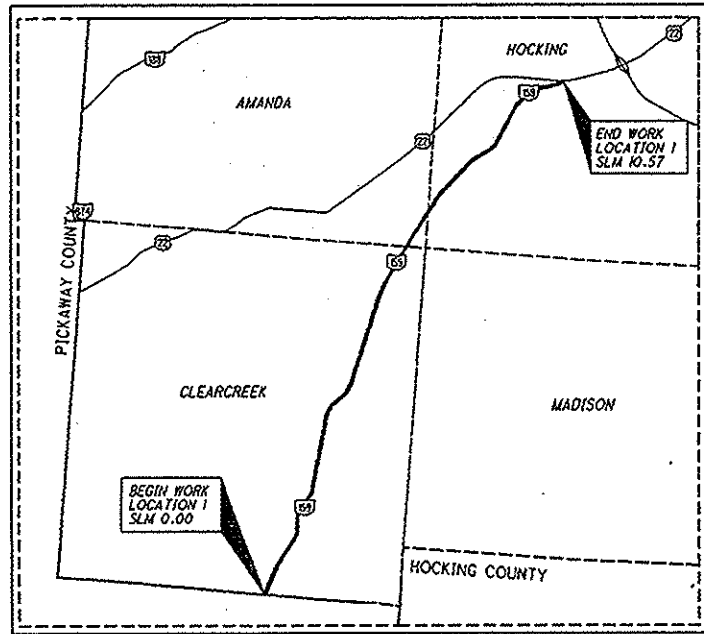


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
FAI-159-0.00
CLEARCREEK, AMANDA
AND HOCKING TOWNSHIPS
FAIRFIELD COUNTY

PROJECT DESCRIPTION:
 ASPHALT CONCRETE RESURFACING AND RELATED
 WORK ON S.R. 159 IN FAIRFIELD COUNTY.

Project Earth Disturbed Area =
 N/A (Maintenance Project)
 Estimated Contractor Earth Disturbed Area =
 N/A (Maintenance Project)
 Notice of Intent Earth Disturbed Area =
 N/A (Maintenance Project)



LOCATION MAP
 LATITUDE: 39° 37' 38" LONGITUDE: 82° 44' 24"

| LOCATION | COUNTY | ROUTE | BEGIN SLM | END SLM | LENGTH MILES | CITY/VILLAGE |
|----------|--------|-------|-----------|---------|--------------|--------------|
| 1 | FAI | 159 | 0.00 | 10.57 | 10.57 | |

INDEX OF SHEETS:

TITLE SHEET 1
 GENERAL NOTES 2-4
 SAFETY EDGE DETAIL 5
 ASPHALT CONCRETE DATA 6
 SHOULDER TREATMENT DATA 7
 EXTRA AREA DATA 8
 BRIDGE TREATMENT DATA 9-10
 PAVEMENT MARKING DATA 11-12
 RAISED PAVEMENT MARKER DATA 13
 GENERAL SUMMARY 14

PORTION TO BE IMPROVED

DESIGN DESIGNATION

| | |
|-----------------------------------|-------|
| CURRENT ADT (2013) | 4600 |
| DESIGN YEAR ADT (2025) | 5100 |
| DESIGN HOURLY VOLUME (2025) | 510 |
| DIRECTIONAL DISTRIBUTION | 50% |
| TRUCKS (24 HOUR B&C) | 8% |
| DESIGN SPEED | 55mph |
| LEGAL SPEED | 55mph |
| DESIGN FUNCTIONAL CLASSIFICATION: | |
| RURAL MAJOR COLLECTOR | |

2010 SPECIFICATIONS

THE STANDARD 2010 SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

DESIGN EXCEPTIONS: NONE

UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
 BEFORE YOU DIG

CALL
 1-800-362-2764
 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: 1-800-925-0988

ENGINEER
 STATE OF OHIO
DOUGLAS N. MORGAN
 E-63839
 REGISTERED
 PROFESSIONAL ENGINEER

SIGNED: *Douglas N. Morgan*
 DATE: 7-11-2012

| STANDARD CONSTRUCTION DRAWINGS | | | | SUPPLEMENTAL SPECIFICATIONS | |
|--------------------------------|----------|----------|---------|-----------------------------|---------|
| BP-3.1 | 4-20-12 | TC-65.10 | 4-20-12 | 800 | 7-20-12 |
| BP-4.1 | 7-16-04 | TC-65.11 | 4-20-12 | 817 | 4-20-12 |
| | | TC-71.10 | 1-21-11 | 823 | 7-15-11 |
| MT-97.10 | 10-15-10 | TC-73.10 | 4-20-12 | 832 | 5-5-09 |
| MT-97.12 | 10-15-10 | | | | |
| MT-99.20 | 1-16-09 | | | | |
| MT-101.90 | 10-21-11 | | | | |
| MT-105.10 | 1-16-09 | | | | |
| | | | | SPECIAL PROVISIONS | |

APPROVED: *[Signature]*
 DATE: 7/11/12 DISTRICT DEPUTY DIRECTOR

APPROVED: *[Signature]*
 DATE: 8-13-12 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E111 (318)
 PID NO. 89285
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 FAI-159-0.00

FAI - SR-159-0.00
 120603 PID - 89285
 Dist 5 11/8/2012

Contract Proposal Available @www.
 contracts.dot.state.oh.us / home

3-26-12
 FAI-159_MTS_001.dgn

PLAN PREPARED BY:
 OHIO DEPARTMENT OF TRANSPORTATION
 DISTRICT 5 PLANNING & ENGINEERING

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING) THE DISTRICT 5 CONSTRUCTION ENGINEER WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:
DISTRICT 5 CONSTRUCTION ENGINEER
P.O. BOX 306
JACKSONSTOWN, OH 43030
PHONE: (740) 323-4400 EXT. 5241

ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE PLASTICITY INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

ITEM 407 TACK COAT

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

ITEM 407 TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ITEM 516 2" DEEP JOINT SEALER, AS PER PLAN

THE CONTRACTOR SHALL PLACE A 1" X 2.0" DEEP BEAD OF JOINT SEALER (AS PER 705.04) AT THE LOCATIONS SHOWN IN PLANS. THE CONTRACTOR SHALL SAW CUT A CHANNEL FOR THE JOINT SEALER. THE COST FOR SAW CUTTING THE CHANNEL FOR THE JOINT SEALER SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN.

ITEM 621 RAISED PAVEMENT MARKER REMOVED

RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. THE CONTRACTOR SHALL DOCUMENT ALL OF THE EXISTING PAVEMENT MARKING LOCATIONS THAT WILL BE REMOVED/OBLITERATED DURING THIS PROJECT. THE CONTRACTOR SHALL PLACE NEW PAVEMENT MARKINGS AT THE LOCATION OF THE EXISTING MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS. THE METHOD OF DOCUMENTATION SHALL BE APPROVED BY THE ENGINEER IN ORDER TO PROVIDE AN ACCEPTABLE TOLERANCE BETWEEN THE EXISTING AND PROPOSED PAVEMENT MARKINGS.

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWING MT-97.12.

ONLY ITEM 614 WORK ZONE CENTER LINE, CLASS II HAS BEEN ITEMIZED IN THE PLAN. ALL OTHER WORK ZONE PAVEMENT MARKINGS NECESSARY SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR 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 CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DROPOFFS IN WORK ZONES

DROPOFFS THAT DEVELOP DURING CONSTRUCTION OPERATIONS AND THAT ARE NOT OTHERWISE PROVIDED FOR IN THE PLANS SHALL BE TREATED AS SHOWN ON STANDARD DRAWING MT-101.90. WHERE THE PLANS DO NOT PROVIDE SPECIFIC ITEMS FOR LABOR, EQUIPMENT, OR MATERIALS TO IMPLEMENT THE DROP-OFF TREATMENTS SPECIFIED, THEY SHALL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 253, PAVEMENT REPAIR

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER. REPAIRS SHALL TAKE PLACE PRIOR TO THE CHIP SEAL OPERATION. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUB-BASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7". AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 7" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED AS DIRECTED). REPAIR QUANTITIES MAY BE USED ON THE MAINLINE PAVEMENT OR ON PAVED SHOULDERS. ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED PURPOSE.

**ITEM 253, PAVEMENT REPAIR
LOCATION 1 - 2,250 CU.YD.**

ITEM 614 WORK ZONE MARKING SIGN

IN ACCORDANCE WITH CMS SECTION 614.04, THE FOLLOWING QUANTITY OF WORK ZONE MARKING SIGNS HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H12a (NO EDGE LINES): LOCATION 1 - 11 EACH
R4-1 (DO NOT PASS): LOCATION 1 - 23 EACH
R4-2 (PASS WITH CARE): LOCATION 1 - 15 EACH

**ITEM 614, WORK ZONE MARKING SIGN
LOCATION 1 - 49 EACH**

IN ADDITION, THE CONTRACTOR SHALL ERECT A "GROOVED PAVEMENT" SIGN 250 FEET (75M) IN ADVANCE OF ANY SECTION OF ROADWAY WHERE TRAFFIC MUST TRAVEL ON A PLANED SURFACE. ENSURE THESE SIGNS ARE IN PLACE BEFORE OPENING THE ROADWAY TO TRAFFIC. ERECT THESE SIGNS ON EACH ENTRANCE RAMP AND AT INTERSECTIONS OF THROUGH ROUTES TO WARN TRAFFIC OF THIS SURFACE CONDITION. "GROOVED PAVEMENT" SIGNS SHALL BE INCLUDED FOR PAYMENT WITH THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AS PER CMS SECTION 614.055.

ITEM 408 PRIME COAT, AS PER PLAN

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GALLON PER SQUARE YARD TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

ITEM 408 PRIME COAT, AS PER PLAN SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND TRAFFIC CONTROL TO PERFORM THE ABOVE MENTIONED WORK.

CALCULATED
LIVE
CHECKED
DNM

GENERAL NOTES

FAI-159 - 0.00

2
14

BUTT JOINT

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT THE EXTRA AREAS WITH WEARING COURSE REMOVED.

BUTT JOINTS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS.

MINIMUM LENGTH FOR ASPHALT WEDGE AT BUTT JOINTS SHALL BE 10'.

| LOCATION | ROUTE | DESCRIPTION | S.L.M. | ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD. |
|----------|-----------------|----------------------|--------|---|
| 1 | S.R. 159 | BEGIN WORK | 0.00 | 1.0 |
| 1 | S.R. 159 | BRIDGE: FAI-159-0559 | 5.59 | 2.0 |
| 1 | S.R. 159 | END WORK | 10.57 | 1.0 |
| | | | | |
| 1 | S.R. 159 | TOTAL | | 4.0 |

THE FOLLOWING QUANTITY OF WEARING COURSE REMOVED SHALL BE USED FOR BEGIN/END BUTT JOINTS. WEARING COURSE REMOVED FOR BUTT JOINTS AT BRIDGES IS SHOWN ON BRIDGE DECK TREATMENT SHEET.

THE CONTRACTOR SHALL NOT PLACE THE SINGLE CHIP SEAL OVER A MILLED SURFACE. A QUANTITY OF 525 SQ. YD. WILL BE CARRIED TO SHEET 6 TO BE DEDUCTED FROM THE SINGLE CHIP SEAL QUANTITY.

LOCATION 1:
ITEM 202 WEARING COURSE REMOVED – 525 SQ.YD.

ITEM 209 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 USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER.

ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING.

THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR GRADING.

ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

ITEM 209 LINEAR GRADING
LOCATION 1 – 21.10 MILE

MAIL BOX TURN OUTS

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN-OUTS. TURN-OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1. ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

ITEM 448 ASPHALT CONCRETE INTERM. COURSE, TYPE 2, PG 64-22
LOCATION 1 – 84 CU.YD.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M
LOCATION 1 - 60 CU.YD.

RESIDENTIAL AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 448 ASPHALT CONCRETE, HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL TYPICALLY EXTEND 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT). THERE ARE 5 TYPES OF DRIVES: CONCRETE, ASPHALT, GRAVEL, GRAVEL WITH ASPHALT APRON AND FIELD/OIL WELL DRIVES. FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK 4' INTO THE DRIVE-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (PREFERRED 4') AS DIRECTED BY THE ENGINEER SO AS TO PROVIDE A SMOOTH TRANSITION. GRAVEL DRIVES WITH ASPHALT APRONS SHALL ALSO HAVE BUTT JOINTS OR AS SHORT ASPHALT TAPER AS POSSIBLE (PREFERRED 4') BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER AS DIRECTED BY THE ENGINEER. IF THE ASPHALT APRON CANNOT BE PAVED OVER (FOR EXAMPLE, BROKEN INTO SMALL PIECES) AS DETERMINED BY THE ENGINEER, IT SHALL BE REMOVED BEFORE BEING PAVED BACK 4' INTO THE DRIVEWAY. ALL GRADING, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 448 ASPHALT CONCRETE INTERM. COURSE, TYPE 2, PG 64-22
LOCATION 1 - 100 CU.YD.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M
LOCATION 1 - 72 CU.YD.

ITEM 202 WEARING COURSE REMOVED
LOCATION 1 – 2,050 SQ.YD.

ITEM 617 SHOULDER PREPARATION

SHOULDER PREPARATION SHALL BE PERFORMED PRIOR TO PLACING ITEM 617 AGGREGATE BASE AS PER CMS 617.04.

THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR SHOULDER PREPARATION.

ITEM 617 SHOULDER PREPARATION
LOCATION 1 – 2((55,810'-145' (BRIDGES)) X 2' / 9) = 24,740 SQ. YD.

SAFETY EDGE PLAN NOTE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATUON HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANS TECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETSLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TransTech Systems, Inc.
1594 State Street
Schenectady, NY 12304
1-800-724-6306
www.transtechsys.com

Advant-Edge Paving Equipment, LLC.
P.O. Box 9163
Niskayuna, NY 12309-0163
518-280-6090
www.advantaedgepaving.com

Carlson Safety Edge End Gate
18425 50th Avenue East
Tacoma, WA 98446
253-875-8000

Troxler Electronics Laboratories, Inc.
3008 E. Cornwallis Rd.
Research Triangle Park, NC 27709
1-877-TROXLER
www.troxlerlabs.com

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES (200 TO 300 mm) AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PROVIDE EXTRA ASPHALT FOR CONSTRUCTION OF THE SAFETY EDGE:

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M
LOCATION 1 – 224 CU.YD.

ITEM 209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGNS SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

(cont'd)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN

12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC.

THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

A TOTAL OF 2 PCMS SHALL BE REQUIRED FOR THIS PROJECT.

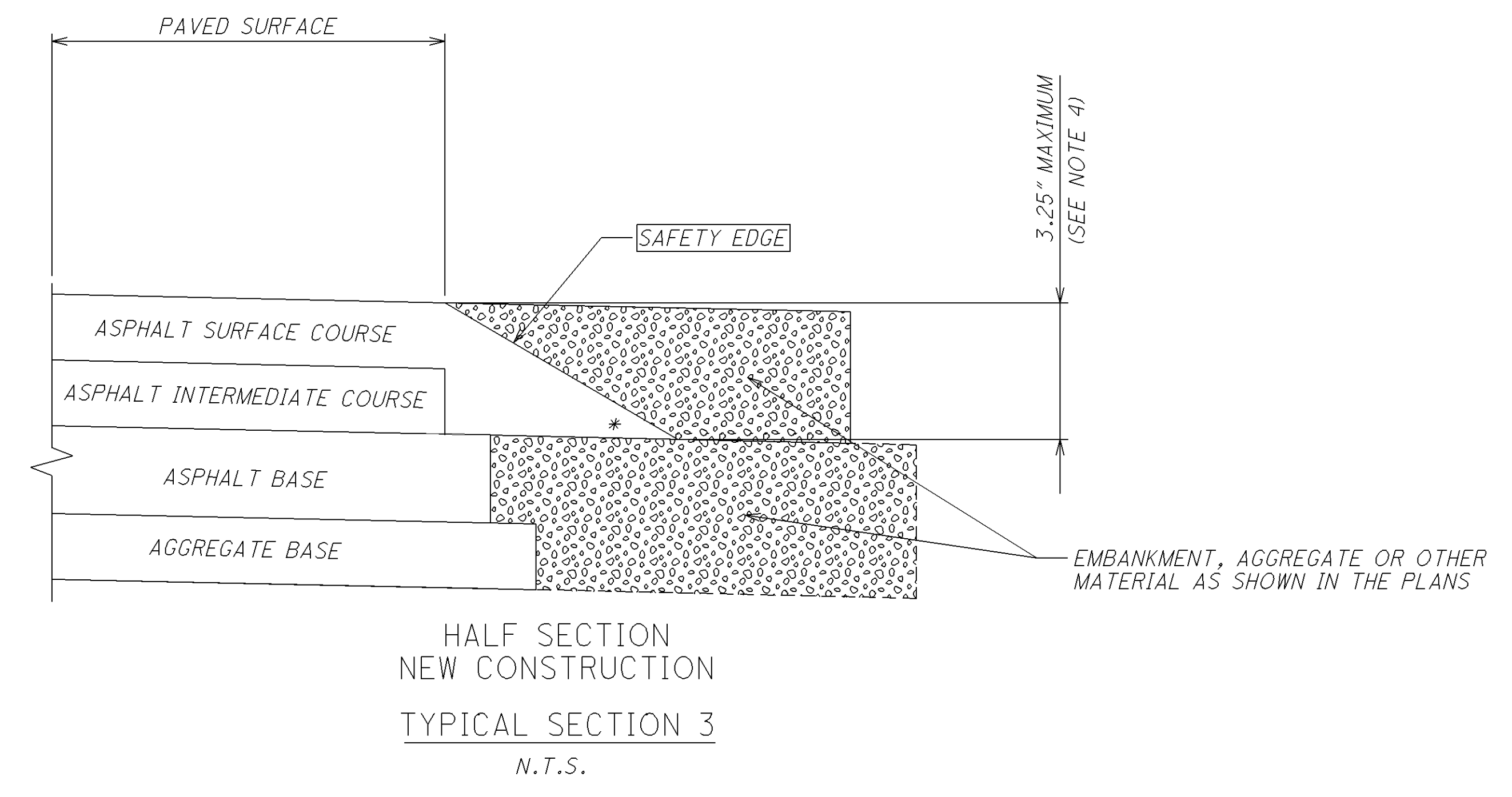
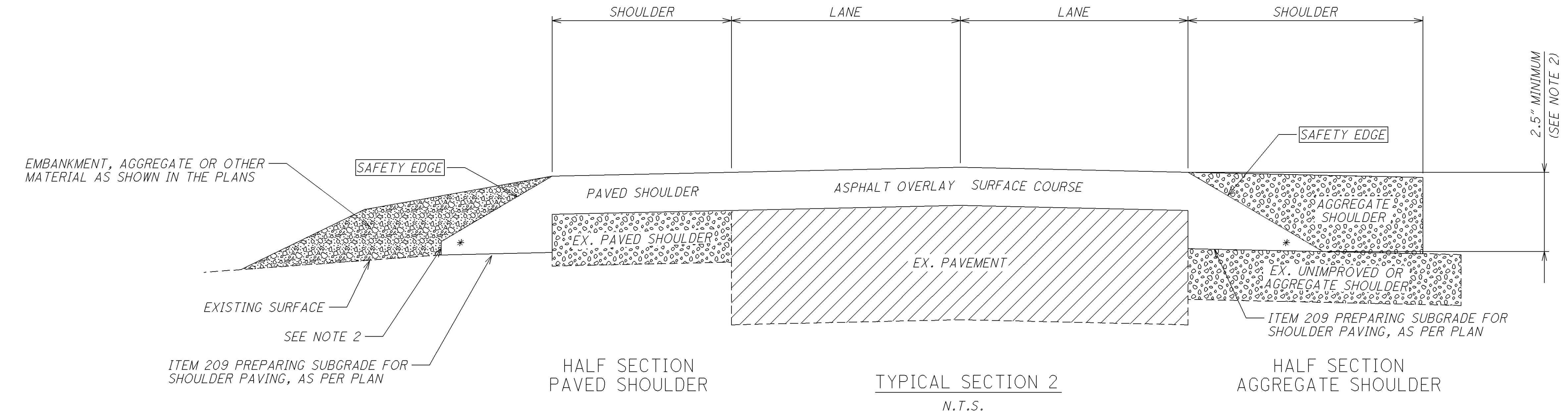
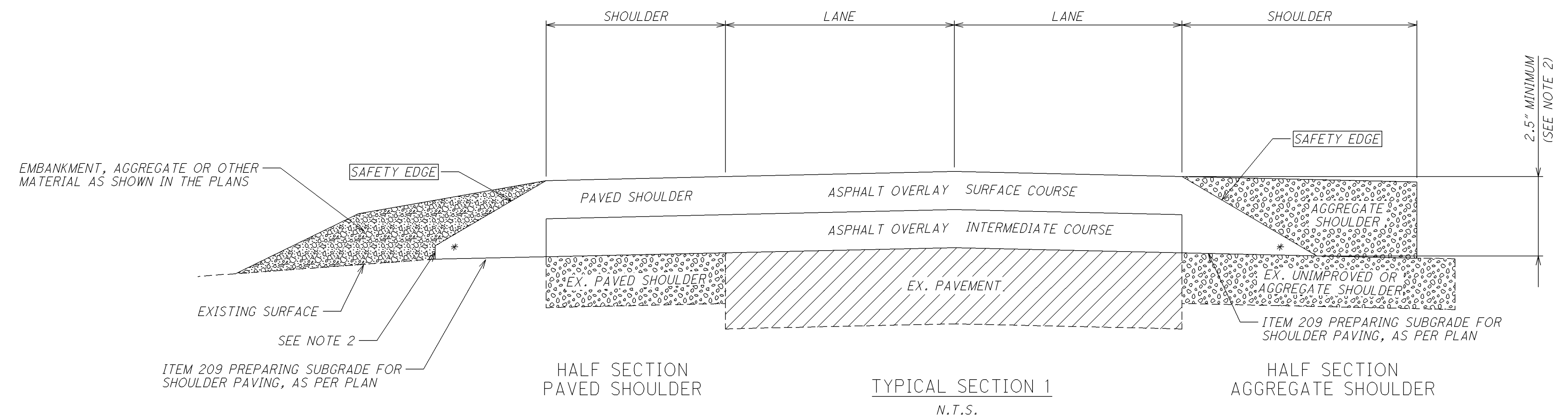
**THE FOLLOWING QUANTITY HAS BEEN CARRIED TO GENERAL SUMMARY:
ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 60 DAY**

CALCULATED
LIVE
CHECKED
DNM

GENERAL NOTES

FAI-159-0.00

4
14



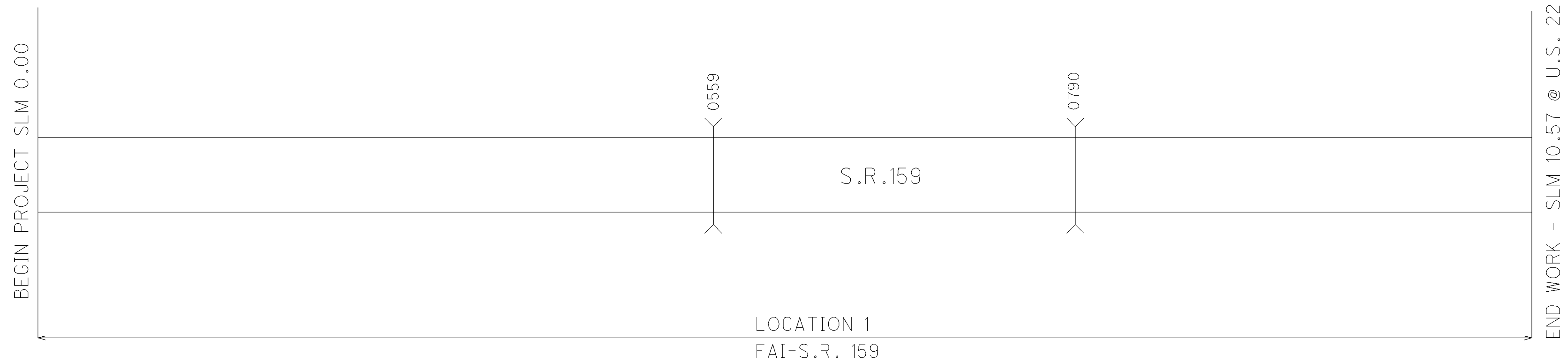
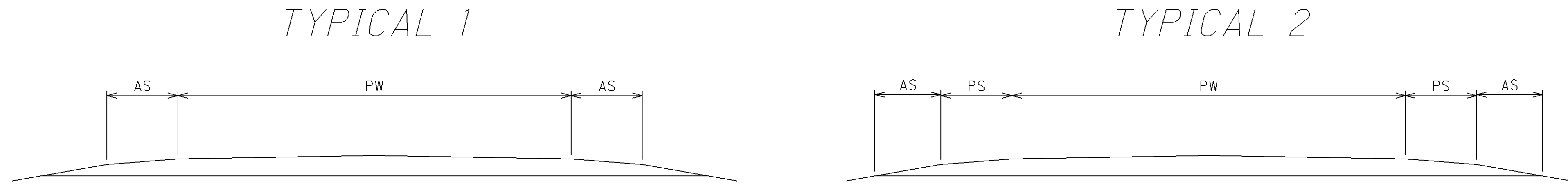
NOTES:

- 1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).
 - 2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" (63MM) WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6" (150MM). CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS GREATER THAN 6" (150 MM).
 - 3.) BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.
 - 4.) FOR NEW PAVEMENT CONSTRUCT THE SAFETY EDGE THE FULL THICKNESS OF THE SURFACE AND INTERMEDIATE COURSES, NOT TO EXCEED 3.25" (82 MM).
- * 40° MAX

F159_SED_001.DGN Dated 6/11/2012

PW = PAVEMENT WIDTH
 PS = PAVED SHOULDER
 AS = AGGREGATE SHOULDER

NOTE:
 THE PAVEMENT WIDTHS SHOWN IN THE "PAVEMENT DATA" TABLE BELOW ARE THE WIDTHS WHICH HAVE BEEN DETERMINED TO HAVE SUFFICIENT ROADWAY BASE FOR PAVING. IF ACTUAL ROADWAY WIDTHS DIFFER, THE ROADWAY SHALL BE PAVED ONLY THE WIDTH SHOWN IN THE AFOREMENTIONED TABLE. IF THE EXISTING ROADWAY IS WIDER THAN THAT WHICH IS SHOWN IN THE TABLE, PAVING SHALL BE CENTERED ABOUT THE FULL WIDTH OF THE ROADWAY AND ANY EXCESS EXISTING PAVEMENT ON THE EDGES SHALL BE COVERED WITH ITEM 617 COMPACTED AGGREGATE. PAVING IN CURBED ROADWAY SECTIONS SHALL BE FROM CURB TO CURB.



PAVEMENT DATA

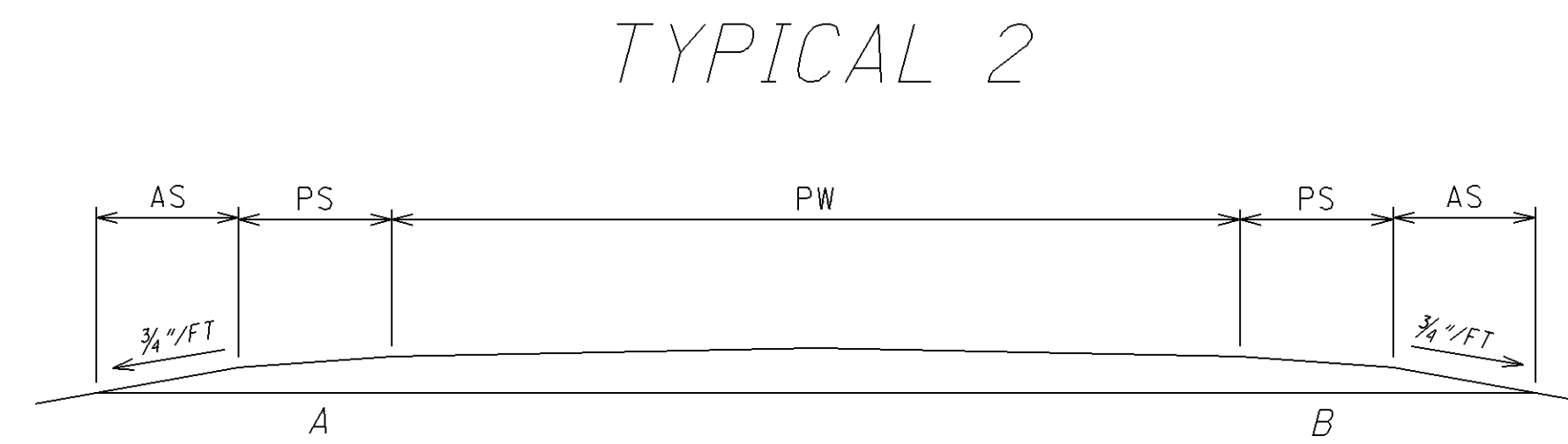
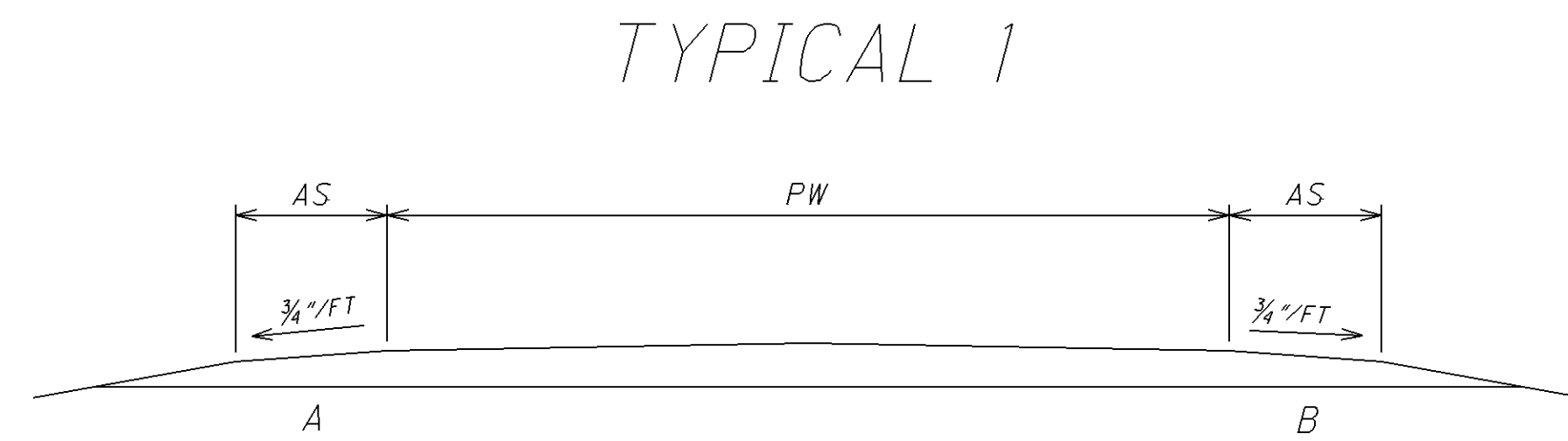
| LOCATION | COUNTY | ROUTE | BEGIN LOG POINT SLM | END LOG POINT SLM | LENGTH | | PAVEMENT WIDTH (FEET) | TYPICAL | EXISTING PAVEMENT TYPE | PAVEMENT AREA | 422 | | 407 | | 448 ASPHALT CONCRETE | | | | 614 |
|---------------------------------------|--------|----------|---------------------|-------------------|--------|----------|-----------------------|---------|------------------------|---------------|------------------|----------------|----------------|------|----------------------|---------|----------------|--------------|------|
| | | | | | MILES | LIN. FT. | | | | | SQ. YD. | SQ. YD. | GAL. | GAL. | INCHES | CU. YD. | INCHES | CU. YD. | MILE |
| | | | | | | | | | | | | | | | | | | | |
| 1 | FAI | S.R. 159 | 0.00 | 6.74 | 6.74 | 35,587.2 | 20.0 | 1 | 448 | 79,082.7 | 79,082.7 | 5,931.3 | 3,954.2 | 1.75 | 3,844.3 | 1.25 | 2,746.0 | 13.48 | |
| 1 | FAI | S.R. 159 | 6.74 | 10.57 | 3.83 | 20,222.4 | 20.0 | 2 | 448 | 44,938.7 | 44,938.7 | 3,370.5 | 2,247.0 | 1.75 | 2,184.6 | 1.25 | 1,560.4 | 7.66 | |
| DEDUCT FOR BUTT JOINTS (FROM SHEET 3) | | | | | | | | | | (525.0) | (525.0) | | | | | | | | |
| DEDUCT FOR BRIDGES (FROM SHEET 9) | | | | | | | | | | (360.0) | (1,315.6) | (27.0) | (18.0) | 1.75 | (17.5) | 1.25 | (12.5) | | |
| LOCATION 1 TOTALS | | | | | | | | | | | 122,180.8 | 9,274.8 | 6,183.2 | | 6,011.4 | | 4,293.9 | 21.14 | |

CALCULATED
 LIME
 CHECKED
 DNM

ASPHALT CONCRETE DATA

FAI-159-0.00

PW = PAVEMENT WIDTH
 PS = PAVED SHOULDER
 AS = AGGREGATE SHOULDER



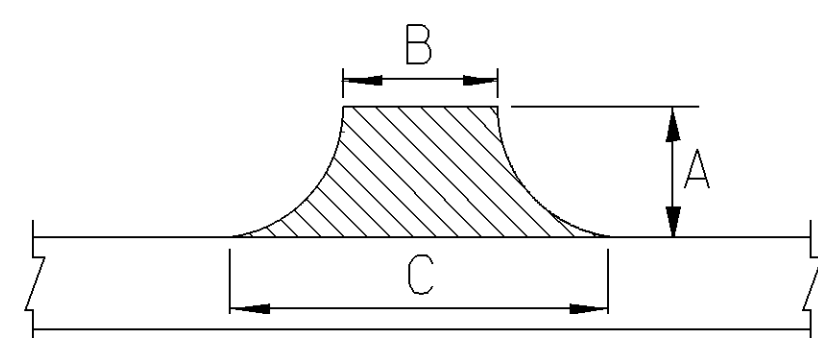
| SHOULDER DATA | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--------|----------|---------------------|-------------------|--------|----------|---------|----------------------|------|---------------|---|--|-----------------------------|--|-----------|---------------------------------------|----------------------|-----------------------------------|-----------|---|-------|-------|---------|
| LOCATION | COUNTY | ROUTE | BEGIN LOG POINT SLM | END LOG POINT SLM | LENGTH | | TYPICAL | PROPOSED WIDTH (FT.) | | SHOULDER AREA | 209 | | 408 | | 407 | | 448 ASPHALT CONCRETE | | | | 617 | | |
| | | | | | | | | A | B | | PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN | PRIME COAT, AS PER PLAN @ 0.40 GAL./S.Y. | TACK COAT @ 0.075 GAL./S.Y. | TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y. | THICKNESS | INTERMEDIATE COURSE, TYPE 2, PG 64-22 | THICKNESS | SURFACE COURSE, TYPE 1, PG 70-22M | THICKNESS | COMPACTED AGGREGATE, AS PER PLAN (2' WIDTH) | | | |
| | | | | | MILES | LIN. FT. | | SQ. YD. | MILE | | GAL. | GAL. | GAL. | INCHES | CU. YD. | INCHES | CU. YD. | INCHES | CU. YD. | | | | |
| 1 | FAI | S.R. 159 | 0.00 | 6.74 | 6.74 | 35587.2 | 1 | 2 | 2 | 15,816.5 | 13.48 | 6,326.6 | | | | | 1.75 | 436.9 | 1.25 | 124.8 | 1.75 | 768.9 | |
| 1 | FAI | S.R. 159 | 6.74 | 10.57 | 3.83 | 20222.4 | 2 | 2 | 2 | 8,987.7 | 7.66 | 3,595.1 | 674.1 | 449.4 | | | 1.75 | 436.9 | 1.25 | 124.8 | 1.75 | 437.0 | |
| DEDUCT FOR BRIDGES (FROM SHEET 9) | | | | | | | | | | (14.2) | (0.04) | (5.7) | (2.1) | (1.4) | | | 1.75 | (1.3) | 1.25 | (1.0) | 1.75 | (3.5) | |
| LOCATION 1 TOTALS | | | | | | | | | | | 21.10 | | 9,916.0 | 672.0 | 448.0 | | | | 435.6 | | 123.8 | | 1,202.4 |

SHOULDER TREATMENT DATA

FAI-159-0.00

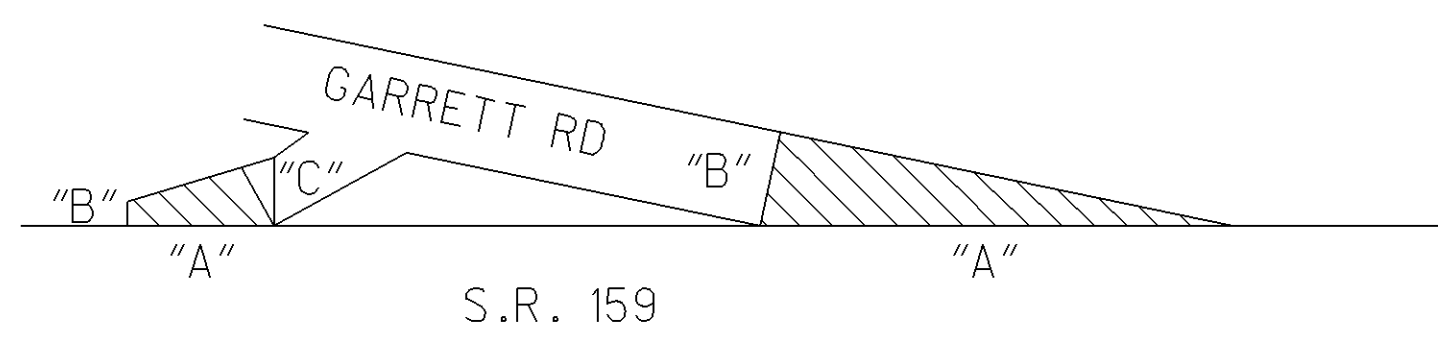
CALCULATED
 LME
 CHECKED
 DNM

INTERSECTIONS

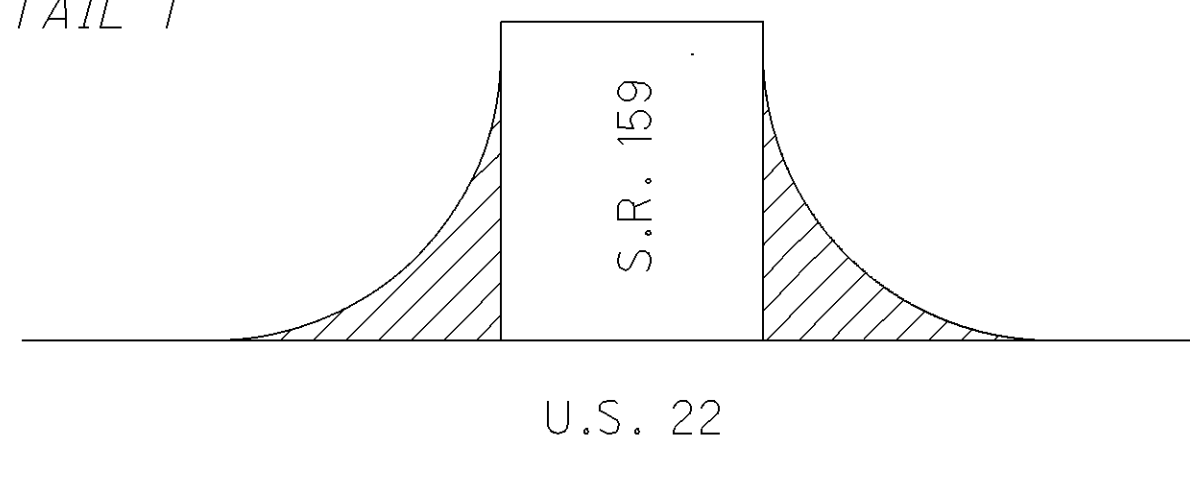


$$AREA = \left[A \frac{(B + C)}{2} \right] / 9$$

WEARING COURSE REMOVED

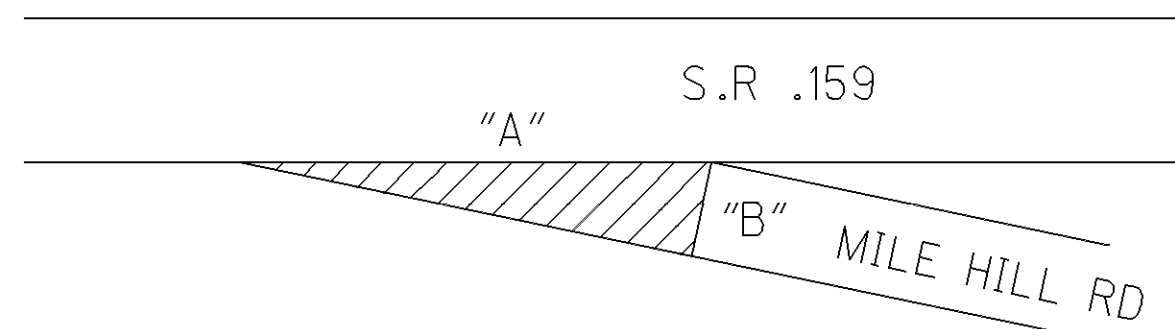


DETAIL 1

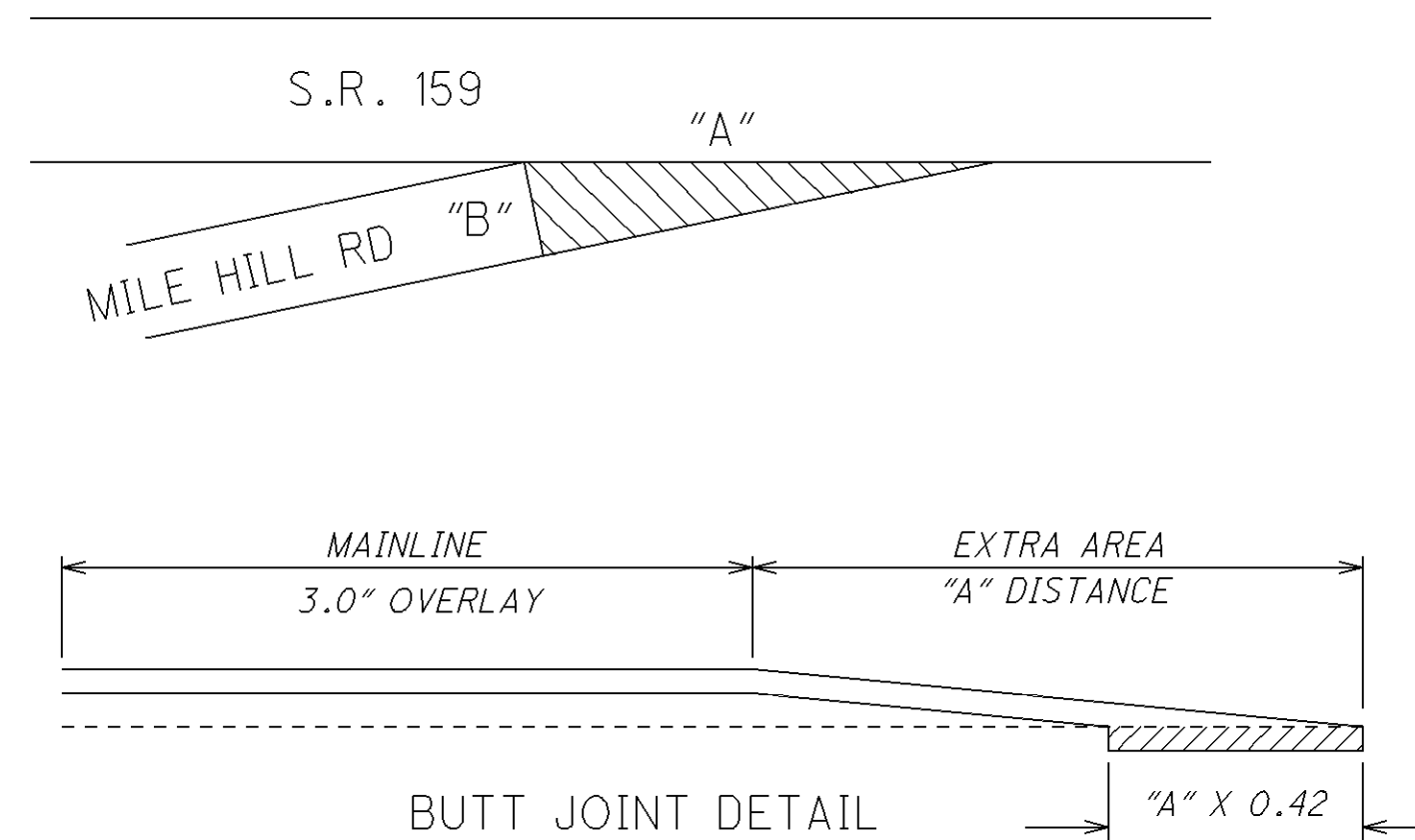


DETAIL 4

DETAIL 2



DETAIL 3



EXTRA AREAS

| LOCATION | COUNTY | ROUTE | SIDE | DESCRIPTION | INTERSECTIONS | | | AREA SQ. YD. | 202 WEARING COURSE REMOVED SQ. YD. | 407 | | 448 ASPHALT CONCRETE | | | |
|--------------------------|--------|----------|------|------------------------|------------------|-----|-----|-----------------|---|---|--|----------------------|--|------------------|--|
| | | | | | DETAIL DIMENSION | | | | | TACK COAT @ 0.075 GAL./SQ. YD. GAL. | TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD. GAL. | THICKNESS IN. | INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU. YD. | THICKNESS IN. | SURFACE COURSE, TYPE 1, PG 64-22 CU. YD. |
| | | | | | A | B | C | | | | | | | | |
| | | | | | FT. | FT. | FT. | | | | | | | | |
| 1 | FAI | S.R. 159 | RT | PINE GROVE RD | 35 | 16 | 65 | 157.5 | 26.1 | 11.9 | 7.9 | 1.75 | 7.7 | 1.25 | 5.5 |
| 1 | FAI | S.R. 159 | LT | CARRETT RD ① | 53 | 26 | | 76.6 | 76.6 | 5.8 | 3.9 | 1.75 | 3.8 | 1.25 | 2.7 |
| 1 | FAI | S.R. 159 | LT | CARRETT RD ① | 18 | 5 | 14 | 19.0 | 19.0 | 1.5 | 1.0 | 1.75 | 1.0 | 1.25 | 0.7 |
| 1 | FAI | S.R. 159 | RT | HEIGLE RD SW | 40 | 19 | 86 | 233.4 | 35.5 | 17.6 | 11.7 | 1.75 | 11.4 | 1.25 | 8.2 |
| 1 | FAI | S.R. 159 | LT | HEIGLE RD SW | 20 | 12 | 38 | 55.6 | 11.2 | 4.2 | 2.8 | 1.75 | 2.8 | 1.25 | 2.0 |
| 1 | FAI | S.R. 159 | LT | SOUTH STREET SW | 55 | 15 | 111 | 385.0 | 38.5 | 28.9 | 19.3 | 1.75 | 18.8 | 1.25 | 13.4 |
| 1 | FAI | S.R. 159 | LT | 4TH STREET ALLEY SW | 15 | 12 | 20 | 26.7 | 8.4 | 2.1 | 1.4 | 1.75 | 1.3 | 1.25 | 1.0 |
| 1 | FAI | S.R. 159 | LT | CIRCLEVILLE ST SW | 40 | 19 | 64 | 184.5 | 35.5 | 13.9 | 9.3 | 1.75 | 9.0 | 1.25 | 6.5 |
| 1 | FAI | S.R. 159 | RT | JULIAN RD | 35 | 22 | 90 | 217.8 | 35.9 | 16.4 | 10.9 | 1.75 | 10.6 | 1.25 | 7.6 |
| 1 | FAI | S.R. 159 | LT | 3RD ALLEY SW | 15 | 12 | 20 | 26.7 | 8.4 | 2.1 | 1.4 | 1.75 | 1.3 | 1.25 | 1.0 |
| 1 | FAI | S.R. 159 | RT | EAST ALLEYSW | 15 | 12 | 20 | 26.7 | 8.4 | 2.1 | 1.4 | 1.75 | 1.3 | 1.25 | 1.0 |
| 1 | FAI | S.R. 159 | LT | STOUTSVILLE RD | 35 | 21 | 110 | 254.8 | 34.3 | 19.2 | 12.8 | 1.75 | 12.4 | 1.25 | 8.9 |
| 1 | FAI | S.R. 159 | LT | BOWERS RD | 35 | 21 | 80 | 196.4 | 34.3 | 14.8 | 9.9 | 1.75 | 9.6 | 1.25 | 6.9 |
| 1 | FAI | S.R. 159 | RT | BOWERS RD | 35 | 19 | 80 | 192.5 | 31.0 | 14.5 | 9.7 | 1.75 | 9.4 | 1.25 | 6.7 |
| 1 | FAI | S.R. 159 | RT | AMANDA CLEARPORT RD SW | 70 | 19 | 115 | 521.2 | 62.1 | 39.1 | 26.1 | 1.75 | 25.4 | 1.25 | 18.1 |
| 1 | FAI | S.R. 159 | LT | HAMBURG RD | 70 | 30 | 165 | 758.4 | 98.0 | 56.9 | 38.0 | 1.75 | 36.9 | 1.25 | 26.4 |
| 1 | FAI | S.R. 159 | RT | HAMBURG RD | 40 | 20 | 65 | 188.9 | 37.3 | 14.2 | 9.5 | 1.75 | 9.2 | 1.25 | 6.6 |
| 1 | FAI | S.R. 159 | LT | MARILEE ST | 30 | 15 | 65 | 133.4 | 21.0 | 10.1 | 6.7 | 1.75 | 6.5 | 1.25 | 4.7 |
| 1 | FAI | S.R. 159 | LT | NAOMI ST SW | 40 | 14 | 65 | 175.6 | 26.1 | 13.2 | 8.8 | 1.75 | 8.6 | 1.25 | 6.1 |
| 1 | FAI | S.R. 159 | RT | PLEASANT VALLEY RD | 25 | 18 | 60 | 108.4 | 21.0 | 8.2 | 5.5 | 1.75 | 5.3 | 1.25 | 3.8 |
| 1 | FAI | S.R. 159 | RT | MILE HILL RD SE ② | 103 | 34 | | 194.6 | 194.6 | 14.6 | 9.8 | 1.75 | 9.5 | 1.25 | 6.8 |
| 1 | FAI | S.R. 159 | RT | MILE HILL RD SE ③ | 54 | 26 | | 78.0 | 78.0 | 5.9 | 3.9 | 1.75 | 3.8 | 1.25 | 2.8 |
| 1 | FAI | S.R. 159 | LT | DUNCAN RD SW | 50 | 20 | 95 | 319.5 | 46.7 | 24.0 | 16.0 | 1.75 | 15.6 | 1.25 | 11.1 |
| 1 | FAI | S.R. 159 | LT | SHOP LANE RD | 30 | 18 | 65 | 138.4 | 25.2 | 10.4 | 7.0 | 1.75 | 6.8 | 1.25 | 4.9 |
| 1 | FAI | S.R. 159 | CL | S.R. 159 @ U.S. 22 ④ | 50 | 24 | 100 | 211.0 | 211.0 | 15.9 | 10.6 | 1.75 | 10.3 | 1.25 | 7.4 |
| LOCATION 1 TOTALS | | | | | | | | | 1,224.1 | 367.5 | 245.3 | | 238.3 | | 170.8 |

EXTRA AREA DATA

FAI-159-0.00

BRIDGE TREATMENT

LOCATION 1

- DETAIL ② FAI-159-0364: OVERLAY SAME AS ROADWAY
- DETAIL ② FAI-159-0445: OVERLAY SAME AS ROADWAY
- DETAIL ② FAI-159-0524: OVERLAY SAME AS ROADWAY
- DETAIL ① FAI-159-0559: BUTT JOINT AT APPROACH SLABS
- DETAIL ③ FAI-159-0790: REMOVE 1.0" AND PLACE 3.0" ASPHALT CONCRETE

DEDUCTIONS = PAVEMENT/SHOULDER WIDTHS X (BRIDGE LENGTH + APPROACH SLABS)

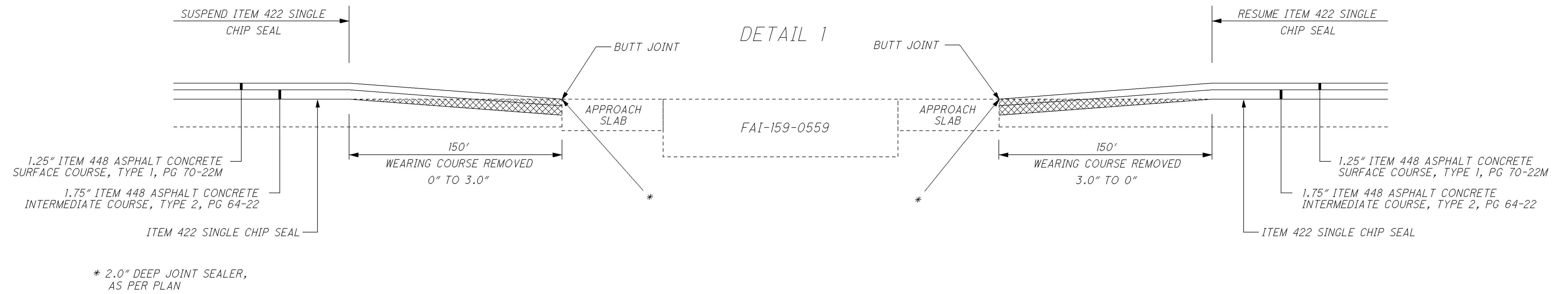
| BRIDGE DATA | | | | | | | | | | | | | | | | | | | | |
|-------------------|---------------------------|-------------------------------|-------|-------|-------------------------|------------------------|---|-----------------------|---|---------------------|---|---------------------------|---|--------------------------------|--|---|--|--------------------------------------|---|---------|
| NO. | COUNTY, ROUTE, BRIDGE NO. | LENGTH (BRIDGE LIMITS) | WIDTH | AREA | APPROACH SLAB LENGTH | APPROACH SLAB WIDTH | APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS) | DETAILS (SHEET 10) | MAINLINE DEDUCTIONS (CARRIED TO SHEET 6) | | SHOULDER DEDUCTIONS (CARRIED TO SHEET 7) | 202 | 407 | | 448 ASPHALT CONCRETE | | | | 516 | |
| | | | | | | | | | SINGLE CHIP SEAL | ASPHALT CONCRETE | | WEARING COURSE REMOVED | TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y. | TACK COAT @ 0.075 GAL./S.Y. | S S M Z K C - H - T | INTERMEDIATE COURSE, TYPE 2, PG 64-22 | S S M Z K C - H - T | SURFACE COURSE, TYPE 1, PG 70-22M | 2" DEEP JOINT SEALER, AS PER PLAN | |
| | | | | | | | | | | | | | | | | | | | | SQ. YD. |
| 1 | FAI-159-0364 | BOX CULVERT - SAME AS ROADWAY | | | | | | 2 | | | | | | | | | | | | |
| 1 | FAI-159-0445 | BOX CULVERT - SAME AS ROADWAY | | | | | | 2 | | | | | | | | | | | | |
| 1 | FAI-159-0524 | BOX CULVERT - SAME AS ROADWAY | | | | | | 2 | | | | | | | | | | | | |
| 1 | FAI-159-0559 | 90 | 33.3 | 333.0 | 20.0 | 33.0 | 146.7 | 1 | 955.6 | 288.9 | | 666.7 | | | | | | | 42.0 | |
| 1 | FAI-159-0790 | 32 | 40.5 | 144.0 | 15.0 | 24.0 | 80.0 | 3 | 360.0 | 71.1 | 14.2 | 490.7 | 7.2 | 10.8 | 1.75 | 7.0 | 1.25 | 5.0 | | |
| SUB-TOTALS | | | | | | | | | 1,315.6 | 360.0 | 14.2 | | | | | | | | | |
| LOCATION 1 TOTALS | | | | | | | | | | | | 1,157.4 | 7.2 | 10.8 | | 7.0 | | 5.0 | 42.0 | |

CALCULATED
LME
CHECKED
DNM

BRIDGE DECK TREATMENT DATA

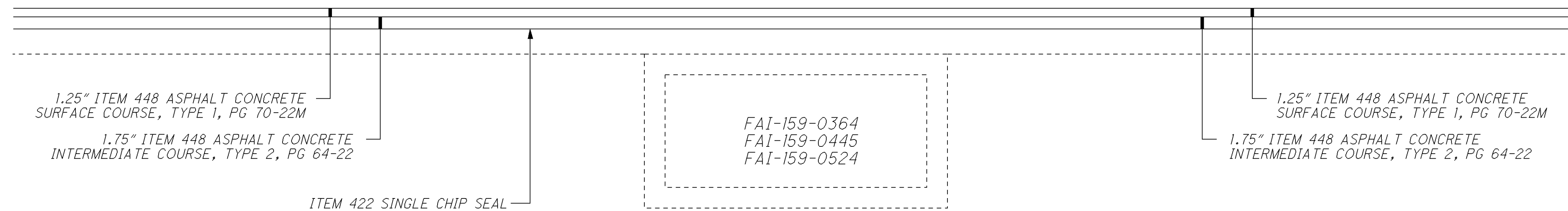
FAI-159 - 0.00

ITEM 202 WEARING COURSE REMOVED

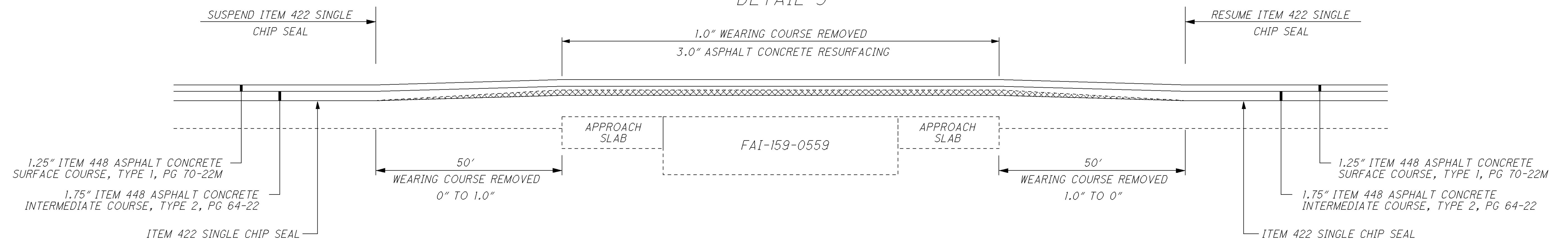


* 2.0" DEEP JOINT SEALER, AS PER PLAN

DETAIL 2



DETAIL 3



| ITEM 817 EDGE LINE | | | | | | | | | | |
|--------------------|--------|----------|--------|-------|----------------------|----------------------------|---------------|------------|-----------------------|---------|
| LOCATION | COUNTY | ROUTE | S.L.M. | | TOTAL LENGTH (MILES) | INFORMATION ONLY | | | TOTAL EDGE LINE MILES | REMARKS |
| | | | | | | WHITE EDGE LINE QUANTITIES | | | | |
| | | | FROM | TO | | TOTAL MILES | HIGHWAY MILES | RAMP MILES | | |
| 1 | FAI | S.R. 159 | 0.00 | 10.57 | 10.57 | 21.14 | 21.14 | | 21.14 | |
| LOCATION 1 TOTALS | | | | | | | | | 21.14 | |

| ITEM 817 CENTER LINE | | | | | | | | | |
|----------------------|--------|----------|--------|-------|----------------------|------------------------|-----------------------|-------------------------|---------|
| LOCATION | COUNTY | ROUTE | S.L.M. | | TOTAL LENGTH (MILES) | INFORMATION ONLY | | TOTAL CENTER LINE MILES | REMARKS |
| | | | | | | CENTER LINE QUANTITIES | | | |
| | | | FROM | TO | | TOTAL MILES | EQUIVALENT SOLID LINE | | |
| 1 | FAI | S.R. 159 | 0.00 | 10.57 | 10.57 | 11.605 | | 10.57 | |
| LOCATION 1 TOTALS | | | | | | | | 10.57 | |

EDGE / CENTER LINE DATA

FAI-159-0.00

644 THERMOPLASTIC AUXILIARY MARKING

| LOCATION | COUNTY | ROUTE | DESCRIPTION | SIDE | SLM | TRANVERSE/DIAGONAL LINES (24") | | STOP LINE (24") | 12" CROSSWALK LINE | WORD ON PAVEMENT | | LANE ARROWS | | | | RAILROAD SYMBOL MARKING | REMARKS |
|--------------------------|--------|----------|------------------------|------|-----|--------------------------------|--------|-----------------|--------------------|------------------|-----|-------------|---------|------|-----|---------------------------|---------|
| | | | | | | WHITE | YELLOW | | | ONLY | | COMBINATION | | TURN | | | |
| | | | | | | | | | | 72" | 96" | LT./TH. | RT./TH. | LT. | RT. | | |
| | | | | | | | | | | | | | | | | | |
| 1 | FAI | S.R. 159 | PINE GROVE RD | LT | | | | 25 | | | | | | | | PLACE 16' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | CARRETT RD | LT | | | | 20 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | HEIGLE RD SW | RT | | | | 38 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | HEIGLE RD SW | LT | | | | 12 | | | | | | | | PLACE 16' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | SOUTH STREET SW | RT | | | | 27 | | | | | | | | PLACE 16' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | 4TH STREET ALLEY SW | LT | | | | | | | | | | | | | |
| 1 | FAI | S.R. 159 | CIRCLEVILLE ST SW | LT | | | | 17 | | | | | | | | PLACE 17' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | JULIAN RD | LT | | | | 32 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | 3RD ALLEY SW | LT | | | | | | | | | | | | | |
| 1 | FAI | S.R. 159 | EAST ALLEY SW | RT | | | | | | | | | | | | | |
| 1 | FAI | S.R. 159 | STOUTSVILLE RD | RT | | | | 31 | | | | | | | | PLACE 16' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | BOWERS RD | LT | | | | 30 | | | | | | | | PLACE 17' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | BOWERS RD | RT | | | | 26 | | | | | | | | PLACE 17' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | AMANDA CLEARPORT RD SW | RT | | | | 33 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | HAMBURG RD | LT | | | | 50 | | | | | | | | PLACE 22' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | HAMBURG RD | LT | | | | 20 | | | | | | | | PLACE 21' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | MARILEE ST | RT | | | | 20 | | | | | | | | PLACE 19' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | NAOMI ST SW | RT | | | | 20 | | | | | | | | PLACE 19' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | PLEASANT VALLEY RD | LT | | | | 17 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | MILE HILL RD SE | LT | | | | 35 | | | | | | | | PLACE 18' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | MILE HILL RD SE | RT | | | | 21 | | | | | | | | PLACE 16' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | DUNCAN RD SW | RT | | | | 33 | | | | | | | | PLACE 20' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | SHOP LANE RD | LT | | | | 24 | | | | | | | | PLACE 19' FROM S.R.159 CL | |
| 1 | FAI | S.R. 159 | S.R. 159 @ U.S. 22 | RT | | | | 22 | | | | | | | | PLACE AS DIRECTED | |
| LOCATION 1 TOTALS | | | | | | | | 553 | | | | | | | | | |

CALCULATED
LME
CHECKED
DNM

AUXILIARY MARKING DATA

FAI-159-0.00

| | |
|--------|---|
| DETAIL | SEE STD. DWG. TC-65.11 |
| 1 | TAPERED ACCELERATION LANE |
| 2 | DECELERATION LANE |
| 3 | MULTILANE DIVIDED/ CONTROLLED ACCESS |

| | |
|--------|---------------------------------------|
| DETAIL | SEE STD. DWG. TC-65.11 |
| 4 | 4 LANE DIVIDED TO 2 LANE TRANSITION |
| 5 | 4 LANE UNDIVIDED TO 2 LANE TRANSITION |
| 6 | ONE LANE BRIDGE |
| 7 | STOP APPROACH |
| 8 | THRU APPROACH |
| 9 | TWO WAY LEFT TURN LANE |

| | |
|--------|--------------------------|
| DETAIL | SEE STD. DWG. TC-65.11 |
| 10 | APPROACH W/LT. TURN LANE |
| 11 | HORIZONTAL CURVE 40' |
| 12 | HORIZONTAL CURVE ALT. |
| GAP | CENTERLINE AT 80' TYP. |

ITEM 621 RPM SUB-SUMMARY

| L O C A T I O N | C O U N T Y | R O U T E | B E G I N L O G P O I N T S L M | E N D L O G P O I N T S L M | L E N G T H | | D E T A I L | 621 | 621 | P R I S M A T I C R E T R O - R E F L E C T O R C O L O R S | | | | | R E M A R K S | |
|--------------------------------------|----------------------------|-----------------------|--|--|----------------------------|--------|----------------------------|---|-------------|--|------------------|---------------------------------|-----------------------|---|---------------------------------|---|
| | | | | | | | | R A I S E D P A V E M E N T M A R K E R R E M O V E D | R P M | I N F O R M A T I O N O N L Y | | | | | | |
| | | | | | | | | | | E A C H | E A C H | O N E - W A Y | | T W O - W A Y | | |
| | | | | | | | | | | | | W H I T E | Y E L L O | Y E L L O / Y E L L O | | W H I T E / R E D |
| 1 | FAI | S.R. 159 | 0.00 | 7.51 | 7.51 | 39,653 | GAP | 496 | 496 | | | 496 | | | BEGIN AT PICKAWAY CO. LINE | |
| 1 | FAI | S.R. 159 | 7.51 | 7.54 | 0.03 | 158 | 11 | 4 | 4 | | | 4 | | | PC 7.51 PT 7.54 L = 158' DEG 7 | |
| 1 | FAI | S.R. 159 | 7.54 | 9.60 | 2.06 | 10,877 | GAP | 136 | 136 | | | 136 | | | | |
| 1 | FAI | S.R. 159 | 9.60 | 9.65 | 0.05 | 264 | 11 | 7 | 7 | | | 7 | | | PC 9.60 PT 9.65 L = 264' DEG 5 | |
| 1 | FAI | S.R. 159 | 9.65 | 9.92 | 0.27 | 1,426 | GAP | 18 | 18 | | | 18 | | | | |
| 1 | FAI | S.R. 159 | 9.92 | 10.01 | 0.09 | 475 | 11 | 12 | 12 | | | 12 | | | PC 9.92 PT 10.01 L = 475' DEG 6 | |
| 1 | FAI | S.R. 159 | 10.01 | 10.57 | 0.56 | 2,957 | GAP/7 | 53 | 53 | 16 | | 37 | | | STOP AT U.S. 22 | |
| SUB-TOTALS | | | | | | | | | | 16 | | 710 | | | | |
| LOCATION 1 TOTALS | | | | | | | | 726 | 726 | | | | | | | |

RAISED PAVEMENT MARKER DATA

FAI-159-0.00

| SHEET TOTALS | | | | | | | | | | ITEM | ITEM EXT. | TOTALS 01/STR/PV/ | UNIT | DESCRIPTION | SEE SHEET |
|--------------|--------|--------|---------|--------|--------|--------|---------|---------|---------|------|-----------|-------------------|--------|--|-----------|
| Sht. 2 | Sht. 3 | Sht. 4 | Sht. 6 | Sht. 7 | Sht. 8 | Sht. 9 | Sht. 11 | Sht. 12 | Sht. 13 | | | | | | |
| | 2,575 | | | | 1,225 | 1,158 | | | | 202 | 23500 | 4,958 | SQ YD | WEARING COURSE REMOVED | |
| | 21.10 | | | | | | | | | 209 | 60500 | 21.10 | MILE | LINEAR GRADING | |
| | | | | 21.10 | | | | | | 209 | 72051 | 21.10 | MILE | PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN | 3 |
| 2,250 | | | | | | | | | | 253 | 02000 | 2,250 | CU YD | PAVEMENT REPAIR | |
| | | | 9,275 | 672 | 368 | 11 | | | | 407 | 10000 | 10,326 | GALLON | TACK COAT | |
| | | | 6,184 | 448 | 246 | 8 | | | | 407 | 14000 | 6,886 | GALLON | TACK COAT FOR INTERMEDIATE COURSE | |
| | | | | 9,916 | | | | | | 408 | 10001 | 9,916 | GALLON | PRIME COAT, AS PER PLAN | 2 |
| | | | 122,181 | | | | | | | 422 | 10000 | 122,181 | SQ YD | SINGLE CHIP SEAL | |
| | 184 | | 6,012 | 436 | 239 | 7 | | | | 448 | 46050 | 6,878 | CU YD | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 | |
| | 356 | | 4,294 | 124 | | 5 | | | | 448 | 46904 | 4,779 | CU YD | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M | |
| | | | | | 171 | | | | | 448 | 47020 | 171 | CU YD | ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 | |
| | | | | | | 42 | | | | 516 | 31011 | 42 | FT | 2" DEEP JOINT SEALER, AS PER PLAN | 2 |
| 49 | | | | | | | | | | 614 | 12460 | 49 | EACH | WORK ZONE MARKING SIGN | |
| | 4.0 | | | | | | | | | 614 | 13000 | 4.0 | CU YD | ASPHALT CONCRETE FOR MAINTAINING TRAFFIC | |
| | | 60 | | | | | | | | 614 | 18401 | 60 | DAY | PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN | 4 |
| | | | 21.14 | | | | | | | 614 | 21400 | 21.14 | MILE | WORK ZONE CENTER LINE, CLASS II | |
| | | | | 1,203 | | | | | | 617 | 10101 | 1,203 | CU YD | COMPACTED AGGREGATE, AS PER PLAN | 2 |
| | 24,740 | | | | | | | | | 617 | 20000 | 24,740 | SQ YD | SHOULDER PREPARATION | |
| | | | | | | | | | 726 | 621 | 00100 | 726 | EACH | RPM | |
| | | | | | | | | | 726 | 621 | 54000 | 726 | EACH | RAISED PAVEMENT MARKER REMOVED | |
| | | | | | | | | 553 | | 644 | 00500 | 553 | FT | STOP LINE | |
| | | | | | | | 21.14 | | | 817 | 00100 | 21.14 | MILE | EDGE LINE, 4" | |
| | | | | | | | 10.57 | | | 817 | 00300 | 10.57 | MILE | CENTER LINE | |
| | | | | | | | | | | 103 | 05000 | LUMP | | PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND | |
| | | | | | | | | | | 614 | 11000 | LUMP | | MAINTAINING TRAFFIC | |
| | | | | | | | | | | 619 | 16000 | 2 | MONTH | FIELD OFFICE, TYPE A | |
| | | | | | | | | | | 624 | 10000 | LUMP | | MOBILIZATION | |
| | | | | | | | | | | 823 | 10000 | LUMP | | CONSTRUCTION LAYOUT STAKES | |

| | | |
|-------------------------------------|-----------------|----------------|
| CALCULATED LME CHECKED DNM | GENERAL SUMMARY | FAI-159 - 0.00 |
| 14 14 | | |