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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-SIGN3
ROADWAY INDEX, STANDARD ROADWAY DRAWINGS AND	
STANDARD TRAFFIC DESIGN DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TABULATED QUANTITIES	2F

YEAR	PROJECT NO.	SHEET NO.
2025	NH-I-240-1(298)	ROADWAY-SIGN3

REV. 10-01-25: ADDED SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

ROADWAY INDEX

ESTIMATED ROADWAY QUANTITIES...

UTILITY NOTES AND UTILITY OWNERS...

NUMBERING OF SHEETS.

ROADWAY INDEX, STANDARD ROADWAY DRAWINGS AND

TABULATED QUANTITIES2F

PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL...... 4

NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN THE

NO UTILITY SHEETS INCLUDED IN THIS SET OF PLANS.

NO PROJECT COMMITMENTS SHEETS INCLUDED IN THIS SET OF PLANS.

SPECIAL NOTES.....

ENVIRONMENTAL NOTES......2E, 2E1

SHEET NAME

TITLE SHEET

DESCRIPTION

SHEET NO.

DWG.

RP-J-25

REV.

05-01-20

STANDARD ROADWAY DRAWINGS

SIGNATURE SHEETS......ROADWAY-SIGN1 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND **LEGENDS** SIGNATURE SHEETS......ROADWAY-SIGN2 RD-A-1 STANDARD ABBREVIATIONS A THROUGH L SIGNATURE SHEETS......ROADWAY-SIGN3 02-20-20 RD-A-2 STANDARD ABBREVIATIONS M THROUGH Z RD-L-1 STANDARD LEGEND RD-L-1A STANDARD LEGEND ROADWAY, PAVEMENT APPURTENANCES, AND FENCES PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES RP-J-1 05-01-20 AND SPACING RP-J-5 TYPICAL ACCELERATION AND DECELERATION LANE 05-01-20 JOINT TYPES AND SPACING FOR CONCRETE RAMPS RP-J-7 CONCRETE RAMP JOINT TYPES AND SPACING 05-01-20 RP-J-9 CONTRACTION AND CONSTRUCTION JOINTS FOR 05-01-20 CONCRETE PAVEMENT RP-J-15 LONGITUDINAL CONTRACTION AND CONSTRUCTION 05-01-20 JOINTS CONCRETE PAVEMENT REPAIR DETAILS RP-J-23 01-28-22

CONCRETE PAVEMENT JOINT REPAIR DETAILS

STANDARD TRAFFIC DESIGN DRAWINGS

REV. **DESCRIPTION** DWG.

SIGNALS

T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	07-11-17	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS

DAVEMENT MADKINGS

PAVEMEN	I MARKING	GS
T-M-5	01-24-25	MARKING DETAIL FOR FREEWAYS
T-M-6	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAY INTERCHANGES
T-M-7	01-24-25	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-24-25	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9A	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-9B	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-15	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES

WORK ZONES

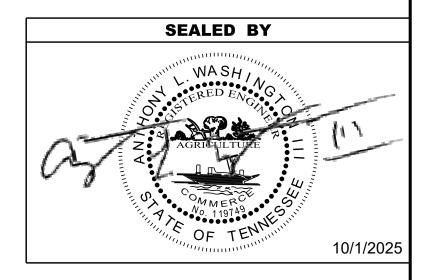
03-26-25	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
03-26-25	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
03-26-25	TWO-OUTSIDE LANE CLOSURE FOR EXPRESSWAY AND FREEWAYS
03-26-25	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
03-26-25	FREEWAY RESURFACING SIGNING LAYOUT
03-26-25	WORK ZONE IN THE VICINITY OF AN ENTRANCE RAMP
03-26-25	WORK ZONE IN THE VICINITY OF AN EXIT
	03-26-25 03-26-25 03-26-25 03-26-25

FLASHING YELLOW ARROW BOARD

SHEE NO. YEAR PROJECT NO. RESURF 2025 NH-I-240-1(298)

REV. 09-04-25: ADDED ROADWAY-SIGN 2 TO INDEX.

REV. 10-01-25: ADDED ROADWAY-SIGN 3 TO INDEX. ADDED ROADWAY, PAVEMENT APPURTENANCES, AND FENCES SECTION TO STANDARD ROADWAY DRAWINGS



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX, STANDARD ROADWAY **DRAWINGS AND** STANDARD TRAFFIC **DESIGN DRAWINGS**

ITEM NO.	DESCRIPTION	UNIT	QUANTITY 791240-F8-00	
202-03.01	Removal Of Asphalt Pavement	S.Y.	200	
203-06	Water	M.G.	3	
208-01.05	Brooming & Degrassing Shoulders	L.M.	9.2	
303-02	Mineral Aggregate, Type B Base, Grading (C or D)	TON	298	
307-03.01	Asphalt Concrete Mix (Pg76-22) (Bpmb-Hm) Grading A	TON	92	
403-02.01	Trackless Tack Coat	TON	91	
411-01.07	Acs Mix (Pg64-22) Grading E Shoulder	TON	4254	
411-01.21	Longitudinal Joint Sealant	L.M.	22.1	
411-03.10	Acs Mix(Pg76-22) Grading D	TON	9225	
411-12.01	Scoring Shoulders (Continuous) (16ln Width)	L.M.	9.2	
415-01.01	Cold Planing Bituminous Pavement	TON	13452	
502-03.25	Full Depth PCC Pavement Repair High Early	C.Y.	25	
502-04.01	Sawing Concrete Pavement (Full Depth)	L.F.	240	
502-04.02	Load Transfer Dowels	EACH	168	
502-04.03	Transverse Tie-Bars	EACH	28	
502-08.10	Sawing & Resealing Joints (Silicone Sealant)	L.F.	204	
712-01	Traffic Control	LS	1	
712-04.01	Flexible Drums (Channelizing)	EACH	616	
712-05.03	Warning Lights (Type C)	EACH	154	
712-06	Signs (Construction)	S.F.	2118	
712-06.16	Signs (Construction)(Reduced Speed Warning)	EACH	4	
712-07.03	Temporary Barricades (Type lii)	L.F.	24	
712-08.03	Arrow Board (Type C)	EACH	4	
712-08.08	Speed Feedback Sign Assembly	EACH	2	
712-08.09	Digital Speed Limit Sign Assembly	EACH	2	
712-08.12	Queue Protection Truck	DAY	75	
713-16.01	Changeable Message Sign Unit	EACH	4	
716-01.23	Snowplowable Raised Pavement Markers (Bi-Dir)(2 Color)	EACH	1292	
716-01.30	Removal Of Snowplowable Reflective Marker	EACH	829	
716-02.03	Plastic Pavement Marking (Cross-Walk)	L.F.	154	
716-02.06	Plastic Pavement Marking (Turn Lane Arrow)	EACH	2	
716-02.07	Plastic Pavement Marking (24" Barrier Line)	L.F.	2830	
716-03.01	Plastic Word Pavement Marking (Only)	EACH	2	
716-04.01	Plastic Pavement Marking (Straight-Turn Arrow)	EACH	9	
716-04.07	Plastic Pavement Marking (Exit Only Arrow)	EACH	9	
716-04.14	Plastic Pavement Marking (Lane Reduction Arrow)	EACH	4	
716-05.20	Painted Pavement Marking (6" Line)	L.M.	12	
716-12.02	Enhanced Flatline Thermo Pvmt Mrkng (6ln Line)	L.M.	13.4	
716-12.03	Enhanced Flatline Thermo Pvmt Mrkng (8ln Barrier Line)	L.F.	1212	
716-12.05	Enhanced Flatline Thermo Pvmt Mrkng (6ln Dotted Line)	L.F.	669	
716-12.06	Enhanced Flat Line Thermo (8ln Line)	L.F.	6466	
716-12.09	Enhanced Flat Line Thermo (12ln Line)	L.F.	1627	
716-12.10	Enhanced Flat Line Thermo (12ln Dotted)	L.F.	1348	
717-01	Mobilization	LS	1	
730-12.02	Conduit 2" Diameter (Pvc Schedule 40)	L.F.	165	
730-14.02	Saw Slot	L.F.	675	
730-14.03	Loop Wire	L.F.	1000	

THERE ARE NO PROJECT COMMITMENTS ON THIS PROJECT

THERE IS NO GUARDRAIL WORK ON THIS PROJECT

THERE ARE NO UTILITY ADJUSTMENTS ON THIS PROJECT

FOOTNOTES

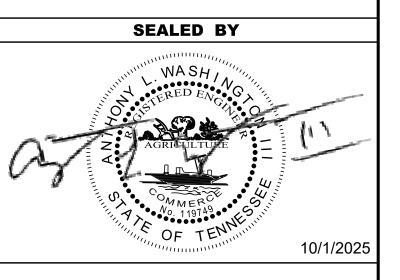
- 1) TO BE USED AS DIRECTED BY THE ENGINEER.
- (2) TO BE USED FOR BREAKOUT AREAS.
- (3) INCLUDES THE COST OF REMOVING DEBRIS AND SWEEPING SHOULDERS PRIOR TO WORK.
 SEE SHEET 2C, FINAL PAVEMENT MARKING, NOTE 6 FOR MORE INFORMATION.
- 4) INCLUDES 10 TONS TO BE USED FOR RAMP REPAIR WORK.
- USE CRAFCO PAVEMENT JOINT ADHESIVE #34524. PAVON JOINT ADHESIVE BY PAVON CORPORATION OR DENSO TAPE BY DENSO. TO BE USED FOR SEALING OF ALL SURFACE LAYER CONSTRUCTION JOINTS ALONG THE TRAVEL LANES AND SHOULDERS AS DIRECTED BY THE ENGINEER.
- (6) INCLUDES 1198 TONS FOR PAVING ON RAMPS.
- (7) INCLUDES 1286 TONS FOR COLD PLANING ON RAMPS.
- 8) TO BE USED FOR RAMP REPAIR WORK.
- (9) 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.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STAKING OF CONSTRUCTION SIGNS. IN THE EVENT THAT A CONSTRUCTION AND/OR REGULATORY SIGN IS TEMPORARILY DESIGNATED NOT IN USE DURING THE CONSTRUCTION PHASE OF A PROJECT, THE CONTRACTOR SHALL CHOOSE A SIGN COVERING APPROVED BY THE ENGINEER. TEMPORARY SIGN COVERINGS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 712-06 SIGNS (CONSTRUCTION)
- (11) ITEM TO BE USED ONLY WHEN A REDUCED SPEED LIMIT IS ESTABLISHED WITHIN THE PROJECT CONSTRUCTION WORK ZONE LIMITS. ITEM INCLUDES SIGN FACE, SUPPORTS, AND TWO TYPE "B" FLASHERS PER THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TURNING ON THE TYPE "B" FLASHERS WHEN WORKERS ARE IN THE CONSTRUCTION WORK ZONE AND TURNING THEM OFF WHEN WORKERS ARE NO LONGER IN THE CONSTRUCTION WORK ZONE.
- (12) INCLUDES 24 EACH FOR RAMP REPAIR WORK.
- (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) ITEM TO BE USED AS PERMANENT MARKING ONLY.
- (15) ITEM TO BE USED AS TEMPORARY MARKING ONLY.
- (16) INCLUDES 1.34 L.M. FOR RAMP REPAIR WORK.
 - SEE SHEET 2F, SIGNAL QUANTITIES FOR LOCATIONS.

TYPE	YEAR	PROJECT NO.	SHEET NO.	
RESURF	2025	NH-I-240-1(298)	2	

REV. 09-04-25: REVISED QUANTITY FOR ITEM 712-08.12.

REV. 10-01-25: REMOVED ITEM 501-01.03. ADDED ITEMS 502-03.25, 502-04.01, 502-04.02, 502-04.03 & 502-08.10.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

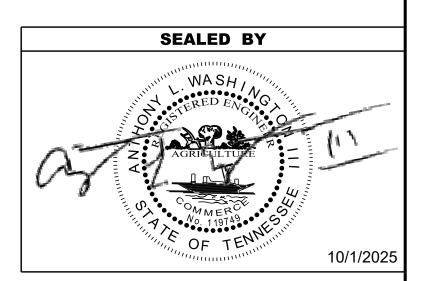
M.U.T.C.D.			SIZE			TOTAL	ITEM NO.
SIGN	LEGEND \ DESCRIPTION		NCH		S.F.	NUMBER	712-06
NO.		L	X	W		REQUIRED	S.F.
E5-1	EXIT	72"	X	60"	30	2	60
E5-2	EXIT OPEN	48"	X	36"	12	2	24
E5-2A	EXIT CLOSED	48"	Х	36''	12	2	24
G20-1	ROAD WORK NEXT 3 MILES	48"	Х	24''	8	4	32
G20-2	END ROAD WORK	48"	Х	24''	8	12	96
R1-2	YIELD	48"	Х	48''	16	2	32
R11-2	ROAD CLOSED	48"	Х	48''	16	2	32
W3-2	YIELD AHEAD	48"	Х	48"	16	2	32
W4-1R	MERGING TRAFFIC	48"	Х	48"	16	2	32
W4-2L	LEFT LANE ENDS SYMBOL	48"	Х	48"	16	4	64
W4-2R	RIGHT LANE ENDS SYMBOL	48"	Х	48"	16	4	64
W8-11	UNEVEN LANES	48"	Х	48"	16	18	288
W8-15	GROOVED PAVEMENT	48"	Х	48"	16	18	288
W8-15P	MOTORCYCLE PLAQUE	30"	Х	24''	5	18	90
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 FT	48"	Х	48''	16	4	64
W20-1	ROAD WORK AHEAD	48"	Х	48''	16	8	128
W20-5L	LEFT LANE CLOSED 1/2 MILE	48"	Х	48''	16	4	64
W20-5L	LEFT LANE CLOSED 1500 FT	48"	Х	48''	16	4	64
W20-5L	LEFT TWO LANES CLOSED 1/2 MILE	48"	Х	48''	16	4	64
W20-5L	LEFT TWO LANES CLOSED 1500 FT	48"	Х	48''	16	4	64
W20-5R	RIGHT LANE CLOSED 1/2 MILE	48"	Х	48''	16	4	64
W20-5R	RIGHT LANE CLOSED 1500 FT	48"	Х	48''	16	4	64
W20-5R	RIGHT TWO LANES CLOSED 1/2 MILE	48"	Х	48''	16	4	64
W20-5R	RIGHT TWO LANES CLOSED 1500 FT	48"	Х	48''	16	4	64
W21-2	FRESH OIL	48"	Х	48''	16	4	64
W21-5	SHOULDER WORK	48"	Х	48"	16	4	64

SIGNAL QUANTITIES										
730-12.02	730-14.02	730-14.03								
CONDUIT										
2" DIAMETER	SAW SLOT	LOOP WIRE								
(PVC SCHEDULE 40)										
(L.F.)	(L.F.)	(L.F.)								
65	300	475								
100	375	525								
165	675	1000								
	730-12.02 CONDUIT 2" DIAMETER (PVC SCHEDULE 40) (L.F.) 65 100	730-12.02 730-14.02 CONDUIT 2" DIAMETER (PVC SCHEDULE 40) (L.F.) (L.F.) 65 300 100 375								

TYPE	YEAR	PROJECT NO.	SHEET NO.	
RESURF	2025	NH-I-240-1(298)	2F	

REV. 10-01-25: DELETED ITEM 501-01.03 AND ADDED ITEMS 502-03.25, 502-04.01, 502-04.02, & 502-04.03 & 502-08.10 TO RAMP & GORE AREA PAVEMENT TABULATION.

						RAMP	& GOR	E AREA	PAVEM	ENT TA	BULATI	ON							
MAINLINE	EXIT#	INTERCHANGE ROUTE #	ROADWAY DIRECTION (N S E W)	ENT/EXIT	403-02.01 (TON)	411-03.10 (TON)	415-01.01 (TON)	502-03.25 (C.Y.)	502-04.01 (L.F.)	502-04.02 (EACH)	502-04.03 (EACH)	502-08.10 (L.F.)	716-01.23 (EACH)	716-01.30 (EACH)	716-02.06 (EACH)	716-02.07 (L.F)	716-03.01 (EACH)	716-12.02 (L.M.)	716-12.03 (L.F.)
I-240	17	MT. MORIAH RD	EAST	EXIT	2.60	318	197								2	106	2	0.50	487
I-240	17	MT. MORIAH RD	EAST	ENT	2.50	308	382											0.47	266
I-240	17	MT. MORIAH RD	WEST	ENT	1.80	218	270											0.32	
I-240	16	SR-385	EAST	EXIT	1.13	138	171	22.30	204	144	23	174	24	24				0.01	459
I-240	16	SR-385	EAST	ENT	0.42	51	63											0.01	
I-240	16	SR-385	WEST	EXIT	0.64	78	96	2.22	36	24	5	30						0.02	
I-240	16	SR-385	WEST	ENT	0.71	87	107											0.01	
				TOTALS:	10	1198	1286	25	240	168	28	204	24	24	2	106	2	1.34	1212



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES