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Anthony Lee Washington III
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HDR ENGINEERING, INC.
120 BRENTWOOD COMMONS WAY
SUITE 525
BRENTWOOD, TN 37027
ANTHONY L. WASHINGTON III. P.E. NO. 119749

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEET	ROADWAY-SIGN1
TITLE SHEET	1
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B
GENERAL NOTES.....	2C
SPECIAL NOTES.....	2D
ENVIRONMENTAL NOTES.....	2E, 2E1
LABOR QUANTITIES	2F
UTILITY NOTES AND UTILITY OWNERS.....	3
RAILROAD CROSSING DETAILS	4, 4A
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL.....	5

YEAR	PROJECT NO.	SHEET NO.
2025	STP/HSIP-212(10)	ROADWAY-SIGN 1

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

Index Of Sheets
SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

LAKE COUNTY

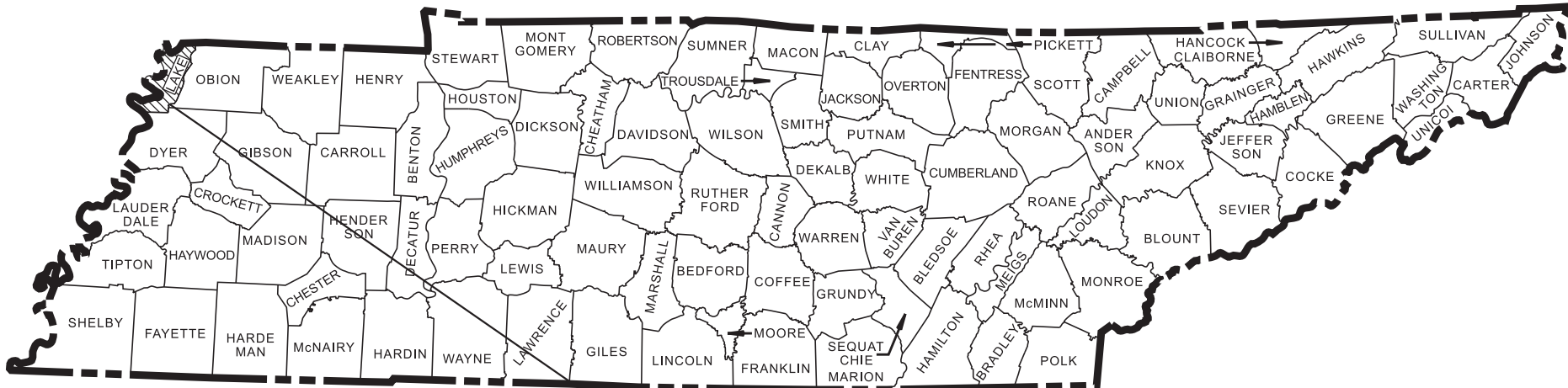
S.R. 212
FROM: L.M. 0.00 (SR-22)
TO: L.M. 2.43 (SR-78)

RESURFACE & SAFETY
SCRUB SEAL, 411D, PAVEMENT MARKINGS

STATE HIGHWAY NO. 212 F.A.H.S. NO. N/A

DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86	YES	NO X
WORK ZONE SIGNIFICANCE DETERMINATION		
SIGNIFICANT	YES	NO X

TENN.	YEAR	SHEET NO.
	2025	1
FED. AID PROJ. NO.	STP/HSIP-212(10)	
STATE PROJ. NO.	48S212-F3-003	
STATE PROJ. NO.	48S212-F8-003	



PROJECT LOCATION
NO BRIDGES WITHIN PROJECT LIMITS

NO EXCLUSIONS

48S212-F3-003
48S212-F8-003
BEGIN PROJECT NO. STP/HSIP-212(10) RESURFACE & SAFETY
L.M. 0.00 (SR-22)

TENNKEN RAILROAD
#298698H @ S.R. 212 L.M. 2.405
LAT: 36.402684
LONG: -89.4523251

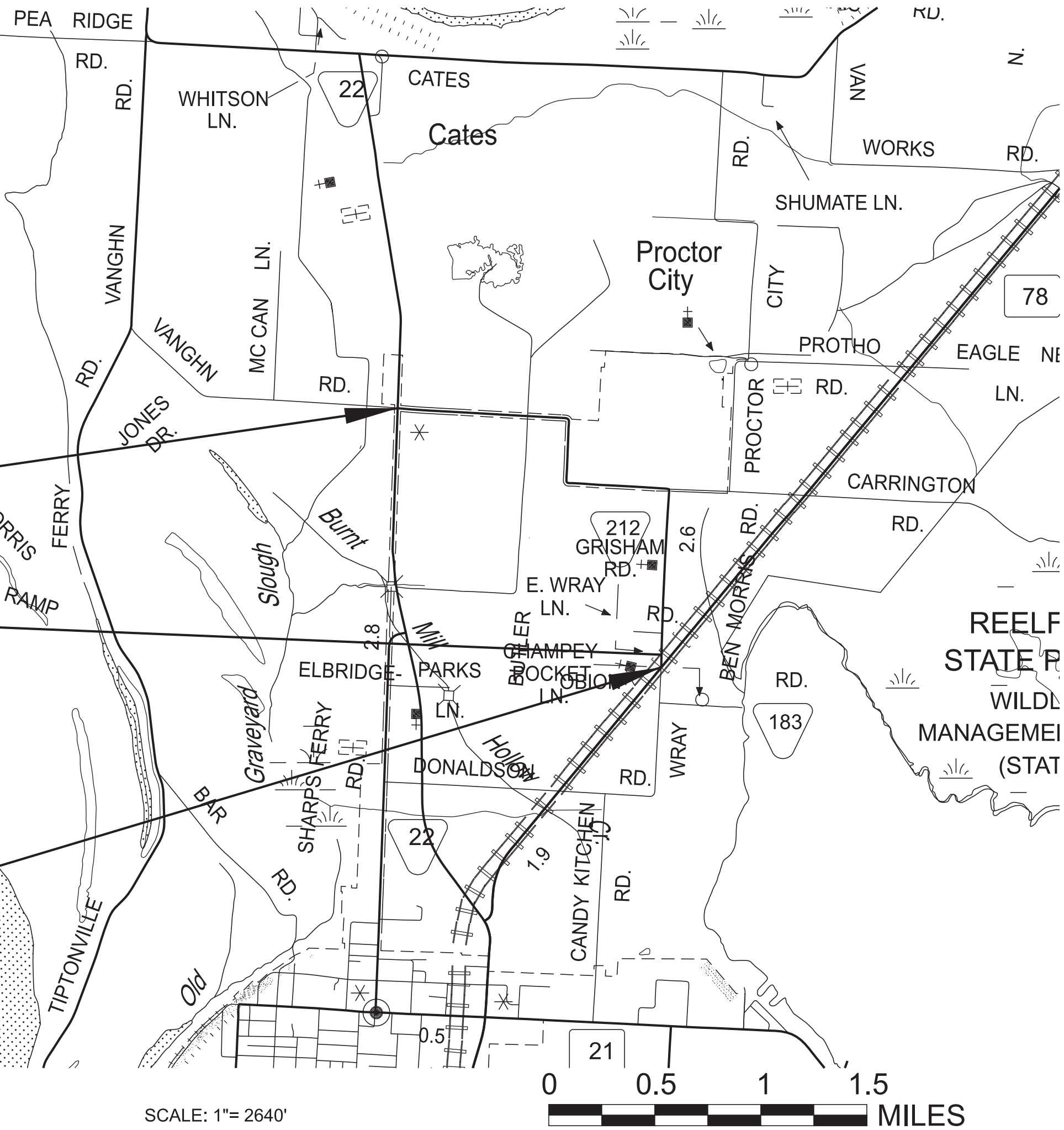
48S212-F3-003
48S212-F8-003
END PROJECT NO. STP/HSIP-212(10) RESURFACE & SAFETY
L.M. 2.43 (SR-78)

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES
CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW
THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF
THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2021 AND
ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS
AND IN THE PROPOSAL CONTRACT.

TDOT PROJECT MANAGER : LYNN EVANS, P.E., REG. 4
DESIGNED BY : HDR ENGINEERING, INC.
DESIGNER : ANTHONY L. WASHINGTON, III, P.E. CHECKED BY DAVID HORNE, P.E.
P.E. NO. 98043-4283-04
PIN NO. 131911.00

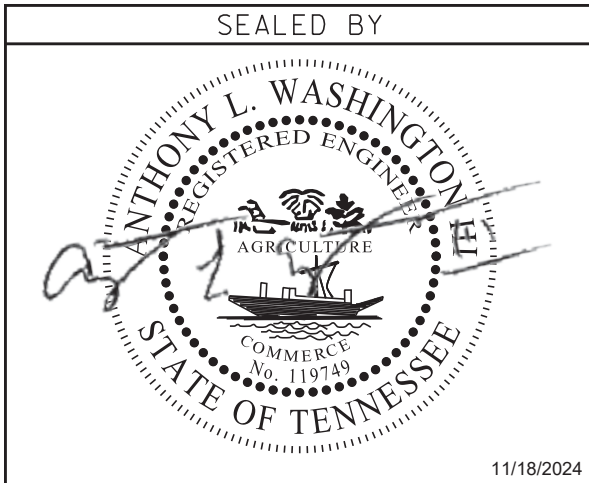


SCALE: 1"= 2640'

PROJECT LENGTH 2.43 MILES
TOTAL LANE MILES RESURFACED 4.86 MILES

TRAFFIC COUNTER & WEATHER STATIONS	
STATION LOCATION	LOG MILE
TC STATION 54	1.529

TRAFFIC DATA	
ADT (2025)	945
POSTED SPEED	45 MPH



APPROVED:
WILL REID, CHIEF ENGINEER

DATE:

APPROVED:
HOWARD H. ELEY, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

ROADWAY INDEX

SHEET NAME	SHEET NO.
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ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
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TABULATED QUANTITIES	2F
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NO PROJECT COMMITMENTS SHEETS INCLUDED IN THIS SET OF PLANS

NO UTILITY SHEETS INCLUDED IN THIS SET OF PLANS

STANDARD ROADWAY DRAWINGS

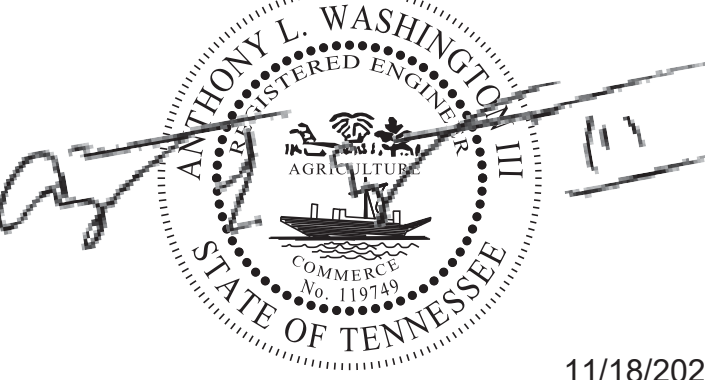
DWG.	REV.	DESCRIPTION
STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS		
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	02-20-20	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
DESIGN - TRAFFIC CONTROL		
T-M-1	06-28-19	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-4	07-17-20	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-16	07-30-24	RUMBLE STRIPE INSTALLATION LAYOUT
T-M-16A	02-03-20	RUMBLE STRIPE DETAILS FOR EDGE OF PAVEMENT AND CENTERLINE
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS

STANDARD TRAFFIC OPERATION DRAWINGS

DWG.	REV.	DESCRIPTION
SIGNS		
T-S-16	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-11-17	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	06-12-20	STANDARD STEEL SIGN SUPPORTS
RAILROAD CROSSING		
T-RR-1	11-01-11	TYPICAL PAVEMENT MARKING AT RAILROAD ACTIVE HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN
T-RR-6	10-25-13	TYPICAL SIGNING AND MARKING AT PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	1A

SEALED BY



11/18/2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX
AND
STANDARD
ROADWAY
DRAWINGS

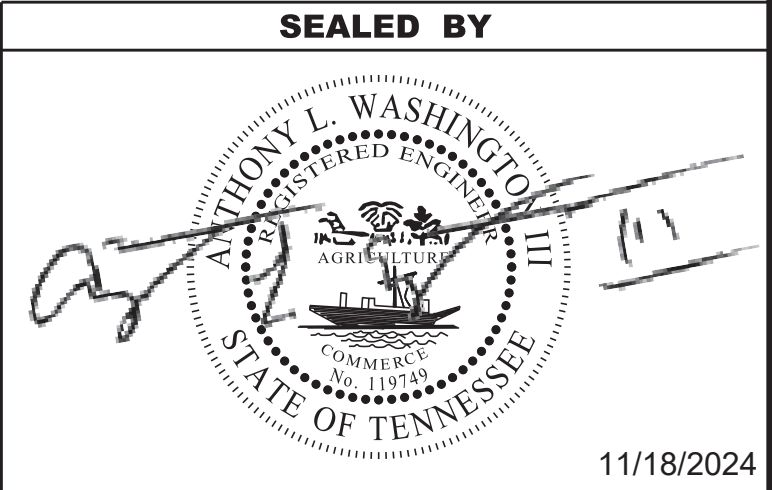
ESTIMATED ROADWAY QUANTITIES					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY 48S212-F8-003	QUANTITY 48S212-F3-003	TOTAL QUANTITY
(1)	202-03.01 REMOVAL OF ASPHALT PAVEMENT	S.Y.	556		556
	203-06 WATER	M.G.	5		5
(1)	208-01.05 BROOMING & DEGRASSING SHOULDERS	L.M.	4.9		4.9
(1)(2)(3)	303-02 MINERAL AGGREGATE, TYPE B BASE, GRADING (C OR D)	TON	896		896
(4)	307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	190		190
(4)	307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	63		63
(5)	403-02.01 TRACKLESS TACK COAT	TON	6		6
(2)(6)	411-01.10 ACS MIX(PG64-22) GRADING D	TON	2102		2102
(7)	411-01.21 LONGITUDINAL JOINT SEALANT	L.M.	2.5		2.5
(8)	411-12.04 SCORING FOR RUMBLE STRIPE (NON-CONTINUOUS) (4IN WIDTH)	L.M.	3.9		3.9
(2)(9)	414-04.03 ASPHALT EMULSION (SCRUB SEAL)	TON	34		34
(2)(9)	414-04.04 MINERAL AGGREGATE (SCRUB SEAL)	TON	284		284
(10)	415-01.01 COLD PLANING BITUMINOUS PAVEMENT	TON	8		8
(11)	712-01 TRAFFIC CONTROL	LS	1		1
(12)	712-06 SIGNS (CONSTRUCTION)	S.F.	604		604
(13)	713-02.21 SIGN POST DELINEATION ENHANCEMENT	L.F.		42	42
(14)	713-15.36 REMOVE SIGN, SUPPORT & FOOTING	EACH		7	7
(15)	713-16.21 SIGNS (CROSSBUCK SIGN, R15-1)	EACH		4	4
(15)	713-16.22 SIGNS (YIELD SIGN, R1-2)	EACH		2	2
(15)	713-16.23 SIGNS (GRADE CROSSING ADVANCE WARNING SIGN, W10-1)	EACH		1	1
(15)	713-16.24 SIGNS (GRADE CROSSING ADVANCE WARNING SIGN, W10-2)	EACH		3	3
(15)	713-16.25 SIGNS (STOP SIGN, R1-1)	EACH		1	1
	716-01.21 SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH		128	128
(16)(17)(18)	716-02.05 PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	54	33	87
(16)(17)(19)	716-03.02 PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	3		9.9
(20)	716-05.20 PAINTED PAVEMENT MARKING (6" LINE)	L.M.	7.3		7.3
	716-08.20 REMOVAL OF PAVEMENT MARKING (LINE)	L.M.	7.3		7.3
(16)	716-12.02 ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.		7.3	7.3
	717-01 MOBILIZATION	LS	1		1

THERE IS NO GUARDRAIL WORK ON THIS PROJECT

FOOTNOTES

- (1) TO BE USED AS DIRECTED BY THE ENGINEER.
- (2) INCLUDES AND EXCLUSION AREA LOCATED APPROXIMATELY 10 FEET IN ADVANCE OF THE NEAREST RAIL AT RAILROAD CROSSING APPROACH.
- (3) INCLUDES 2 TONS FOR DRIVEWAYS, CITY STREETS, AND BUSINESS ENTRANCES. INCLUDES 251 TONS FOR BREAKOUTS.
- (4) FOR REPLACEMENT OF QUANTITY REMOVED UNDER ITEM 202-03.01
- (5) THE FINAL SCRUB SEAL SURFACE SHALL BE SWEEPED IMMEDIATELY BEFORE APPLYING TACK COAT. THIS SWEEPING IS IN ADDITION TO THE SWEEPING REQUIRED UNDER SPECIAL PROVISION 405SS.
- (6) INCLUDES 150 TONS FOR SPOT LEVELING. INCLUDES 233 TONS FOR DRIVEWAYS, CITY STREETS, AND BUSINESS ENTRANCES.
- (7) TO BE USED FOR SEALING OF ALL SURFACE LAYER CONSTRUCTION JOINTS ALONG THE TRAVEL LANES AND SHOULDERS AS DIRECTED BY THE ENGINEER. USE CRAFTCO PAVEMENT JOINT ADHESIVE #34524. PAVON JOINT ADHESIVE BY PAVON CORPORATION OR DENSO TAYPE BY DENSO.
- (8) GRIND AT A DEPTH OF 3/8" +/- 1/16". LONGITUDINAL SPACING MAY BE AFFECTED BY SHALLOWER GRINDS. RUMBLE GRINDING SHOULD NOT PENETRATE COMPLETELY THROUGH THE NEWLY PAVED LAYER OR CAUSE PREMATURE DAMAGE.
- (9) BEFORE PLACING SCRUB SEAL THE CONTRACTOR IS REQUIRED TO REMOVE ANY EXISTING THERMOPLASTIC PAVEMENT MARKINGS THAT ARE TO BE COVERED BY SCRUB SEAL, INCLUDING ALL LANE LINES AND SPECIALTY MARKINGS. THE CONTRACTOR SHALL ONLY REMOVE PAVEMENT MARKINGS THAT ARE TO BE COVERED DURING THE DAY'S CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS TO TAKE EXTRA CARE TO ENSURE THAT THE EXISTING ASPHALT SURFACE IS NOT DAMAGED DURING THERMOPLASTIC REMOVAL. THE ROADWAY MUST BE FREE OF EXCESS DUST OR DEBRIS AS A RESULT OF THERMOPLASTIC REMOVAL BEFORE SCRUB SEAL IS TO BE PLACED.
- (10) TAPER MILL FOR APPROXIMATELY 100 FEET AT PROJECT LIMITS, RAILROAD CROSSING APPROACHES AND SIDE ROADS.
- (11) THE CONTRACTOR SHALL COMPLY WITH SECTION 712 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION REGARDING TEMPORARY TRAFFIC CONTROL AND THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (12) SEE TRAFFIC CONTROL SIGN TABULATION (RESURFACING) ON SHEET 2F.
- (13) INCLUDES 18 L.F. OF YELLOW SHEETING, 12 L.F. OF RED SHEETING, AND 12 L.F. OF WHITE SHEETING.
- (14) SEE SHEETS 4 & 4A FOR REMOVAL LOCATIONS. THIS ITEM WILL INCLUDE RE-INSTALLING 2 ENS (I-15) SIGNS ON THE NEW POSTS.
- (15) SEE RAILROAD RECOMMENDATION SHEET 4, AND FIGURE 1 SHEET 4A, FOR SPECIFIC SIGN RELOCATIONS. INCLUDES THE SIGN, SUPPORT, FOOTING AND ANY ADDITIONAL MATERIALS REQUIRED FOR SIGN INSTALLATION COMPLETE IN PLACE.
- (16) ITEM TO BE USED FOR FINAL PAVEMENT MARKING ONLY
- (17) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- (18) ALL STOP BARS ON SIDE STREETS WILL BE RETRACED AS DIRECTED BY THE ENGINEER. INCLUDES STOP LINES AT RAILROAD APPROACHES.
- (19) INCLUDES 2 EACH FOR FUTURE CROSSING TO BE LOCATED AT L.M. 0.56
- (20) ITEM TO BE USED FOR TEMPORARY PAVEMENT MARKING ONLY.

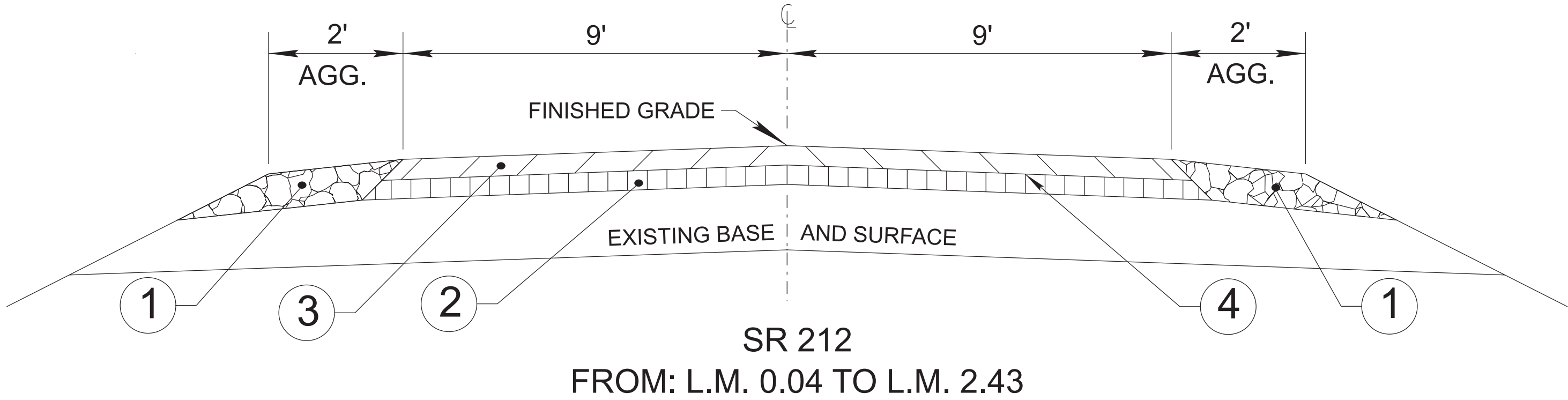
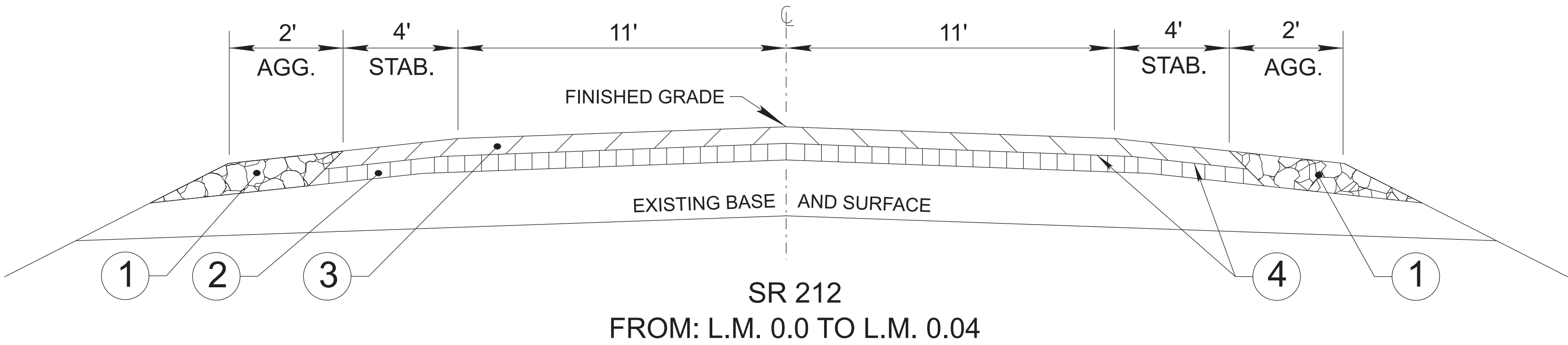
TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	2



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	2B

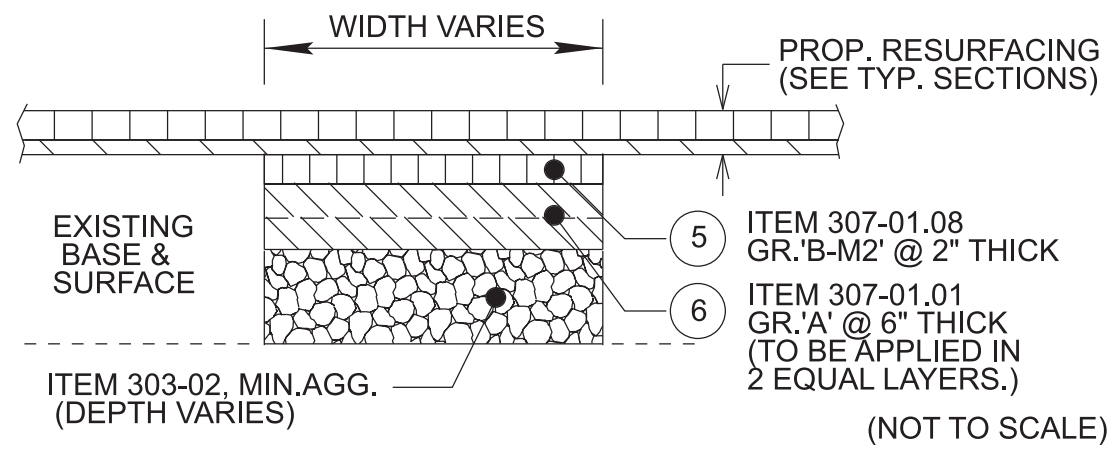


PROPOSED PAVEMENT SCHEDULE

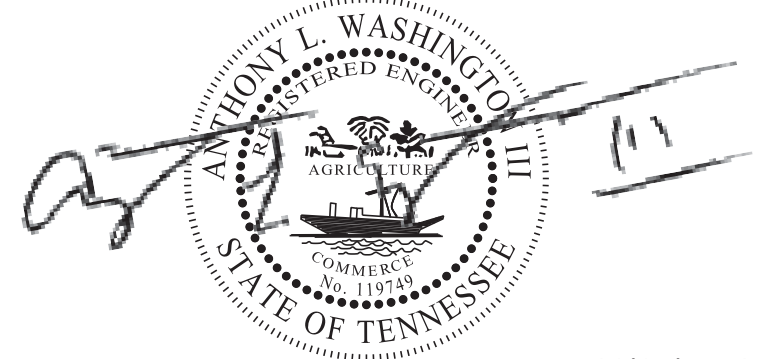
① MINERAL AGGREGATE BASE @ 2.0"± THICK FOR SHOULDERS ITEM 303-02 MINERAL AGGREGATE, TYPE "B" BASE, GRADING "C OR D"	④ TACK COAT (TC) ITEM 403-02.01 TRACKLESS TACK COAT (TC) SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.
② SCRUB SEAL ITEM 414-04.03 ASPHALT EMULSION (SCRUB SEAL) ASPHALT EMULSION (AT 0.25 - 0.35 GAL./S.Y.) ITEM 414-04.04 MINERAL AGGREGATE (SCRUB SEAL) MINERAL AGGREGATE (AT 18 - 25 LBS./S.Y.)	⑤ BITUMINOUS BASE COURSE (BINDER) @ 2.00"± THICK (APPROX. 226.00 LBS./S.Y.) ITEM 307-01.08 ASPHALT CONCRETE MIX (PG64-22)(BPMB-HM) GRADING "B-M2" (THIS ITEM IS TO BE USED FOR BREAKOUT ONLY)
③ ASPHALTIC CONCRETE SURFACE (ACS) @ 1.25"± THICK (APPROX. 132.50 LBS./S.Y.) ITEM 411-01.10 ACS MIX (PG64-22) GRADING "D"	⑥ BITUMINOUS BASE COURSE (BLACK BASE) @ 6.00"± THICK (APPROX. 690.00 LBS./S.Y.) ITEM 307-01.01 ASPHALT CONCRETE MIX (PG64-22)(BPMB-HM) GRADING "A" (THIS ITEM IS TO BE USED FOR BREAKOUT ONLY)

THERE ARE NO BRIDGES ON THIS PROJECT

DETAIL OF BREAKOUT



SEALED BY



11/18/2024

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS AND
PAVEMENT
SCHEDULE

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- (3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WITHOUT APPROVAL BY FEMA. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

MISCELLANEOUS

- (2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES AND POSTS WHERE AND AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR OTHER CONSTRUCTION ITEMS.
- (3) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS

- (2) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT MARKING (6" LINE), L.M.

FINAL PAVEMENT MARKING

- (6) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

a. SHOULDERS SHALL BE BROOMED AND DE-GRASSED AND MATERIAL SHALL BE PICKED UP AND REMOVED. THIS WILL BE PAID FOR UNDER ITEM NO. 208-01.05.

b. REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (9) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

PAVEMENT

PAVING

- (1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.

RESURFACING

- (4) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (5) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.

- (6) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.
- (9) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

SIGNING

- (12) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.


CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (5) USE OF BARRICADES, PORTABLE BARRIER RAILS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (6) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

- (9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

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STATE OF TENNESSEE
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GENERAL
NOTES

SPECIAL NOTES

RESURFACING

- (1) SURFACE IS TO BE CROWNED AS DIRECTED BY THE ENGINEER.

PAVEMENT MARKING

- (1) UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PAINTED MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-05.20.
- (2) UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PLASTIC MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-12.02.

SIGNS

- (1) IF THE CONTRACTOR ELECTS TO UTILIZE SIGN POST ANCHORS (STUBS) FOR SIGN ERECTION, THESE SHALL BE REMOVED WHEN THE SIGNS ARE REMOVED TO AVOID FUTURE DAMAGE TO MOWERS OR OTHER MACHINERY.

MISCELLANEOUS

- (1) ITEM 303-02 TO BE PLACED BEFORE PLACING SURFACING MATERIAL.
- (4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY SIGNS AND MAILBOXES DURING THE OPERATION. ANY SIGNS OR MAILBOXES DAMAGED AS A RESULT OF THE OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

SCRUB SEAL

- (1) BEFORE PLACING SCRUB SEAL, ITEM NOS. 414-04.03 AND 414-04.04, THE CONTRACTOR IS REQUIRED TO REMOVE ANY EXISTING THERMOPLASTIC PAVEMENT MARKINGS THAT ARE TO BE COVERED BY SCRUB SEAL, INCLUDING ALL LANE LINES AND SPECIALTY MARKINGS. THE CONTRACTOR SHALL ONLY REMOVE PAVEMENT MARKINGS THAT ARE TO BE COVERED DURING THE DAY'S CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS TO TAKE EXTRA CARE TO ENSURE THAT THE EXISTING ASPHALT SURFACE IS NOT DAMAGED DURING THERMOPLASTIC REMOVAL. THE ROADWAY MUST BE FREE OF EXCESS DUST OR DEBRIS AS A RESULT OF THERMOPLASTIC REMOVAL BEFORE SCRUB SEAL IS TO BE PLACED.

JOINT SEALANTS

- (1) THE CONTACT SURFACE OF TRANSVERSE JOINTS AND LONGITUDINAL JOINTS IN THE SURFACE LIFT SHALL BE SEALED BY APPLYING JOINT SEALANT PRIOR TO PLACEMENT OF ADDITIONAL ASPHALT AGAINST THE PREVIOUSLY PLACED MATERIAL MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED IF THE MATERIAL NEEDS TO BE RE-HEATED, AND WHEN PLACING THE THIN, UNIFORM COAT.
- (2) PRIOR TO APPLICATION OF THE SEALANT, THE FACE OF THE JOINT SHALL BE THOROUGHLY DRY AND FREE FROM DUST OR ANY OTHER MATERIAL THAT WOULD PREVENT PROPER SEALING. ALL JOINTS SHALL BE SWEEPED OR BLOWN FREE OF LOOSE MATERAIL, DIRT, BEGETATION, AND OTHER DEBRIS BY MEANS OF COMPRESSED AIR OR A POWER SWEEPER.
- (3) TRUCK AND VEHICLE TRAFFIC SHALL NOT DRIVE ACROSS A SEALED JOINT UNTIL IT HAS DRIED SUFFICIENT TO PREVENT DAMAGE FROM TRACKING.

RAILROAD NOTES

- (1) SURFACE WILL BE FEATHERED TO MATCH EXISTING GRADE AT RAILROAD CROSSING AS DIRECTED BY THE ENGINEER.
- (2) THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE TENNKEN RAILROAD COMPANY, INC. TRACK FACILITIES AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY TENNKEN RAILROAD COMPANY, INC. SO TO MAINTAIN CLEARANCE AND NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER.
- (3) THE CONTRACTOR SHALL NOT, FOR ANY REASON, STORE ANY OF HIS CONSTRUCTION EQUIPMENT OR DUMP WASTE MATERIALS ON THE RAILROAD'S RIGHT-OF-WAY.
- (4) THE CONTRACTOR IS PROHIBITED FROM INSTALLING ANY CONSTRUCTION SIGNS, MESSAGE BOARDS, ARROW BOARDS AND/OR OTHER TEMPORARY TRAFFIC CONTROL SIGNS OR DEVICES WITHIN THE RAILROAD'S RIGHT-OF-WAY. IN ALL CASES, THESE SIGNS AND DEVICES MUST NEVER BE PLACED IN A POSITION SO AS TO OBSTRUCT THE VIEW OF ANY ADVANCE WARNING DEVICES SUCH AS CROSSBUCK SIGNS, CROSSING SIGNALS, ETC.
- (5) THE CONTRACTOR SHALL NOTIFY AND COORDINATE HIS WORK AT THE RAILROAD CROSSING WITH THE FOLLOWING REPRESENTATIVE OF THE RAILROAD:

TENNKEN

MR. MICHAEL LONG, GENERAL MANAGER

TENNKEN RAILROAD

1200 EAST CHERRY STREET

DYERSBURG, TN 38024

PHONE: (731)-286-2530

AND

MR. SCOTT VICK, P.E. PROJECT DIRECTOR

CROUCH ENGINEERING, INC.

5115 MARYLAND WAY, SUITE 225

BRENTWOOD, TN 37027

PHONE: (615) 791-0630

EMAIL: SVICK@CROUCHENGINEERING.COM


TENNKEN

- (1) ALL WORK IN THE FRA RED ZONE (WITHIN 4 FEET FROM OUTSIDE OF THE RAIL ON EACH SIDE OF THE TRACK) WILL BE DONE ONLY WITH A TKRR FLAGMAN OR WATCHMAN AS SPECIFIED BY THE LOCAL ENGINEERING REPRESENTATIVE.
- (2) ALL WORK BEYOND 4 FEET FROM THE OUTSIDE RAILS AND WITHIN 25 FEET MUST BE DONE UNDER THE SUPERVISION OF A QUALIFIED TKRR FLAGMAN.
- (3) CERTAIN TYPES OF WORK DONE BEYOND 25 FEET FROM THE OUTSIDE OF THE RAILS, AND WITH EQUIPMENT THAT WILL NOT REACH BEYOND THIS POINT, MAY BE DONE WITHOUT FLAGGING PROTECTION OR A WATCHMAN. THIS MUST BE APPROVED BY THE LOCAL ENGINEERING REPRESENTATIVE, THE AREA MUST BE PROTECTED BY A CONSTRUCTION FENCE, AND THE WORK MUST BE STATIONARY.
- (4) ALL WORK MUST BE STOPPED WHILE TRAINS ARE PASSING WITHIN THE WORK ZONE.
- (5) ALL WORKERS WILL REMAIN OFF THE TRACKS. IF NECESSARY TO PERFORM THE WORK ON TRACK, PROTECTION WILL BE PROVIDED AS STATED ABOVE.
- (6) ALL WORKERS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THOSE OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE FEDERAL RAILROAD ADMINISTRATION (FRA).
- (7) AT LEAST FOURTEEN (30) DAYS ADVANCED NOTIFICATION MUST BE GIVEN TO THE RAILROAD REPRESENTATIVE, TO SCHEDULE A RAILROAD FLAGMAN.

- (8) THE CONTRACTOR MAY NOT USE TKRR RIGHT-OF-WAY, FOR STORAGE OF MATERIALS OR EQUIP0MENT, WITHOUT PRIOR WRITTEN APPROVAL FROM TKRR.
- (9) THE CONTRACTOR SHALL CONDUCT ITS WORK AT ALL TIMES, IN A MANNER WHICH WILL PROTECT TKRR'S PROPERTY AND TRACK FACILITIES FROM DAMAGE AND WITHOUT INTERRUPTION TO TRAIN OPERATIONS.
- (10) PRIOR TO THE INSTALLATION OF ANY SIGNAGE WITHIN TKRR'S RIGHT-OF-WAY, CONTRACTORS MUST CONTACT THE RAILROAD'S REPRESENTATIVE FOR LOCATION OF ALL UNDERGROUND SIGNAL UTILITIES.
- (11) THE CONTRACTOR SHALL REPLACE ALL RR ADVANCE WARNING SIGNS, RXR PAVEMENT MARKINGS AND STOP LINES AT APPROACHES TO GRADE CROSSINGS, IN ACCORDANCE WITH MUTCD GUIDELINES.
- (12) THE FINISHED ROADWAY SURFACE SHALL BE AT THE SAME ELEVATION AS THE RAILROAD CROSSING SURFACE, FOR A DISTANCE OF 30' ON EACH SIDE OF TRACK(S).
- (13) SURFACE WILL BE FEATHERED TO MATCH EXISTING GRADE AT RAILROAD CROSSING AS DIRECTED BY TKRR'S ENGINEER.
- (14) ANY VIOLATION OF ANY TKRR RULES, REGULATIONS OR POLICIES, MAY RESULT IN REMOVAL OF CONTRACTOR PERSONNEL FROM THE RIGHT-OF-WAY.
- (15) NO CRANE OR BOOM EQUIPMENT SHALL BE ALLOWED TO SET UP TO WORK OR PARK WITHIN BOOM DISTANCE PLUS 15 FEET OF THE CENTERLINE OF TRACK WITHOUT SPECIFIC PERMISSION FROM THE RAILROAD. NO CRANE OR BOOM EQUIPMENT SHALL BE ALLOWED TO FOUL TRACK, WORK WITHIN THE FOUL ZONE, OR LIFT A LOAD OVER THE TRACK WITHOUT FLAGGING PROTECTION AND PERMISSION FOR TRACK TIME FROM THE RAILROAD.
- (16) ALL WORKMEN AND MACHINE OPERATORS SHALL STAY WITH THEIR MACHINES WHEN CRANE OR BOOM EQUIPMENT IS POINTED TOWARD THE TRACK. ALL CRANES AND BOOM EQUIPMENT SHALL STOP WORK AND CLEAR TRACK WHILE TRAIN IS PASSING. SWINGING LOADS SHALL BE SECURED TO PREVENT MOVEMENT WHILE TRAIN IS PASSING AND NO LOADS SHALL BE SUSPENDED ABOVE A MOVING TRAIN. ALL CRANES AND BOOM EQUIPMENT SHALL BE TURNED AWAY FROM THE TRACK AFTER EACH WORKDAY OR WHENEVER UNATTENDED BY AN OPERATOR
- (17) "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE FIVE (5) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.
- (18) ALL SOILS EXCAVATED WITHIN TKRR'S RAILROAD RIGHT-OF-WAY SHALL REMAIN ON TKRR'S RIGHT-OF-WAY. TESTING OF SOILS ON TKRR ROW IS PROHIBITED WITHOUT PRIOR WRITTEN TKRR AUTHORIZATION. ANY SOILS EXCAVATED ON TKRR ROW CAN BE REUSED ON THE ROW PROVIDED PLACING SOILS ALONG TKRR ROW POSES NO ADVERSE IMPACTS TO THE EXISTING TERRAIN, DRAINAGE OR ENVIRONMENT. SHOULD SOIL NEED TO BE REMOVED FROM TKRR ROW, THE TKRR ENVIRONMENTAL DEPARTMENT WILL SAMPLE THE SOIL FOR DISPOSITION. SOIL STAGED ON TKRR MUST FOLLOW TKRR PROTOCOL AND BE PROPERLY STORED AND/OR PROTECTED FROM THE ELEMENTS AND POTENTIAL EXPOSURE.

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SPECIAL
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ENVIRONMENTAL NOTES

ENVIRONMENTAL GENERAL NOTES

NATURAL RESOURCES

- (4)

THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.
- (9)

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

- (11)

SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).
- (12)

IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPERVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

PERMITS, PLANS & RECORDS

- (15)

IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

ENVIRONMENTAL SPECIAL NOTES

ENVIRONMENTAL

- (1)

STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE SHALL BE INVITED TO ALL PRE-CONSTRUCTION MEETINGS.

ECOLOGY

- (2)

STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.
- (3)

STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED.
- (4)

ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

SCOPE OF WORK

- (6)

THIS PROJECT INCLUDES SCRUB SEALING, RESURFACING, PAVEMENT MARKINGS, TEMPORARY TRAFFIC CONTROL, AND BROOMING AND DEGRASSING SHOULDERS.

EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

DISTURBED AREA

- (1)

IF DISTURBED ACREAGE IS EQUAL TO ONE ACRE OR MORE, PLEASE CONTACT TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION AS SOON AS POSSIBLE BECAUSE AN NPDES PERMIT WILL BE REQUIRED.

SEDIMENT CONTROL

- (6)

EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (8)

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE NEGOTIATED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (29)

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (30)

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (31)

CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- (32)

WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.
- (33)

IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
- (34)

ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (35)

WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (36)

ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

- (37)

ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (38)


OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- (39)

DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (40)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

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ENVIRONMENTAL
NOTES

ENVIRONMENTAL NOTES (CONT.)

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

- (44)

ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (45)

FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- (46)

APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.
- (47)

ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- (48)

THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- (49)

IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- (50)

FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- (51)

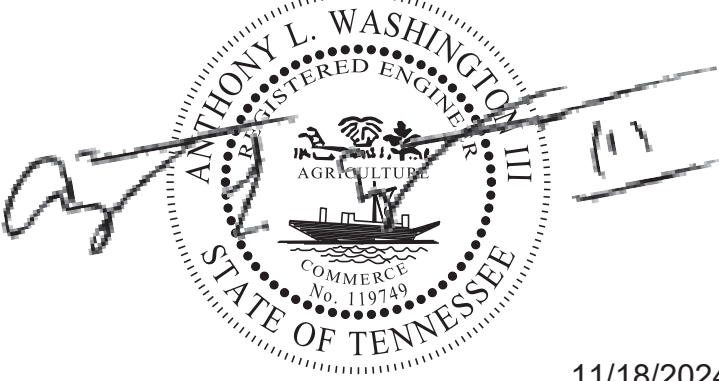
IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.
- (52)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR100000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.
- (53)

CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO STORING 1320 GALLONS ON SITE.

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	2E1

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11/18/2024


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL
NOTES

TRAFFIC CONTROL SIGN TABULATION (RESURFACING)						
M.U.T.C.D. SIGN NO.	LEGEND \ DESCRIPTION	SIZE IN INCHES L x W	S.F.	TOTAL NUMBER REQUIRED	ITEM NO. 712-06 S.F.	
G20-1	ROAD WORK NEXT 3 MILES	48" x 24"	8	3	24	
G20-2	END ROAD WORK	48" x 24"	8	2	16	
W8-11	UNEVEN LANES	48" x 48"	16	14	224	
W20-1	ROAD WORK 1 MILE	48" x 48"	16	2	32	
W20-1	ROAD WORK 1/2 MILE	48" x 48"	16	2	32	
W20-1	ROAD WORK 1000 FT	48" x 48"	16	2	32	
W20-1	ROAD WORK 500 FT	48" x 48"	16	2	32	
W20-1	ROAD WORK AHEAD	48" x 48"	16	5	80	
W20-4	ONE LANE ROAD 1000 FT - PORTABLE	48" x 48"	16	2	32	
W20-7A	FLAGGER SYMBOL - PORTABLE	48" x 48"	16	2	32	
W21-2	FRESH OIL - PORTABLE	48" x 48"	16	2	32	
W21-5	SHOULDER WORK	36" x 36"	9	4	36	
THIS CONSTRUCTION SIGNING IS TO BE AS A MINIMUM. OTHER SIGNS AS DIRECTED BY THE ENGINEER MAY BE REQUIRED DURING DIFFERENT PHASES.				TOTAL	604	

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	2F

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11/18/2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED
QUANTITIES

UTILITY NOTES

UTILITY

- (2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- (3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- (5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

UTILITY OWNERS

WATER:
CITY OF TIPTONVILLE
130 SOUTH COURT STREET
TIPTONVILLE, TN 38079
CONTACT: KENT ROBERSON
OFFICE PHONE: 731 442 1567
Email: KENT.ROBERSON@TIPTONVILLECITYHALL.COM


GAS:
LAKE COUNTY UTILITY DISTRICT
123 N. COURT STREET
TIPTONVILLE, TN 38079
CONTACT: JOEL BARGER
OFFICE PHONE: 731 253 6203
Email: JBARGER@LCUD.ATT.NET

COMMUNICATIONS:
AT&T
315 E. COLLEGE STREET
JACKSON, TN 38301
CONTACT: DANIEL R. POTTS
OFFICE PHONE: 901 488 2359
Email: DP7607@ATT.COM

ELECTRIC:
GIBSON ELECTRIC MEMBERSHIP CORP.
1207 S. COLLEGE STREET
TRENTON, TN 38382
CONTACT: MIKE DAVIS
OFFICE PHONE: 731 855 4740 EXT. 1315
Email: MDAVIS@GIBSONEMC.COM

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	3

SEALED BY



11/18/2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

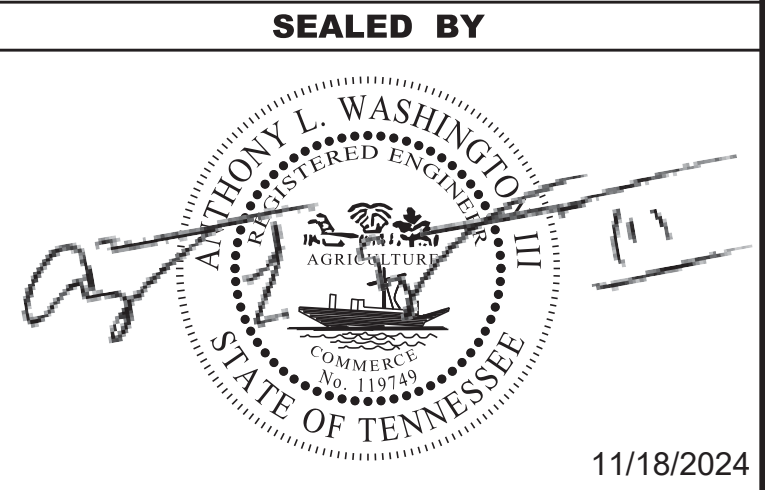
UTILITY NOTES
AND
UTILITY OWNERS

#298698H WRAY RD (SR212), LM 2.405, NEAR TIPTONVILLE
LAT 36.402684, LONG -89.452325

1. Install one (1) new RxR pavement marking on the southbound approach on Wray Rd (SR212) located approximately 400 feet in advance of the crossing and adjacent to the new advanced warning sign (W10-1) as specified by TDOT Standard Drawing T-RR-6 and in accordance with 11th Ed. MUTCD Section 8C.02 and Figures 8C-1 and 8C-2.
2. Remove the existing advance warning sign (W10-1) on the southbound approach on Wray Rd (SR212) located approximately 300 feet in advance of the crossing. Install one (1) new Highway-Rail Grade Crossing Advance Warning sign (W10-1) on the southbound approach on Wray Rd (SR212) located approximately 400 feet in advance of the crossing and adjacent to the new RxR pavement marking as specified by TDOT Standard Drawings T-RR-6 and T-S-16 and in accordance with 11th Ed. MUTCD Sections Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2C.04, and 8B.06; and Tables 2A-4, 2C-3, and 8B-1, and Figures 8B-4 and 8C-1. Install a 2-inch wide YELLOW retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.
3. Install new 24” wide Stop Lines on both approaches on Wray Rd (SR212) located adjacent to the new signposts but no closer than 15 feet from the nearest rail and perpendicular to the traveled way as specified by TDOT Standard Drawing T-RR-6 and in accordance with 11th Ed. MUTCD Sections 8C.02 and 8C.03 and Figure 8C-1.
4. Remove the existing crossbuck (R15-1) on the southbound approach on Wray Rd (SR212) at the crossing. Install one (1) new Crossbuck Assembly on the southbound approach to the crossing on Wray Rd (SR212). The new Crossbuck Assembly should be located no closer than 15 feet from the nearest rail and shall include a new square tube signpost, two (2) new Crossbuck signs (R15-1) installed back-to-back, one (1) new Yield sign (R1-2) and reinstall the existing Emergency Notification System sign (I-13) as specified by TDOT Standard Drawings T-RR-6 and T-S-16A and in accordance with 11th Ed. MUTCD Section 8B.03, 8B.04, and 8B.27; Table 8B-1; and Figures 8B-1, 8B-2, and 8B-3. Install a 2-inch wide RED retroreflective strip on the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway and a 2-inch wide WHITE retroreflective strip on the BACK of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Sections 2A.11, Section 8B.04 and Figure 8B-2.
5. Remove the existing crossbuck (R15-1) on the northbound approach on Wray Rd (SR212) at the crossing. Install one (1) new Crossbuck Assembly on the northbound approach to the crossing on Wray Rd (SR212). The new Crossbuck Assembly should be located no closer than 15 feet from the nearest rail and shall include a new square tube signpost, two (2) new Crossbuck signs (R15-1) installed back-to-back, one (1) new Yield sign (R1-2) and reinstall the existing Emergency Notification System sign (I-13) as specified by TDOT Standard Drawings T-RR-6 and T-S-16A and in accordance with 11th Ed. MUTCD Section 8B.03, 8B.04, and 8B.27; Table 8B-1; and Figures 8B-1, 8B-2, and 8B-3. Install a 2-inch wide RED retroreflective strip on the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway and a 2-inch wide WHITE retroreflective strip on the BACK of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Sections 2A.11, Section 8B.04 and Figure 8B-2.
6. Remove the existing STOP sign (R1-1) on the southbound approach on Wray Rd (SR212) at the intersection with State Route 78 (SR78). Install one (1) new STOP sign (R1-1) on the southbound approach on Wray Rd (SR212) at the intersection with State Route 78 (SR78) in accordance with 11th Ed. MUTCD Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2B.03, 2B.04, 2B.18; and Tables 2A-4 and 2B-1. Install a 2-inch wide RED retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.
7. Install a new Stop Line on the southbound approach on Wray Rd (SR212) at the intersection with State Route 78 (SR78) adjacent to the new STOP sign in accordance with 11th Ed. MUTCD Section 3B.19.

8. Remove the existing STOP sign (R1-1) on the northbound approach on Wray Loop (0A021) at the intersection with State Route 78 (SR78). Install one (1) new STOP sign (R1-1) on the northbound approach on Wray Loop (0A021) at the intersection with State Route 78 (SR78) in accordance with 11th Ed. MUTCD Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2B.03, 2B.04, 2B.18; and Tables 2A-4 and 2B-1. Install a 2-inch wide RED retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.
9. Refresh the existing Stop Line on the northbound approach on Wray Loop (0A021) at the intersection with State Route 78 (SR78) adjacent to the new STOP sign in accordance with 11th Ed. MUTCD Section 3B.19.
10. Remove the existing Highway-Rail Grade Crossing Advance Warning sign (W10-2) on the northbound approach on Wray Loop (0A021) located approximately 350 feet in advance of the intersection with State Route 78 (SR78). Install one (1) new Highway-Rail Grade Crossing Advance Warning sign (W10-2) on the northbound approach on Wray Loop (0A021) located approximately 400 feet in advance of the intersection with State Route 78 (SR78) as specified by TDOT Standard Drawing T-S-16 and in accordance with 11th Ed. MUTCD Sections Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2C.04, and 8B.06; and Tables 2A-4, 2C-3, and 8B-1, and Figures 8B-4 and 8C-1. Install a 2-inch wide YELLOW retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.
11. Remove the existing Highway-Rail Grade Crossing Advance Warning sign (W10-2) on the northeast bound approach on State Route 78 (SR78) located approximately 350 feet in advance of the intersection with Wray Rd (SR212). Install one (1) new Highway-Rail Grade Crossing Advance Warning sign (W10-2) on the northeast bound approach on State Route 78 (SR78) located approximately 500 feet in advance of the intersection with Wray Rd (SR212) as specified by TDOT Standard Drawing T-S-16 and in accordance with 11th Ed. MUTCD Sections Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2C.04, and 8B.06; and Tables 2A-4, 2C-3, and 8B-1, and Figures 8B-4 and 8C-1. Install a 2-inch wide YELLOW retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.
12. Remove the existing signpost (missing the Highway-Rail Grade Crossing Advance Warning sign (W10-2)) on the southwest bound approach on State Route 78 (SR78) located approximately 350 feet in advance of the intersection with Wray Rd (SR212). Install one (1) new Highway-Rail Grade Crossing Advance Warning sign (W10-2) on the southwest bound approach on State Route 78 (SR78) located approximately 500 feet in advance of the intersection with Wray Rd (SR212) as specified by TDOT Standard Drawing T-S-16 and in accordance with 11th Ed. MUTCD Sections Section 2A.13, 2A-15, 2A-16, 2A-17, 2A-18, 2A-21, 2C.04, and 8B.06; and Tables 2A-4, 2C-3, and 8B-1, and Figures 8B-4 and 8C-1. Install a 2-inch wide YELLOW retroreflective strip to the FRONT face of the signpost for the full length of the support from the sign to within 2 feet above the near edge of the roadway in accordance with 11th Ed. MUTCD Section 2A.11.

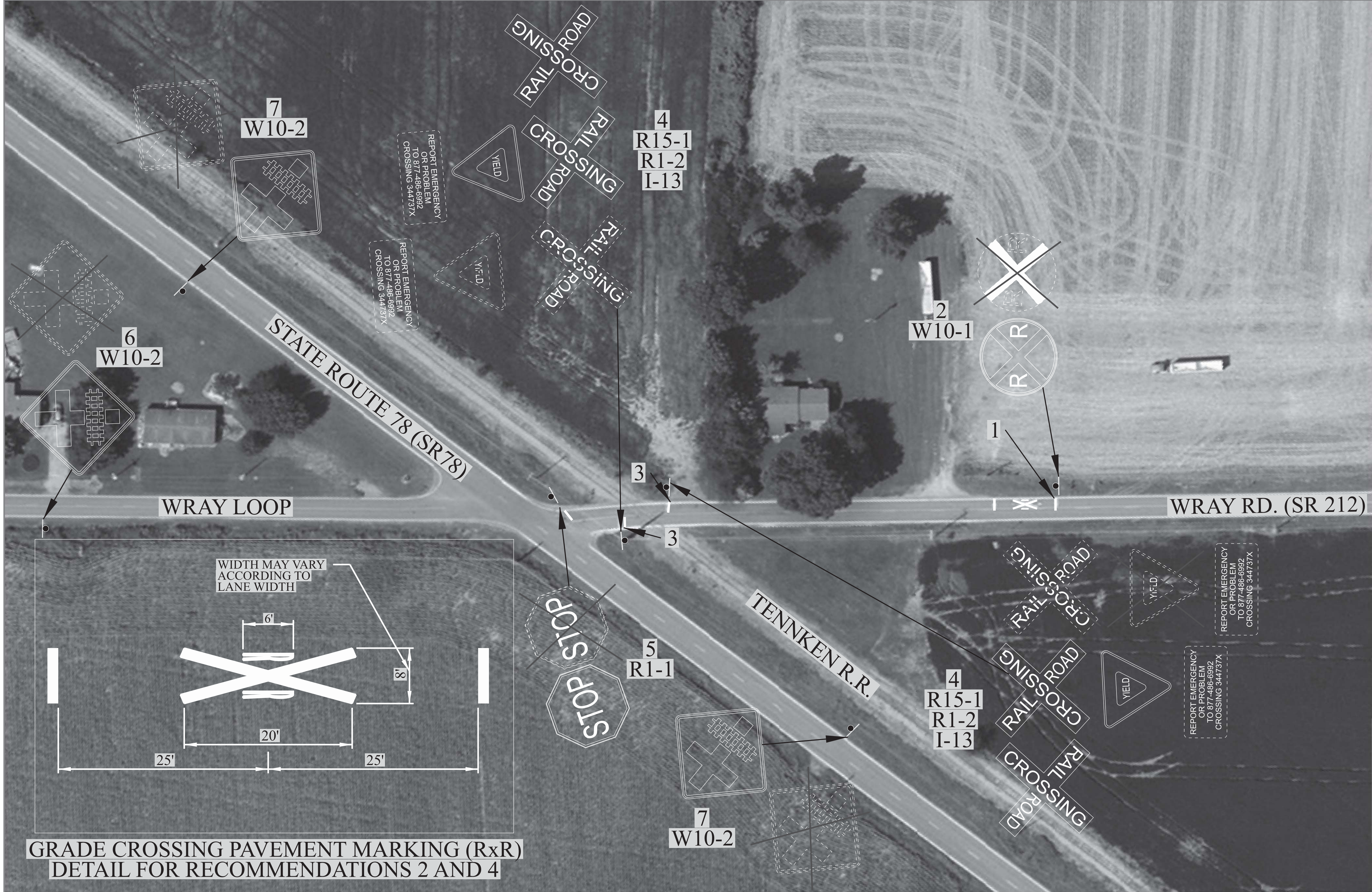
TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	4



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD
CROSSING
DETAILS
SHEET 1 OF 2

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	4A



GRADE CROSSING PAVEMENT MARKING (R x R)
DETAIL FOR RECOMMENDATIONS 2 AND 4



WRAY RD. (SR212)
L.M. 2.405, CROSSING 298698H
LAKE COUNTY



SEALED BY

THOMAS L. WASHINGTON
REGISTERED ENGINEER
No. 11974
STATE OF TENNESSEE

11/18/2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD
CROSSING
DETAIL
SHEET 2 OF 2

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1.

DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 1.75 INCHES:
- a.

WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
- b.

DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
- c.

DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
- d.

WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.
2.

DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 1.75 INCHES AND NOT EXCEEDING 6 INCHES, TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.
- a.

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
- (1)

WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
- (2)

WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
- b.

IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
- c.

WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE REGIONAL TRAFFIC ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3.

DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:
- a.

THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
- (1)

WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
- (2)

WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

- b.

THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.
- c.

THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.
- d.

THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4.

FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1.

IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.
- a.

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
2.

IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:
- a.

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
- (1)

WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
- (2)

WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
3.

IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:
- a.

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
- (1)

WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
- (2)

WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
- b.

ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

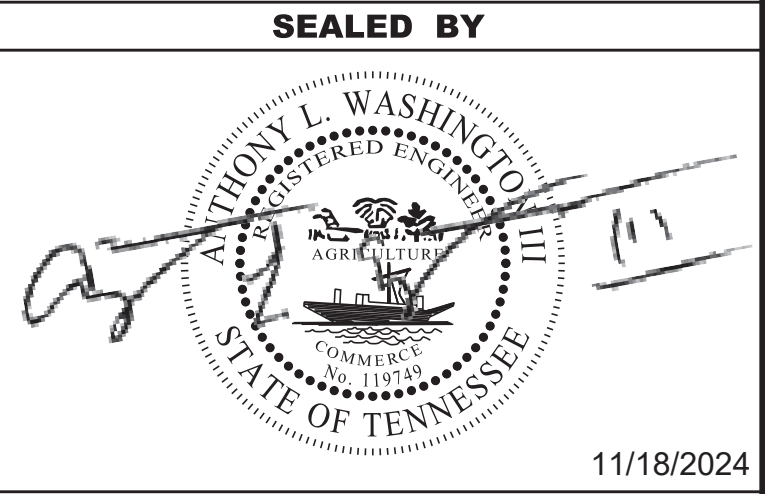
1.

WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
2.

WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2025	STP/HSIP-212(10)	5



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE
DROP-OFF NOTES
FOR
TRAFFIC CONTROL