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PALMER ENGINEERING
2817 ERICA PLACE
NASHVILLE, TN 37204
J. BRIAN LEE, P.E. 107296

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, 2-1
TABULATED QUANTITIES	2F

YEAR	PROJECT NO.	SHEET NO.
2026	NH-54(48)	ROADWAY-SIGN3

REV. 05/06/26: ADDED THIS SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

ROADWAY INDEX

STANDARD ROADWAY DRAWINGS

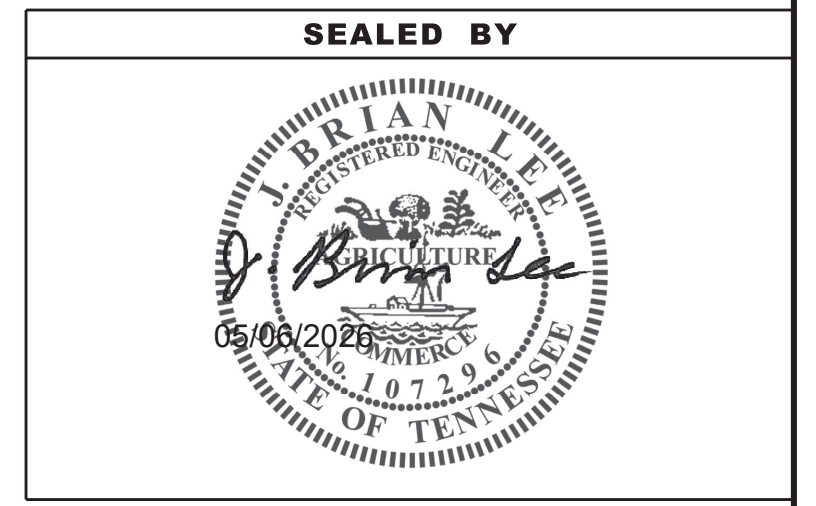
SHEET NAME	SHEET NO.
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SIGNATURE SHEET	ROADWAY-SIGN3
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NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN THE NUMBERING OF SHEETS.		
NO PROJECT COMMITMENTS FOR THIS PROJECT.		
10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS		
RD-TP-1	09-26-16	STANDARD ROADWAY DRAWINGS TITLE SHEET
RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	01-30-26	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
RD-L-2	02-20-20	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	07-30-24	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-8	02-20-20	STANDARD LEGEND FOR NATURAL STREAM DESIGN
10-101.00 STANDARDS ROADWAY DRAWINGS		
RD11-SE-1		TRANSITION AND CROSS SLOPE DETAILS
RD11-SE-2		SUPERELEVATION TRANSITION DETAILS FOR UNDIVIDED ROADWAYS
RD11-SE-2A		SUPERELEVATION TRANSITION SECTIONS FOR UNDIVIDED ROADWAYS
RD11-TS-1A	06-28-19	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD11-TS-3A	06-28-19	DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)
RD11-TS-3B		DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH FLUSH MEDIAN (4 AND 6 LANE)
RD11-TS-7B	06-12-25	DESIGN STANDARDS 2-LANE HIGHWAYS WITH CONTINUOUS 2-WAY LEFT-TURN LANE
RD11-LR-1		MINIMUM RUNOFF LENGTHS (LR) FOR URBAN HIGHWAYS
RD11-LR-2		MINIMUM RUNOFF LENGTHS (LR) FOR RURAL HIGHWAYS
RD11-S-11		DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD11-S-11A		ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD11-SA-1	01-09-24	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN AND SLOPE PROTECTION
RD11-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD11-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD11-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD11-SD-4		INTERSECTION SIGHT DISTANCE 4-LANE AND 5-LANE UNDIVIDED ROADWAYS
RD-UD-3	01-09-24	UNDERDRAIN DETAILS

DWG.	REV.	DESCRIPTION
RD-UD-4	06-28-19	UNDERDRAIN LATERAL DETAILS
RD-UD-7	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-8	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 5:1 SLOPES
RD-UD-9	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
10-102.00 AQUATIC ORGANISM PASSAGE (AOP) DESIGN, PIPE CULVERTS, AND ENDWALLS		
D-AOP-3		AOP DESIGN EMBEDDED BOX CULVERTS
D-FLU-3	04-14-25	BRIDGE END DRAIN FLUME DETAILS
D-PB-1	03-01-23	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-2	03-01-23	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION
D-PB-3	11-30-20	INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PB-4	01-09-24	PIPE COLLAR DETAILS
D-PE-18A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-18B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-24A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-24B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-36A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-36B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-42A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 42" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-42B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 42" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-99	03-04-21	TYPE "U" CROSS DRAIN ENDWALL DETAILS, PIPE GRATE & SKEWED CONNECTION
D-SEW-1A	01-30-26	TYPE "SAFETY" SIDE DRAIN ENDWALL WITH STEEL PIPE GRATE, FOR 15" THRU 48" PIPES, 6:1 SLOPE
D-PEW-1		PROTECTED ENDWALLS FOR ROUND & OVAL PIPES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-2		PROTECTED ENDWALLS FOR ROUND PIPES DETAILS & QUANTITIES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	NH-54(48)	1A
PS&E	2026	NH-54(48)	1A

REV. 04/14/26: ADDED ROADWAY-SIGN2 TO INDEX OF SHEETS.
 REV. 05/06/26: ADDED ROADWAY-SIGN3 TO INDEX OF SHEETS.



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX
 AND
 STANDARD
 ROADWAY
 DRAWINGS

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ESTIMATED ROADWAY QUANTITIES

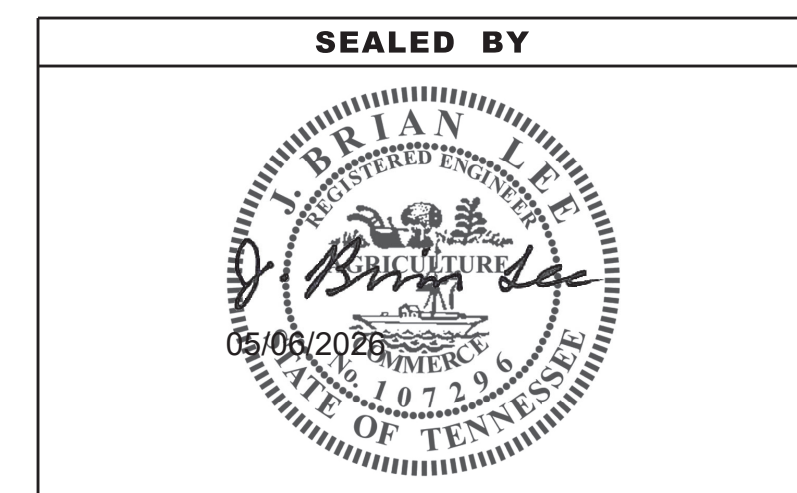
ITEM NO.	DESCRIPTION	UNIT	QUANTITY 40S054-F3-004
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
108-03	CPM PROJECT SCHEDULE	LS	1
201-01	CLEARING AND GRUBBING	LS	1
(40) 202-06.01	REMOVAL OF BUILDINGS (TRACT NO. 4)	LS	1
(40) 202-06.02	REMOVAL OF BUILDINGS (TRACT NO. 17)	LS	1
(3)(4)(28)(41) 203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	360613
203-04	PLACING AND SPREADING TOPSOIL	C.Y.	25497
203-08	CHANNEL EXCAVATION (UNCLASSIFIED)	C.Y.	1427
(27) 203-20.01	CHANNEL SUBSTRATE	C.Y.	180
(37) 203-50	CONSTRUCTION OF HAUL ROAD	LS	1
(19)(22) 204-08	FOUNDATION FILL MATERIAL	C.Y.	367
(5) 204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	10
(1)(5) 209-02.07	18" TEMPORARY SLOPE DRAIN	L.F.	400
(1)(5) 209-03.22	FILTER SOCK (18 INCH)	L.F.	300
(25)(32) 209-03.99	PROTECTED AREA MARKER (WHITE WITH DECAL)	EACH	51
(1)(5) 209-05	SEDIMENT REMOVAL	C.Y.	2280
(1)(5) 209-06.02	12" DIA COIR LOG (LOW FLOW CHANNEL)	L.F.	471
(1)(5)(33) 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	50416
(1)(5) 209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	48288
(1)(5) 209-08.08	ENHANCED ROCK CHECK DAM	EACH	48
(1)(5) 209-08.09	FILTER SOCK CHECK DAM	EACH	1035
(1)(5) 209-09.01	SANDBAGS	BAG	3517
(1)(5)(39) 209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	7
(1)(5)(14) 209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	500
(1)(5)(20) 209-20.04	POLYETHYLENE SHEETING (10 MIL.)	S.Y.	500
(1)(5) 209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	5
(1)(5) 209-40.43	CATCH BASIN FILTER ASSEMBLY(TYPE 3)	EACH	1
(1)(5) 209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	1442
(1)(5) 209-65.04	TEMPORARY IN STREAM DIVERSION	L.F.	110
(1)(5)(21)(23) 303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	5615
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	2924
(20) 303-10.03	MINERAL AGGREGATE (SIZE 68)	TON	177
307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	3838
307-01.21	ASP. CONC. MIX(PG70-22) (BPMB-HM) GR. A-S	TON	17228
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	18518
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	12136
(5) 402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	205
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	723
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	82
407-20.05	SAW CUTTING ASPHALT PAVEMENT	L.F.	1500
411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	2172
411-01.10	ACS MIX(PG64-22) GRADING D	TON	97
411-02.10	ACS MIX(PG70-22) GRADING D	TON	7141
411-12.01	SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)	L.M.	0.3
411-12.02	SCORING SHOULDERS (NON-CONTINUOUS) (16IN WIDTH)	L.M.	5.1
415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	309
604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	330
604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	66444
(9) 607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	730
(9) 607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	170
(9) 607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	726
(9) 607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	242
(9) 607-39.03	24" PIPE CULVERT (SIDE DRAIN)	L.F.	66
611-05.01	TRENCH DRAINS	L.F.	211
611-05.02	12IN PVC PIPE FOR TRENCH DRAINS	L.F.	5
611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	10
611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	378
611-07.31	18IN ENDWALL (SIDE DRAIN)	EACH	16
611-07.32	24IN ENDWALL (SIDE DRAIN)	EACH	4
611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	EACH	2

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY 40S054-F3-004
611-07.55	18IN ENDWALL (CROSS DRAIN) 4:1	EACH	1
611-07.58	24IN ENDWALL (CROSS DRAIN) 4:1	EACH	1
611-07.59	24IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
611-07.65	36IN ENDWALL (CROSS DRAIN) 6:1	EACH	2
611-07.67	42IN ENDWALL (CROSS DRAIN) 4:1	EACH	1
611-07.68	42IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
611-38.01	CATCH BASINS, TYPE 38, 0' - 4' DEPTH	EACH	1
611-38.02	CATCH BASINS, TYPE 38, > 4' - 8' DEPTH	EACH	1
611-42.01	CATCH BASINS, TYPE 42, 0'-4' DEPTH	EACH	1
611-42.02	CATCH BASINS, TYPE 42, > 4' - 8' DEPTH	EACH	2
611-42.03	CATCH BASINS, TYPE 42, > 8' - 12' DEPTH	EACH	1
(1)(5) 621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	100
705-06.01	W BEAM GR (TYPE 2) MASH TL3	L.F.	5214
705-06.19	SHORT-RADIUS GUARDRAIL SYSTEM MASH TL-3 (1 @ R=48')	EACH	1
705-06.20	TANGENT ENERGY ABSORBING TERM MASH TL-3	EACH	20
705-06.25	THRIE BEAM BRIDGE TRANSITION MASH TL-3	EACH	4
(1)(5) 707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	25438
708-02.01	MARKERS (CONCRETE R.O.W. POSTS)	EACH	84
(1)(5)(12) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	2150
(2) 709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	1530
(15) 709-05.08	MACHINED RIP-RAP (CLASS B)	TON	1144
710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	24689
710-05	LATERAL UNDERDRAIN	L.F.	3807
710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	9
710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	18
710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH	114
(20) 710-10.02	6" PERFORATED PLASTIC PIPE	L.F.	260
712-01	TRAFFIC CONTROL	LS	1
712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	1340
(38) 712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	4
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	171
712-04.50	BARRIER RAIL DELINEATOR	EACH	32
712-05.01	WARNING LIGHTS (TYPE A)	EACH	62
712-06	SIGNS (CONSTRUCTION)	S.F.	2661
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	372
(5) 712-08.03	ARROW BOARD (TYPE C)	EACH	6
712-09.30	REMOVABLE BLACK-OUT TAPE (6")	L.F.	4800
713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	0.4
713-01.02	STEEL BAR REINFORCEMENT(FOUNDATION FOR SIGN SUPPORTS)	LB.	98
713-02.21	SIGN POST DELINEATION ENHANCEMENT	L.F.	55
713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	428
713-11.01	"U" SECTION STEEL POSTS	LB.	182
713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	2236
713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	351
713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	126
713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	90
713-14.21	STREET NAME SIGN (RIGID 0.100IN THICK)	S.F.	14
713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	21
716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	445
716-01.22	SNOWPLOWABLE RAISED PAVMENT MARKERS (MONO-DIR) (1 COLOR)	EACH	444
716-01.23	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (2 COLOR)	EACH	76
(36) 716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	4461
(36) 716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	106
(36) 716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	24
(36) 716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	460
(36) 716-02.12	PLASTIC PAVEMENT MARKING (8IN LINE)	L.M.	0.1

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2023	NH-54(48)	2
PIH	2025	NH-54(48)	2
PS&E	2026	NH-54(48)	2

REV. 05/06/26: ADDED ITEM NO. 108-03 TO ESTIMATED ROADWAY QUANTITIES.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY 40S054-F3-004
(5)(13)	716-05.01 PAINTED PAVEMENT MARKING (4" LINE)	L.M.	20
(6)	716-12.02 ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	16.7
	717-01 MOBILIZATION	LS	1
	722-01.02 FIELD OFFICE (TYPE 2)	LS	1
	740-07.04 GEOGRID REINFORCEMENT TYPE 2	S.Y.	3714
(1)(5)(30)	740-10.03 GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	6156
(16)(17)(31)	740-10.04 GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	286839
(1)(5)	740-11.04 TEMPORARY SEDIMENT TUBE 20IN	L.F.	1948
(10)	801-01 SEEDING (WITH MULCH)	UNIT	76
(10)	801-01.07 TEMPORARY SEEDING (WITH MULCH)	UNIT	2642
	801-01.34 GRASS SEED MIX (RIPZN/FLPL)	UNIT	42
(24)	801-01.36 SPECIAL WETLAND SEED MIXTURE	UNIT	32
(26)	801-01.38 NATVE SEED MX FINAL STABILZATN OF SLOPES	UNIT	39
	801-01.65 TEMPORARY MULCH	UNIT	2642
(10)	801-02 SEEDING (WITHOUT MULCH)	UNIT	353
(7)	801-03 WATER (SEEDING & SODDING)	M.G.	1775
(10)	801-07 SEED (SUPPLEMENTAL APPLICATION)	LB.	131
(11)	801-08 FERTILIZER (SUPPLEMENTAL APPLICATION)	TON	2
	802-12.02 ACER RUBRUM (RED MAPLE SEEDLNG B.R.)	EACH	42
(34)	802-12.26 PLATANUS OCCIDENTALIS (SYCAMORE SEEDLNG B.R.)	EACH	92
	802-12.40 SALIX NIGRA (BLACK WILLOW SEEDLNG B.R.)	EACH	42
	802-12.44 ULMUS AMERICANA (AMERICAN ELM SEEDLNG B.R.)	EACH	42
(29)	803-01 SODDING (NEW SOD)	S.Y.	164646
	805-01.03 TURF REINFORCEMENT MAT (CLASS III)	S.Y.	5791
	805-12.02 EROSION CONTROL BLANKET (TYPE II)	S.Y.	32399
(35)	805-12.08 700 GRAM COIR FIBER EROSION BLANKET	S.Y.	613
(8)	806-02.03 PROJECT MOWING	CYCL	5

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY 40S054-F3-004
	ALTERNATE AA1		
(18)	303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	149433
	ALTERNATE AA2		
(18)	303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	47054
	309-01.01 MINERAL AGGREGATE (A-CBC)	TON	35051
	309-01.02 PORTLAND CEMENT (A-CBC)	TON	1591
	309-02 BITUMINOUS MATERIAL (A-CBC)	TON	94

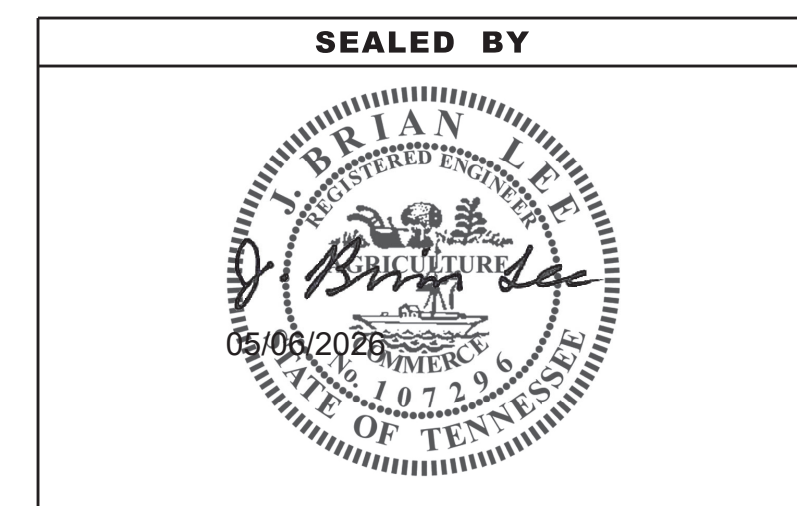
FOOTNOTES	
(1)	SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATION FOR MAINTENANCE REPLACEMENT.
(2)	INCLUDES 610 TONS FOR EPSC, 501 TONS FOR SPECIAL DITCHES, 61 TONS FOR OUTLET DITCH LINING, AND 358 TONS FOR BRIDGE FLUMES.
(3)	INCLUDES 794 C.Y. FOR EPSC, 333 C.Y. FOR BRIDGE FLUMES, AND 359,486 C.Y. FOR GRADING.
(4)	SEE GRADING SPECIAL NOTES ON SHEET "2D".
(5)	ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
(6)	CONTRACTOR SHALL USE THE EXTRUDED OR RIBBON METHOD FOR APPLICATION.
(7)	INCLUDES 276 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
(8)	ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM NO. 806-02.03, PROJECT MOWING.
(9)	THE BEDDING MATERIAL SHALL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT. SEE STANDARD DRAWINGS D-PB-1 AND D-PB-2 FOR ADDITIONAL DETAILS.
(10)	THE COST OF FERTILIZER AND LIME USED IN INITIAL SEED BED PREPARATION IS TO BE INCLUDED IN THE COST OF SEEDING. SEE SECTION 801 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
(11)	THE COST OF ANY NECESSARY LIME TO BE USED IN CONJUNCTION WITH SUPPLEMENT FERTILIZER IS TO BE INCLUDED IN THE COST OF THE SUPPLEMENTAL FERTILIZER. SEE SECTION 801 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
(12)	INCLUDES 300 TONS FOR EROSION PREVENTION AND SEDIMENT CONTROL AND 1850 TONS FOR BRIDGE SLOPE STABILIZATION.

FOOTNOTES	
(13)	FOR TEMPORARY MARKINGS FOR TRAFFIC CONTROL AND FOR STRIPING ON INTERMEDIATE PAVEMENT LAYERS.
(14)	TO BE USED WITH SANDBAGS FOR TEMPORARY STREAM PLUGS
(15)	TO BE USED FOR OUTLET DITCH LINING. 638 TONS FOR CROSS DRAINS AND 506 TONS FOR BOX CULVERTS AND BOX BRIDGES.
(16)	THIS ITEM TO BE USED FOR STATION RANGES AS LISTED IN SHEET G1A, GEOTECHNICAL NOTE 3 OR OTHERWISE AS DIRECTED BY ENGINEER FOR THE STABILIZATION OF SUBGRADE.
(17)	THIS ITEM TO BE USED FOR STATION RANGES AS LISTED IN SHEET G1A, GEOTECHNICAL NOTE 4 OR OTHERWISE AS DIRECTED BY ENGINEER FOR EMBANKMENT STABILIZATION.
(18)	INCLUDES 2252 TONS FOR SHOULDER WIDENING ALONG EXIST. SR-54. SEE TRAFFIC CONTROL PLANS.
(19)	THIS ITEM TO BE USED FOR CULVERTS AS DIRECTED IN SHEET G1A, GEOTECHNICAL NOTES 7, 9, AND 10.
(20)	USED FOR BOX CULVERT AND BOX BRIDGE WINGWALL CONSTRUCTION.
(21)	INCLUDES 224 TONS FOR EPSC, CONTROL, 667 TONS FOR GEOTECH, 2018 FOR PABE, AND 15 TONS FOR NATURAL STREAM DESIGN.
(22)	INCLUDES 314 C.Y. FOR BOX CULVERTS AND BOX BRIDGES AND 53 C.Y. FOR GEOTECH.
(23)	FOR PAVEMENT AT BRIDGE ENDS AS DETAILED ON STD-10-2, OTHER ALLOWABLE GRADATIONS ARE ACCEPTABLE PER THE STANDARD DRAWING.
(24)	SEE SHEET 2G3 FOR SEEDING MIXTURE.
(25)	POSTS CAN BE ORDERED THROUGH CARSONITE, A VALMONT COMPANY. ITEM NUMBERS ARE 72" BY 3.9" DUAL-SIDED FIBERGLASS MARKER (CIB307201), CUSTOM PROTECTED AREA DECAL PRE-APPLIED ON BOTH SIDES (21374NM-A).
(26)	PERMANENT STABILIZATION WITH NATIVE OR NATURALIZED PERENNIAL VEGETATION IS REQUIRED REQUIRED IN ALL AREAS AUTHORIZED FOR TEMPORARY AND PERMANENT IMPACTS TO STREAMS AND RIPARIAN AREAS, INCLUDING ADJACENT BUFFER ZONES WITHIN 60 FT OF THE EDGE OF WATER. THE APPROPRIATE SEED MIXTURE FOR THE REGION AND SITE CONDITIONS SHALL BE SELECTED FROM TABLE 7.9-1 (PREFERRED SEED MIXES USING NATIVES OR NATURALIZED PLANTS AND PLANTING DATES) FOUND IN CHAPTER 7.9 (PERMANENT VEGETATION) OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK 4TH EDITION.
(27)	QUANTITY FOR BACKFILL MATERIAL PROPOSED FOR EMBEDDED CULVERTS. TO BE USED IF SUITABLE NATURAL MATERIAL IS NOT AVAILABLE ON SITE.
(28)	THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE SATISFACTORY DISPOSAL OF 237918 C.Y. OF EXCESS MATERIAL. ITEM SHALL INCLUDE ANY OSTRUCTIONS AND DRAINAGE STRUCTURES.
(29)	INCLUDES 17753 S.Y. FOR SPECIAL DITCHES, 54 S.Y. FOR BOX CULVERTS, 106 S.Y. FOR ENDWALLS, AND 146733 S.Y. FOR SLOPE STABILIZATION.
(30)	INCLUDES 5617 S.Y. FOR EROSION PREVENTION AND SEDIMENT CONTROL, 527 S.Y. FOR BRIDGE FLUMES, AND 12 S.Y. FOR NATURAL STREAM DESIGN.
(31)	INCLUDES 1076 S.Y. FOR PAVEMENT AT BRIDGE ENDS, AND 285763 S.Y. FOR GEOTECH.
(32)	INCLUDES 33 EACH FOR ROADWAY WETLAND MITIGATION, AND 18 EACH FOR NATURAL STREAM DESIGN.
(33)	INCLUDES 49400 L.F. FOR EROSION PREVENTION AND SEDIMENT CONTROL, AND 1016 L.F. FOR NATURAL STREAM DESIGN.
(34)	INCLUDES 42 EACH FOR ROADWAY WETLAND MITIGATION, AND 50 EACH FOR NATURAL STREAM DESIGN.
(35)	INCLUDES 215 S.Y. FOR EROSION PREVENTION AND SEDIMENT CONTROL, AND 398 S.Y. FOR NATURAL STREAM DESIGN.
(36)	CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR PREFORMED THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
(37)	SHALL INCLUDE GEOTEXTILE (TYPE IV), BORROW EXCAVATION (GRADED SOLID ROCK), OR MACHINED RIP-RAP (CLASS A-1, CLASS B, OR CLASS C), MINERAL AGGREGATE (SIZE 57), AND TEMPORARY DRAINAGE PIPE (IF APPLICABLE). THE MINERAL AGGREGATE INCLUDES AN ADDITIONAL TEN (10) PERCENT FOR MAINTENANCE.
(38)	SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF AASHTO MASH FOR TEST LEVEL 3. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURES DRAWINGS.
(39)	INCLUDES 5 FOR EPSC AND 2 FOR NSD.
(40)	BID PRICE INCLUDES ALL SALVAGE VALUE OF MATERIAL. INCLUDES REMOVAL OF THE HOUSE, MOBILE HOME, AND SEPTIC SYSTEMS. SEE REMOVAL OF BUILDINGS AND OBSTRUCTIONS BLOCK, SHEET 2F1, FOR FURTHER DETAILS.
(41)	SHALL INCLUDE THE COST OF GUARDRAIL TERMINAL EARTH PADS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2023	NH-54(48)	2-1
PIH	2025	NH-54(48)	2-1
PS&E	2026	NH-54(48)	2-1

REV. 04/14/26: REVISED QUANTITY FOR ITEM NO. 740-11.04 AND ADDED ITEM NO. 722-01.02.

REV. 05/06/26: REVISED QUANTITY FOR ITEM NO. 303-01 (ALT. "AA2").



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

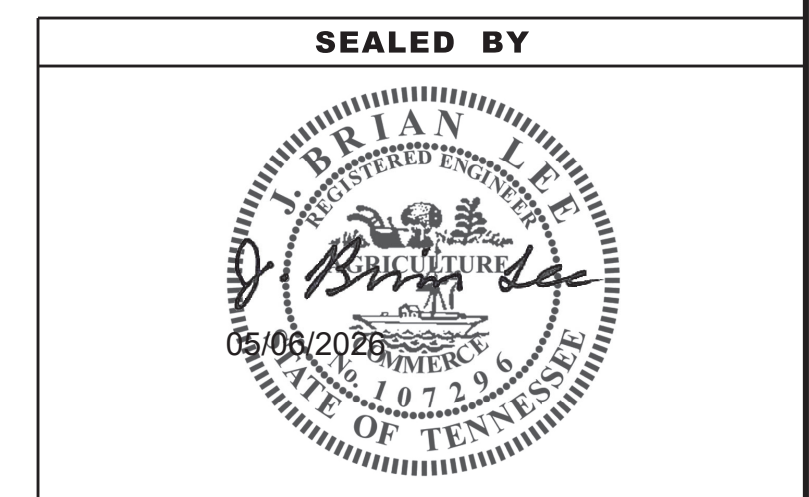
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2023	NH-54(48)	2F
PIH	2025	NH-54(48)	2F
PS&E	2026	NH-54(48)	2F

REV. 05/06/26: REVISED 303-01 (ALT. "AA2") FOR SR-54 PAVEMENT QUANTITIES.

CATCH BASINS														
SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE ELEV.	INVERT ELEV.	DEPTH (FT.)	INSIDE DIM. (INCHES)	STANDARD DRAWING NO.	PAY ITEMS				
										TYPE 38	TYPE 38	TYPE 42	TYPE 42	TYPE 42
										611-38.01 0'-4'	611-38.02 4'-8'	611-42.01 0'-4'	611-42.02 4'-8'	611-42.03 8'-12'
14B	SR-54	232+13.00	CL	15	569.90	559.02	10.88	60	D-CB-42RB					1
14B	SR-54	232+82.00	CL	16	569.48	561.76	7.72	32	D-CB-42S				1	
14B	SR-54	234+82.00	CL	17	568.27	562.88	5.39	32	D-CB-42S				1	
14B	SR-54	236+82.00	CL	18	567.06	564.00	3.06	32	D-CB-42S			1		
15B	SR-54	243+50.00	7.82 LT.	10	562.83	558.27	4.56	32	D-CB-38S		1			
15B	SR-54	245+00.00	11.96 LT.	12	562.68	559.15	3.53	32	D-CB-38S	1				
TOTALS										1	1	1	2	1

PAVEMENT QUANTITIES																													
TYPE - GRADE - PAY ITEM (TON)																													
LOCATION (ROADWAY)	MINERAL AGG.	MINERAL AGG.	MINERAL AGG.	BITUMINOUS PLANT MIX BASE (HOT MIX)										PRIME COAT				TACK COAT		ASPHALTIC CONCRETE SURFACE (HOT MIX)						COLD PLANE			
				PG-64-22					PG-70-22					CEMENT TREATED BASE						PG-64-22		PG 70-22							
				D	D	57 STONE	B-M2	B-M2	A	A	A-S	A-S	B-M	B-M2	A-Cbc	402-01	402-01	402-02	402-02	403-01	403-01	D	D	E	E		D	D	415-01.01
				303-01 ALT. "AA1"	303-01 ALT. "AA2"	303-10.01	307-01.08 ALT. "AA1"	307-01.08 ALT. "AA2"	307-02.01 ALT. "AA1"	307-02.01 ALT. "AA2"	307-01.21 ALT. "AA1"	307-01.21 ALT. "AA2"	307-02.08 ALT. "AA1"	307-02.08 ALT. "AA2"	309-01.01 ALT. "AA2"	309-01.02 ALT. "AA2"	309-02 ALT. "AA2"	402-01 ALT. "AA1"	402-01 ALT. "AA2"	402-02 ALT. "AA1"	402-02 ALT. "AA2"	403-01 ALT. "AA1"	403-01 ALT. "AA2"	411-01.10 ALT. "AA1"	411-01.10 ALT. "AA2"		411-01.07 ALT. "AA1"	411-01.07 ALT. "AA2"	411-02.10 ALT. "AA1"
SR-54	143627	41840		3780	3780	18253	18253	17092	17092	11796	11796	34774	1580	93	198	198	704	704	79	79					2172	2172	6853	6853	228
SR-54 TIE	1297	705		28	28	145	145	136	136	94	94	277	11	1	2	2	6	6	1	1							71	71	22
CROSSLAND RD	1167	1167		30	30					168	168				3	3	8	8	1	1							111	111	17
STATELINE RD	620	620				120	120			78	78				2	2	5	5	1	1							106	106	42
MAINTENANCE OF TRAFFIC	2252	2252																											
DRIVEWAYS	470	470																						97	97				
TOTALS	149433	47054		3838	3838	18518	18518	17228	17228	12136	12136	35051	1591	94	205	205	723	723	82	82	97	97	2172	2172	7141	7141	309		

PROPOSED GUARDRAIL												
SHEET NO.	LOCATION	SIDE	STATIONS		GUARDRAIL			TERMINAL ANCHORS			REMARKS	
					THRIE BEAM BRIDGE TRAN. MASH TL-3 (20.65')	W BEAM GR (TYPE 2) MASH TL3	SHORT-RADIUS GUARDRAIL SYSTEM (SRGS)	TYPE 12 VARIES	TYPE 38 MASH TL3 (46.875')	TYPE 21 MASH TL2 (21.875')		
					705-06.25 EACH	705-06.01 (L.F.)	705-06.19 (EACH)	705-04.02 (EACH)	705-06.20 (EACH)	705-06.30 (EACH)		
	SR-54	X	104+58.00	108+83.00		331.25				2		
	SR-54 TIE / SR-54	X	6+71.73	109+07.50		420.00	1			2		SRGS R=48'
	SR-54	X	114+02.50	118+90.00		393.75				2		
	SR-54	X	114+70.00	119+32.50		368.75				2		
	SR-54	X	130+06.52	137+36.55	1	662.50				1		
	SR-54	X	130+35.38	136+02.91	1	500.00				1		
	SR-54	X	142+80.26	149+60.29	1	612.50				1		
	SR-54	X	144+13.90	149+81.43	1	500.00				1		
	SR-54	X	197+97.00	202+47.00		356.25				2		
	SR-54	X	198+50.00	203+00.00		356.25				2		
	SR-54	X	225+09.00	229+59.00		356.25				2		
	SR-54	X	225+44.00	229+94.00		356.25				2		
TOTALS					4	5213.75	1			20		



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED
QUANTITIES

SHEET 1 OF 4