHOUT THE INCINERATION PROCESS.

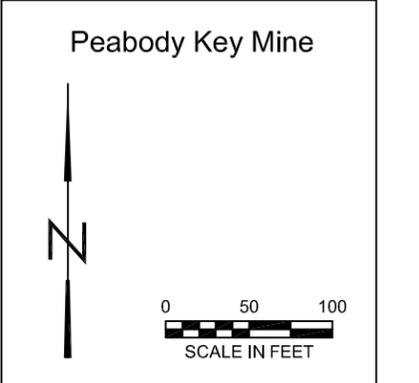
ALL SOIL EXCAVATED FROM THE DANGEROUS HIGHWALL AREA SHALL BE PLACED IN THE DESIGNATED SOIL DISPOSAL AREA IN THE VALLEYS BETWEEN EXISTING SPOIL RIDGES. THE FINAL CONFIGURATION MUST PROVIDE ADEQUATE POSITIVE DRAINAGE. THE FINAL CONFIGURATION SHALL HAVE RELATIVELY UNIFORM SLOPES NOT STEEPER THAN 5:1 (H:V).

NOTE: FILTER FABRIC SHALL NOT BE REQUIRED FOR DRAINAGEWAYS DESIGNATED TO RECEIVE A PROTECTIVE COVER OF STONE DUMPED RIPRAP. THE STONE DUMPED RIPRAP SURFACE SHALL BE SHAPED TO FOLLOW THE GRADE OF THE EXISTING SLOPE OR CHANNEL. REARRANGING OF THE DUMPED STONE BY MECHANICAL EQUIPMENT OR BY HAND WILL BE REQUIRED ONLY TO THE EXTENT NECESSARY TO REMOVE OBJECTIONABLE POCKETS OR CLUMPS OF SMALL OR LARGE MATERIAL, AND TO OBTAIN A SURFACE REASONABLY TRUE TO LINE AND GRADE.



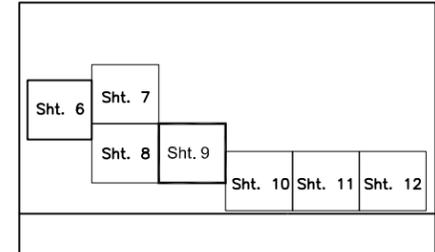
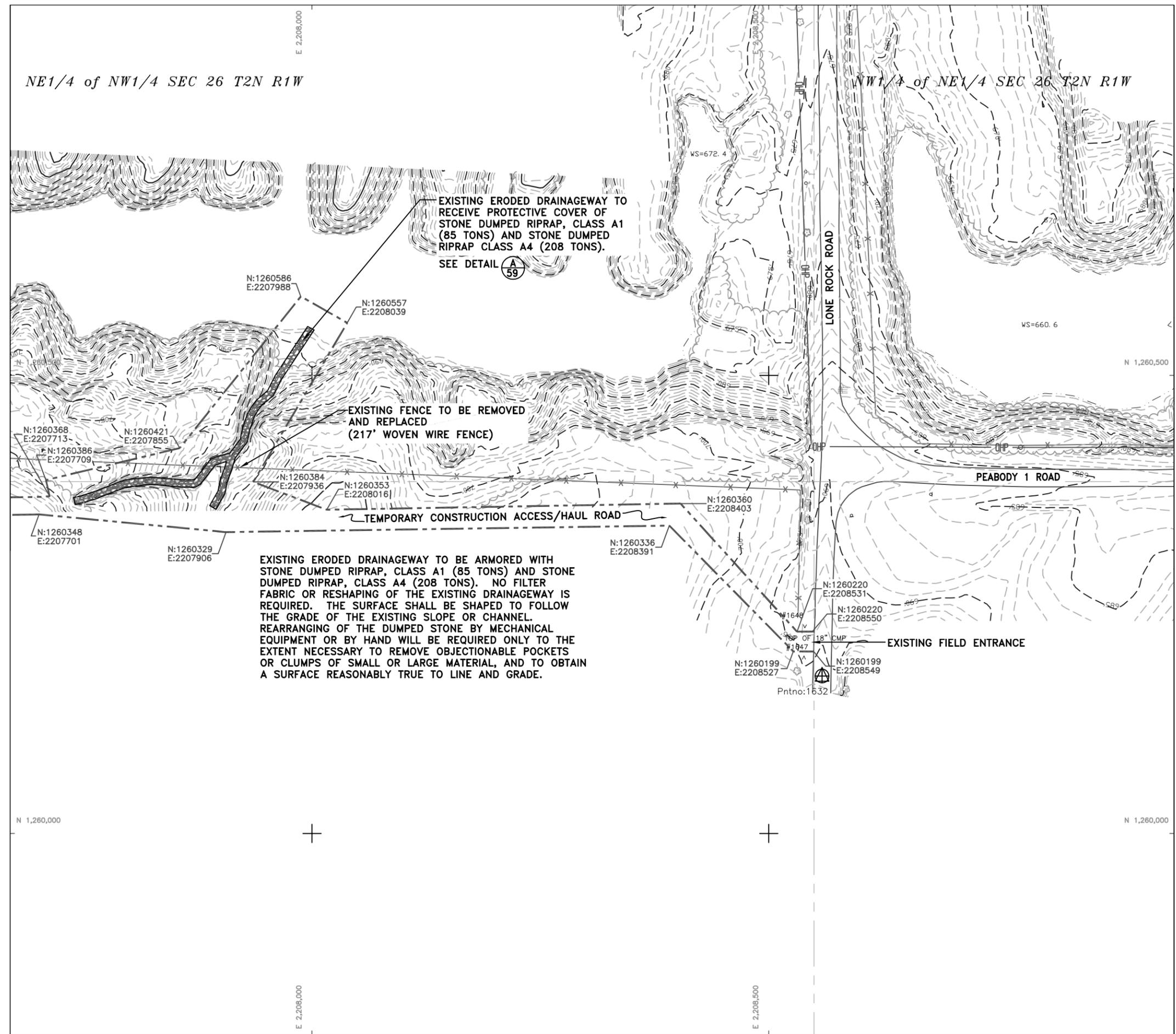
Legend

| | |
|-------------|----------------------|
| --- 400 --- | EXISTING CONTOUR |
| — 400 — | PROPOSED CONTOUR |
| ----- | EDGE OF MINE REFUSE |
| ---- | CONSTRUCTION LIMITS |
| ---- | EDGE OF ROAD |
| ~~~~~ | TREELINE |
| ----- | EDGE OF WATER |
| — OHP — | OVERHEAD POWER |
| ⊙ | SURVEY CONTROL POINT |



NE1/4 of NW1/4 SEC 26 T2N R1W

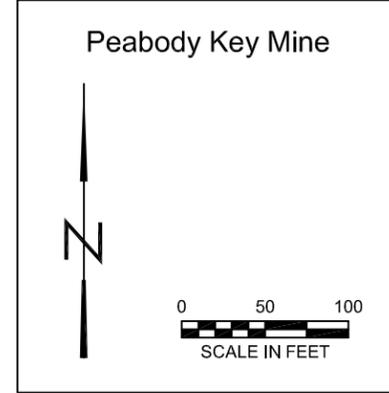
NW1/4 of NE1/4 SEC 26 T2N R1W



Sheet Layout

| | | |
|--|-----|----------------------|
| | 400 | EXISTING CONTOUR |
| | 400 | PROPOSED CONTOUR |
| | | EDGE OF MINE REFUSE |
| | | CONSTRUCTION LIMITS |
| | | EDGE OF ROAD |
| | | TREELINE |
| | | EDGE OF WATER |
| | | OVERHEAD POWER |
| | | SURVEY CONTROL POINT |

Legend



Peabody Key Mine

State of Illinois
Department of Natural Resources

Demaree Highwall & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

Drawn By: V.P., M-LF
Checked By: _____
Date: 10/6/2015

Existing & Proposed
Conditions - Area #5 (East)
Sheet
9 of 59

NW1/4 of NE1/4 SEC 26 T2N R1W

NE1/4 of NE1/4 SEC 26 T2N R1W

AREA #6 - NARROW SECTIONS OF ROAD EMBANKMENTS TO BE WIDENED. WHERE NECESSARY, THE BASE OF THE EMBANKMENT SHALL BE INCREASED BY BACKFILLING AREAS OF THE STRIP MINE IMPOUNDMENTS WITH STONE DUMPED RIPRAP, CLASS A3 TO THE ELEVATION OF THE WATER SURFACE. A ONE FOOT THICK LAYER OF STONE DUMPED RIPRAP, CLASS A1 SHALL BE PLACED ON THE TOP SURFACE OF THE LARGER STONE. FILTER FABRIC SHALL BE PLACED OVER THE SURFACE OF THE STONE DUMPED RIPRAP, CLASS A1 LAYER. THE REMAINDER OF THE EMBANKMENT WIDENING SHALL BE COMPLETED WITH COMPACTED EARTH THAT HAS BEEN EXCAVATED FROM MINE SPOIL AREAS AS SHOWN ON THESE PLANS.

ALL DISTURBED AREAS SHALL BE AMENDED WITH AGRICULTURAL GROUND LIMESTONE AND FERTILIZER NUTRIENTS PRIOR TO SEEDING. GRASS DITCHES AND ALL AREAS WITH A SLOPE OF 3:1 (H:V) OR STEEPER SHALL BE COVERED WITH STRAW MULCH, METHOD 2, PROCEDURE 1 AT THE RATE OF TWO TONS PER ACRE.

V-DITCH WITH STONE RIPRAP, CLASS A4 (20 SQ YD) SEE DETAIL (C) 59

INSTALL 182 FEET OF PERIMETER EROSION BARRIER ROLLED EXCELSIOR 12" DIA.

INSTALL 1,590 S.Y. OF SPECIAL EXCELSIOR BLANKET

REMOVE AND REPLACE EXISTING FENCE 572 FT WOVEN WIRE FENCE

PEABODY 1 ROAD

PRIVATE DRIVE

INSTALL 366 FEET OF PERIMETER EROSION BARRIER SILT FENCE

INSTALL 1,963 S.Y. OF SPECIAL EXCELSIOR BLANKET

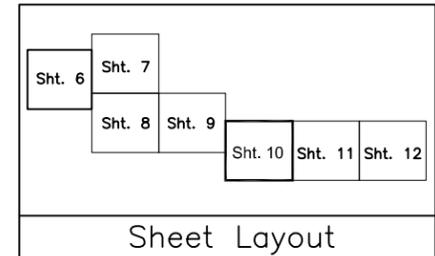
PIPE CULVERT TO BE INSTALLED - 91 FT PIPE CULVERTS, CLASS A, TYPE 3, 18" DIAMETER, WITH PRECAST REINFORCED CONCRETE FLARED END SECTIONS-18" DIA. (2 EACH) U.S. ELEV. 669.0 D.S. ELEV. 668.0

V-DITCH WITH STONE RIPRAP, CLASS A4 (484 SQ YD) SEE DETAIL (C) 59

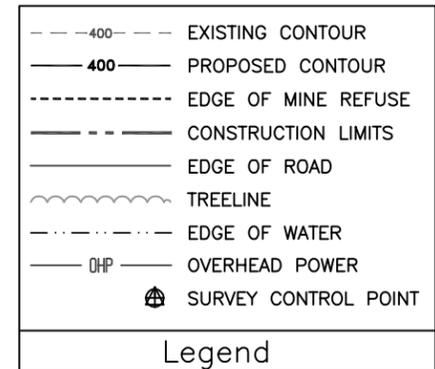
INSTALL 158 FEET OF PERIMETER EROSION BARRIER ROLLED EXCELSIOR 12" DIA.

SW1/4 of NE1/4 SEC 26 T2N R1W

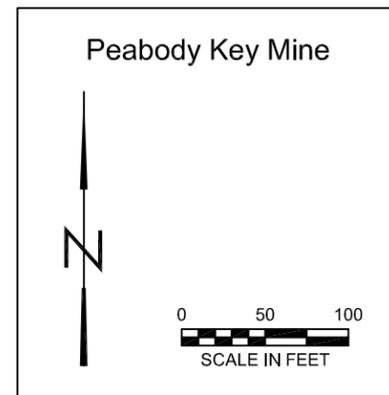
SE1/4 of NE1/4 SEC 26 T2N R1W



Sheet Layout



Legend



Peabody Key Mine

State of Illinois
Department of Natural Resources

Demaree Highwall & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

Drawn By: V.P., M-LF Date: 10/7/2015
Checked By:

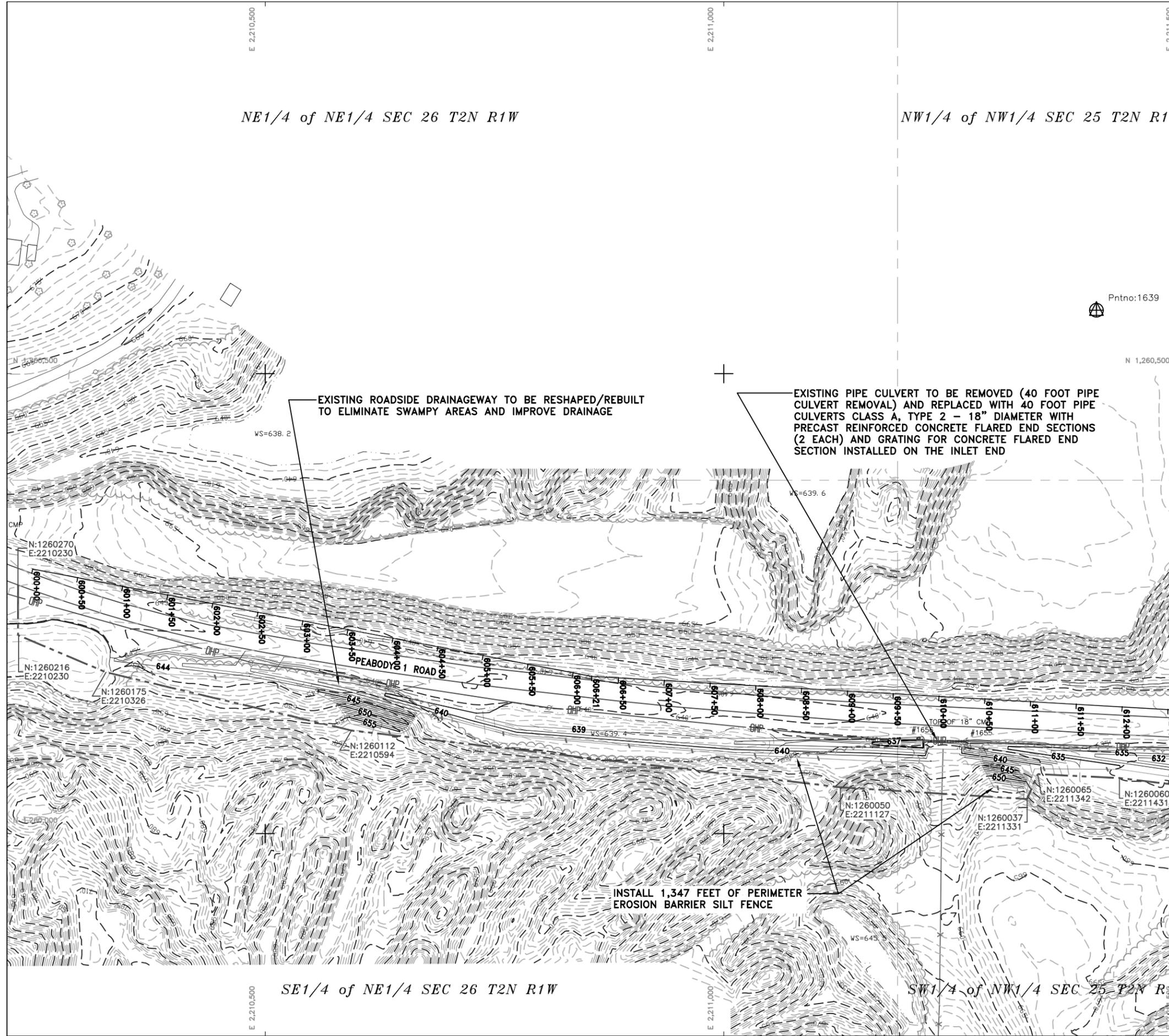
Existing & Proposed
Conditions - Area #6
Sheet
10 of 59

NE1/4 of NE1/4 SEC 26 T2N R1W

NW1/4 of NW1/4 SEC 25 T2N R1W

SE1/4 of NE1/4 SEC 26 T2N R1W

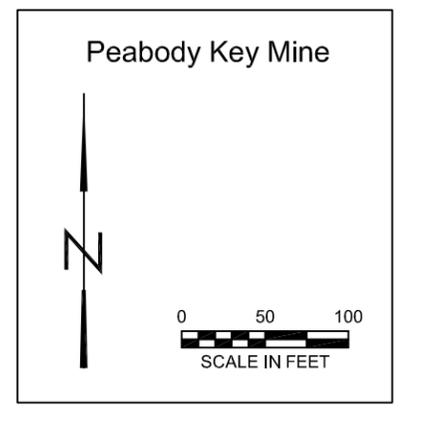
SW1/4 of NW1/4 SEC 25 T2N R1W



Sheet Layout

Legend

| | |
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| | EXISTING CONTOUR |
| | PROPOSED CONTOUR |
| | EDGE OF MINE REFUSE |
| | CONSTRUCTION LIMITS |
| | EDGE OF ROAD |
| | TREELINE |
| | EDGE OF WATER |
| | OVERHEAD POWER |
| | SURVEY CONTROL POINT |



SW1/4 of SE1/4 SEC 25 T2N R1W OF 4th PM

N 1,257,000

E 2,215,000



N:1256945
E:2215161
N:1256941
E:2215139
N:1256948
E:2215118
N:1256929
E:2215111
N:1256922
E:2215132
N:1256905
E:2215148

PEABODY 1 ROAD

PLACE 31 TON CLASS A4
STONE DUMPED RIPRAP.

N:1256931
E:2215206

INSTALL 10' OF PERIMETER
EROSION BARRIER ROLLED
EXCELSIOR 12"

REPLACE 45' OF 67' LONG 18" DIA CMP PIPE W/ A 4' DIA TYPE A MANHOLE,
A TYPE 8 GRATE, 18" DIA CLASS A TYPE 2 PIPE CULVERT, AND A PRECAST
REINFORCED CONCRETE FLARED END SECTION.
ENTR EL.: TBD BY EXPLORATORY EXCAVATION AT PROPOSED MANHOLE LOCATION.
EXIT EL: 1' BELOW ENTR EL.

E 2,215,500

KETTERING LANE

SE1/4 of SE1/4 SEC 25 T2N R1W OF 4th PM

N 1,257,000

N 1,256,500

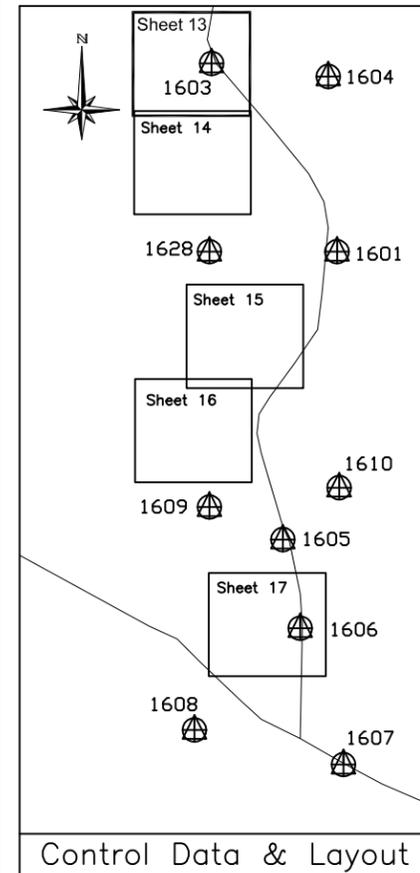


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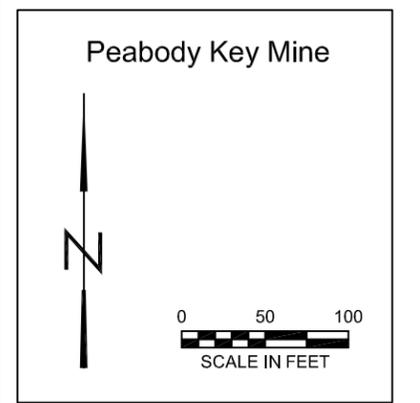
N 1,256,500



EDGE OF AERIAL MAPPING



| | |
|-----------|----------------------|
| ---400--- | EXISTING CONTOUR |
| —400— | PROPOSED CONTOUR |
| ----- | EDGE OF MINE REFUSE |
| ----- | CONSTRUCTION LIMITS |
| ----- | EDGE OF ROAD |
| ~~~~~ | TREELINE |
| ----- | EDGE OF WATER |
| —OHP— | OVERHEAD POWER |
| ⊕ | SURVEY CONTROL POINT |

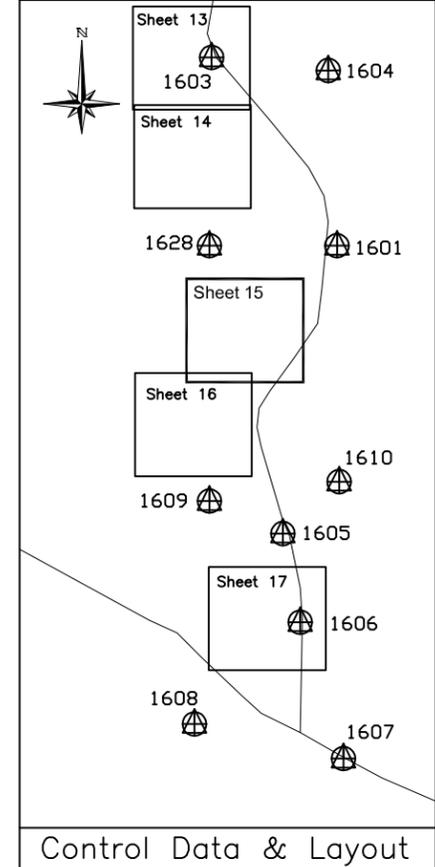
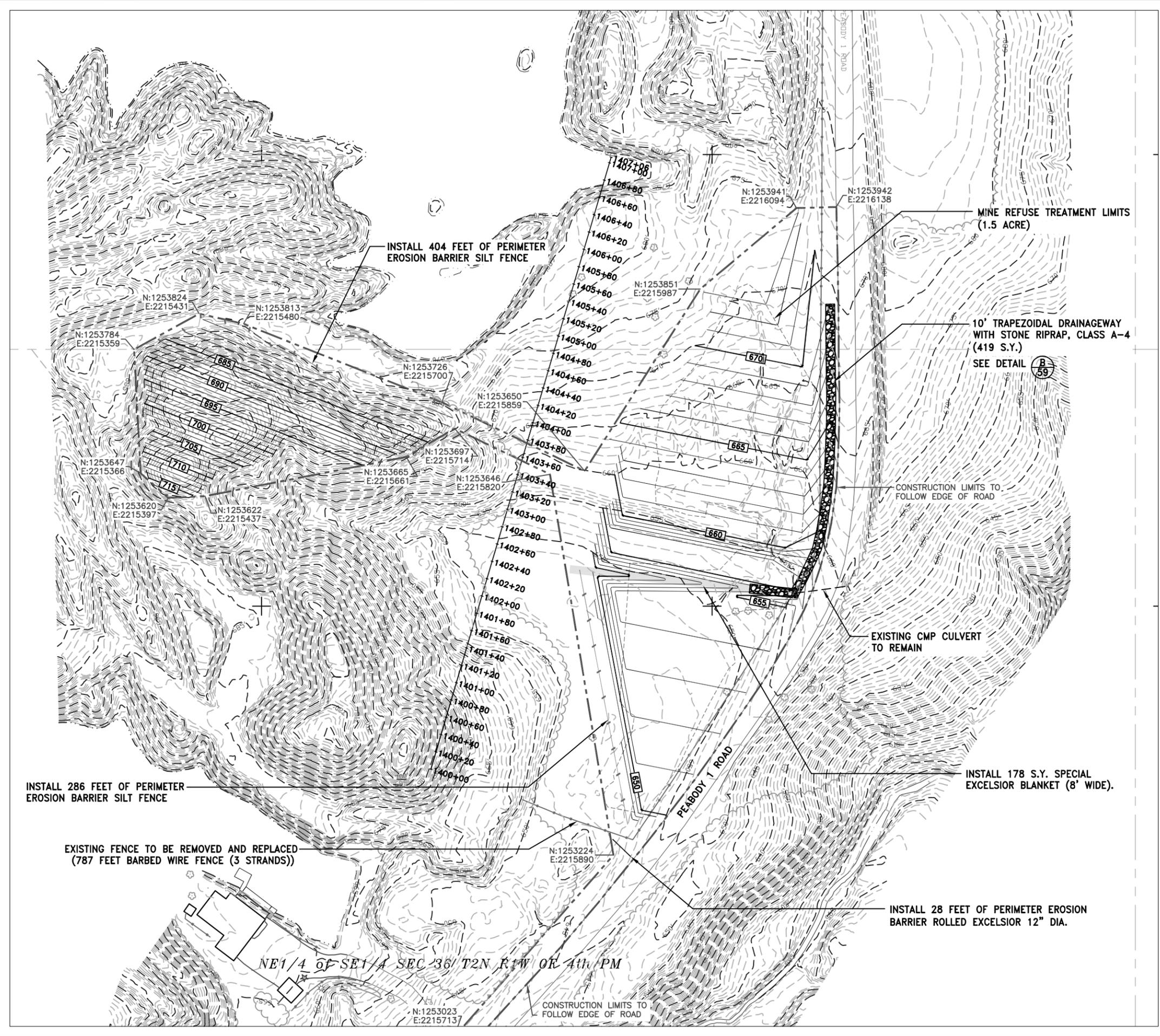


State of Illinois
Department of Natural Resources

Demaree Highway & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

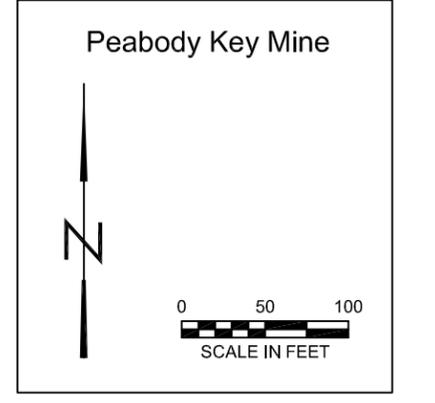
Drawn By: B. JOHNSRUD Date: 09/21/2015
Checked By:

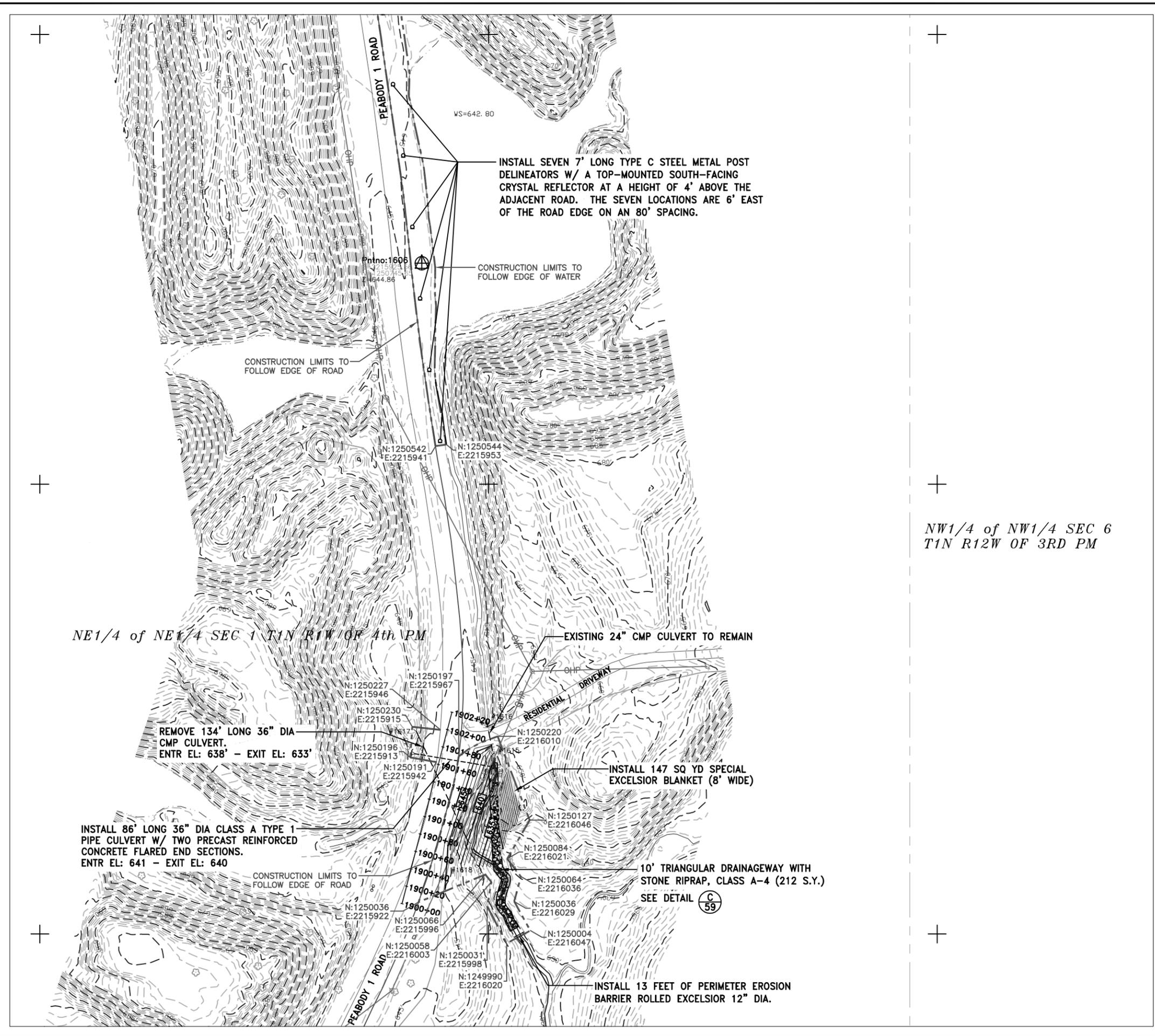
Existing & Proposed
Conditions - Area #8
Sheet
13 of 59



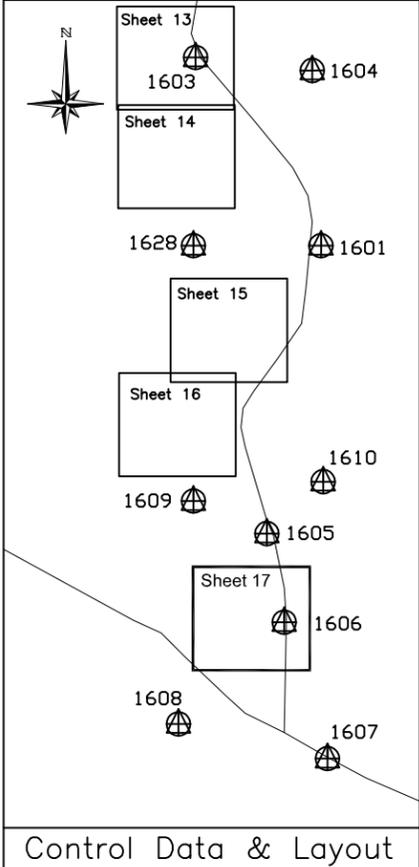
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| | |
|-------------|----------------------|
| --- 400 --- | EXISTING CONTOUR |
| — 400 — | PROPOSED CONTOUR |
| | EDGE OF MINE REFUSE |
| ----- | CONSTRUCTION LIMITS |
| - - - - - | EDGE OF ROAD |
| ~~~~~ | TREELINE |
| - . - . - . | EDGE OF WATER |
| — OHP — | OVERHEAD POWER |
| ⊕ | SURVEY CONTROL POINT |



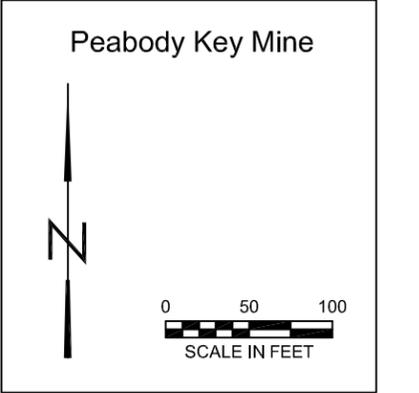


NW1/4 of NW1/4 SEC 6
T1N R12W OF 3RD PM

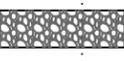


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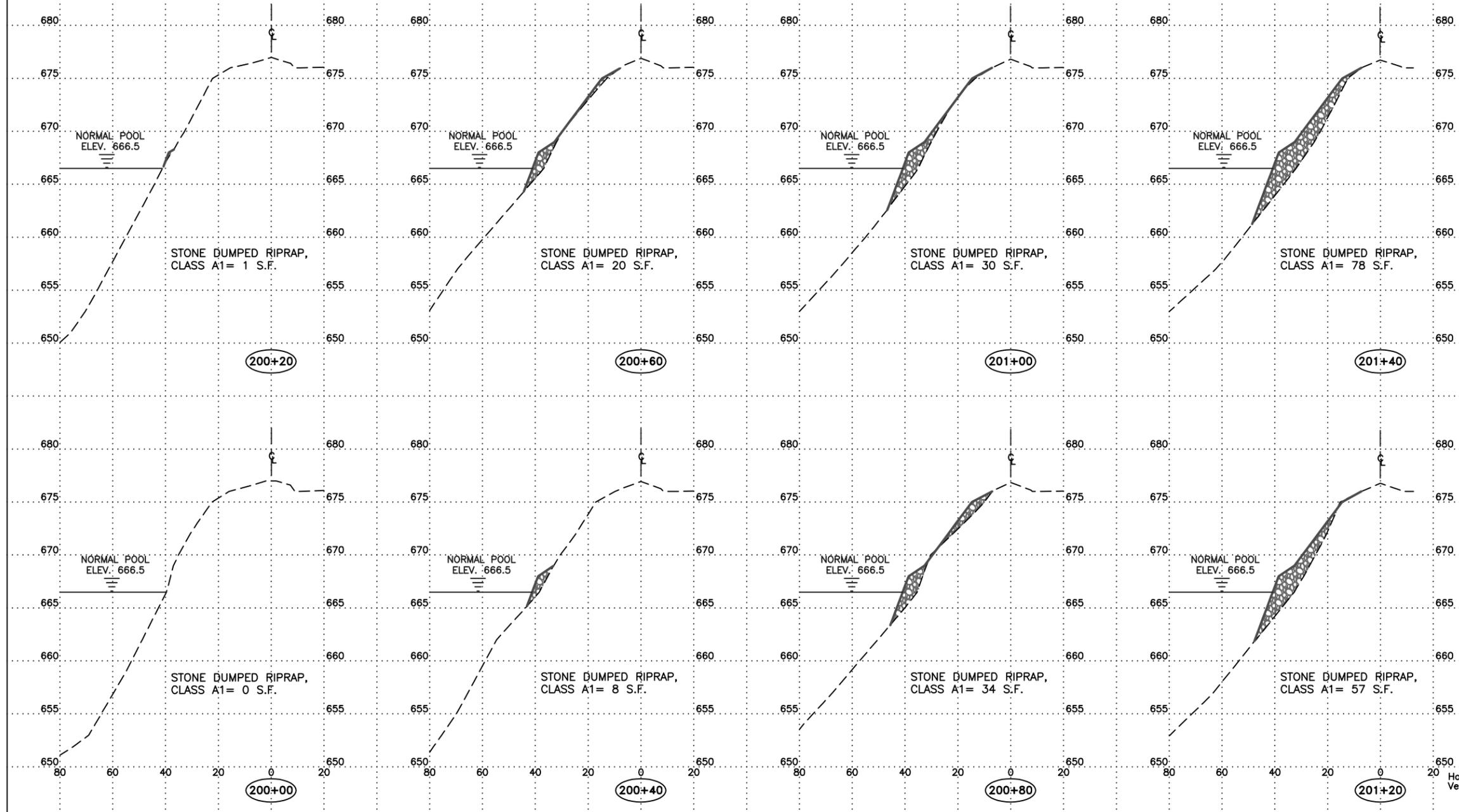
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|--|----------------------|
| | EXISTING CONTOUR |
| | PROPOSED CONTOUR |
| | EDGE OF MINE REFUSE |
| | CONSTRUCTION LIMITS |
| | EDGE OF ROAD |
| | TREELINE |
| | EDGE OF WATER |
| | OVERHEAD POWER |
| | SURVEY CONTROL POINT |



Demaree Rd. Highwall & Peabody
 Key Strip Reclamation Project
 AML-GSyE-1502
 Schuylar County

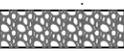
| | |
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|  | PROPOSED GRADE |
|  | STONE DUMPED RIPPAP, CLASS A1 |

Legend

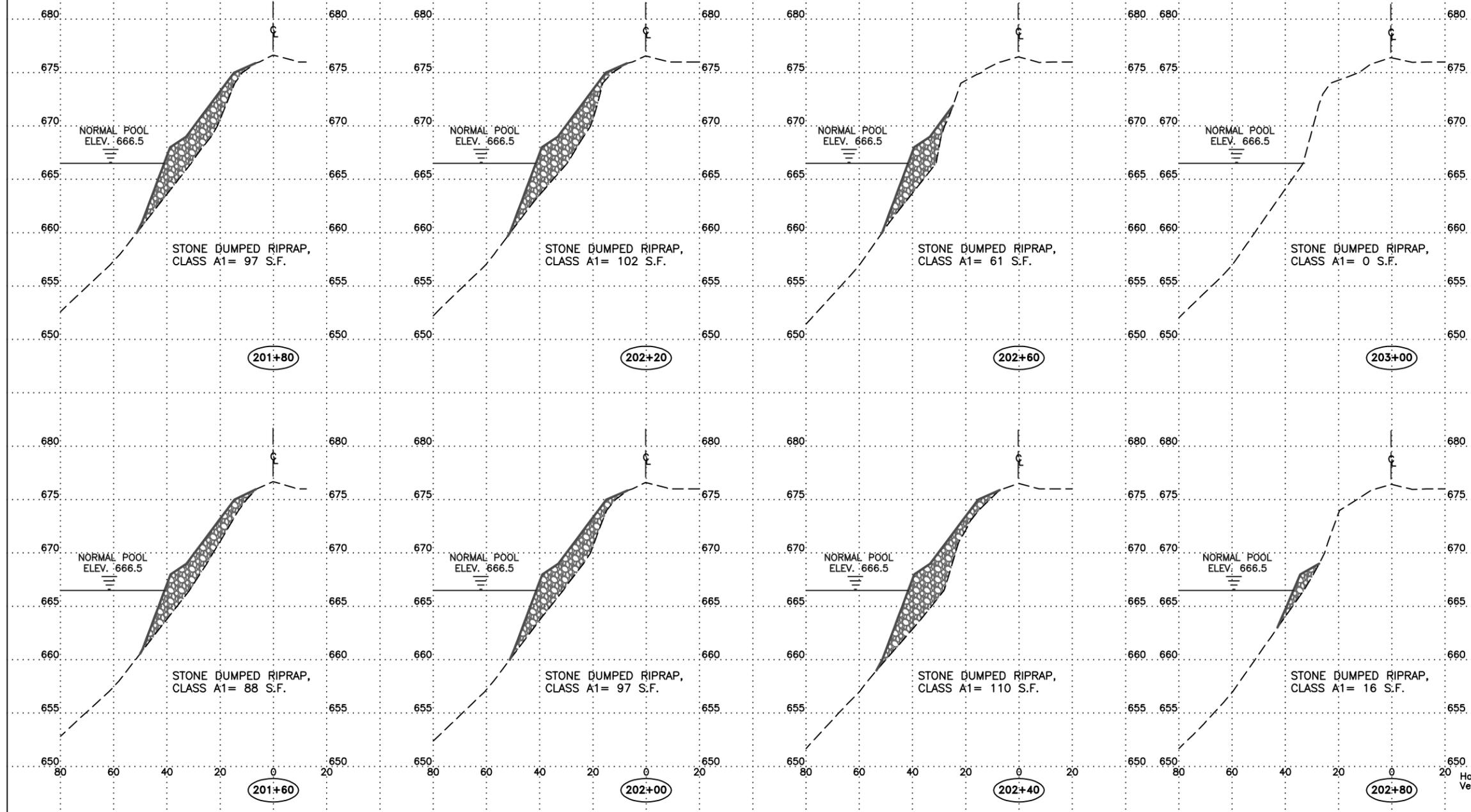


Horizontal Scale 20
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Demaree Rd. Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

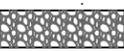
| | |
|---|---|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | STONE DUMPED STONE DUMPED RIPRAP, CLASS A1 |

Legend

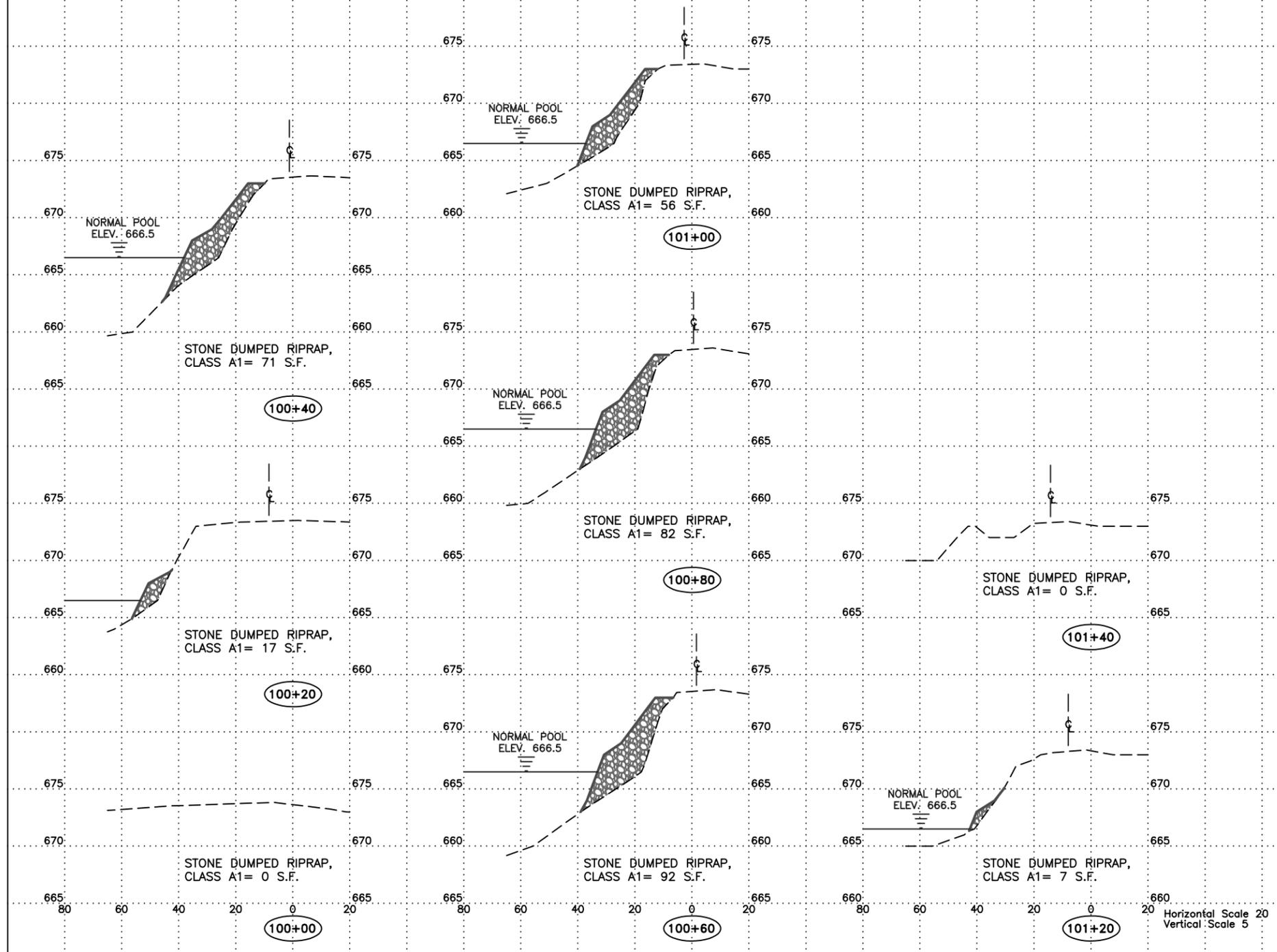


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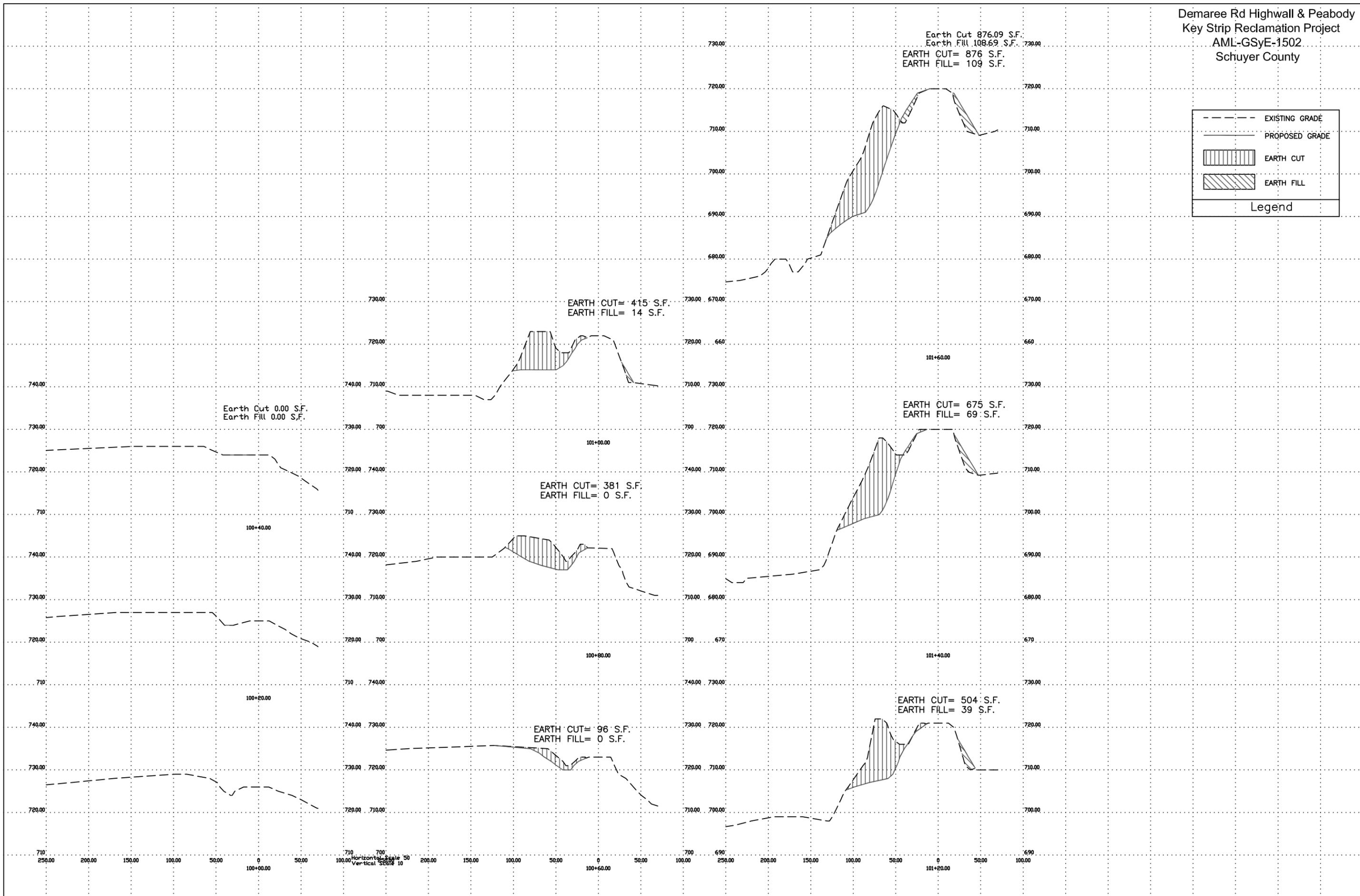
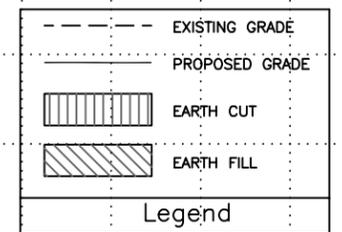
Demaree Rd. Highwall & Peabody
 Key Strip Reclamation Project
 AML-GSyE-1502
 Schuyler County

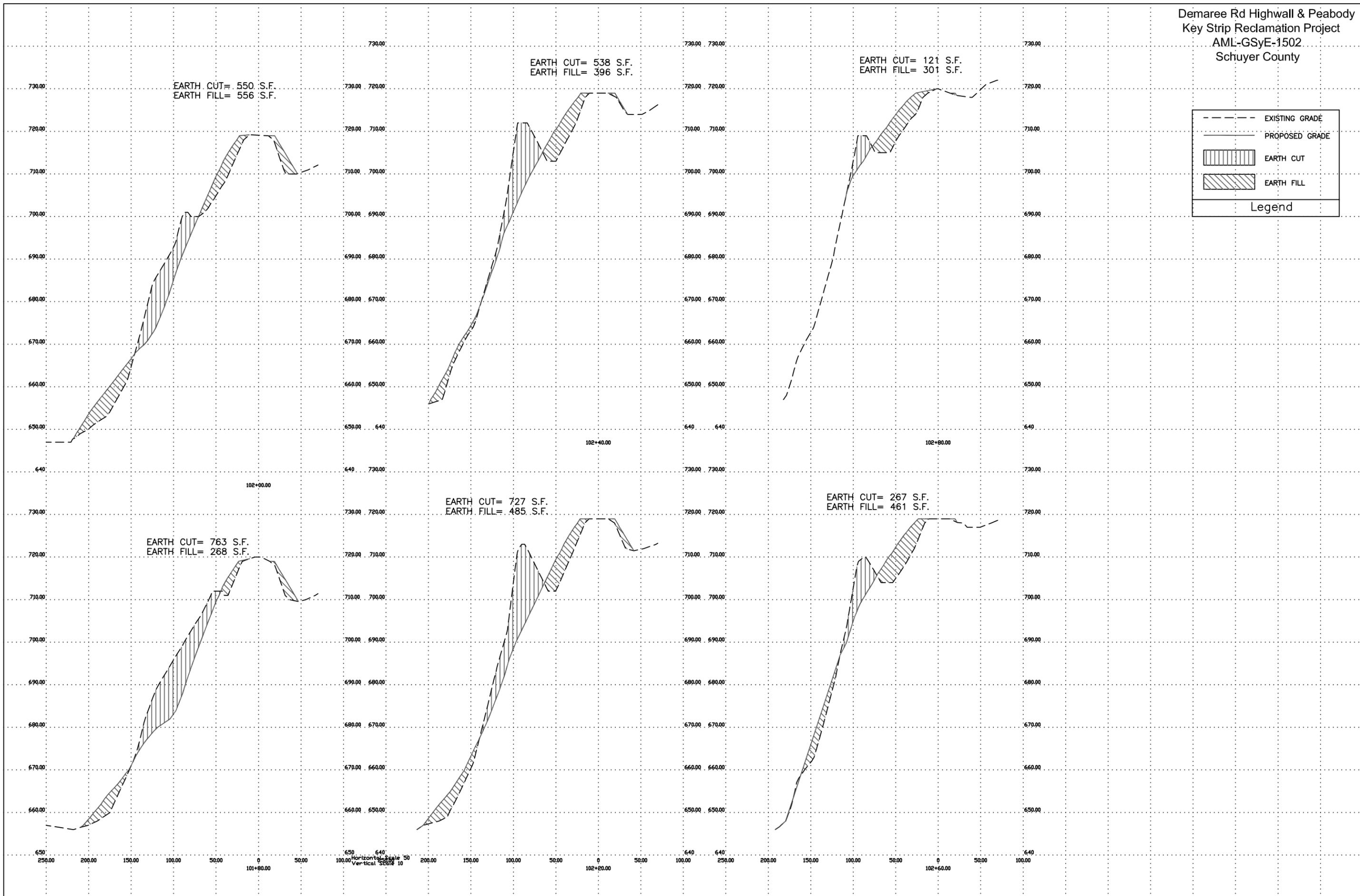
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|---|---|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | STONE DUMPED STONE DUMPED RIPRAP, CLASS A1 |

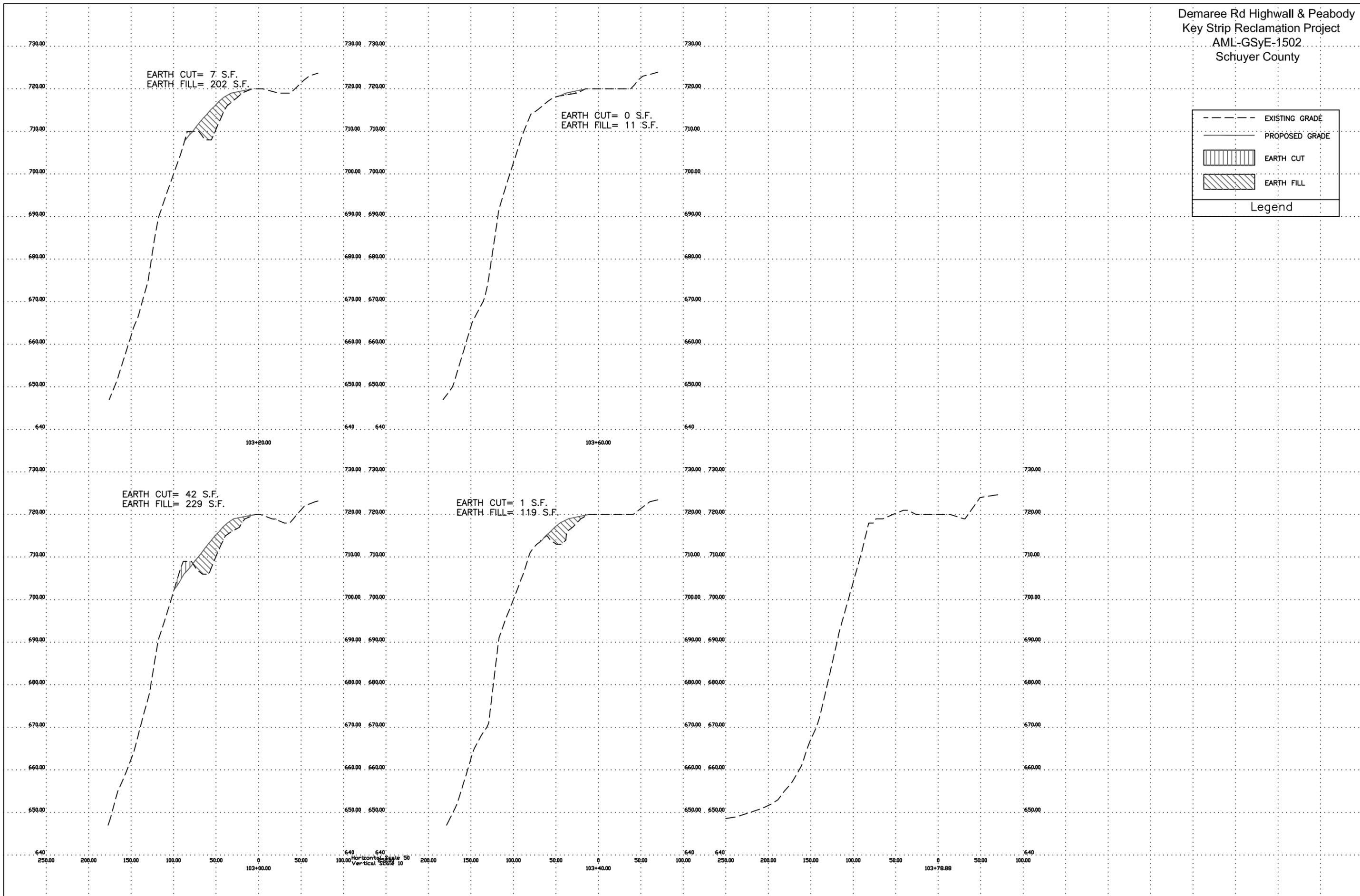
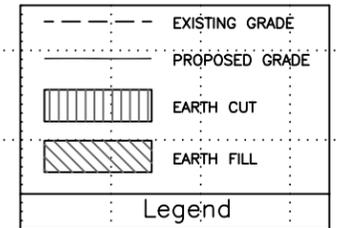
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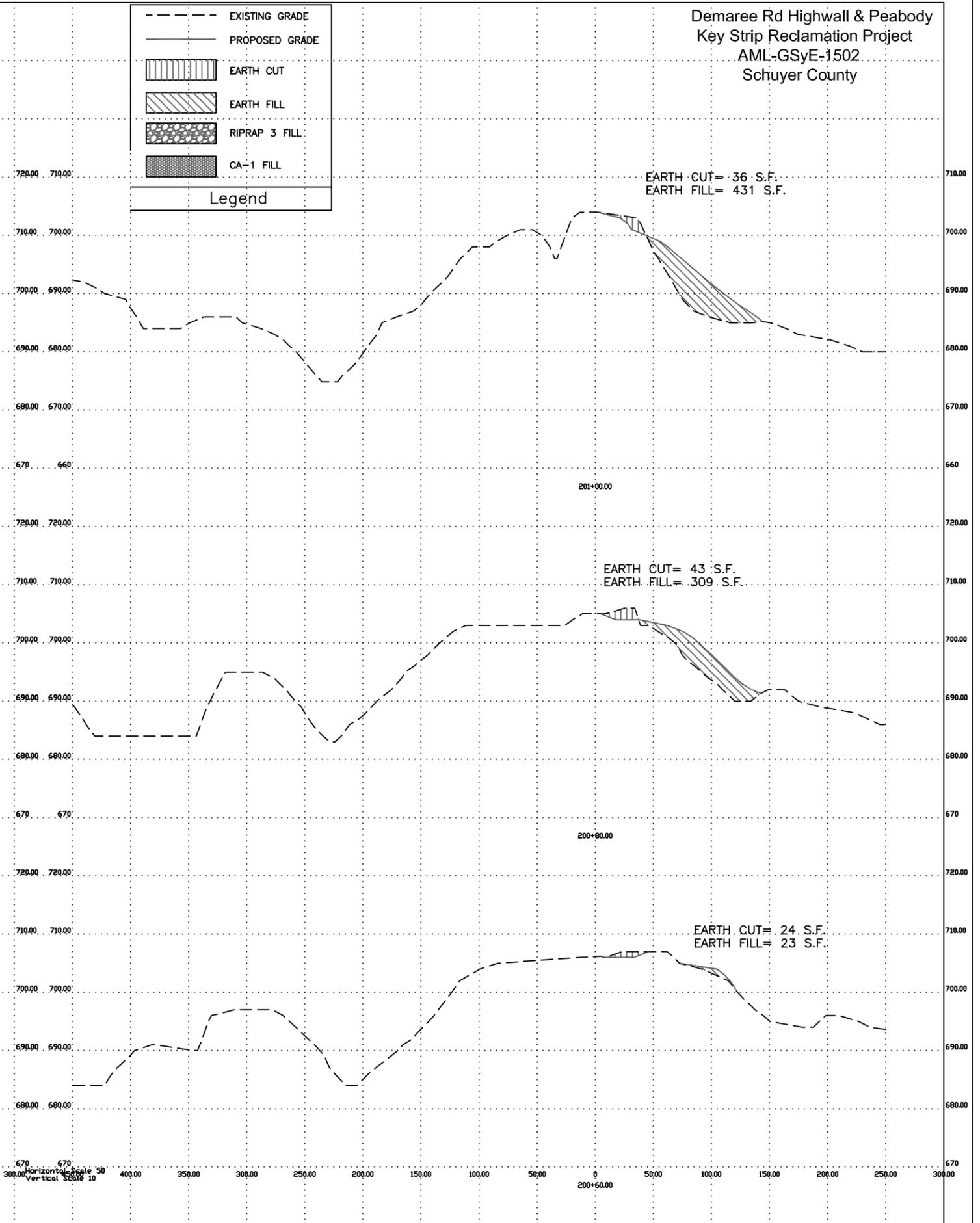
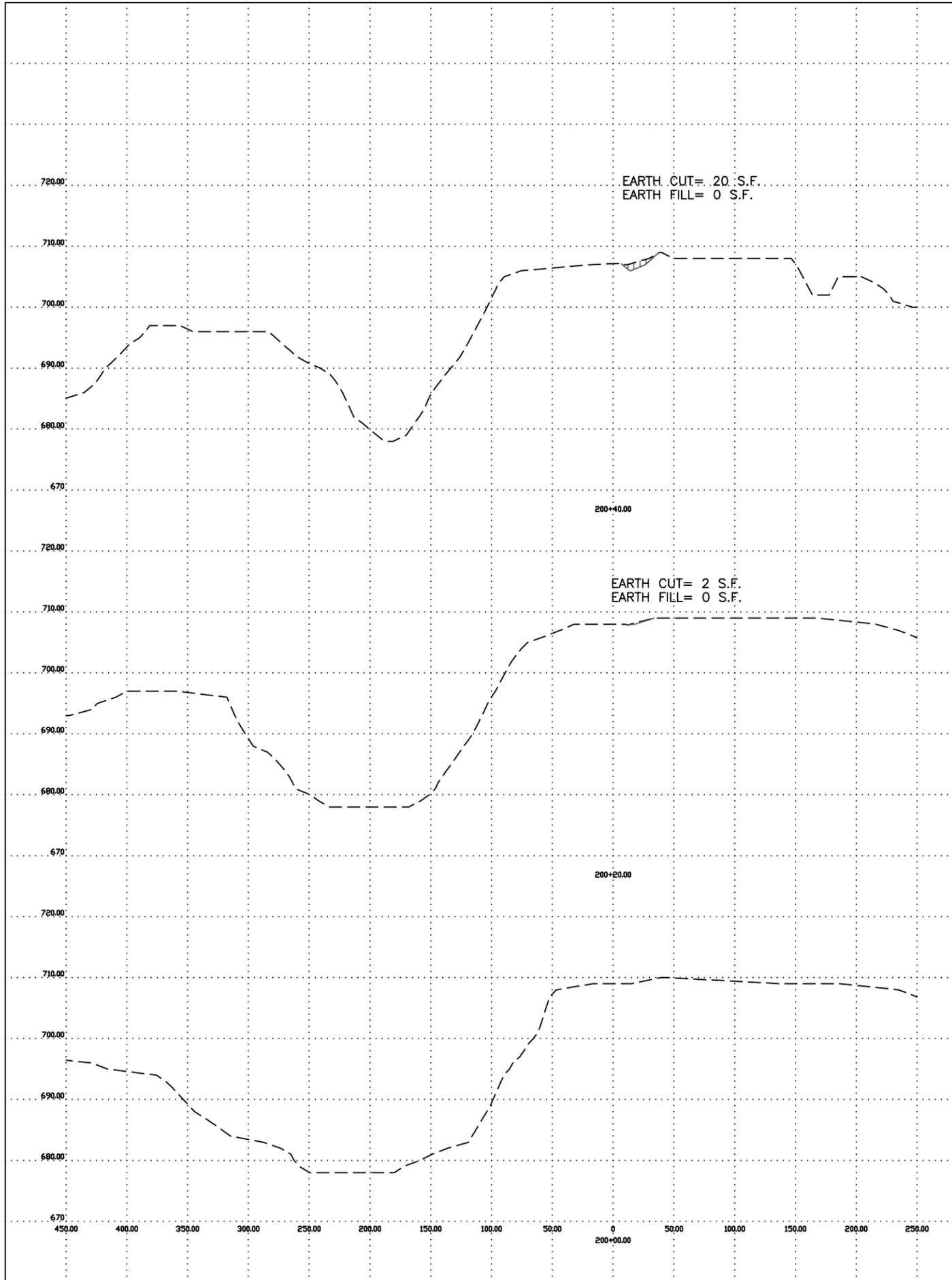
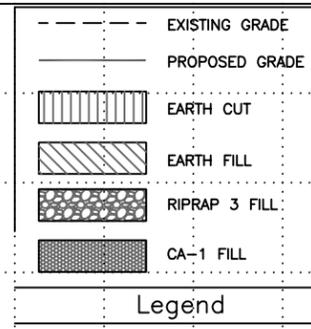


Horizontal Scale 20
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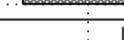




Horizontal Scale 50
Vertical Scale 10

Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuery County

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 0.4 S.F.
ROCK A-3 CUT= 0.0 S.F.
ROCK A-3 FILL= 0.4 S.F.
EARTH CUT= 7 S.F.
EARTH FILL= 621 S.F.

| | |
|---|----------------|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | EARTH CUT |
|  | EARTH FILL |
|  | RIPRAP 3 FILL |
|  | CA-1 FILL |

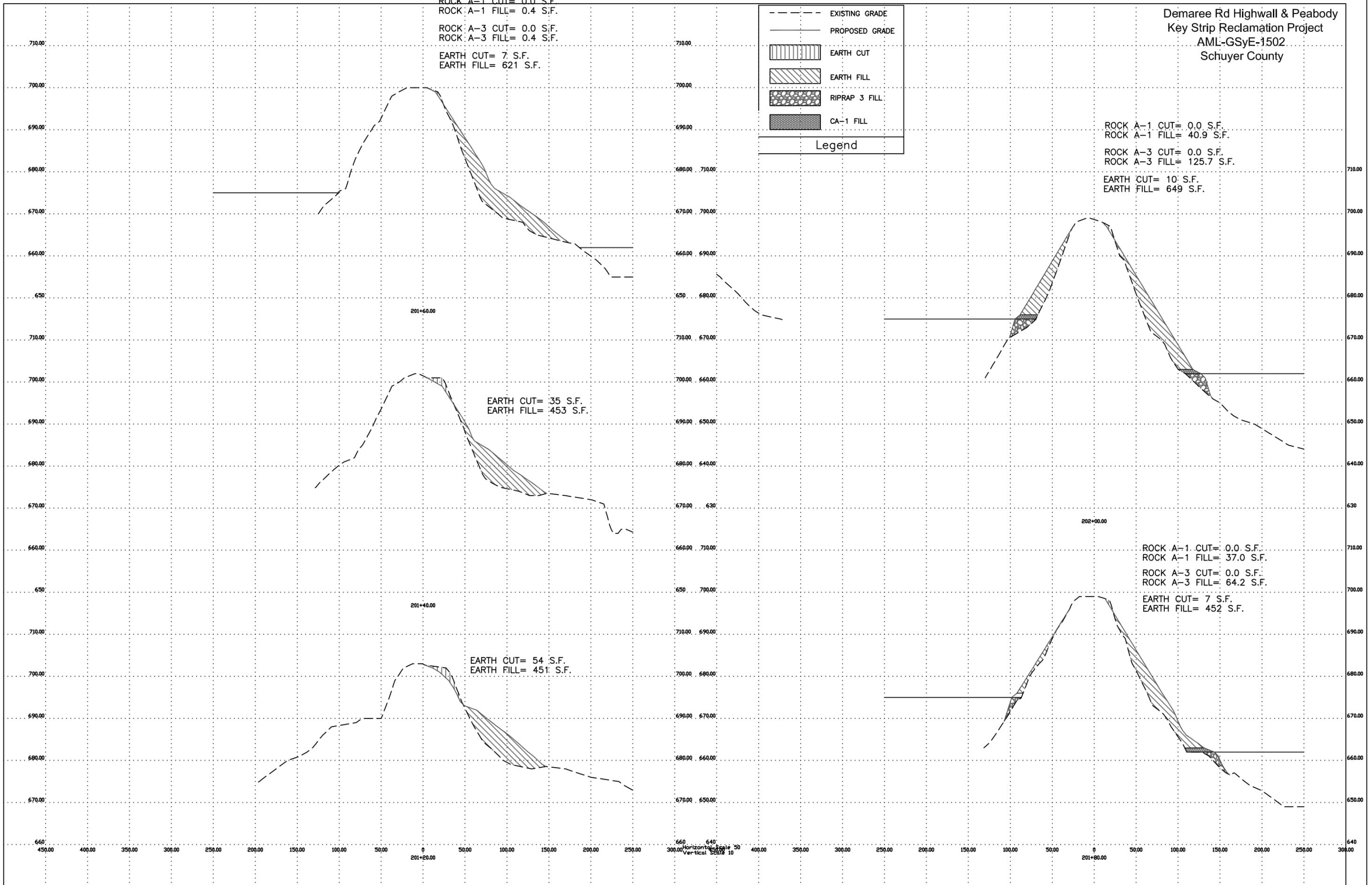
Legend

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 40.9 S.F.
ROCK A-3 CUT= 0.0 S.F.
ROCK A-3 FILL= 125.7 S.F.
EARTH CUT= 10 S.F.
EARTH FILL= 649 S.F.

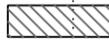
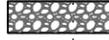
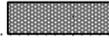
EARTH CUT= 35 S.F.
EARTH FILL= 453 S.F.

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 37.0 S.F.
ROCK A-3 CUT= 0.0 S.F.
ROCK A-3 FILL= 64.2 S.F.
EARTH CUT= 7 S.F.
EARTH FILL= 452 S.F.

EARTH CUT= 54 S.F.
EARTH FILL= 451 S.F.



Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuery County

- - - - - EXISTING GRADE
 ————— PROPOSED GRADE
 EARTH CUT
 EARTH FILL
 RIPRAP 3 FILL
 CA-1 FILL

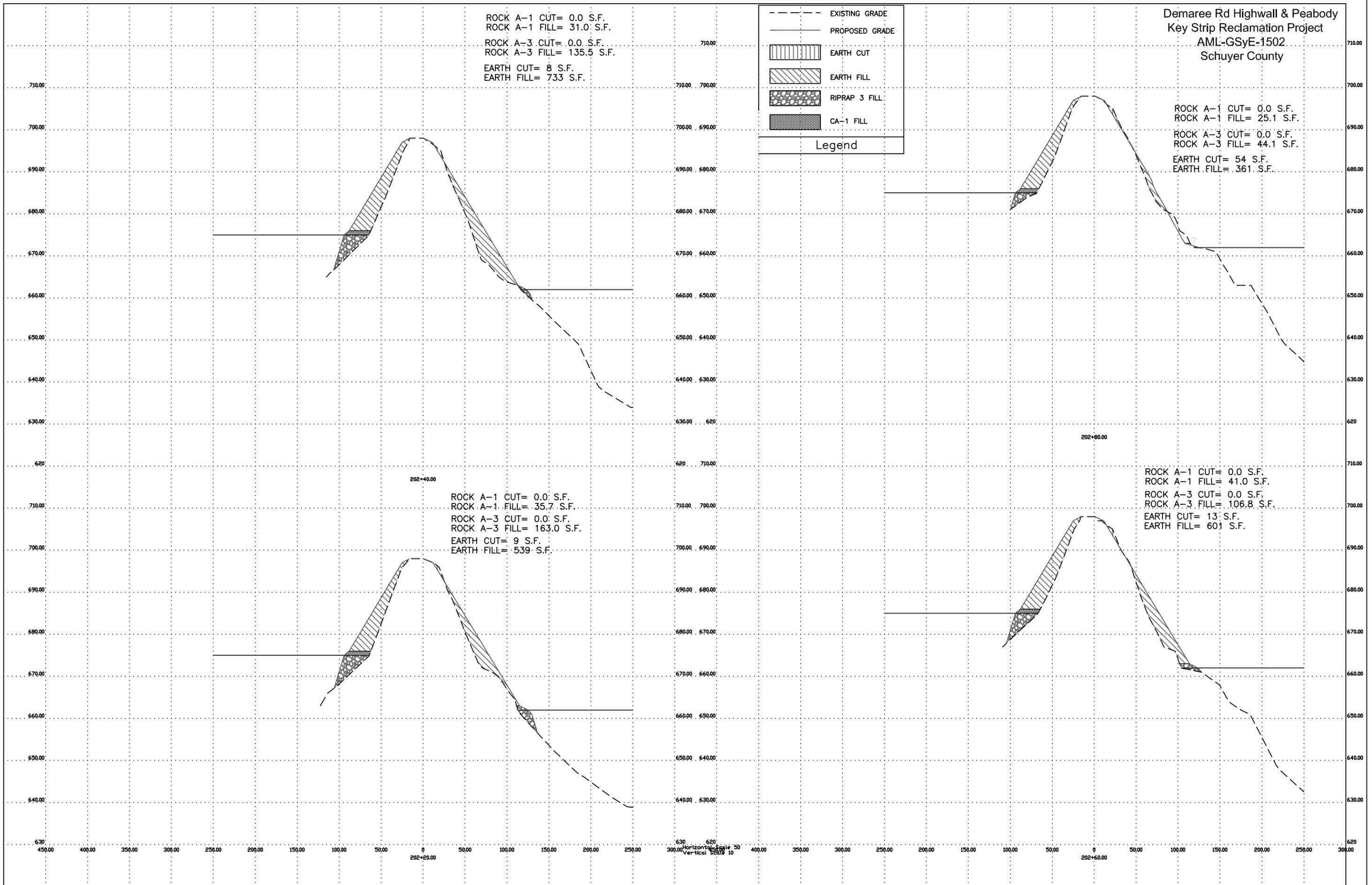
Legend

ROCK A-1 CUT= 0.0 S.F.
 ROCK A-1 FILL= 31.0 S.F.
 ROCK A-3 CUT= 0.0 S.F.
 ROCK A-3 FILL= 135.5 S.F.
 EARTH CUT= 8 S.F.
 EARTH FILL= 733 S.F.

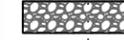
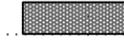
ROCK A-1 CUT= 0.0 S.F.
 ROCK A-1 FILL= 25.1 S.F.
 ROCK A-3 CUT= 0.0 S.F.
 ROCK A-3 FILL= 44.1 S.F.
 EARTH CUT= 54 S.F.
 EARTH FILL= 361 S.F.

ROCK A-1 CUT= 0.0 S.F.
 ROCK A-1 FILL= 35.7 S.F.
 ROCK A-3 CUT= 0.0 S.F.
 ROCK A-3 FILL= 163.0 S.F.
 EARTH CUT= 9 S.F.
 EARTH FILL= 539 S.F.

ROCK A-1 CUT= 0.0 S.F.
 ROCK A-1 FILL= 41.0 S.F.
 ROCK A-3 CUT= 0.0 S.F.
 ROCK A-3 FILL= 106.8 S.F.
 EARTH CUT= 13 S.F.
 EARTH FILL= 601 S.F.



Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

| | |
|---|----------------|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | EARTH CUT |
|  | EARTH FILL |
|  | RIPRAP 3 FILL |
|  | CA-1 FILL |

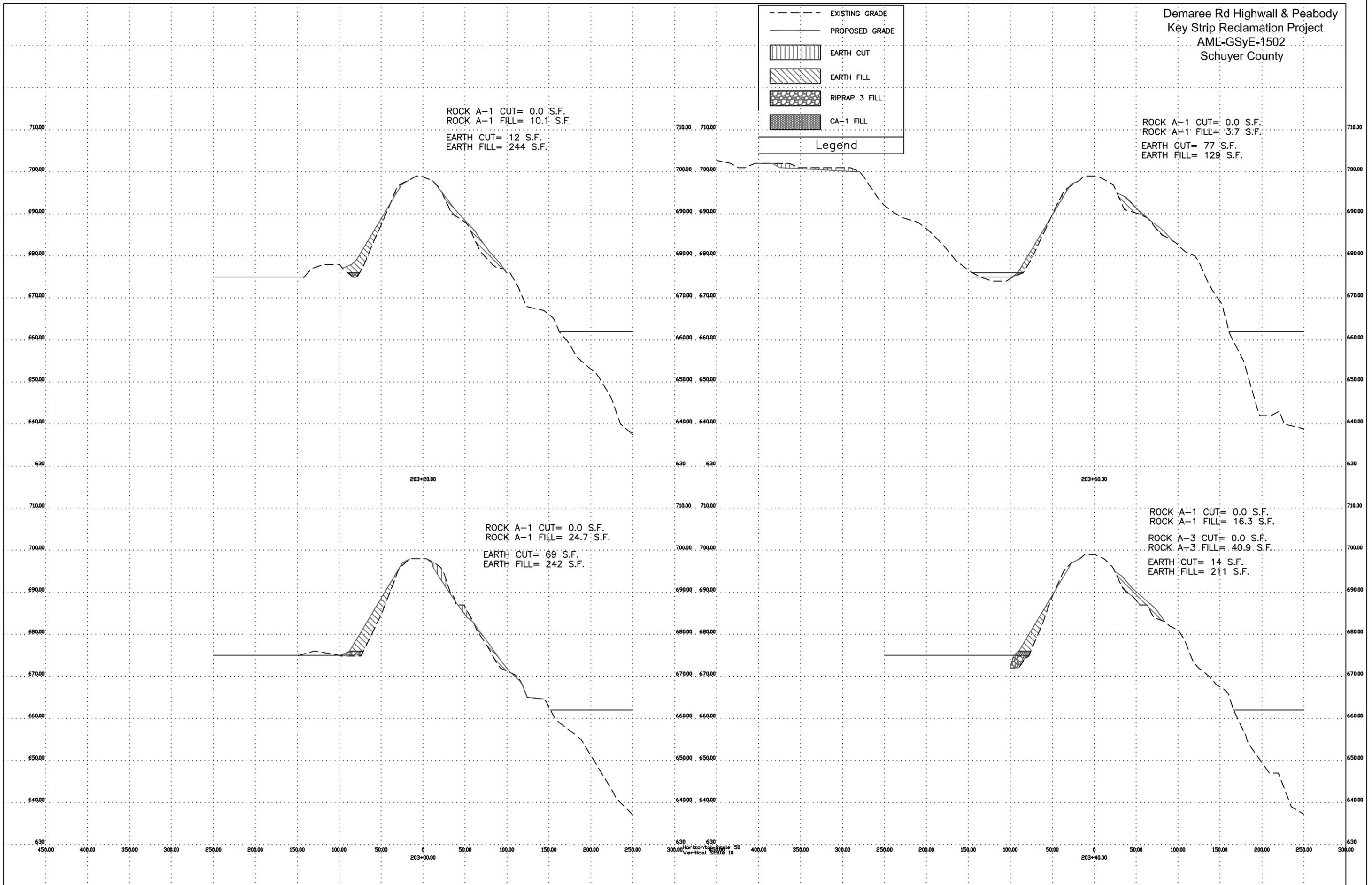
Legend

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 10.1 S.F.
EARTH CUT= 12 S.F.
EARTH FILL= 244 S.F.

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 3.7 S.F.
EARTH CUT= 77 S.F.
EARTH FILL= 129 S.F.

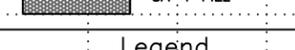
ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 24.7 S.F.
EARTH CUT= 69 S.F.
EARTH FILL= 242 S.F.

ROCK A-1 CUT= 0.0 S.F.
ROCK A-1 FILL= 16.3 S.F.
ROCK A-3 CUT= 0.0 S.F.
ROCK A-3 FILL= 40.9 S.F.
EARTH CUT= 14 S.F.
EARTH FILL= 211 S.F.

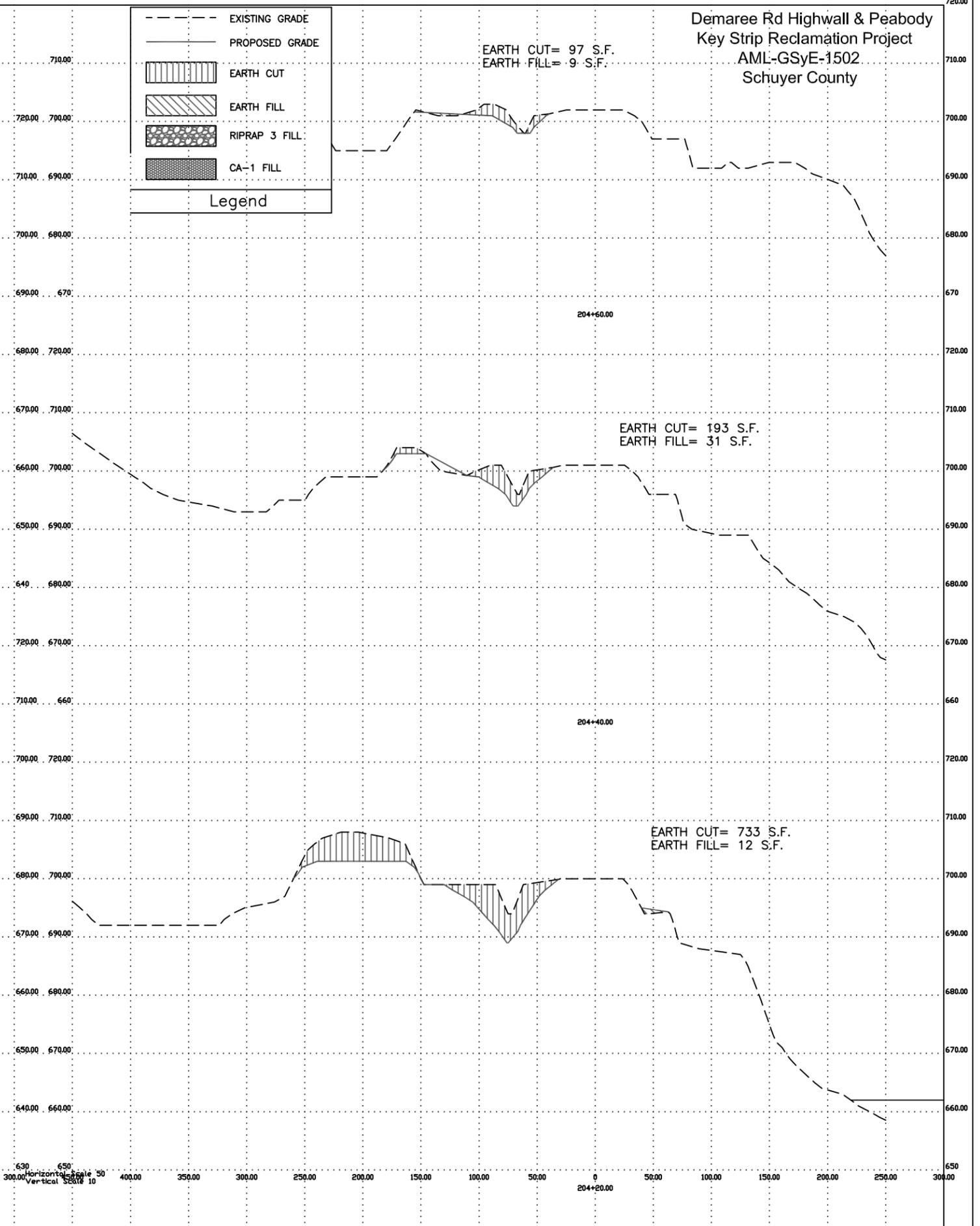
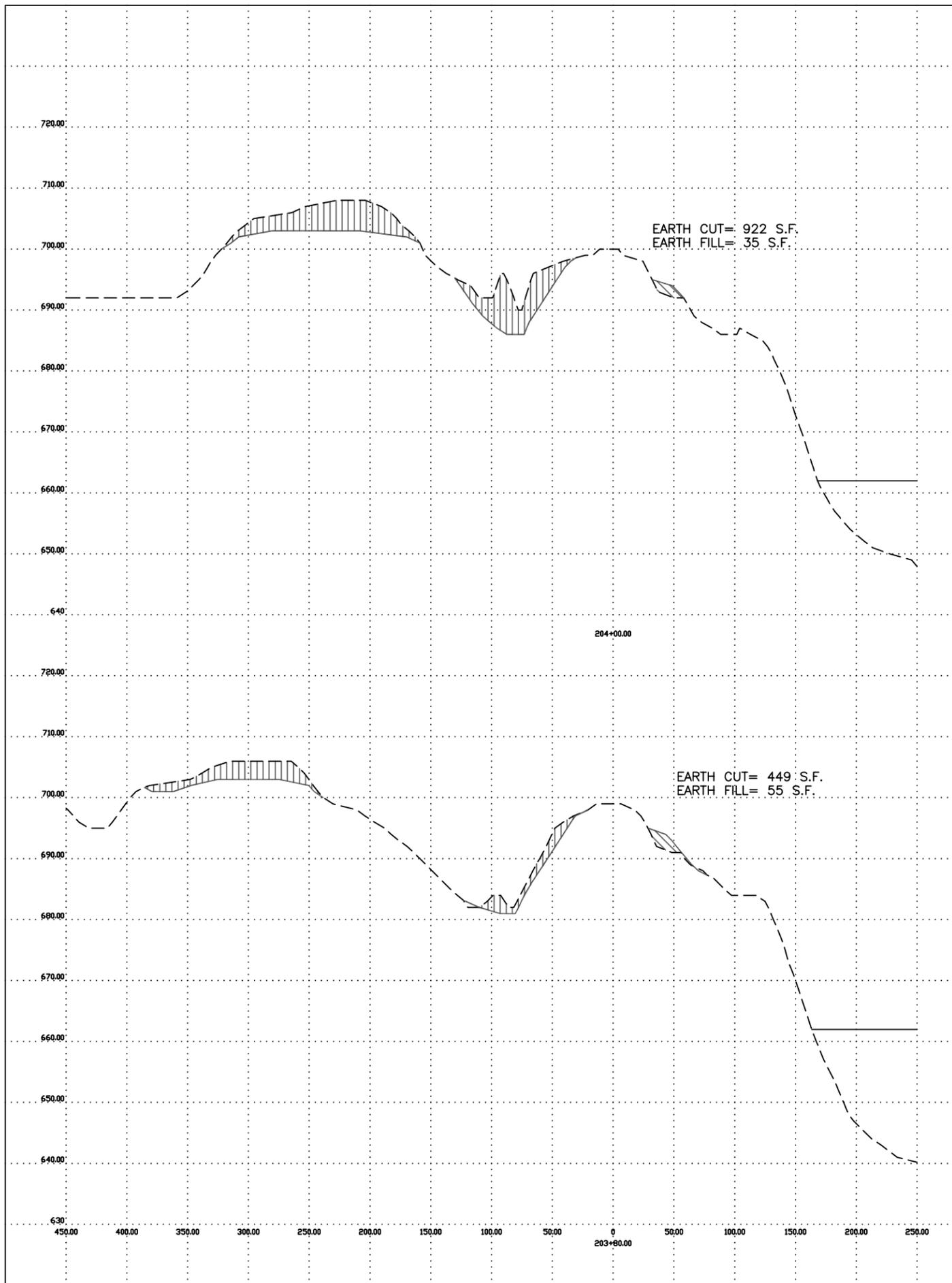


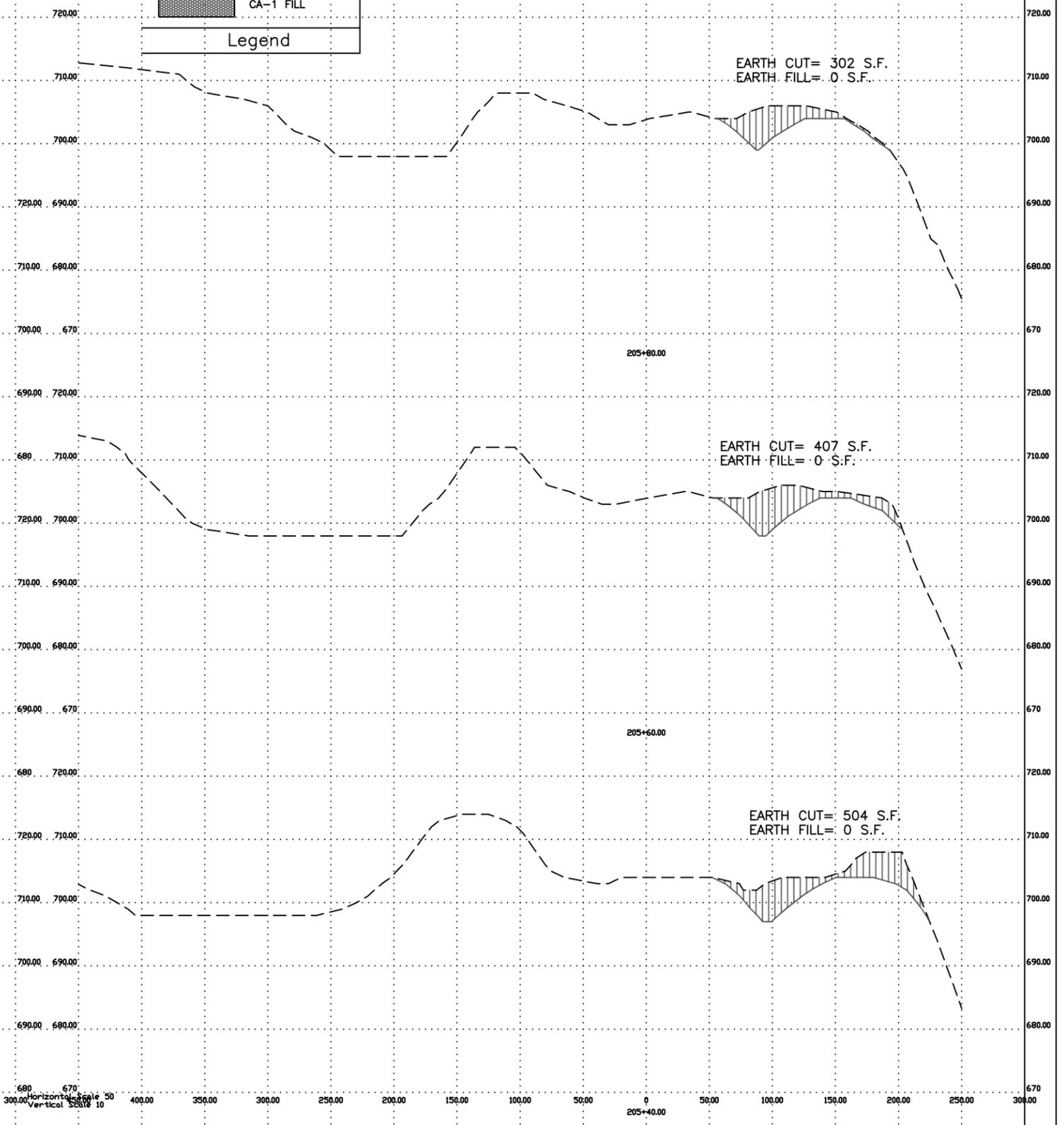
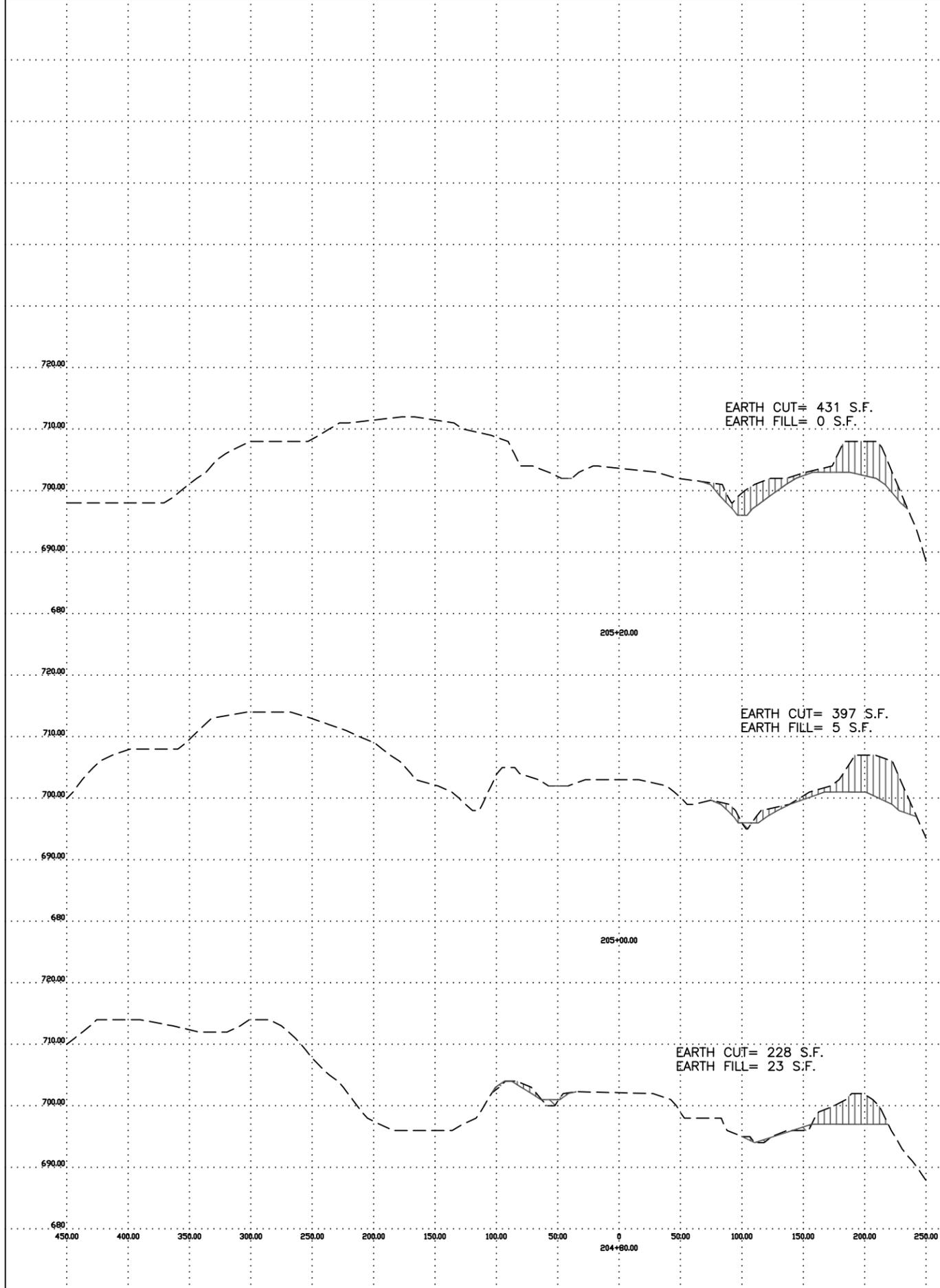
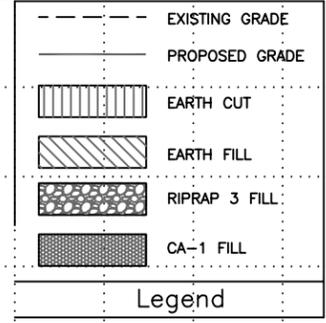
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Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

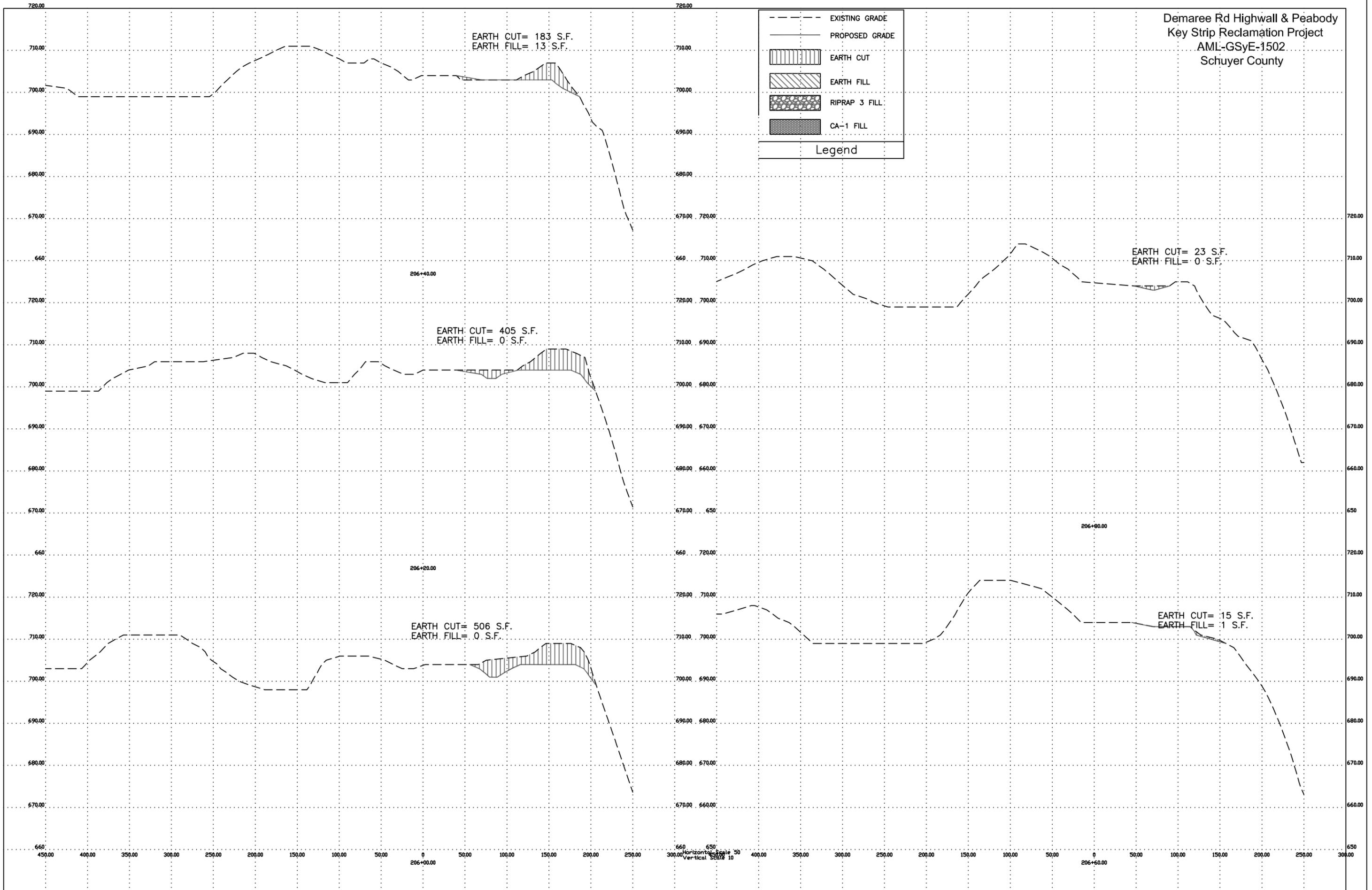
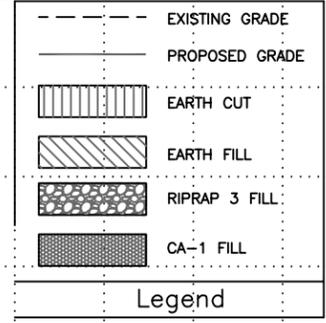
| | |
|---|----------------|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | EARTH CUT |
|  | EARTH FILL |
|  | RIPRAP 3 FILL |
|  | CA-1 FILL |

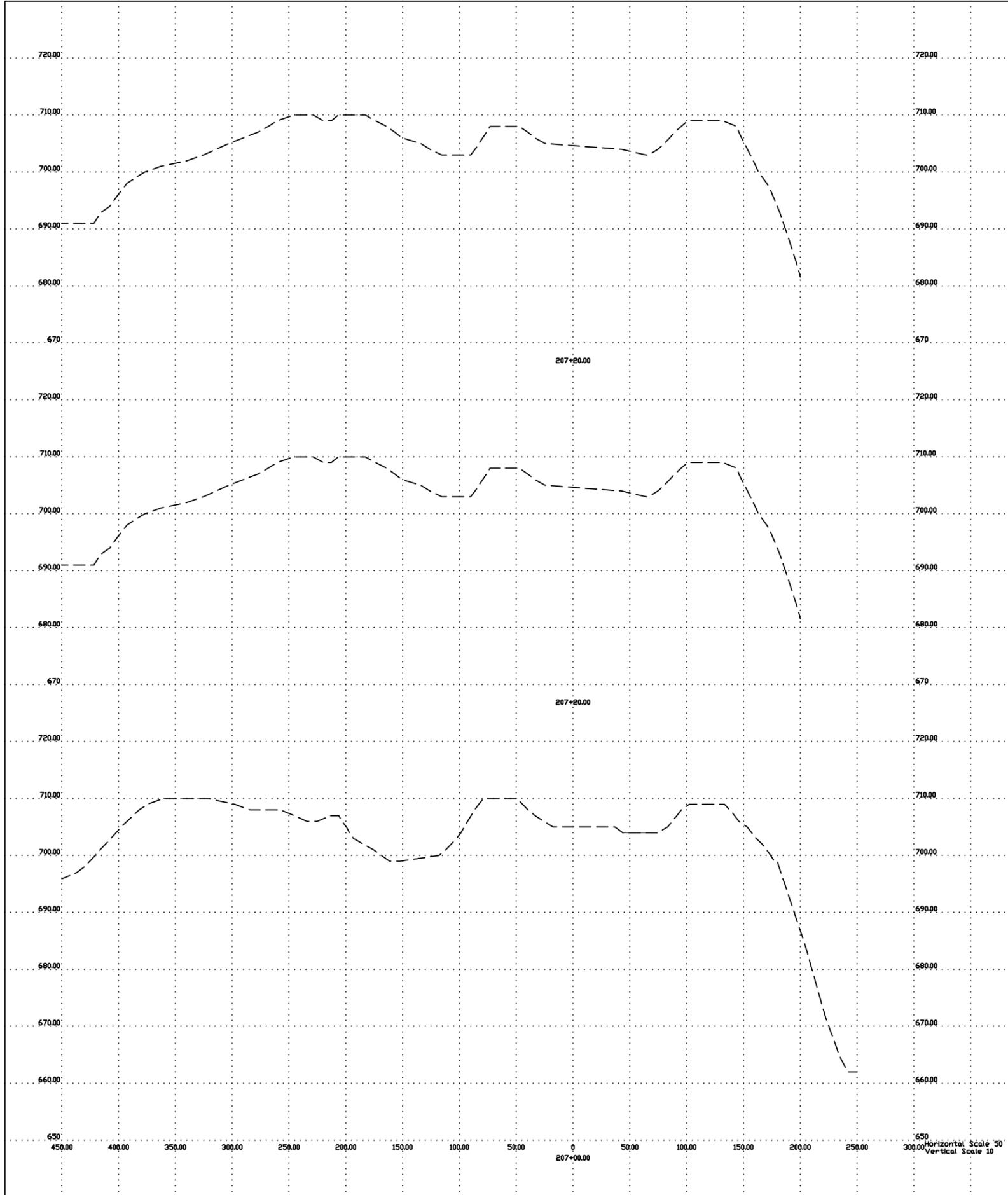
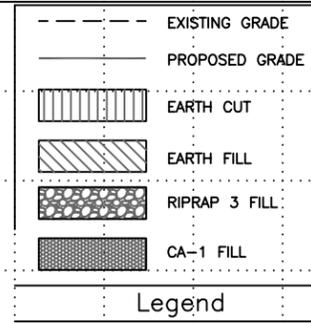
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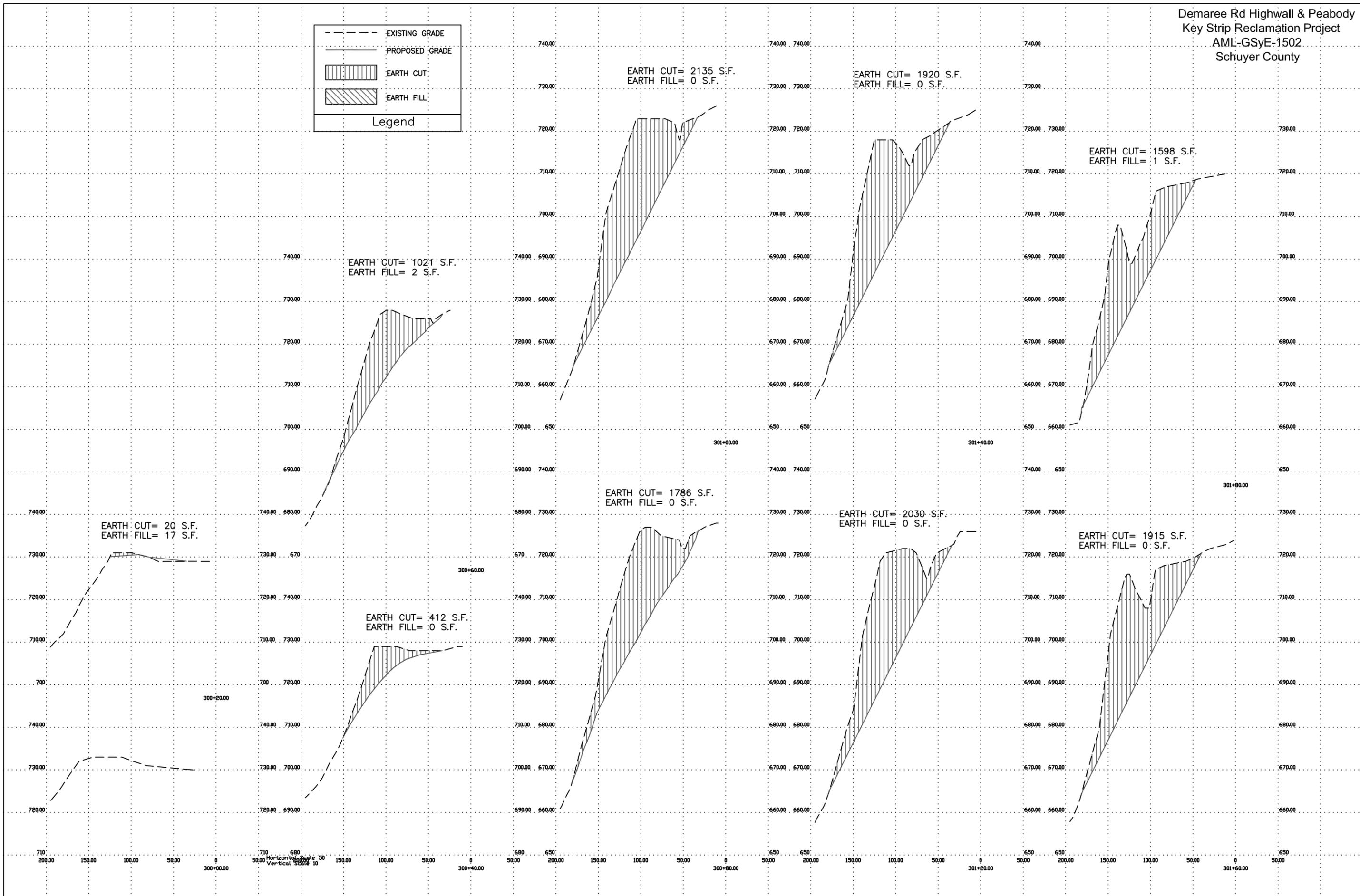
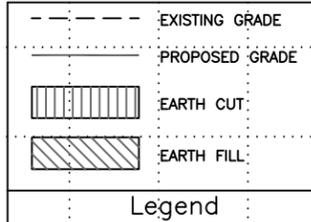


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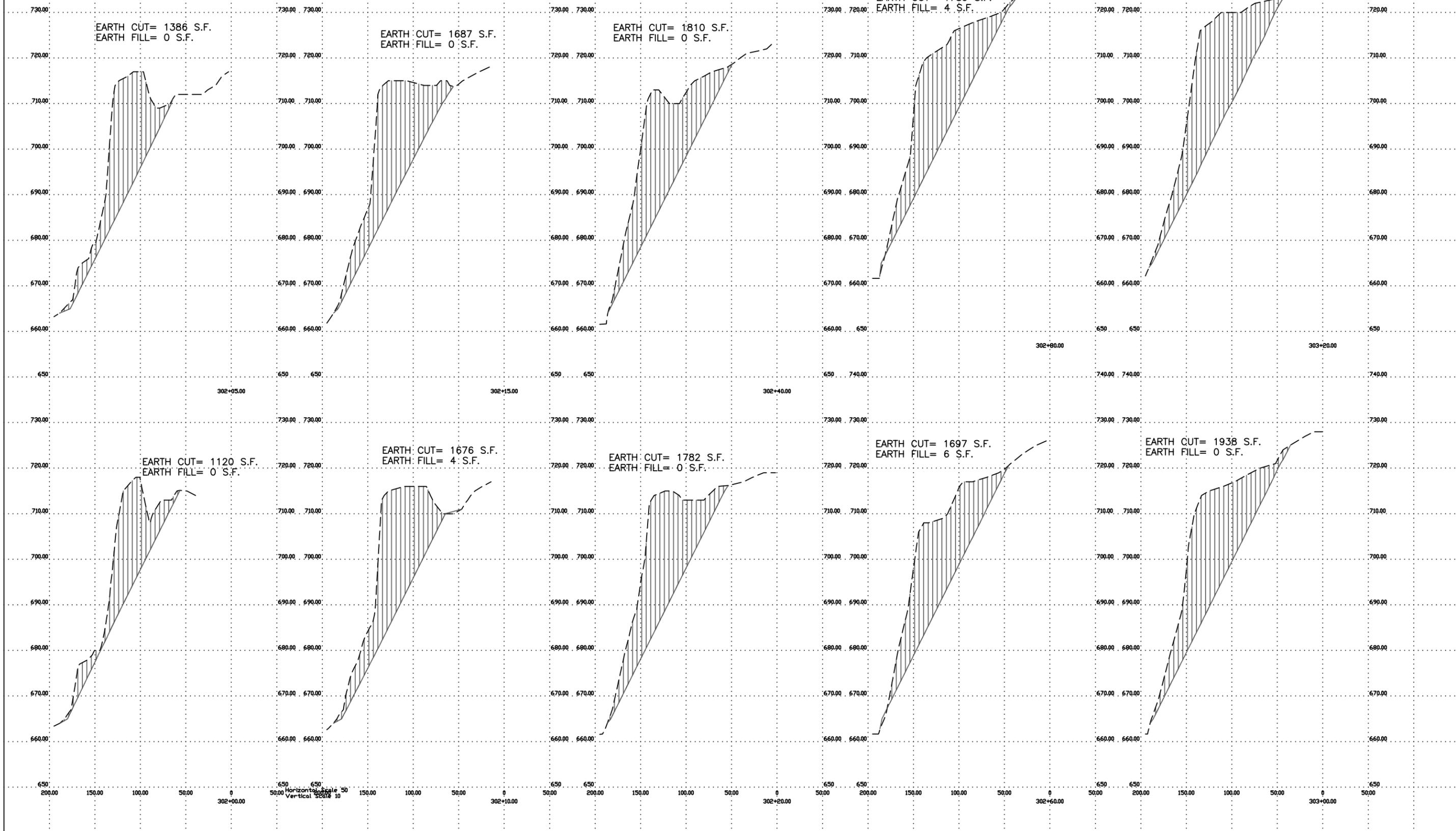
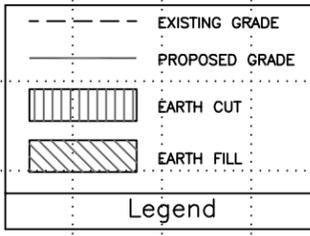


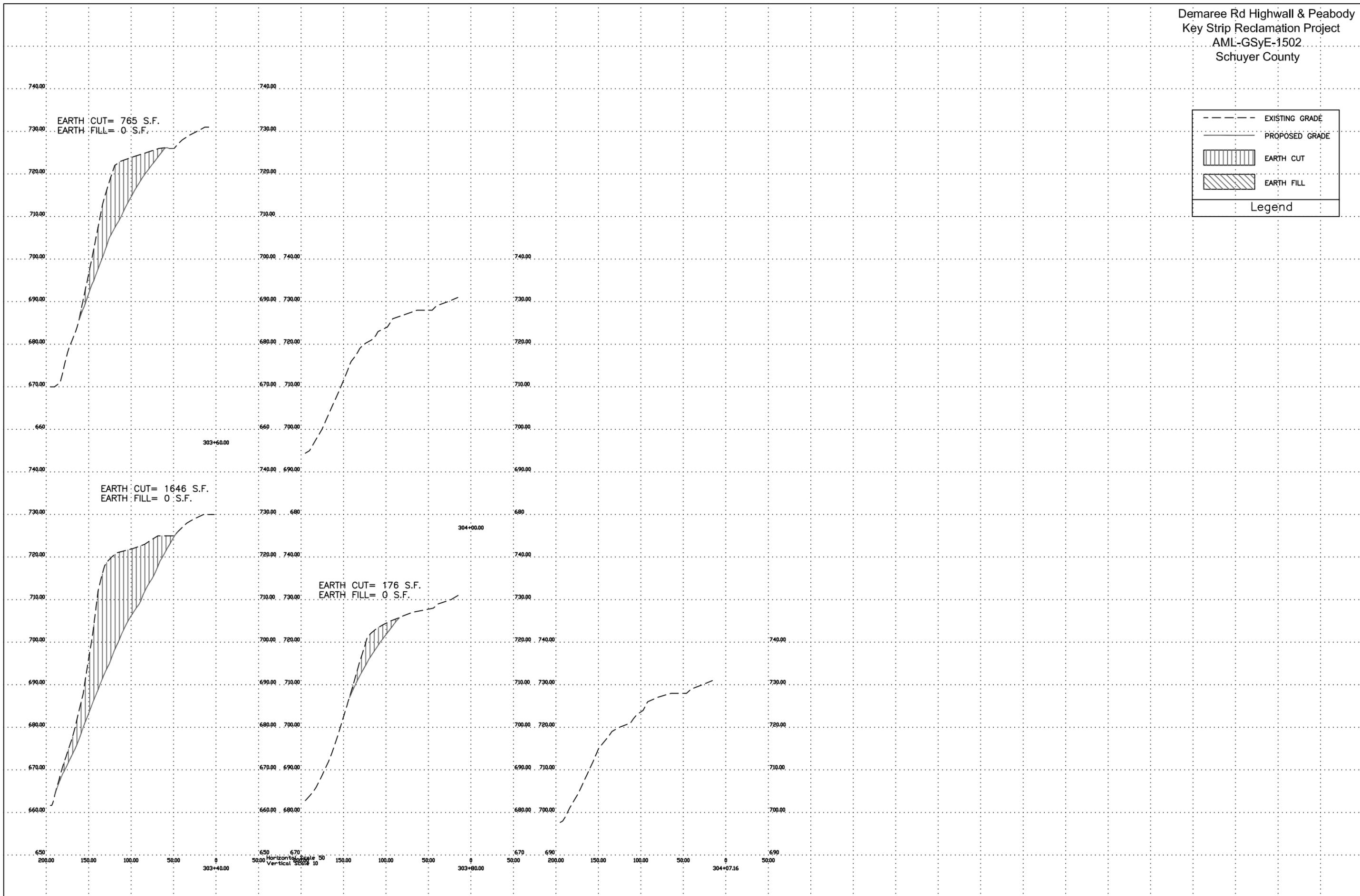
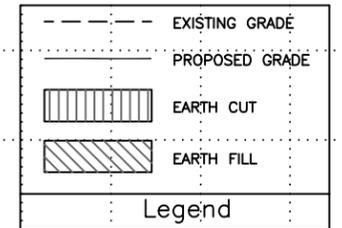


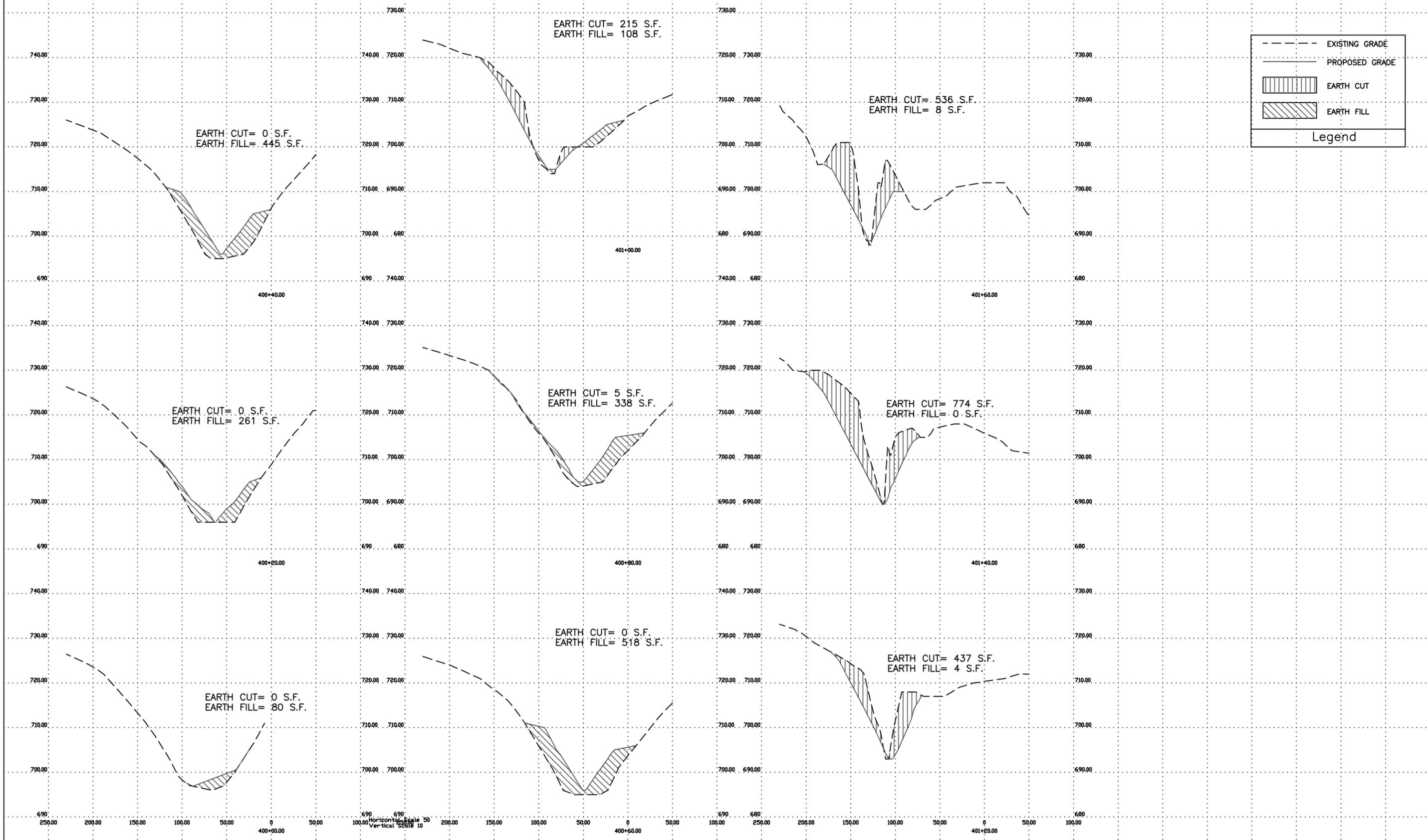
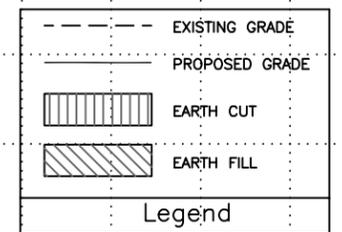
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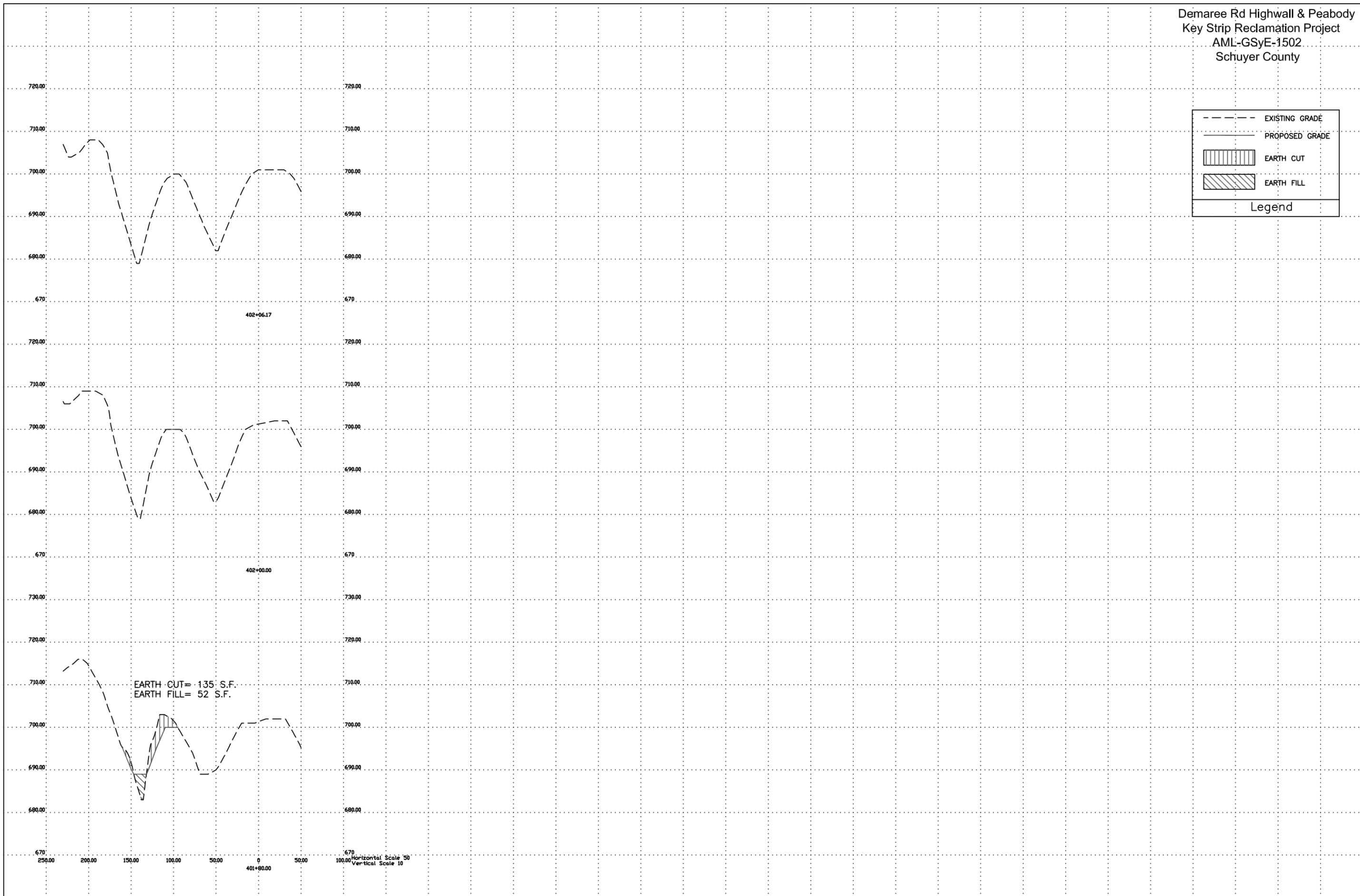
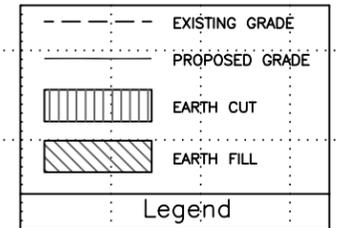
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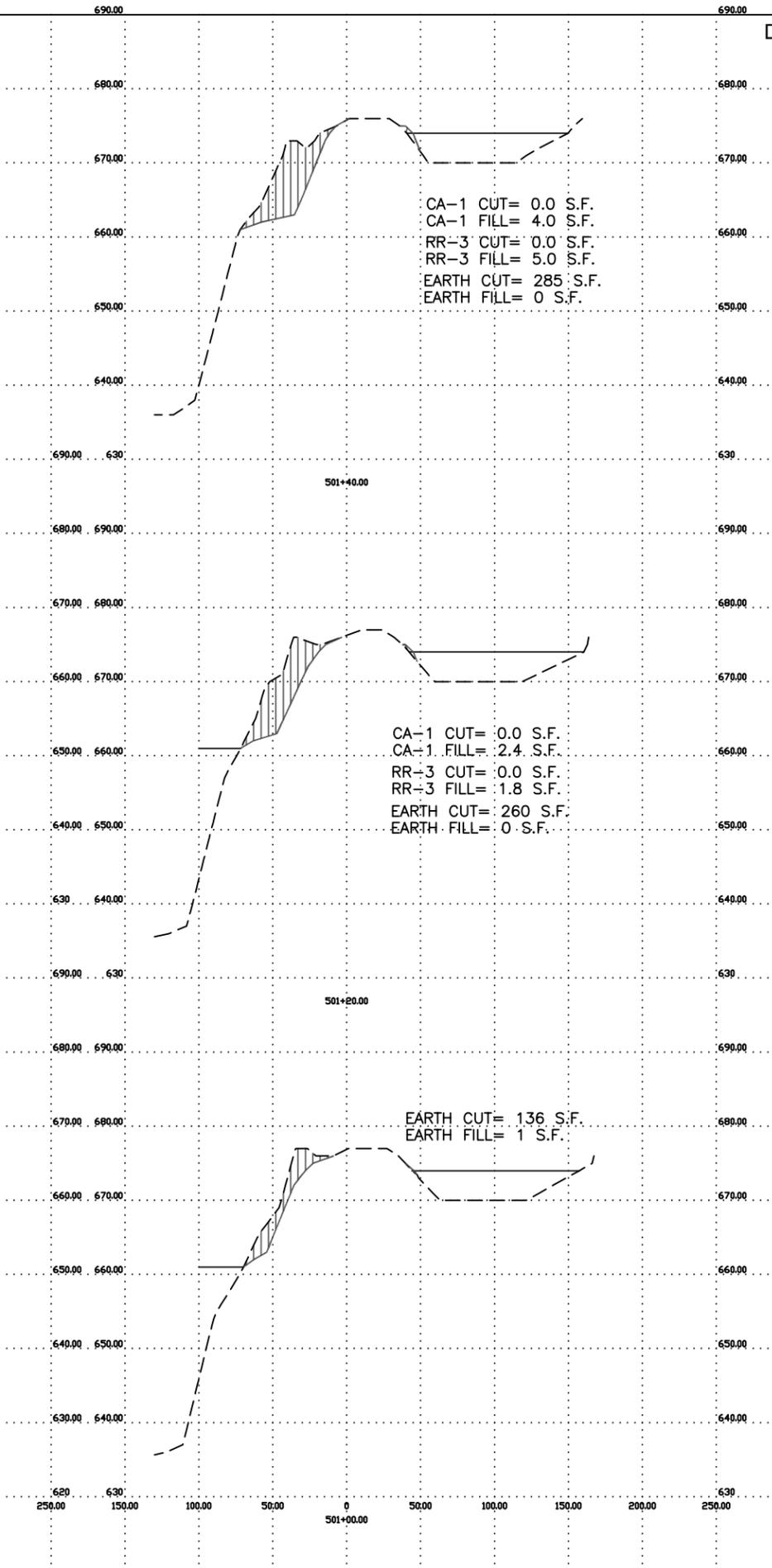
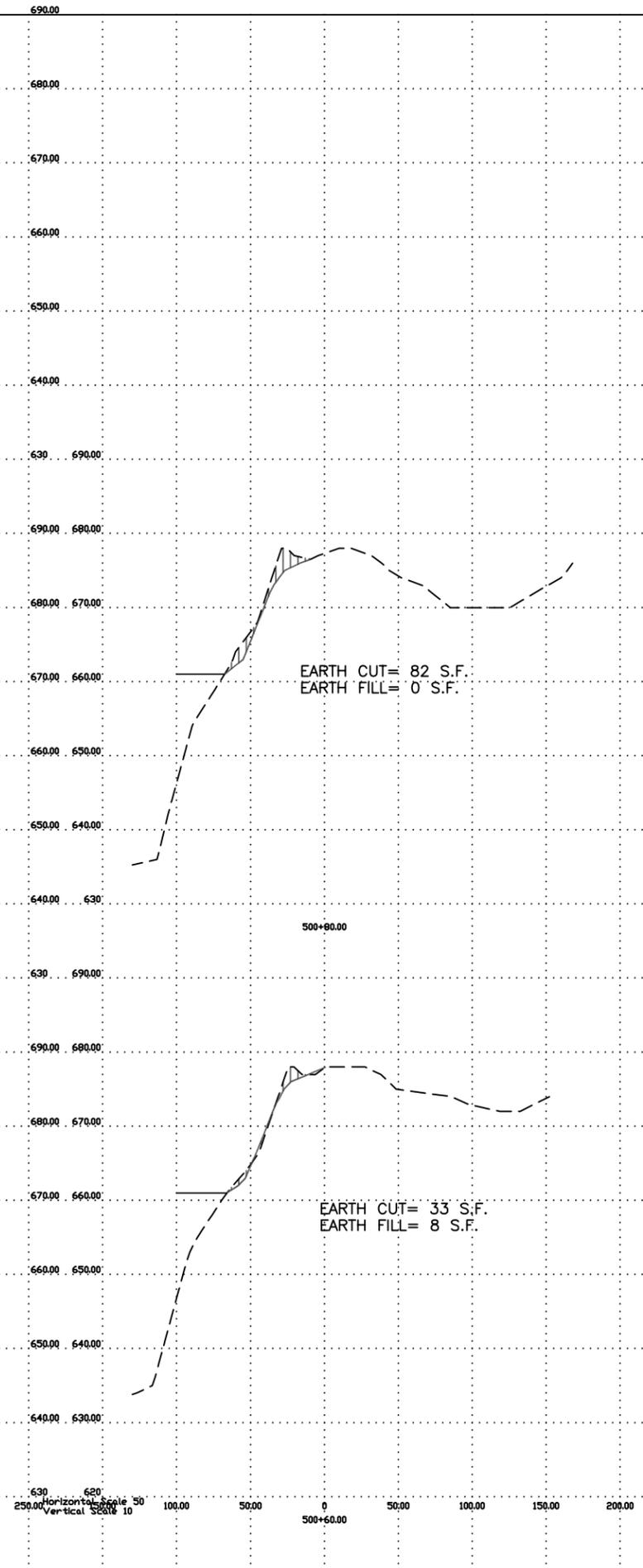
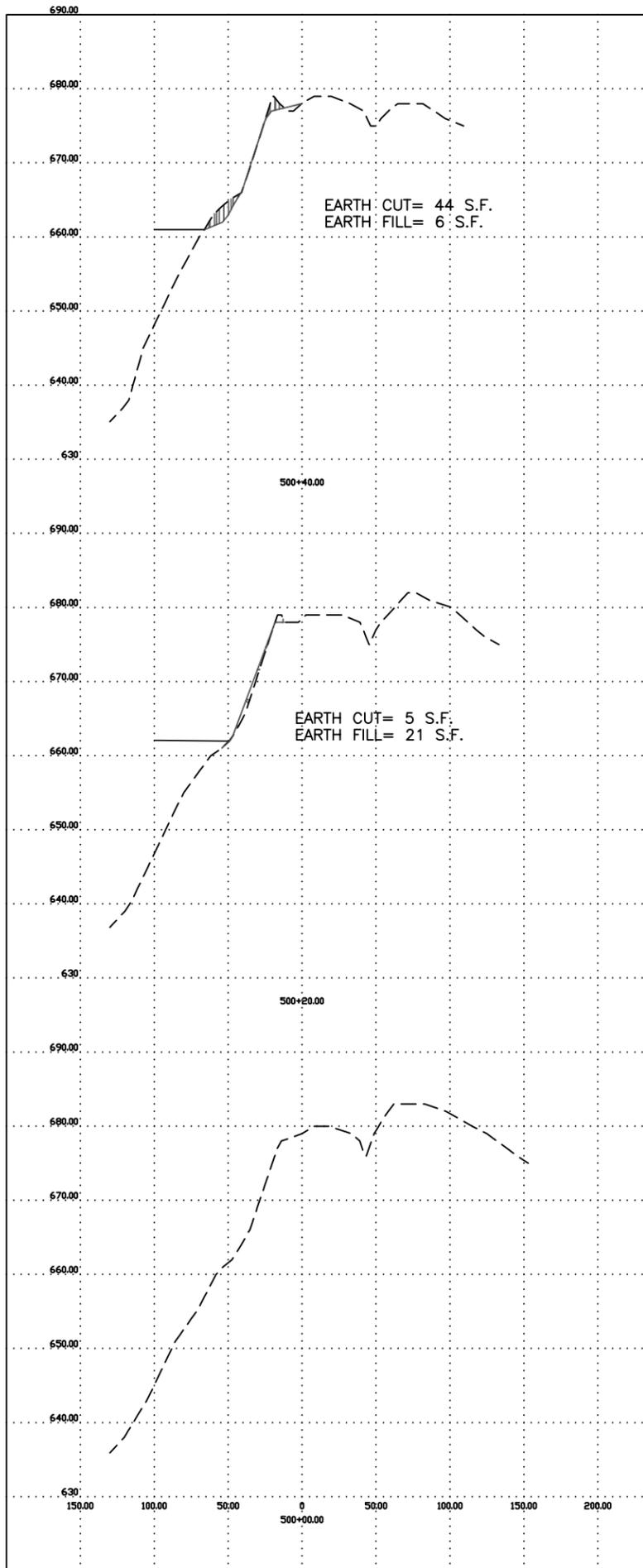
Horizontal Scale 50
Vertical Scale 10



Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

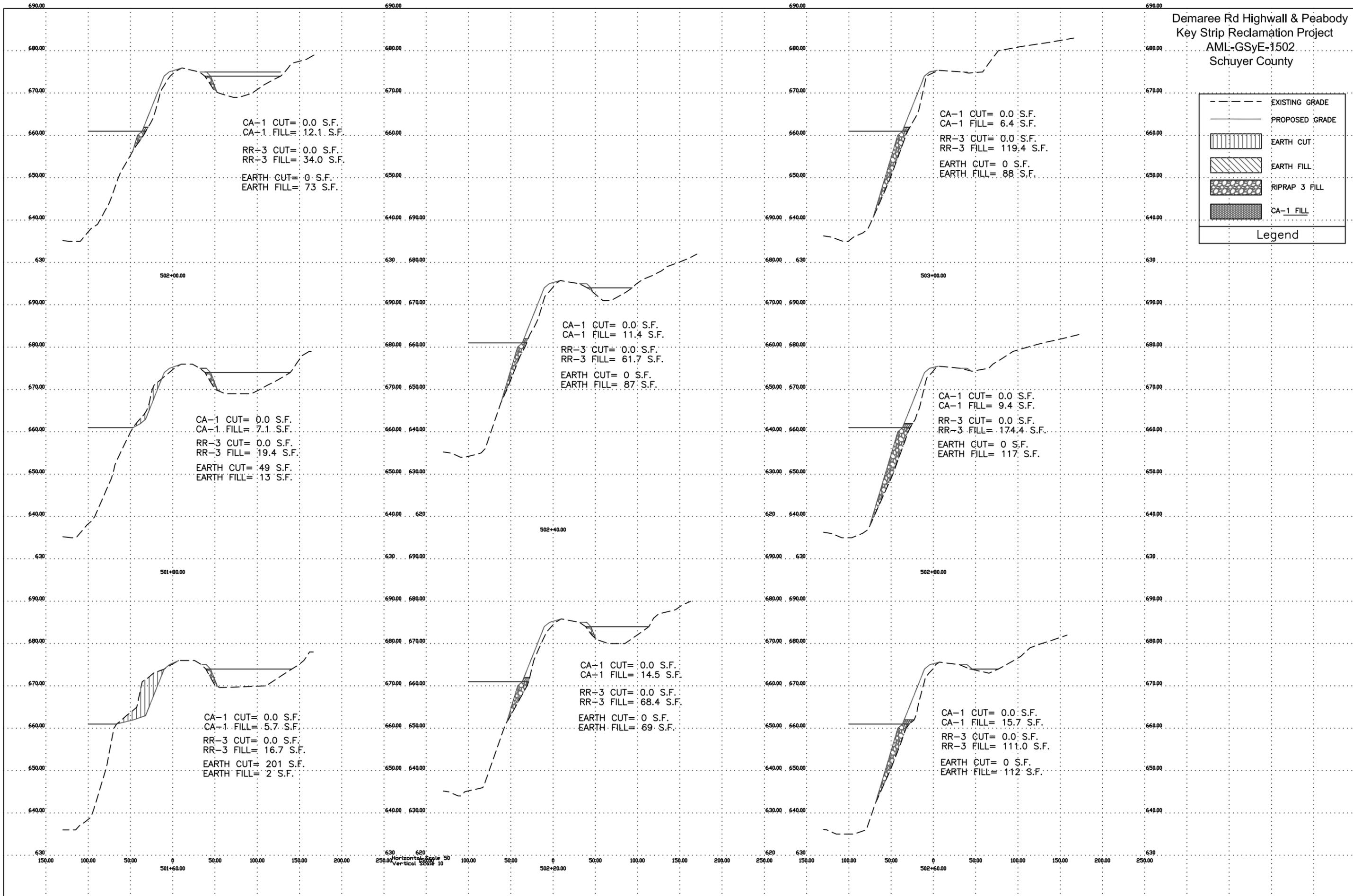
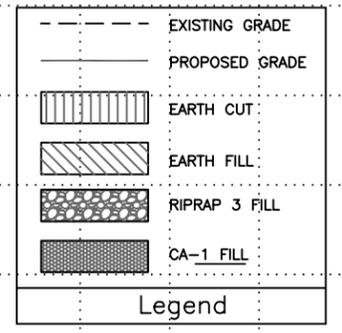
Legend

- EXISTING GRADE
- PROPOSED GRADE
- [Hatched Box] EARTH CUT
- [Diagonal Hatched Box] EARTH FILL
- [Stippled Box] RIPRAP 3 FILL
- [Cross-hatched Box] CA-1 FILL



Horizontal Scale 50
Vertical Scale 10

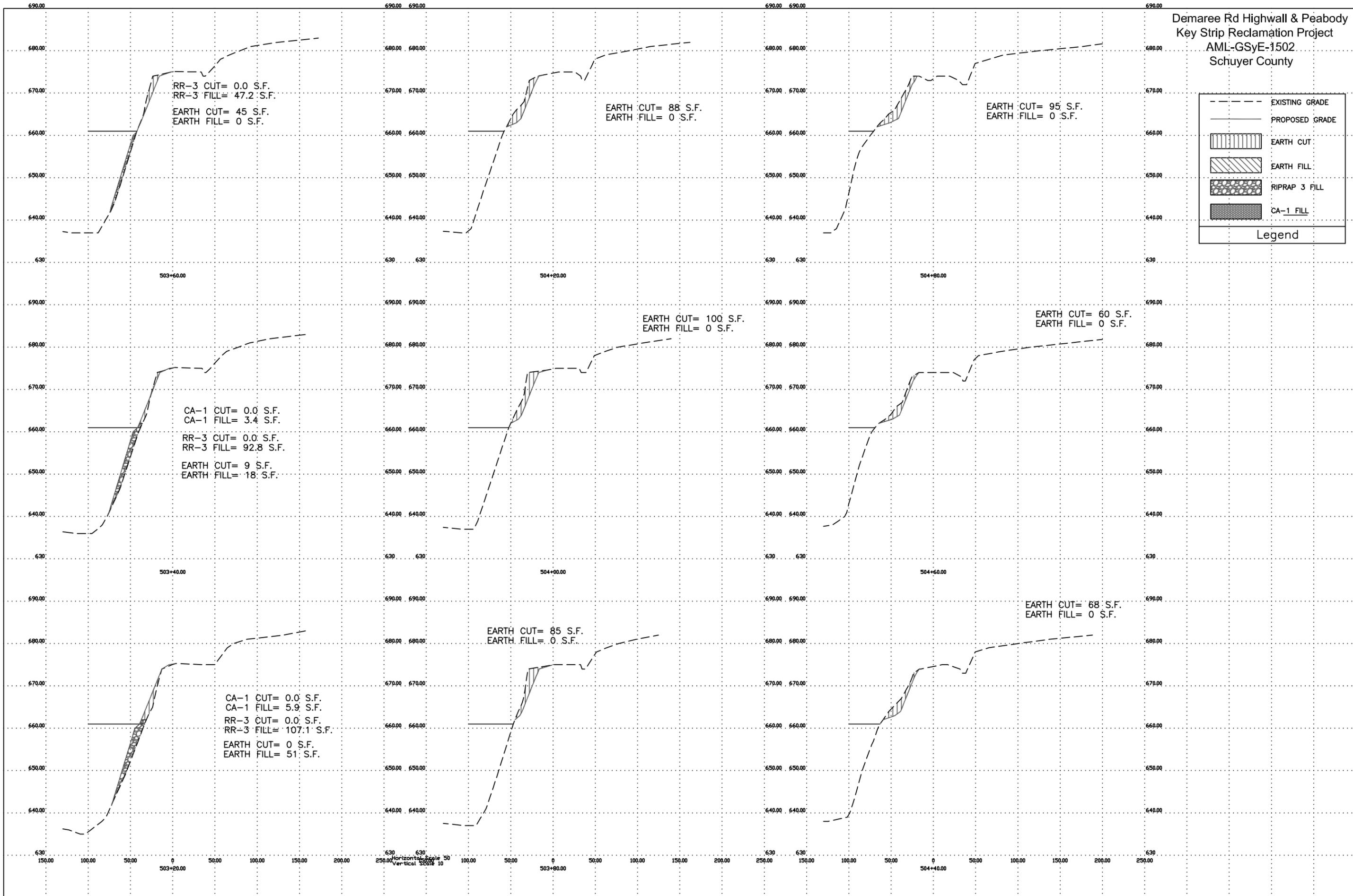
Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

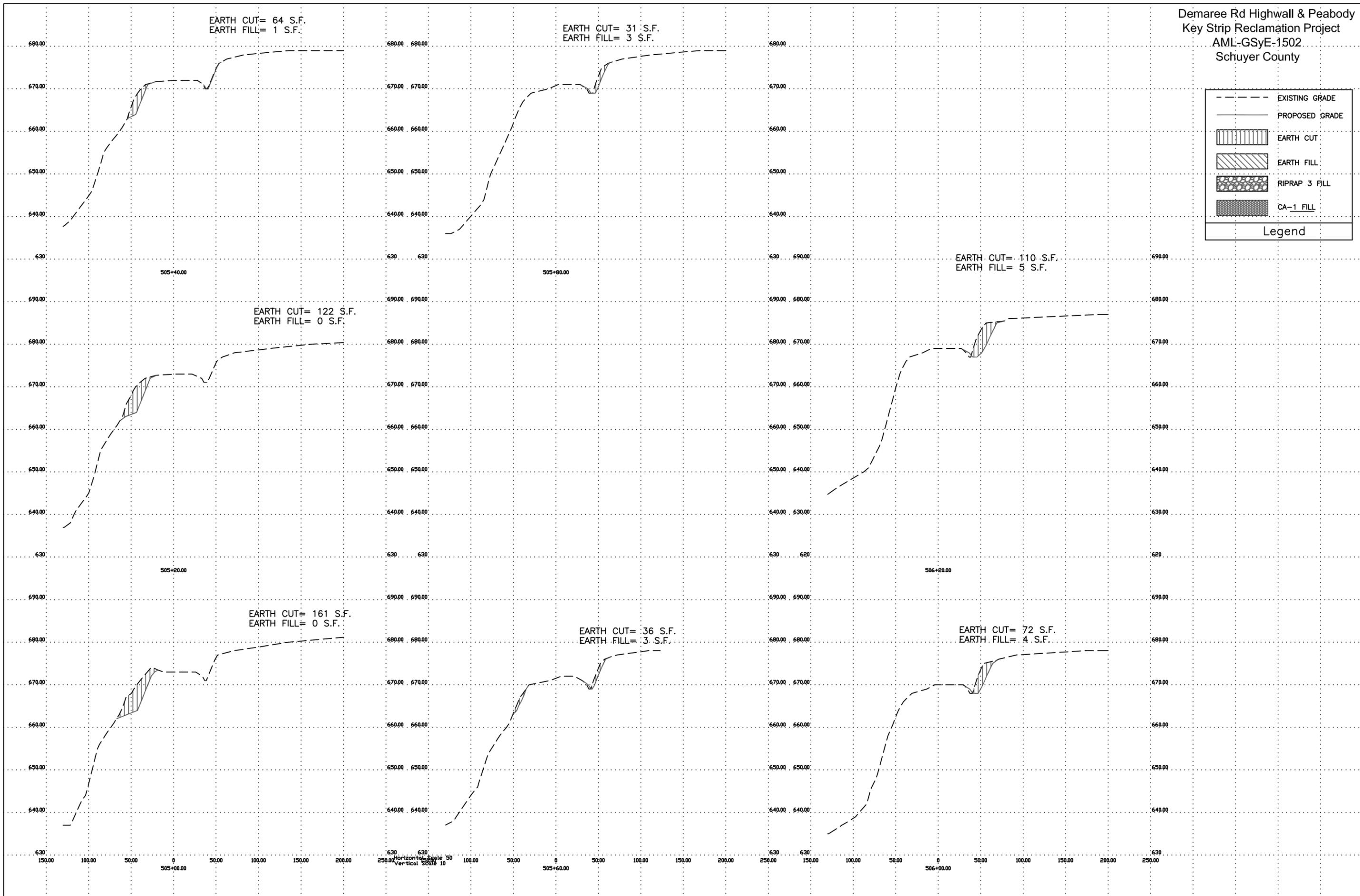
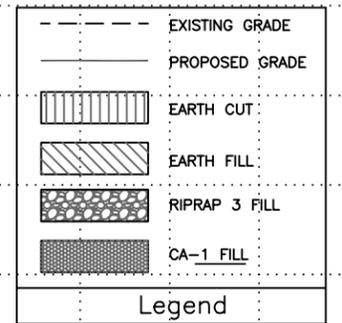


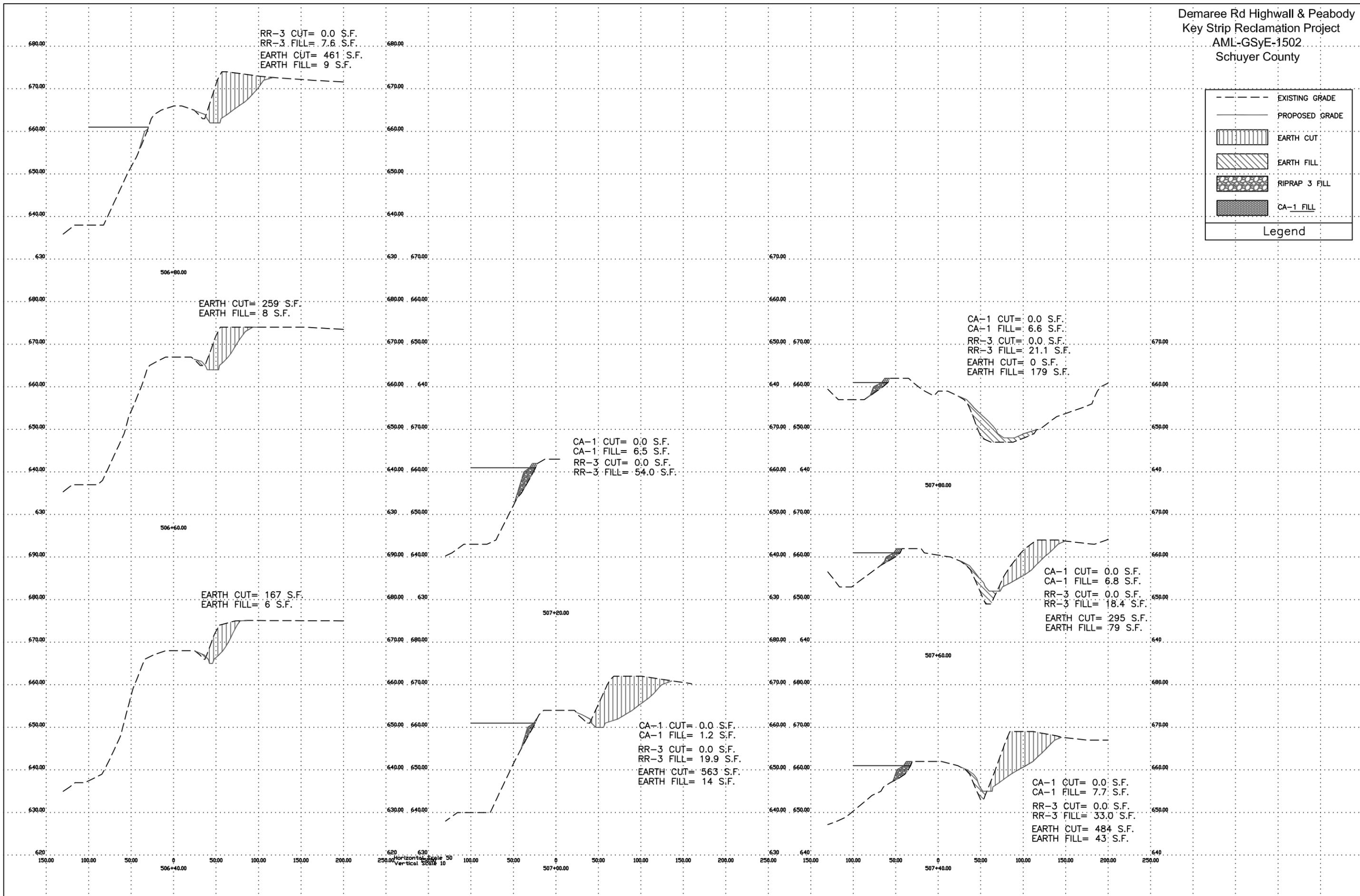
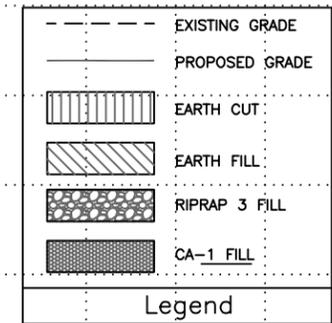
Demaree Rd Highwall & Peabody
Key Strip Reclamation Project
AML-GSyE-1502
Schuyler County

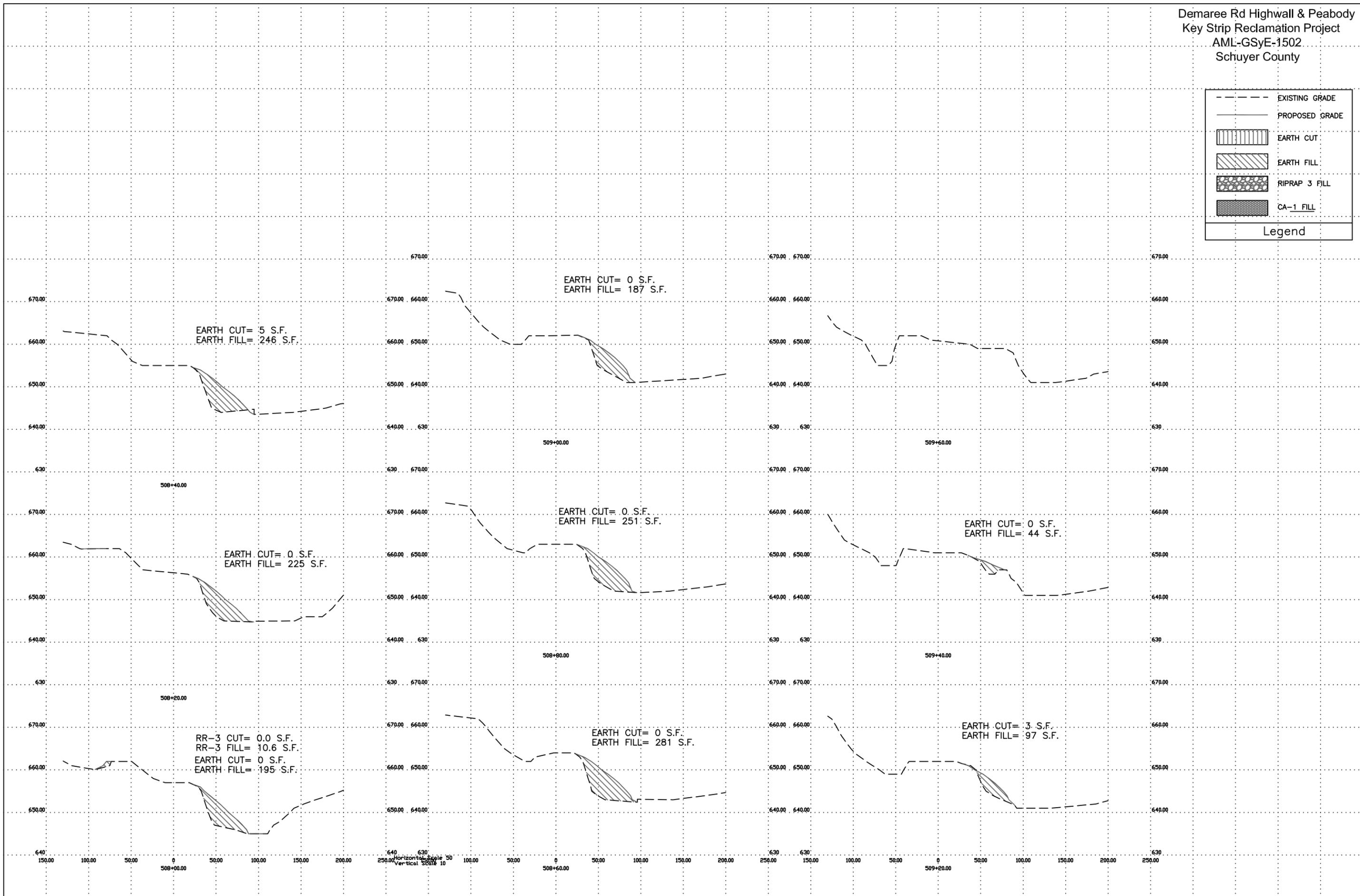
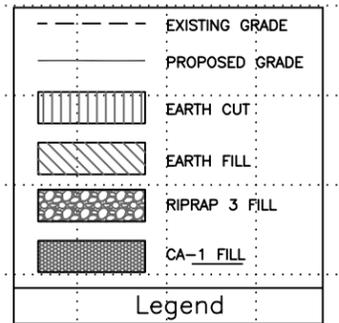
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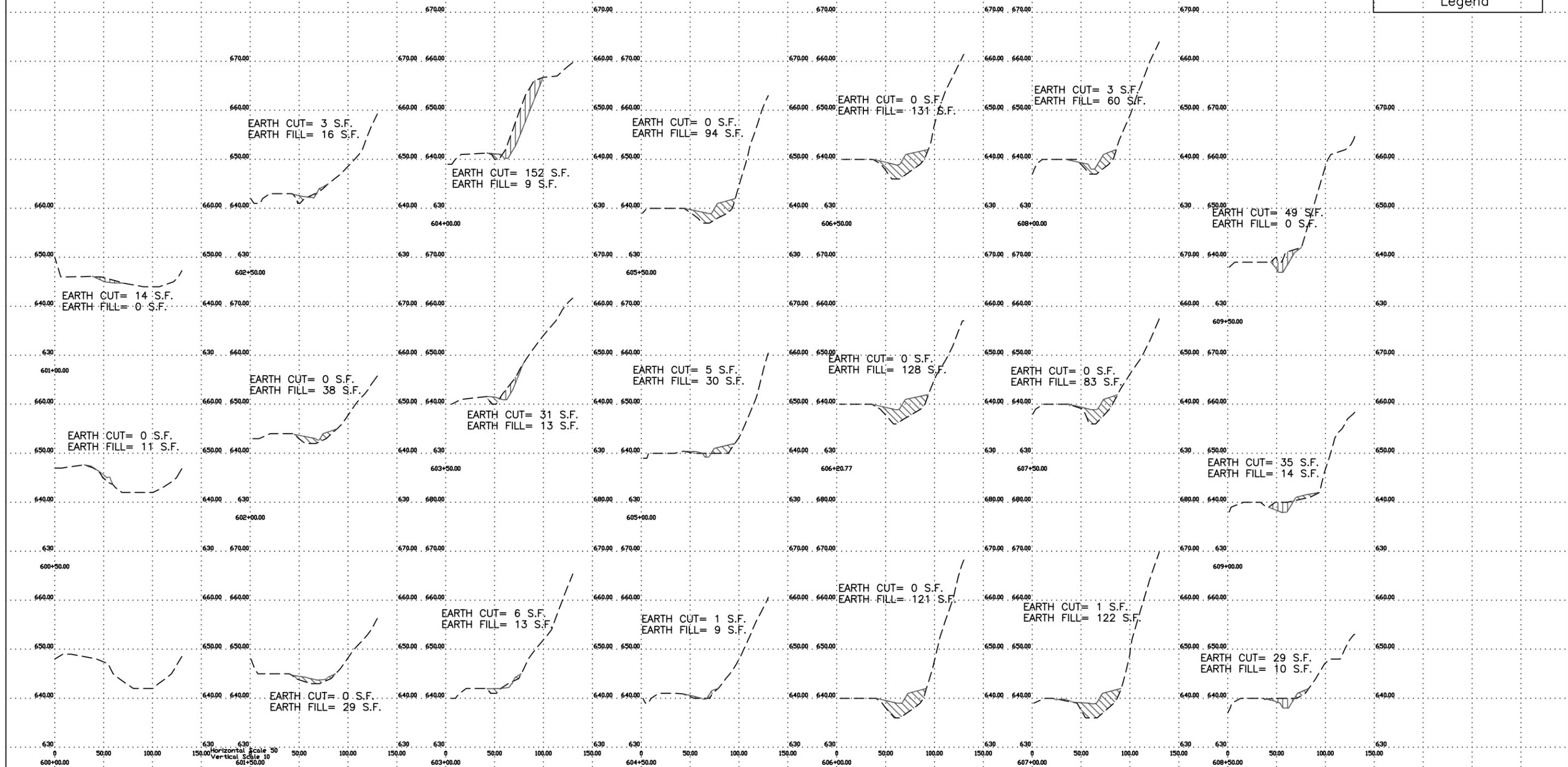
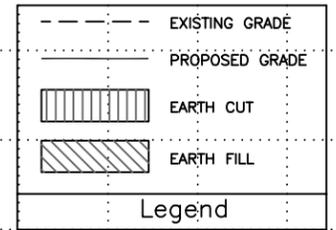
- EXISTING GRADE
- PROPOSED GRADE
- [Hatched Box] EARTH CUT
- [Diagonal Lines Box] EARTH FILL
- [Stippled Box] RIPRAP 3 FILL
- [Cross-hatched Box] CA-1 FILL

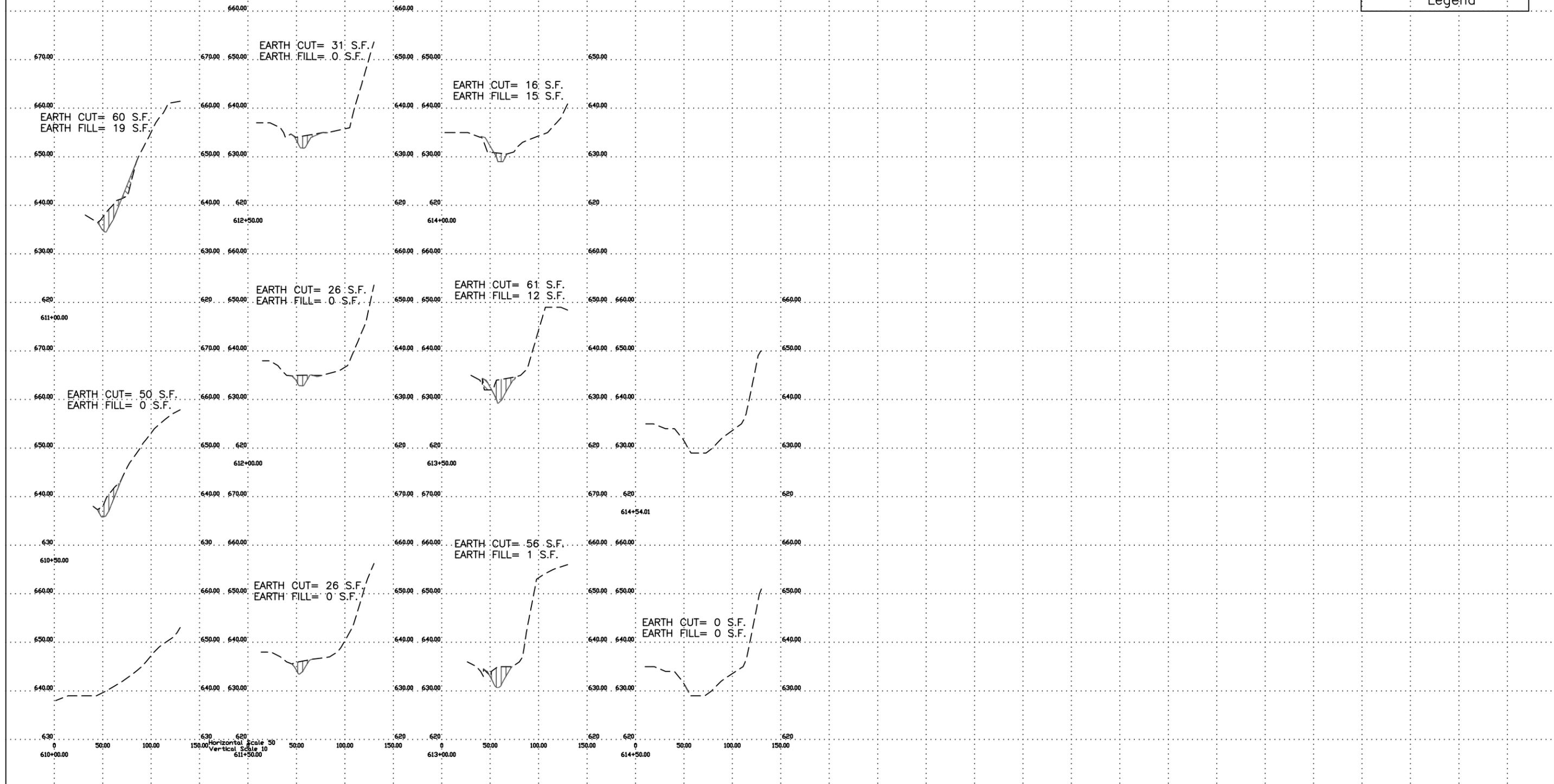
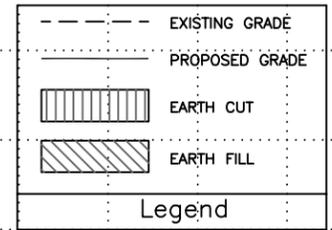


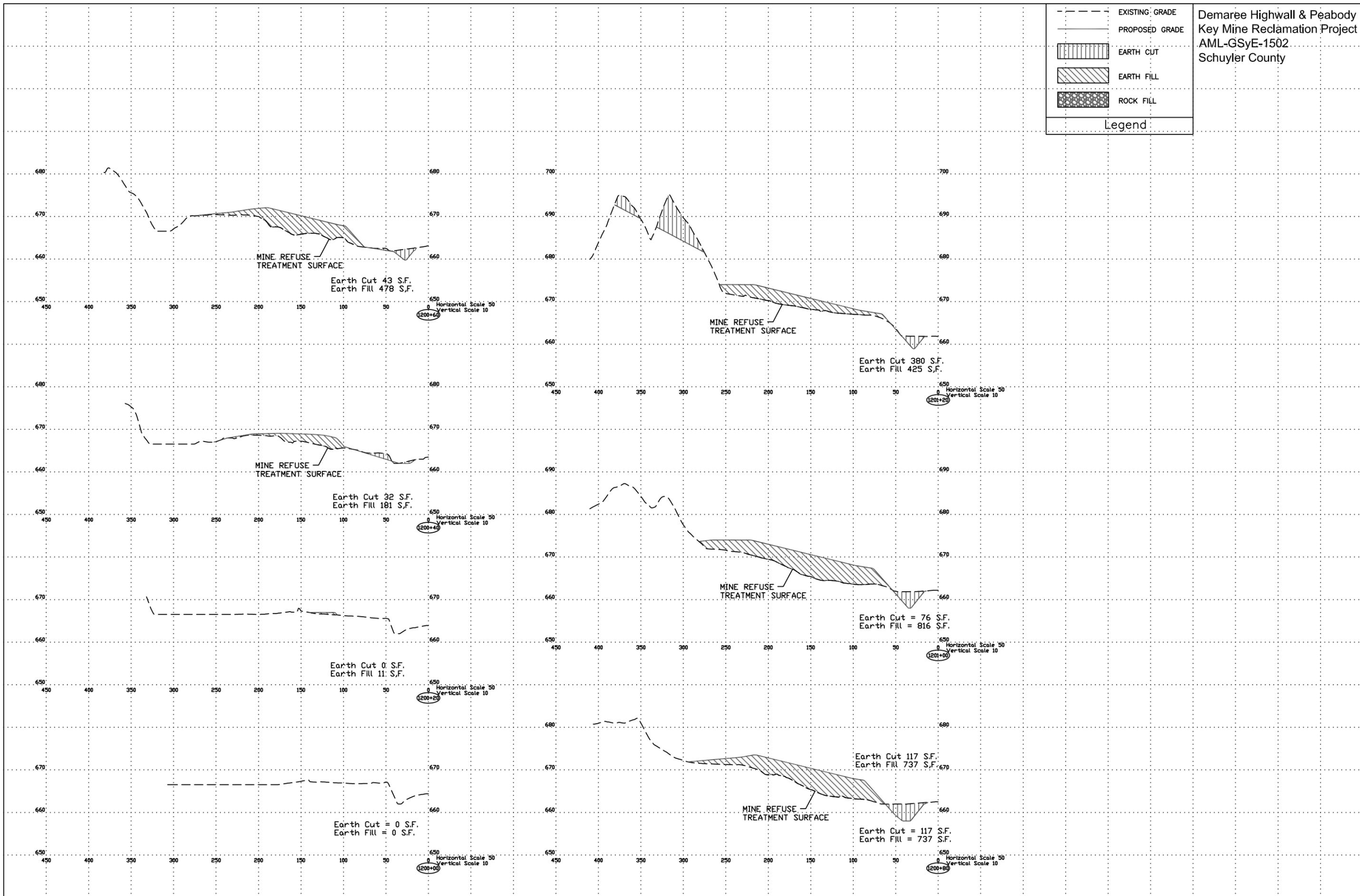
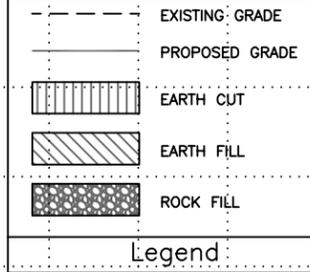


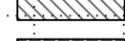




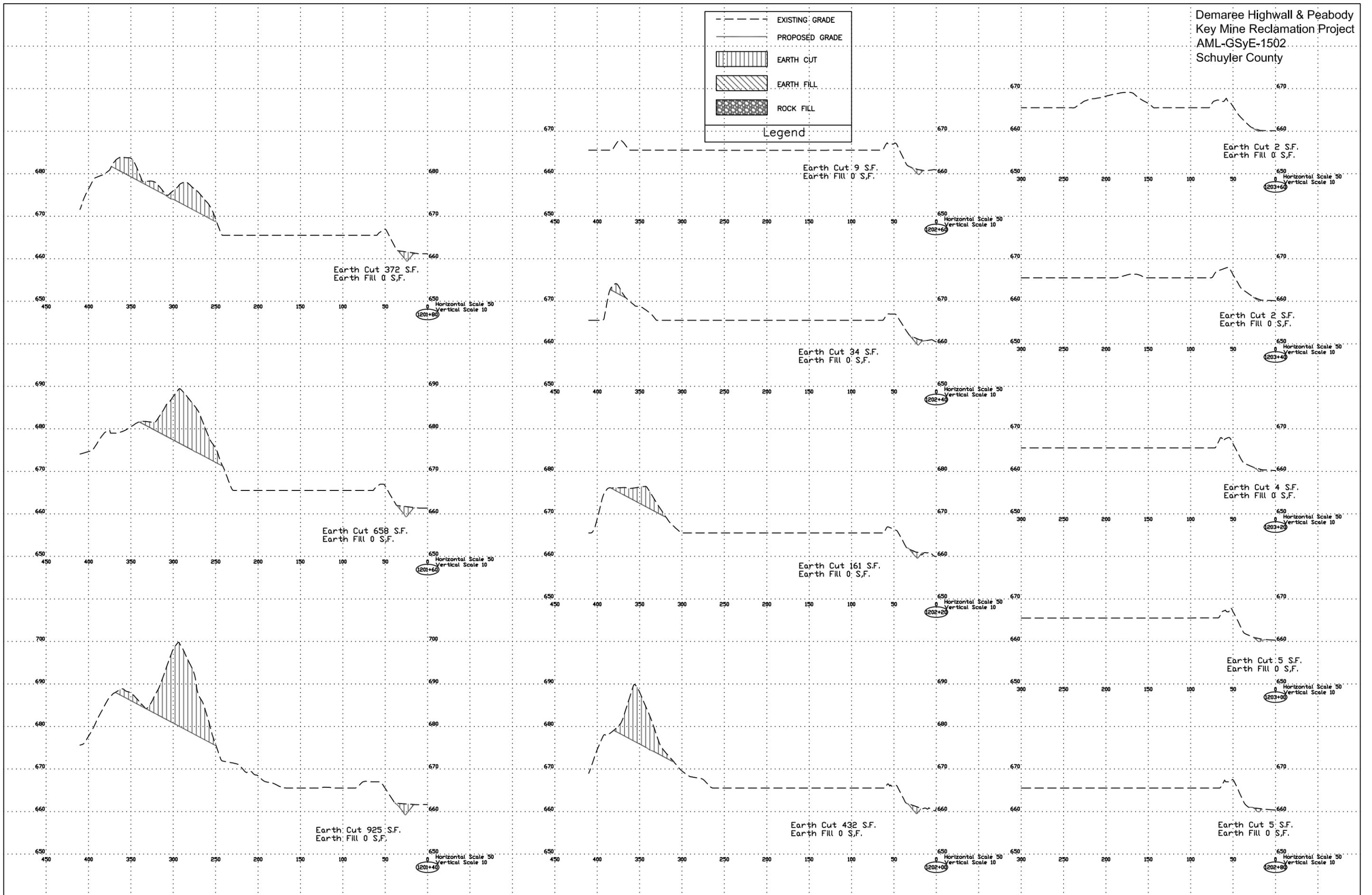


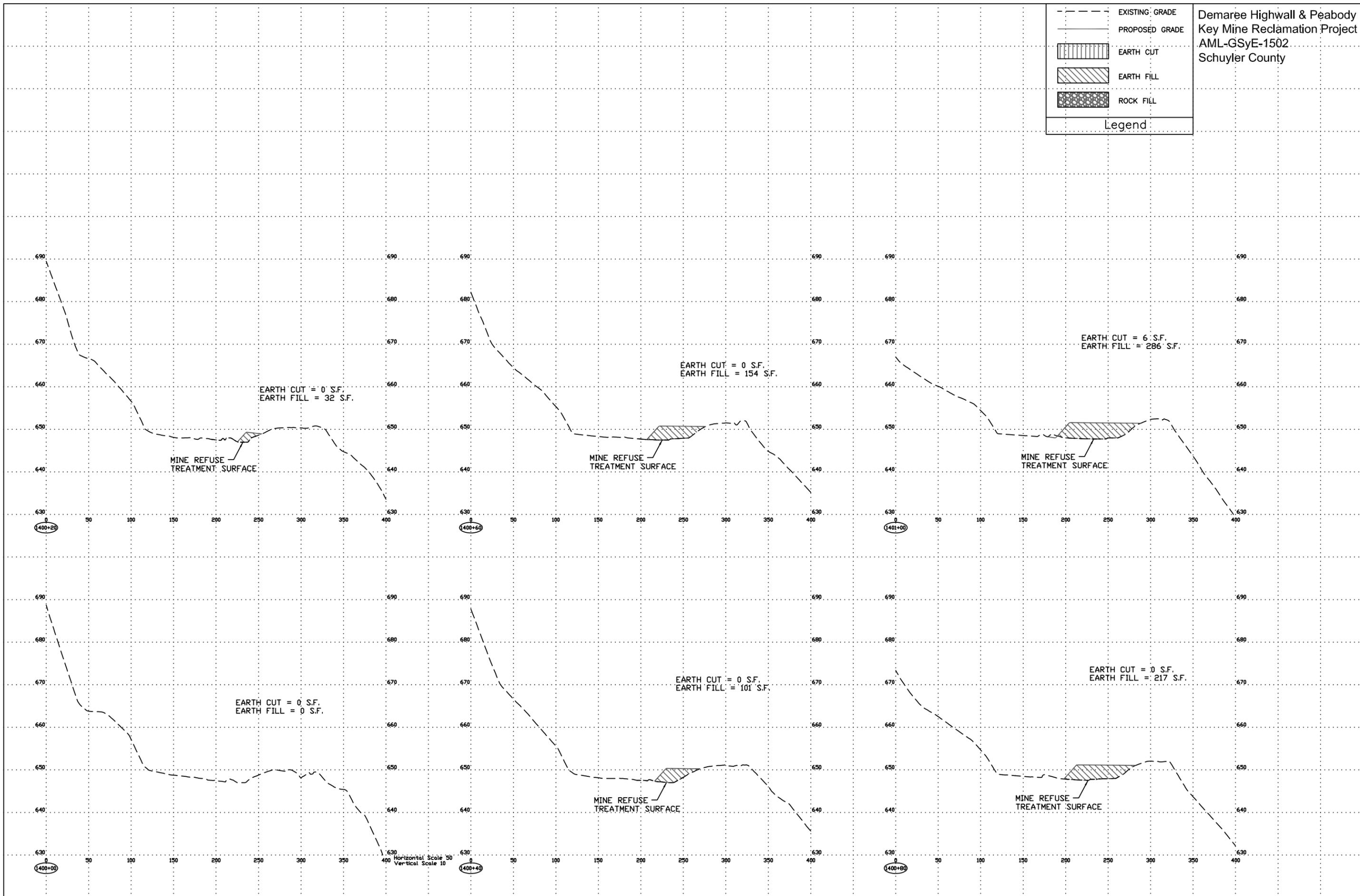
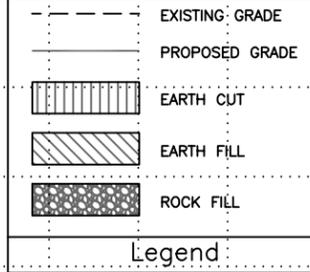


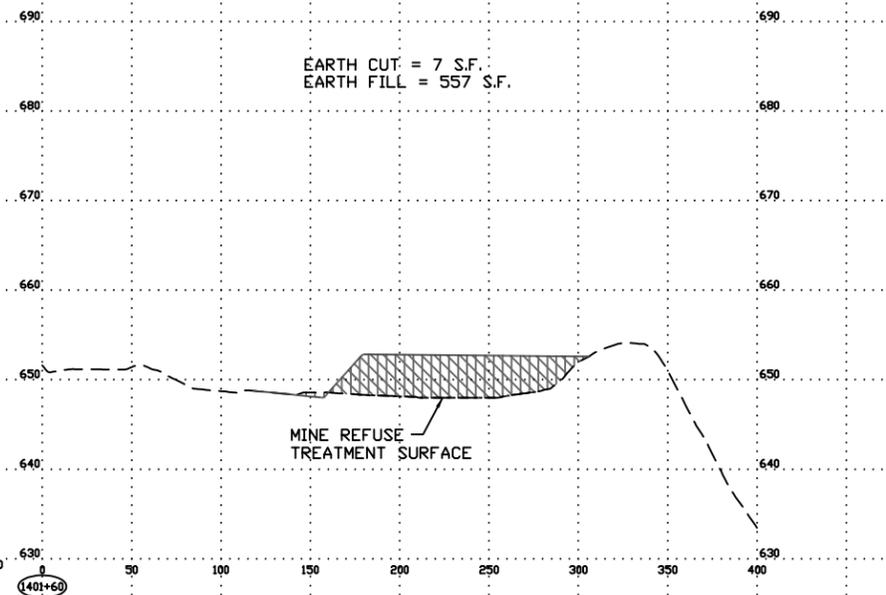
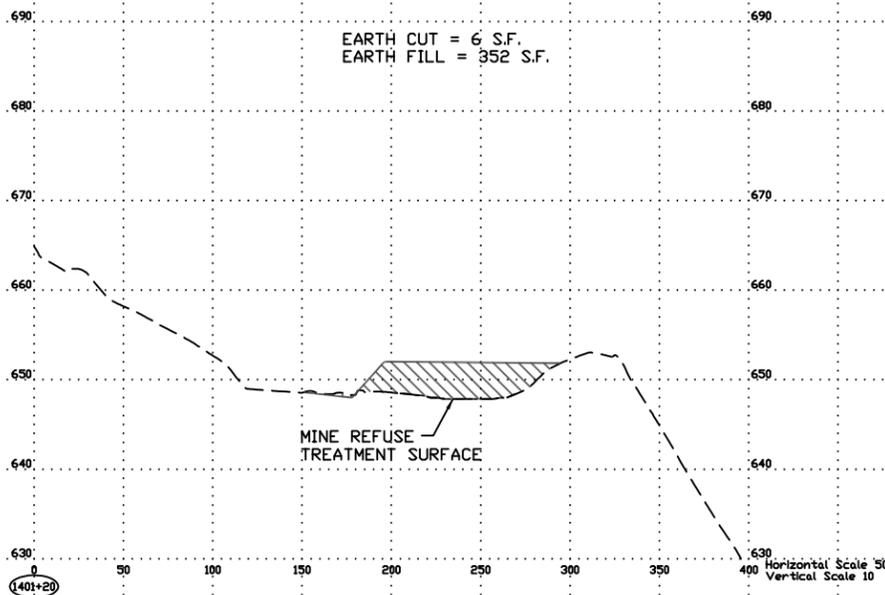
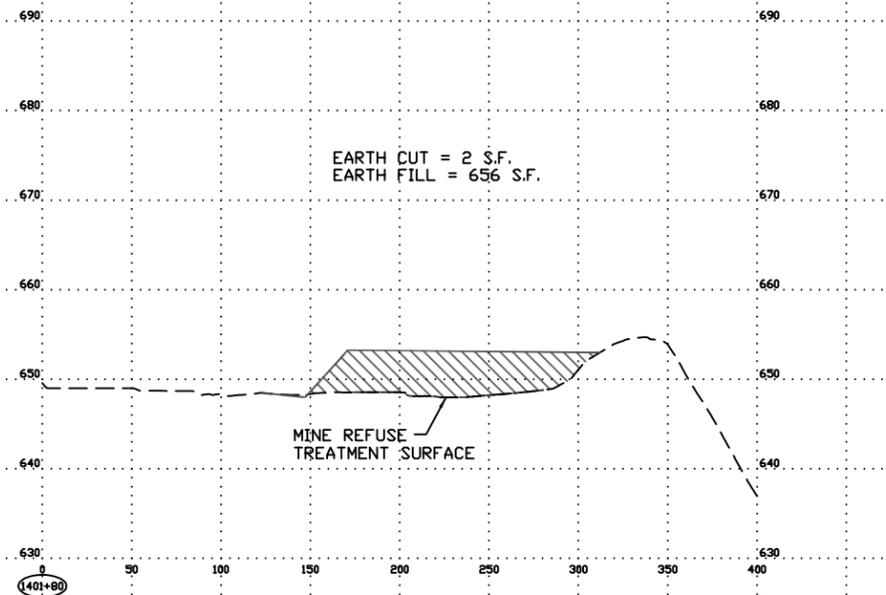
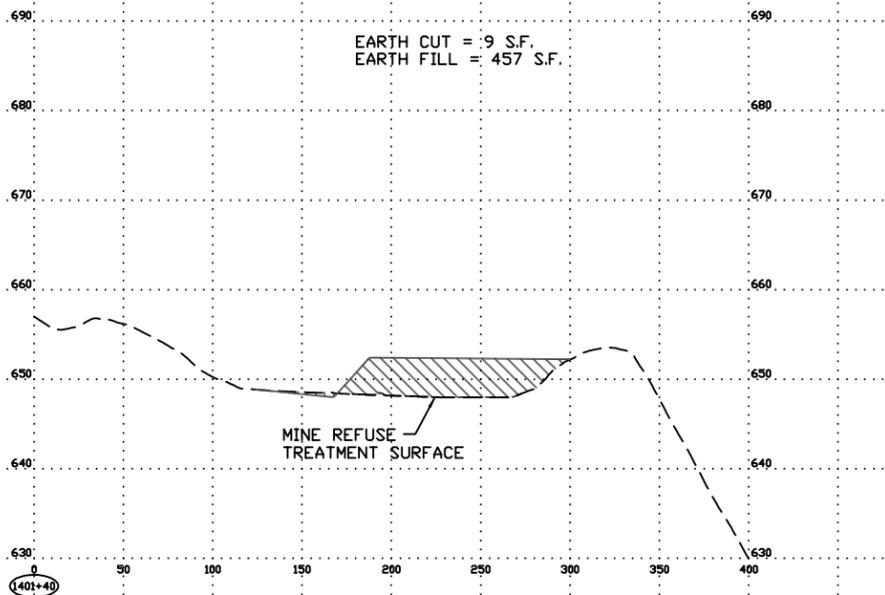
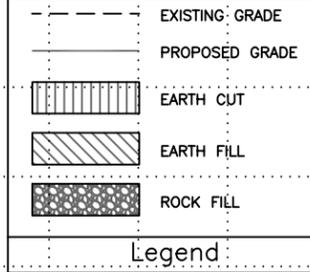


| | |
|---|----------------|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | EARTH CUT |
|  | EARTH FILL |
|  | ROCK FILL |

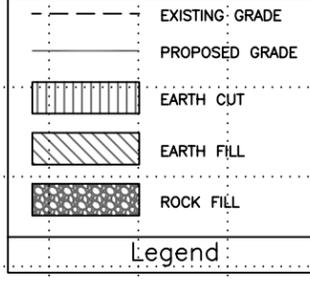
Legend







Horizontal Scale 50
Vertical Scale 10



EARTH CUT = 216 S.F.
EARTH FILL = 855 S.F.

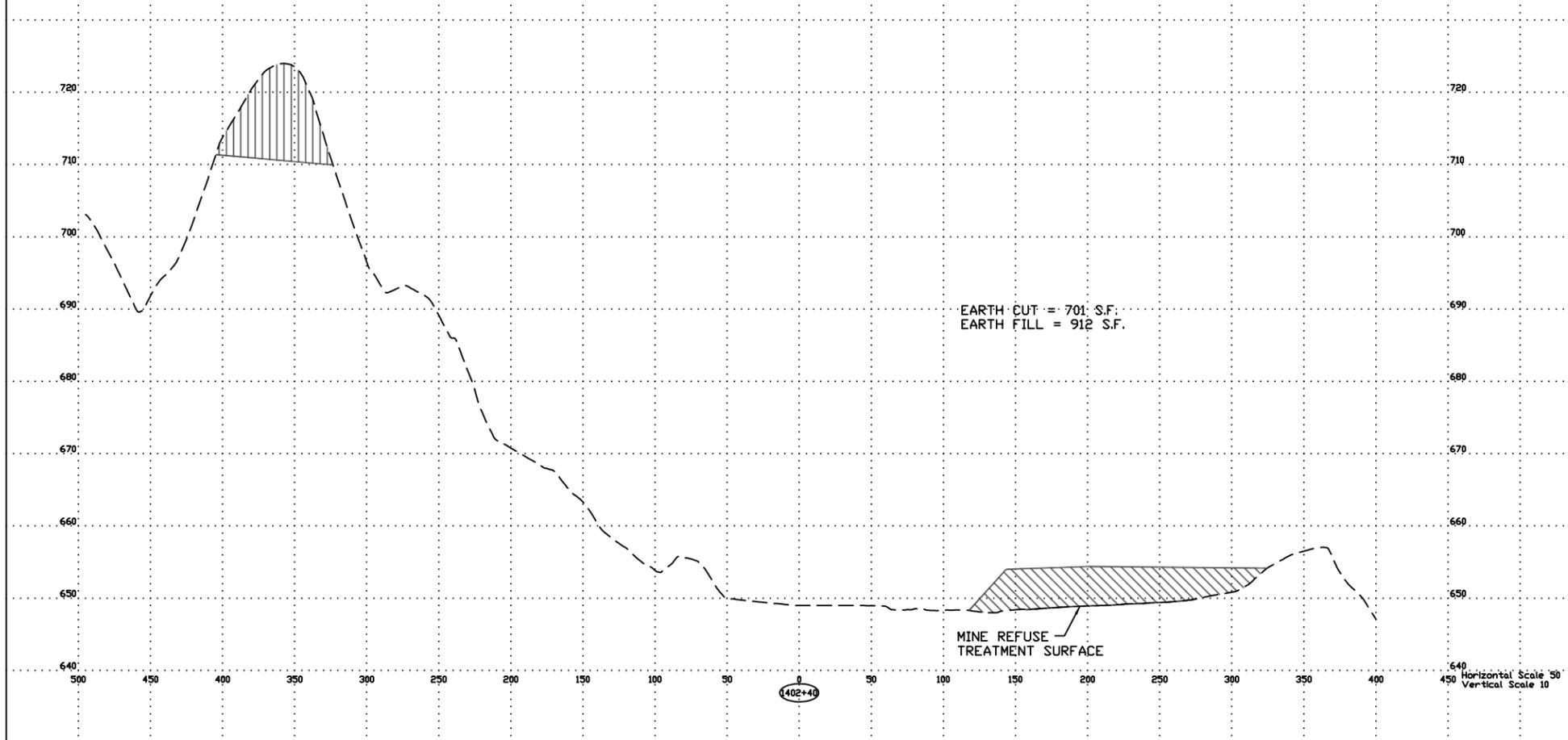
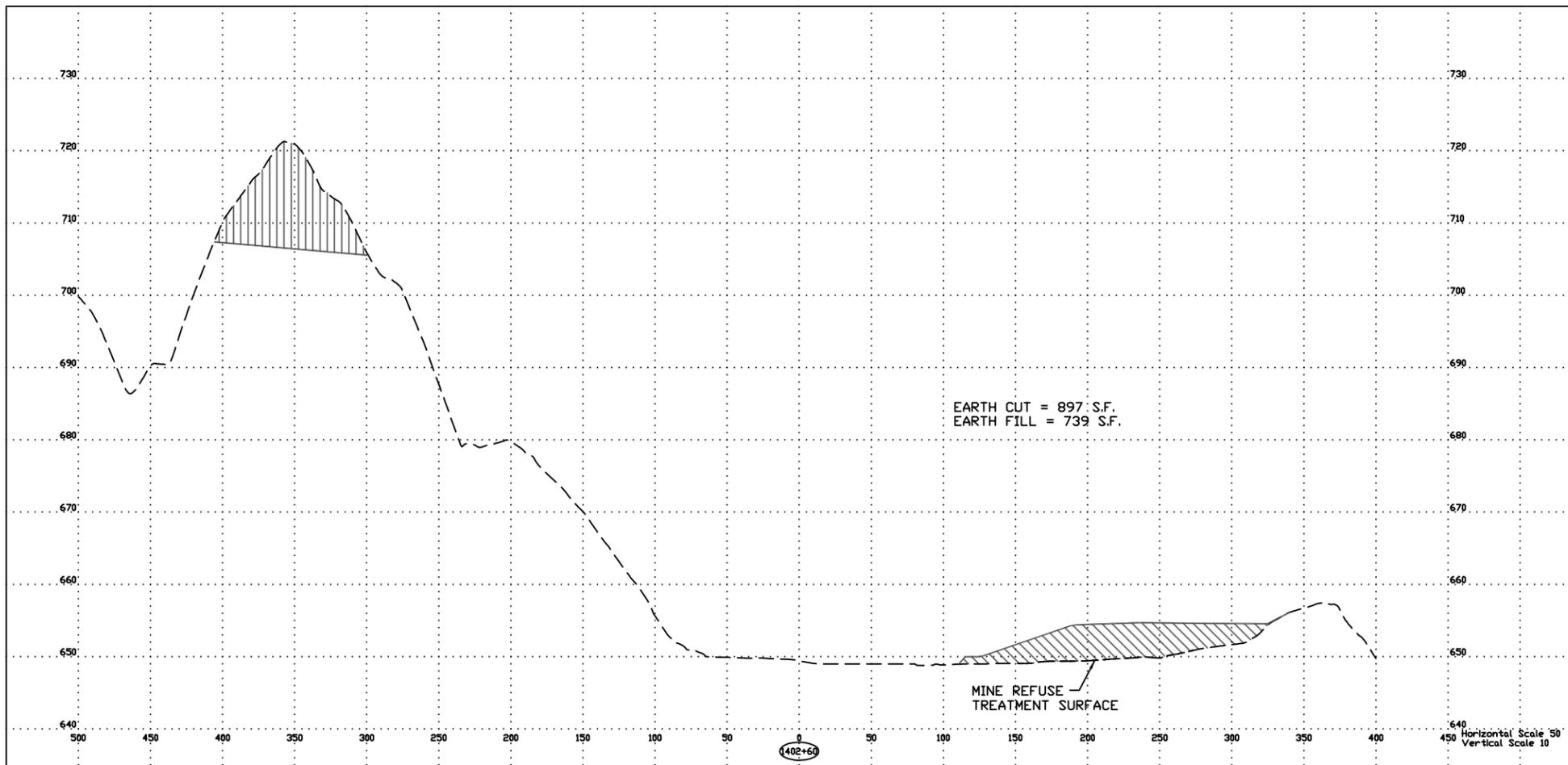
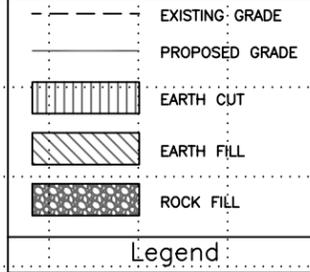
MINE REFUSE
TREATMENT SURFACE

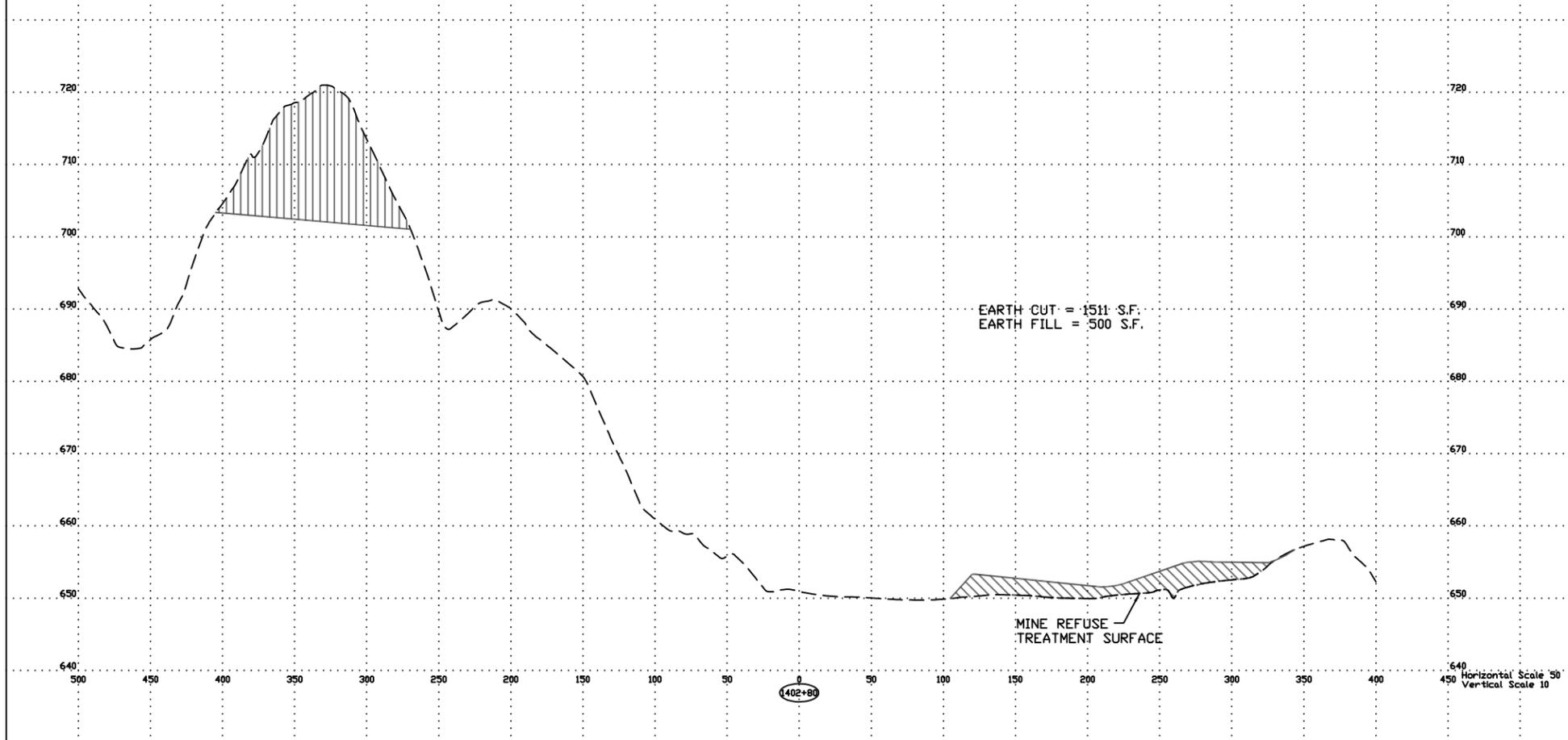
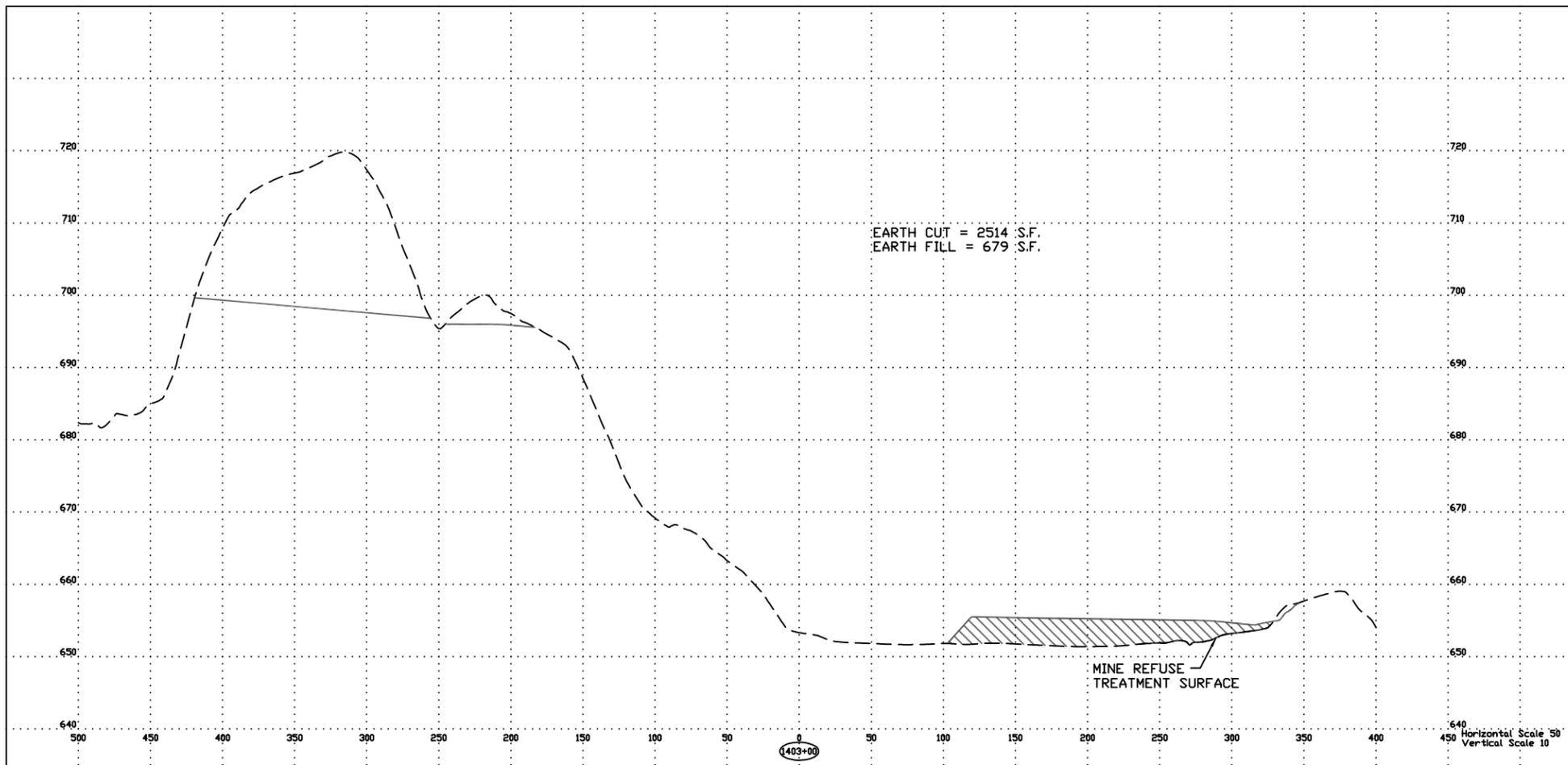
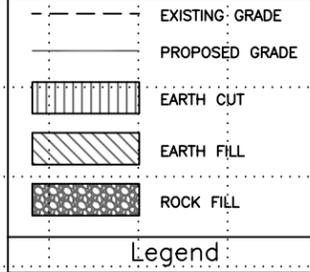
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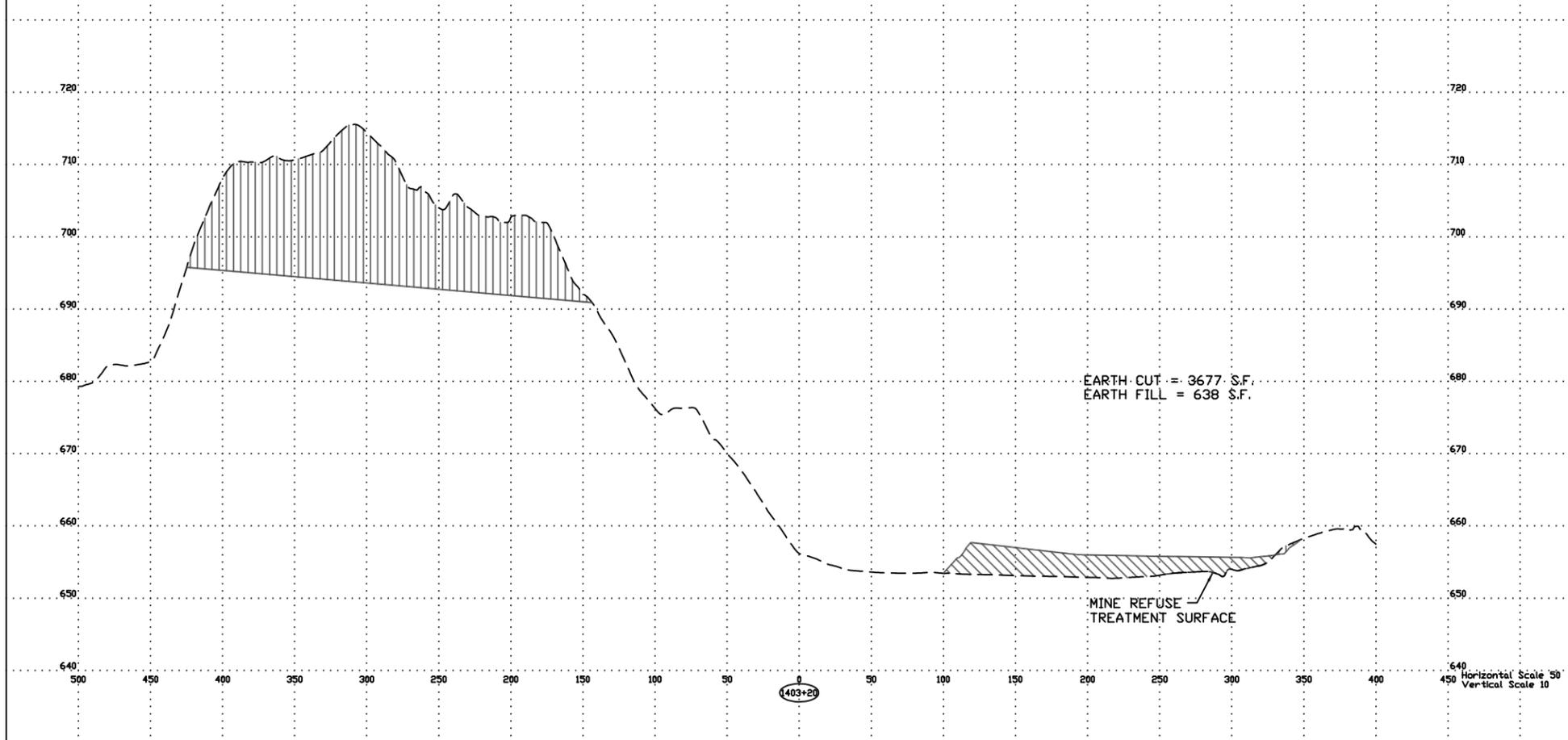
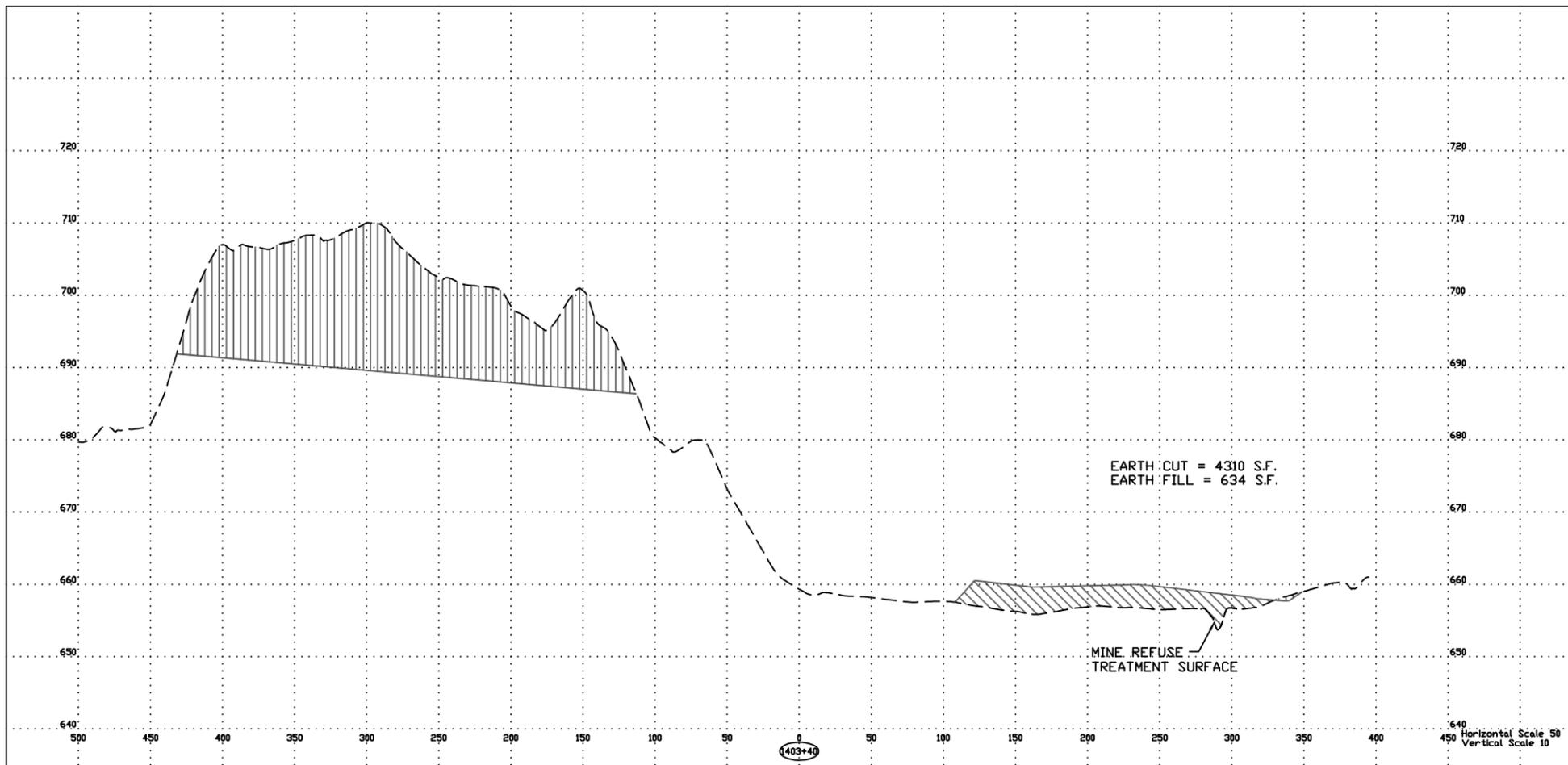
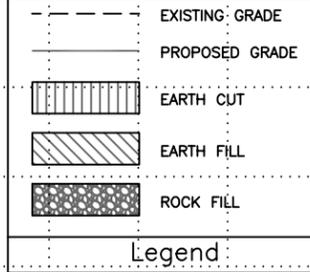
EARTH CUT = 1 S.F.
EARTH FILL = 754 S.F.

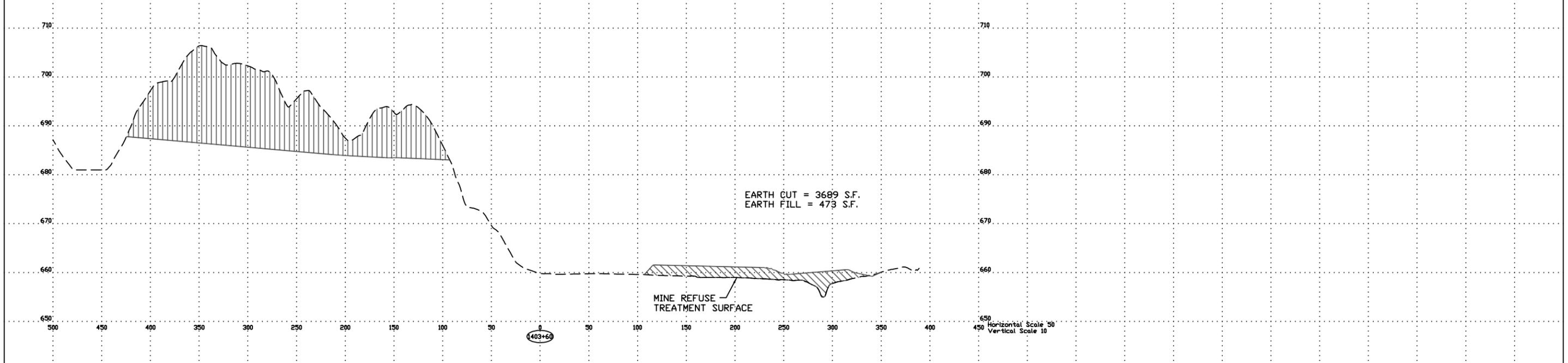
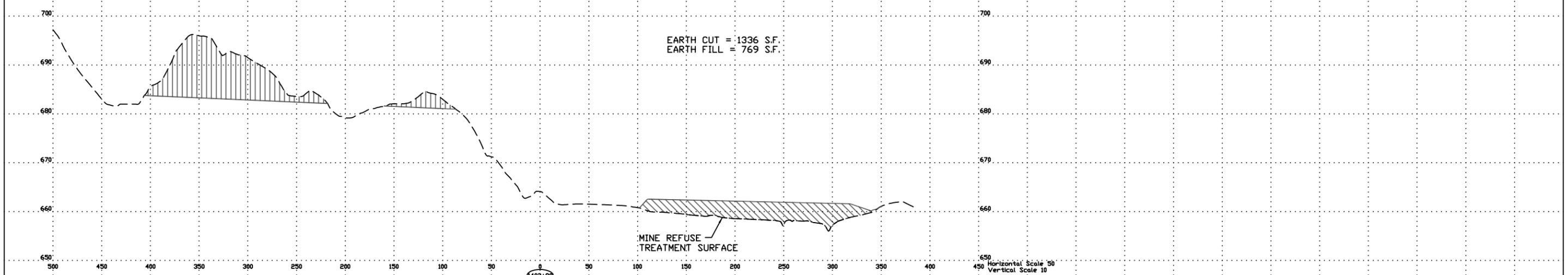
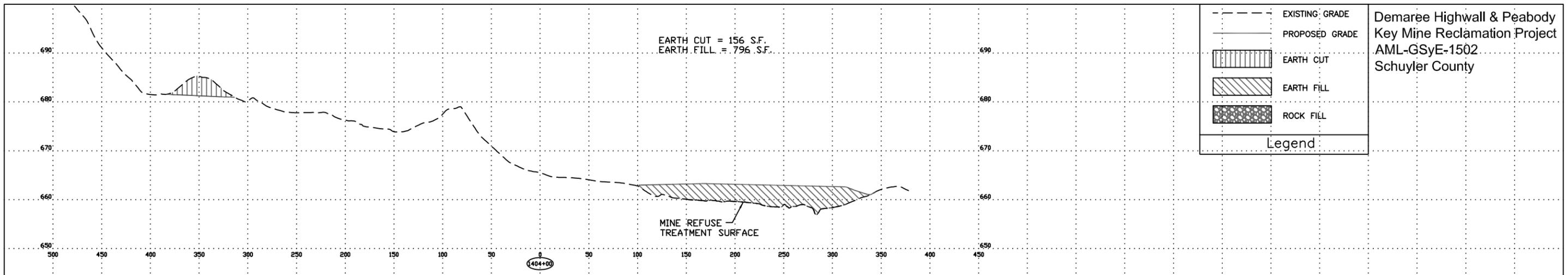
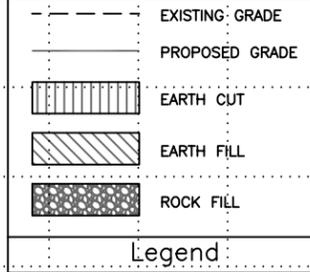
MINE REFUSE
TREATMENT SURFACE

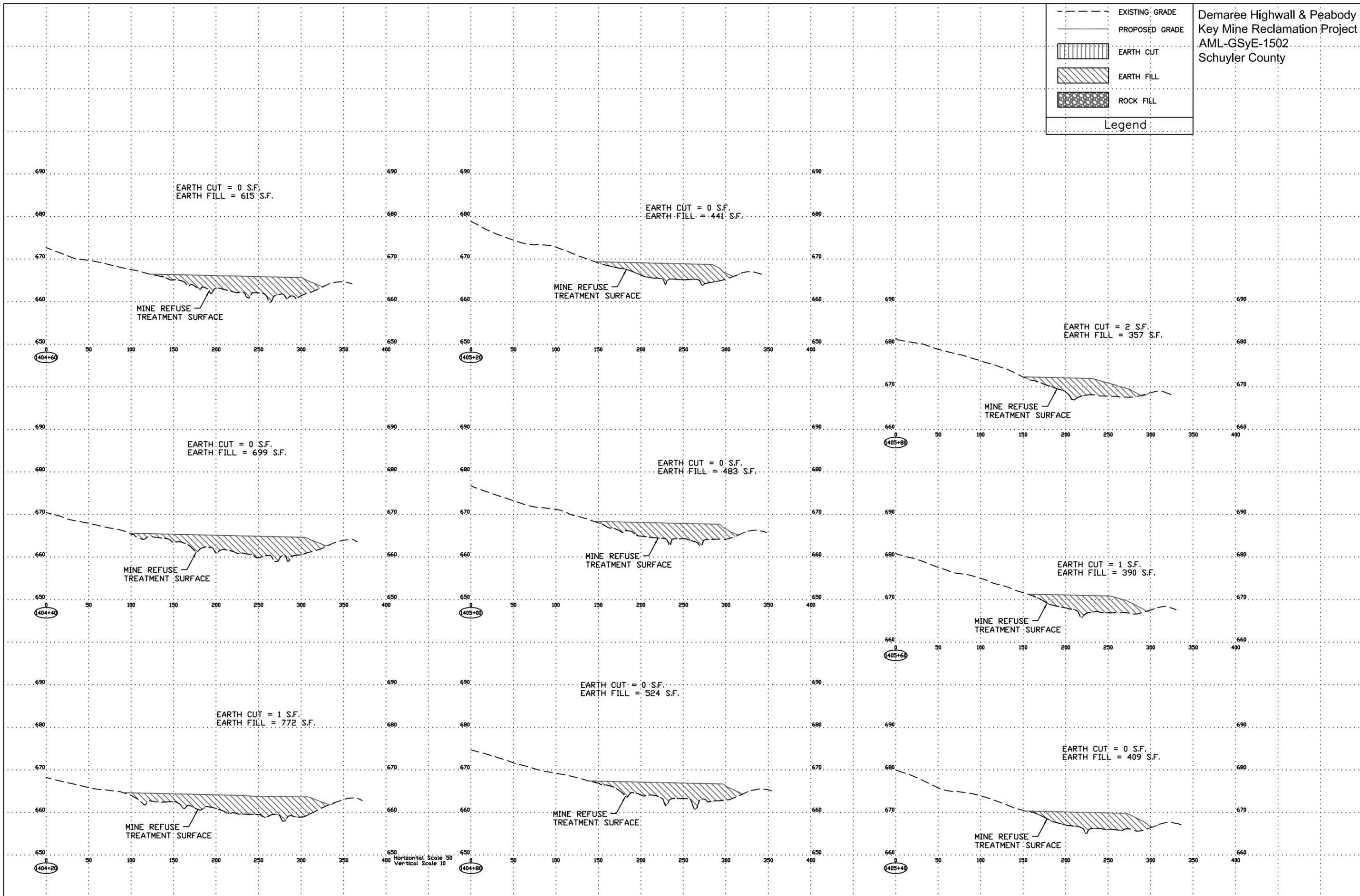
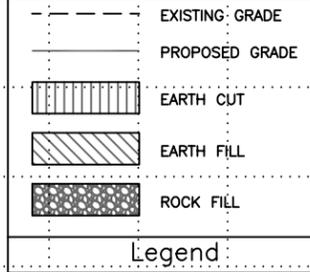
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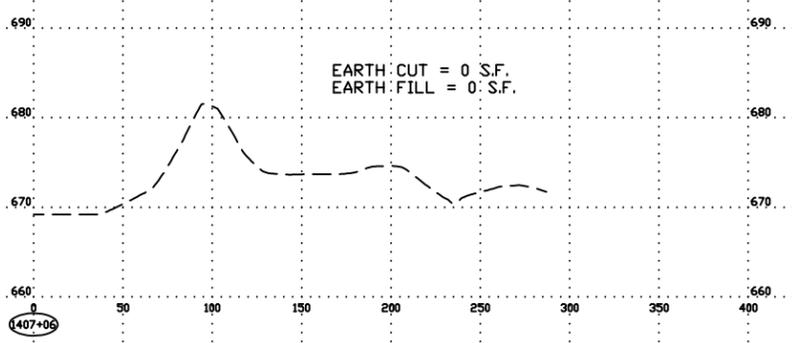
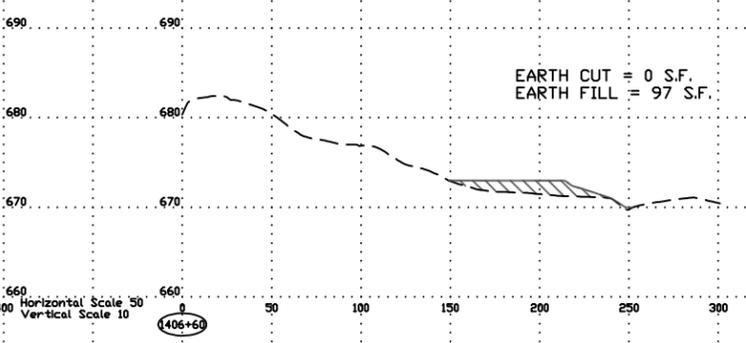
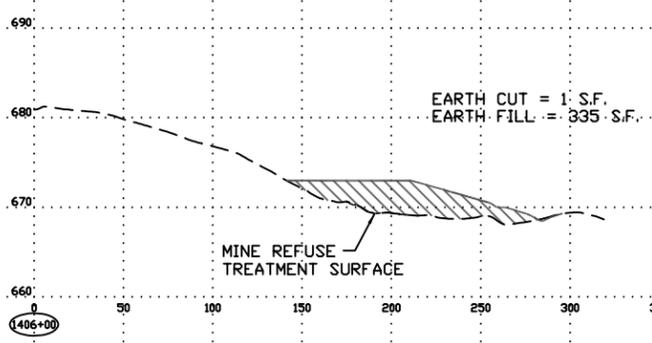
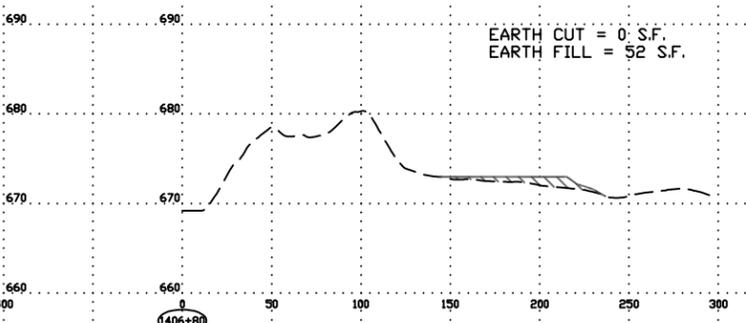
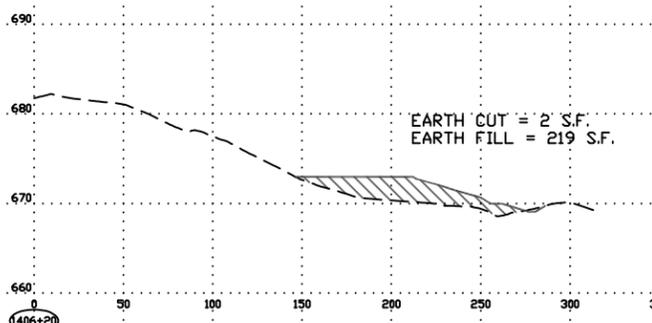
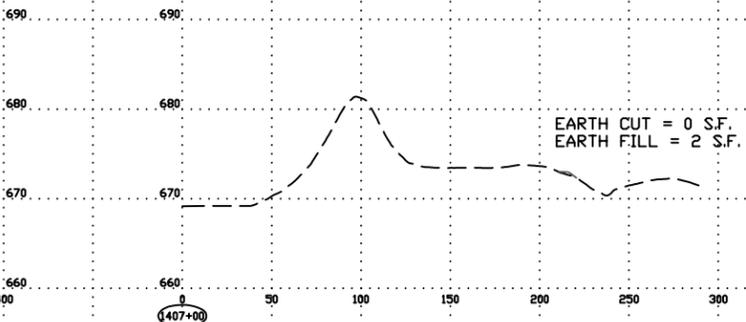
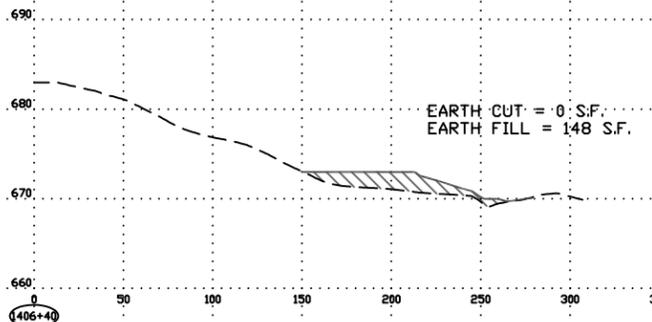
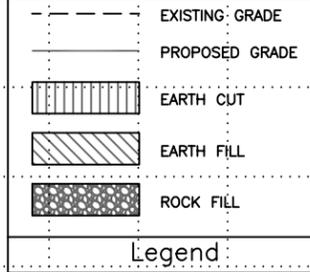




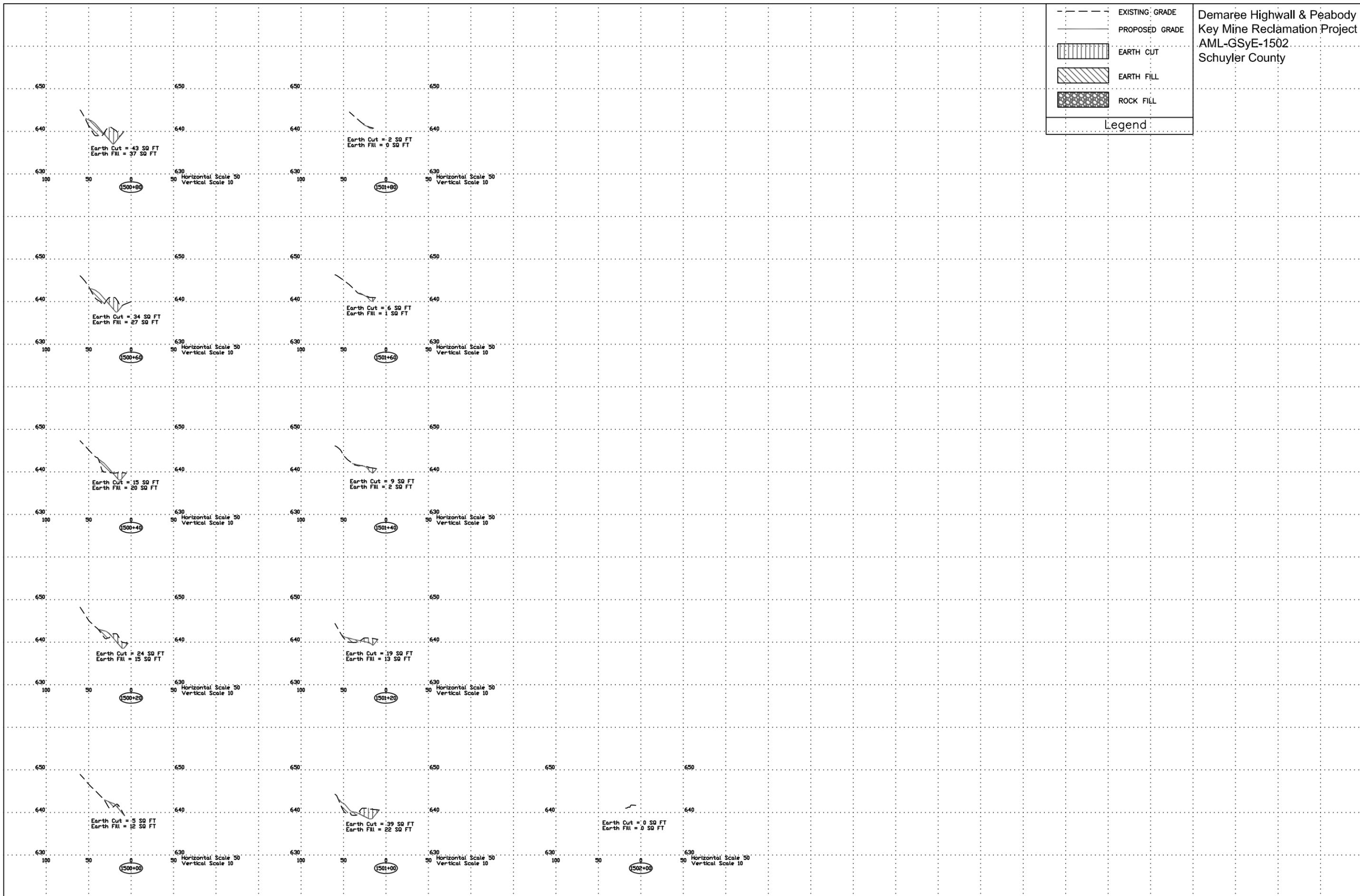
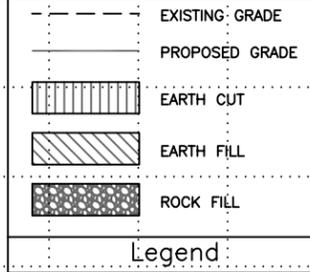




Horizontal Scale 50
Vertical Scale 10



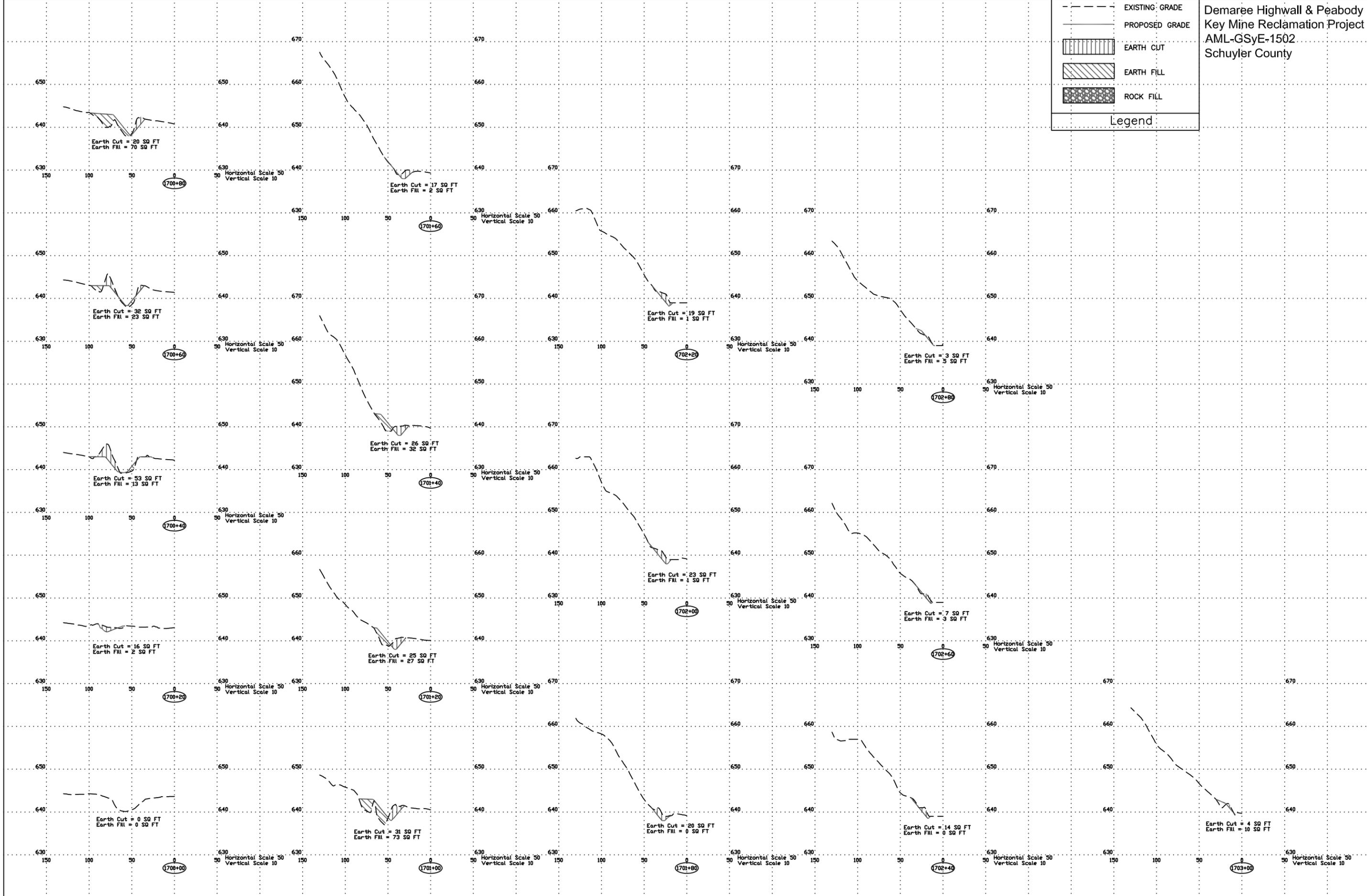
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Vertical Scale 10

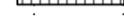


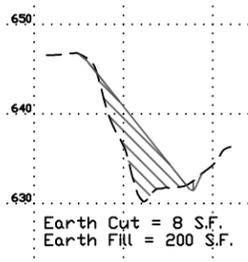
Demaree Highwall & Peabody
Key Mine Reclamation Project
AML-GSyE-1502
Schuyler County

Legend

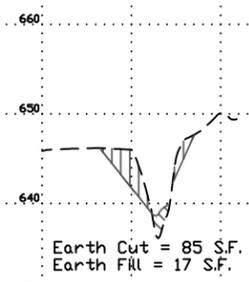
- EXISTING GRADE
- PROPOSED GRADE
- [Hatched Box] EARTH CUT
- [Diagonal Lines Box] EARTH FILL
- [Stippled Box] ROCK FILL



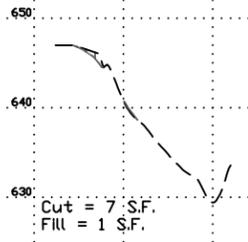
| | |
|---|----------------|
|  | EXISTING GRADE |
|  | PROPOSED GRADE |
|  | EARTH CUT |
|  | EARTH FILL |
|  | ROCK FILL |
| Legend | |



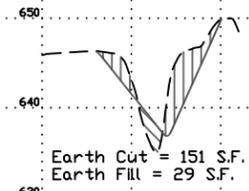
Horizontal Scale 50'
Vertical Scale 10'



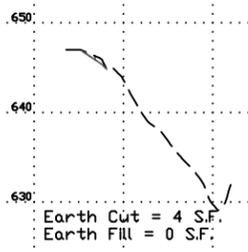
Horizontal Scale 50'
Vertical Scale 10'



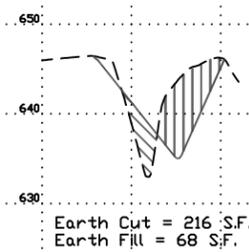
Horizontal Scale 50'
Vertical Scale 10'



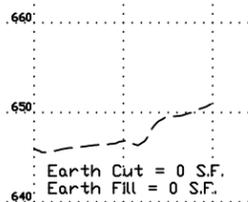
Horizontal Scale 50'
Vertical Scale 10'



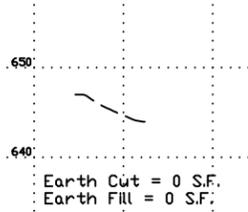
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Vertical Scale 10'



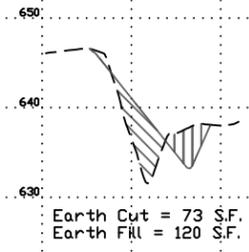
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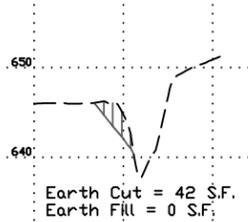
Horizontal Scale 50'
Vertical Scale 10'



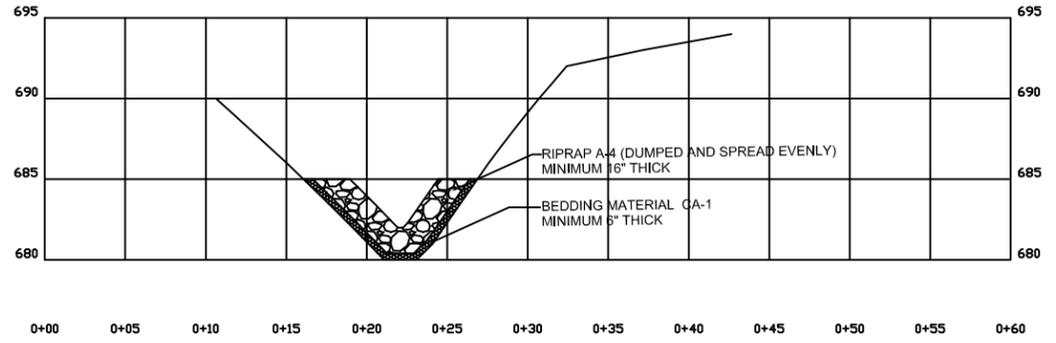
Horizontal Scale 50'
Vertical Scale 10'



Horizontal Scale 50'
Vertical Scale 10'



Horizontal Scale 50'
Vertical Scale 10'



A
59 **DUMPED RIPRAP DITCH**
NOT TO SCALE

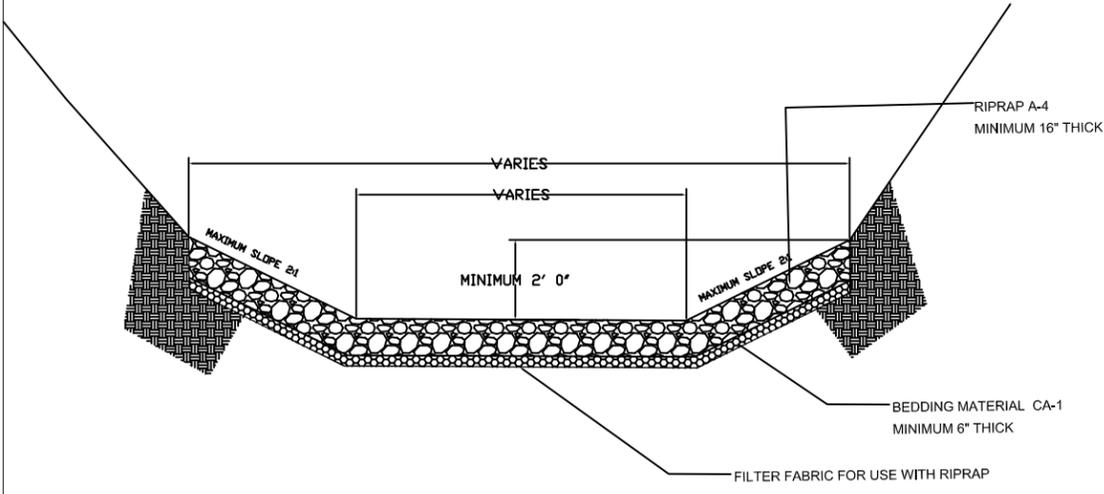
| SPACING LETTERS | |
|-----------------|------|
| 4.5" | 4.5" |
| 3.5" | 3.5" |
| 1.5" | 3.5" |
| 2.5" | 3.5" |
| 3.5" | 3.5" |
| 3.5" | 3.5" |
| 2.5" | 3.5" |
| 3.5" | 3.5" |
| 1.5" | 2.5" |
| 2.5" | 3.0" |
| 3.0" | 2.0" |
| 1.5" | 2.0" |
| 2.0" | 4.5" |

ABANDONED MINED LANDS RECLAMATION PROJECT
STATE OF ILLINOIS
 BRUCE RAUNER, GOVERNOR
 Department of Natural Resources
 Wayne A. Rosenthal, Director

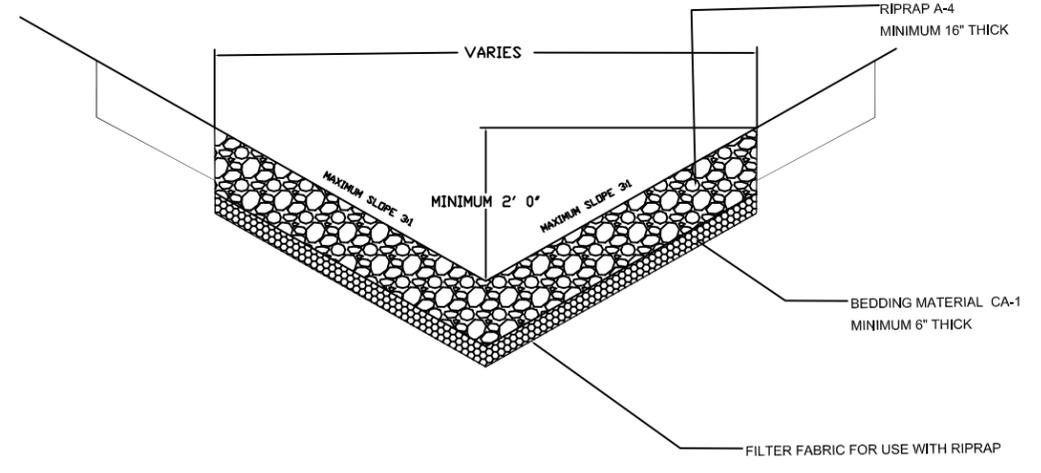
Funding provided by the US Department of the Interior
 Office of Surface Mining, with fees paid by the Coal Industry

- Furnishing, erecting and removing the sign shall be incidental to the contract.
- The sign shall be painted on ½" or thicker exterior plywood (4' x 8'), color shall be black on white, and a 10" diameter Illinois state seal shall be provided by the D.N.R.
- The posts shall be made of 4" x 4" wood or 2.5" metal pipe, and shall be 10' long. The sign shall be securely fastened to the posts with six 2.5" long, round head wood screws (for wood posts) or four 5" long, ⅜" diameter carriage bolts (for wood or metal posts).
- The top of the sign shall be level with the top of the posts, and the posts shall be 1' from the edges of the sign. The posts shall be set in the ground 3', so that the bottom of the sign is 3' from the ground.

CONSTRUCTION SIGN DETAIL
 EXACT LOCATION TO BE SET BY ENGINEER



B
59 **TRAPEZOIDAL RIPRAP DITCH**
NOT TO SCALE



C
59 **TRIANGULAR RIPRAP DITCH**
NOT TO SCALE