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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. 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-SIGN3
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B
TABULATED QUANTITIES	2F

YEAR	PROJECT NO.	SHEET NO.
2024	NH/HSIP-3(171)	ROADWAY-SIGN 3

REV. 03-12-24: ADDED SHEET.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> SIGNATURE SHEET

ROADWAY INDEX

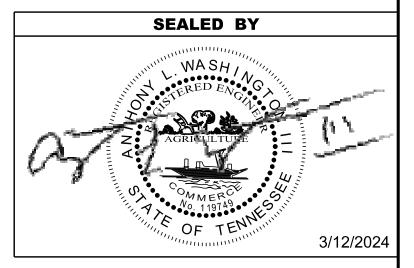
STANDARD ROADWAY DRAWINGS

SHEET NAME	SHEET NO.	DWG.	REV.	DESCRIPTION
SIGNATURE SHEETSIGNATURE SHEET	ROADWAY-SIGN2	STANDAF LEGENDS		VAY TITLE SHEET, ABBREVIATIONS, AND
SIGNATURE SHEET		RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS		RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
ESTIMATED ROADWAY QUANTITIES		RD-L-1	02-20-20	STANDARD LEGEND
TYPICAL SECTIONS AND PAVEMENT SCHEDULE		RD-L-1A		STANDARD LEGEND
GENERAL NOTES		SAFETY I	DESIGN AN	ND GUARDRAILS
SPECIAL NOTES		S-GRS-4	05-04-22	SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL
ENVIRONMENTAL NOTES		S-GRT-3	06-28-19	TYPE 21 GUARDRAIL END TERMINAL
TABULATED QUANTITIES	2F	DESIGN -	TRAFFIC	CONTROL
UTILITY NOTES AND UTILITY OWNERS	3	T-M-1	06-28-19	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT US		T-M-2	06-28-19	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
NUMBERING OF SHEETS. NO PROJECT COMMITMENTS SHEETS INCLUDED IN TH	HIS SET OF PLANS.	T-M-3	07-07-23	MARKING STANDARDS FOR TRAFFIC ISLANDS, PAVED SHOULDERS AND MEDIANS FOR CONVENTIONAL ROADS
NO UTILITY SHEETS.		T-M-4	07-17-20	STANDARD INTERSECTION PAVEMENT MARKINGS
		T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
		T-WZ-11	03-04-21	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
		T-WZ-FAB1		FLASHING YELLOW ARROW BOARD

TYPE	YEAR	PROJECT NO.	SHEET NO.	
RESURF	2024	NH/HSIP-3(171)	1A	

REV. 01-24-24: ADDED ROADWAY-SIGN2.

REV. 03-12-24: ADDED ROADWAY-SIGN3 TO INDEX



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX
AND
STANDARD
ROADWAY
DRAWINGS

		ESTIMATED ROADWAY QU	ANTITIE	S		
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 79S003-F8-003	QUANTITY 79S003-F3-003	TOTAL QUANTITY
(9)(16)	202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	13591		13591
, , ,	203-06	WATER	M.G.	134		134
(1)	208-01.05	BROOMING & DEGRASSING SHOULDERS	L.M.	12		12
, ,	303-02	MINERAL AGGREGATE, TYPE B BASE, GRADING (DESCRIPTION)	TON	1657		1657
(2)	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	2854		2854
(3)	403-02.01	TRACKLESS TACK COAT	TON	72		72
(4)(5)	411-01.21	LONGITUDINAL JOINT SEALANT	L.M.	33.6		33.6
(6)	411-02.10	ACS MIX(PG70-22) GRADING D	TON	14924		14924
(7)	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	14801		14801
(8)	611-03.04	GRAY IRON CASTINGS (CATCHBASIN)	LB.	17750		17750
(9)	705-02.10	GUARDRAIL TRANSITION 27IN TO 31IN	EACH		3	3
(9)	705-06.30	GR TERMINAL (ENERGY ABSORBING) MASH TL2	EACH		3	3
, ,	706-01	GUARDRAIL REMOVED	L.F.		75	75
	712-01	TRAFFIC CONTROL	LS	1		1
(10)	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	200		200
(9)	712-06	SIGNS (CONSTRUCTION)	S.F.	2560		2560
	712-08.03	ARROW BOARD (TYPE C)	EACH	2		2
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2		2
	716-01.13	RAISED PVMT MARKERS (BI-DIRECTIONAL) (2 COLOR LENS)	EACH	213		213
	716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	350		350
	716-01.22	SNOWPLOWABLE RAISED PAVMENT MARKERS (MONO-DIR)(1 COLOR)	EACH	551		551
(11)	716-01.30	REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	1114		1114
(12)(13)	716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.		486	486
(12)(13)	716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	286		286
(12)(13)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	579		579
(12)(13)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	26		26
(12)(13)	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	500		500
12)(13)(14)	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.		2178	2178
(12)(13)	716-02.12	PLASTIC PAVEMENT MARKING (8IN LINE)	L.M.	0.7		0.7
(12)(13)	716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	8		8
(12)(13)	716-03.06	PLASTIC WORD PAVEMENT MARKING (SIGNAL AHEAD)	EACH	20		20
(15)	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	28.2		28.2
(12)	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	28.2		28.2
	717-01	MOBILIZATION	LS	1		1
(1)	730-03.20	INSTALL PULL BOX (TYPE A)	EACH	1		1
(1)	730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	50		50
(1)	730-14.01	SHIELDED DETECTOR CABLE	L.F.	50		50
(9)	730-14.02	SAW SLOT	L.F.	750		750
(9)	730-14.03	LOOP WIRE	L.F.	1700		1700

THERE ARE NO UTILITY ADJUSTMENTS ON THIS PROJECT

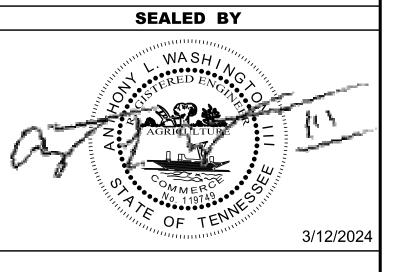
FOOTNOTES

- TO BE USED AS DIRECTED BY THE ENGINEER.
- (2) TO REPLACE MATERIAL REMOVED WITH ITEM 202-03.01
- (3) INCLUDES 6 TONS FOR TURN LANES, GORE AREAS, DRIVEWAYS, CITY STREETS, COUNTY ROADS, FIELD ENTRANCES, AND BUSINESS ENTRANCES.
- (4) USE CRAFCO PAVEMENT JOINT ADHESIVE #34524. PAVON JOINT ADHESIVE BY PAVON CORPORATION OR DENSO TAPE BY DENSO.
- (5) TO BE USED FOR SEALING OF ALL SURFACE LAYER CONSTRUCTION JOINTS ALONG THE TRAVEL LANES AND SHOULDERS AS DIRECTED BY THE ENGINEER.
- INCLUDES 496 TONS FOR TURN LANES, GORE AREAS, DRIVEWAYS, CITY STREETS, COUNTY ROADS, FIELD ENTRANCES, AND BUSINESS ENTRANCES. INCLUDES 100 TONS FOR SPOT LEVELING.
- INCLUDES 512 TONS FOR TURN LANES, GORE AREAS, DRIVEWAYS, CITY STREETS, COUNTY ROADS, FIELD ENTRANCES, AND BUSINESS ENTRANCES.
- COST TO INCLUDE REMOVAL OF EXISTING GRATE AND REPLACEMENT OF BICYCLE FRIENDLY GRATES ON ALL CATCH BASINS IN PROJECT LIMITS, INCLUDING MATERIAL, PARTS, LABOR, EQUIPMENT, MACHINERY, TOOLS, OR APPARATUS NECESSARY FOR REMOVAL AND INSTALLATION. THE CONTRACTOR SHALL VERIFY GRATE DIMENSIONS IN THE FIELD.
- (9) SEE TABULATED QUANTITIES, SHEET 2F.
- (10) TO BE USED FOR TRANSITION TAPERS.
- (11) FOR REMOVAL OF EXISTING PAVEMENT MARKERS.
- 2) FOR FINAL PAVEMENT MARKING ONLY.
- (13) 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.
- (14) TO BE USED AT SIGNALIZED INTERSECTIONS.
- (15) FOR USE AS TEMPORARY LINE MARKINGS.
 -) SEE ASPHALT REPAIR DETAIL ON SHEET 2B

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2024	NH/HSIP-3(171)	2

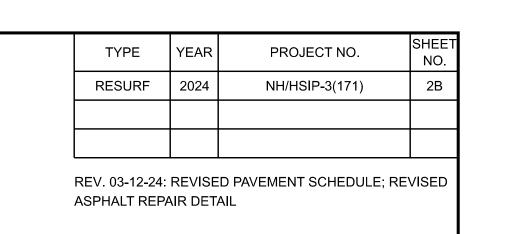
REV. 01-24-24: CHANGED PROJECT NUMBER FOR COLUMN TWO OF THE ESTIMATE.

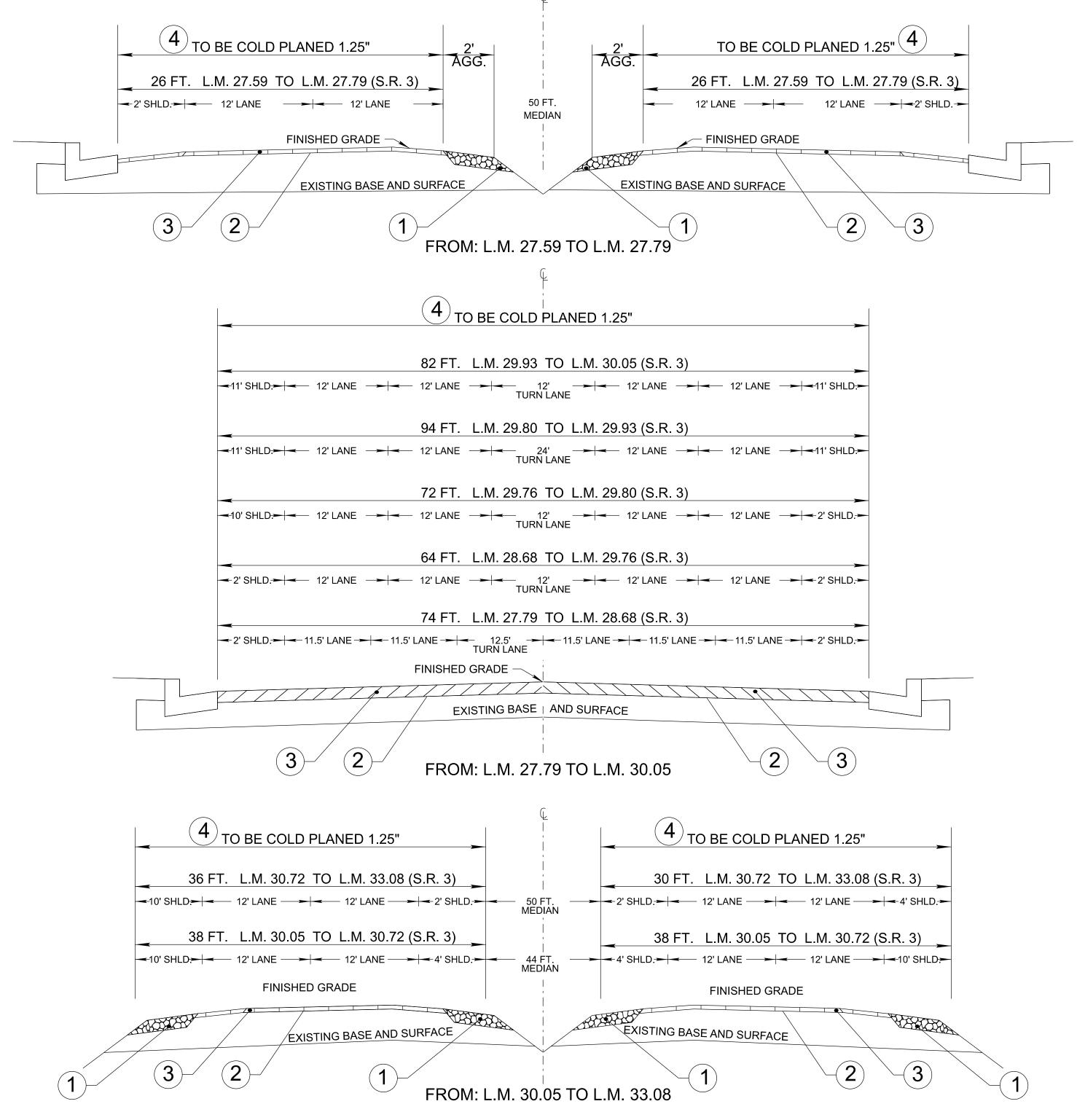
REV. 03-12-24: ADDED ITEMS 202-03.01, 730-03.20, 730-12.01, 730-14.01, 730-14.02 & 730-14.03; REVISED QUANTITY FOR ITEMS 307-02.08 & 415-01.01; REVISED FOOTNOTES 2 & 7; ADDED FOOTNOTE 16; ADDED FOOTNOTE 9 TO ITEMS 202-03.01, 730-14.02 & 730-14.03; ADDED FOOTNOTE 1 TO ITEMS 730-03.20, 730-12.01 & 730-14.01



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES





PROPOSED PAVEMENT SCHEDULE							
1 MINERAL AGGREGATE BASE @ 2.00"± THICK FOR SHOULDERS ITEM 303-02 MINERAL AGGREGATE, TYPE "B" BASE, GRADING "C OR D"	4 COLD PLANING @ 1.25"± THICK (APPROX. 131.25 LBS./S.Y.) ITEM 415-01.01 COLD PLANING BITUMINOUS PAVEMENT						
2 BITUMINOUS MATERIAL FOR TRACKLESS TACK COAT 403-02.01 TRACKLESS TACK COAT SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.	FEMOVAL OF ASPHALT PAVEMENT @ 4.00"± THICK (S.Y.) ITEM 202-03.01 REMOVAL OF ASPHALT PAVEMENT (WHERE AND AS DIRECTED BY THE ENGINEER)						
3 ASPHALTIC CONCRETE SURFACE (ACS) @ 1.25"± THICK (APPROX. 132.50 LBS./S.Y.) ITEM 411-02.10 ACS MIX (PG70-22) GRADING "D"	BITUMINOUS BASE COURSE (BINDER) @ 4.00"± THICK (APPROX. 452.0 LBS./S.Y.) ITEM 307-02.08 ASPHALT CONCRETE MIX (PG70-22)(BPMB-HM) GRADING "B-M2"						

ASPHALT REPAIR DETAIL

EXISTING BASE

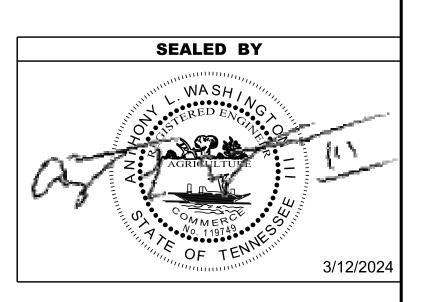
** TO BE USED AS DIRECTED BY THE TDOT ENGINEER SEE SHEET 2F FOR APPROXIMATE LOCATIONS

PROP. RESURFACING (SEE TYP. SECTIONS)

ITEM 202-03.01 REMOVAL @ 4" THICK

ITEM 307-02.08 GR.'BM-2' @ 4" THICK

BRIDGE RECOMMENDATIONS							
LOCATION	BRIDGE NO.	LENGTH (FT.)	TREATMENT				
L.M. 30.31	79SR0030045	44.70	PAVE WITH PLANS MIX/TREATMENT TYPE				
L.M. 30.52	79SR0030051	21.70	PAVE WITH PLANS MIX/TREATMENT TYPE				



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS AND
PAVEMENT
SCHEDULE
(NOT TO SCALE)

TRAFFIC CONTROL SIGN TABULATION (RESURFACING)								
M.U.T.C.D.		,	SIZE			TOTAL	ITEM NO.	
SIGN	LEGEND \ DESCRIPTION	IN I	NCH	IES	S.F.	NUMBER	712-06	
NO.		L	X	W		REQUIRED	S.F.	
G20-1	ROAD WORK NEXT 6 MILES	48"	Х	24"	8	4	32	
G20-2	END ROAD WORK	48"	X	24"	8	28	224	
W4-2L	LEFT LANE ENDS	48"	Х	48"	16	2	32	
W4-2R	RIGHT LANE ENDS	48"	Х	48"	16	2	32	
W8-11	UNEVEN LANES	48"	Х	48"	16	48	768	
W8-15	GROOVED PAVEMENT	48"	Х	48"	16	20	320	
W8-15P	MOTORCYCLE PLAQUE	48"	Х	48"	16	20	320	
W20-1	ROAD WORK 1 MILE	48"	Х	48"	16	4	64	
W20-1	ROAD WORK 1/2 MILE	48"	Х	48"	16	4	64	
W20-1	ROAD WORK 1000 FEET	48"	Х	48"	16	4	64	
W20-1	ROAD WORK AHEAD	48"	Х	48"	16	24	384	
W20-5L	LEFT LANE CLOSED 1/2 MILE	48"	Х	48"	16	2	32	
W20-5L	LEFT LANE CLOSED 1500 FT	48"	Х	48"	16	2	32	
W20-5R	RIGHT LANE CLOSED 1/2 MILE	48"	Х	48"	16	2	32	
W20-5R	RIGHT LANE CLOSED 1500 FT	48"	Х	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	48"	Х	48"	16	4	64	
	RUCTION SIGNING IS TO BE A MINIMUM. OTHI IEER MAY BE REQUIRED DURING DIFFERENT	RECTED	TOTAL	2560				

	PROPOSED GUARDRAIL (RESURFACING)								
SIDE			GUARDRAIL TRANSITION	TERMINAL TYPE 21	GUARDRAIL REMOVED				
N	ΙB	S	В	LOG MILE	27IN TO 31 IN	MASH TL2			
LT	RT	LT	RT	FROM	705-02.10 (EACH)	705-06.30 (EACH)	706-01 (L.F.)		
			Х	27.59	1	1	25		
	Х			30.48	1	1	25		
			X	30.57	1	1	25		
TOTALS			L S	3	3	75			

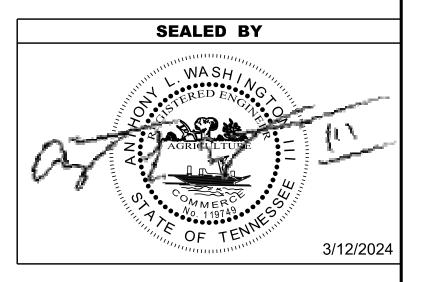
LOCATION	BEGIN L.M.	END L.M.	DISTANCE (L.F.)	LANE WIDTH (L.F.)	AREA OF REMOVA (S.Y.)
NB SR 3	27.68	27.75	369.60	24	985.60
NB SR 3	28.51	28.57	316.80	24	844.80
NB SR 3	28.88	28.90	105.60	24	281.60
NB SR 3	29.77		50.00	24	133.33
NB SR 3	30.26	30.29	158.40	24	422.40
NB SR 3	30.68		50.00	24	133.33
NB SR 3	31.05	31.07	105.60	24	281.60
NB SR 3	31.21	31.28	369.60	24	985.60
00.00.0	07.00	07.07	044.00	0.4	500.00
SB SR 3	27.63	27.67	211.20	24	563.20
SB SR 3	27.97		50.00	24	133.33
SB SR 3	28.20	28.24	211.20	24	563.20
SB SR 3	28.28	28.30	105.60	24	281.60
SB SR 3	28.52		50.00	24	133.33
SB SR 3	28.94		50.00	24	133.33
SB SR 3	29.12		50.00	24	133.33
SB SR 3	29.30	29.32	105.60	24	281.60
SB SR 3	29.40	29.45	264.00	24	704.00
SB SR 3	29.51	29.56	264.00	24	704.00
SB SR 3	29.98		50.00	24	133.33
SB SR 3	30.26	30.43	897.60	24	2393.60
SB SR 3	31.11		50.00	24	133.33
SB SR 3	31.84	31.94	528.00	24	1408.00
SB SR 3	32.08		50.00	24	133.33
SB SR 3	32.47	32.51	211.20	24	563.20
SB SR 3	32.87	32.90	158.40	24	422.40
SB SR 3	33.00	33.05	264.00	24	704.00
	LOCATIONS A	RE ESTIMATEI ' INCREASE OI		TOTAL	13590.40

SIGNAL QUANTITIES							
Intersection	Saw Slot (LF) 730-14.02	Loop Wire (LF) 730-14.03					
SR 3 (@ Babe Howard)	150	340					
SR 3 (@ Shelby/Easley)	150	340					
SR 3 (@ Cuba Millington)	150	340					
SR 3 (@ Wilkinsville)	150	340					
SR 3 (@ Veterans Parkway)	150	340					
Totals	750	1700					

TYPE YEAR PROJECT NO. SHEET NO.

RESURF 2024 NH/HSIP-3(171) 2F

REV. 03-12-24: ADDED SIGNAL QUANTITIES TABULATION AND REMOVAL OF ASPHALT PAVEMENT TABULATION



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES