

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

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KNO-657-0.00

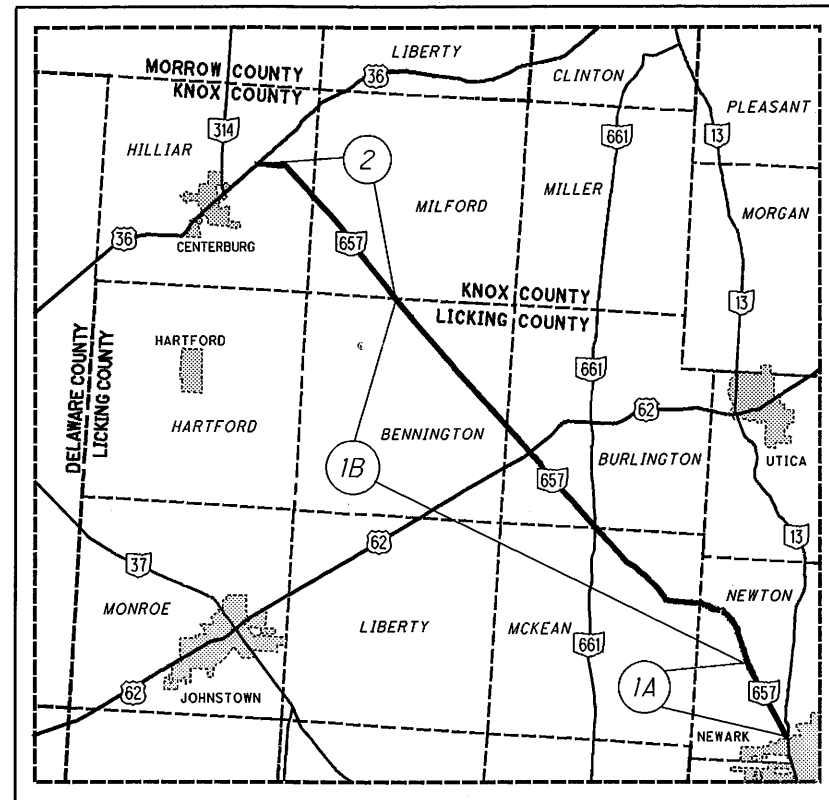
BENNINGTON, BURLINGTON,
HILLIAR, MCKEAN, MILFORD
AND NEWTON TOWNSHIPS

LICKING AND
KNOX COUNTIES

PROJECT DESCRIPTION:

ASPHALT CONCRETE RESURFACING AND RELATED
WORK ON S.R. 657 IN LICKING AND KNOX
COUNTIES.

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: 40° 13' 00" LONGITUDE: 82° 32' 55"

PORTION TO BE IMPROVED -----

DESIGN DESIGNATION	LOCATION 1A	LOCATION 1B	LOCATION 2
	LIC-657	LIC-657	KNO-657
Functional Classification	RMC*	RMC	RMC
Opening Year ADT (2015)	3,100	1,200	2,300
Design Year ADT (2027)	4,100	1,500	2,800
Design Hourly Volume (2027)	370	140	340
Directional Distribution	54%	51%	56%
Trucks (24 Hour B&C)	1%	5%	4%
Design Speed	55mph	55mph	55mph
Legal Speed	55mph	55mph	55mph

RMC* = RURAL MAJOR COLLECTOR
RMC = RURAL MINOR COLLECTOR

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**

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

ENGINEER'S SEAL

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

SIGNED: *Douglas N. Morgan*
DATE: 11-25-2014

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LOCATION	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	CITY/VILLAGE
1A	LIC	657	0.00	1.95	1.95	
1B	LIC	657	1.95	14.91	12.96	
2	KNO	657	0.00	4.93	4.93	

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PANS AND ESTIMATES.

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7-18-14	TC-65.10	1-17-14	800	1-16-15
BP-4.1	7-19-13	TC-65.11	7-18-14	832	1-17-14
		TC-71.10	1-17-14		
MT-97.10	7-18-14				
MT-97.12	7-18-14				
MT-99.20	7-19-13				
MT-101.90	7-18-14				
MT-105.10	7-19-13				
				SPECIAL PROVISIONS	

APPROVED: *Dave Ray*
DATE 11-25-14 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
E120(892)

PID NO.
92972

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

LIC-657-0.00
KNO-657-0.00

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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.

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.

NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4510 OR EMAIL AT D05.PIO@DOT.STATE.OH.US

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT BRIAN.BOSCH@DOT.STATE.OH.US

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

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 PAVMENT MARKINGS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PREVIOUS CONSTRUCTION PLANS, SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 5 OFFICE.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCITON DRAWING BP-3.1.

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.

IN ADDITION TO PREPARING THE SHOULDER FOR PAVING, THE CONTRACTOR SHALL 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 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.

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 BEYOND THE 10 INCH WIDE STRIP FOR THE SAFETY EDGE, SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE.

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 ANY PLANING OPERATIONS OR PLACING OF CHIP SEAL COURSE. 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 7". THE MINIMUM WIDTH SHALL BE 4 FT. 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 IN TWO LIFTS).

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 QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 253 PAVEMENT REPAIR
LOCATION 1A – 20 CU.YD.
LOCATION 1B – 800 CU.YD.
LOCATION 2 – 1200 CU.YD.

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.

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 422 SINGLE CHIP SEAL, AS PER PLAN

THE CONTRACTOR IS REQUIRED TO HAVE A ONE DAY WAITING PERIOD BETWEEN THE TIME THE SINGLE CHIP SEAL INTERLAYER IS PLACED AND THE OVERLAYING ASPHALT CONCRETE COURSES ARE PLACED. AFTER THE ONE DAY WAITING PERIOD, THE CONTRACTOR HAS A MAXIMUM OF 5 CALENDAR DAYS TO COVER UP THE CHIP SEAL.

THE CONTRACTOR SHALL NOT BE REQUIRED TO REMOVE THE EXISTING PAVEMENT MARKINGS BEFORE PLACING THE SINGLE CHIP SEAL INTERLAYER.

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 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 RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

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.

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GENERAL NOTES

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RESIDENTIAL AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 441 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 EXTEND AN AVERAGE OF 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT), WITH THE MAXIMUM DISTANCE TO BE DIRECTED BY THE ENGINEER, IN ORDER TO PROVIDE A SMOOTH TRANSITION AND/OR ELIMINATE SHORT DISTANCES OF UNDESIRABLE PROFILE. ABRUPT CHANGES IN DRIVEWAY PROFILE ARE NOT PERMITTED.

FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK AN AVERAGE OF 4' INTO THE DRIVEWAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (AVERAGE OF 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 AN ASPHALT TAPER AS POSSIBLE (AVERAGE OF 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 SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M
LOCATION 1A – 15.3 CU. YD
LOCATION 1B – 56.0 CU.YD.
LOCATION 2 – 27.5 CU.YD.

ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
LOCATION 1A – 12.3 CU. YD
LOCATION 1B – 44.8 CU.YD.
LOCATION 2 – 22.0 CU.YD.

ITEM 202 WEARING COURSE REMOVED
LOCATION 1A – 440 SQ.YD.
LOCATION 1B – 1,610 SQ.YD.
LOCATION 2 – 790 SQ.YD.

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 SUB-SUMMARIES FOR THE ABOVE PURPOSES.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M
LOCATION 1A – 9.4 CU.YD.
LOCATION 1B – 37.5 CU.YD.
LOCATION 2 – 20.2 CU.YD.

ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
LOCATION 1A – 7.5 CU. YD
LOCATION 1B – 30.0 CU.YD.
LOCATION 2 – 16.2 CU.YD.

ITEM 202 WEARING COURSE REMOVED
LOCATION 1A – 270 SQ.YD.
LOCATION 1B – 1,080 SQ.YD.
LOCATION 2 – 580 SQ. YD.

SAFETY EDGE PLAN NOTE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVEMENT 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 PREPARATION 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 QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES TO PROVIDE EXTRA ASPHALT FOR CONSTRUCTION OF THE SAFETY EDGE:

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M

LOCATION 1A – 20 CU.YD.
LOCATION 1B – 130 CU. YD.
LOCATION 2 – 50 CU.YD.

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GENERAL NOTES

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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 PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

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

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY 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 OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON 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.

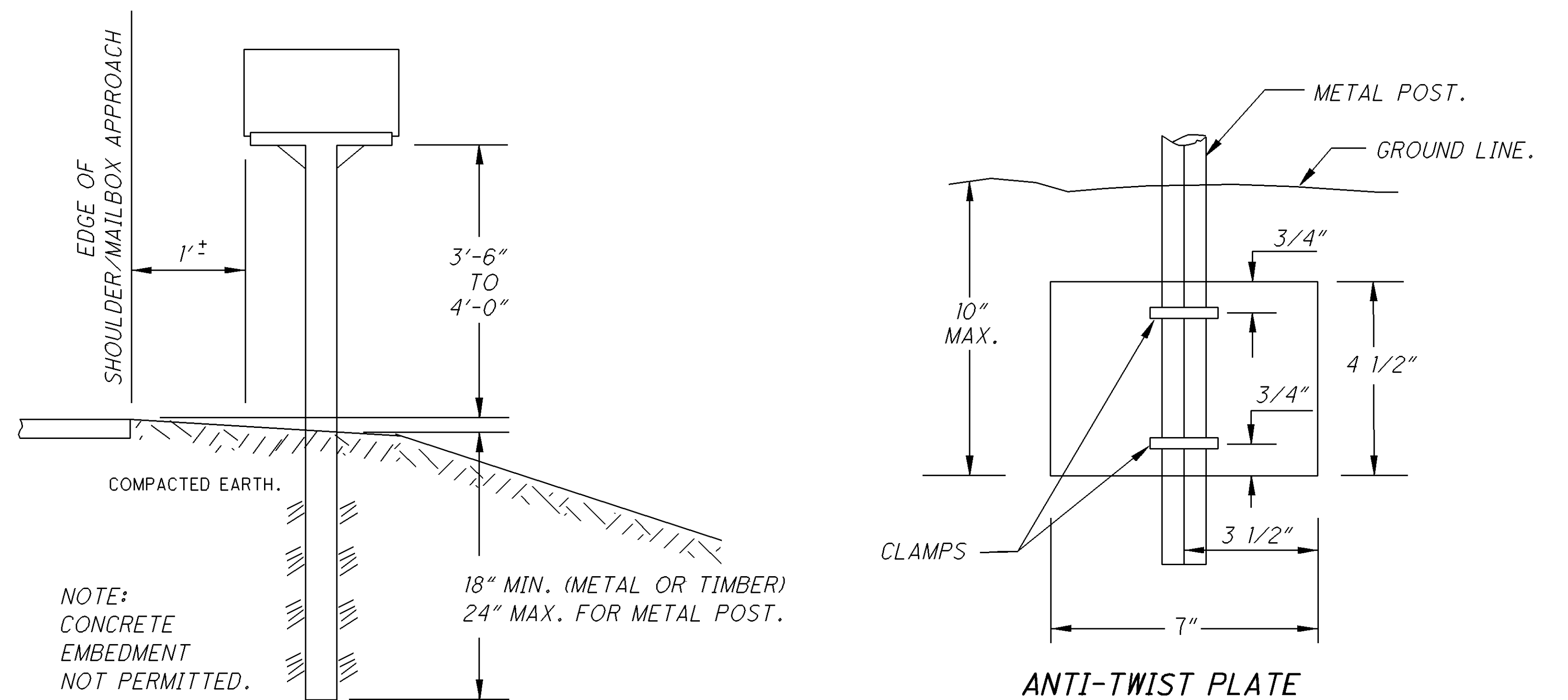
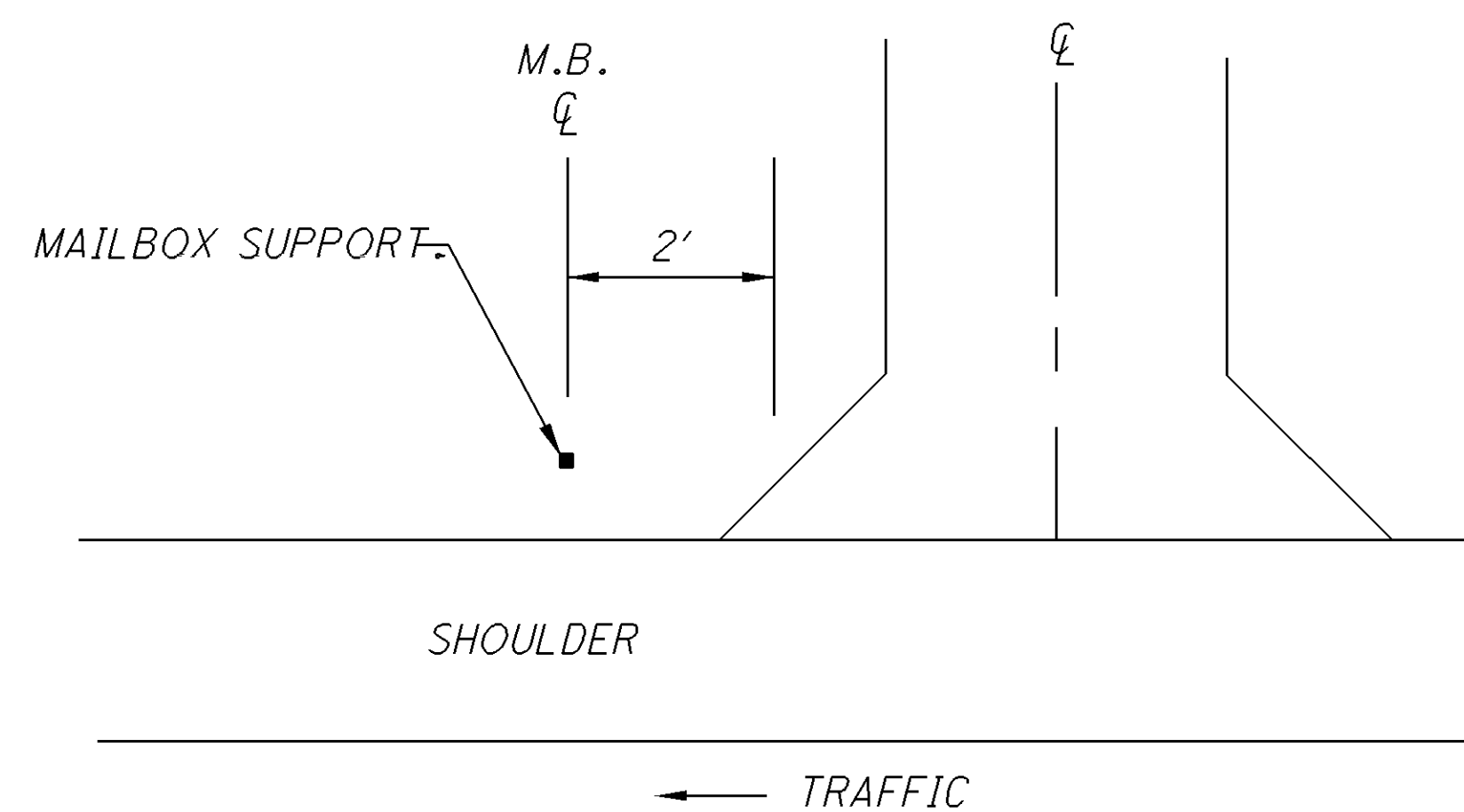
PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

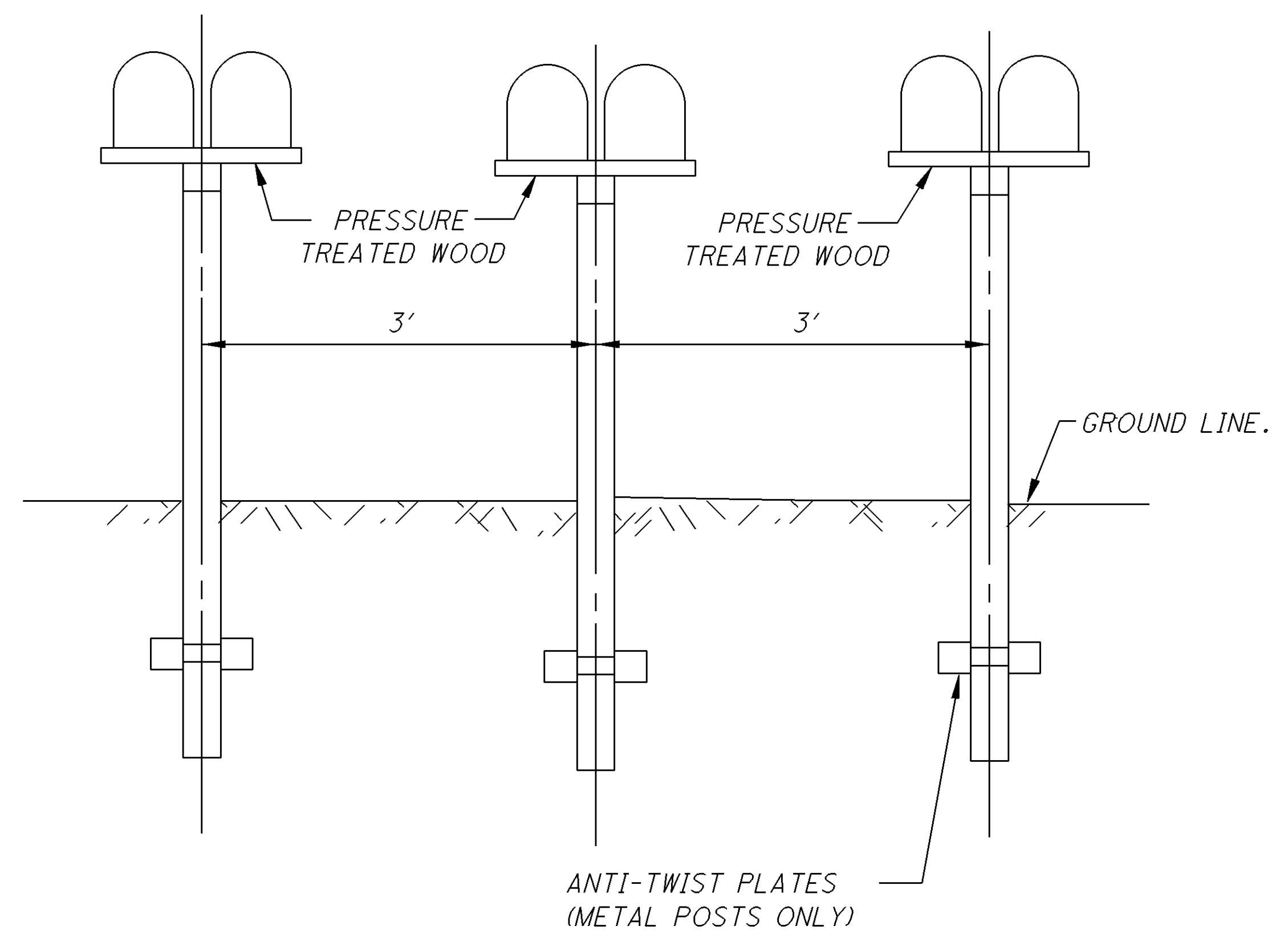
THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

LOCATION 1B - ITEM 690, SPECIAL-MAILBOX SUPPORT SYSTEM, SINGLE - 1 EACH

PLACE NEW SINGLE SUPPORT POST AT 3735 MARION ROAD



TYPICAL MAILBOX LOCATION AND MOUNTING HEIGHT



GROUP MAILBOX INSTALLATION

CALCULATED
CHECKED

GENERAL NOTES

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MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON S.R. 657 BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWING MT-97.10 OR MT-97.12.

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES INCLUDING REPAIRS.

ONLY ITEM 614 WORK ZONE CENTER LINE, CLASS II HAS BEEN ITEMIZED IN THE PLAN FOR USE ON THE SINGLE CHIP SEAL AND ON THE INTERMEDIATE COURSE. SURFACE COURSE WORK ZONE MARKINGS SHALL BE PLACED AS PER ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS (USING CLASS III TEMPORARY MARKINGS OR THE PERMANENT MARKINGS) AND SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC. CLASS I OR CLASS II WORK ZONE MARKINGS CANNOT BE PLACED ON THE SURFACE, SINCE THE FINAL MARKINGS ARE SPRAY THERMOPLASTIC.

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.

ITEM 614. WORK ZONE MARKING SIGN

IN ACCORDANCE WITH CMS SECTION 614.04, THE QUANTITIES OF WORK ZONE MARKING SIGN HAVE BEEN CARRIED TO THE SUB-SUMMARIES TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H12a (NO EDGE LINES): LOCATION 1A - 5 EACH, LOCATION 1B - 33 EACH, LOCATION 2 - 14 EACH

R4-1 (DO NOT PASS): LOCATION 1A - 10 EACH, LOCATION 1B - 62 EACH, LOCATION 2 - 27 EACH

R4-2 (PASS WITH CARE): LOCATION 1A - 8 EACH, LOCATION 1B - 41 EACH, LOCATION 2 - 16 EACH

ITEM 614. WORK ZONE MARKING SIGN

**LOCATION 1A - 23 EACH
LOCATION 1B - 136 EACH
LOCATION 2 - 57 EACH**

IN ADDITION, THE CONTRACTOR SHALL ERECT A "GROOVED PAVEMENT" SIGN 250 FEET 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 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.

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.
1A	S.R. 657	BEGIN WORK S.R. 13	0.00	0.6
1B	S.R. 657	LIC-657-0194	1.98	1.2
1A	S.R. 657	TOTAL		1.8
1B	S.R. 657	S.R. 661	7.44	1.2
1B	S.R. 657	LIC-657-0978	9.78	1.2
1B	S.R. 657	US 62	9.90	1.2
1B	S.R. 657	LIC-657-1262	12.62	1.2
1B	S.R. 657	TOTAL		4.8
2	S.R. 657	KNO-657-0094	0.94	1.2
2	S.R. 657	END WORK US 36/ S.R. 3	4.93	0.6
2	S.R. 657	TOTAL		1.8

GRINDING FOR BUTT JOINTS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 202 WEARING COURSE REMOVED.

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 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES.

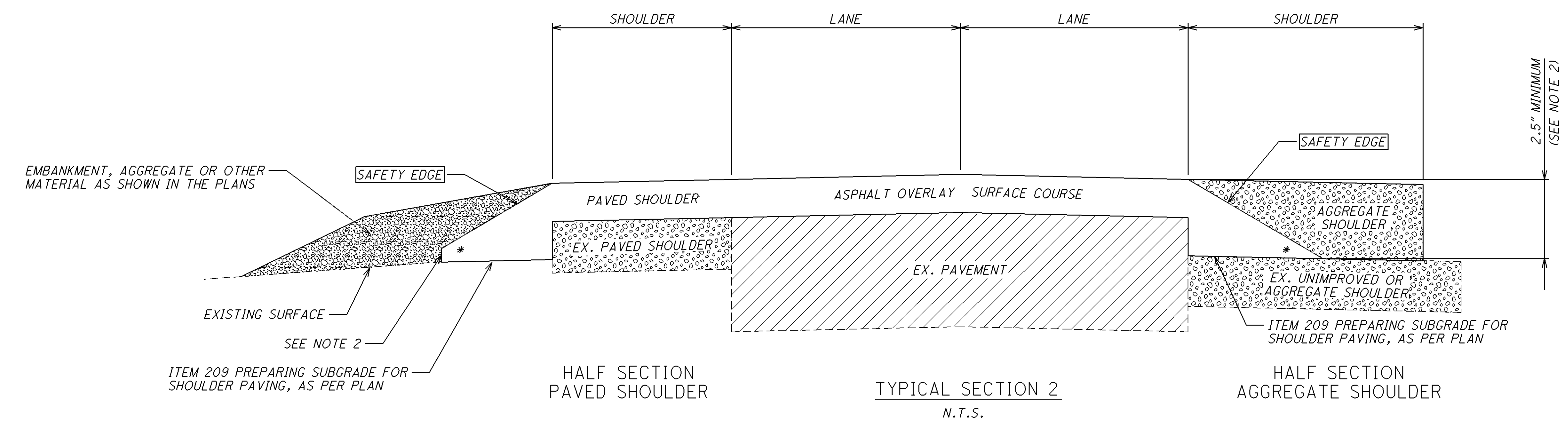
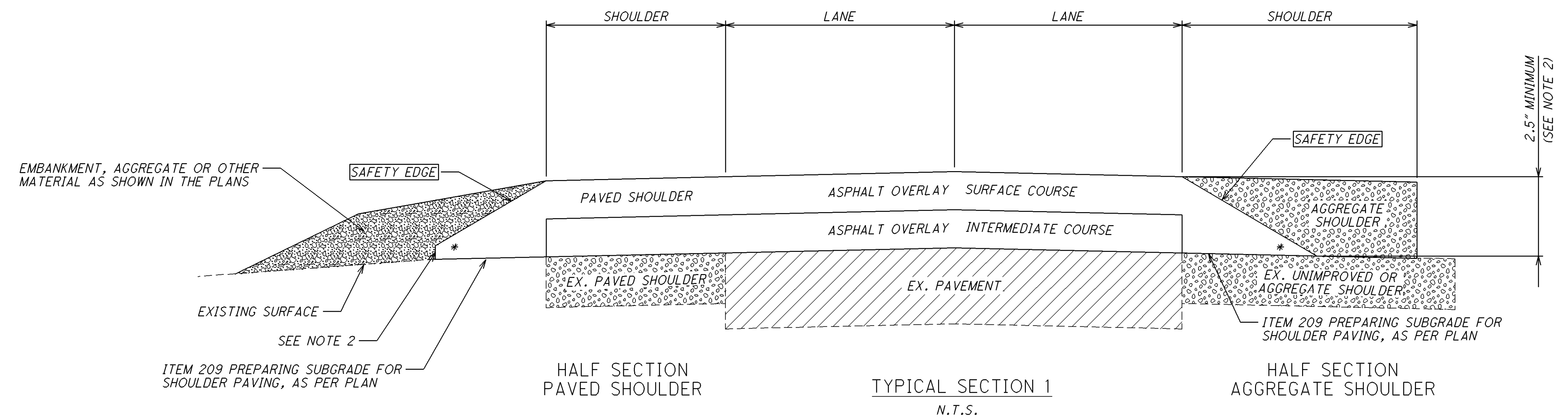
ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
LOCATION 1A - 10 HOURS
LOCATION 1B - 30 HOURS
LOCATION 2 - 10 HOURS

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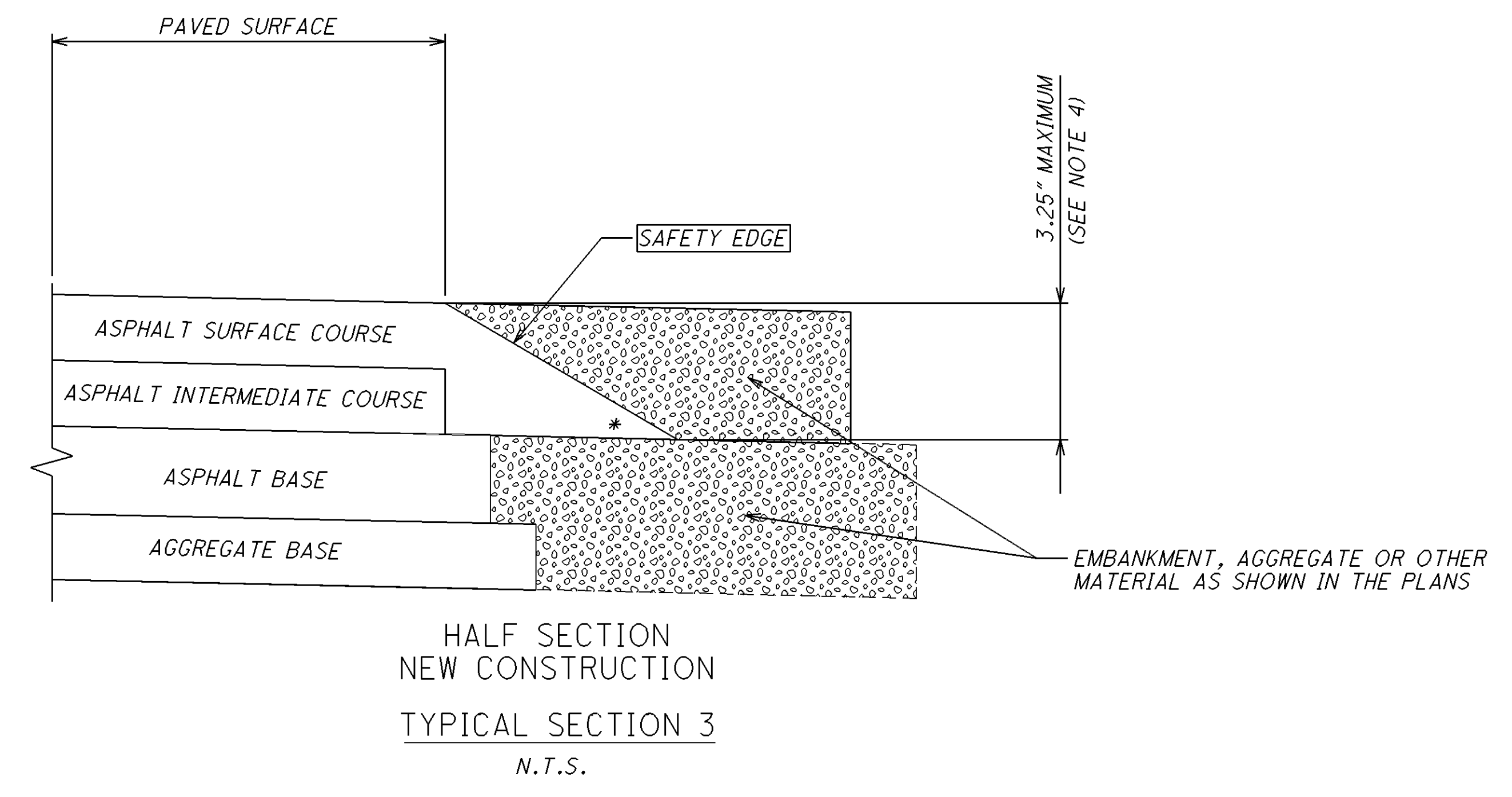
MAINTENANCE OF TRAFFIC NOTES

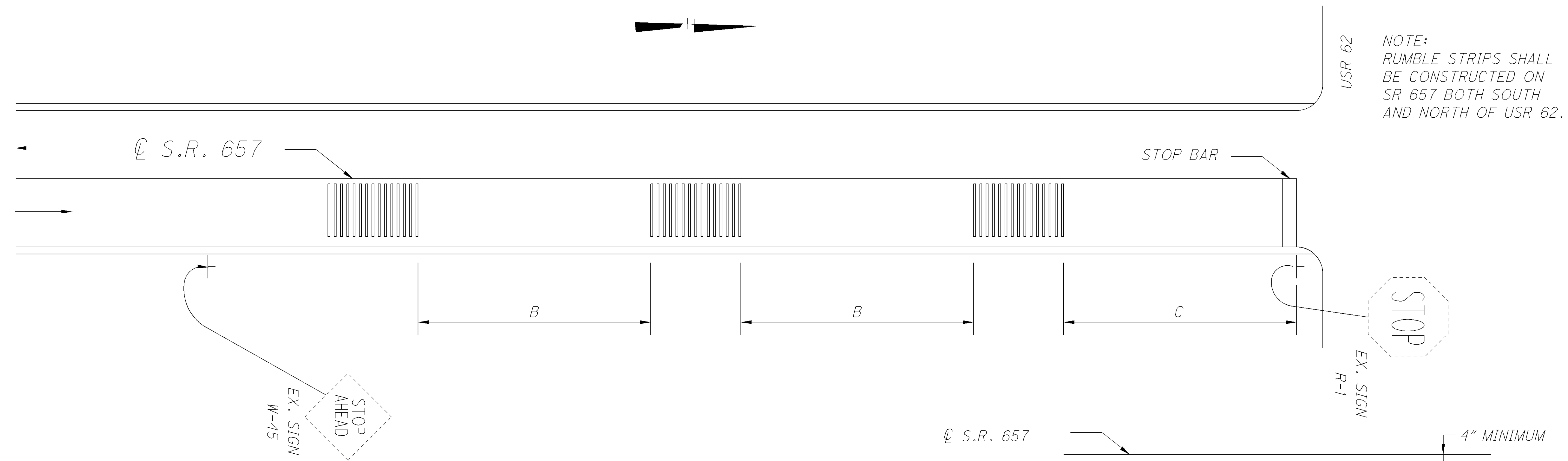
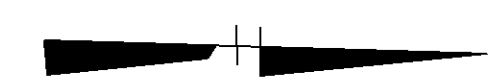
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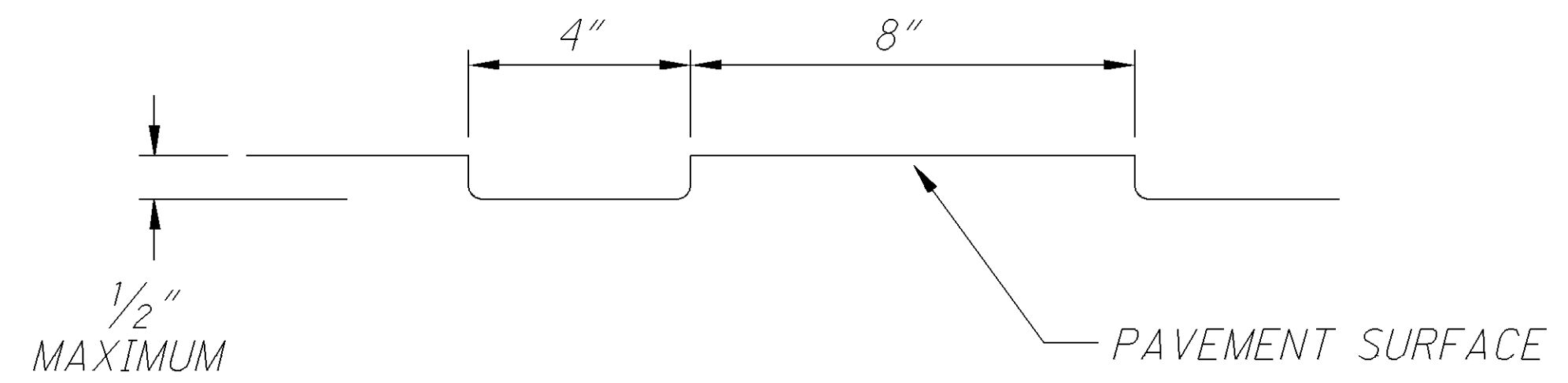
- 1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).
 - 2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" (63MM) WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6" (150MM). CONSTRUCT 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



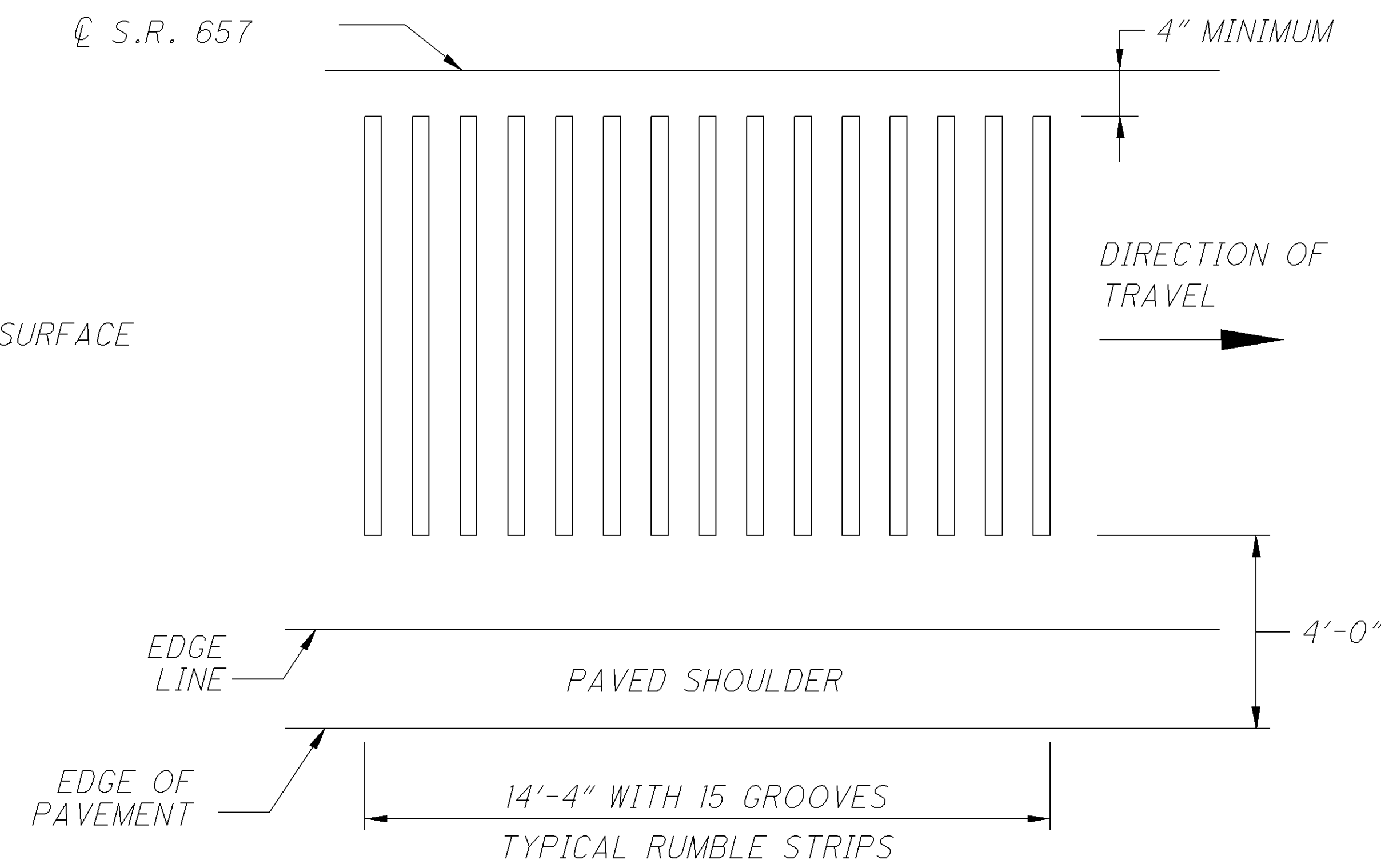


NOTE:
RUMBLE STRIPS SHALL
BE CONSTRUCTED ON
SR 657 BOTH SOUTH
AND NORTH OF USR 62.

SPEED LIMIT	DISTANCE (FEET)	
	B	C
50-55 MPH	160-320	300 MIN



TYPICAL GROOVE DETAIL



GENERAL NOTES

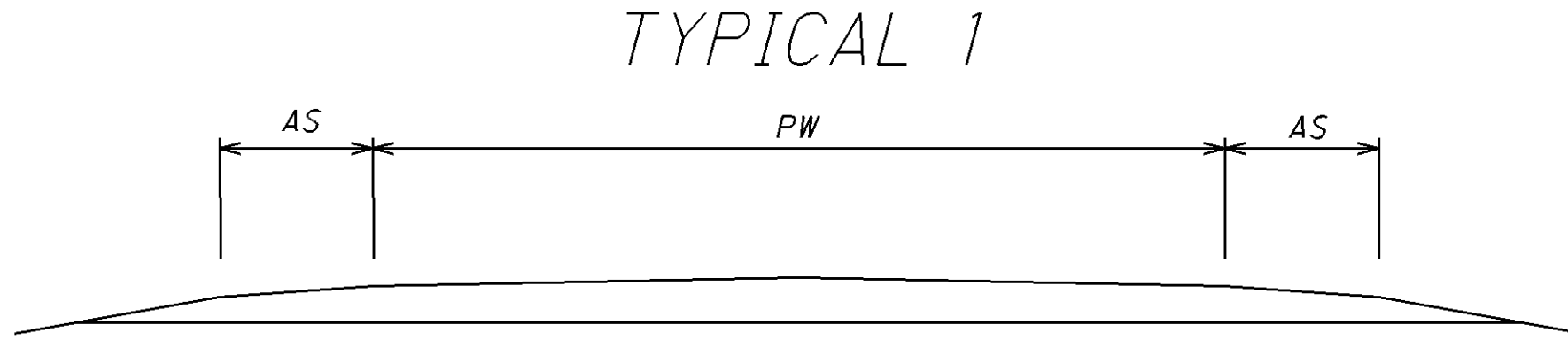
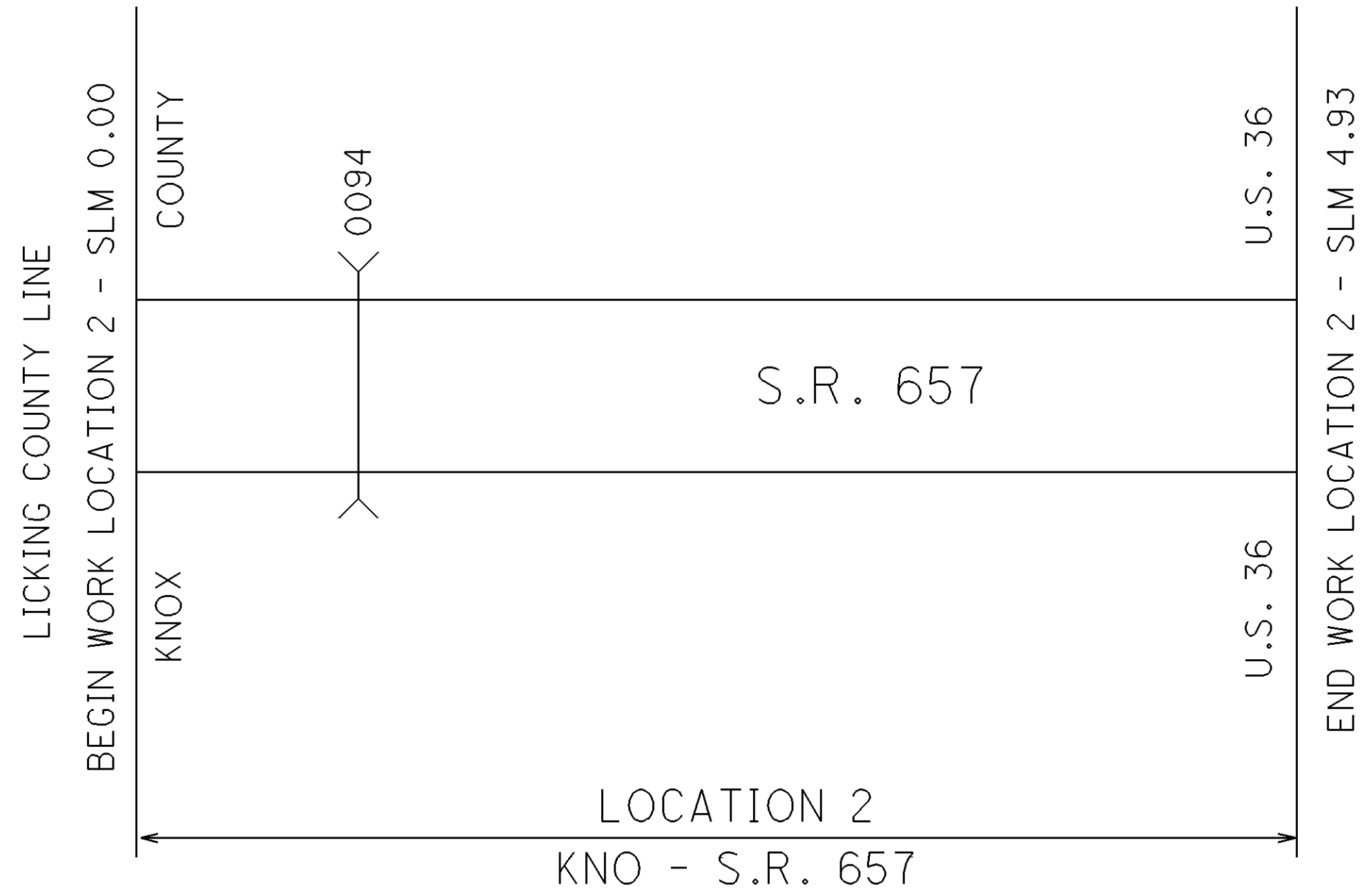
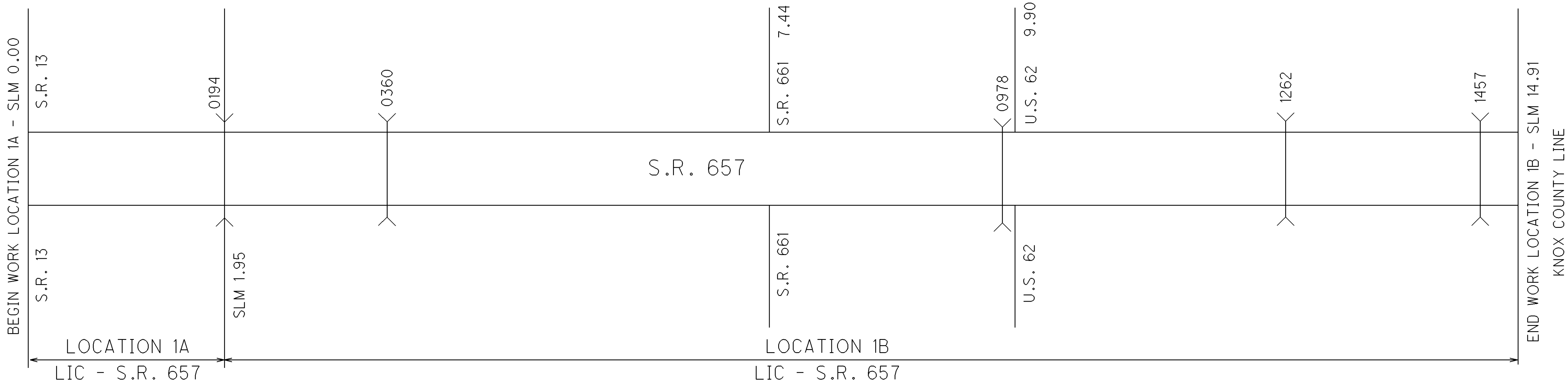
1. ALL PROPOSED RUMBLE STRIPS SHALL CONSIST OF PARALLEL GROOVES CUT AT ONE (1) FOOT INTERVALS.
2. EACH GROOVE SHALL BE CUT TO A DEPTH OF APPROXIMATELY 1/2 INCH, WITH ALLOWANCE FOR PAVEMENT SURFACE IRREGULARITIES AND VARIATIONS. WIDTH OF THE GROOVE AT THE PAVEMENT SURFACE IS TO BE 4 INCHES.
3. ALL DIMENSIONS SHOWN ARE NOMINAL AND SHOULD BE CONSIDERED TO BE ± 1/8 INCH.
4. THIS APPLICATION STANDARD WAS DEVELOPED FOR STOP APPROACHES. THE CONTROL AREA LENGTH SHALL BE A MINIMUM OF 300 FEET FOR ALL APPLICATIONS AND MAY BE EXTENDED AS NECESSARY.
5. THE ENGINEER SHALL DETERMINE THE DISTANCE BETWEEN THE GROUPS OF RUMBLE STRIPS (DIMENSION "B" IN THE TABLE).
6. RUMBLE STRIPS SHALL NOT BE PLACED IN FRONT OF ANY BUSINESS OR RESIDENCE.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE)

CALCULATION:

NORTH BOUND LIC-SR 657, SOUTH OF U.S. 62 45(7.2')= 324 LIN.FT.
SOUTH BOUND LIC-SR 657, NORTH OF U.S. 62 45(7.2')= 324 LIN.FT.

ITEM 618 RUMBLE STRIPS, (ASPHALT CONCRETE) 648 LIN.FT.
(QUANTITY CARRIED TO SHEET 19)



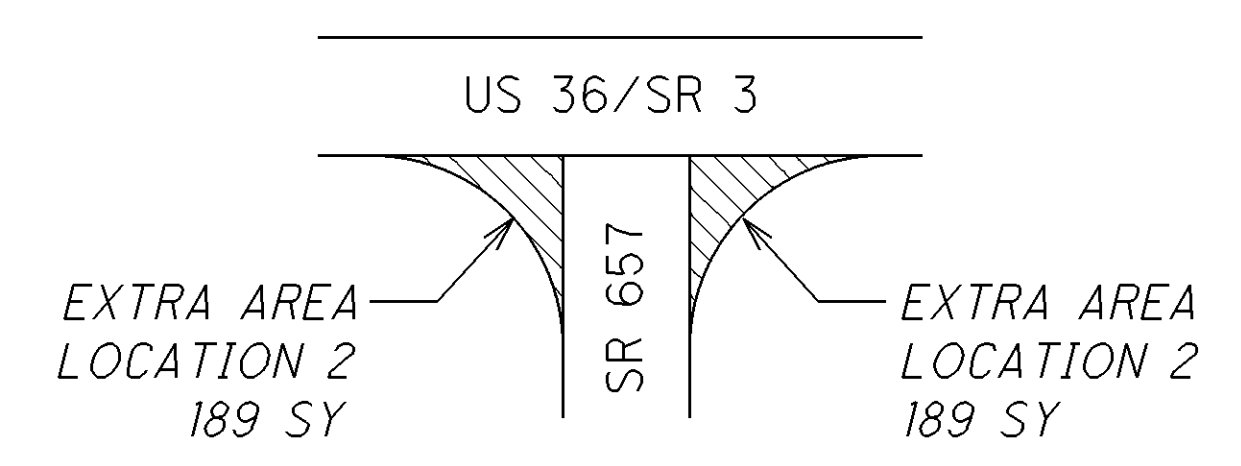
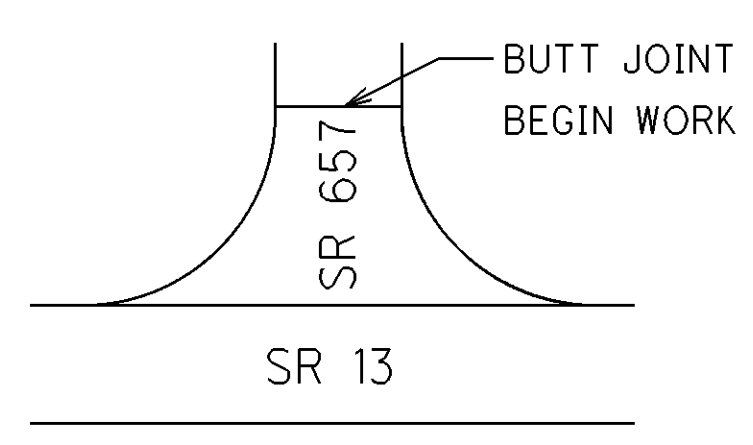
PW = PAVEMENT WIDTH
 AS = AGGREGATE SHOULDER

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PAVEMENT DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH (FEET)	TYPICAL	PAVEMENT AREA	407		422	441 ASPHALT CONCRETE			614		
					MILES	LIN. FT.				TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	SINGLE CHIP SEAL, AS PER PLAN	THICKNESS	INTERMEDIATE COURSE, TYPE 1, (448)	THICKNESS	SURFACE COURSE, TYPE 1, (448), PG 70-22M	WORK ZONE CENTER LINE, CLASS II	
																		SQ. YD.
1A	LIC	S.R. 657	0.00	1.95	1.95	10,296.0	22.0 AVG	1	25,168.0	1,887.6	1,258.4	25,168.0	1.00	699.2	1.25	873.9	3.90	
BRIDGE DEDUCTIONS (SEE SHEET 13)									(347.1)	(26.0)	(17.4)	(2,444.4)	1.00	(9.6)	1.25	(12.0)	(0.05)	
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									24,820.9	1,861.6	1,241.0	22,723.6		689.6		861.9	3.85	
1B	LIC	S.R. 657	1.95	14.91	12.96	68,428.8	22.0 AVG	1	167,270.4	12,545.3	8,363.5	167,270.4	1.00	4,646.4	1.25	5,808.0	25.92	
BRIDGE DEDUCTIONS (SEE SHEET 13)									(1,540.0)	(115.5)	(77.0)	(11,040.9)	1.00	(42.7)	1.25	(53.4)	(0.19)	
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									165,730.4	12,429.8	8,286.5	156,229.5		4,603.7		5,754.6	25.73	
2	KNO	S.R. 657	0.00	4.93	4.93	26,030.4	22.0 AVG	1	63,629.9	4,772.2	3,181.5	63,629.9	1.00	1,767.5	1.25	2,209.4	9.86	
2	KNO	S.R. 657	EXTRA AREA AT U.S. 36 INTERSECTION							378.0	28.4	18.9		1.00	10.5	1.25	13.2	
BRIDGE DEDUCTIONS (SEE SHEET 13)									(244.4)	(18.3)	(12.2)	(2,511.2)	1.00	(6.7)	1.25	(8.4)	(0.02)	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)									63,763.5	4,782.3	3,188.2	61,118.7		1,771.3		2,214.2	9.84	

SEE SHEET 8 FOR STRAIGHT LINE DIAGRAM AND TYPICALS

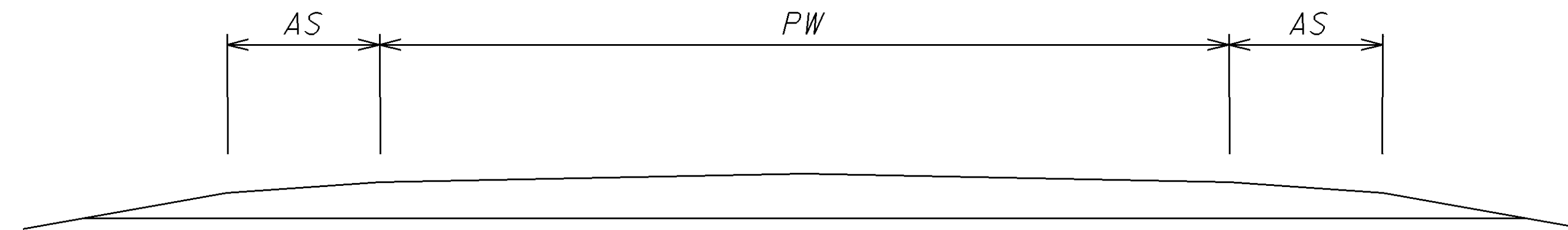


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ASPHALT CONCRETE DATA

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TYPICAL 1



PW = PAVEMENT WIDTH
AS = AGGREGATE SHOULDER

SHOULDER DATA

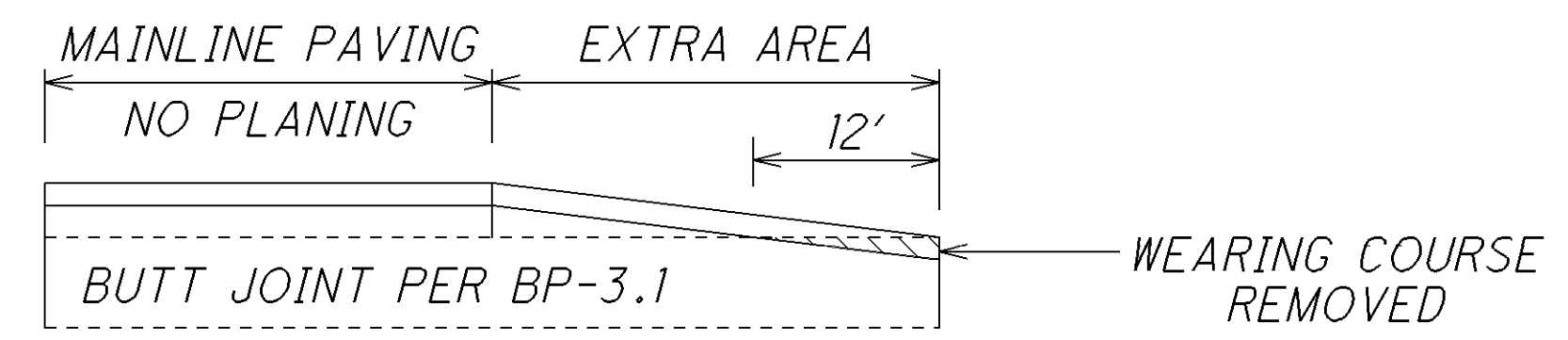
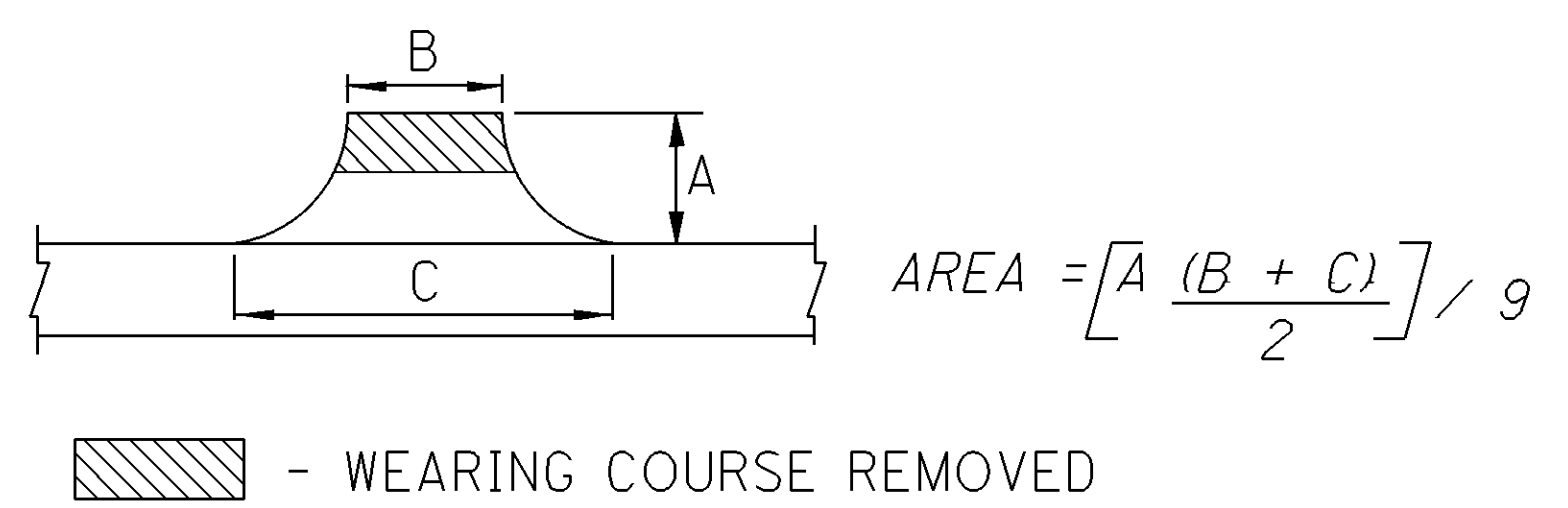
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)		SHOULDER AREA	209	408	617		
					MILES	LIN. FT.		A	B		SQ. YD.	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	PRIME COAT @ 0.4 GAL./S.Y.	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2' WIDTH)
1A	LIC	S.R. 657	0.00	1.95	1.95	10,296.0	1	2	2	4,576.0	3.90	1,830.4	3.0	381.3	
BRIDGE DEDUCTIONS (SEE SHEET 13)											(63.1)	(0.05)	(25.2)	3.0	(5.3)
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)											3.85	1,805.2			376.0
1B	LIC	S.R. 657	1.95	14.91	12.96	68,428.8	1	2	2	30,412.8	25.92	12,165.1	3.0	2,534.4	
BRIDGE DEDUCTIONS (SEE SHEET 13)											(280.0)	(0.24)	(112.0)	3.0	(23.3)
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)											25.68	12,053.1			2,511.1
2	KNO	S.R. 657	0.00	4.93	4.93	26,030.4	1	2	2	11,569.1	9.86	4,627.6	3.0	964.1	
BRIDGE DEDUCTIONS (SEE SHEET 13)											(44.4)	(0.04)	(17.8)	3.0	(3.7)
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)											9.82	4,609.8			960.4

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SHOULDER DATA

LIC-657-0.00
KNO-657-0.00



- NOTES:
- SEE SHEET 12 FOR DETAILS 1, 2 AND 3.
 - AT AREAS WHERE MAINLINE IS NOT BEING PLANED, CREATE A BUTT JOINT PER BP-3.1 FOR EXTRA AREAS. WEARING COURSE REMOVED IS REDUCED IN THESE AREAS, SEE DETAIL PROVIDED.

EXTRA AREAS

LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YD.	202	407		422	441 ASPHALT CONCRETE			
					DETAIL DIMENSION				WEARING COURSE REMOVED SQ. YD.	TACK COAT @ 0.075 GAL./S.Y. GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y. GAL.	SINGLE CHIP SEAL SQ. YD.	THICKNESS IN.	INTERMEDIATE COURSE, TYPE 1, (448) CU. YD.	THICKNESS IN.	SURFACE COURSE, TYPE 1, (448), PG 64-22 CU. YD.
					A	B	C									
					FT.	FT.	FT.									
1A	LIC	S.R. 657	LT	DRY CREEK RD NE	70	22	120	552.3	40.6	41.5	27.7	552.3	0.75 AVG	11.6	1.25	19.2
1A	LIC	S.R. 657	RT	CHESTNUT HILLS RD	40	20	80	222.3	38.7	16.7	11.2	222.3	0.75 AVG	4.7	1.25	7.8
1A	LIC	S.R. 657	LT	CHESTNUT HILLS RD NE	25	19	60	109.8	38.5	8.3	5.5	109.8	0.75 AVG	2.3	1.25	3.9
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									117.8	66.5	44.4	884.4		18.6		30.9
1B	LIC	S.R. 657	RT	ST. JOSEPHS RD NE	70	20	140	622.3	40.4	46.7	31.2	622.3	0.75 AVG	13.0	1.25	21.7
1B	LIC	S.R. 657	RT	PRESTON RD	50	20	105	347.3	40.3	26.1	17.4	347.3	0.75 AVG	7.3	1.25	12.1
1B	LIC	S.R. 657	RT	CHATHAM RD	20	13	50	70.0	32.2	5.3	3.5	70.0	0.75 AVG	1.5	1.25	2.5
1B	LIC	S.R. 657	LT	CHATHAM RD	50	20	75	263.9	35.5	19.8	13.2	263.9	0.75 AVG	5.5	1.25	9.2
1B	LIC	S.R. 657	RT	MULBERRY ST (DETAIL 1)	71	32		126.2	39.1	9.5	6.4	126.2	0.75 AVG	2.7	1.25	4.4
1B	LIC	S.R. 657	LT	DUTCH LANE RD NE	90	17	135	760.0	33.2	57.0	38.0	760.0	0.75 AVG	15.9	1.25	26.4
1B	LIC	S.R. 657	RT	REYNOLDS RD	35	20	75	184.8	39.3	13.9	9.3	184.8	0.75 AVG	3.9	1.25	6.5
1B	LIC	S.R. 657	RT	RILEY RD	50	23	93	322.3	41.9	24.2	16.2	322.3	0.75 AVG	6.8	1.25	11.2
1B	LIC	S.R. 657	LT	ACCESS RD FROM SR 661	30	38	82	200.0	62.4	15.0	10.0	200.0	0.75 AVG	4.2	1.25	7.0
1B	LIC	S.R. 657	CL	S.R. 657 @ S.R.661 (DETAIL 2)												
1B	LIC	S.R. 657	CL	S.R. 657 @ S.R.661 (DETAIL 2)												
1B	LIC	S.R. 657	RT	SMOKETOWN RD	50	19	90	302.8	36.7	22.8	15.2	302.8	0.75 AVG	6.4	1.25	10.6
1B	LIC	S.R. 657	LT	LAFAYETTE RD	50	24	112	377.8	46.1	28.4	18.9	377.8	0.75 AVG	7.9	1.25	13.2
1B	LIC	S.R. 657	CL	S.R. 657 @ US 62 (DETAIL 3)												
1B	LIC	S.R. 657	CL	S.R. 657 @ US 62 (DETAIL 3)												
1B	LIC	S.R. 657	LT	VAN FOSSEN RD	70	19	109	497.8	35.7	37.4	24.9	497.8	0.75 AVG	10.4	1.25	17.3
1B	LIC	S.R. 657	RT	BASH LANE RD	60	14	92	353.4	29.1	26.6	17.7	353.4	0.75 AVG	7.4	1.25	12.3
1B	LIC	S.R. 657	RT	DOUGLAS LN	40	18	82	222.3	36.8	16.7	11.2	222.3	0.75 AVG	4.7	1.25	7.8
1B	LIC	S.R. 657	RT	BENNINGTON CHAPEL RD	60	19	102	403.4	36.4	30.3	20.2	403.4	0.75 AVG	8.5	1.25	14.1
1B	LIC	S.R. 657	LT	BENNINGTON CHAPEL RD	70	18	126	560.0	36.4	42.0	28.0	560.0	0.75 AVG	11.7	1.25	19.5
1B	LIC	S.R. 657	LT	DRURY RD	30	21	89	183.4	46.2	13.8	9.2	183.4	0.75 AVG	3.9	1.25	6.4
1B	LIC	S.R. 657	RT	HOMER RD	40	21	80	224.5	39.8	16.9	11.3	224.5	0.75 AVG	4.7	1.25	7.8
	LIC	S.R. 657	LT	LOCK RD	50	17	65	227.8	30.4	17.1	11.4	227.8	0.75 AVG	4.8	1.25	8.0
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									737.9	469.5	313.2	6,250.0		131.2		218.0

EXTRA AREA DATA

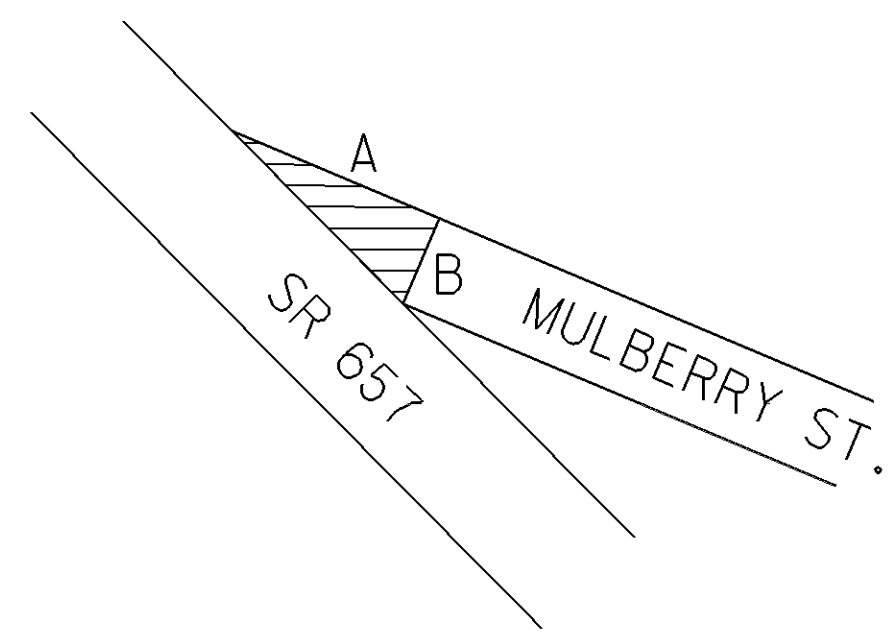
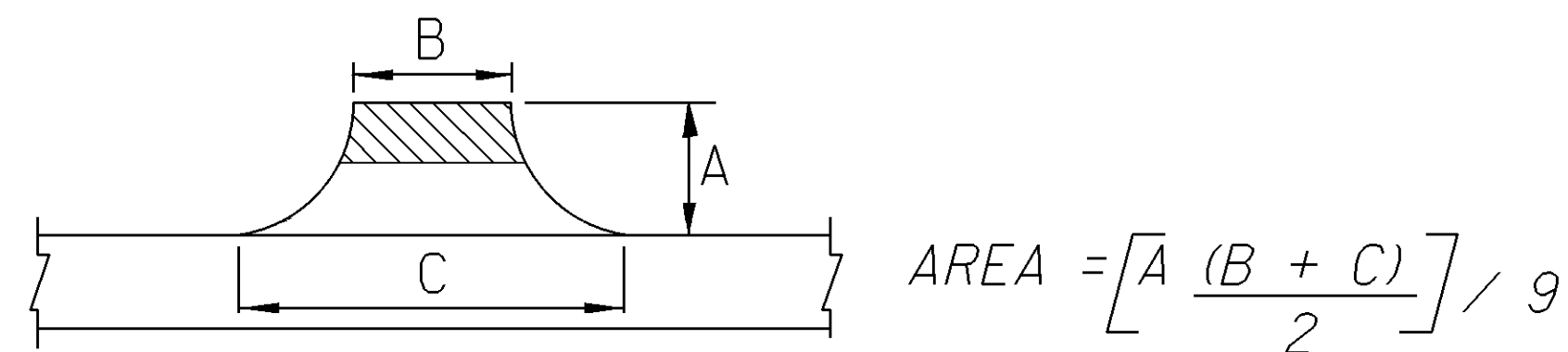
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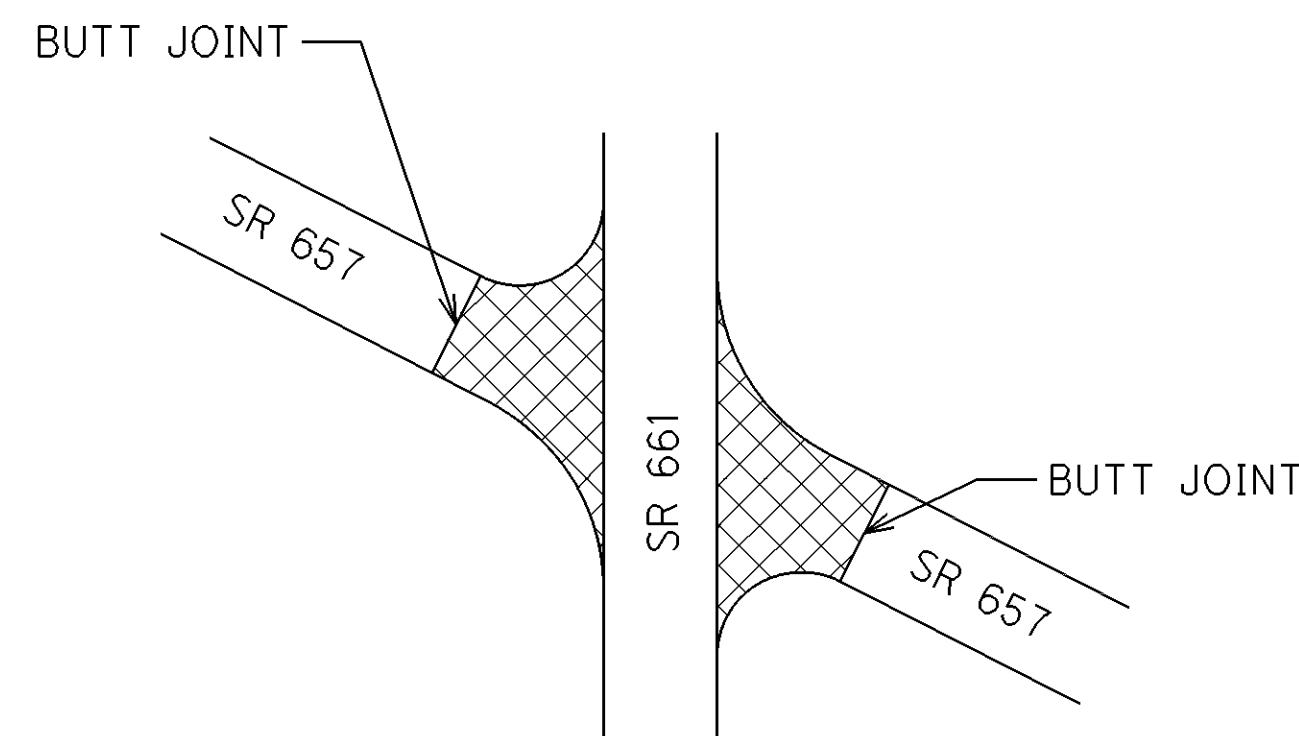
EXTRA AREAS																
LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YD.	202	407		422	441 ASPHALT CONCRETE			
					WEARING COURSE REMOVED SQ. YD.	TACK COAT @ 0.075 GAL./S.Y. GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y. GAL.		SINGLE CHIP SEAL SQ. YD.	THICKNESS IN.	INTERMEDIATE COURSE, TYPE 1, (448) CU. YD.	THICKNESS IN.	SURFACE COURSE, TYPE 1, (448), PG 64-22 CU. YD.			
														DETAIL DIMENSION		
														A FT.	B FT.	C FT.
2	KNO	S.R. 657	RT	MYERS RD	30	22	65	145.0	40.8	10.9	7.3	145.0	0.75 AVG	3.1	1.25	5.1
2	KNO	S.R. 657	LT	SIMMONS CHURCH RD	40	18	75	206.7	35.4	15.6	10.4	206.7	0.75 AVG	4.4	1.25	7.2
2	KNO	S.R. 657	RT	SIMMONS CHURCH RD	50	20	98	327.8	39.2	24.6	16.4	327.8	0.75 AVG	6.9	1.25	11.4
2	KNO	S.R. 657	RT	JOHNSTOWN RD	35	22	64	167.3	39.0	12.6	8.4	167.3	0.75 AVG	3.5	1.25	5.9
2	KNO	S.R. 657	LT	JOHNSTOWN RD	20	21	55	84.5	41.6	6.4	4.3	84.5	0.75 AVG	1.8	1.25	3.0
2	KNO	S.R. 657	LT	WHITE RD	50	21	95	322.3	39.9	24.2	16.2	322.3	0.75 AVG	6.8	1.25	11.2
2	KNO	S.R. 657	RT	WEBSTER RD	55	19	114	406.4	39.2	30.5	20.4	406.4	0.75 AVG	8.5	1.25	14.2
2	KNO	S.R. 657	RT	PERRY RD	40	15	72	193.4	31.4	14.6	9.7	193.4	0.75 AVG	4.1	1.25	6.8
2	KNO	S.R. 657	LT	PERRY RD	40	15	77	204.5	32.4	15.4	10.3	204.5	0.75 AVG	4.3	1.25	7.2
2	KNO	S.R. 657	RT	SYCAMORE RD	95	19	122	744.2	34.1	55.9	37.3	744.2	0.75 AVG	15.6	1.25	25.9
2	KNO	S.R. 657	LT	KRAUSE RD	20	15	40	61.2	30.0	4.6	3.1	61.2	0.75 AVG	1.3	1.25	2.2
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)									403.0	215.3	143.8	2,863.3		60.3		100.1

 - WEARING COURSE REMOVED

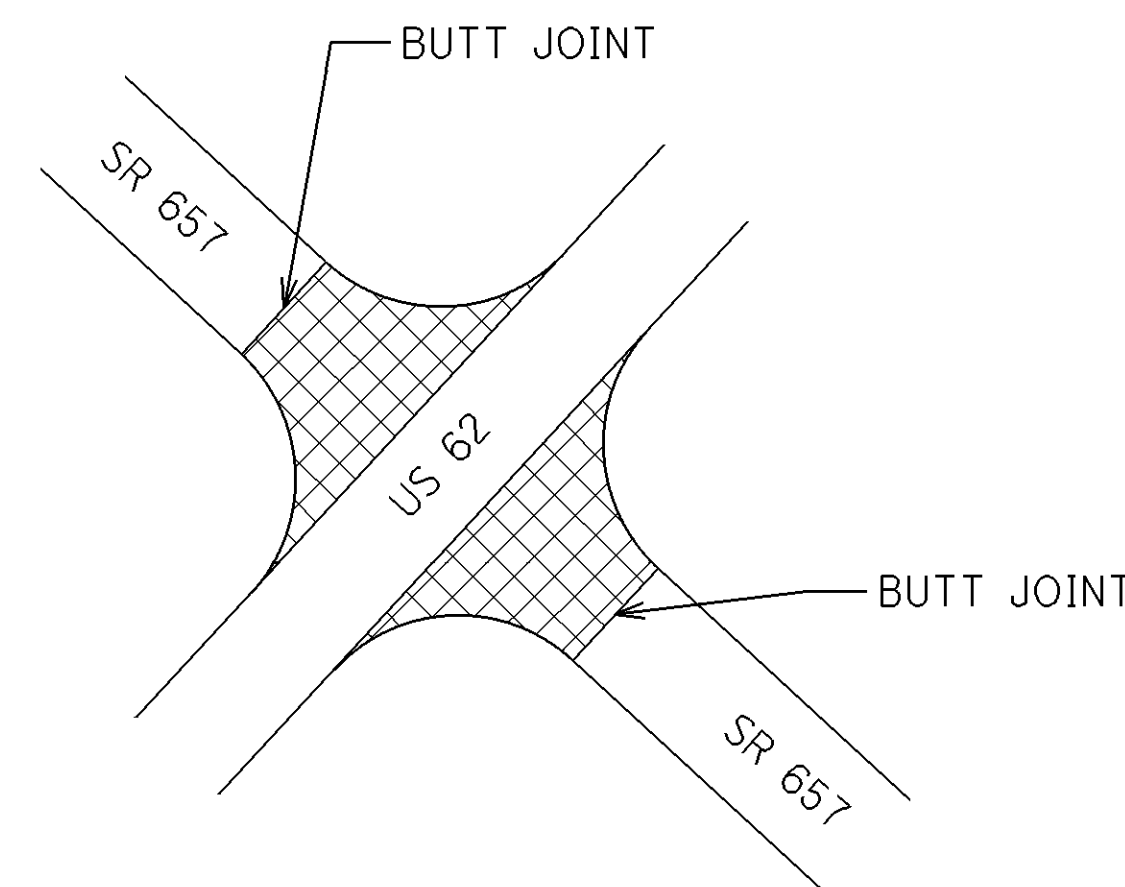
 - DO NOT DISTURB, RESURFACED WITH PREVIOUS PROJECT



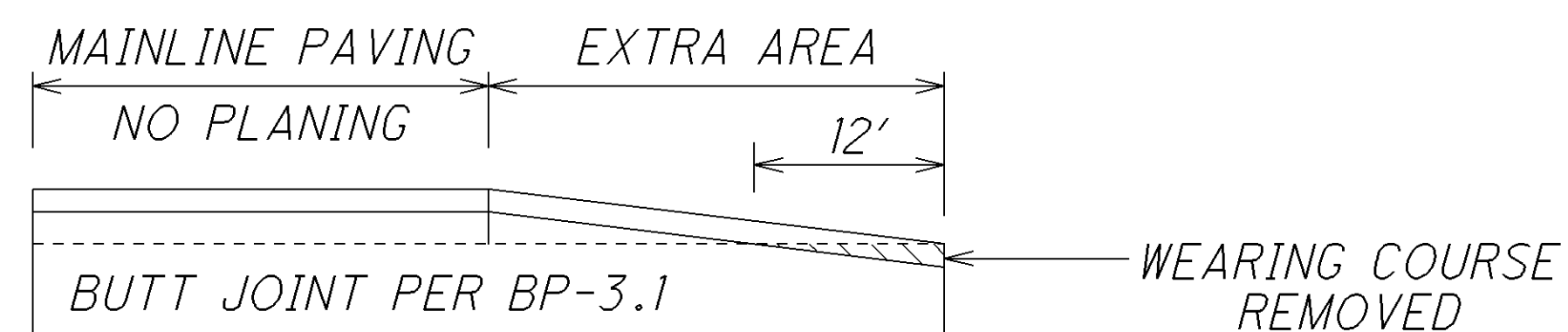
DETAIL 1



DETAIL 2



DETAIL 3



NOTES:

1. AT AREAS WHERE MAINLINE IS NOT BEING PLANED, CREATE A BUTT JOINT PER BP-3.1 FOR EXTRA AREAS. WEARING COURSE REMOVED IS REDUCED IN THESE AREAS, SEE DETAIL PROVIDED.

CALCULATED
JKIN
CHECKED
DNM

EXTRA AREA DATA

LIC-657-0.00
KNO-657-0.00

BRIDGE TREATMENT

LOCATION 1A

DETAIL ① LIC-657-0194: BUTT JOINT AT DECK

LOCATION 1B

DETAIL ② LIC-657-0360: REMOVE 1.25" WEARING COURSE, PLACE NEW SURFACE COURSE

DETAIL ③ LIC-657-0978: BUTT JOINT AT APPROACH SLABS

DETAIL ③ LIC-657-1262: BUTT JOINT AT APPROACH SLABS

DETAIL ② LIC-657-1457: REMOVE 1.25" WEARING COURSE, PLACE NEW SURFACE COURSE

LOCATION 2

DETAIL ② KNO-657-0094: REMOVE 1.25" WEARING COURSE, PLACE NEW SURFACE COURSE

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

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BRIDGE DATA																			
L O C A T I O N	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	DETAIL (SHEET 14)	MAINLINE DEDUCTIONS ASPHALT CONCRETE (CARRIED TO SHEET 9)	MAINLINE DEDUCTIONS SINGLE CHIP SEAL, APP (CARRIED TO SHEET 9)	SHOULDER DEDUCTIONS (CARRIED TO SHEET 10)	202	407		441 ASPHALT CONCRETE			516	
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.		SQ.YD.	SQ.YD.	SQ.YD.	WEARING COURSE REMOVED (SEE DETAILS)	TACK COAT @ 0.075 GAL/SQ.YD. GALLON	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL/SQ.YD. GALLON	THICKNESS INCHES	INTERMEDIATE COURSE, TYPE 1, (448) CU.YD.	THICKNESS INCHES	SURFACE COURSE, TYPE 1, (448), PG 70-22M CU.YD.	2" DEEP JOINT SEALER, AS PER PLAN FEET
1A	LIC-657-0194	142.0	40.0	631.2	25.0	22.0		1	347.1	2,444.4	63.1	2,444.5							52.0
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)												2,444.5						52.0	
1B	LIC-657-0360	40.0	32.0	142.2	25.0	32.0	177.8	2	220.0	2,520.0	40.0	2,520.0	24.0				1.25	11.2	
1B	LIC-657-0978	119.0	28.0	370.2	25.0	28.0	155.6	3	413.1	2,725.8	75.1	2,200.0							52.0
1B	LIC-657-1262	150.0	32.0	533.3	25.0	32.0	177.8	3	488.9	2,911.1	88.9	2,200.0							52.0
1B	LIC-657-1457	121.0	36.0	484.0	25.0	36.0	200.0	2	418.0	2,884.0	76.0	2,884.0	51.3				1.25	23.8	
TOTAL BRIDGE DEDUCTIONS									1,540.0	11,040.9	280.0								
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)												9,804.0	75.3				35.0	104.0	
2	KNO-657-0094	50.0	28.0	155.6	25.0	28.0	155.6	2	244.4	2,511.2	44.4	2,511.2	23.4				1.25	10.9	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)												2,511.2	23.4				10.9		

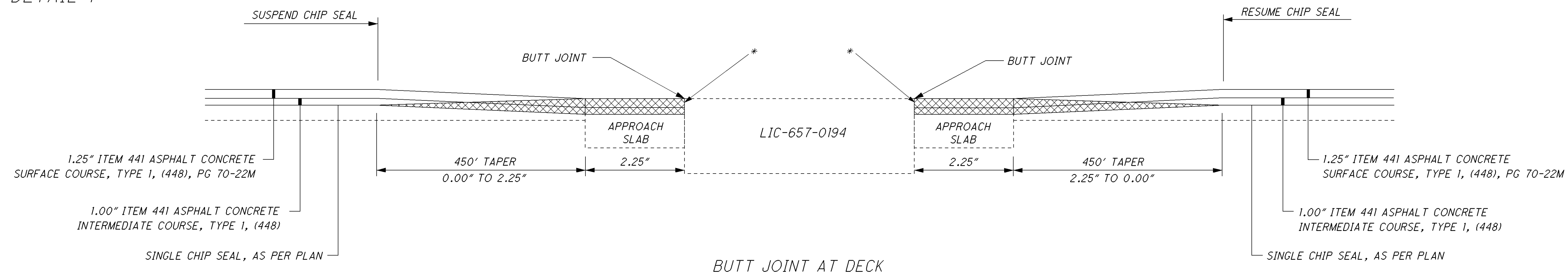
CALCULATED
JKIN
CHECKED
DNM

BRIDGE DECK TREATMENT DATA

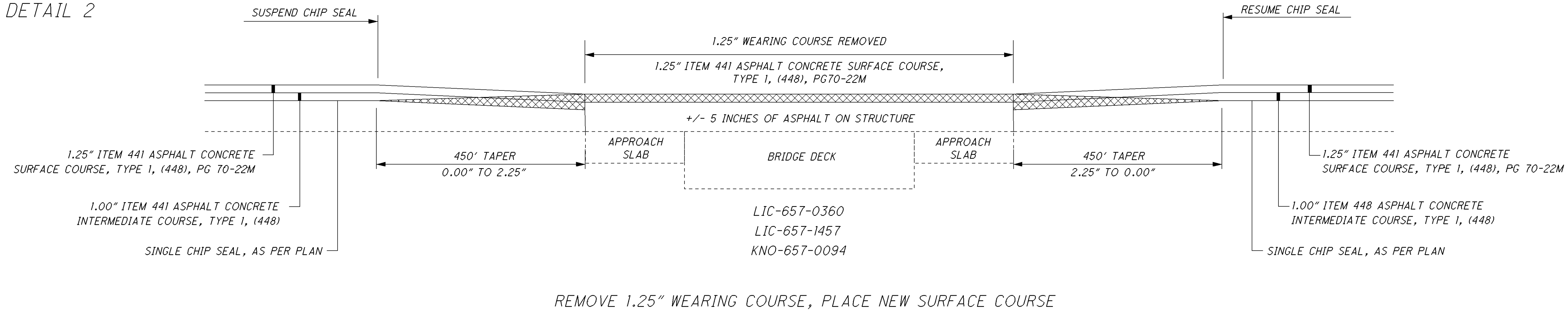
LIC-657-0.00
KNO-657-0.00

CALCULATED
JKIN
CHECKED
DNM

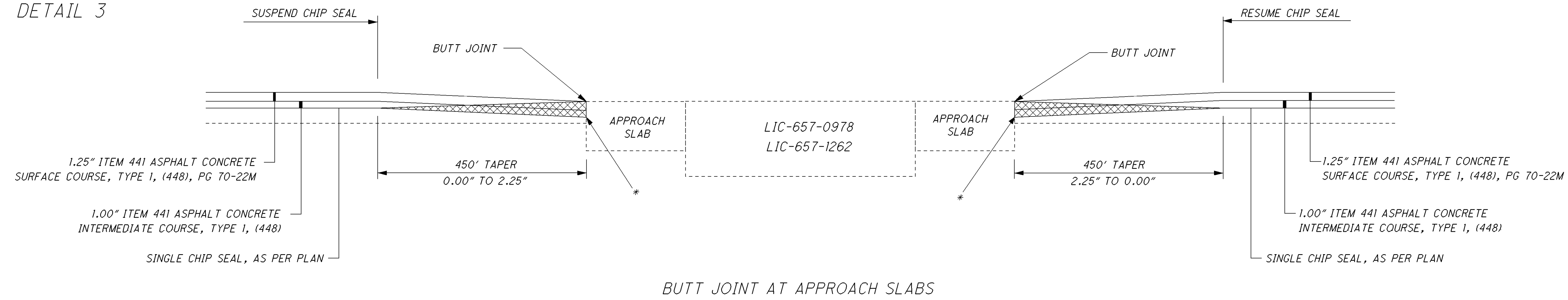
DETAIL 1



DETAIL 2



DETAIL 3

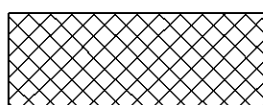


BRIDGE DECK TREATMENT DETAILS

LIC-657-0.00
KNO-657-0.00

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DETAILS NOT TO SCALE

 ITEM 202 WEARING COURSE REMOVED

* 2.0" DEEP JOINT SEALER, AS PER PLAN

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ITEM 648 EDGE LINE, 4"										
L O C A T I O N	C O U N T Y	R O U T E	S.L.M.		T O T A L L E N G T H (M I L E S)	I N F O R M A T I O N O N L Y			T O T A L E D G E L I N E (4")	R E M A R K S
						W H I T E E D G E L I N E Q U A N T I T I E S				
			FROM	TO		T O T A L M I L E S	H I G H W A Y M I L E S	R A M P M I L E S	M I L E S	
1A	LIC	S.R. 657	0.00	1.95	1.95	3.90	3.90		3.90	
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									3.90	
1B	LIC	S.R. 657	1.95	14.91	12.96	25.92	25.92		25.92	
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									25.92	
2	KNO	S.R. 657	0.00	4.93	4.93	9.86	9.86		9.86	
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)									9.86	

ITEM 648 CENTER LINE										
L O C A T I O N	C O U N T Y	R O U T E	S.L.M.		T O T A L L E N G T H (M I L E S)	I N F O R M A T I O N O N L Y		T O T A L C E N T E R L I N E M I L E S	R E M A R K S	
						C E N T E R L I N E Q U A N T I T I E S				
			FROM	TO		T O T A L M I L E S	E Q U I V A L E N T S O L I D L I N E			
1A	LIC	S.R. 657	0.00	1.95	1.95	1.95	1.681	1.95		
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)									1.95	
1B	LIC	S.R. 657	1.95	14.91	12.96	12.96	17.820	12.96		
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)									12.96	
2	KNO	S.R. 657	0.00	4.93	4.93	4.93	7.528	4.93		
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)									4.93	

CALCULATED
JKIN
CHECKED
DNM

PAVEMENT MARKING DATA (LONG LINE)

LIC-657-0.00
KNO-657-0.00

ITEM 644 AUXILIARY MARKING

L O C A T I O N	C O U N T Y	R O U T E	S I D E	D E S C R I P T I O N	S T O P L I N E (24")		R E M A R K S
						FT.	
1A	LIC	S.R. 657	LT	DRY CREEK RD NE	22		21' FROM SR 657 CENTERLINE
1A	LIC	S.R. 657	RT	CHESTNUT HILLS RD	15		20' FROM SR 657 CENTERLINE
1A	LIC	S.R. 657	LT	CHESTNUT HILLS RD NE	15		17' FROM SR 657 CENTERLINE
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)					52		
1B	LIC	S.R. 657	RT	ST. JOSEPHS RD NE	30		17' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	PRESTON RD	32		20' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	CHATHAM RD	13		15' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	CHATHAM RD	21		15' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	MULBERRY ST	37		15' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	DUTCH LANE RD	20		20' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	REYNOLDS RD	22		19' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	RILEY ROAD	23		22' FROM SR 661 CENTERLINE
1B	LIC	S.R. 657	LT	ACCESS FROM RILEY ROAD	24		16' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	SMOKETOWN RD	22		17' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	LAFAYETTE RD	30		19' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	VAN FOSSEN RD	27		18' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	BASH LANE RD	30		17' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	DOUGLAS LN	30		17' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	RT	BENNINGTON CHAPEL RD	24		18' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	BENNINGTON CHAPEL RD	30		19' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	DRURY RD	30		17' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	CL	ON SR 657 BEFORE LOCK ROAD	14		25' FROM LOCK ROAD INTERSECTION
1B	LIC	S.R. 657	RT	HOMER ROAD	25		15' FROM SR 657 CENTERLINE
1B	LIC	S.R. 657	LT	LOCK ROAD	13		15' FROM SR 657 CENTERLINE
			CL	ON SR 657 AFTER LOCK ROAD	14		27' FROM LOCK ROAD CENTERLINE
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)					511		
2	KNO	S.R. 657	RT	MYERS RD	25		19' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	RT	SIMMONS CHURCH RD	29		15' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	LT	SIMMONS CHURCH RD	36		17' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	RT	JOHNSTOWN RD	29		15' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	LT	JOHNSTOWN RD	17		15' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	LT	WHITE RD	32		14' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	RT	WEBSTER RD	48		15' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	RT	PERRY RD	29		15' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	LT	PERRY RD	30		16' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	CL	ON SR 657 AT SYCAMORE ROAD	23		PLACE AS DIRECTED
2	KNO	S.R. 657	RT	SYCAMORE ROAD	12		PLACE AS DIRECTED
2	KNO	S.R. 657	LT	KRAUSE RD	12		16' FROM SR 657 CENTERLINE
2	KNO	S.R. 657	CL	ON SR 657 AT US 36	25		18' FROM US 36 CENTERLINE
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)					347		

DETAIL	SEE STD. DWG. TC-65.11
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTI-LANE DIVIDED HIGHWAY

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	THROUGH APPROACH
9	TWO-WAY LEFT TURN LANE

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

REM=REMARKS

ITEM 621 RPM SUB-SUMMARY

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		DETAIL	621		PRISMATIC RETRO-REFLECTOR COLORS		REMARKS
					MILES	LIN.FT.		RAISED PAVEMENT MARKER REMOVED	RPM	TWO-WAY	ONE-WAY	
1A	LIC	SR 657	0.00	0.04	0.04	211	REM	20	20	4	16	STOP CONDITION AT SR 13
			0.04	1.95	1.91	10,085	GAP	126	126	126		
LOCATION 1A TOTALS (CARRIED TO SUB-SUMMARY)								146	146	130	16	
1B	LIC	SR 657	1.95	2.84	0.89	4,699	GAP	59	59	59		
			2.84	2.89	0.05	264	11	7	7	7		PC 2.84 PT 2.89 L=264' DEG 8
			2.89	3.05	0.16	845	12	32	32	32		PC 2.94 PT 2.99 L=264' DEG 11
			3.05	3.21	0.16	845	GAP	11	11	11		
			3.21	3.24	0.03	158	11	4	4	4		PC 3.21 PT 3.24 L=158' DEG 9
			3.24	3.44	0.20	1,056	GAP	13	13	13		
			3.44	3.68	0.24	1,267	12	40	40	40		PC 3.53 PT 3.59 L=317' DEG 13
			3.68	3.74	0.06	317	GAP	4	4	4		
			3.74	3.84	0.10	528	11	13	13	13		PC 3.74 PT 3.84 L=528' DEG 6
			3.84	3.92	0.08	422	GAP	4	4	4		
			3.92	3.95	0.03	158	11	4	4	4		PC 3.92 PT 3.95 L=158' DEG 9
			3.95	4.12	0.17	898	GAP	11	11	11		
			4.12	4.16	0.04	211	11	5	5	5		PC 4.12 PT 4.16 L=211' DEG 9
			4.16	7.32	3.16	16,685	GAP	208	208	208		
			7.32	7.48	0.16	845	7	27	27	11	16	SOUTH APPROACH TO SR 661
7.48	7.64	0.16	845	7	27	27	11	16	NORTH APPROACH TO SR 661			
7.64	9.78	2.14	11,299	GAP	141	141	141					
9.78	9.94	0.16	845	7	27	27	11	16	SOUTH APPROACH TO US 62			
9.94	10.10	0.16	845	7	27	27	11	16	NORTH APPROACH TO US 62			
10.10	12.87	2.77	14,626	GAP	183	183	183					
12.87	13.07	0.20	1,056	12	29	29	29		PC 12.96 PT 12.98 L=106' DEG 24			
13.07	14.91	1.84	9,715	REM	137	137	121	16	STOP CONDITION AT CR 19 (LOCK ROAD)			
LOCATION 1B TOTALS (CARRIED TO SUB-SUMMARY)								1,013	1,013	933	80	
2	KNO	SR 657	0.00	4.11	4.11	21,701	GAP	287	287	271	16	STOP CONDITION AT CR 19 (LOCK ROAD)
			4.11	4.33	0.22	1,162	12	34	34	34		PC 4.20 PT 4.24 L=106' DEG 21
			4.33	4.93	0.60	3,168	GAP	56	56	40	16	STOP AT US 36
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)								377	377	345	32	

CALCULATED
JKIN
CHECKED
DNM

RAISED PAVEMENT MARKER DATA

LIC-657-0.00
KNO-657-0.00

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LOCATION 1A SHEET TOTALS										ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	5	9	10	11	13	15	16	17					
	710				118	2,445				202	23500	3,273	SQ YD	WEARING COURSE REMOVED
				3.85						209	72051	3.85	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
20										253	02000	20	CU YD	PAVEMENT REPAIR
			1,862		67					407	10000	1,929	GALLON	TACK COAT
			1,241		45					407	14000	1,286	GALLON	TACK COAT FOR INTERMEDIATE COURSE
				1,806						408	10001	1,806	GALLON	PRIME COAT, AS PER PLAN
			22,724		885					422	10000	23,609	SQ YD	SINGLE CHIP SEAL
					31					441	50000	31	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	45.0		862							441	50100	907	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	20.0		690		19					441	50200	729	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
						52				516	31011	52	FT	2" DEEP JOINT SEALER, AS PER PLAN
		10								614	11110	10	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
		23								614	12460	23	EACH	WORK ZONE MARKING SIGN
		2								614	13000	2	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
			3.85							614	21400	3.85	MILE	WORK ZONE CENTER LINE, CLASS II
				376						617	10101	376	CU YD	COMPACTED AGGREGATE, AS PER PLAN
									146	621	00100	146	EACH	RPM
									146	621	54000	146	EACH	RAISED PAVEMENT MARKER REMOVED
								52		644	00500	52	FT	STOP LINE
							3.90			648	00100	3.90	MILE	EDGE LINE, 4"
							1.95			648	00300	1.95	MILE	CENTER LINE

CALCULATED
JKIN
CHECKED
DNM

LOCATION 1A SUB-SUMMARY

LIC-657-0.00
KNO-657-0.00

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LOCATION 1B SHEET TOTALS												ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	4	5	7	9	10	11	13	15	16	17					
	2,690						738	9,804				202	23500	13,232	SQ YD	WEARING COURSE REMOVED
						25.68						209	72051	25.68	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
800												253	02000	800	CU YD	PAVEMENT REPAIR
					12,430		470	76				407	10000	12,976	GALLON	TACK COAT
					8,287		314					407	14000	8,601	GALLON	TACK COAT FOR INTERMEDIATE COURSE
						12,054						408	10001	12,054	GALLON	PRIME COAT, AS PER PLAN
					156,230		6,250					422	10001	162,480	SQ YD	SINGLE CHIP SEAL, AS PER PLAN
							218					441	50000	218	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	224.0				5,755			35				441	50100	6,014	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	75.0				4,604		132					441	50200	4,811	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
								104				516	31011	104	FT	2" DEEP JOINT SEALER, AS PER PLAN
			30									614	11110	30	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
			136									614	12460	136	EACH	WORK ZONE MARKING SIGN
			5									614	13000	5	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
					25.73							614	21400	25.73	MILE	WORK ZONE CENTER LINE, CLASS II
						2,512						617	10101	2,512	CU YD	COMPACTED AGGREGATE, AS PER PLAN
				648								618	40100	648	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)
											1,013	621	00100	1,013	EACH	RPM
											1,013	621	54000	1,013	EACH	RAISED PAVEMENT MARKER REMOVED
										511		644	00500	511	FT	STOP LINE
								25.92				648	00100	25.92	MILE	EDGE LINE, 4"
								12.96				648	00300	12.96	MILE	CENTER LINE
		1										690	50100	1	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE

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LOCATION 1B SUB-SUMMARY

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LOCATION 2 SHEET TOTALS										ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION
2	3	5	9	10	12	13	15	16	17					
	1,370				403	2,512				202	23500	4,285	SQ YD	WEARING COURSE REMOVED
				9.82						209	72051	9.82	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
1,200										253	02000	1,200	CU YD	PAVEMENT REPAIR
			4,783		216	24				407	10000	5,023	GALLON	TACK COAT
			3,189		144					407	14000	3,333	GALLON	TACK COAT FOR INTERMEDIATE COURSE
				4,610						408	10001	4,610	GALLON	PRIME COAT, AS PER PLAN
			61,119		2,864					422	10001	63,983	SQ YD	SINGLE CHIP SEAL, AS PER PLAN
					101					441	50000	101	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
	98.0		2,215			11				441	50100	2,324	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
	39.0		1,772		61					441	50200	1,872	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
		10								614	11110	10	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
		57								614	12460	57	EACH	WORK ZONE MARKING SIGN
		2								614	13000	2	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
			9.84							614	21400	9.84	MILE	WORK ZONE CENTER LINE, CLASS II
				961						617	10101	961	CU YD	COMPACTED AGGREGATE, AS PER PLAN
									377	621	00100	377	EACH	RPM
									377	621	54000	377	EACH	RAISED PAVEMENT MARKER REMOVED
								347		644	00500	347	FT	STOP LINE
							9.86			648	00100	9.86	MILE	EDGE LINE, 4"
							4.93			648	00300	4.93	MILE	CENTER LINE

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LOCATION 2 SUB-SUMMARY

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LOCATION TOTALS			FUNDING PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET
LOCATION 1A	LOCATION 1B	LOCATION 2	LOC. 1A	LOC. 1B & 2	LOC. 1A	LOC. 1B & 2						
			01/S<2/PV	02/NFA/PV	03/S<2/OT	04/NFA/OT						
ROADWAY												
3,273	13,232	4,285	3,273	17,517			202	23500	20,790	SQ YD	WEARING COURSE REMOVED	
3.85	25.68	9.82	3.85	35.50			209	72051	39.35	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	2
20	800	1,200	20	2,000			253	02000	2,020	CU YD	PAVEMENT REPAIR	
1,929	12,976	5,023	1,929	17,999			407	10000	19,928	GALLON	TACK COAT	
1,286	8,601	3,333	1,286	11,934			407	14000	13,220	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
1,806	12,054	4,610	1,806	16,664			408	10001	18,470	GALLON	PRIME COAT, AS PER PLAN	2
23,609	162,480	63,983	23,609	226,463			422	10001	250,072	SQ YD	SINGLE CHIP SEAL, AS PER PLAN	2
31	218	101	31	319			441	50000	350	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
907	6,014	2,324	907	8,338			441	50100	9,245	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	
729	4,811	1,872	729	6,683			441	50200	7,412	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
52	104		52	104			516	31011	156	FT	2" DEEP JOINT SEALER, AS PER PLAN	2
376	2,512	961	376	3,473			617	10101	3,849	CU YD	COMPACTED AGGREGATE, AS PER PLAN	2
	648			648			618	40100	648	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)	
146	1,013	377			146	1,390	621	00100	1,536	EACH	RPM	
146	1,013	377			146	1,390	621	54000	1,536	EACH	RAISED PAVEMENT MARKER REMOVED	
52	511	347			52	858	644	00500	910	FT	STOP LINE	
3.90	25.92	9.86			3.90	35.78	648	00100	39.68	MILE	EDGE LINE, 4"	
1.95	12.96	4.93			1.95	17.89	648	00300	19.84	MILE	CENTER LINE	
	1			1			690	50100	1	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE	4
MAINTENANCE OF TRAFFIC												
10	30	10	10	40			614	11110	50	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
23	136	57	23	193			614	12460	216	EACH	WORK ZONE MARKING SIGN	
2	5	2	2	7			614	13000	9	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
3.85	25.73	9.84			3.85	35.57	614	21400	39.42	MILE	WORK ZONE CENTER LINE, CLASS II	
INCIDENTALS												
			9%	91%			103	05000	LUMP		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
			9%	91%			614	11000	LUMP		MAINTAINING TRAFFIC	
			9%	91%			619	16000	3	MONTH	FIELD OFFICE, TYPE A	
			9%	91%			623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
			9%	91%			624	10000	LUMP		MOBILIZATION	

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