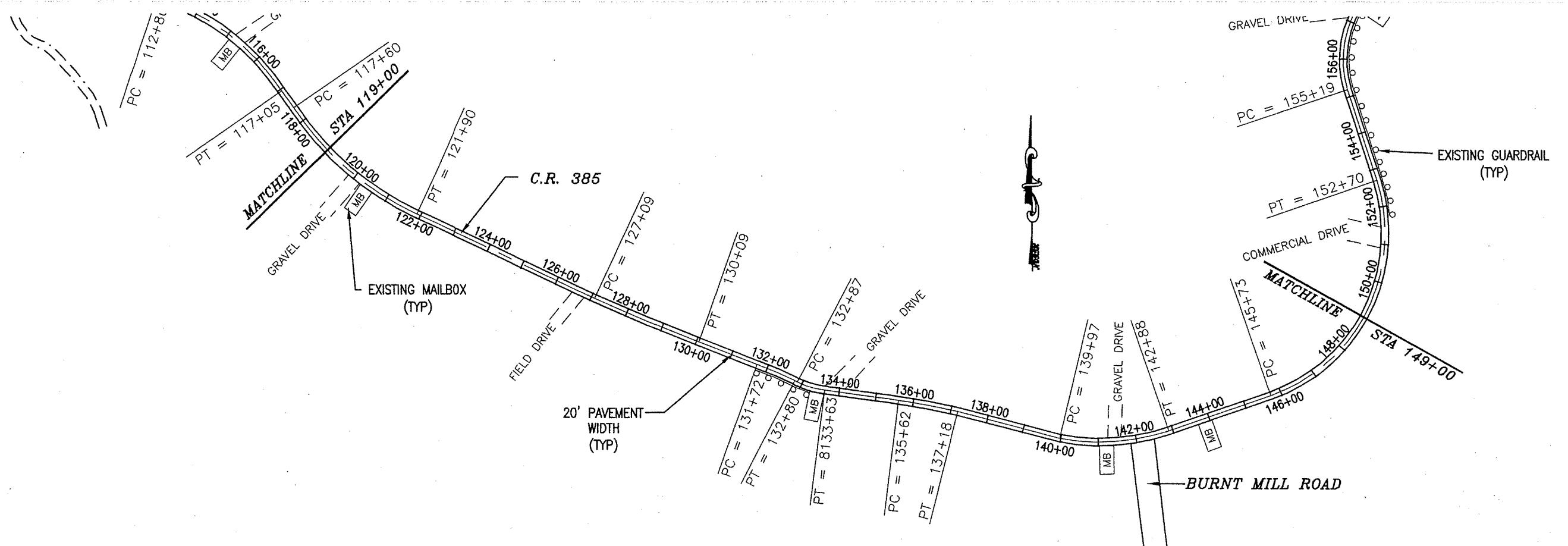
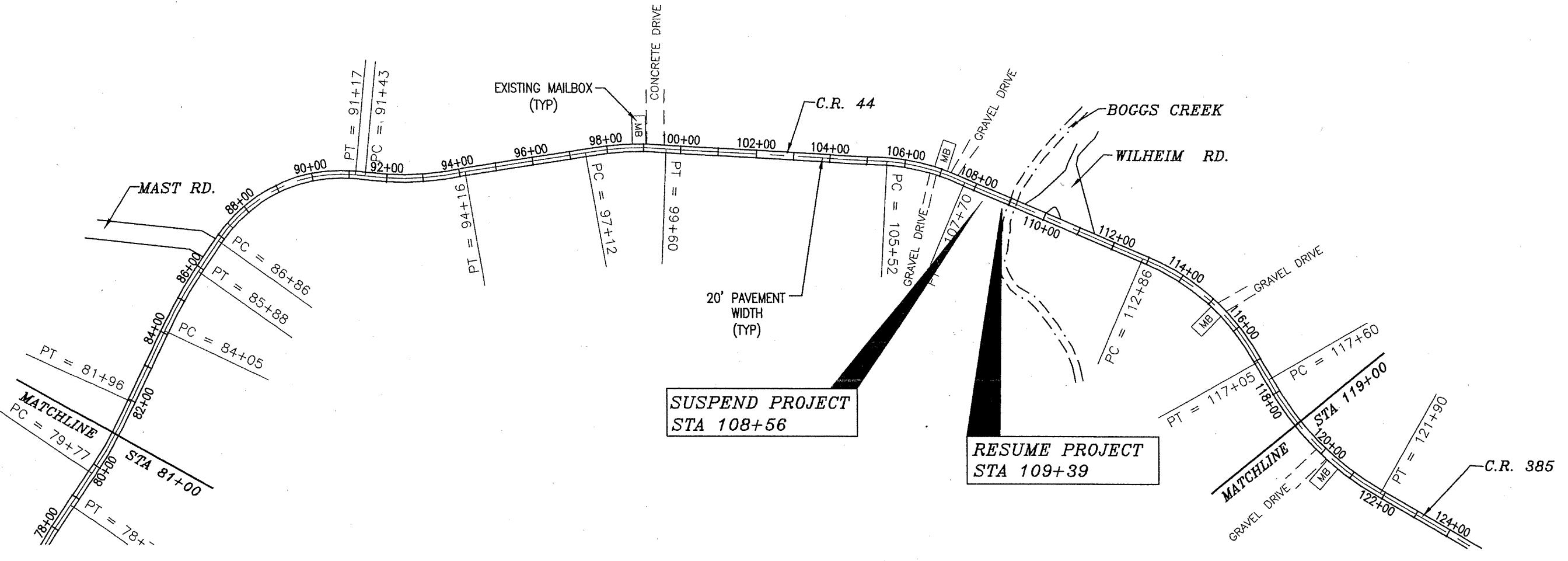


## SCHEMATIC PLAN

MUS - C.R. 44, 385, 196

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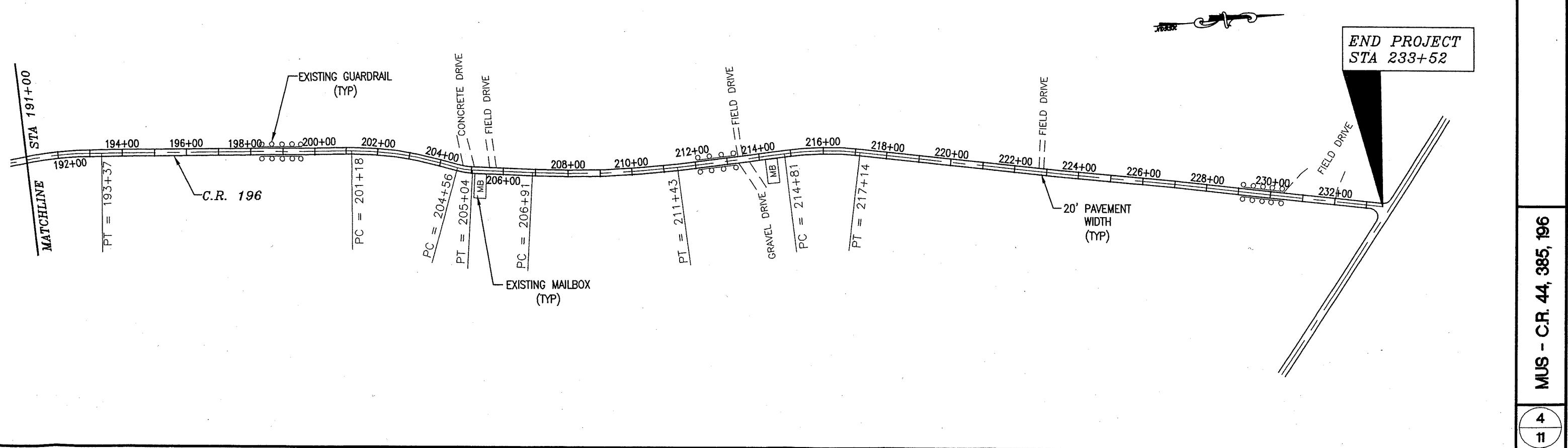
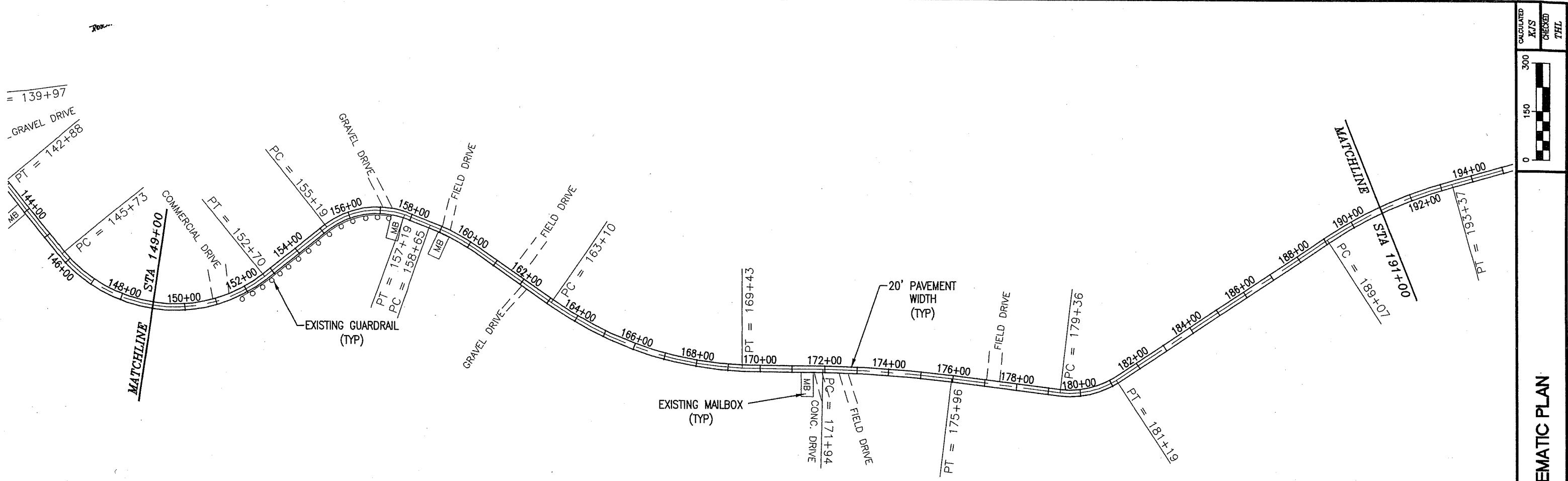


## SCHEMATIC PLAN

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3  
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**SCHEMATIC PLAN**



## GENERAL NOTES

### COMMENCEMENT OF WORK

THE CONTRACTOR SHALL NOTIFY THE MUSKINGUM COUNTY ENGINEERING OFFICE (740) 454-0155 FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING WORK ON THE PROJECT, HOLIDAYS AND WEEKENDS EXCLUDED.

MINIMIZING THE CONSTRUCTION IMPACTS TO THE AREA RESIDENTS AND BUSINESSES IS A PRIMARY CONCERN OF THIS CONTRACT. THEREFORE, THE CONTRACTOR SHOULD PLAN HIS WORK TO PROVIDE THE LEAST DISTURBANCE AND BE PREPARED TO RESPOND TO RESIDENTS' CONCERN IN A PROFESSIONAL AND PROMPT MANNER.

### SAFETY REQUIREMENTS

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, OR THE MOST CURRENT VERSION THEREOF, DURING THE CONDUCT AND PERFORMANCE ON AND IN CONNECTION WITH THIS PROJECT.

### ITEM 614 - WORK ZONE MARKING SIGNS

A QUANTITY FOR EACH OF THE FOLLOWING SHALL BE CARRIED TO THE GENERAL SUMMARY AND ARE TO BE USED AS DIRECTED BY THE ENGINEER:

- A - WORK ZONE MARKING SIGNS
- B - "NO EDGE LINE" (OW-167)
- C - "UNMARKED NO PASSING ZONES" (OW-168)

| ITEM | A  | B  | C  |
|------|----|----|----|
| EACH | 35 | 18 | 18 |

### EXTRA ASPHALT FOR PRE-LEVELING

A QUANTITY OF 448 ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLANS TO BE USED AT THE DIRECTION OF THE ENGINEER FOR PRE-LEVELING WHERE THE PAVEMENT IS LOW OR DETERIORATED. THE QUANTITY OF ITEM 448 SHALL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 = 194 CU. YD.

### UNDERGROUND UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THESE PLANS. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY UNDERGROUND UTILITIES THAT MAY EXIST UNDER OR ADJACENT TO THE WORK AREA. IN THE EVENT OF UNFORESEEN CIRCUMSTANCES OR UNUSUAL CONDITIONS, THE FOLLOWING LIST OF ALL UTILITY OWNERS IS PROVIDED TO THE CONTRACTOR AND PROJECT ENGINEER FOR NOTIFICATION OF UTILITY OWNERS.

### UTILITIES OWNERS

ADELPHIA COMMUNICATIONS  
334 GEST STREET  
TOWNVIEW CENTER  
CINCINNATI, OHIO 45203  
513-333-0702

EAST MUSKINGUM WATER \*  
375 RICHARDS ROAD  
ZANESVILLE, OHIO 43701  
740-453-0678

ENERGY COOPERATIVE \*  
1500 GRANVILLE ROAD  
NEWARK, OHIO  
1-800-445-2390

GUERNSEY MUSKINGUM ELECTRIC  
17 S. LIBERTY  
NEW CONCORD, OHIO 43762  
740-454-0770

COLUMBIA GAS OF OHIO \*  
2429 LINDEN AVENUE  
ZANESVILLE, OHIO 43701  
740-458-5467 EXT. 111

AMERITECH \*  
160 N. SIXTH STREET  
ZANESVILLE, OHIO 43701  
740-454-3514

AEP  
1900 LICKING ROAD  
ZANESVILLE, OHIO 43701  
1-800-672-2231

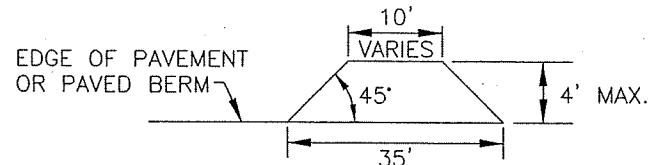
TIME WARNER COMMUNICATIONS  
737 HOWARD STREET  
ZANESVILLE, OHIO 43701  
740-455-9705

\* OUPS MEMBER

### RESIDENCE AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 448 - ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLANS TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS OF EXISTING DRIVEWAYS. PAVING SHALL EXTEND A MAXIMUM OF 4 FEET INTO THE DRIVEWAY, MEASURED FROM THE EDGE OF PAVEMENT OR PAVED BERM. THICKNESS SHALL BE APPROXIMATELY THE SAME AS THE ROADWAY PAVEMENT. FIELD DRIVES AND OIL WELL DRIVES WILL NOT BE PAVED.

PAVEMENT FOR DRIVES SHALL BE INCLUDED IN ITEM 448 - SURFACE CONCRETE COURSE, TYPE 1, AC-20.



$$[(\frac{10+35}{2}) \times (4') \times (1''/12)] \div 27 = 0.28 \text{ CY} \times 71 = 20 \text{ CY}$$

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 = 20 CY

### ALIGNMENT AND PROFILE

THE WORK PROPOSED BY THIS PROJECT IS THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT AND THE PROFILE OF THE EXISTING PAVEMENT WILL NOT BE CHANGED. THE EXISTING SURFACE WILL BE MILLED TWO INCHES TO ALLOW FOR THE TWO INCHES OF ASPHALT CONCRETE THAT WILL BE PLACED ON THE ROADWAY.

### MAINTENANCE OF TRAFFIC

LANE RESTRICTIONS SHALL BE PERMITTED, ALTHOUGH ACCESS TO LOCAL RESIDENTS AND BUSINESSES SHALL BE PROVIDED. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

### CONTROL OF ONE-WAY TRAFFIC

IN ADDITION TO THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MATERIAL SPECIFICATIONS, THE FOLLOWING REQUIREMENTS SHALL APPLY: COMMUNICATION BETWEEN FLAGGERS BY TWO-WAY RADIO DURING THE PAVING OPERATIONS.

PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN ITEM 614, MAINTAINING TRAFFIC AND SHALL BE CARRIED TO THE GENERAL SUMMARY.

### ITEM 203 - EMBANKMENT CONSTRUCTION

AS DIRECTED BY THE ENGINEER, EMBANKMENT CONSTRUCTION SHALL CONSIST OF PREPARATION OF THE AREAS UPON WHICH EMBANKMENTS ARE TO BE PLACED, THE PLACING AND COMPACTING OF APPROVED MATERIAL WITHIN ROADWAY AREAS WHERE UNSUITABLE MATERIAL HAS BEEN REMOVED, AND THE PLACING AND COMPACTING OF EMBANKMENT MATERIAL IN HOLES, PITS AND OTHER DEPRESSIONS WITHIN THE ROADWAY AREA. ONLY APPROVED MATERIALS SHALL BE USED IN THE CONSTRUCTION OF EMBANKMENTS AND BACKFILLS. FROZEN MATERIAL SHALL NOT BE PLACED IN THE EMBANKMENT NOR SHALL EMBANKMENT BE PLACED ON FROZEN MATERIAL. THE QUANTITY OF ITEM 203 SHALL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 203 - EMBANKMENT CONSTRUCTION = 10 CY

### RIGHTS-OF-WAY

THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHTS-OF-WAY AND/OR EASEMENTS. THE COST OF THE OPERATION NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

CALCULATED  
KITS  
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THL

GENERAL NOTES

MUS - C.R. 44, 385, 196

5  
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## GENERAL NOTES

### ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF ITEM 407 - TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AVERAGE APPLICATION RATES OF 0.075 GALLONS PER SQUARE YARD OF TACK FOR ESTIMATING PURPOSES ONLY.

### CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. (THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.)

### SIGNS, FENCES, DRAINAGE STRUCTURES, ETC.

ALL SIGNS, FENCES, SHRUBS, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING WORK UNDER THIS CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.

### PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL PERMITS, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.

### ITEM 201 - CLEARING AND GRUBBING

AS DIRECTED BY THE ENGINEER, THIS ITEM SHALL INCLUDE CLEARING, GRUBBING, SCALPING, REMOVAL OF TREES AND STUMPS, AND REMOVING AND DISPOSING OF ALL VEGETATION AND DEBRIS WITH THE LIMITS OF THE RIGHT-OF-WAY AND EASEMENT AREA. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 - CLEARING AND GRUBBING AND SHALL BE CARRIED TO THE GENERAL SUMMARY.

### MISCELLANEOUS WORK

EACH BIDDER MUST INFORM HIMSELF FULLY TO THE CONDITIONS RELATING TO THE CONSTRUCTION PROJECT. FAILURE TO DO SO WILL NOT RELIEVE A SUCCESSFUL BIDDER OF HIS OBLIGATION TO FURNISH ALL MATERIALS AND LABOR NECESSARY TO CARRY OUT THE PROVISIONS OF THE CONTRACT.

THE CONTRACTOR SHALL MAKE AN ON-SITE INSPECTION OF THE AREAS TO FAMILIARIZE HIMSELF WITH THE SCOPE OF CONSTRUCTION.

THE CONTRACTOR'S BID SHALL BE COMPREHENSIVE AND INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO COMPLETE ALL EXCAVATION, FILL AND GRADING IN ACCORDANCE WITH ENGINEERING AND SPECIFICATIONS.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL.

ALL ITEMS OF WORK CALLED FOR IN THE CONSTRUCTION DRAWINGS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AS REQUIRED TO COMPLETE THE PROJECT AS DESIGNED AND INTENDED. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS RELATED OR ASSOCIATED ITEMS.

### ITEM 617 - RECONDITIONING SHOULDERS

MATERIAL USED FOR THE RECONDITIONING OF SHOULDERS SHALL BE RECLAIMED ASPHALT CONCRETE PAVEMENT (RACP). ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS STATED IN ITEM 617. QUANTITIES ARE AS SHOWN ON THE SHEET ENTITLED PAVEMENT AND SHOULDER TREATMENT SUB-SUMMARY.

### ITEM 203 - LINEAR GRADING

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED TO CORRECT DRAINAGE AT THE DIRECTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE GRADING AND SHAPING WORK, INCLUDING LABOR AND INCIDENTALS, SHALL BE PAID FOR AT THE UNIT PRICE BID PER STATION FOR ITEM 203 - LINEAR GRADING.

ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER GRADING IS COMPLETED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN A PROPER AND LEGAL MANNER.

THE QUANTITY OF ITEM 203 SHOWN BELOW SHALL COMprise THE LINEAR GRADING OPERATION ON BOTH SIDES OF THE HIGHWAY AND SHALL BE CARRIED TO THE GENERAL SUMMARY.

ITEM 203 - LINEAR GRADING = 234 STATIONS

### SURVEYING

THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASE OF WILLFUL OR CARELESS DESTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATIONS. RESETTING OF MARKERS SHALL BE PERFORMED BY AN OHIO PROFESSIONAL SURVEYOR, AS APPROVED BY THE ENGINEER.

### RESTORATION AND DAILY/FINAL CLEANUP

THE CONTRACTOR SHALL REMOVE ALL DEBRIS, RUBBLE, SPOILS, AND CONSTRUCTION MATERIALS FROM THE ADJACENT STREETS, ALLEYS AND/OR DRIVES AND LEAVE THE SITE IN A NEAT AND ORDERLY MANNER AT THE END OF EACH DAY. IF THE CONSTRUCTION OPERATIONS ENCOUNTER MUDDY CONDITIONS, MUD SHALL NOT BE ALLOWED TO ACCUMULATE IN THE STREETS. AFFECTED STREETS, ALLEYS, AND/OR DRIVES SHALL BE SWEEPED ON A REGULAR BASIS EITHER WITH THE USE OF EQUIPMENT OR BY HAND. THE ACCUMULATED DEBRIS SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER.

WHEN PERFORMING FINAL CLEANUP, THE CONTRACTOR SHALL CLEAN UP ALL MATERIALS AND DEBRIS RESULTING FROM HIS WORK AND DISPOSE OF THEM IN A PROPER AND LEGAL MANNER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PAYMENT FOR RELATED OR ASSOCIATED WORK AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

## GENERAL NOTES

### ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLANS OR OTHERWISE ESTABLISHED BY THE ENGINEER.

### MATERIALS

WOOD POSTS SHALL BE NOMINAL 4" x 4" SQUARE OR 4" DIAMETER AND CONFORM TO 710.14. STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" INSIDE DIAMETER AND CONFORM TO AASHTO M181. HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL GRADE GALVANIZED STEEL.

### SETTING POSTS

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03 AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

### MOUNTING BOXES

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION AND NO MORE THAN TWO MAILBOXES SHALL BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING OF HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

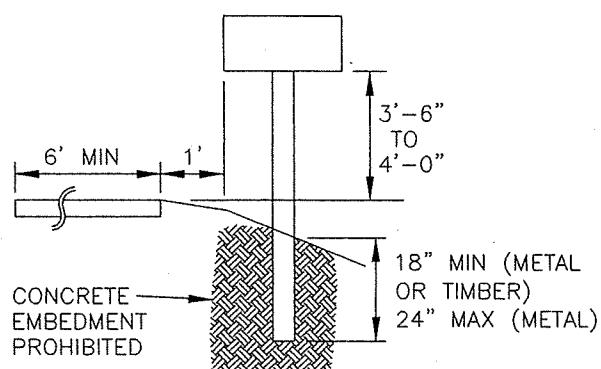
### BASIS OF PAYMENT

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

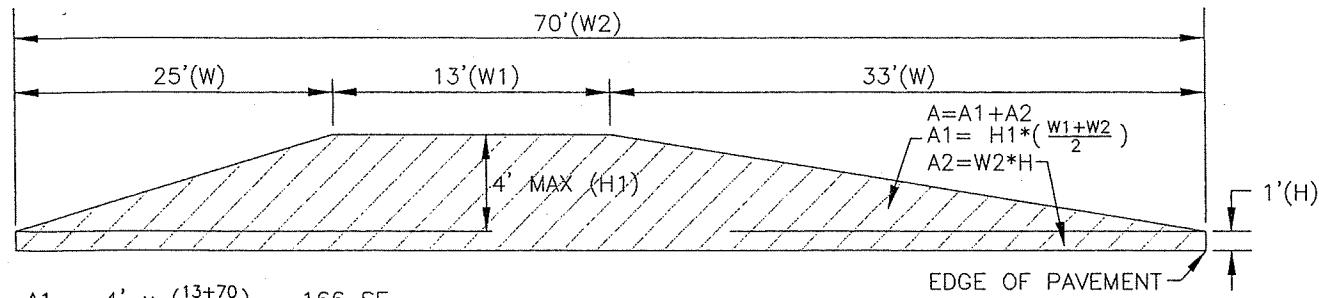
MAILBOX SUPPORTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR THE TYPE SPECIFIED, COMPLETE IN PLACE.

THE QUANTITIES SHOWN BELOW SHALL BE CARRIED TO THE GENERAL SUMMARY.

| ITEM    | UNIT | DESCRIPTION               |
|---------|------|---------------------------|
| SPECIAL | 27   | MAILBOX SUPPORT, (SINGLE) |
| SPECIAL | 8    | MAILBOX SUPPORT, (DOUBLE) |



MAILBOX INSTALLATION



$$A1 = 4' \times \frac{(13+70)}{2} = 166 \text{ SF}$$

$$A2 = 70' \times 1' = 70 \text{ SF}$$

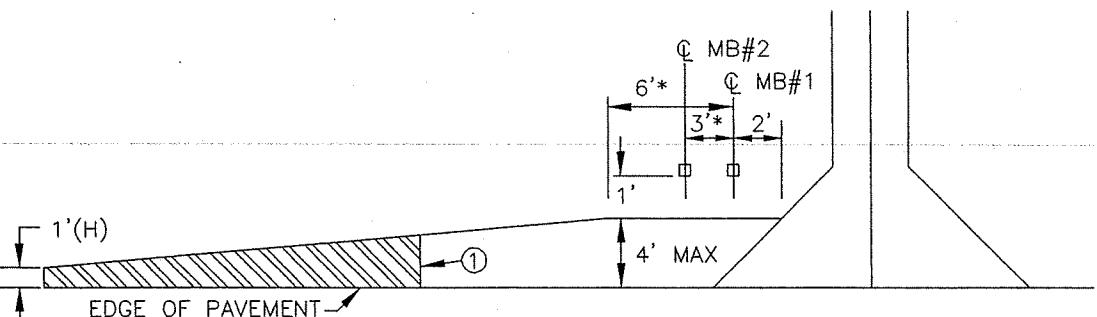
$$A = 70+166 = 236 \text{ SF}$$

$$[(236 \text{ SF}) \times (1''/12)] \div 27 = 0.7 \text{ CY} \times 35 = 26 \text{ CY}$$

### MAILBOX TURN OUTS

A QUANTITY OF ASPHALT CONCRETE HAS BEEN APPROVED IN THE PLANS TO COVER MAILBOX TURN OUTS. TURN OUTS SHALL BE PAVED AS SHOWN IN THE DETAILS BELOW. SEE DRAWING BP-4.1, 7/28/00 FOR ADDITIONAL INFORMATION. THE QUANTITY BELOW HAS BEEN CARRIED TO THE GENERAL SUMMARY.

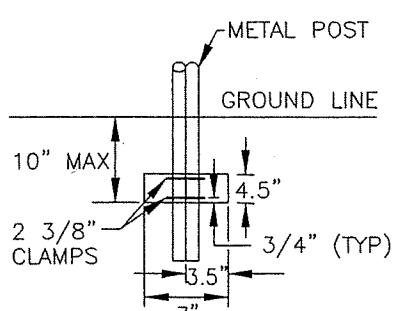
ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 = 26 CY



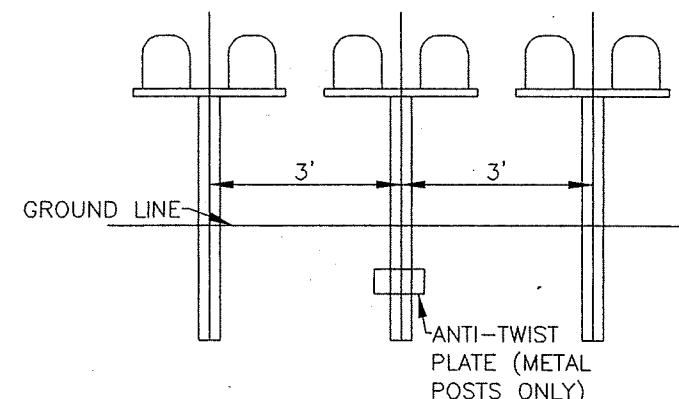
\* ADD 3.0' FOR EACH ADDITIONAL MAILBOX

① END MAILBOX TURN OUT AT EDGE OF PAVED SHOULDER OR 1', WHICHEVER IS GREATER

### DRIVE WITH MAILBOX APPROACH



ANTI-TWIST PLATE



GROUPED MAILBOX INSTALLATION

**TOTALS CARRIED TO GENERAL SUMMARY**

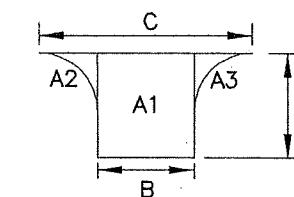
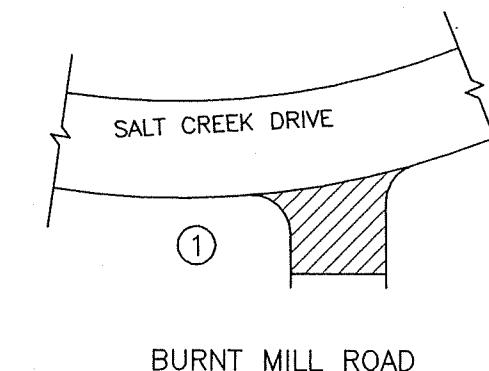
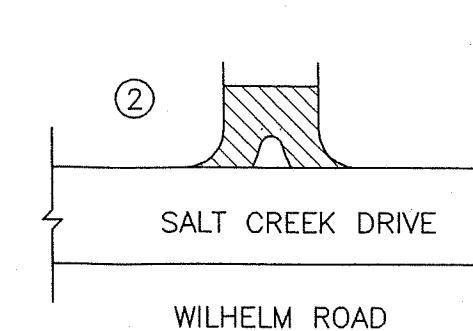
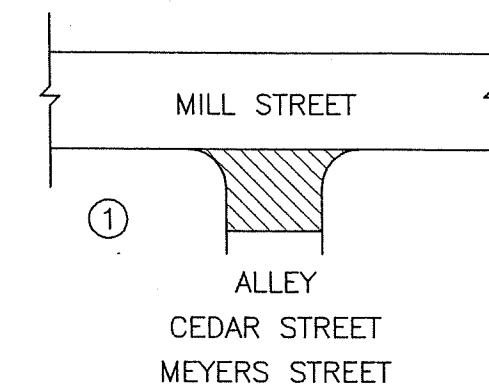
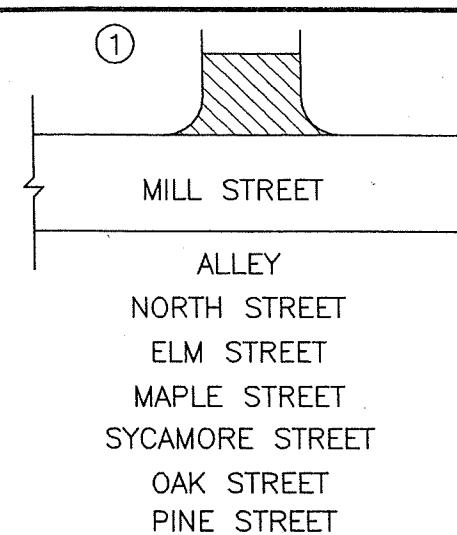
4.41 4.41 8.66 161

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## PAVEMENT MARKING SUB-SUMMARY

KJS

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INTERSECTIONS

CALCULATED  
KJS  
CHECKED  
TWJ

| COUNTY                            | ROUTE           | STATION | SIDE | DISTANCES |          |          | AREA    | 254     | 407   | 448                               | 448                                 | REMARKS                             |
|-----------------------------------|-----------------|---------|------|-----------|----------|----------|---------|---------|---|-----------------------------------|-------------------------------------|-------------------------------------|
|                                   |                 |         |      | A         | B        | C        |         |         | PAVEMENT<br>PLANING<br>2"<br>NOMINAL<br>THICKNESS | TACK<br>COAT<br>@ 0.075<br>GAL/SY | 1"<br>ASPHALT<br>CONCRETE<br>TYPE 1 | 1"<br>ASPHALT<br>CONCRETE<br>TYPE 2 |
|                                   |                 |         |      | LIN. FT.  | LIN. FT. | LIN. FT. | SQ. FT. | SQ. YD. | GAL   | CU. YD.                           | CU. YD.                             |                                     |
| MUSKINGUM                         |                 |         |      |           |          |          |         |         |   |                                   |                                     |                                     |
|                                   | ALLEY           | 1+45    | RT   | 30        | 15       | 35       | 550     | 61      | 9   | 2                                 | 2                                   |                                     |
|                                   | ALLEY           | 1+46    | LT   | 30        | 15       | 35       | 550     | 61      | 9   | 2                                 | 2                                   |                                     |
|                                   | NORTH STREET    | 3+03    | LT   | 30        | 20       | 40       | 700     | 78      | 12  | 2                                 | 2                                   |                                     |
|                                   | ELM STREET      | 6+58    | LT   | 30        | 20       | 35       | 656     | 73      | 11  | 2                                 | 2                                   |                                     |
|                                   | MAPLE STREET    | 11+82   | LT   | 30        | 20       | 35       | 656     | 73      | 11  | 2                                 | 2                                   |                                     |
|                                   | SYCAMORE STREET | 13+40   | LT   | 30        | 15       | 30       | 506     | 56      | 8   | 2                                 | 2                                   |                                     |
|                                   | CEDAR STREET    | 15+11   | RT   | 30        | 20       | 45       | 756     | 84      | 13  | 2                                 | 2                                   |                                     |
|                                   | OAK STREET      | 16+69   | LT   | 30        | 25       | 45       | 850     | 94      | 14  | 3                                 | 3                                   |                                     |
|                                   | PINE STREET     | 20+01   | LT   | 30        | 20       | 50       | 826     | 92      | 14  | 3                                 | 3                                   |                                     |
|                                   | MEYERS STREET   | 20+22   | RT   | 30        | 20       | 35       | 656     | 73      | 11  | 2                                 | 2                                   |                                     |
|                                   | MAST RD.        | 86+57   | LT   | 40        | 20       | 70       | 1,425   | 158     | 24  | 5                                 | 5                                   |                                     |
|                                   | WILHELM RD.     | 110+41  | LT   | 70        | 30       | 150      | 5,060   | 562     | 84  | 15                                | 15                                  |                                     |
|                                   | BURNT MILL RD.  | 142+16  | RT   | 30        | 20       | 70       | 1,225   | 136     | 20  | 5                                 | 5                                   |                                     |
| TOTALS CARRIED TO GENERAL SUMMARY |                 |         |      |           |          |          |         | 1,685   | 253   | 47                                | 47                                  |                                     |

## **PAVEMENT CALCULATIONS**

## ① TYPICAL INTERSECTION

$$\text{AREA} = A_1 + A_2 + A_3 = 800 + 312.5 + 312.5 = 1,425 \text{ SF}$$

$$A_1 = ('A' \times 'B') = 40' \times 20' = 800 \text{ SF}$$

$$A2 = A3 = \left[ \frac{(-C-B)^2}{2} \right] \div 2 = \left[ \frac{(-70-20)^2}{2} \right] \div 2 = 312.5 \text{ S}$$

ITEM 254 (1.425/9) = 158 SY

ITEM 234 (1,128/5) = 158 5

$$\text{ITEM 407 } [(1,425/9)] \times 0.075 = 12 \text{ GAL} \times 2 = 24 \text{ GAL}$$

ITEM 448 TYPE 1 & 2  $[1,425 \times (1''/12)] \div 27 = 50$

② WII HFIM ROAD

$$\text{AREA} = A1 + A2 + A3 - A4 = 2,100 + 1,800 + 1,800 - 640 = 5,060 \text{ SF}$$

$$A1 = 70' \times 30' = 2,100 \text{ SF}$$

$$A2 = A3 = \left[ \frac{(150-30)}{2} \right]^2 \div 2 = 1,800 \text{ SF}$$

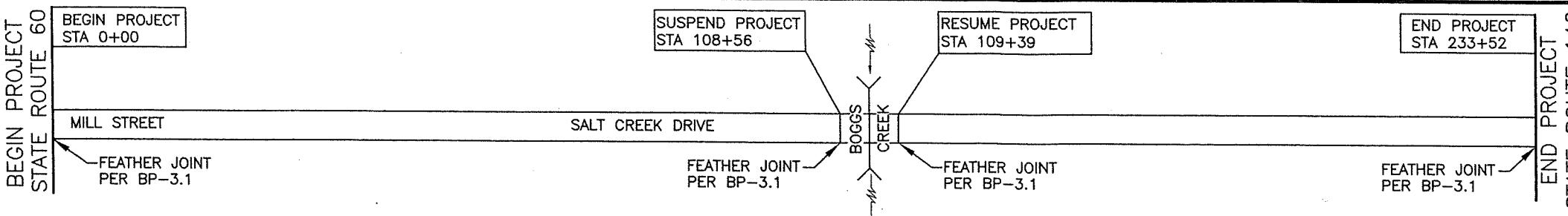
$$A4 = \left(\frac{6+26}{2}\right) \times 40 = 640 \text{ SF}$$

ITEM 254 (5,060/9) = 562 SY

$$\text{ITEM 407} \quad \left[ (5,060/9) \right] \times 0.075 = 42 \text{ GAL} \times 2 = 84 \text{ GAL}$$

$$\text{ITEM 448 TYPE 1 \& 2 } \left[ 5,060 \times (1''/12) \right] \div 27 = 15 \text{ CY}$$

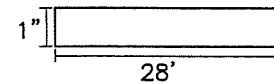
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| COUNTY                            | ROUTE          | STATION |        | DISTANCES |       | AREA    | 254                                      | 407                         | 448                        | 448                        | 617                  | 617                       |      |  |  |  |
|-----------------------------------|----------------|---------|--------|-----------|-------|---------|--|-----------------------------|----------------------------|----------------------------|----------------------|---------------------------|------|--|--|--|
|                                   |                |         |        | LENGTH    | WIDTH |         | PAVEMENT PLANING<br>2" NOMINAL THICKNESS | TACK COAT<br>@ 0.075 GAL/SY | 1" ASPHALT CONCRETE TYPE 1 | 1" ASPHALT CONCRETE TYPE 2 | SHOULDER PREPARATION | RACP 1" AVERAGE THICKNESS |      |  |  |  |
| MUSKINGUM                         | CR-44          | 0+00    | 2+24   | 224       | 28    | 6,272   |  | 697                         | 52                         | 20                         | 20                   | 50                        | 1    |  |  |  |
|                                   | CR-44          | 2+24    | 20+37  | 1,813     | 26    | 47,138  |  | 5,238                       | 393                        | 145                        | 145                  | 403                       | 11   |  |  |  |
|                                   | CR-44          | 20+37   | 48+27  | 2,790     | 22    | 61,380  |  | 6,820                       | 512                        | 189                        | 189                  | 620                       | 17   |  |  |  |
|                                   | CR-44          | 48+27   | 108+56 | 6,029     | 20    | 120,580 |  | 13,398                      | 1,005                      | 373                        | 373                  | 1,340                     | 37   |  |  |  |
|                                   | CR-385, CR-196 | 109+39  | 233+52 | 12,413    | 20    | 248,260 |  | 27,584                      | 2,069                      | 768                        | 768                  | 2,758                     | 77   |  |  |  |
|                                   | INTERSECTIONS  |         |        | 785       |       |         |  |                             |                            |                            |                      | (-87)                     | (-2) |  |  |  |
| TOTALS CARRIED TO GENERAL SUMMARY |                |         |        |           |       |         | 53,737                                   | 4,031                       | 1,495                      | 1,495                      | 5,084                | 141                       |      |  |  |  |

ITEM 448 - ASPHALT CONCRETE, TYPE 1 & 2

(STA 0+00 to 2+24)

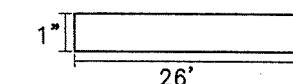


$$\text{AREA} = (1/12) \times 28 = 2.33 \text{ SF}$$

$$[(224' \times 2.33) \div 27] = 20 \text{ CY}$$

ITEM 448 - ASPHALT CONCRETE, TYPE 1 & 2

(STA 2+24 to 20+37)

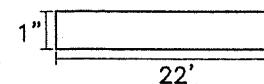


$$\text{AREA} = (1/12) \times 26 = 2.17 \text{ SF}$$

$$[(1,813' \times 2.17) \div 27] = 145 \text{ CY}$$

ITEM 448 - ASPHALT CONCRETE, TYPE 1 & 2

(STA 20+37 to 48+27)



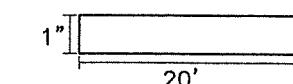
$$\text{AREA} = (1/12) \times 22 = 1.83 \text{ SF}$$

$$[(2,790' \times 1.83) \div 27] = 189 \text{ CY}$$

ITEM 448 - ASPHALT CONCRETE, TYPE 1 & 2

(STA 48+27 to 108+56)

(STA 109+39 to 233+52)



$$\text{AREA} = (1/12) \times 20 = 1.67 \text{ SF}$$

$$[(6,029' \times 1.67) \div 27] = 373 \text{ CY}$$

$$[(12,413' \times 1.67) \div 27] = 768 \text{ CY}$$

ITEM 617 - SHOULDER PREPARATION

$$[(224' \times 1') \div 9] \times 2 = 50 \text{ SY}$$

$$[(1,813' \times 1') \div 9] \times 2 = 403 \text{ SY}$$

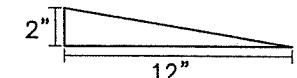
$$[(2,790' \times 1') \div 9] \times 2 = 620 \text{ SY}$$

$$[(6,029' \times 1') \div 9] \times 2 = 1,340 \text{ SY}$$

$$[(12,413' \times 1') \div 9] \times 2 = 2,758 \text{ SY}$$

$$[(785' \times 1') \div 9] = 87 \text{ SY}$$

ITEM 617 - RACP



$$\text{AREA} = \left[ \frac{12 \times 2}{2} \right] \div 144 = 0.08 \text{ SF}$$

$$[(224' \times 0.08) \div 27] \times 2 = 1 \text{ CY}$$

$$[(1,813' \times 0.08) \div 27] \times 2 = 11 \text{ CY}$$

$$[(2,790' \times 0.08) \div 27] \times 2 = 17 \text{ CY}$$

$$[(6,029' \times 0.08) \div 27] \times 2 = 37 \text{ CY}$$

$$[(12,413' \times 0.08) \div 27] \times 2 = 77 \text{ CY}$$

$$[(785' \times 0.08) \div 27] = 2 \text{ CY}$$

## SHEET NUMBER

| 5                             | 6    | 7     | 8      | 9 | 10 | ITEM    | ITEM EXT. NO. | GRAND TOTAL | UNIT     | DESCRIPTION   | CALCULATED<br>K/S<br>CHECKED<br>THL |  |
|-------------------------------|------|-------|--------|---|----|---------|---------------|-------------|----------|---|-------------------------------------|--|
| <b>ROADWAY</b>                |      |       |        |   |    |         |               |             |          |   |                                     |  |
|                               | LUMP |       |        |   |    | 201     | 11000         | LUMP        | LUMP     | CLEARING AND GRUBBING                               |                                     |  |
| 10                            |      |       |        |   |    | 203     | 20000         | 10          | CU. YD.  | EMBANKMENT  |                                     |  |
| 234                           |      |       |        |   |    | 203     | 60000         | 234         | STA.     | LINEAR GRADING                                      |                                     |  |
| 27                            |      |       |        |   |    | SPECIAL | 69050100      | 27          | EACH     | MAIL BOX SUPPORTS, SINGLE                           |                                     |  |
| 8                             |      |       |        |   |    | SPECIAL | 69050200      | 8           | EACH     | MAIL BOX SUPPORTS, DOUBLE                           |                                     |  |
| <b>PAVEMENT</b>               |      |       |        |   |    |         |               |             |          |   |                                     |  |
|                               |      | 1,685 | 53,737 |   |    | 254     | 90100         | 55,422      | SQ. YD.  | PAVEMENT PLANING, 2" NOMINAL THICKNESS              |                                     |  |
|                               |      | 253   | 4,031  |   |    | 407     | 10000         | 4,284       | GAL.     | TACK COAT   |                                     |  |
| 20                            | 26   | 47    | 1,495  |   |    | 448     | 16000         | 1,588       | CU. YD.  | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20      |                                     |  |
| 194                           |      | 47    | 1,495  |   |    | 448     | 15000         | 1,736       | CU. YD.  | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 |                                     |  |
|                               |      | 5,084 |        |   |    | 617     | 20000         | 5,084       | SQ. YD.  | SHOULDER PREPARATION                                |                                     |  |
|                               |      | 141   |        |   |    | 617     | 10100         | 141         | CU. YD.  | RACP - 1" AVERAGE THICKNESS                         |                                     |  |
| <b>MAINTENANCE OF TRAFFIC</b> |      |       |        |   |    |         |               |             |          |   |                                     |  |
| 71                            |      |       |        |   |    | 614     | 12460         | 71          | EACH     | WORK ZONE MARKING SIGNS                             |                                     |  |
|                               |      | 4.41  |        |   |    | 614     | 21400         | 4.41        | MILE     | TEMPORARY CENTER LINE, CLASS II                     |                                     |  |
| <b>TRAFFIC CONTROL</b>        |      |       |        |   |    |         |               |             |          |   |                                     |  |
|                               |      | 4.41  |        |   |    | 642     | 00290         | 4.41        | MILE     | CENTER LINE, DOUBLE YELLOW                          |                                     |  |
|                               |      | 8.66  |        |   |    | 642     | 00090         | 8.66        | MILE     | EDGE LINE, WHITE                                    |                                     |  |
|                               |      | 161   |        |   |    | 642     | 00500         | 161         | LIN. FT. | 24" STOP LINE, WHITE                                |                                     |  |
| <b>MISCELLANEOUS</b>          |      |       |        |   |    |         |               |             |          |   |                                     |  |
| LUMP                          |      |       |        |   |    | 614     | 11000         | LUMP        | LUMP     | MAINTAINING TRAFFIC                                 |                                     |  |
|                               |      |       |        |   |    | 623     | 10000         | LUMP        | LUMP     | CONSTRUCTION LAYOUT STAKES                          |                                     |  |
|                               |      |       |        |   |    | 624     | 10000         | LUMP        | LUMP     | MOBILIZATION  |                                     |  |
| # 11 MUS - C.R. 44, 385, 196  |      |       |        |   |    |         |               |             |          |   |                                     |  |