



CUY-90-14.90

PID 77332/85531

APPENDIX GE-01

**West Bank Grading Plans
(Contract Document)**

State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

**Innerbelt Bridge
Construction Contract Group 1 (CCG1)**

CUY-90-14.92

WEST BANK SLOPE GRADING PLAN

INDEX OF SHEETS:


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SEQUENCE OF CONSTRUCTION

PERFORM THE EXCAVATION AND SPECIFIED RELATED WORK LOCATED BETWEEN STATIONS 128+00 AND 134+50 FOR THE FULL WIDTH OF THE PROJECT LIMITS ACCORDING TO THE REQUIREMENTS STATED IN THE SEQUENCE OF CONSTRUCTION LIST PROVIDE BELOW.


1. INSTALL THE DEMONSTRATION DRILLED SHAFT AND EVALUATE THE STRUCTURAL INTEGRITY OF THE SHAFT USING THE GAMMA-GAMMA AND CROSSHOLE SONIC LOGGING TEST METHODS. LOAD TEST THE SHAFT, IF THE SHAFT IS TO BE LOAD TESTED, PRIOR TO EXCAVATING THE WEST END SLOPE SURFACE BELOW THE TOP ELEVATION OF THE DEMONSTRATION DRILLED SHAFT.
2. REMOVE THE COLD STORAGE BUILDING TO THE EXISTING GROUND SURFACE LINE.
3. PERFORM ALL STAGE 1 EXCAVATION WORK DOWN TO THE ELEVATION OF THE BENCH LOCATED NEAR ELEVATION 640. CONSTRUCT THE GATEWAY ANIMAL CLINIC PARKING LOT RETAINING WALL, AS THE EXCAVATION PROCEEDS. REMOVE UNDERGROUND PORTIONS OF THE COLD STORAGE BUILDING AND RETAINING WALLS AS THE EXCAVATION PROCEEDS.
4. PERFORM ALL STAGE 2 AND 3 EXCAVATION WORK: STAGE 2 EXCAVATION SHALL BEGIN NOT LESS THAN 20 DAYS AFTER COMPLETION OF STAGE 1. STAGE 3 EXCAVATION SHALL PROCEED TO FINISHED GRADE EXCEPT FOR THE AREA OF STAGE 4 EXCAVATION. (SEE SHEET 27 OF 34).
5. PERFORM THE STAGE 4 EXCAVATION NOT LESS THAN 20 DAYS AFTER COMPLETION OF STAGE 3.
6. COMMENCE CUY-90 WESTBOUND INNERBELT BRIDGE FOUNDATION WORK AFTER COMPLETION OF STAGE 4 EXCAVATION.
7. BEGIN INSTALLING THE HORIZONTAL DRAINS WITHIN 20 DAYS AFTER THE DATE WHEN ACCESS TO THE LOCATION WHERE HORIZONTAL DRAINS ARE TO BE INSTALLED HAS BECOME ACCESSIBLE.
8. BEGIN INSTALLING THE VERTICAL PRESSURE RELIEF DUCTS WITHIN 20 DAYS AFTER THE DATE WHEN COMPLETE ACCESS TO THE LOCATION WHERE VERTICAL PRESSURE RELIEF DUCTS ARE TO BE INSTALLED HAS BECOME AVAILABLE.

ENGINEERS SEAL:



SIGNED: *Richard Engel*
DATE: 12-10-09

ENGINEERS SEAL:



SIGNED: *Jamal Nusairat*
DATE: 12-10-09

PR. BIKE PATH

① P.I. = Sta. 102+08.52
 D = 79° 58' 23" (LT)
 Dc = 34° 43' 29"
 R = 165.00'
 T = 138.39'
 L = 230.31'
 E = 50.35'
 C = 212.06'
 C.B. = S 76° 13' 40" W

② P.I. = Sta. 104+90.84
 = 91° 38' 56" (RT)
 Dc = 30° 58' 14"
 R = 185.00'
 T = 190.40'
 L = 295.92'
 E = 80.48'
 C = 265.37'
 C.B. = S 82° 03' 57" W

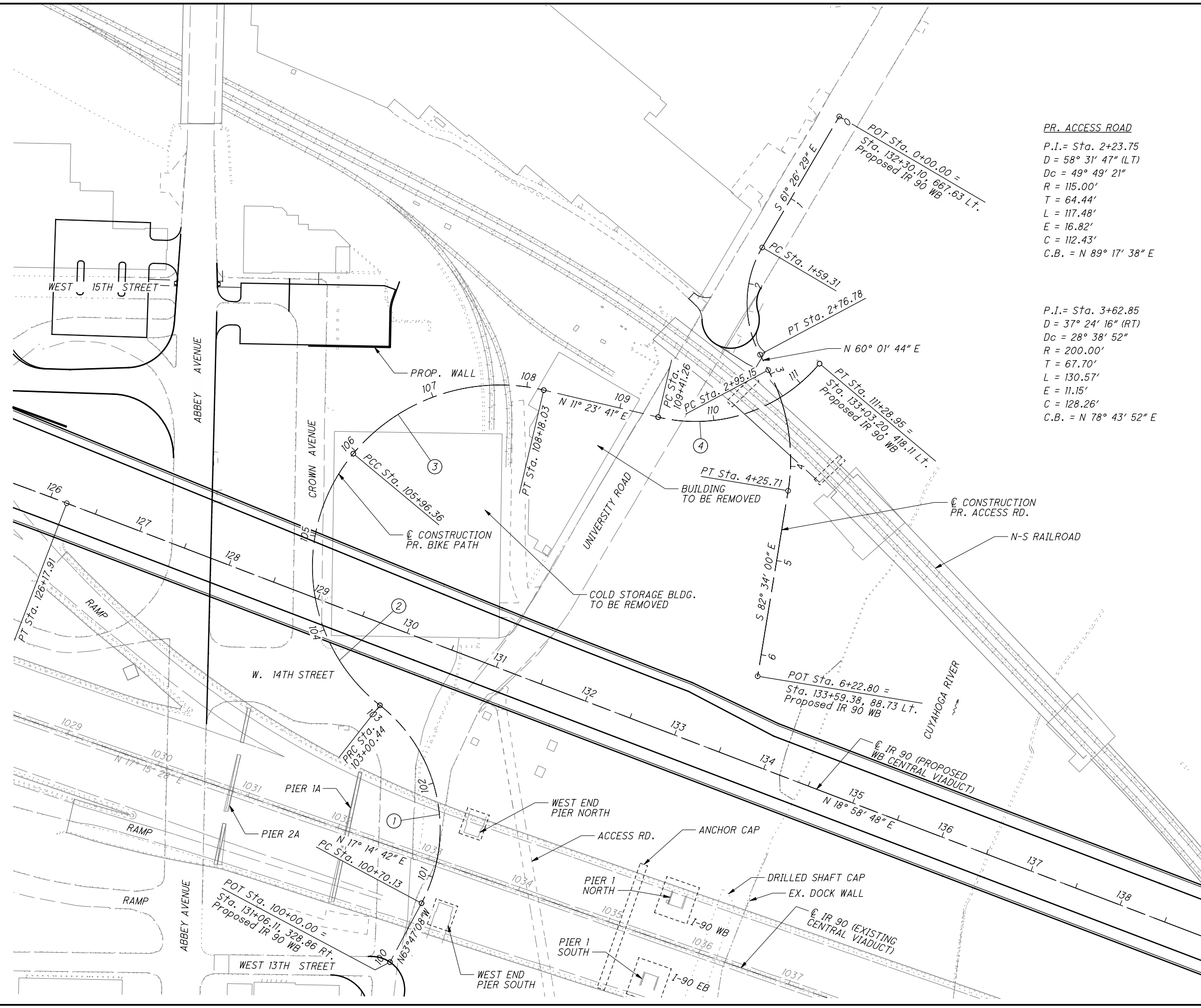
③ P.I. = Sta. 107+20.13
 = 63° 30' 16" (RT)
 Dc = 28° 38' 52"
 R = 200.00'
 T = 123.77'
 L = 221.67'
 E = 35.20'
 C = 210.50'
 C.B. = N 20° 21' 27" W

④ P.I. = Sta. 110+45.97
 = 63° 15' 31" (LT)
 Dc = 33° 42' 12"
 R = 170.00'
 T = 104.70'
 L = 187.69'
 E = 29.66'
 C = 178.30'
 C.B. = N 20° 14' 05" W

PR. ACCESS ROAD

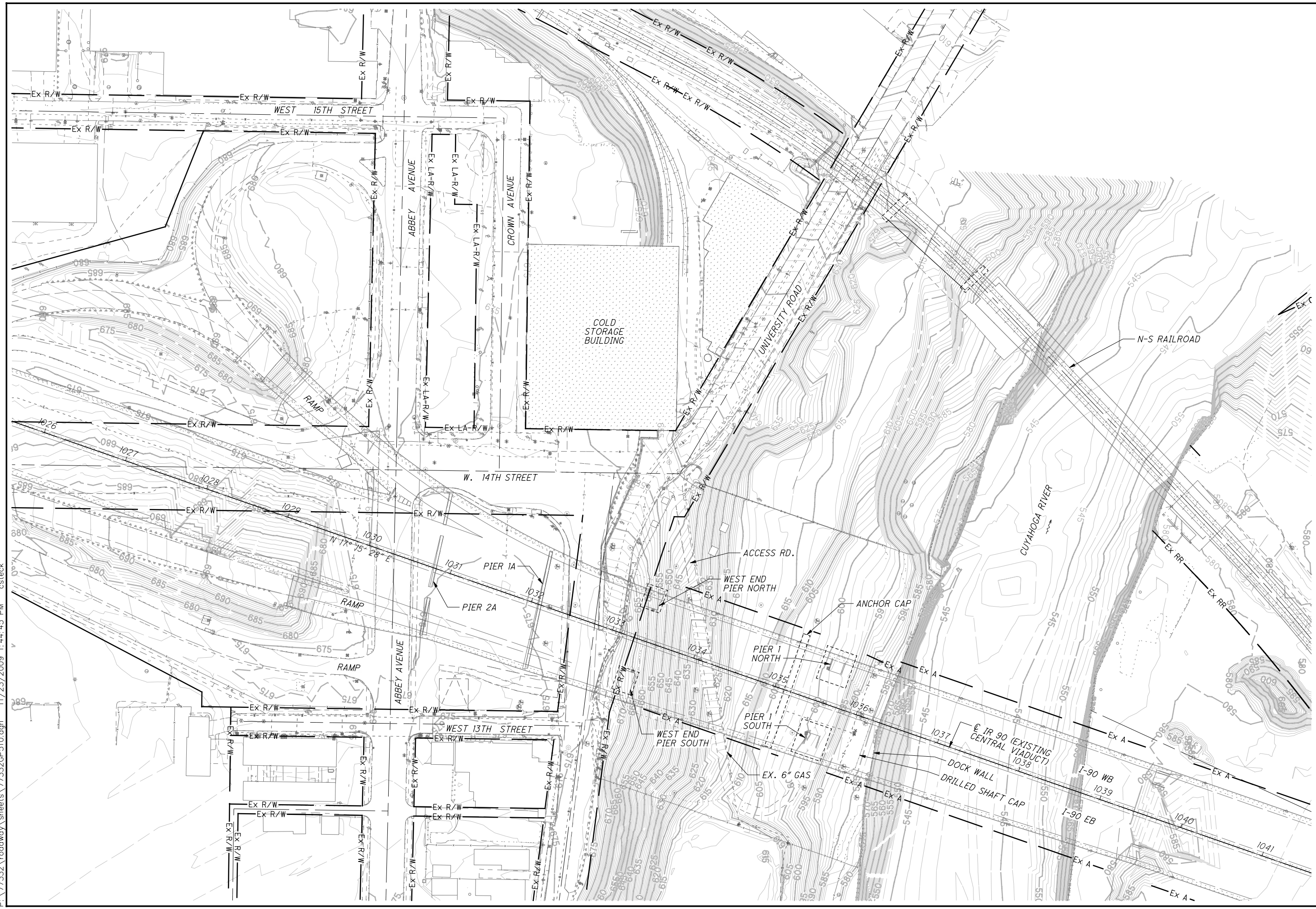
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 D = 58° 31' 47" (LT)
 Dc = 49° 49' 21"
 R = 115.00'
 T = 64.44'
 L = 117.48'
 E = 16.82'
 C = 112.43'
 C.B. = N 89° 17' 38" E

P.I. = Sta. 3+62.85
 D = 37° 24' 16" (RT)
 Dc = 28° 38' 52"
 R = 200.00'
 T = 67.70'
 L = 130.57'
 E = 11.15'
 C = 128.26'
 C.B. = N 78° 43' 52" E



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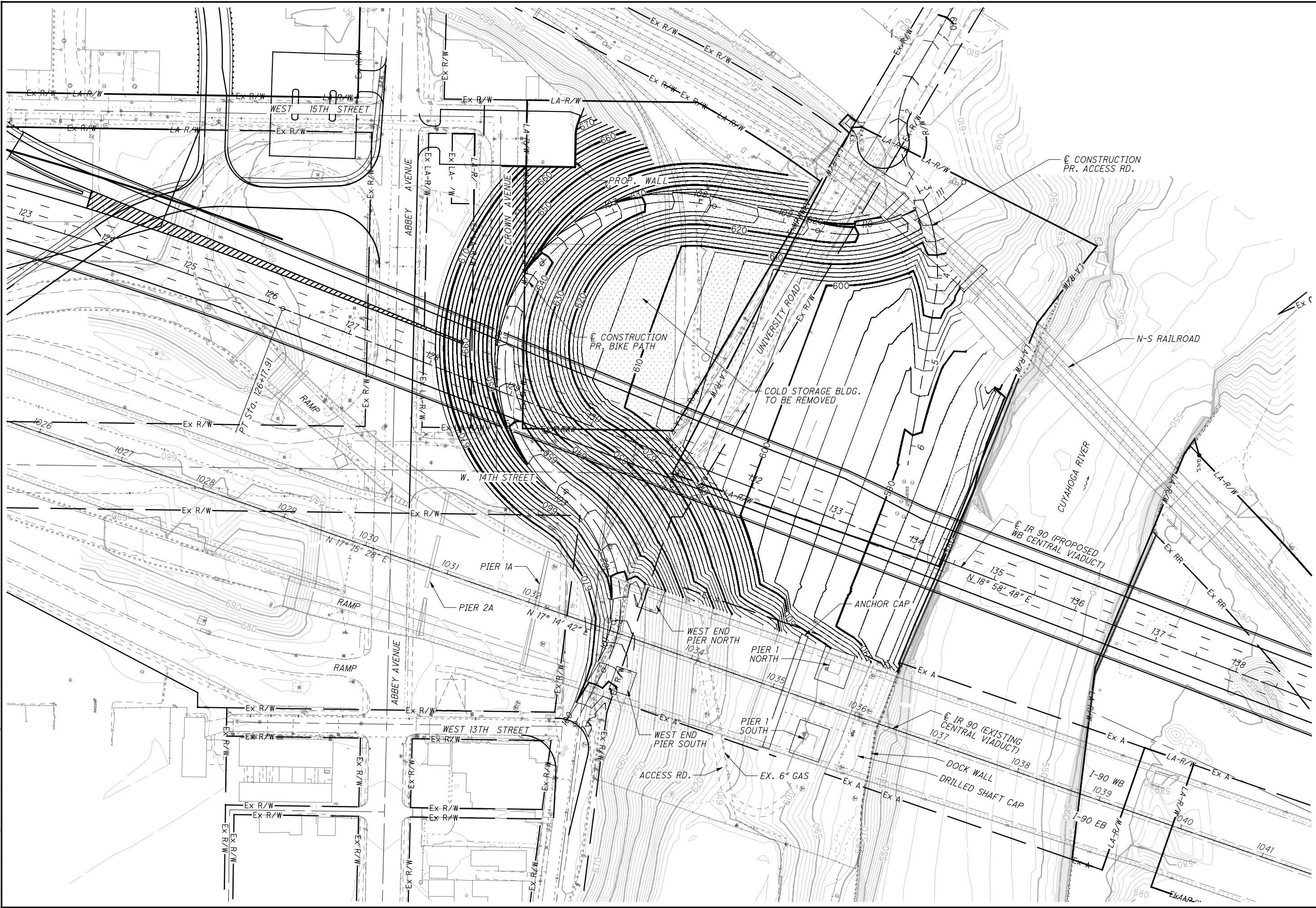


CALCULATED
 CDS
 CHECKED
 R/L

0 50 100
 HORIZONTAL
 SCALE IN FEET

EXISTING SITE PLAN
CUYAHOGA RIVER WEST BANK
CUY-90-14.92
 3
 34

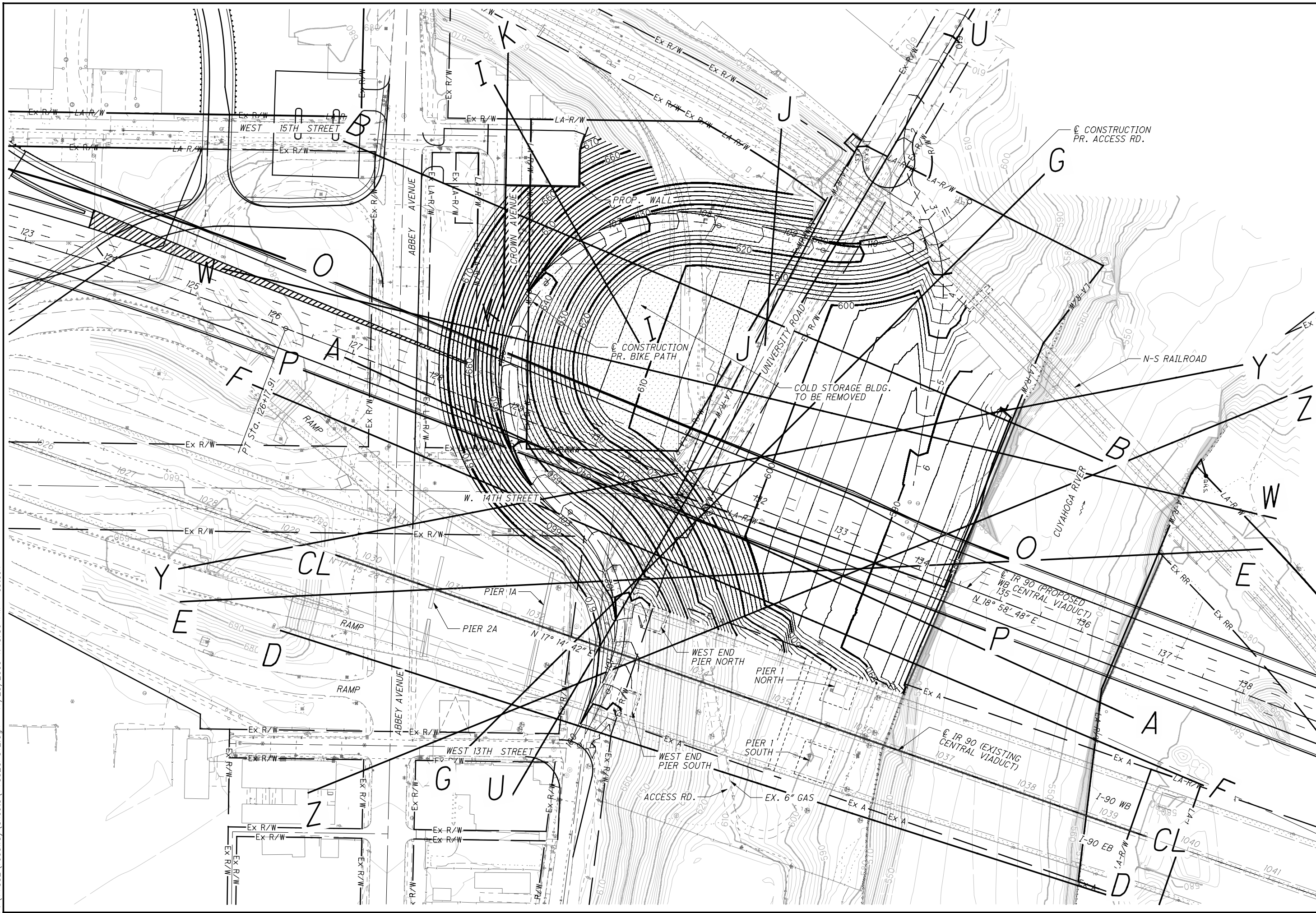
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**SLOPE GRADING PLAN
CUYAHOGA RIVER WEST BANK**

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CALCULATED
 DWB
 CHECKED
 R/L E

SLOPE GRADING PLAN & PROFILE LOCATIONS
CUYAHOGA RIVER WEST BANK

CUY-90-14.92

5
 34

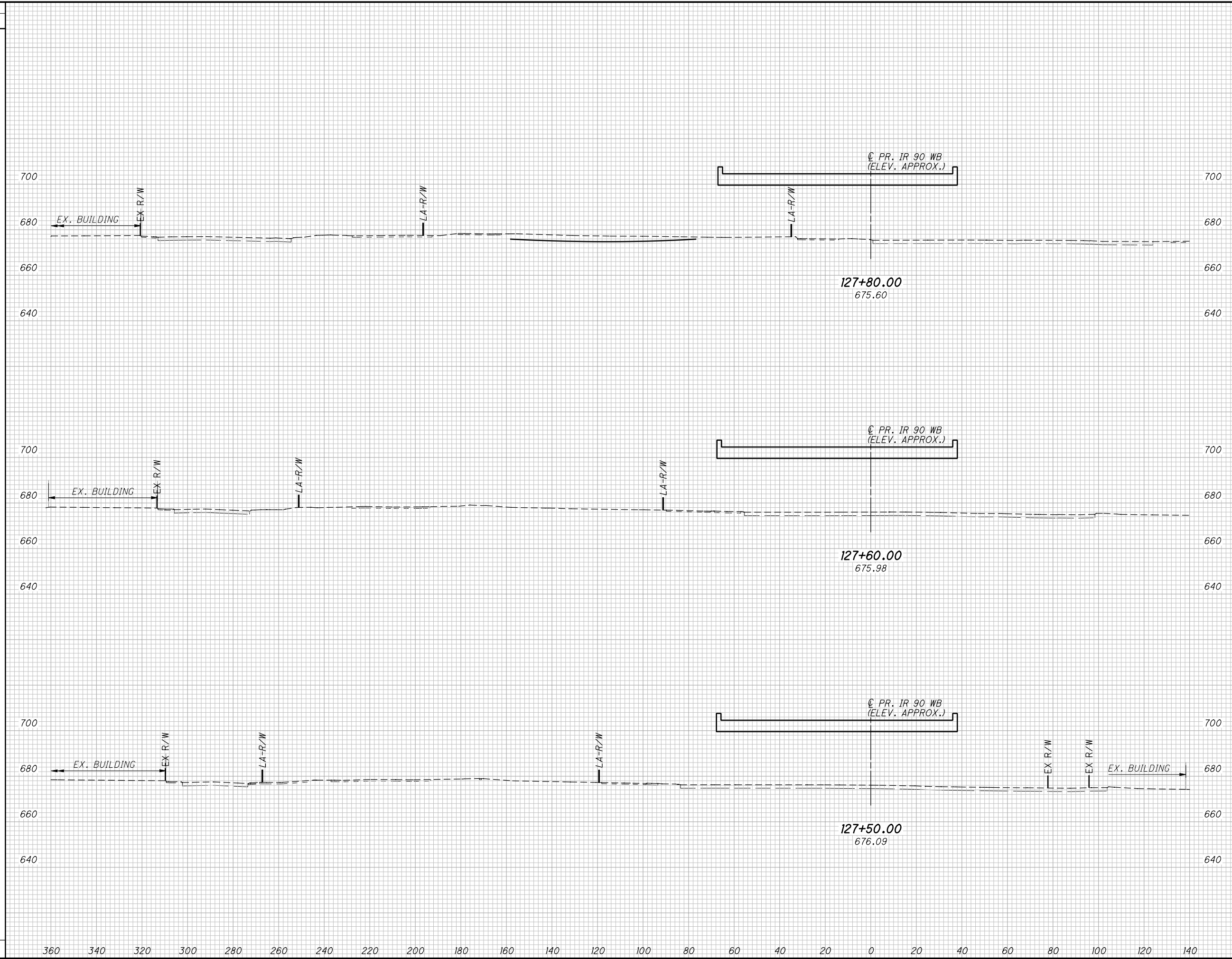
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**SLOPE GRADING PLAN & SECTION LOCATIONS
CUYAHOGA RIVER WEST BANK**

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| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| | |



| END AREA | | VOLUME | | CALCULATED | DWB | CHECKED | RLE |
|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
| | | | | | | | |

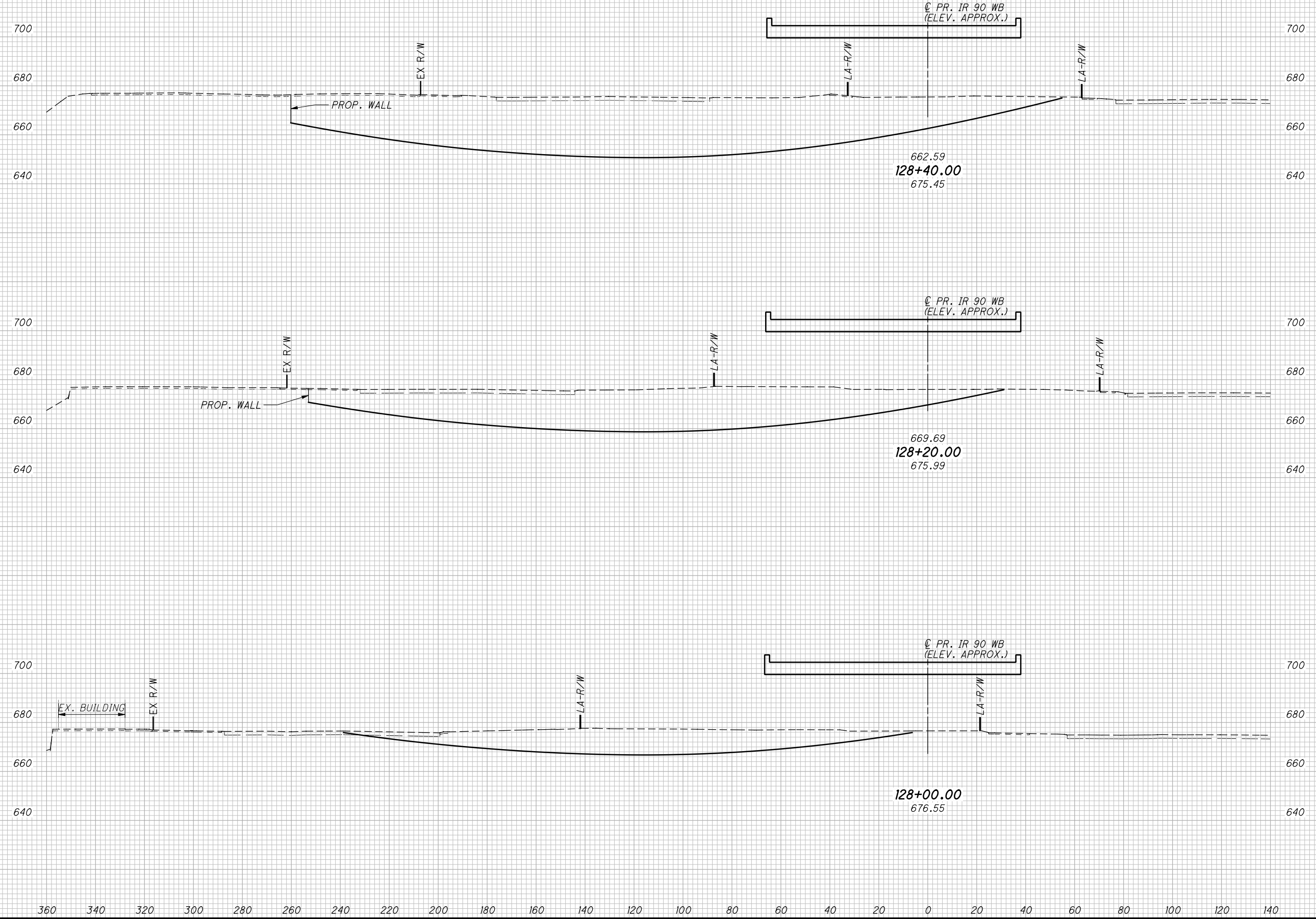
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STA. 127+50.00 TO STA. 127+80.00

CUY-90-14.92

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| SEEDING | |
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| END WIDTH | SO. YDS. |
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| END AREA | VOLUME | CALCULATED | DWB | CHECKED | RLE |
|----------|--------|------------|-----|---------|-----|
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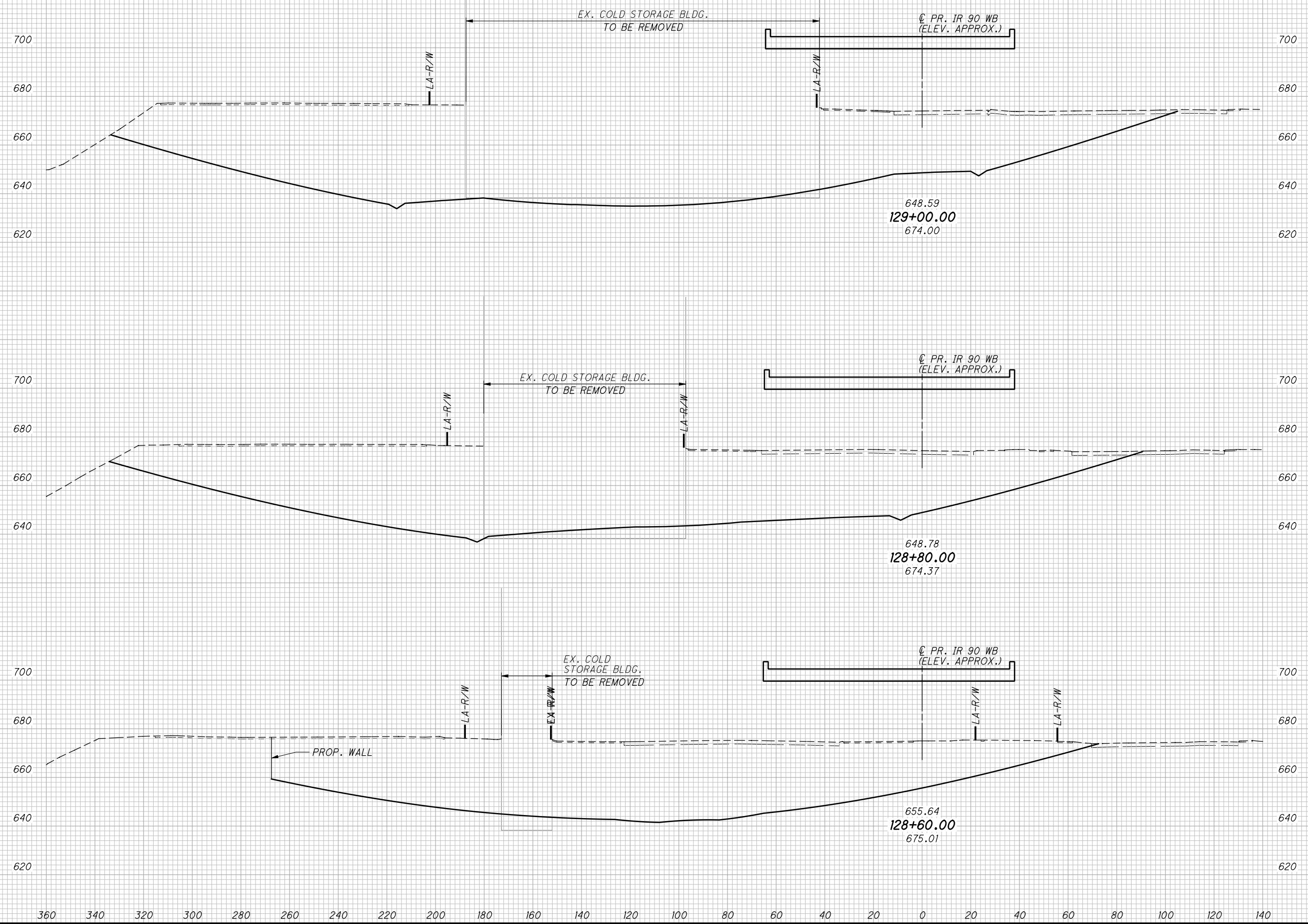
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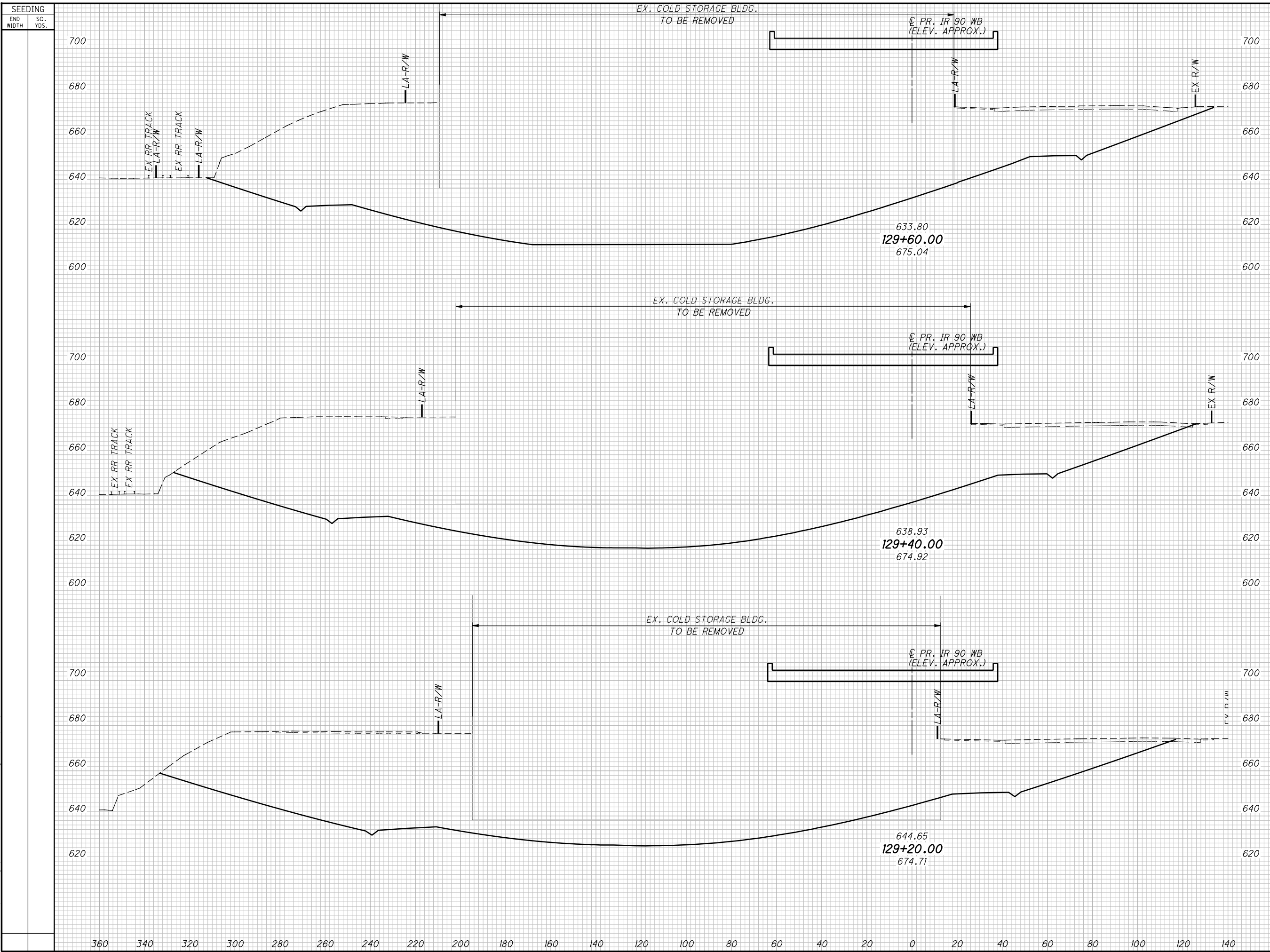
| END AREA | VOLUME | CALCULATED | DWB | CHECKED | RLE |
|----------|--------|------------|-----|---------|-----|
| | | | | | |
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CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 128+60.00 TO STA. 129+00.00

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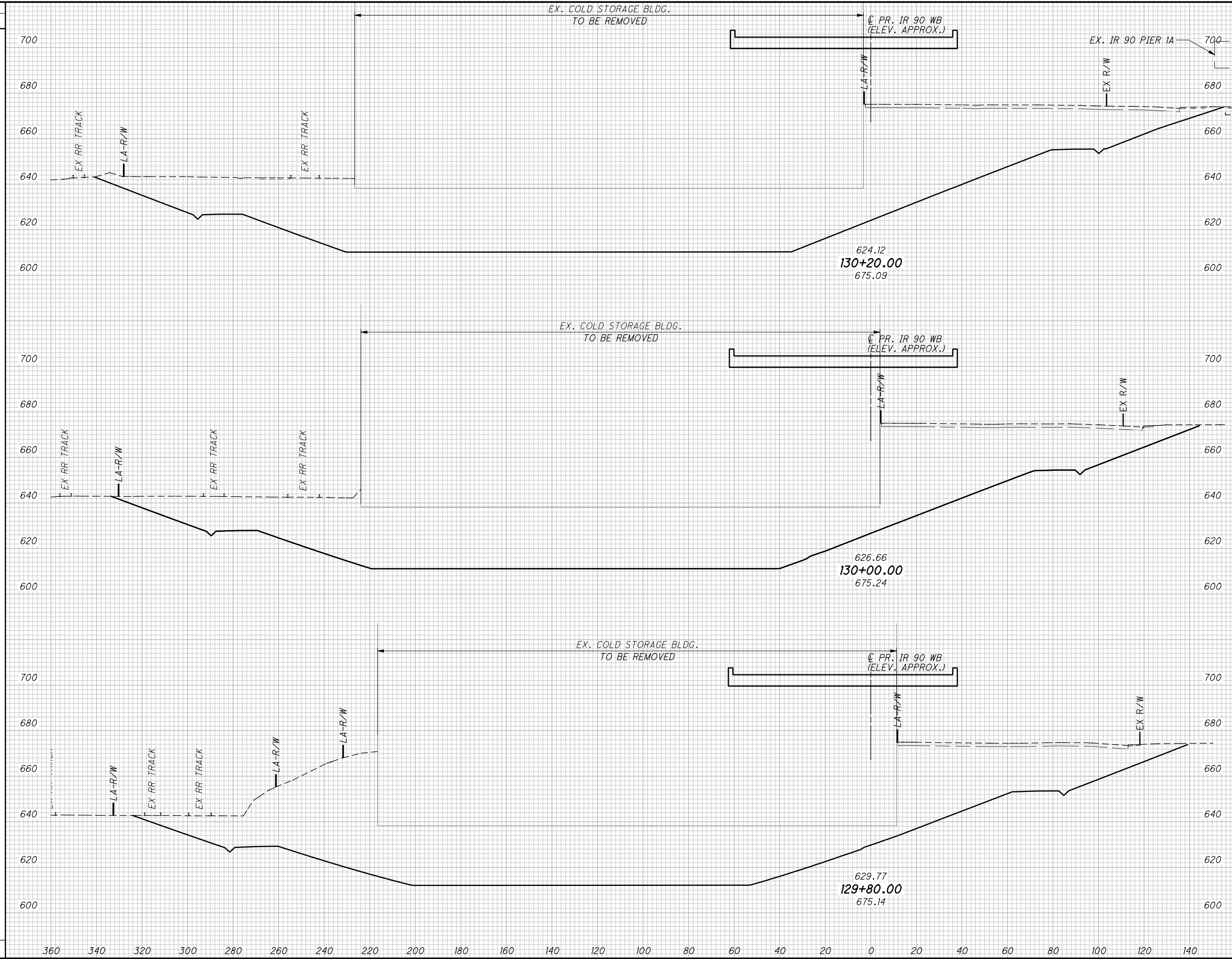
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|-----------|----------|----------|------|--------|------|------------|-----|---------|-----|
| END WIDTH | SO. YDS. | CUT | FILL | CUT | FILL | | | | |
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CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 129+20.00 TO STA. 129+60.00

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| SEEDING | |
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| END WIDTH | SO. YDS. |
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| END AREA | | VOLUME | | CALCULATED | DWB | CHECKED | RLE |
|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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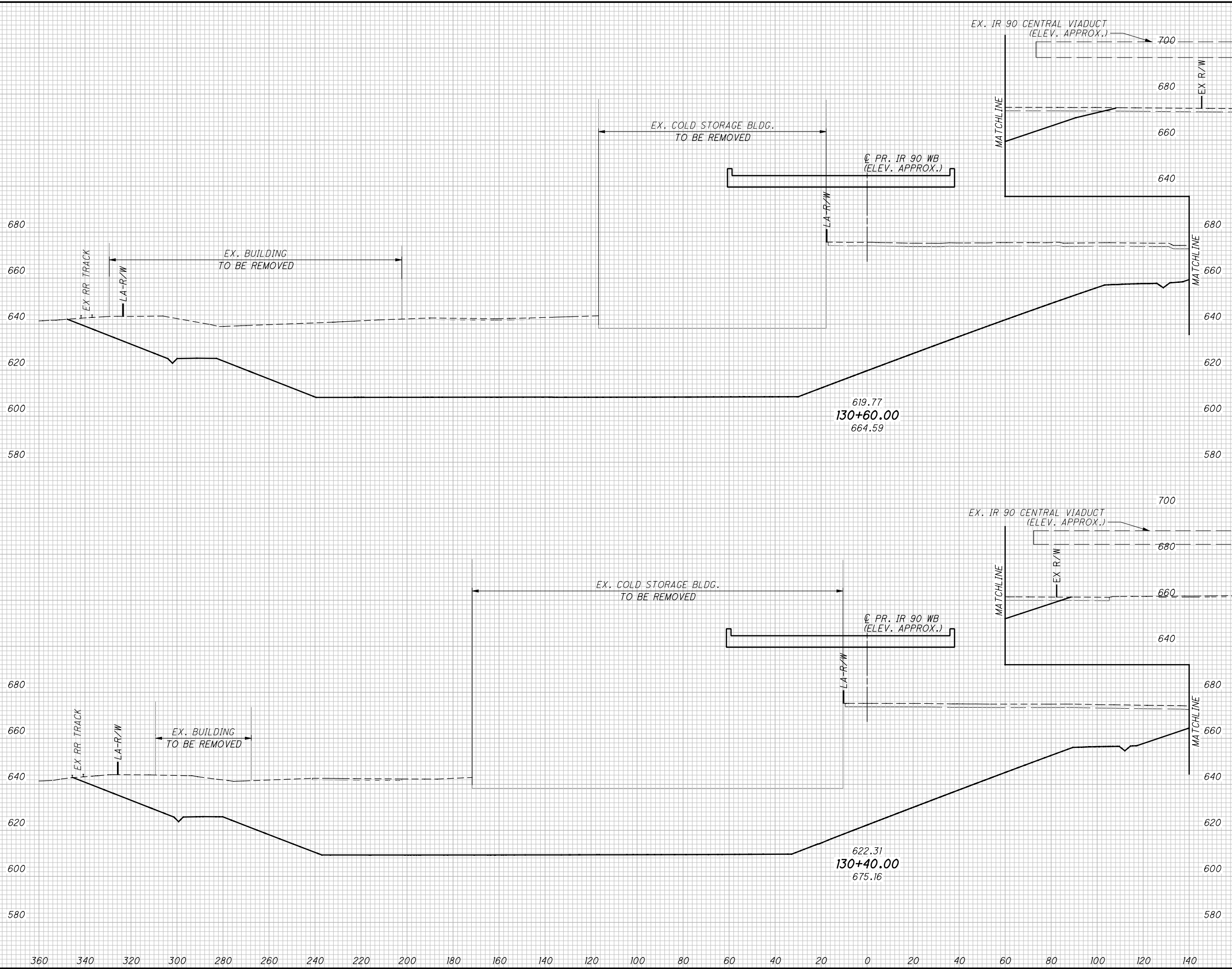
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SEEDING

| END WIDTH | SO. YDS. |
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| END AREA | | VOLUME | |
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| CUT | FILL | CUT | FILL |
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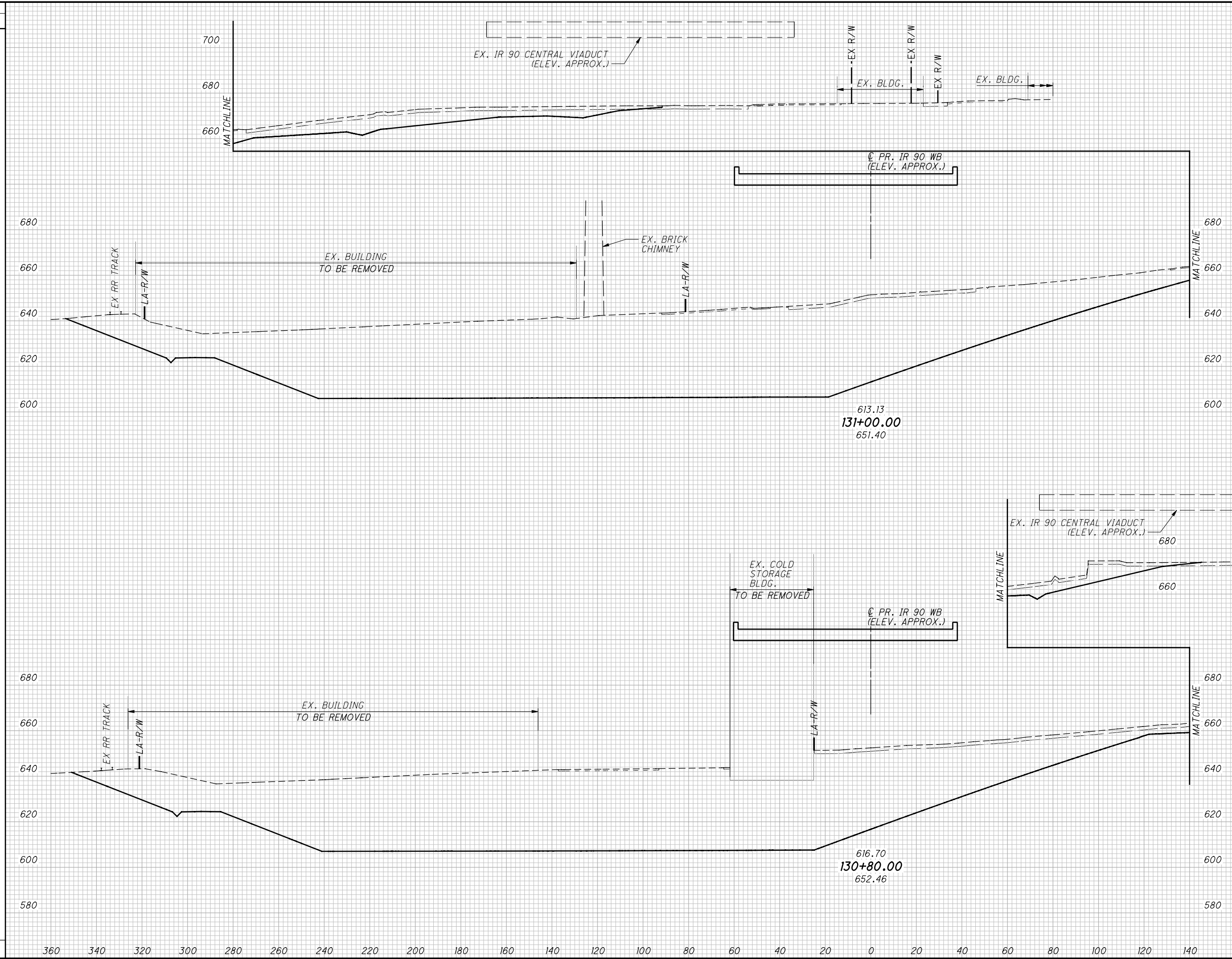
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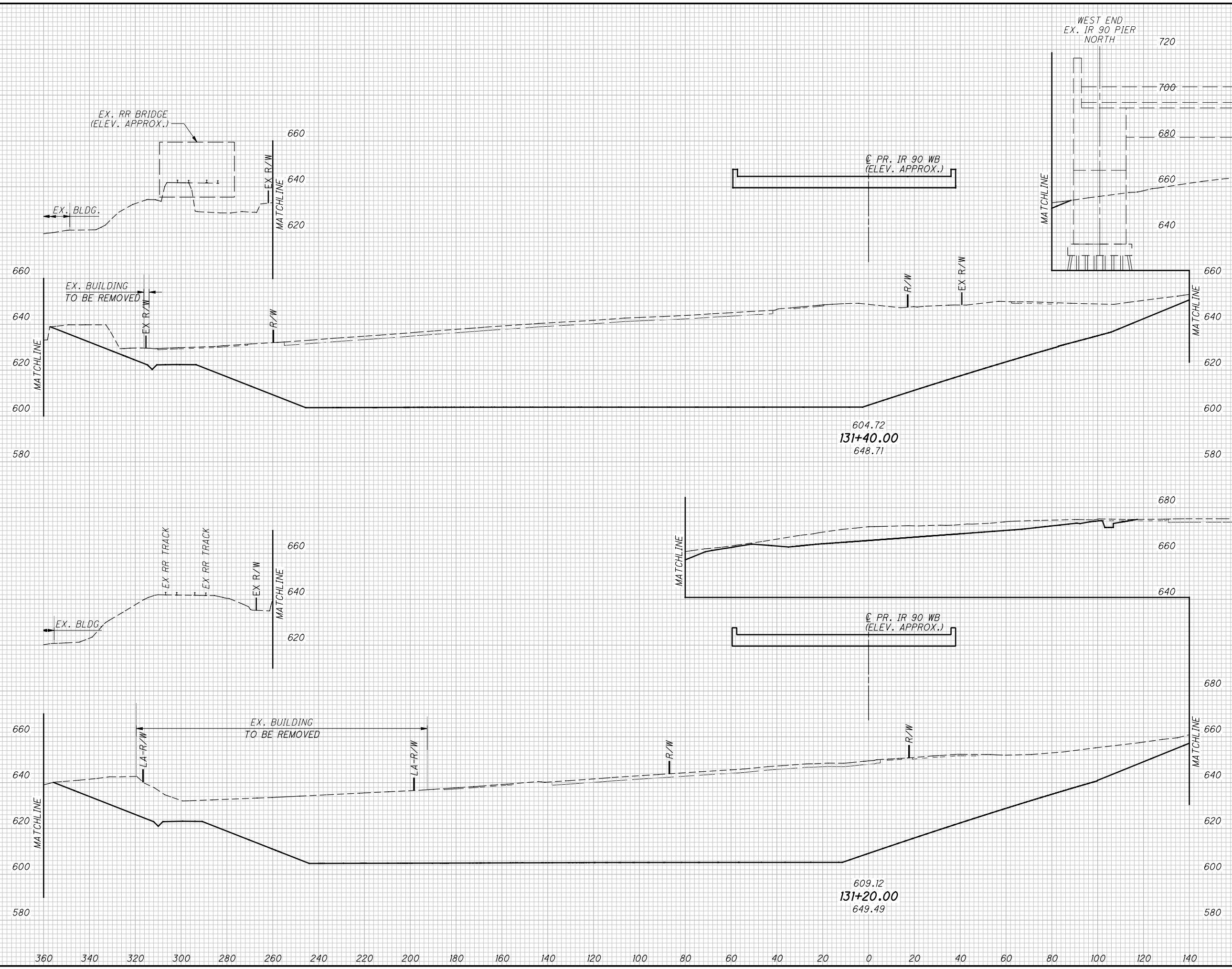
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|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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**CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 130+80.00 TO STA. 131+00.00**

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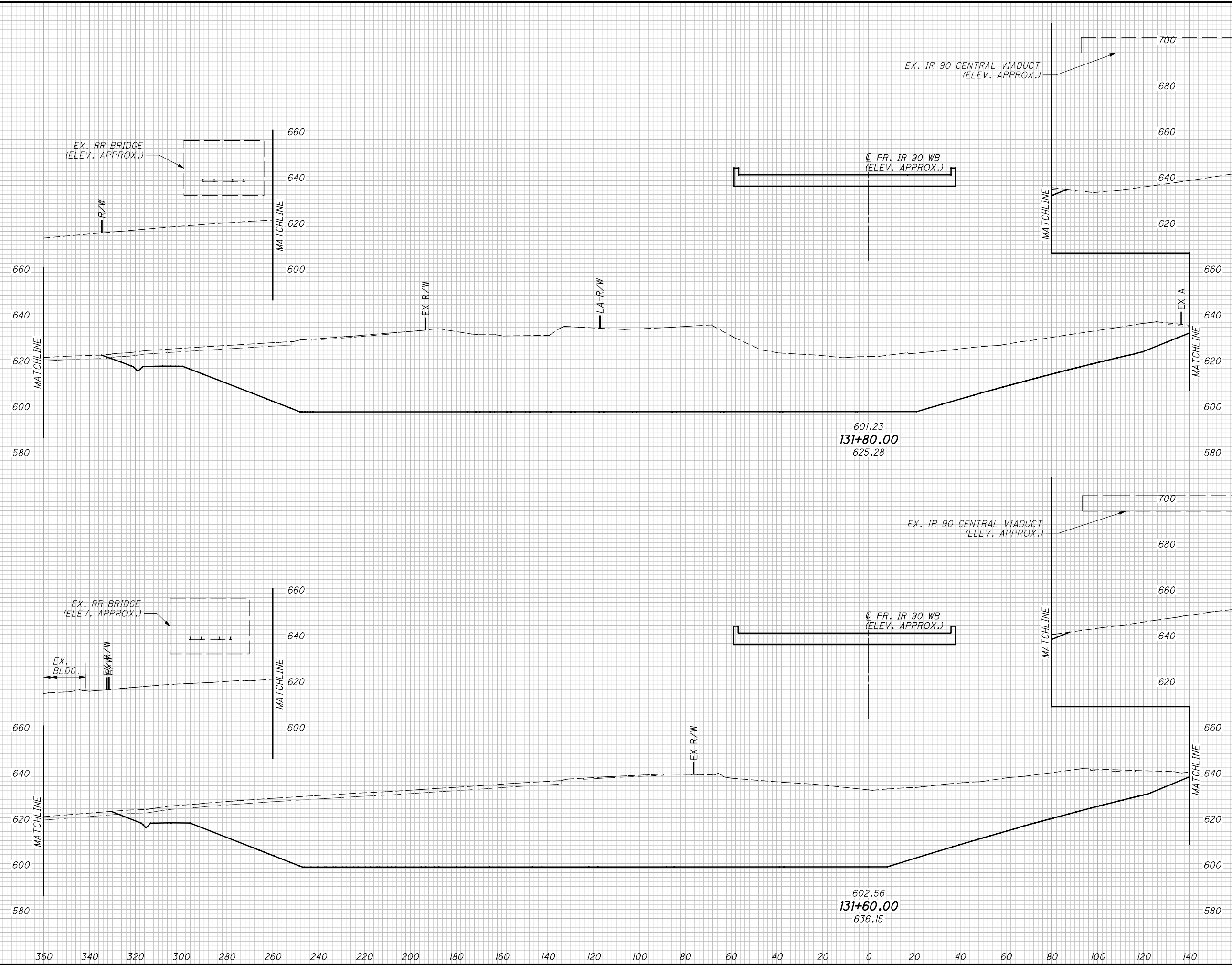
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|----------|------|--------|------|------------|-----|---------|-----|
| CUT | FILL | CUT | FILL | | | | |
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**CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 131+20.00 TO STA. 131+40.00**

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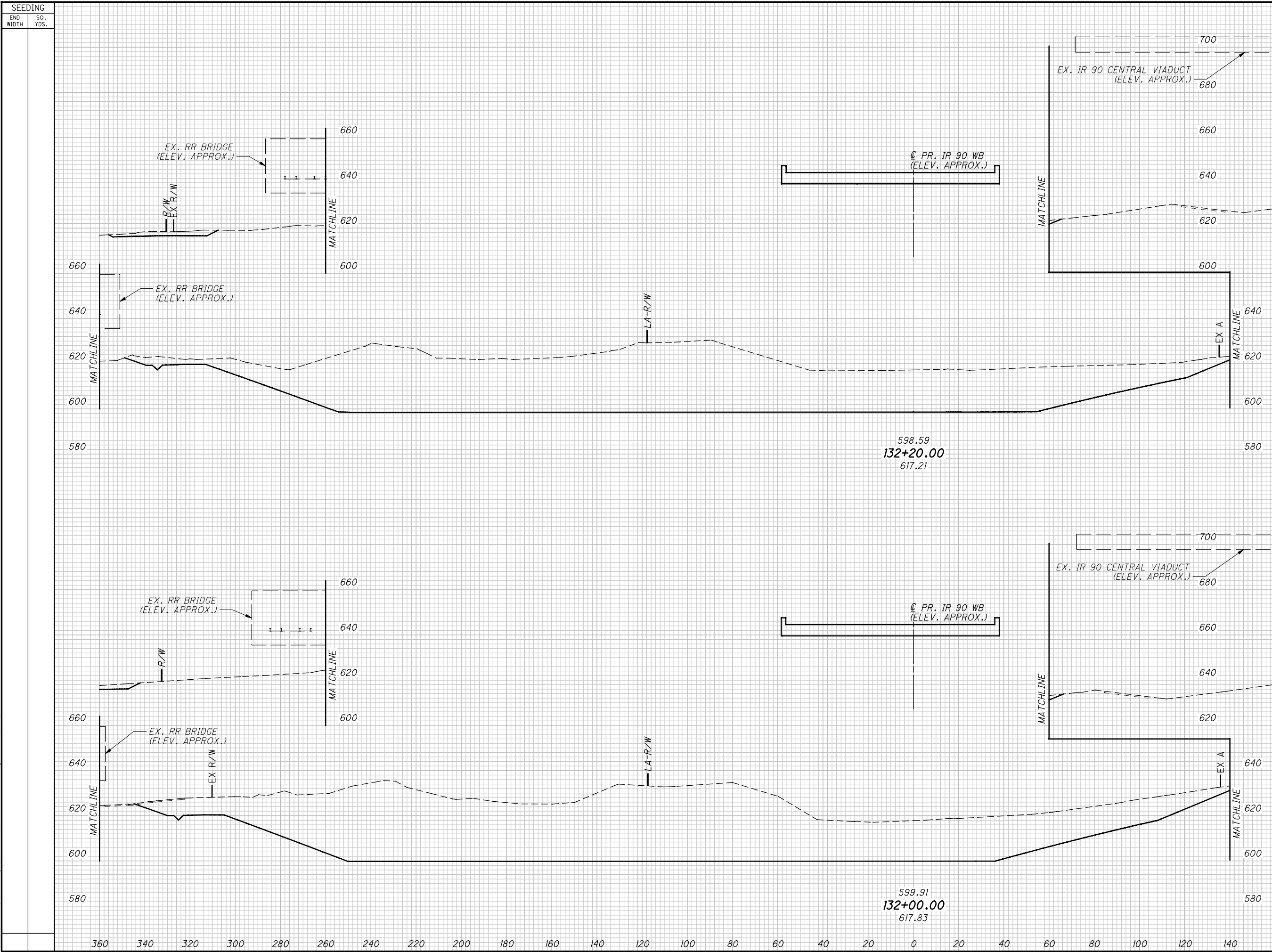
| END | AREA | | VOLUME | |
|-----|------|------|--------|------|
| | CUT | FILL | CUT | FILL |
| | | | | |

CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 131+60.00 TO STA. 131+80.00

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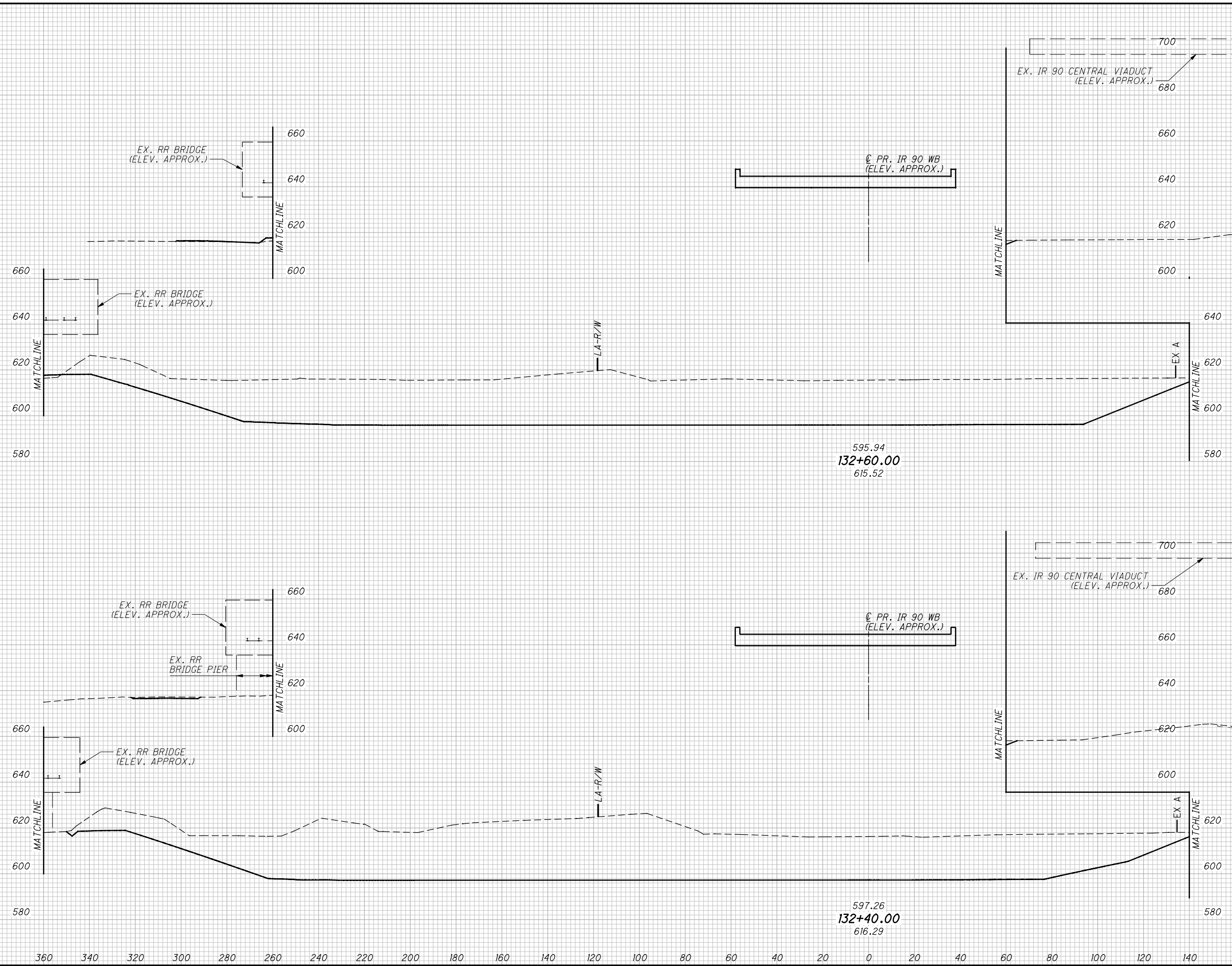
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|-----------|----------|----------|------|--------|------|------------|---------|-----|
| END WIDTH | SO. YDS. | CUT | FILL | CUT | FILL | DWB | | |
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**CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 132+00.00 TO STA. 132+20.00**

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| SEEDING | |
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| END WIDTH | SO. YDS. |
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| END AREA | | VOLUME | |
|----------|------|--------|------|
| CUT | FILL | CUT | FILL |
| | | | |

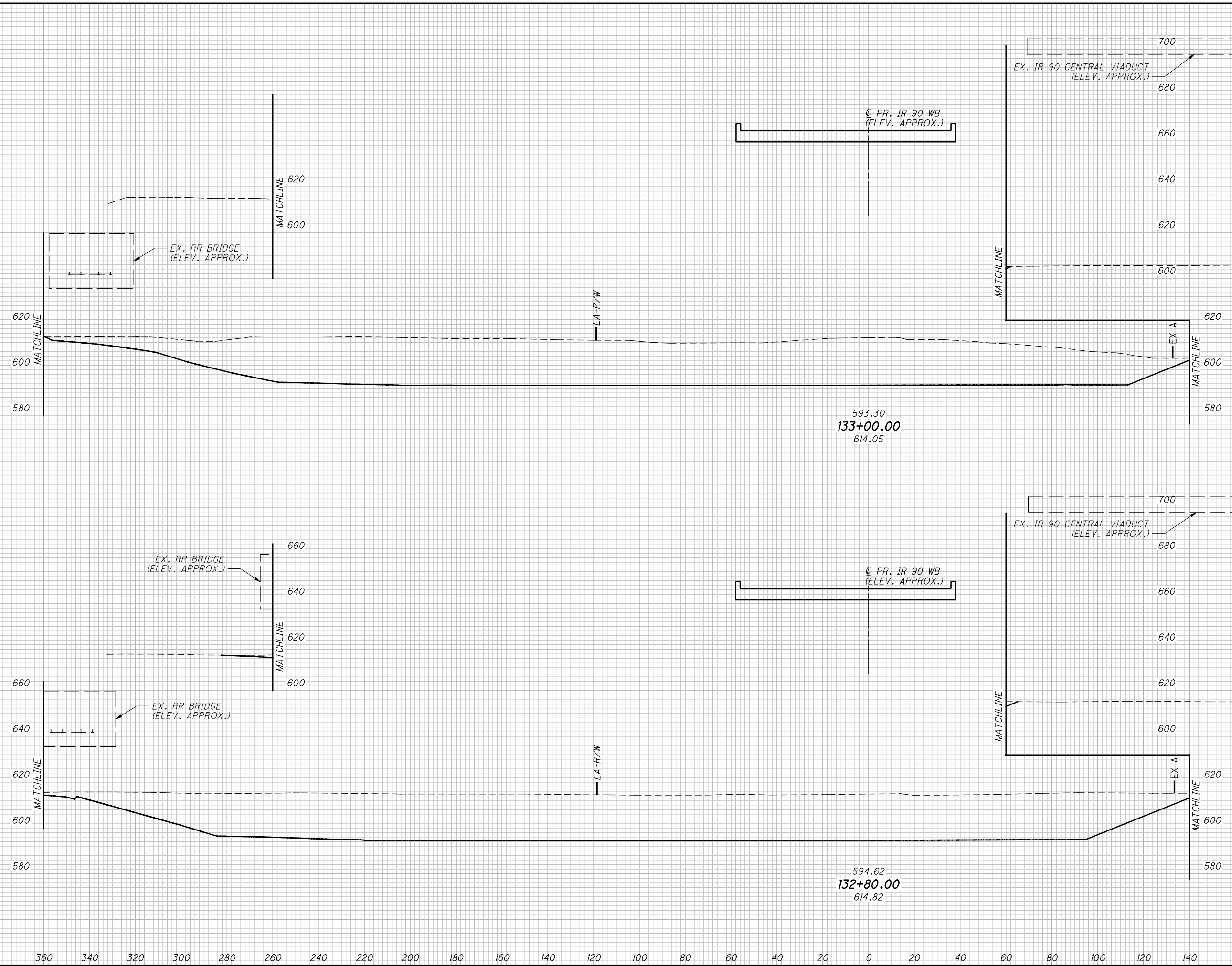
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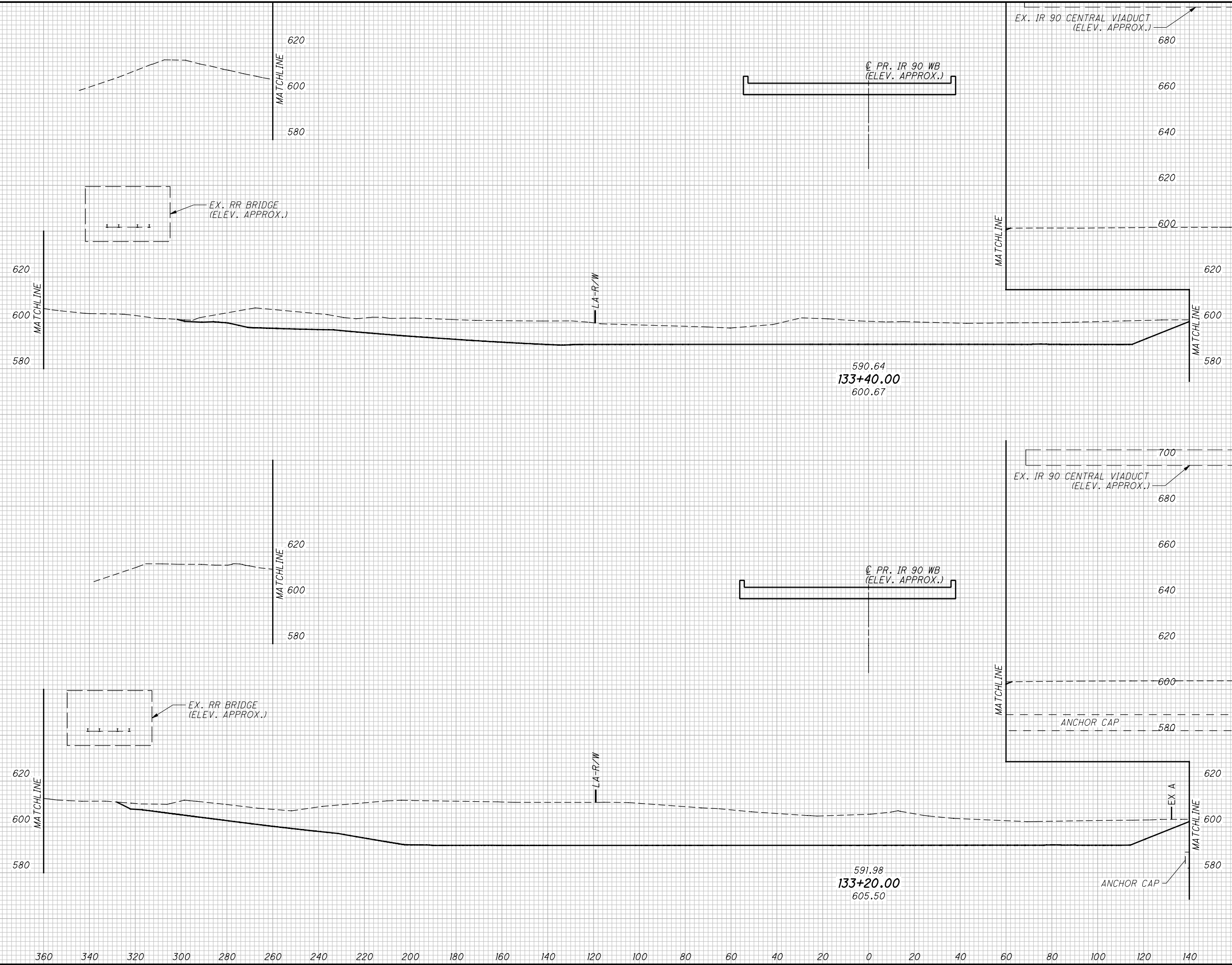


| END AREA | | VOLUME | |
|----------|------|--------|------|
| CUT | FILL | CUT | FILL |
| | | | |

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| CALCULATED | DWB | CHECKED | RLE | | | | | | | | | | |
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| 18 | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | |

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| SEEDING | |
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| END | AREA | | VOLUME | |
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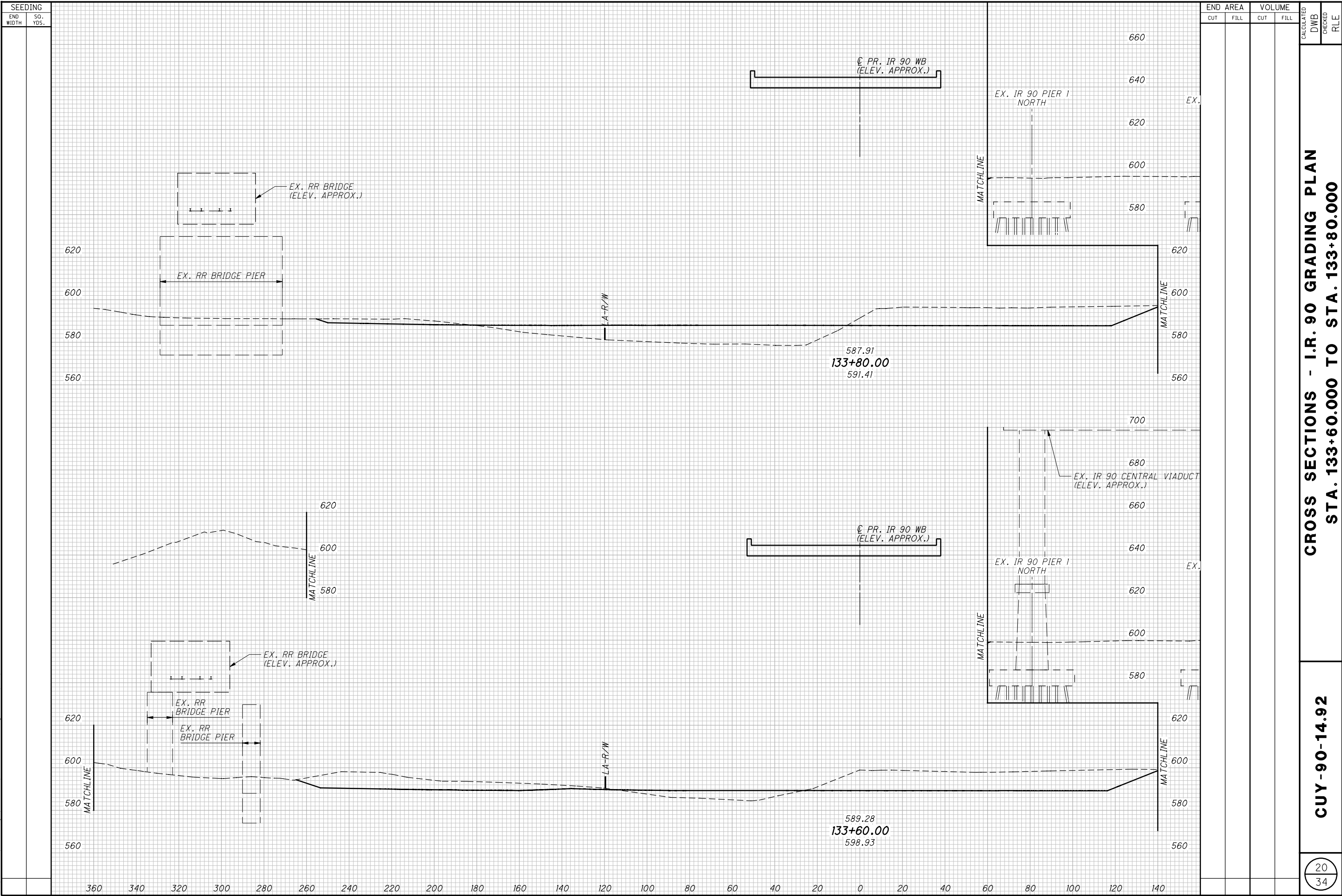
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CROSS SECTIONS - I.R. 90 GRADING PLAN
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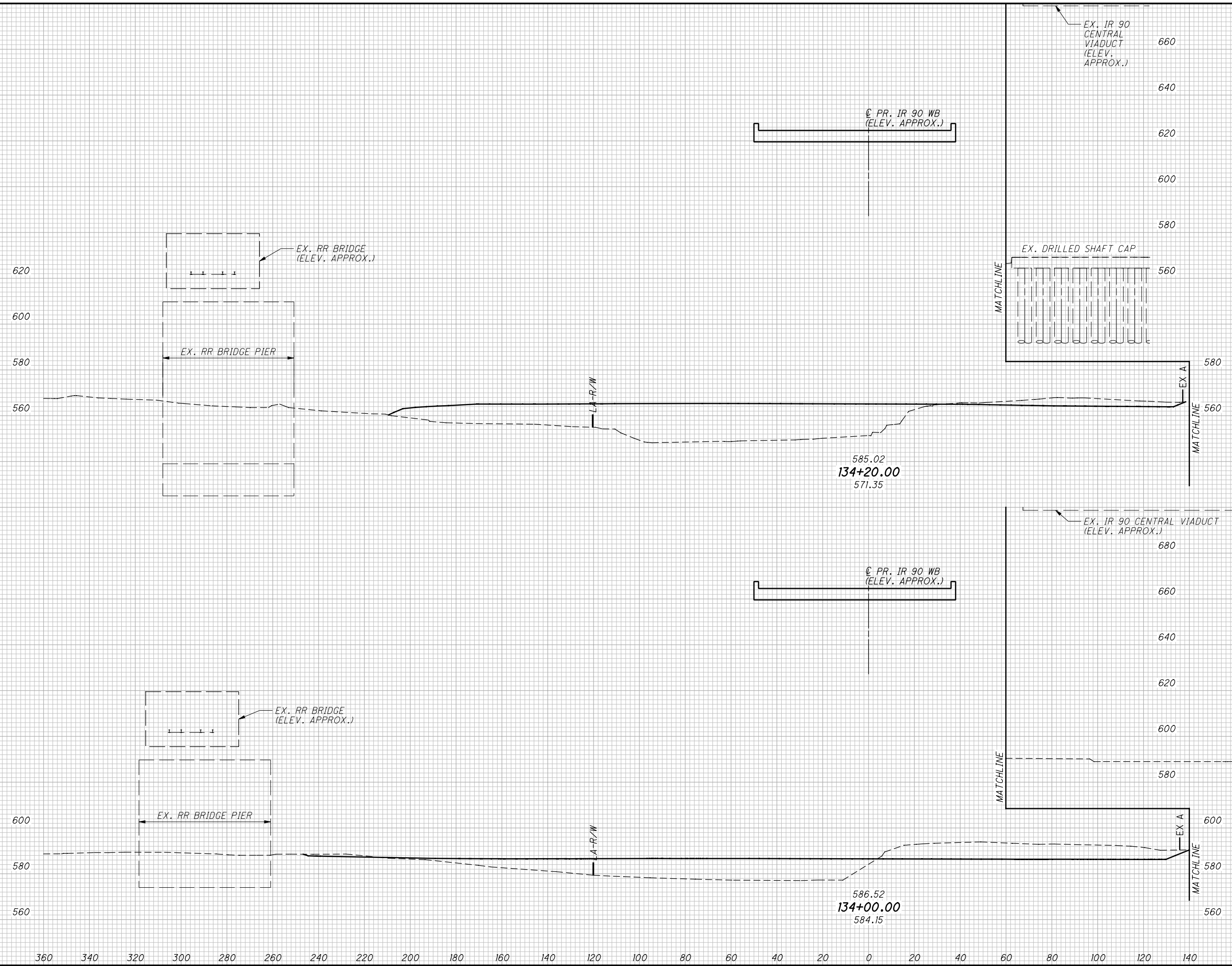
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| 34 |

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| SEEDING | |
|-----------|----------|
| END WIDTH | SO. YDS. |
| | |



| END AREA | VOLUME | CUT | | FILL | |
|----------|--------|-----|------|------|------|
| | | CUT | FILL | CUT | FILL |
| | | | | | |

CROSS SECTIONS - I.R. 90 GRADING PLAN
STA. 134+00.00 TO STA. 134+20.00

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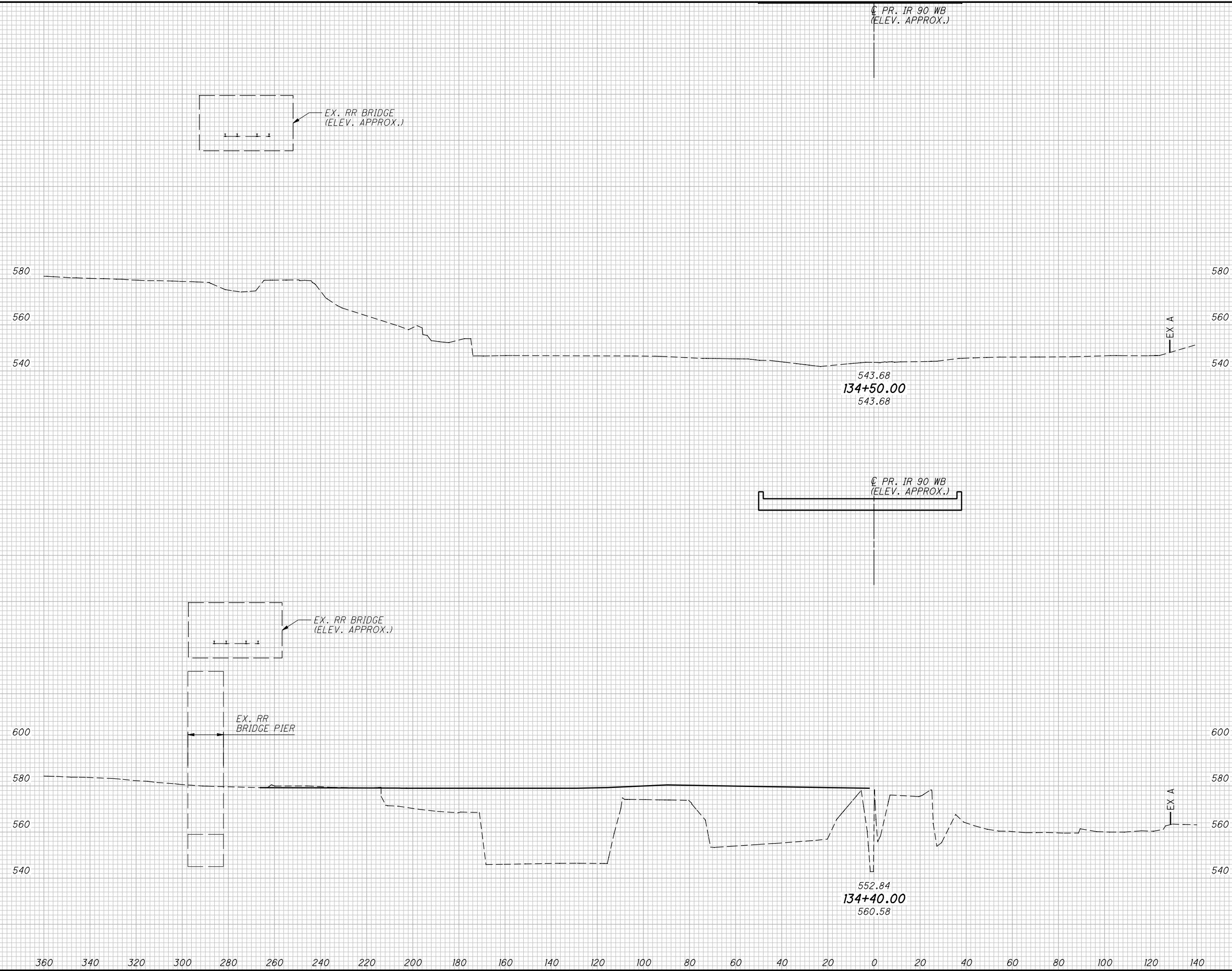
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34

| CALCULATED | DWB | CHECKED | RLE |
|------------|-----|---------|-----|
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| SEEDING | |
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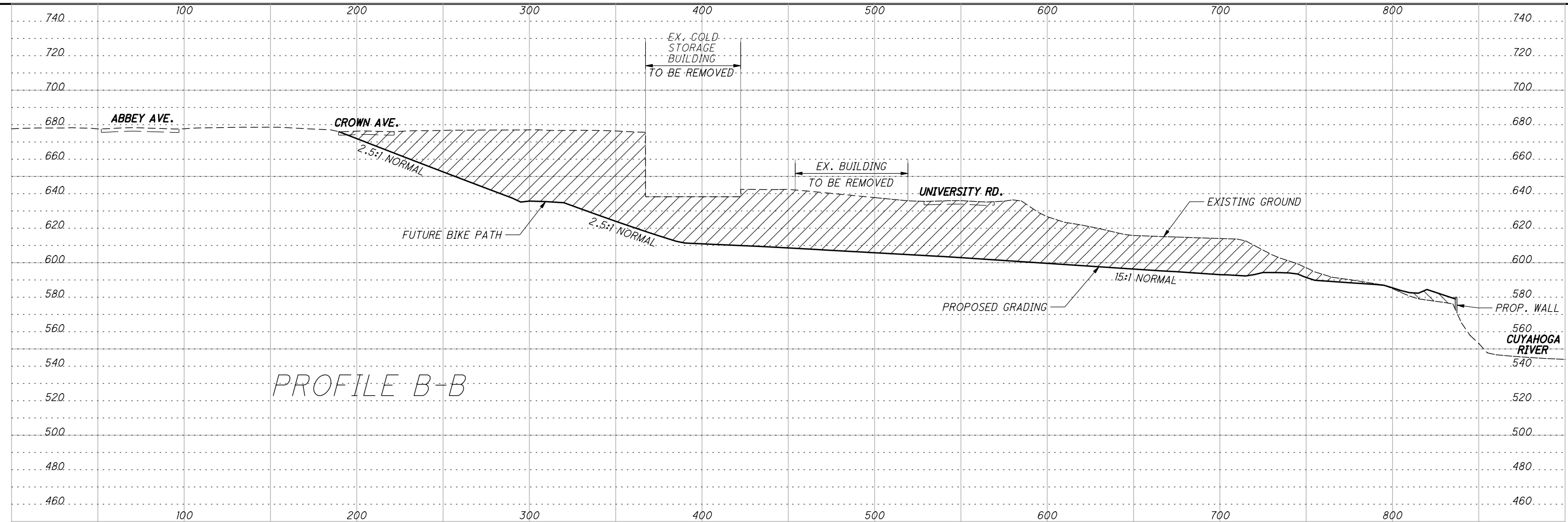
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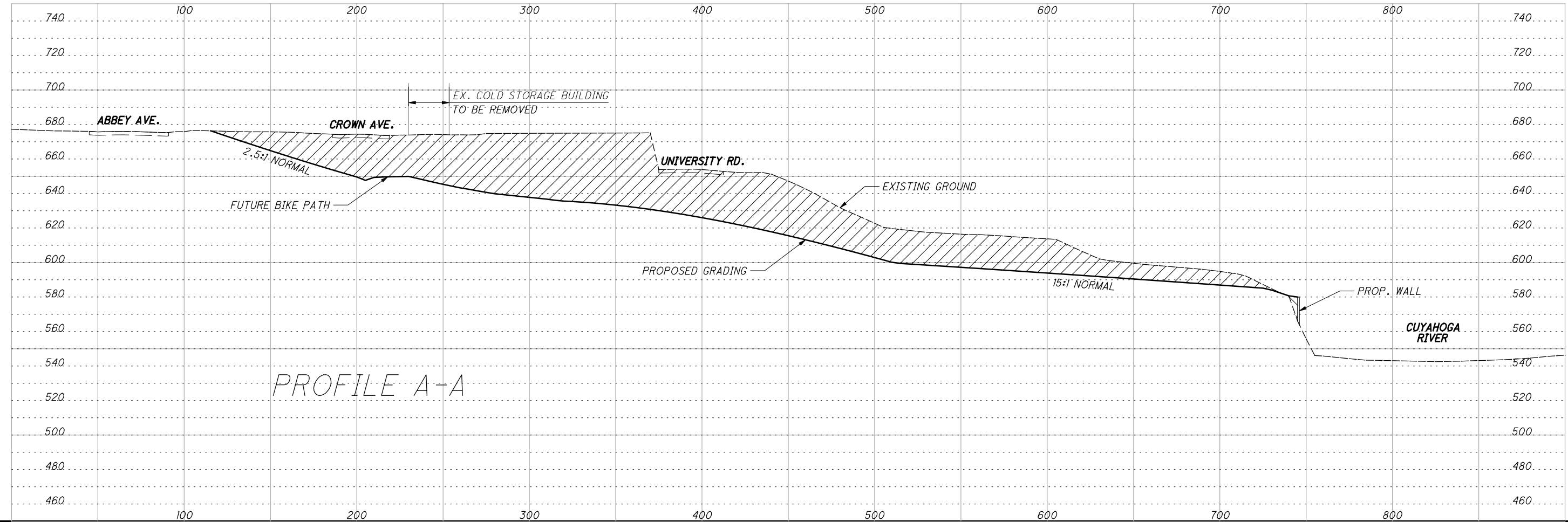
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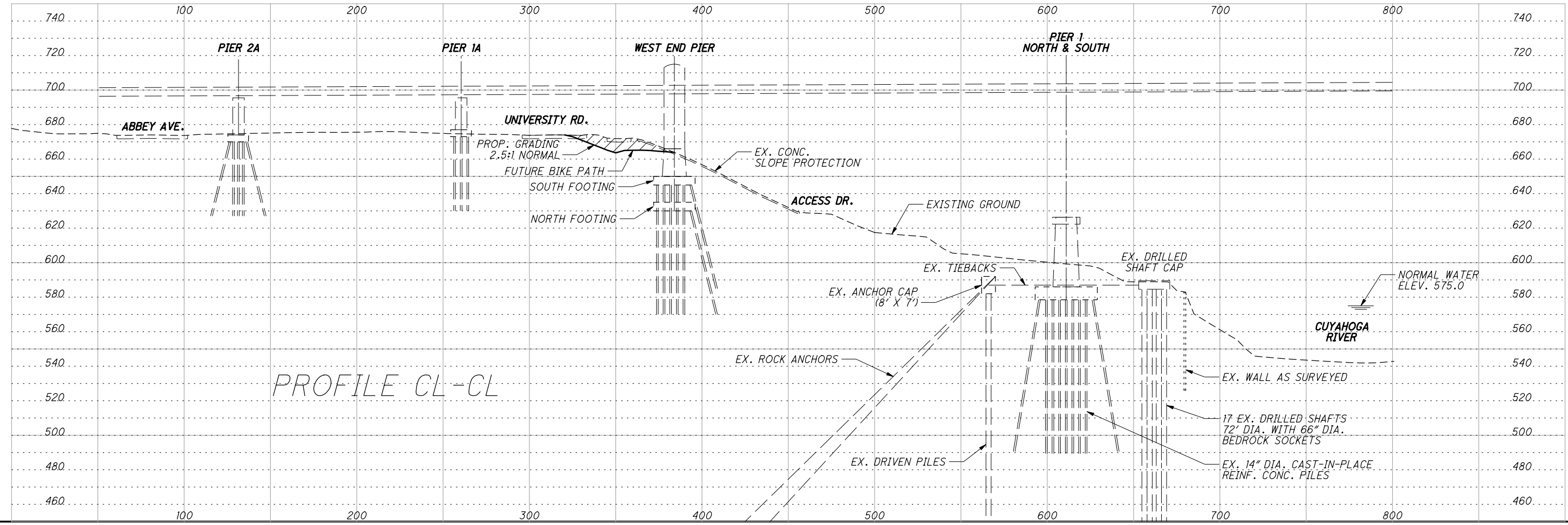
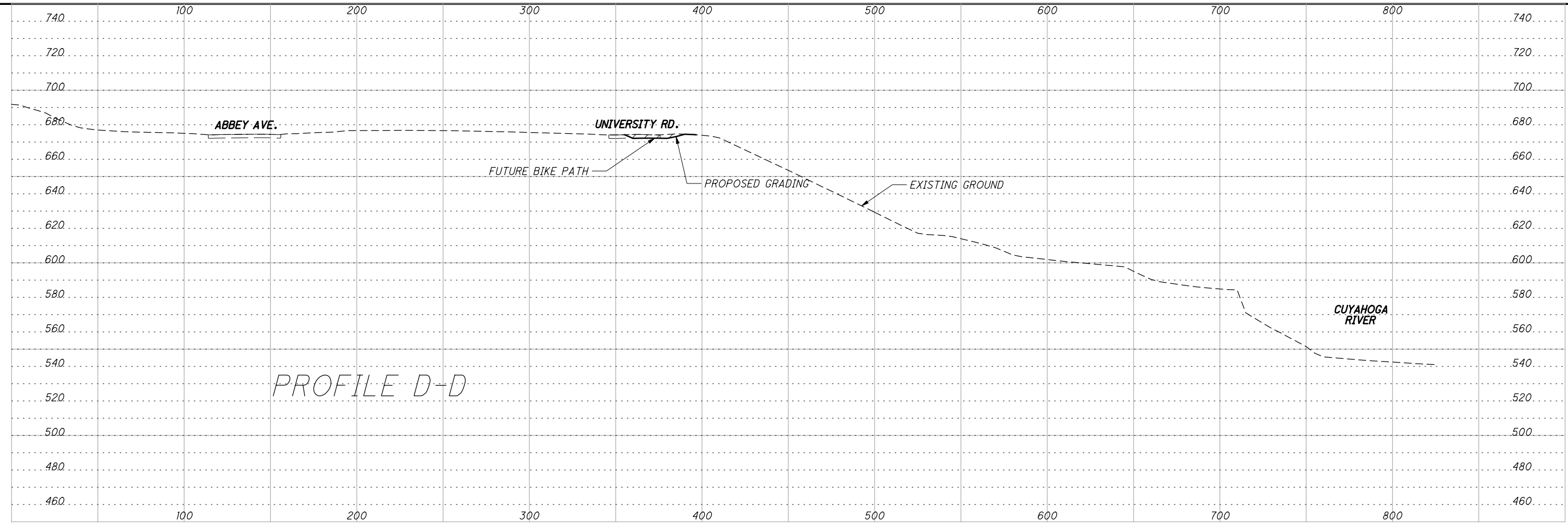
PROFILE B-B



PROFILE A-A

| | | | |
|---|-----|---------|-----|
| CALCULATED | DWB | CHECKED | RLE |
| SLOPE GRADING PROFILES A-A AND B-B | | | |
| CUY-90-14.92 | | | |
| 23 34 | | | |

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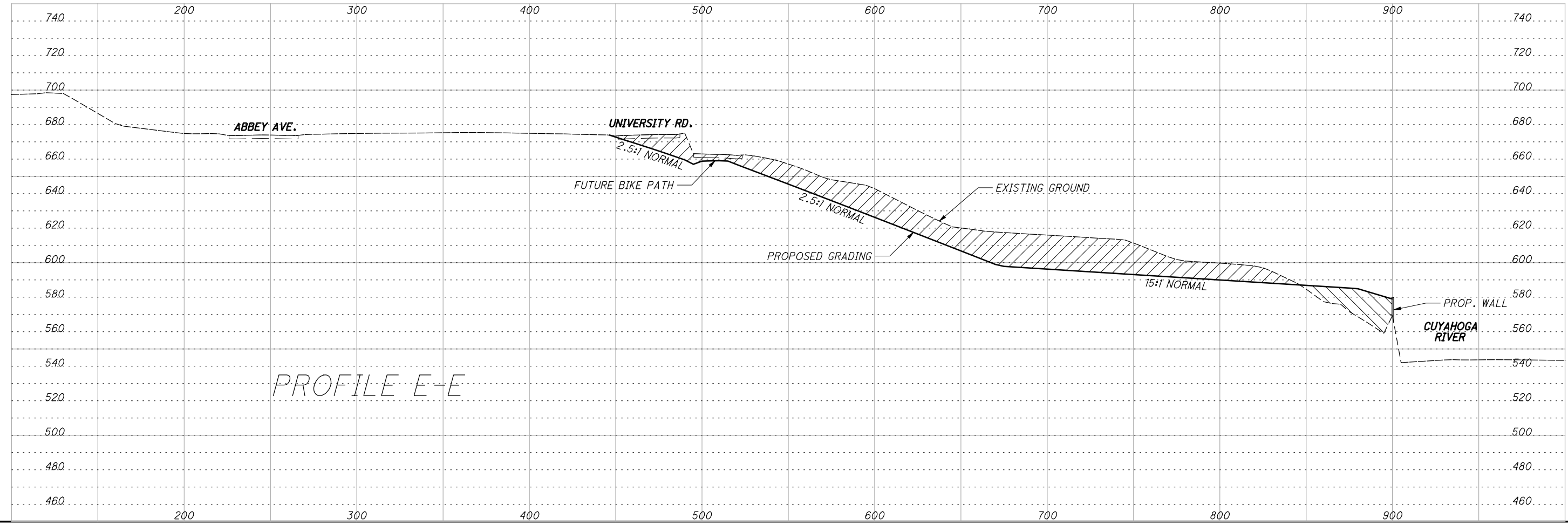
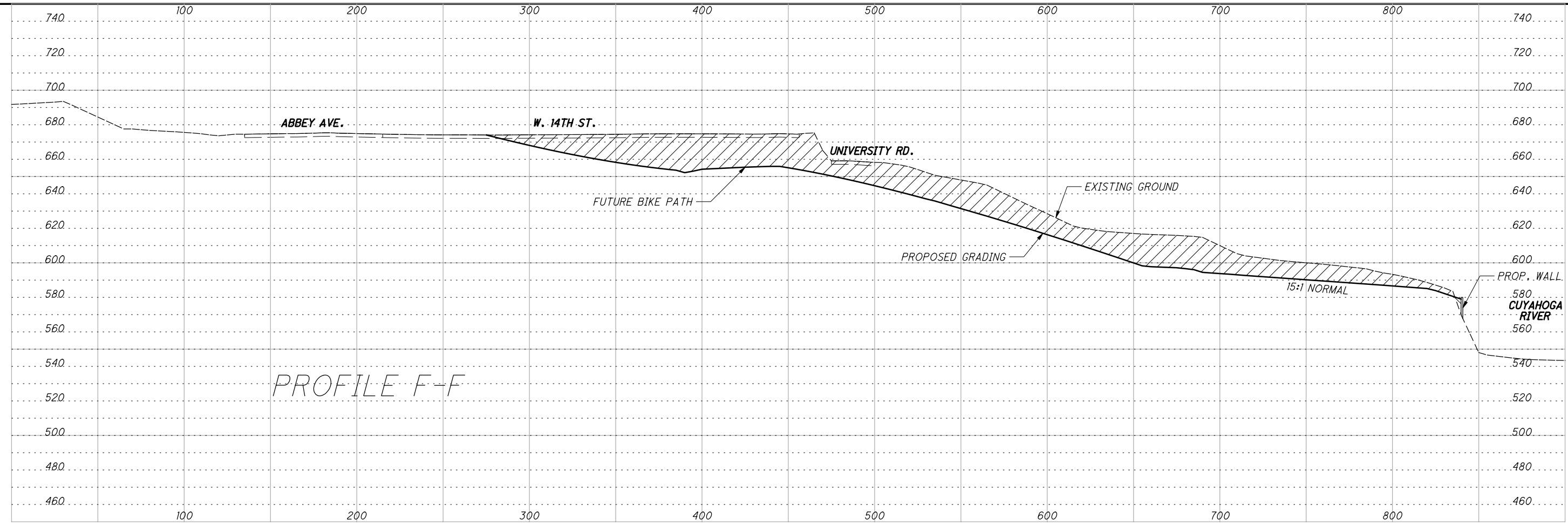
CALCULATED
DWB
CHECKED
RLE

SLOPE GRADING PROFILES CL-CL AND D-D

CUY-90-14.92

24
34

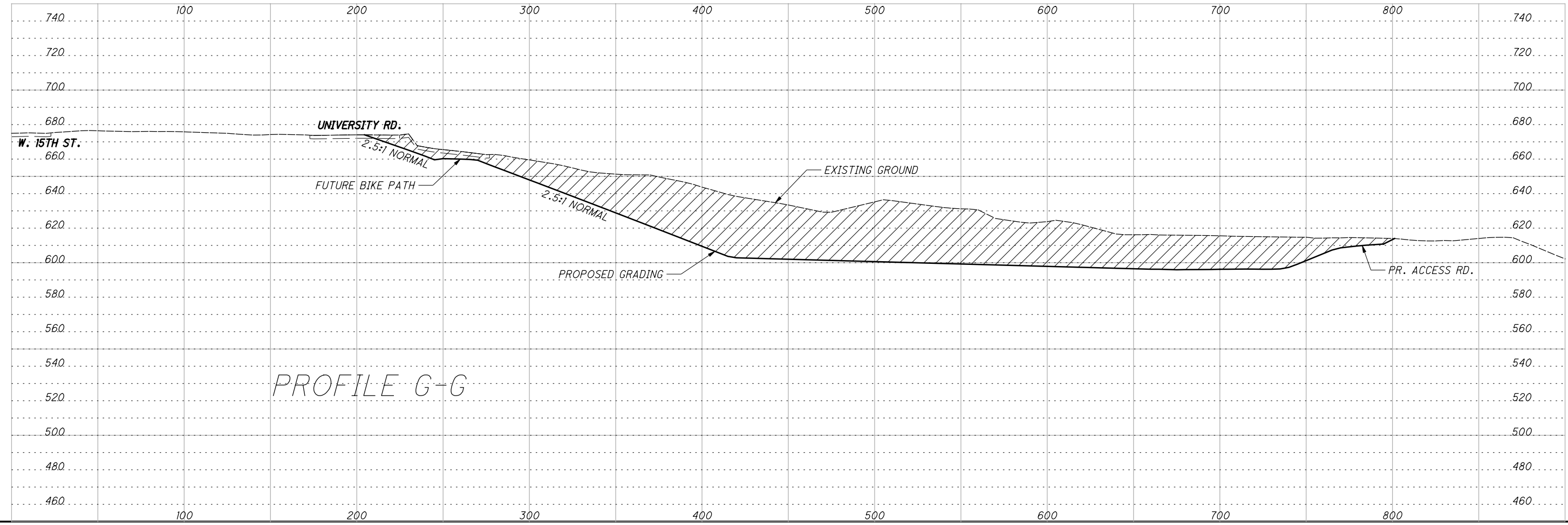
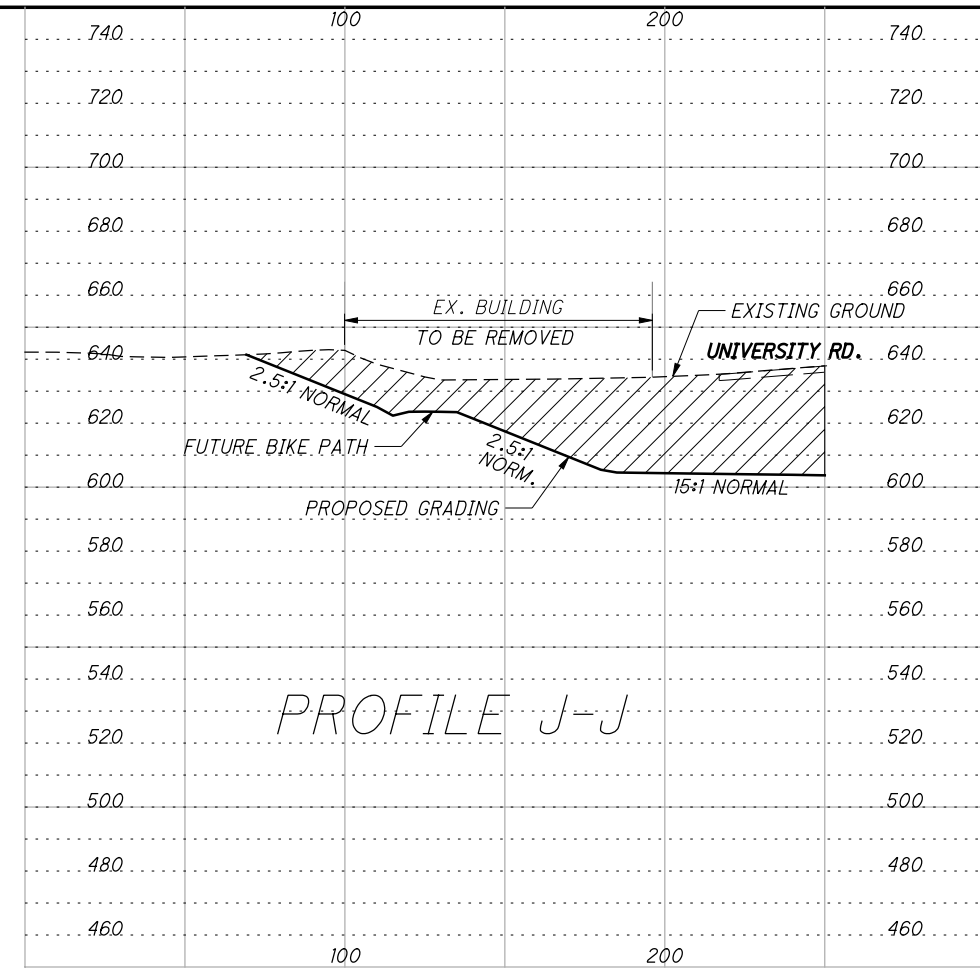
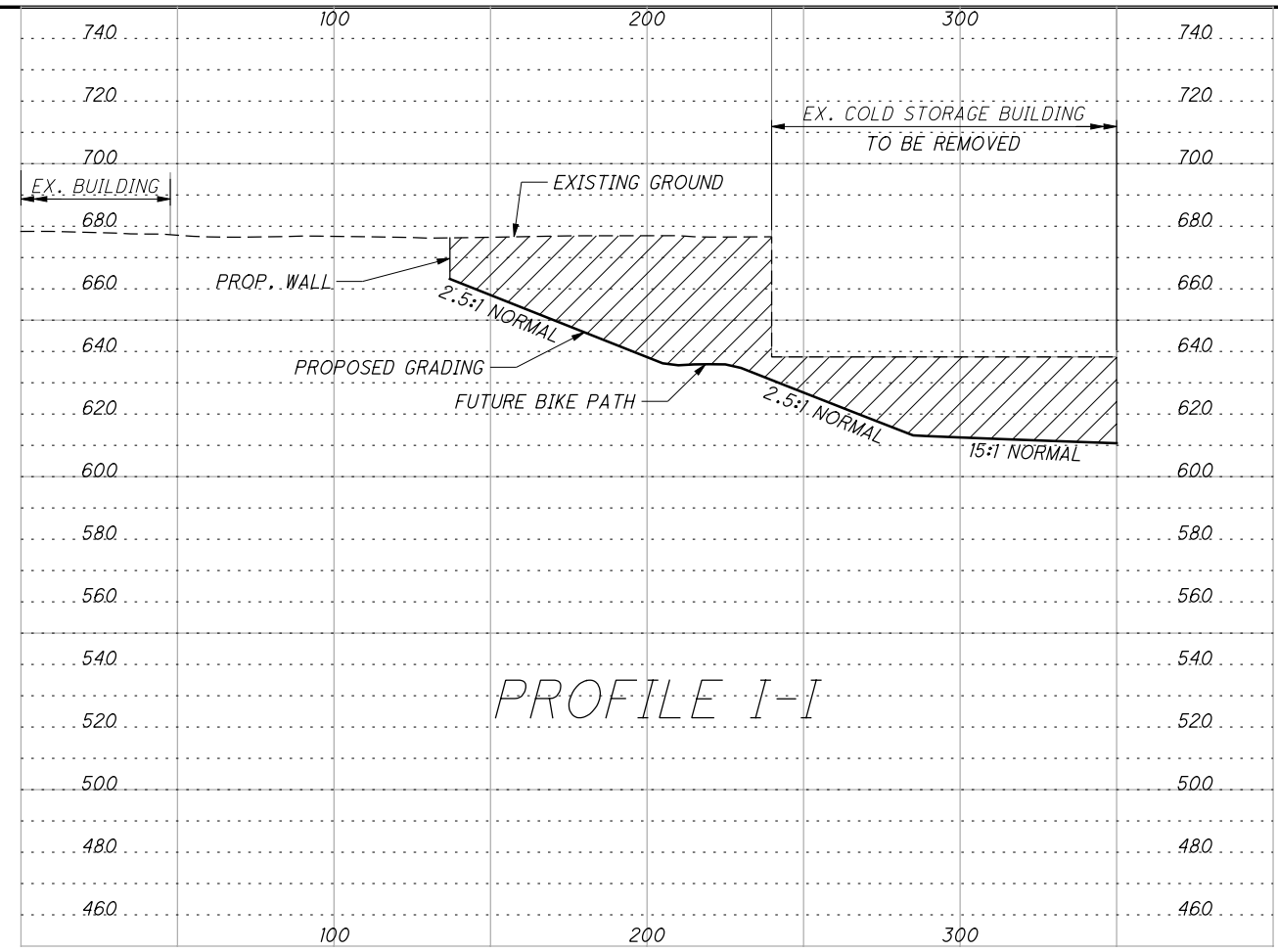
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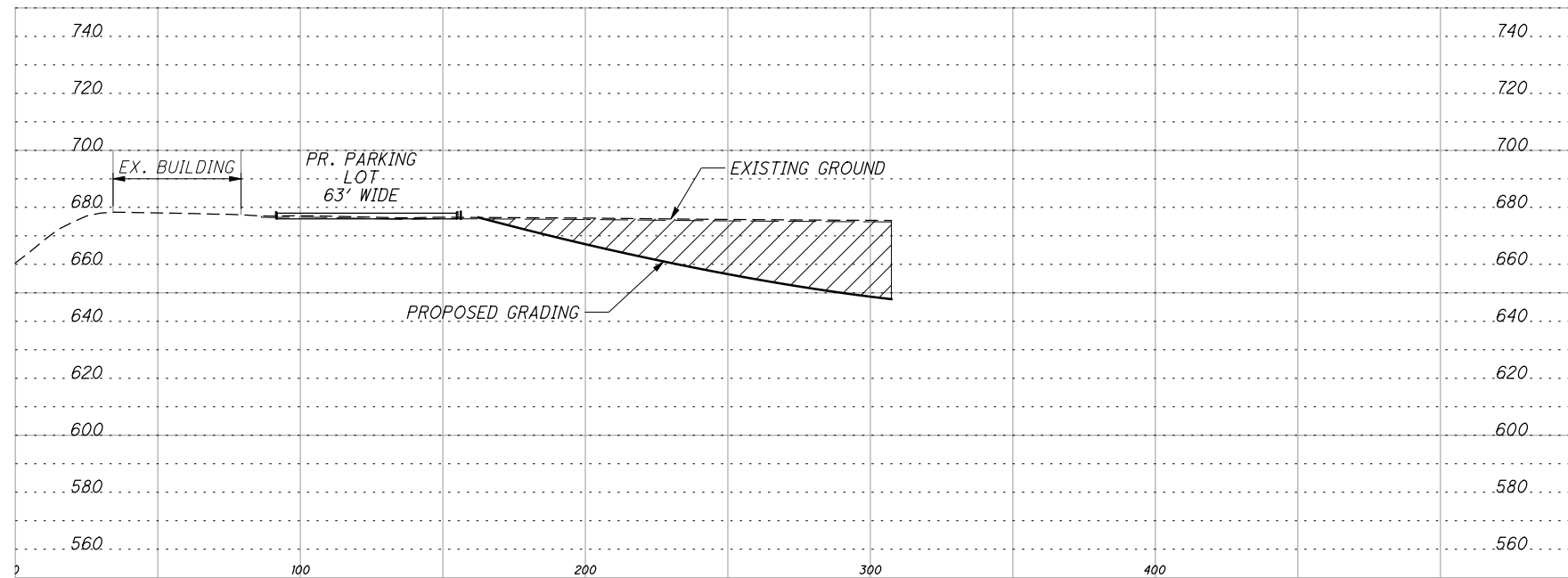
CALCULATED
DWB
CHECKED
RLE

SLOPE GRADING PROFILES E-E AND F-F

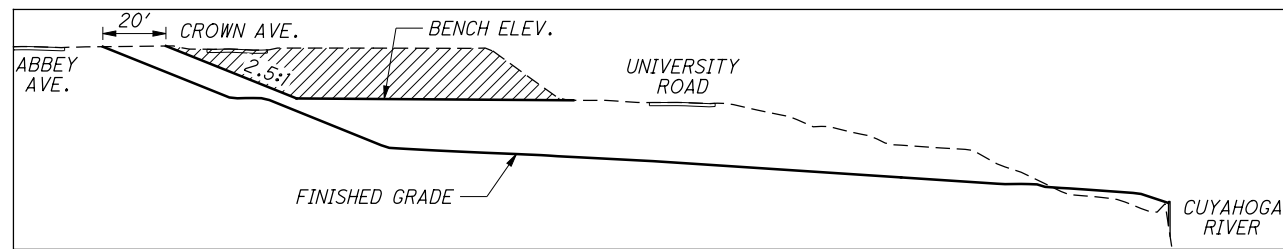
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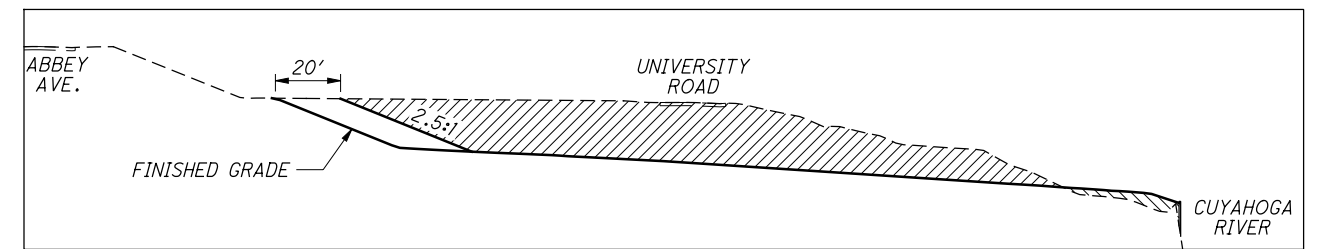
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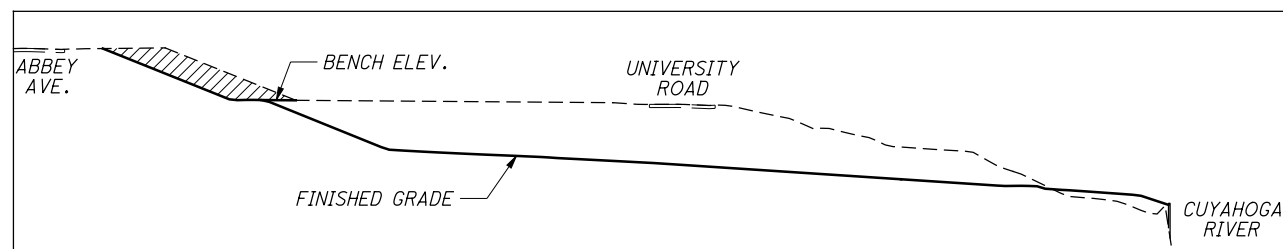
PROFILE K-K



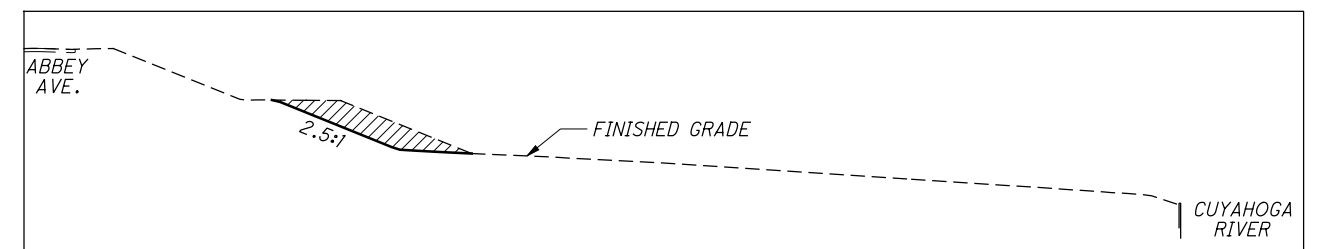
STAGE 1 EXCAVATION



STAGE 3 EXCAVATION



STAGE 2 EXCAVATION



STAGE 4 EXCAVATION

TYPICAL WEST BANK EXCAVATION SEQUENCE

WORK PERFORMED IN EACH STAGE

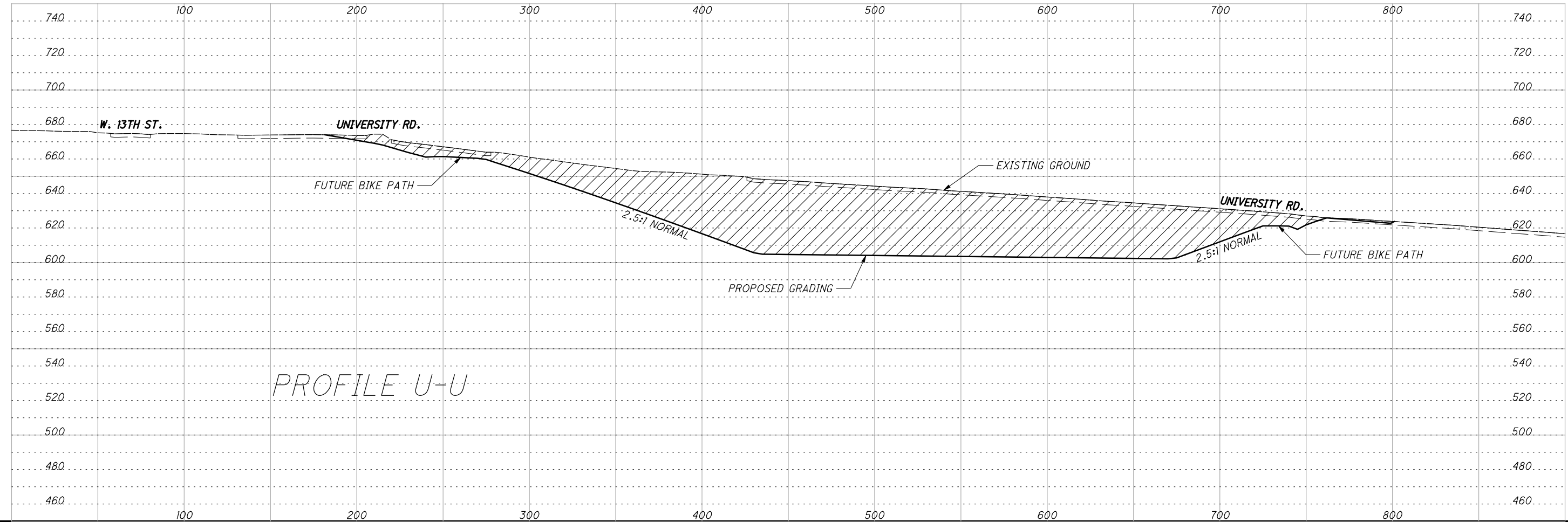
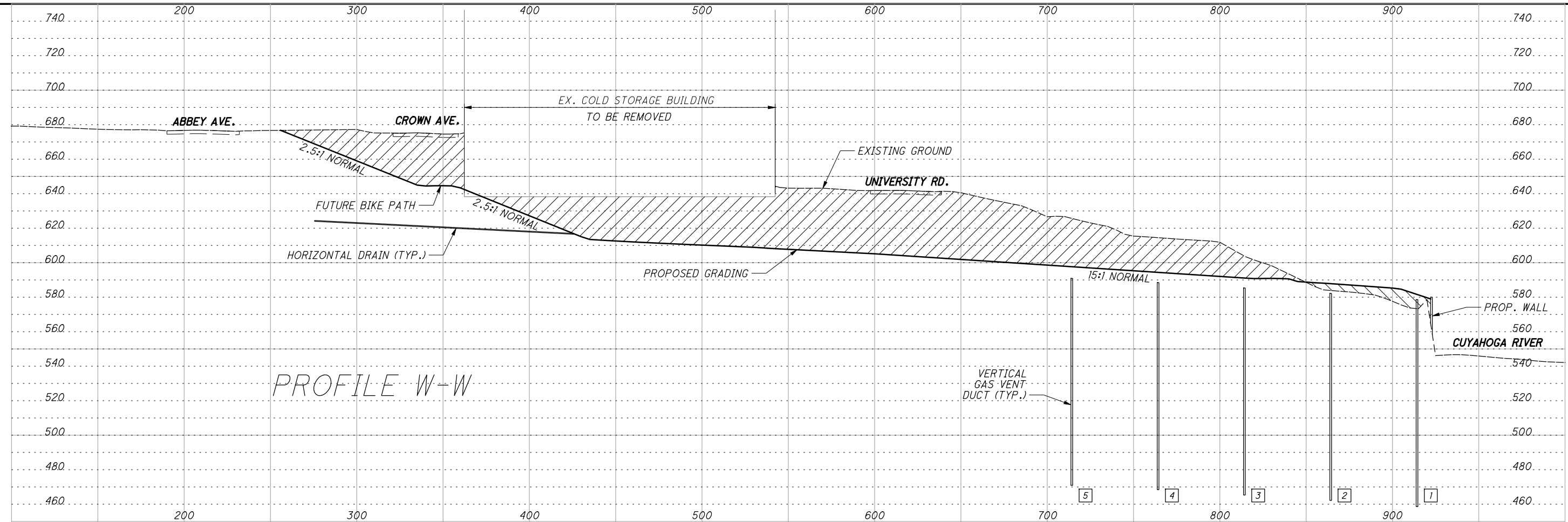
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CALCULATED
CDS
CHECKED
RLE

SLOPE GRADING PROFILE K-K & EXCAVATION SEQUENCE

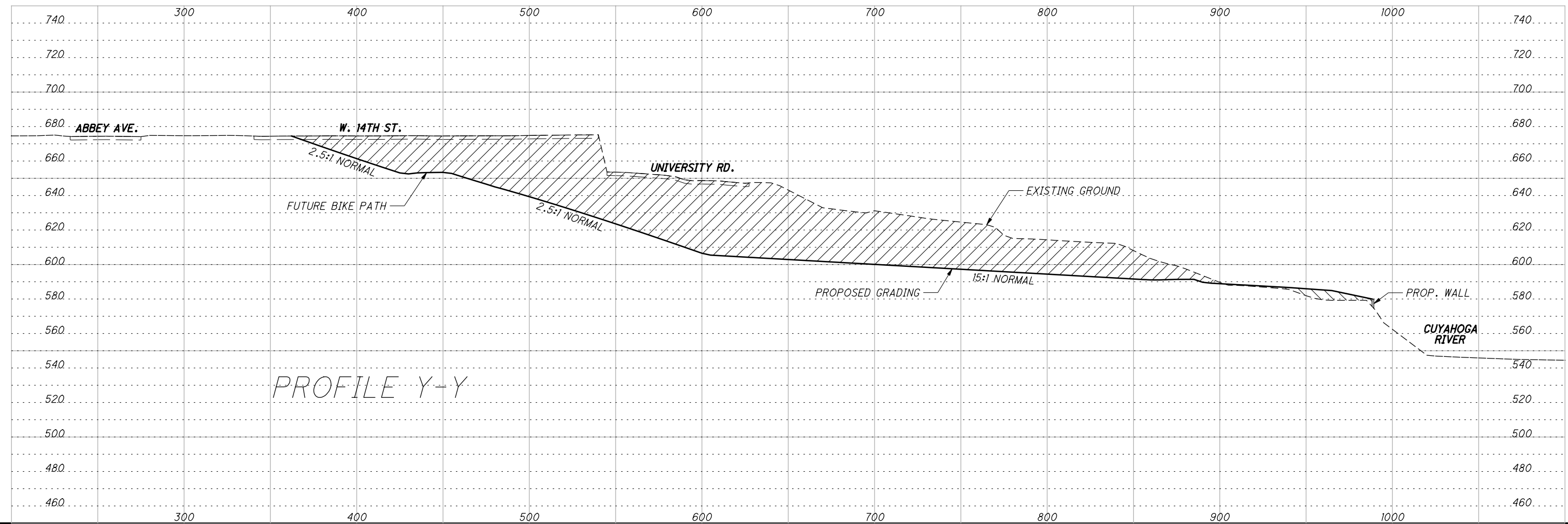
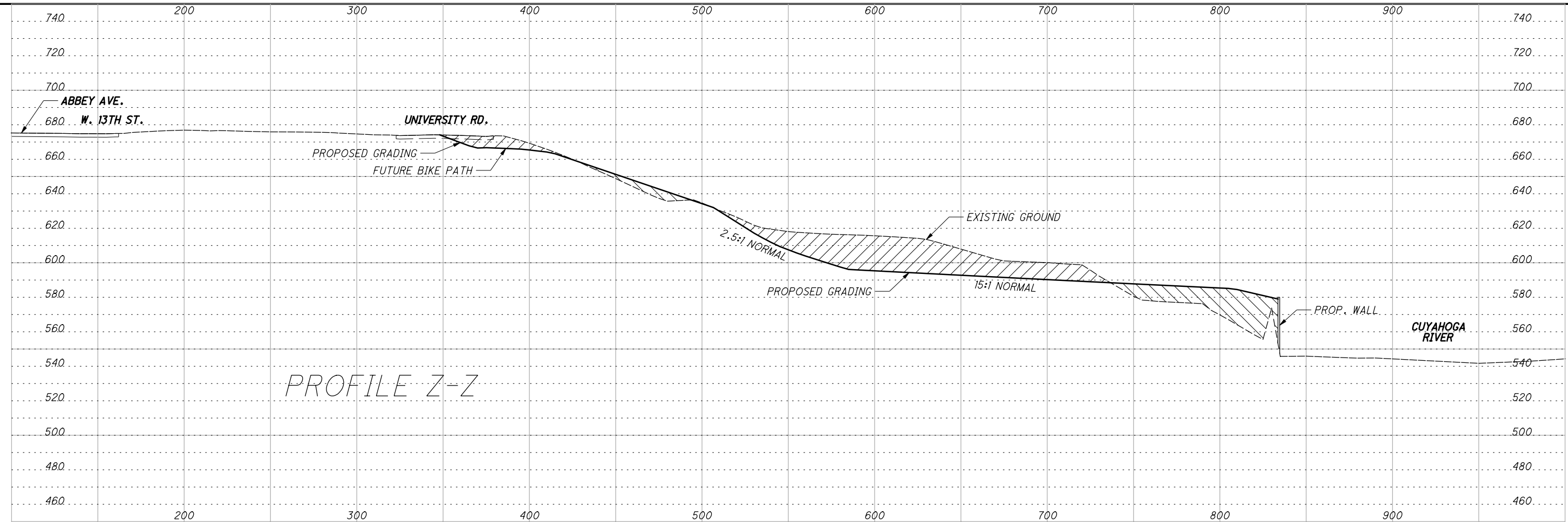
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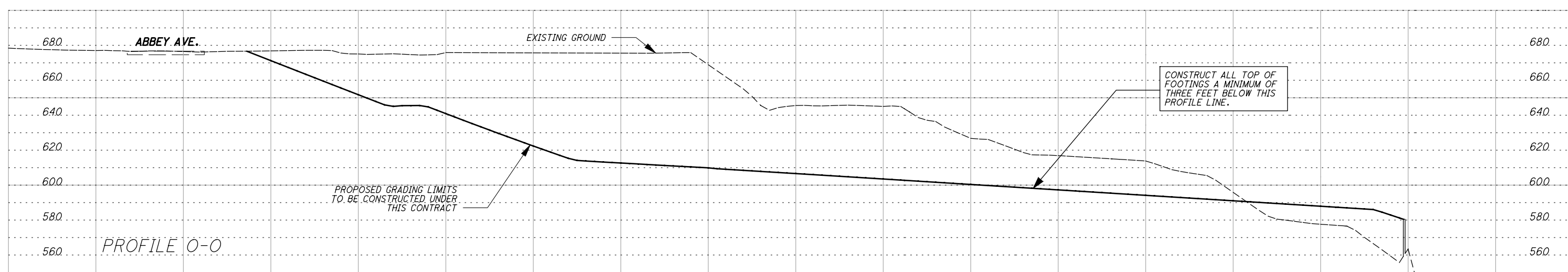
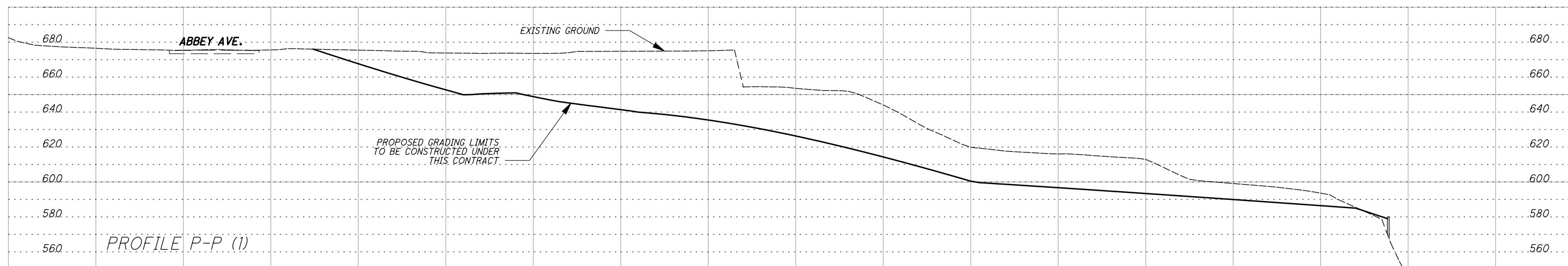
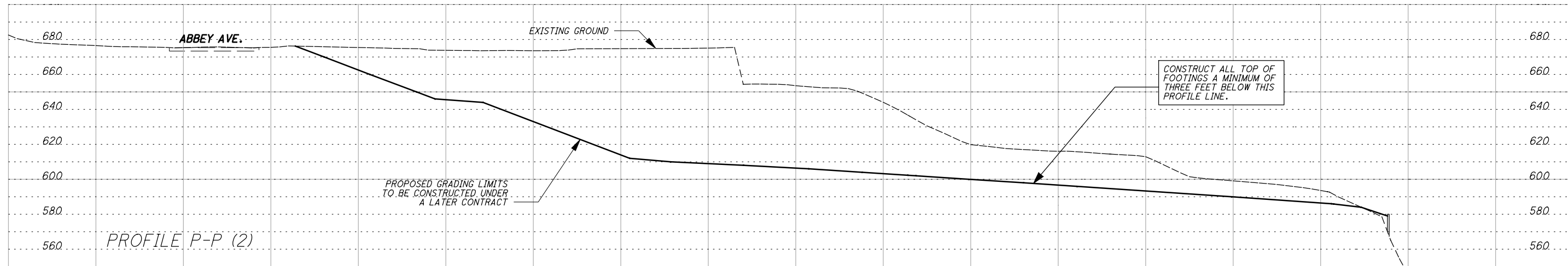


| | | | |
|---|-----|---------|-----|
| CALCULATED | DWB | CHECKED | RLE |
| SLOPE GRADING PROFILES U-U AND W-W | | | |
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| 28 34 | | | |

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| | | | |
|---|-----|---------|-----|
| CALCULATED | DWB | CHECKED | RLE |
| SLOPE GRADING PROFILES Y-Y AND Z-Z | | | |
| CUY-90-14.92 | | | |
| 29 | | 34 | |



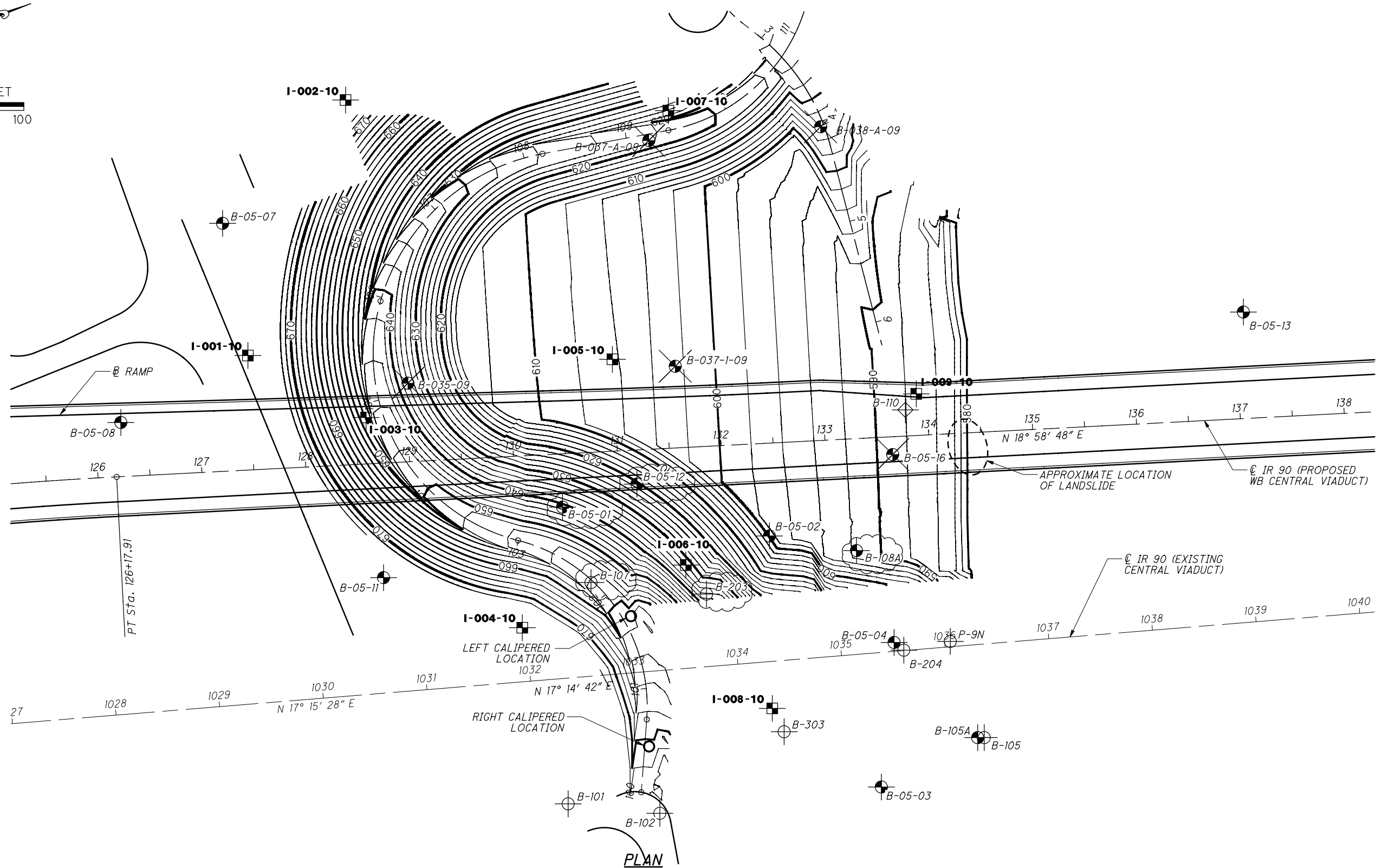
NOTE:
 IF THE CONTRACTOR ELECTS TO CONSTRUCT A BRIDGE PIER FOUNDATION THAT HAS A FOOTING LOCATED WITHIN THE LIMITS OF AN EXCAVATED SLOPE SURFACE AREA BOUND BY ABBEY ROAD, PROFILE P-P (2), PROFILE O-O, AND A LINE LOCATED 10 FEET SOUTH OF THE PROPOSED SOUTH SIDE OF THE CUYAHOGA RIVER BULKHEAD WALL, THE TOP OF THE FOOTING SHALL BE DESIGNED TO HAVE A MINIMUM OF THREE FEET OF SOIL COVER AS SHOWN IN PROFILE P-P (2) AND PROFILE O-O. ALL EXCAVATIONS MADE FOR THE PURPOSE OF CONSTRUCTING THE PIER FOUNDATIONS SHALL BE BACKFILLED IN ACCORDANCE WITH CMS 203.06, 203.07, AND 503.08. PIER FOUNDATIONS PLACED WITHIN THE LIMITS DESCRIBED ABOVE SHALL BE SUPPORTED ON BEDROCK.

SLOPE GRADING PROFILES O-O, P-P(1), & P-P(2)

CUY-90-14.92

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PLAN

LEGEND

- B-05-01 LOCATION OF INCLINOMETER/PIEZOMETER INSTALLED BY BBCM IN 2006 (B-05-01 THROUGH B-05-04, B-05-07, B-05-08, B-05-11 THROUGH B-05-13, AND B-05-16). THESE INSTRUMENTS ARE NOT AFFECTED BY THE GRADING AND REMAIN IN SERVICE.
- B-105A LOCATION OF REPLACEMENT INCLINOMETER INSTALLED BY BBCM IN 2006 (B-105A AND B-108A).

- B-101 LOCATION OF INCLINOMETER AND/OR PIEZOMETER INSTALLED BY BBCM BETWEEN 1994 AND 1999 (B-101, B-102, B-105, B-107, B-203, B-204, B-303, AND P-9N).
- B-110 LOCATION OF INCLINOMETER AT B-110, WHICH WAS DESTROYED BY EXCAVATION ACTIVITIES IN MARCH, 2006

- LOCATION OF PROPOSED INCLINOMETER AND/OR PIEZOMETER (I-001-10 THROUGH I-009-10 AND P-001-10 THROUGH P-009-10). THE LOCATION OF EACH PIEZOMETER IS WITHIN 5 FEET FROM THE LOCATIONS OF THE INCLINOMETER. ODOT IS RESPONSIBLE FOR THE PLACEMENT AND REPLACEMENT INSTRUMENTATION.
- LOCATION OF ABANDONED INCLINOMETER AND/OR PIEZOMETER (B-035-09, B-037-A-09 AND B-05-16)



INCLINOMETER AND/OR PIEZOMETER TO BE REPLACED. THE FUTURE INSTALLATION WILL HAVE THE SAME DESIGNATION PRECEDED BY LETTER A (B-05-01, B-107, B-05-112, B-203 B-108A)

NOTE: THE DESIGN BUILD TEAM NEEDS TO PROTECT ALL THE INSTRUMENTS AND REPLACE ANY IF DAMAGED, PER SECTION 9.3.3.1 OF THE SCOPE.

INSTRUMENTATION PLAN
CUYAHOGA RIVER WEST BANK

CUY-90-14.92
PID No. 77332

| | | | | |
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| DESIGNED | CHECKED | DRAWN | REVIEWED | DATE |
| | | | | |
| | | | STRUCTURE FILE NUMBER | |
| | | | REVISED | |

SUMMARY OF ACTIVE INSTRUMENTATION

| ACTIVE INSTRUMENTATION | ACTIVE INCLINOMETER ? | INCLINOMETER DEPTH (FT) | ACTIVE PIEZOMETER? | VW OR PNEUMATIC? | # OF ACTIVE PIEZOMETERS | PIEZOMETER DEPTH(S) BELOW EXISTING G.S. (FT) | INSTRUMENTATION INSTALLATION DATE | G.S. ELEVATION (FT) |
|-------------------------|-----------------------|-------------------------|--------------------|------------------------|-------------------------|--|-----------------------------------|-----------------------------|
| B-101 | Y | 190 | | PNEUMATIC ¹ | 2 ¹ | 50.3, 124.3 | AUG-SEP 1994 | 676.6 (676.6 ³) |
| B-102 | Y | 224 | N | ---- | ---- | ---- | SEP-94 | 675.7 |
| B-105 | N | ---- | | PNEUMATIC ¹ | 2 ¹ | 88, 105.7 | AUG-94 | 585.4 (585.6 ³) |
| B-105A | Y | 156 | N | ---- | ---- | ---- | MAY-06 | 585.7 |
| B-107 ⁴ | Y | 210 | | PNEUMATIC ¹ | 1 ² | 100 | SEP-94 | 662.7 (662.3 ³) |
| B-108A ⁴ | Y | 168 | N | ---- | ---- | ---- | APR-MAY 2006 | 603 |
| B-203 ⁴ | Y | 190 | N | ---- | ---- | ---- | AUG-96 | 638 |
| B-204 | Y | 134 | N | ---- | ---- | ---- | JUL-98 | 599 |
| B-303 ⁵ | Y | 178 | | PNEUMATIC ¹ | 1 ² | 40.8 | AUG 1994, JUL 1998 | 622.0 (627.0 ³) |
| P-9N | Y | 148 | N | ---- | ---- | ---- | FEB-99 | 588 |
| B-05-01 ⁴ | Y | 228 | Y | VW | 2 | 65, 95 | APR-MAY 2006 | 675.4 |
| B-05-02 | Y | 176 | Y | VW | 2 | 46, 122 | | 617.9 |
| B-05-03 | Y | 168 | Y | VW | 2 | 32, 112 | APR-MAY 2006 | 605.1 |
| B-05-04 | Y | 172 | Y | VW | 2 | 59, 119 | MAR-MAY 2006 | 600.8 |
| B-05-07 | Y | 224 | Y | VW | 2 | 102, 220 | APR-JUN 2006 | 678.9 |
| B-05-08 | Y | 224 | Y | VW | 2 | 65.5, 110.5 | APR-MAY 2006 | 679.9 |
| B-05-11 | Y | 226 | Y | VW | 2 | 95, 130 | APR-JUN 2006 | 675.1 |
| B-05-12 ⁴ | Y | 210 | Y | VW | 2 | 75, 120 | APR-MAY 2006 | 652.7 |
| B-05-13 | Y | 134 | Y | VW | 2 | 60, 135 | MAY-JUN 2006 | 580 |
| B-05-16 ⁴ | Y | 162 | N | ---- | ---- | ---- | JUN-06 | 598.5 |
| B-035-0-09 ⁴ | ---- | ---- | Y | VW | 2 | 100, 230 | JUL-09 | 674.6 |
| B-037-1-09 ⁴ | ---- | ---- | Y | VW | 2 | 70, 185 | AUG-09 | 645.5 |
| B-037-A-09 ⁴ | ---- | ---- | Y | VW | 1 | 19 | SEP-09 | 631.5 |
| B-038-A-09 ⁴ | ---- | ---- | Y | VW | 1 | 25 | OCT-09 | 614 |

¹ BBCM INSTALLED PNEUMATIC PIEZOMETERS AT THE LOCATIONS OF THE P BORINGS IN 1994. HOWEVER, THESE PIEZOMETERS WERE EVENTUALLY RENAMED TO THE NEAREST INCLINOMETERS (I.E. P-1 TO B-101, P-3 TO B-105, AND P-5 TO B-107).

² THE PNEUMATIC WAS ACTUALLY INSTALLED IN AUGUST 1994 AT BORING P-2 IN THE VICINITY OF THE B-103 INCLINOMETER (NOW INACTIVE). HOWEVER, THE PIEZOMETER HAS SINCE BEEN RENAMED TO B-303 DUE TO ITS CLOSE PROXIMITY TO THE ACTIVE INCLINOMETER AT B-303, WHICH WAS INSTALLED IN JULY 1998.

³ ELEVATION IN PARENTHESIS REFERS TO THE GROUND SURFACE (G.S.) ELEVATION OF THE P BORING LOCATION WHERE THE PNEUMATIC PIEZOMETER WAS INSTALLED.

⁴ MAY BECOME DAMAGED DURING FUTURE GRADING.

⁵ VERY HIGH MOVEMENT AT THE SHEAR PLANE (CLOSE TO SHEARING OFF), RECOMMEND REPLACEMENT.

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| FIB | STRUCTURE FILE NUMBER |
| CHECKED | REVISED |

ACTIVE INSTRUMENTATION TABLE
CUYAHOGA RIVER WEST BANK

CUY-90-14.92
PID No. 77332

SUMMARY OF ACTIVE INSTRUMENTATION TO REMAIN IN SERVICE

| ACTIVE INSTRUMENTATION | ACTIVE INCLINOMETER ? | INCLINOMETER DEPTH (FT) | ACTIVE PIEZOMETER? | VW OR PNEUMATIC? | # OF ACTIVE PIEZOMETERS | PIEZOMETER DEPTH(S) BELOW EXISTING G.S. (FT) | INSTRUMENTATION INSTALLATION DATE | G.S. ELEVATION (FT) |
|------------------------|-----------------------|-------------------------|--------------------|------------------|-------------------------|--|-----------------------------------|---------------------|
| B-101 | Y | 190 | | PNEUMATIC | 2 | 50.3, 124.3 | AUG-SEP 1994 | 676.6 (676.6) |
| B-102 | Y | 224 | N | ---- | 1 | ---- | SEP-94 | 675.7 ³ |
| B-105 | N | ---- | | PNEUMATIC | 2 | 88, 105.7 | AUG-94 | 585.4 (585.6) |
| B-105A | Y | 156 | N | ---- | ---- | ---- | MAY-06 | 585.7 |
| B-204 ⁴ | Y | 134 | N | ---- | 1 | ---- | JUL-98 | 599 ³ |
| B-303 | Y | 178 | | PNEUMATIC | 1 | 40.8 | AUG 1994, JUL 1998 | 622.0 (627.0) |
| P-9N | Y | 148 | N | ---- | ---- | ---- | FEB-99 | 588 |
| B-05-02 | Y | 176 | Y | VW | 2 | 46, 122 | | 617.9 |
| B-05-03 | Y | 168 | Y | VW | 2 | 32, 112 | APR-MAY 2006 | 605.1 |
| B-05-04 | Y | 172 | Y | VW | 2 | 59, 119 | MAR-MAY 2006 | 600.8 |
| B-05-07 | Y | 224 | Y | VW | 2 | 102, 220 | APR-JUN 2006 | 678.9 |
| B-05-08 | Y | 224 | Y | VW | 2 | 65.5, 110.5 | APR-MAY 2006 | 679.9 |
| B-05-11 | Y | 226 | Y | VW | 2 | 95, 130 | APR-JUN 2006 | 675.1 |
| B-05-13 | Y | 134 | Y | VW | 2 | 60, 135 | MAY-JUN 2006 | 580 |

1 BBCM INSTALLED PNEUMATIC PIEZOMETERS AT THE LOCATIONS OF THE P BORINGS IN 1994. HOWEVER, THESE PIEZOMETERS WERE EVENTUALLY RENAMED TO THE NEAREST INCLINOMETERS (I.E. P-1 TO B-101, P-3 TO B-105, AND P-5 TO B-107).

2 THE PNEUMATIC WAS ACTUALLY INSTALLED IN AUGUST 1994 AT BORING P-2 IN THE VICINITY OF THE B-103 INCLINOMETER (NOW INACTIVE). HOWEVER, THE PIEZOMETER HAS SINCE BEEN RENAMED TO B-303 DUE TO ITS CLOSE PROXIMITY TO THE ACTIVE INCLINOMETER AT B-303, WHICH WAS INSTALLED IN JULY 1998.

3 ELEVATION IN PARENTHESIS REFERS TO THE GROUND SURFACE (G.S.) ELEVATION OF THE P BORING LOCATION WHERE THE PNEUMATIC PIEZOMETER WAS INSTALLED.

4 VERY HIGH MOVEMENT AT THE SHEAR PLANE (CLOSE TO SHEARING OFF), RECOMMEND REPLACEMENT.

SUMMARY OF PROPOSED ADDITIONAL INSTRUMENTATION (INSTALLED BY OTHERS)

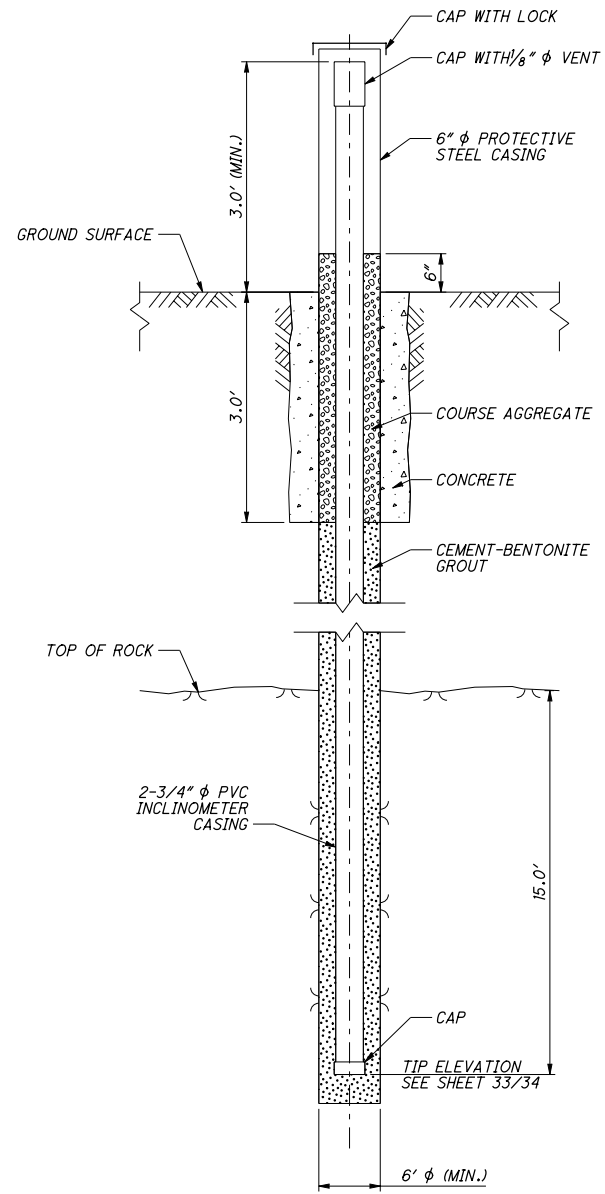
| PROPOSED INSTRUMENTATION | PROPOSED INCLINOMETER ? | INCLINOMETER DEPTH (FT) | PROPOSED PIEZOMETER? | VW OR PNEUMATIC? | # OF PROPOSED PIEZOMETERS | PIEZOMETER DEPTH(S) BELOW PROPOSED G.S. (FT) | SCHEDULED INSTRUMENTATION INSTALLATION (SEE NOTES BELOW) | STATION | OFFSET (FT) | PROPOSED G.S. ELEVATION (FT) |
|--------------------------|-------------------------|-------------------------|----------------------|------------------|---------------------------|--|--|-----------|-------------|------------------------------|
| I-001-10 | Y | 224 | | | | | A | 127+50.00 | 110 LT | 677.05 |
| P-001-10 | | | Y | VW | 2 | 60, 120 | A | 127+50.00 | 105 LT | 677.05 |
| I-002-10 | Y | 224 | | | | | A | 128+56.50 | 350 LT | 672.00 |
| P-002-10 | | | Y | VW | 2 | 100, 220 | A | 128+56.50 | 345 LT | 672.00 |
| I-003-10 | Y | 194 | | | | | B | 128+60.44 | 45 RT | 647.73 |
| P-003-10 | | | Y | VW | 2 | 40, 190 | B | 128+60.44 | 40 RT | 647.73 |
| I-004-10 | Y | 228 | | | | | A | 130+00.00 | 165 RT | 674.56 |
| P-004-10 | | | Y | VW | 2 | 90, 135 | A | 130+00.00 | 160 RT | 674.56 |
| I-005-10 | Y | 154 | | | | | C | 130+99.89 | 88 LT | 606.30 |
| P-005-10 | | | Y | VW | 2 | 40, 144 | C | 130+99.89 | 83 LT | 606.30 |
| I-006-10 | Y | 176 | | | | | B | 131+60.19 | 113 RT | 632.29 |
| P-006-10 | | | Y | VW | 2 | 30, 140 | B | 131+60.19 | 108 RT | 632.29 |
| I-007-10 | Y | 164 | | | | | B | 131+65.96 | 324 LT | 623.86 |
| P-007-10 | | | Y | VW | 2 | 40, 160 | B | 131+65.96 | 319 LT | 623.86 |
| I-008-10 | Y | 180 | | | | | A | 132+36.09 | 255 RT | 632.30 |
| P-008-10 | | | Y | VW | 2 | 45, 170 | A | 132+36.09 | 250 RT | 632.30 |
| I-009-10 | Y | 150 | | | | | C | 133+90.00 | 40 LT | 588.11 |
| P-009-10 | | | Y | VW | 2 | 80, 145 | C | 133+90.00 | 35 LT | 588.11 |

A. INSTRUMENTATION DESIGNATED "A" WILL BE INSTALLED PRIOR TO START OF EXCAVATION.

B. INSTRUMENTATION DESIGNATED "B" WILL BE INSTALLED WHEN THE 3 INCLINOMETER AND 3 PIEZOMETER LOCATIONS BECOME ACCESSIBLE. NOTIFICATION SHALL BE MADE TO THE DISTRICT GEOTECHNICAL ENGINEER AT 216-584-2144 WHEN EXCAVATION HAS PROCEEDED TO ALLOW ACCESS TO THE INSTRUMENTATION SITES.

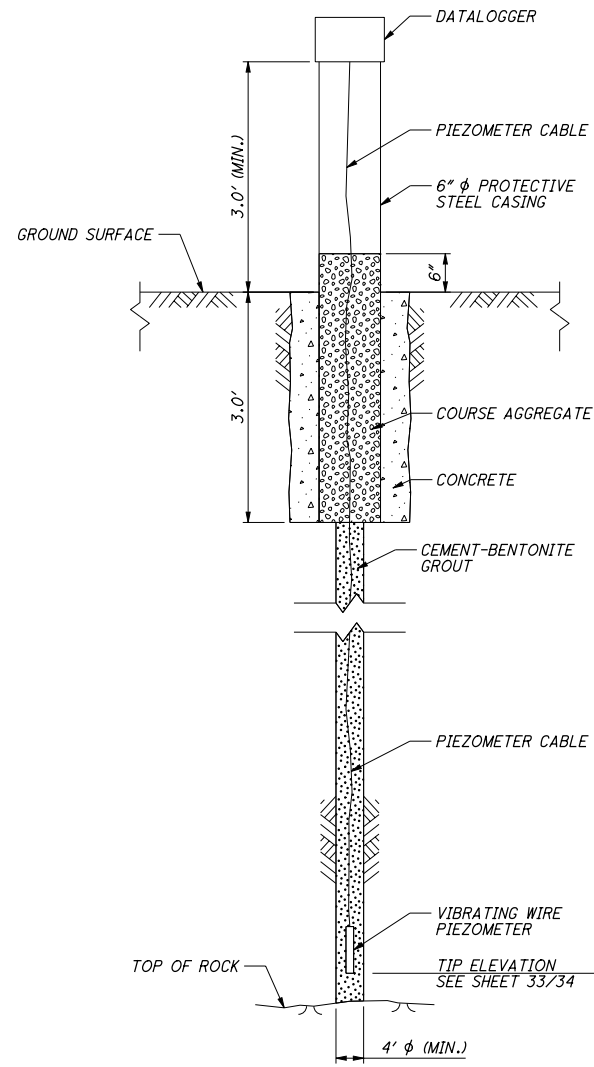
C. INSTRUMENTATION DESIGNATED "C" WILL BE INSTALLED WHEN THE 2 INCLINOMETER AND 2 PIEZOMETER LOCATIONS ARE ACCESSIBLE UPON COMPLETION OF STAGE 3 EXCAVATION. NOTIFICATION SHALL BE MADE TO THE DISTRICT GEOTECHNICAL ENGINEER AT 216-584-2144 WHEN EXCAVATION HAS PROCEEDED TO ALLOW ACCESS TO THE INSTRUMENTATION SITES.

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INCLINOMETER DETAIL

NTS



PIEZOMETER DETAIL

NTS