



**DRAINAGE, EROSION CONTROL, & UNDERDRAIN QUANTITIES**

**CROSS SECTION QUANTITIES**

| REF. NO.                                 | SHEET NO. | STATION  |          | SIDE  | 202 - REMOVALS      |             |          | 601                                    |  | 605 - UNDERDRAINS                                |                             |                                     | 611 - DRAINAGE           |            |                                    |             |          |                            |                            |                |                           |                                    |
|--|-----------|----------|----------|-------|---------------------|-------------|----------|--|--|--|-----------------------------|-------------------------------------|--------------------------|------------|------------------------------------|-------------|----------|----------------------------|----------------------------|----------------|---------------------------|------------------------------------|
|  |           |          |          |       | PIPE, 24" AND UNDER | CATCH BASIN | INLET    | SPECIAL - PIPE CLEANOUT, 24" AND UNDER | TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT | TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT | 6" SHALLOW PIPE UNDERDRAINS | 6" UNCLASSIFIED UNDERDRAINS, 707.31 | 6" BASE PIPE UNDERDRAINS | 6", TYPE B | 6", TYPE F, FOR UNDERDRAIN OUTLETS | 12", TYPE B | CB-6     | INLET, NO. 3A, AS PER PLAN | INLET, NO. 3C, AS PER PLAN | MANHOLE, NO. 3 | MANHOLE ADJUSTED TO GRADE | PRECAST REINFORCED CONCRETE OUTLET |
|  |           | FROM     | TO       |       | FT                  | EACH        | EACH     | FT                                     | SY   | SY   | FT                          | FT                                  | FT                       | FT         | FT                                 | FT          | EACH     | EACH                       | EACH                       | EACH           | EACH                      | EACH                               |
| D1                                       | 43        | 40+73.98 |          | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                | 1                         |                                    |
| D2                                       | 43        | 40+75.45 |          | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                | 1                         |                                    |
| D3                                       | 43        | 40+90.61 | 40+94.61 | RT    | 8                   | 1           |          |  |  |  |                             |                                     |                          |            | 4                                  | 1           |          |                            |                            |                |                           |                                    |
| D4                                       | 43        | 40+94.61 | 40+98.25 | RT/LT |                     |             |          |  |  |  |                             |                                     |                          |            | 42                                 |             |          | 1                          |                            |                |                           |                                    |
| D5                                       | 44-45     | 48+78.18 | 49+45.77 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            | 68                                 |             |          | 1                          |                            |                |                           |                                    |
| D6                                       | 45        | 49+45.77 | 49+84.43 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             | 1        |                            |                            |                |                           |                                    |
| D7                                       | 45        | 49+84.43 | 49+85.76 | LT    | 4                   |             |          |  |  |  |                             |                                     |                          |            | 4                                  |             |          |                            | 1                          |                |                           |                                    |
| D8                                       | 46        | 58+00.00 |          | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| D9                                       | 46        | 57+99.35 | 58+00.90 | LT/RT | 8                   |             | 1        | 123                                    |  |  |                             |                                     |                          |            | 8                                  |             | 1        |                            |                            |                |                           |                                    |
| DR1                                      | 43        | 40+73.98 | 41+18.23 | RT/LT | 58                  | 1           |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| DR2                                      | 45        | 49+70.87 | 49+84.43 | LT/RT | 42                  | 2           |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| E1                                       | 43        | 43+34.96 | 43+40.54 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| E2                                       | 43        | 43+49.68 | 43+55.10 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| E3                                       | 45        | 51+95.37 | 52+00.87 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| E4                                       | 45        | 52+91.41 | 52+96.91 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD1                                      | 67        | 40+73.23 | 40+94.61 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD2                                      | 67        | 40+76.00 | 41+00.53 | RT    |                     |             |          |  |  |  | 25                          |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD3                                      | 67        | 40+79.47 | 41+03.93 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD4                                      | 67        | 40+84.86 | 41+09.20 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD5                                      | 67        | 40+90.90 | 41+15.07 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD6                                      | 67        | 40+97.01 | 41+21.34 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD7                                      | 67        | 40+94.61 | 41+21.34 | LT&RT |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD8                                      | 67        | 43+16.11 | 43+40.81 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD9                                      | 67        | 43+17.97 | 43+42.57 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD10                                     | 67        | 43+20.42 | 43+44.92 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD11                                     | 67        | 43+24.91 | 43+49.19 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD12                                     | 67        | 43+28.48 | 43+52.62 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD13                                     | 67        | 43+32.82 | 43+56.92 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD14                                     | 67        | 43+40.81 | 43+56.92 | LT&RT |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD15                                     | 67        | 43+40.81 | 43+42.65 | RT    |                     |             |          |  | 2  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           | 1                                  |
| UD16                                     | 68        | 48+87.19 | 49+12.37 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD17                                     | 68        | 48+98.78 | 49+21.95 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD18                                     | 68        | 49+12.37 | 50+08.95 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD19                                     | 68        | 49+35.77 | 49+58.66 | RT    |                     |             |          |  |  |  | 24                          |                                     |                          |            |                                    |             |          |                            |                            |                |                           | 2                                  |
| UD20                                     | 68        | 49+74.40 | 49+96.50 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD21                                     | 68        | 49+74.40 | 50+08.95 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD22                                     | 68        | 51+77.83 | 52+01.04 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD23                                     | 68        | 51+88.36 | 52+10.40 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD24                                     | 68        | 52+01.04 | 52+10.40 | RT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           | 1                                  |
| UD25                                     | 68        | 52+28.37 | 52+52.07 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD26                                     | 68        | 52+52.07 | 52+98.51 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           | 1                                  |
| UD27                                     | 68        | 52+62.91 | 52+85.72 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| UD28                                     | 68        | 52+75.20 | 52+98.51 | LT    |                     |             |          |  |  |  |                             |                                     |                          |            |                                    |             |          |                            |                            |                |                           |                                    |
| <b>TOTALS CARRIED TO GENERAL SUMMARY</b> |           |          |          |       | <b>120</b>          | <b>4</b>    | <b>1</b> | <b>123</b>                             | <b>10</b>  | <b>144</b>                                       | <b>146</b>                  | <b>216</b>                          | <b>382</b>               | <b>164</b> | <b>80</b>                          | <b>178</b>  | <b>1</b> | <b>2</b>                   | <b>2</b>                   | <b>1</b>       | <b>2</b>                  | <b>5</b>                           |

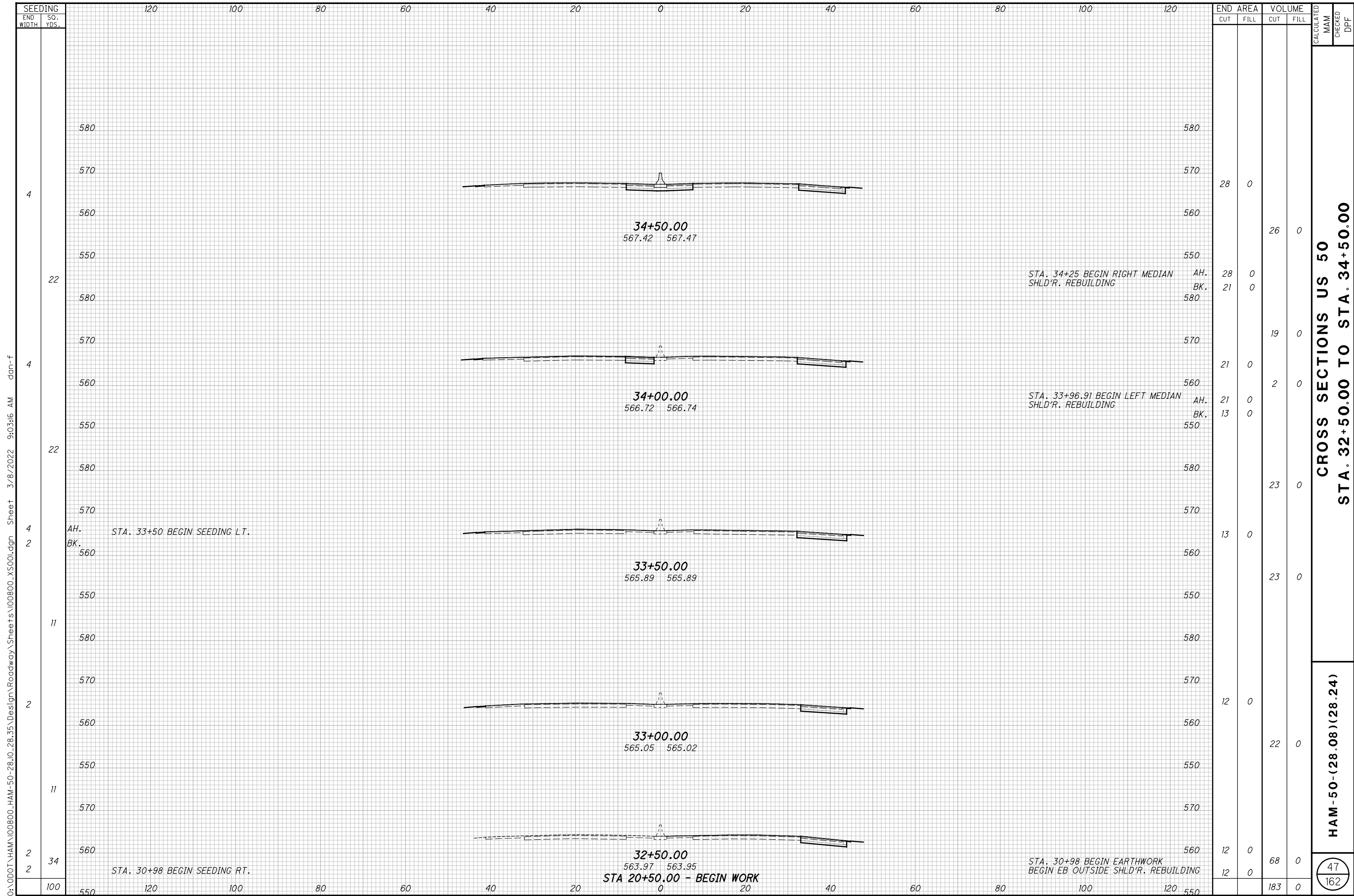
| SHEET NO.                                | STATION  |          | 203                                     |             | 659                  |
|--|----------|----------|---|-------------|----------------------|
|  |          |          | EXCAVATION                              | EMBANKMENT  | SEEDING AND MULCHING |
|  | FROM     | TO       | CY                                      | CY          | SY                   |
| 47                                       | 30+98.00 | 34+50.00 | 183                                     | 0           | 100                  |
| 48                                       | 35+00.00 | 37+00.00 | 265                                     | 0           | 84                   |
| 49                                       | 37+50.00 | 39+50.00 | 211                                     | 0           | 55                   |
| 50                                       | 40+00.00 | 40+75.00 | 80                                      | 4           | 71                   |
| 51                                       | 40+85.36 | 41+48.49 | 182                                     | 11          | 59                   |
| 52                                       | 42+88.74 | 43+30.81 | 137                                     | 1           | 12                   |
| 53                                       | 43+50.00 | 48+50.00 | 574                                     | 5           | 288                  |
| 54                                       | 49+00.00 | 49+50.00 | 124                                     | 4           | 50                   |
| 55                                       | 49+77.48 | 50+13.69 | 107                                     | 1           | 21                   |
| 56                                       | 51+50.00 | 52+00.00 | 78                                      | 7           | 25                   |
| 57                                       | 52+25.00 | 53+00.00 | 179                                     | 10          | 67                   |
| 58                                       | 53+50.00 | 55+00.00 | 139                                     | 1           | 155                  |
| 59                                       | 55+50.00 | 57+00.00 | 198                                     | 0           | 132                  |
| 60                                       | 57+50.00 | 59+00.00 | 203                                     | 0           | 98                   |
| 61                                       | 59+50.00 | 61+25.00 | 111                                     | 0           | 469                  |
| <b>COLUMN TOTALS</b>                     |          |          | <b>2771</b>                             | <b>44</b>   | <b>1686</b>          |
| <b>TOTALS CARRIED TO GENERAL SUMMARY</b> |          |          |   |             |                      |
|  |          |          | <b>203 - EXCAVATION</b>                 | <b>2771</b> | <b>CY</b>            |
|  |          |          | <b>203 - EMBANKMENT</b>                 | <b>44</b>   | <b>CY</b>            |
|  |          |          | <b>659 - SEEDING AND MULCHING</b>       | <b>1686</b> | <b>SY</b>            |
|  |          |          | <b>659- REPAIR SEEDING AND MULCHING</b> | <b>84</b>   | <b>SY</b>            |
|  |          |          | <b>659 - TOPSOIL</b>                    | <b>187</b>  | <b>CY</b>            |
|  |          |          | <b>659 - SOIL ANALYSIS TEST</b>         | <b>2</b>    | <b>EACH</b>          |
|  |          |          | <b>659 -COMMERCIAL FERTILIZER</b>       | <b>0.23</b> | <b>TON</b>           |
|  |          |          | <b>659 - LIME</b>                       | <b>0.35</b> | <b>ACRE</b>          |
|  |          |          | <b>659 - WATER</b>                      | <b>9</b>    | <b>MGAL</b>          |

O:\DDOT\HAM\00800\_HAM-50-28.10.28.35\Design\Roadway\Sheets\00800\_05002.dgn Sheet 3/8/2022 9:07:17 AM dan-f

CALCULATED  
DAM  
CHECKED  
DCJ

**ESTIMATED QUANTITIES**

**HAM - 50 - (28.08)(28.24)**

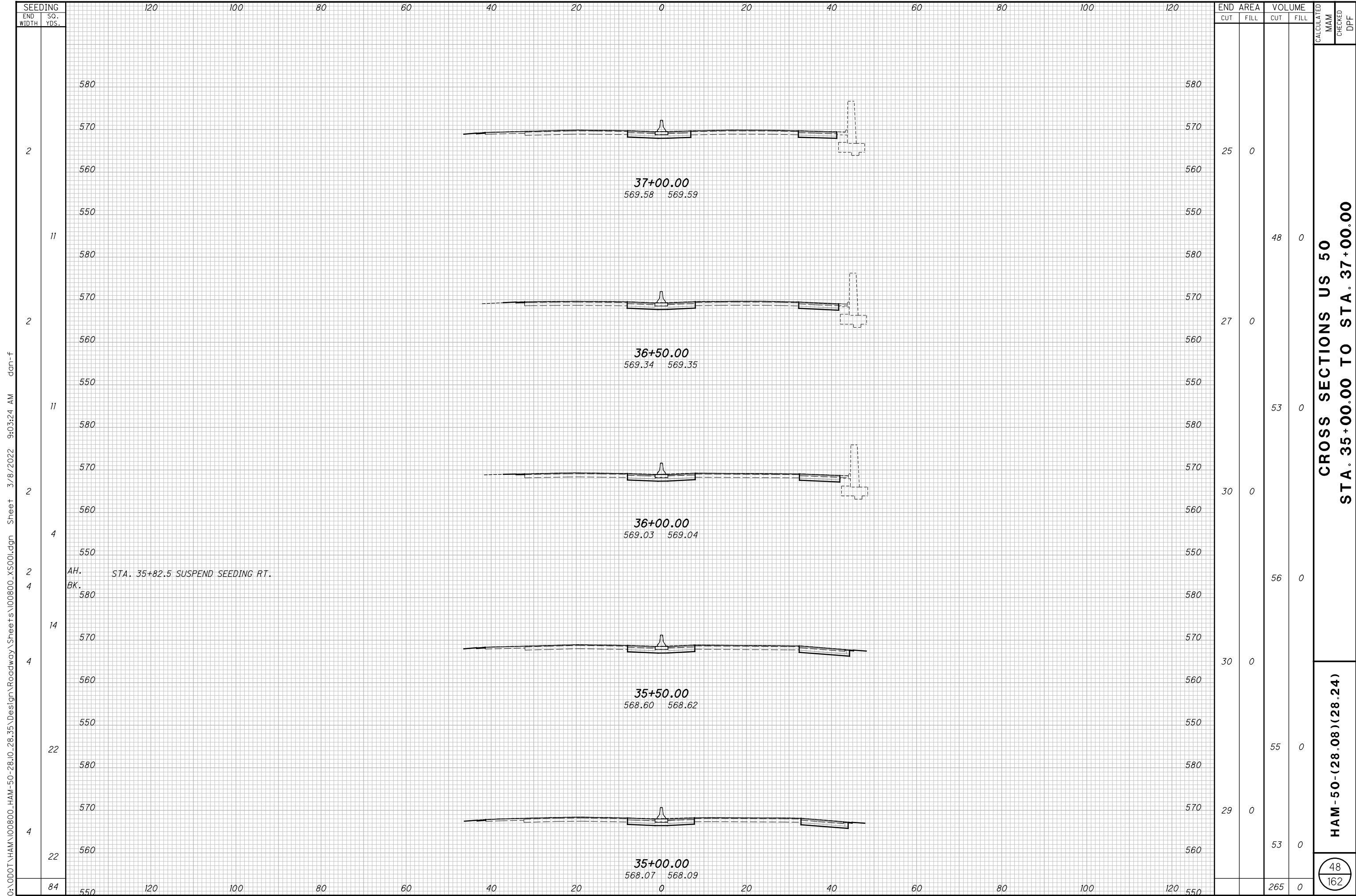


CROSS SECTIONS US 50  
STA. 32+50.00 TO STA. 34+50.00

HAM-50-(28.08)(28.24)

47  
162

O:\DOT\HAM\00800\_HAM-50-28.08.35\Design\Roadway\Sheets\00800\_XS001.dgn Sheet 3/8/2022 9:03:16 AM dan-f



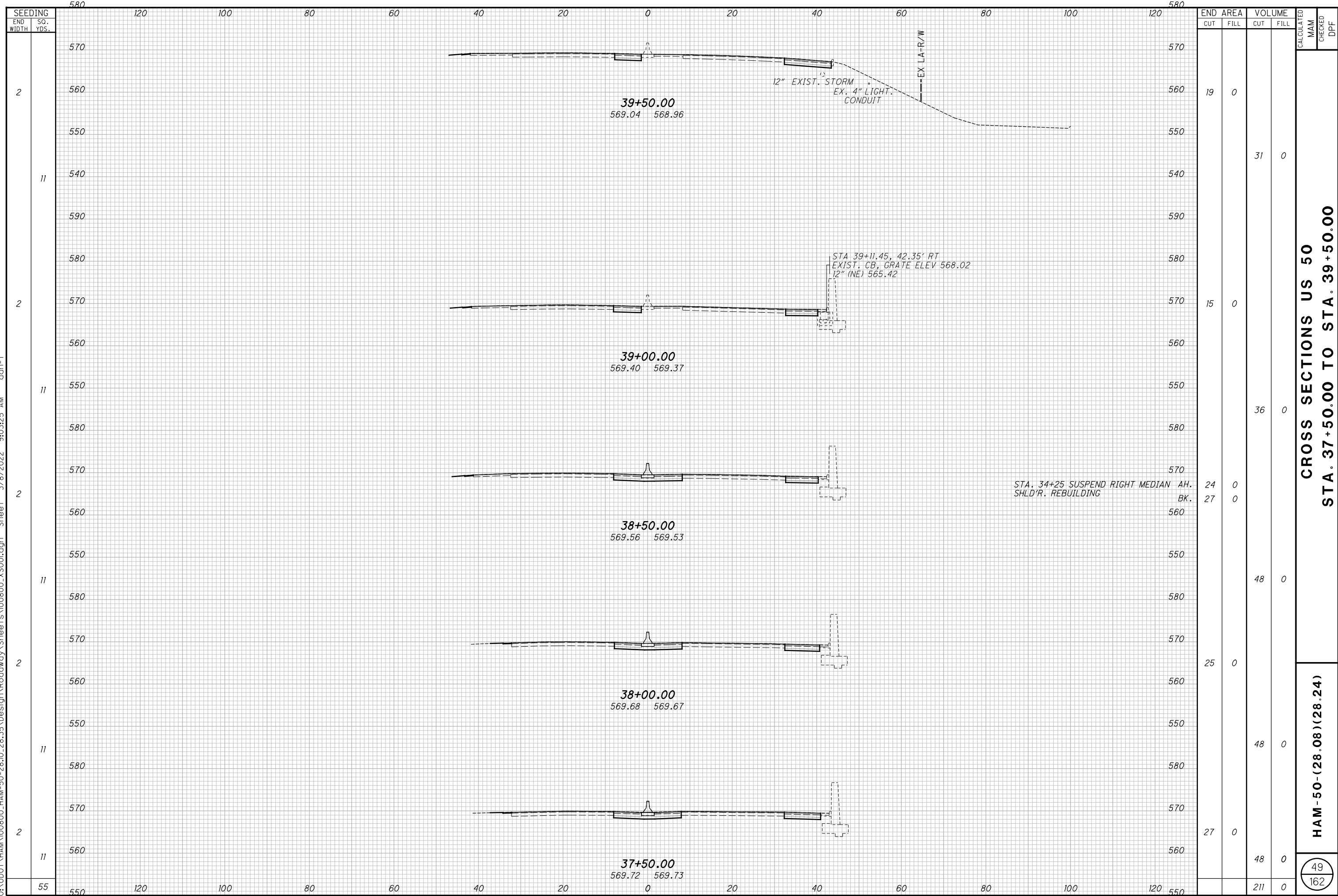
**CROSS SECTIONS US 50  
STA. 35+00.00 TO STA. 37+00.00**

**HAM-50-(28.08)(28.24)**

48  
162

O:\0D0T\HAM\00800\_HAM-50-28.0-28.35\_Design\Roadway\Sheets\00800\_XS001.dgn Sheet 3/8/2022 9:03:24 AM dan-f

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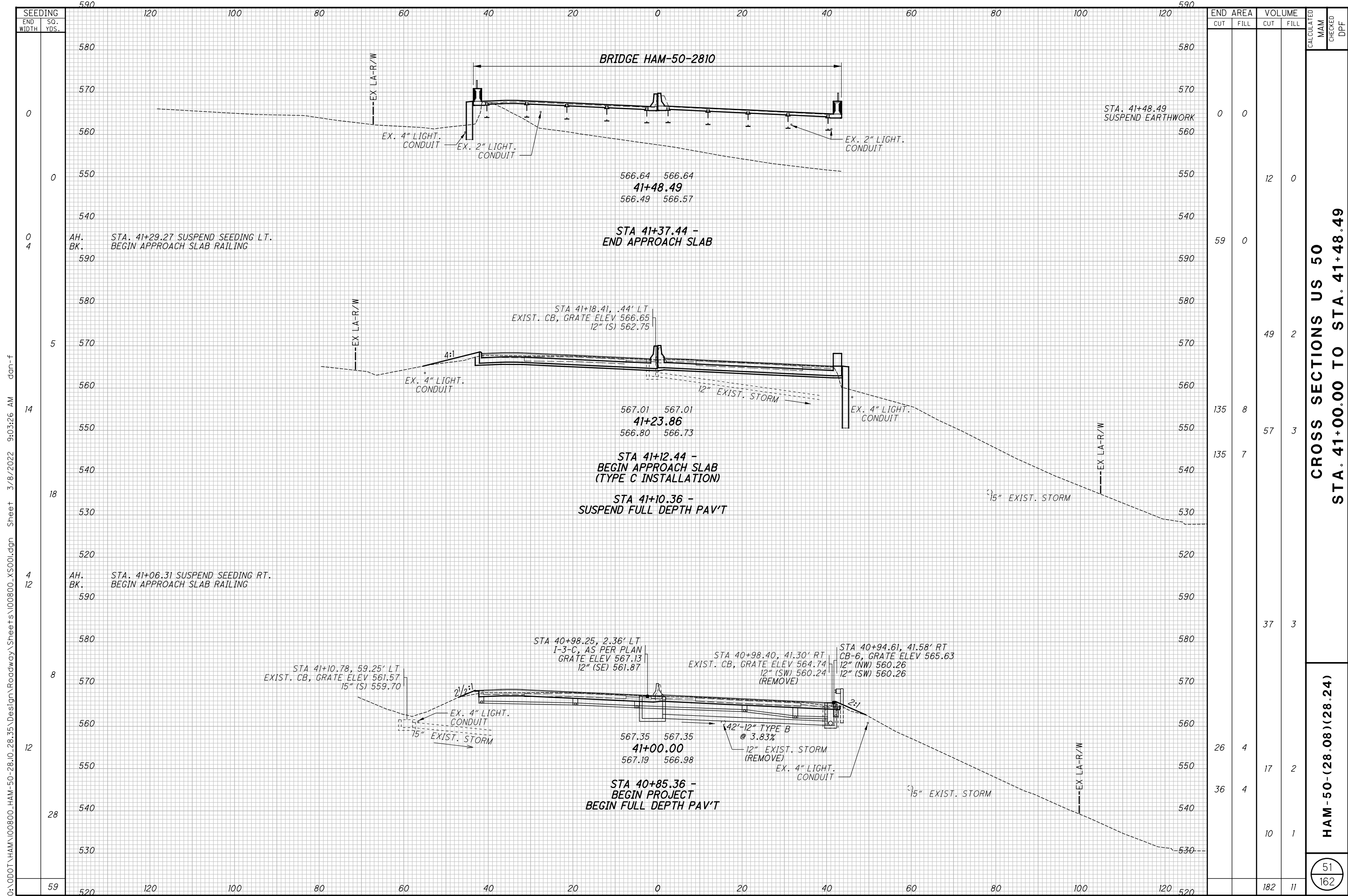


| END STA  | AREA |      | VOLUME |      | CALCULATED MAM | CHECKED DPF |
|----------|------|------|--------|------|----------------|-------------|
|          | CUT  | FILL | CUT    | FILL |                |             |
| 39+50.00 | 19   | 0    |        |      |                |             |
| 39+00.00 | 15   | 0    | 36     | 0    |                |             |
| 38+50.00 | 24   | 0    |        |      |                |             |
| 38+00.00 | 27   | 0    | 48     | 0    |                |             |
| 37+50.00 | 25   | 0    |        |      |                |             |
|          | 27   | 0    | 48     | 0    |                |             |
| 55       |      |      | 211    | 0    |                |             |

**CROSS SECTIONS US 50  
STA. 37+50.00 TO STA. 39+50.00**

**HAM-50-(28.08)(28.24)**



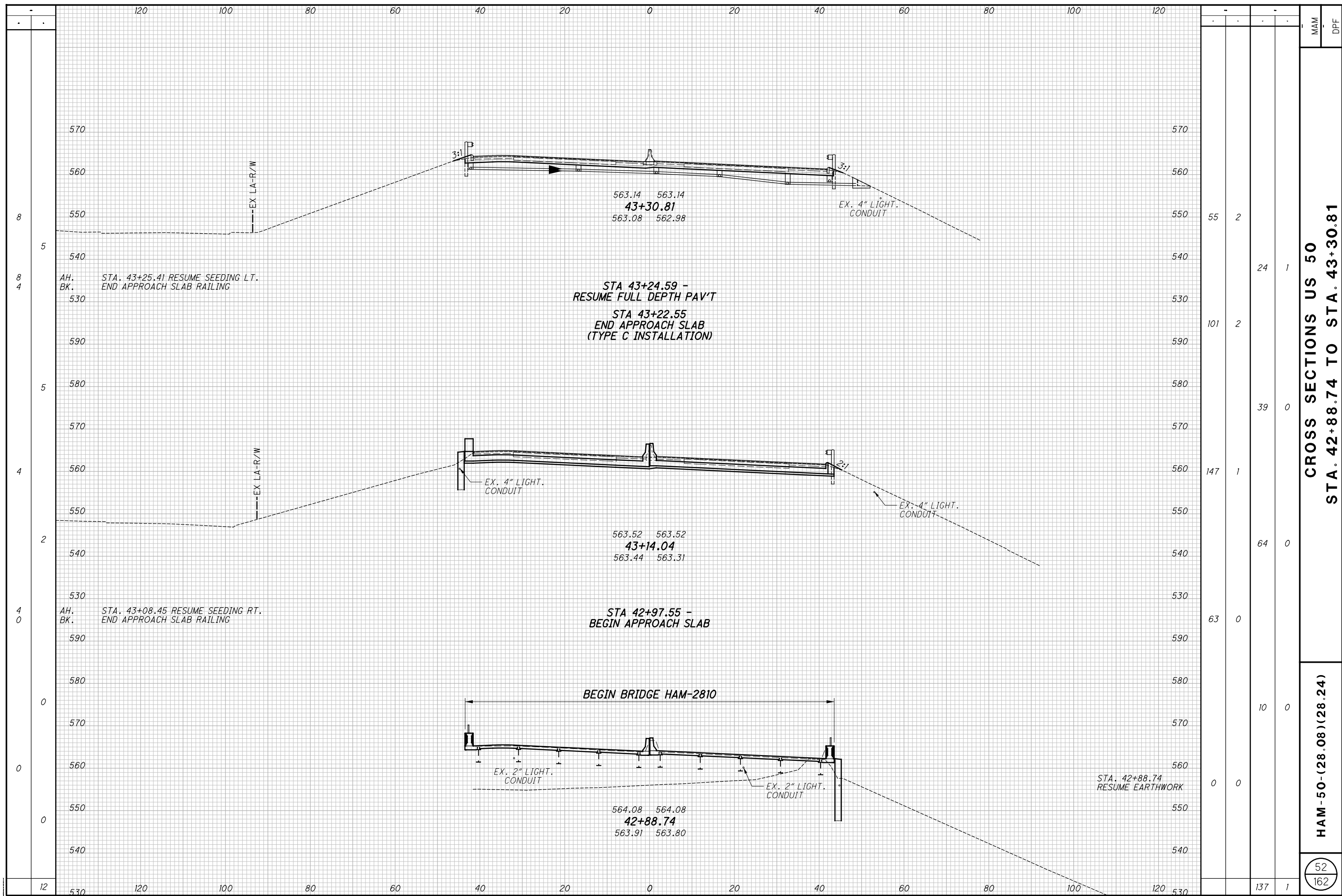


| END AREA | VOLUME | CALCULATED | CHECKED | DPF |
|----------|--------|------------|---------|-----|
|          |        |            |         |     |
| 0        | 0      |            |         |     |
| 12       | 0      |            |         |     |
| 59       | 0      |            |         |     |
| 135      | 8      |            |         |     |
| 135      | 7      |            |         |     |
| 37       | 3      |            |         |     |
| 26       | 4      |            |         |     |
| 36       | 4      |            |         |     |
| 10       | 1      |            |         |     |
| 182      | 11     |            |         |     |

**CROSS SECTIONS US 50**  
**STA. 41+00.00 TO STA. 41+48.49**

**HAM-50-(28.08)(28.24)**

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MAM  
DPF

CROSS SECTIONS US 50  
 STA. 42+88.74 TO STA. 43+30.81

HAM-50-(28.08)(28.24)

52  
162

|     |   |    |   |
|-----|---|----|---|
| 55  | 2 |    |   |
|     |   | 24 | 1 |
| 101 | 2 |    |   |
|     |   | 39 | 0 |
| 147 | 1 |    |   |
|     |   | 64 | 0 |
| 63  | 0 |    |   |
|     |   | 10 | 0 |
| 0   | 0 |    |   |
|     |   |    |   |
| 137 | 1 |    |   |

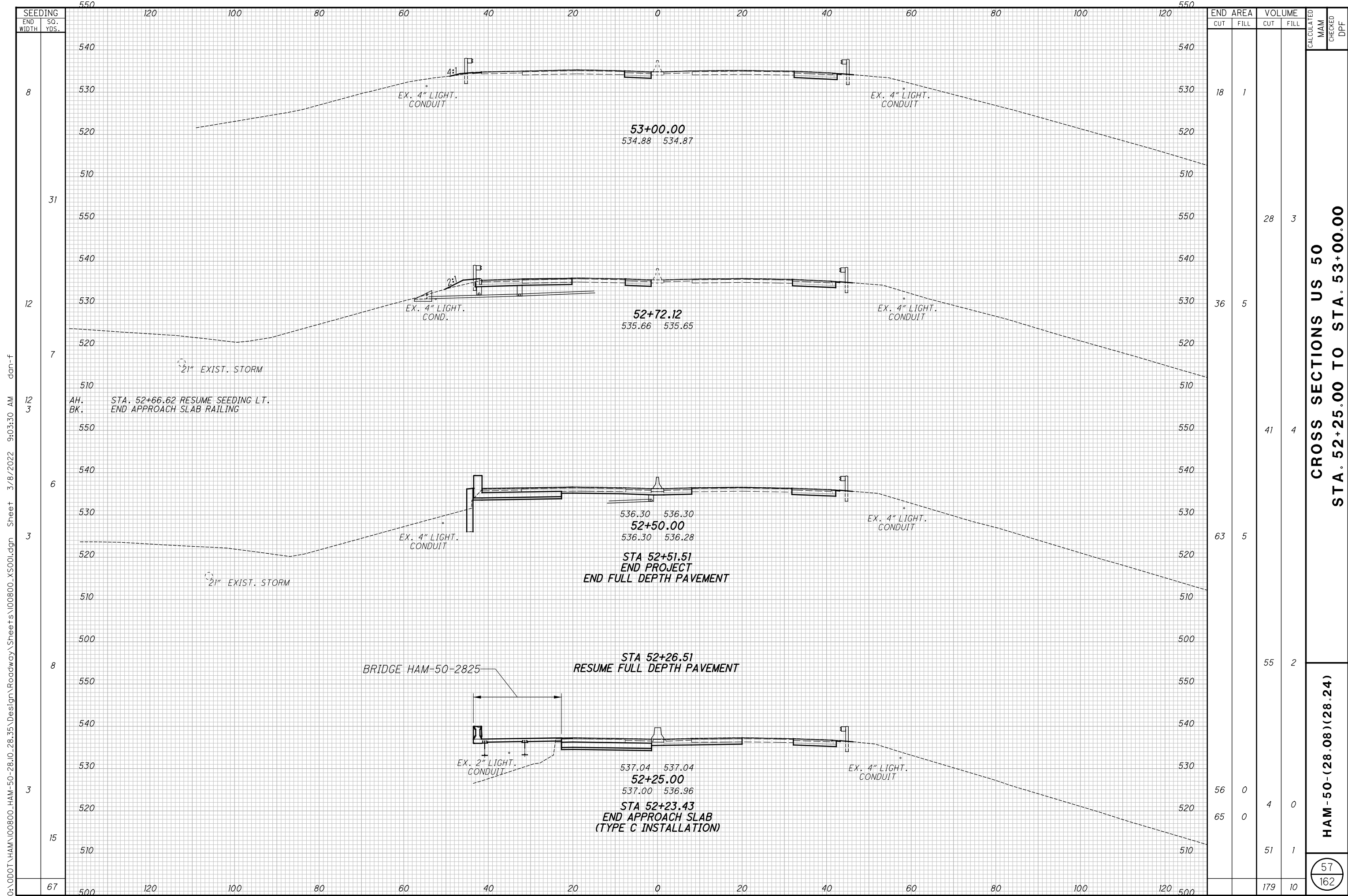












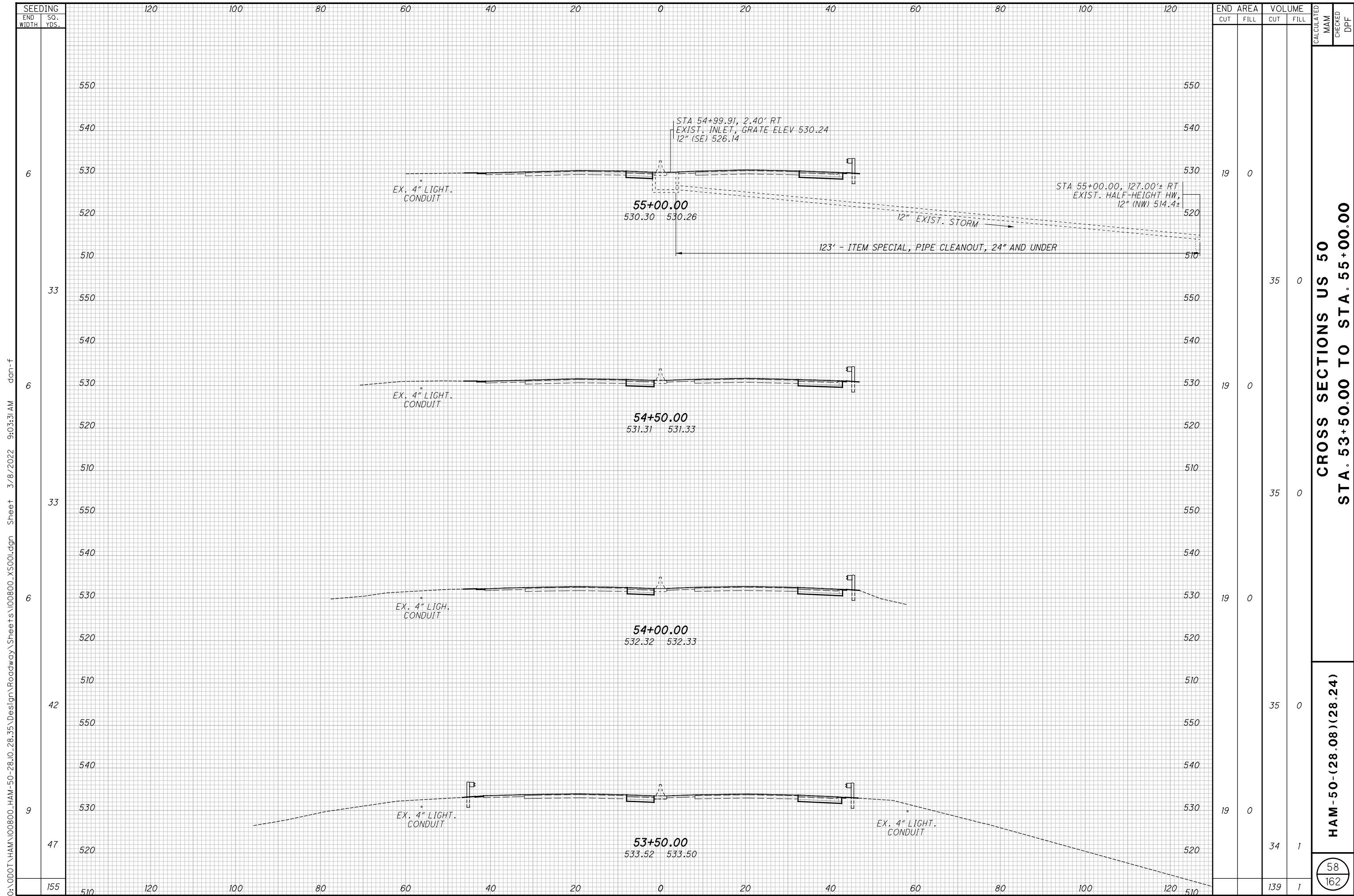
| SEEDING<br>END<br>WIDTH | SO.<br>YDS. | END AREA |      | VOLUME |      | CALCULATED<br>MAM | CHECKED<br>DPF |
|-------------------------|-------------|----------|------|--------|------|-------------------|----------------|
|                         |             | CUT      | FILL | CUT    | FILL |                   |                |
| 8                       |             | 18       | 1    |        |      |                   |                |
| 31                      |             |          |      | 28     | 3    |                   |                |
| 12                      |             | 36       | 5    |        |      |                   |                |
| 7                       |             |          |      |        |      |                   |                |
| 12                      |             |          |      | 41     | 4    |                   |                |
| 6                       |             |          |      |        |      |                   |                |
| 3                       |             | 63       | 5    |        |      |                   |                |
| 8                       |             |          |      | 55     | 2    |                   |                |
| 3                       |             | 56       | 0    |        |      |                   |                |
| 15                      |             | 65       | 0    |        |      |                   |                |
| 67                      |             |          |      | 179    | 10   |                   |                |

**CROSS SECTIONS US 50**  
**STA. 52+25.00 TO STA. 53+00.00**

**HAM-50-(28.08)(28.24)**

57  
 162

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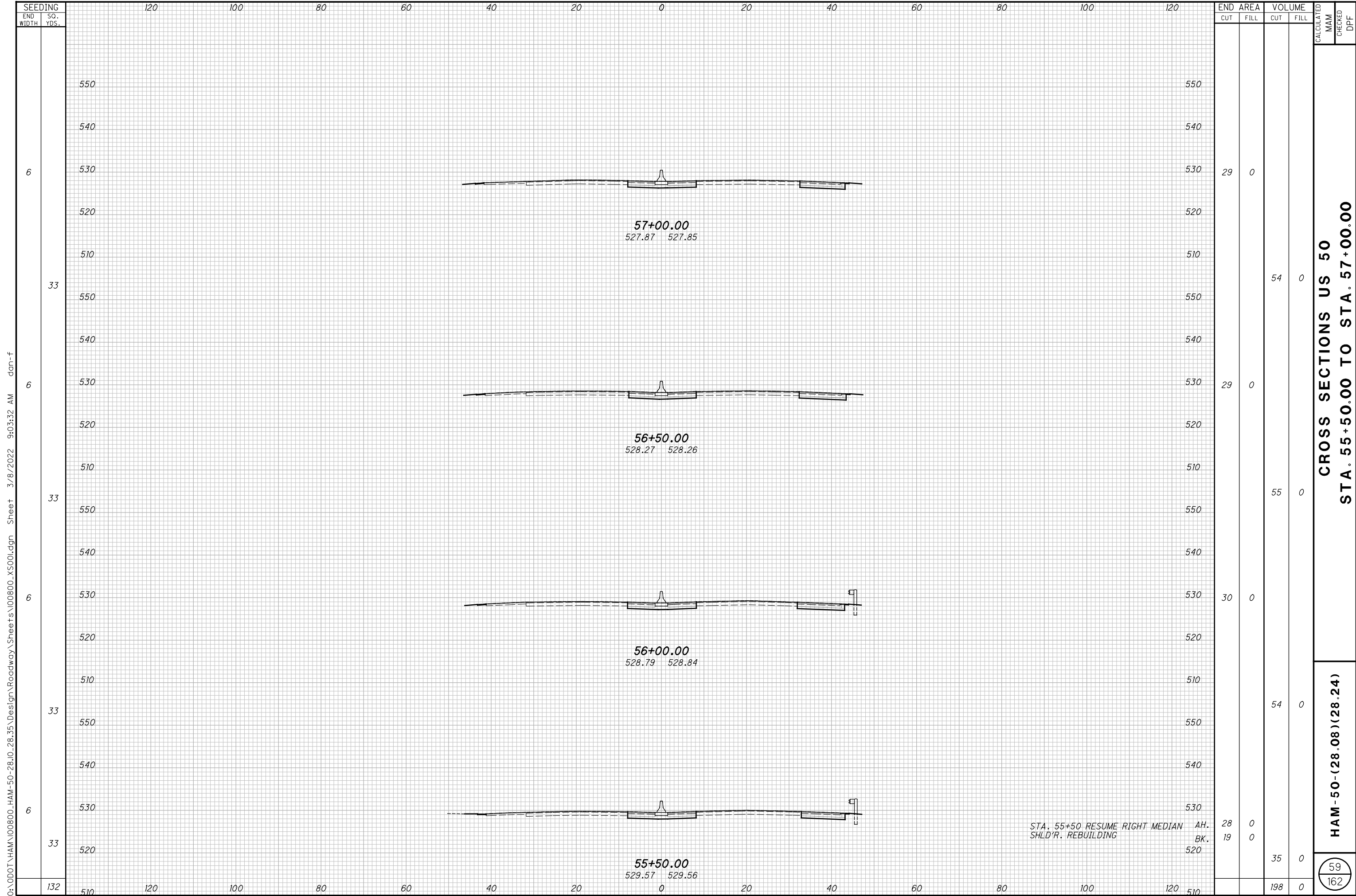
| END AREA | VOLUME | CALCULATED | CHECKED | DPF |     |
|----------|--------|------------|---------|-----|-----|
|          |        |            |         |     | CUT |
| 19       | 0      |            |         |     |     |
| 35       | 0      |            |         |     |     |
| 19       | 0      |            |         |     |     |
| 35       | 0      |            |         |     |     |
| 19       | 0      |            |         |     |     |
| 35       | 0      |            |         |     |     |
| 19       | 0      |            |         |     |     |
| 34       | 1      |            |         |     |     |
| 139      | 1      |            |         |     |     |

**CROSS SECTIONS US 50**  
**STA. 53+50.00 TO STA. 55+00.00**

**HAM-50-(28.08)(28.24)**

58  
 162

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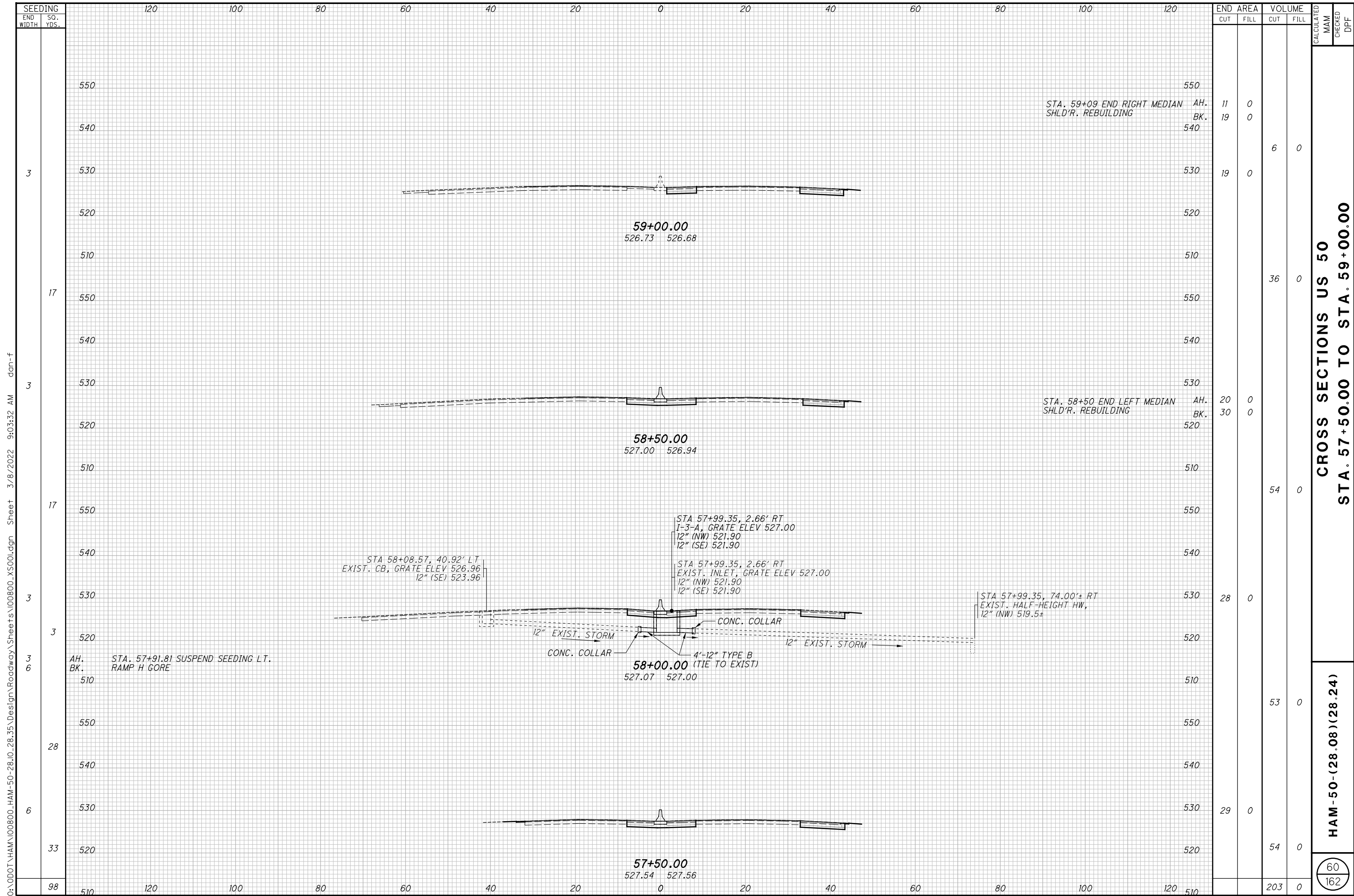
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| END AREA | VOLUME |      | CALCULATED | CHECKED | DPF |
|----------|--------|------|------------|---------|-----|
|          | CUT    | FILL |            |         |     |
| 29       | 0      |      |            |         |     |
|          |        | 54   | 0          |         |     |
| 29       | 0      |      |            |         |     |
|          |        | 55   | 0          |         |     |
| 30       | 0      |      |            |         |     |
|          |        | 54   | 0          |         |     |
| 28       | 0      |      |            |         |     |
| 19       | 0      |      |            |         |     |
|          |        | 35   | 0          |         |     |
|          |        | 198  | 0          |         |     |

STA. 55+50 RESUME RIGHT MEDIAN  
 SHLD'R. REBUILDING

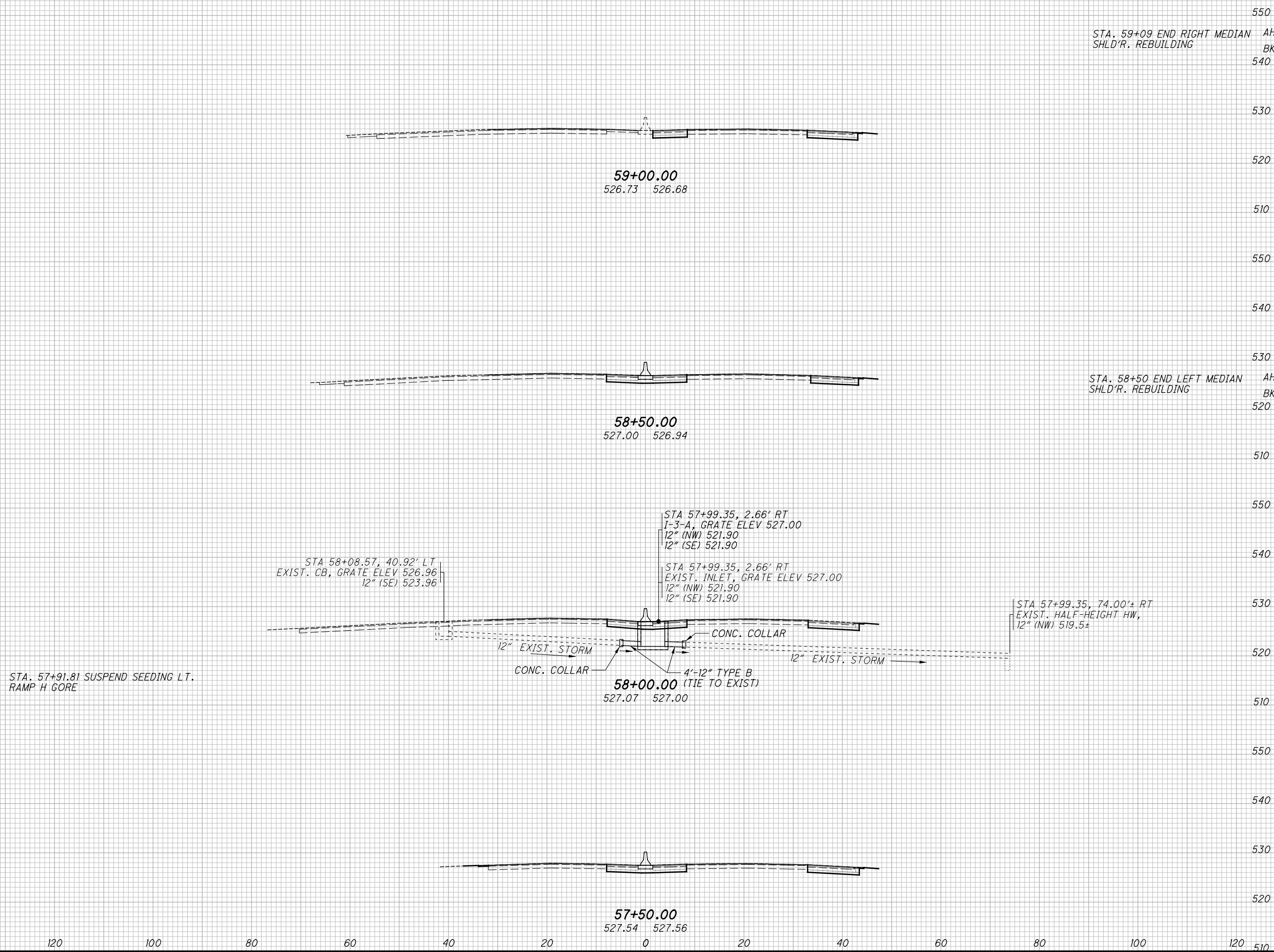
**CROSS SECTIONS US 50**  
**STA. 55+50.00 TO STA. 57+00.00**

**HAM-50-(28.08)-(28.24)**



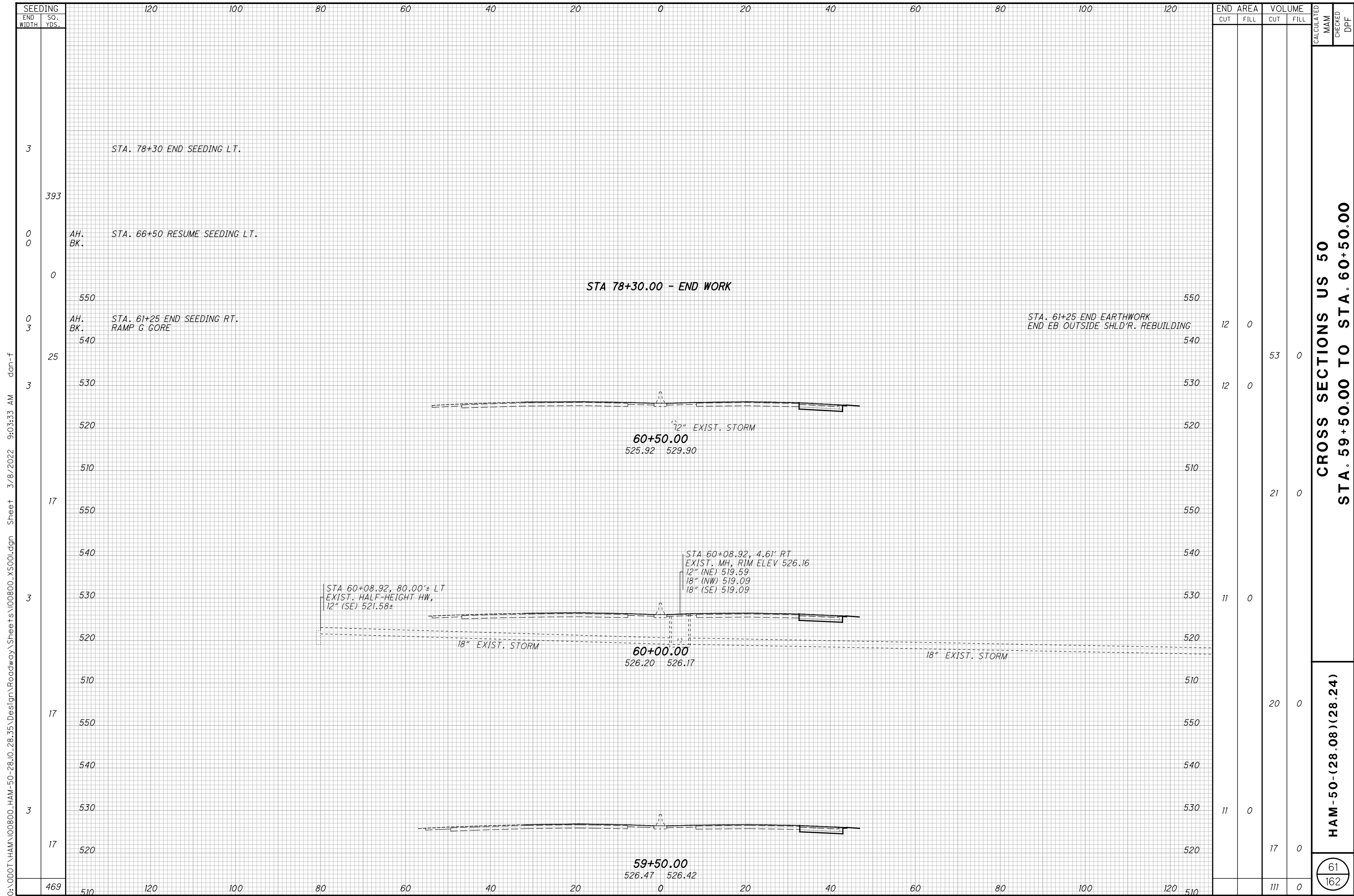
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550  
540  
530  
520  
510  
550  
540  
530  
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540  
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510  
550  
540  
530  
520  
510



| END AREA | VOLUME | CALCULATED | CHECKED |
|----------|--------|------------|---------|
| CUT      | FILL   | CUT        | FILL    |
| 11       | 0      |            |         |
| 19       | 0      | 6          | 0       |
| 19       | 0      |            |         |
| 20       | 0      | 36         | 0       |
| 30       | 0      |            |         |
| 20       | 0      | 54         | 0       |
| 30       | 0      |            |         |
| 28       | 0      | 53         | 0       |
| 29       | 0      | 54         | 0       |
| 29       | 0      | 203        | 0       |





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