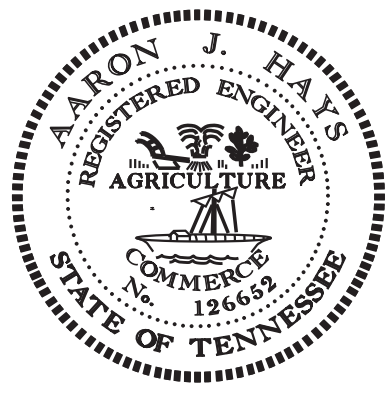


THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:



Aaron Hays
2024.01.04 19:38:37-05'00'

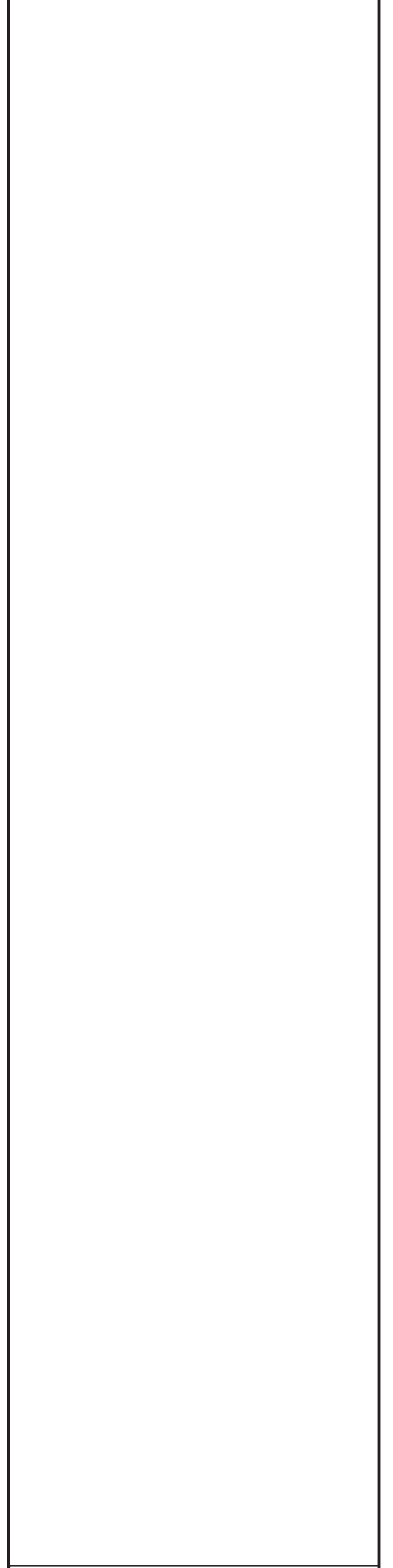
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

ARCADIS
11400 PARKSIDE DRIVE, SUITE 410
KNOXVILLE, TENNESSEE 37934
AARON HAYS, P.E. NO.: 126652

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
TABULATED QUANTITIES	2F
RIGHT-OF-WAY NOTES, UTILITY NOTES AND UTILITY OWNERS	3
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL.....	T1

YEAR	PROJECT NO.	SHEET NO.
2024	NH-29(126)	ROADWAY-SIGN1
	33S029-F8-004	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

\$\$\$\$SYTIME\$\$\$\$\$\$\$\$
\$\$\$\$DGN\$PE\$\$\$\$
\$\$\$\$C\$\$\$\$

Index Of Sheets
SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

HAMILTON COUNTY

STATE ROUTE 29 (US-27)
FROM SOUTH OF OLD DAYTON PIKE (LM 25.72)
TO NORTH OF COULTERVILLE ROAD (LM 28.32)

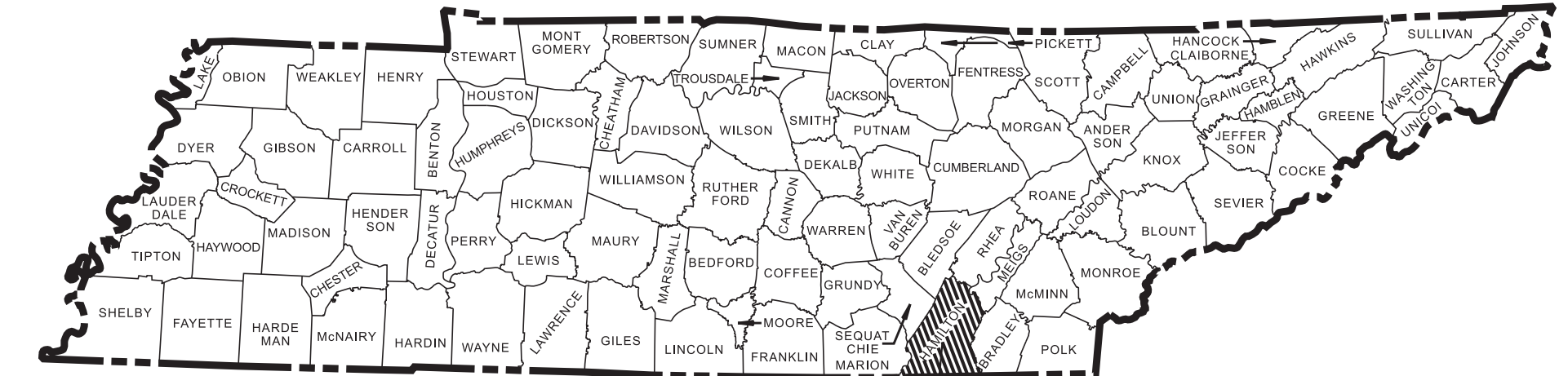
RESURFACE

NIGHT WORK, COLD PLANE, 411D RESURFACE, BRIDGE REPAIR, AND PAVEMENT MARKINGS

STATE HIGHWAY NO. 29 F.A.H.S. NO. 27

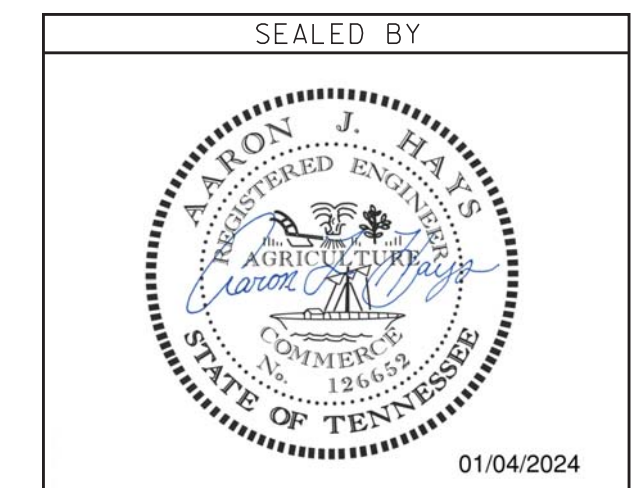
DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86	YES	NO X
WORK ZONE SIGNIFICANCE DETERMINATION		
SIGNIFICANT	YES	NO X

TENN.	YEAR	SHEET NO.
	2024	1
FED. AID PROJ. NO.	NH-29(126)	
STATE PROJ. NO.	33S029-F8-004	
BRIDGE	33S029-M3-005	



PROJECT LOCATION
BRIDGE ID. # 33SR0290037 33SR0290039 33SR0290041

NO EXCLUSIONS



APPROVED: *Will Reid*
WILL REID, CHIEF ENGINEER

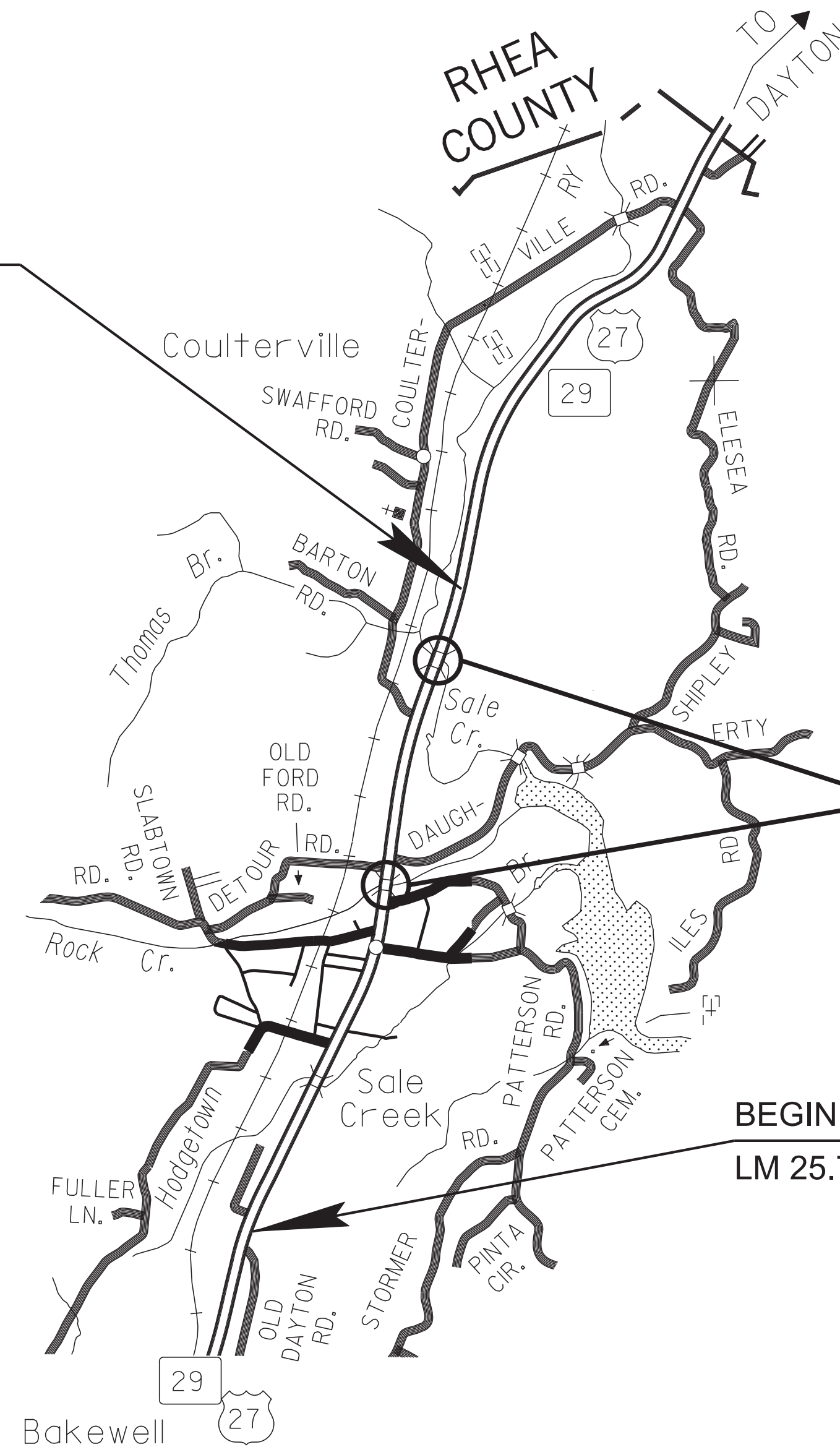
DATE: _____

APPROVED: *Howard H. Eley*
HOWARD H. ELEY, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

33S029-F8-004
END PROJECT NO. NH-29(126) RESURFACE
LM 28.32



BRIDGE REPAIR PROJECT NO. 33S029-M3-005
ROCK CR (LM 27.28) & SALE CREEK (LM 28.26)

33S029-F8-004
BEGIN PROJECT NO. NH-29(126) RESURFACE
LM 25.72

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.

SCALE: 1"= 2640'



TRAFFIC DATA	
ADT (2024)	14380
POSTED SPEED	
LM 25.72 - LM 27.71	45 MPH
LM 27.71 - LM 28.32	55 MPH

PROJECT LENGTH 2.60 MILES
TOTAL LANE MILES RESURFACED 13.00 MILES

DESIGNED BY: ARCADIS
DESIGNER: NOAH DAVIS, E.I.T. CHECKED BY: AARON HAYS, P.E.
P.E. NO. 98023-4217-04
PIN NO. 131771.00

\$\$\$\$\$TIMES\$\$\$\$\$
\$\$\$\$\$DONSPEC\$\$\$\$\$

ROADWAY INDEX

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
TABULATED QUANTITIES	2F
UTILITY NOTES AND UTILITY OWNERS	3
PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL	T1
*BRIDGE SHEETS	B1

NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN NUMBERING OF SHEETS.

*PROVIDED BY TDOT STRUCTURES OFFICE

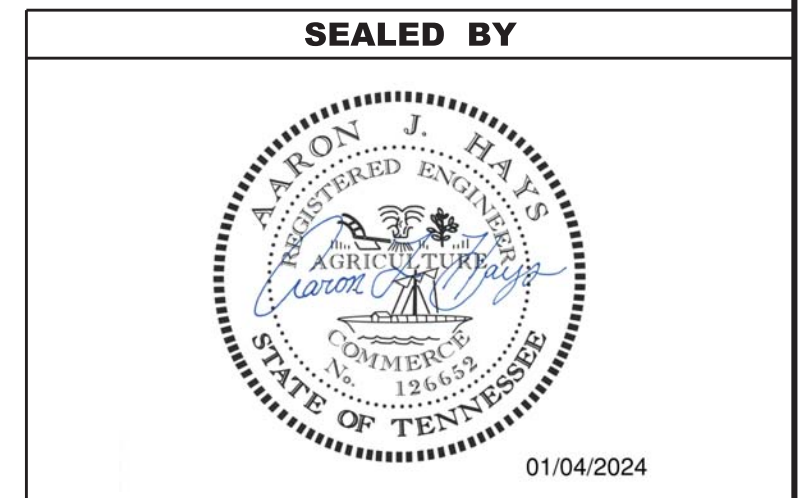
NO PROJECT COMMITMENTS INCLUDED IN THIS PROJECT.

NO SHEET 2A SERIES INCLUDED IN THIS SET OF PLANS.

STANDARD ROADWAY DRAWINGS

DWG.	REV.	DESCRIPTION
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	02-20-20	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
10-108.00 DESIGN - TRAFFIC CONTROL		
T-M-1	06-28-19	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	06-28-19	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-4	07-17-20	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-15A	06-28-19	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED RURAL ROUTES
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-FAB1		FLASHING YELLOW ARROW BOARD

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	1A
		33S029-F8-004	



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

ROADWAY INDEX
AND
STANDARD
ROADWAY
DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	2
		33S029-F8-004	

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
			33S029-F8-004
(1)	208-01.05 BROOMING & DEGRASSING SHOULDERS	L.M.	0.8
(2)	303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	106
(3)	403-02.01 TRACKLESS TACK COAT	TON	56
	411-01.07 ACS MIX (PG64-22) GRADING E SHOULDER	TON	2339
(4)	411-02.10 ACS MIX(PG70-22) GRADING D	TON	6185
(5)	411-12.02 SCORING SHOULDERS (NON-CONTINUOUS) (16IN WIDTH)	L.M.	1
(6)	415-01.01 COLD PLANING BITUMINOUS PAVEMENT	TON	8426
(7)	611-01.20 ADJUSTMENT OF EXISTING MANHOLE	EACH	5
(7)(8)	611-09.01 ADJUSTMENT OF EXISTING CATCHBASIN	EACH	8
(9)	712-01 TRAFFIC CONTROL	LS	1
(7)	712-04.01 FLEXIBLE DRUMS (CHANNELIZING)	EACH	148
(7)	712-05.01 WARNING LIGHTS (TYPE A)	EACH	40
(7)	712-06 SIGNS (CONSTRUCTION)	S.F.	859
	712-08.03 ARROW BOARD (TYPE C)	EACH	2
	713-16.01 CHANGEABLE MESSAGE SIGN UNIT	EACH	2
	716-01.21 SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	336
	716-01.23 SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR)(2 COLOR)	EACH	336
(10)	716-01.30 REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	672
(11)	716-02.05 PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	255
(11)	716-02.06 PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	10
(11)	716-02.09 PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	477
(12)	716-05.01 PAINTED PAVEMENT MARKING (4" LINE)	L.M.	20.3
(12)	716-05.05 PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	255
	716-12.02 ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	12.7
	717-01 MOBILIZATION	LS	1

FOOTNOTES

- (1) FOR SHOULDERS FROM LM 27.86 TO LM 28.32. SEE SPECIAL PAVING NOTE (4), SHEET 2D FOR ADDITIONAL DETAILS.
- (2) FOR LOW SHOULDERS WHERE AND AS DIRECTED BY THE TDOT PROJECT ENGINEER. (QUANTITY BASED ON 4224 FT x 2 FT x 2 IN.)
- (3) INCLUDES 1.6 TONS FOR STREETS, AND 0.2 TONS FOR DRIVEWAYS BETWEEN LM 27.86 - LM 28.32.
- (4) INCLUDES 244 TONS FOR STREETS, AND 18 TONS FOR DRIVEWAYS BETWEEN LM 27.86 - LM 28.32.
- (5) TO APPLIED OUTSIDE OF EDGE LINE ON OUTSIDE SHOULDESR FROM LM 27.86 TO LM 28.26.
- (6) INCLUDES 242 TONS FROM STREETS.
- (7) SEE SHEET 2F FOR TABULATION.
- (8) UPGRADE CATCHBASINS WITH NEW GRATES AND ADJUSTMENTS. COST TO INCLUDE REMOVAL OF EXISTING GRATE AND REPLACE WITH BICYCLE FRIENDLY GRATES WHERE APPLICABLE INCLUDING ALL MATERIAL, PARTS, LABOR, EQUIPMENT, MACHINERY, TOOLS, OR APPARATUS NECESSARY FOR REMOVAL AND INSTALLATION.
- (9) INCLUDES ALL COSTS ASSOCIATED WITH NIGHT TIME WORK ZONE LIGHTING.
- (10) TO BECOME PROPERTY OF THE CONTRACTOR. INCLUDES ALL COST ASSOCIATED WITH PROPER DISPOSAL OF REMOVED SNOWPLOWABLE MARKERS.
- (11) CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PERFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- (12) QUANTITY IS FOR TEMPORARY PAVEMENT MARKINGS ON MILLED SURFACE AND INTERMEDIATE LANE LINES AS DIRECTED BY THE TDOT PROJECT ENGINEER.

SEALED BY

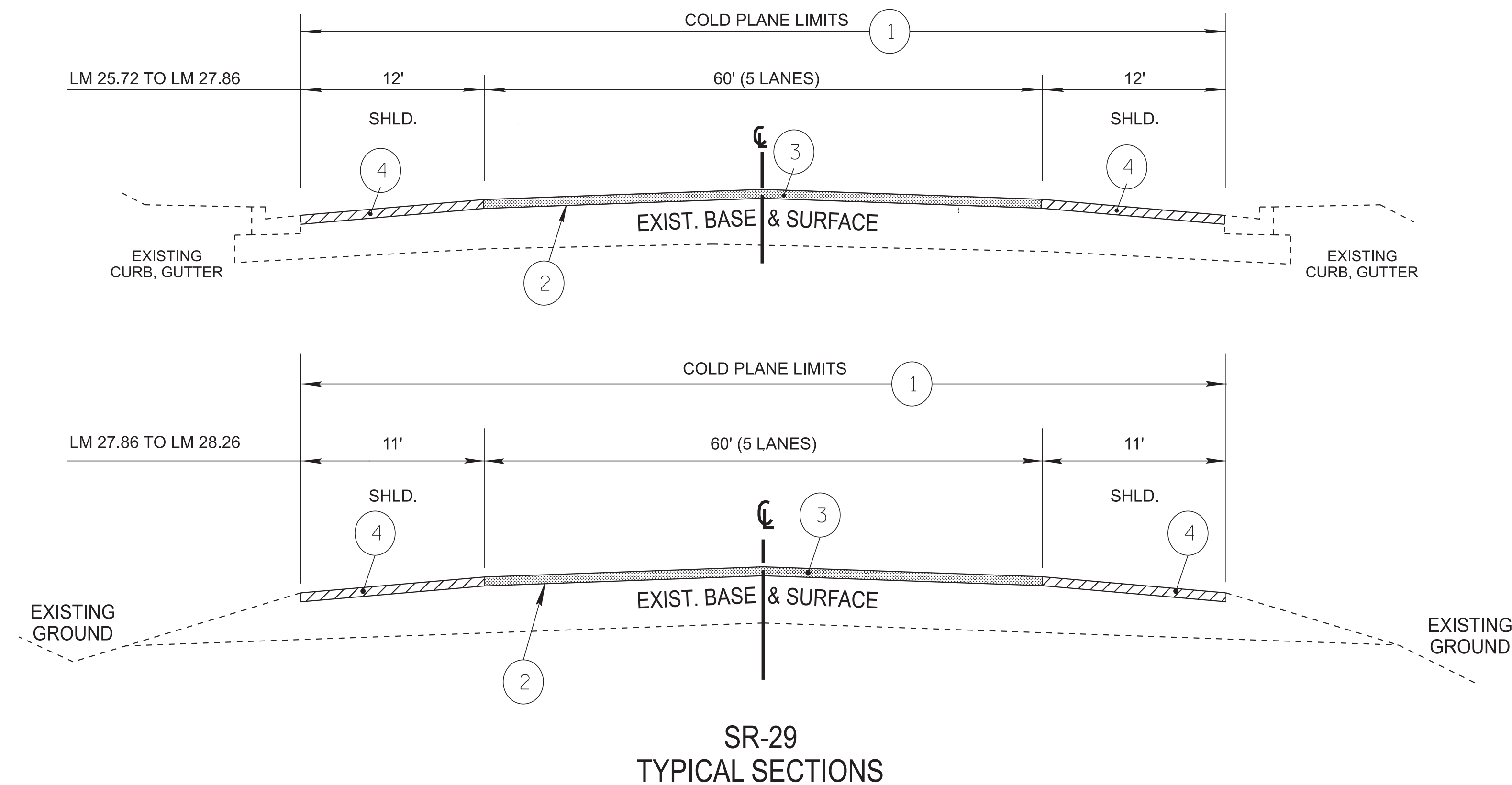


01/04/2024

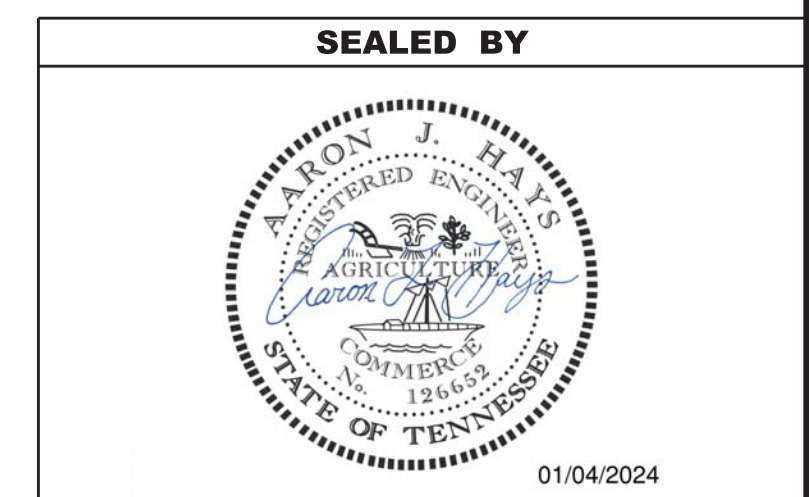
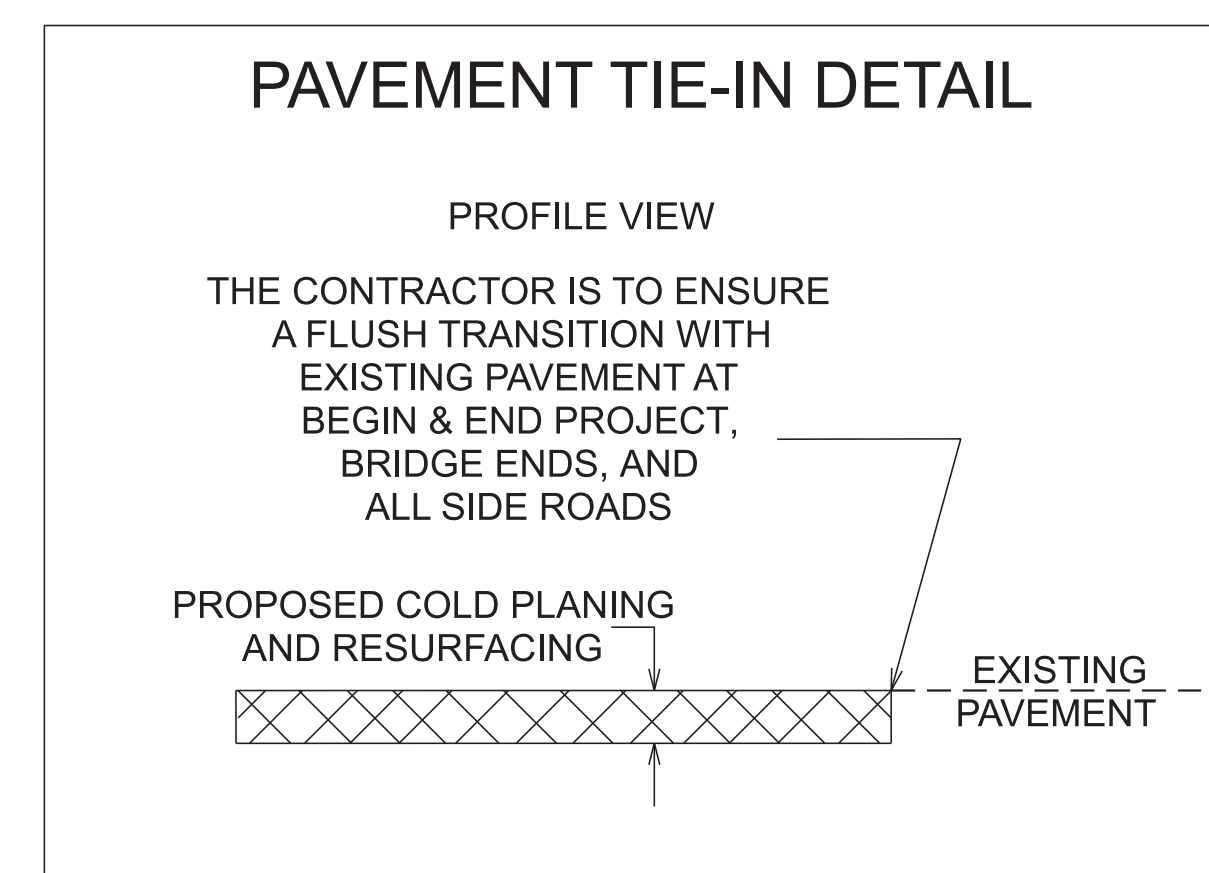
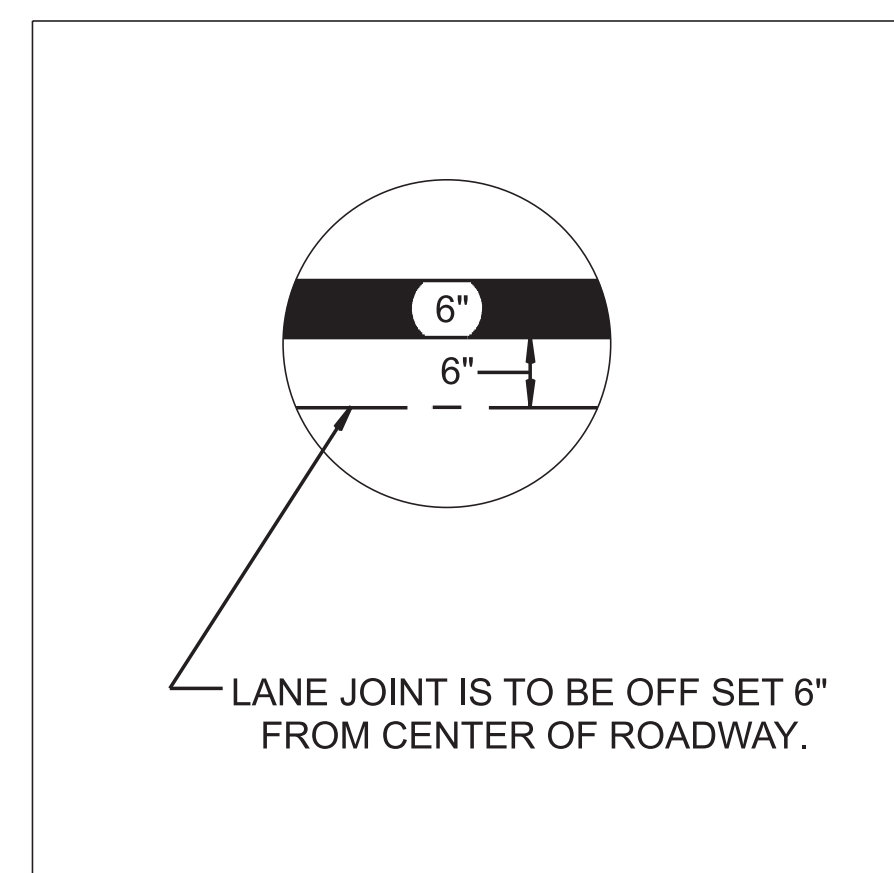
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126) 33S029-F8-004	2B



PROPOSED PAVEMENT SCHEDULE			
① COLD PLANING 1.25" THICK (APPROX. 131.25 LBS/SY) ITEM 415-01.01 COLD PLANING BITUMINOUS PAVEMENT, TON	③ SURFACE MIX 1.25" THICK @ 132.5 LBS/SY ITEM 411-02.10 ACS MIX (PG70-22) GRADING "D", TON	② TRACKLESS TACK COAT (TC) SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD. ITEM 403-02.01 TRACKLESS TACK COAT (TC), TON	④ PAVED SHOULDERS 1.25" THICK @ 132.5 LBS/SY ITEM 411-01.07 ACS MIX (PG64-22) GRADING "E" SHOULDER, TON



**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

- (1) 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. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

FINAL PAVEMENT MARKING

- (8) 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.

SNOWPLOWABLE REFLECTIVE PAVEMENT MARKERS

- (19) REMOVE EXISTING SNOWPLOWABLE MARKERS PRIOR TO PAVING AND/OR COLD PLANING. REMOVE ALL ADHESIVES PRIOR TO PAVING. PATCH ANY HOLES OR DIVOTS RESULTING FROM THE REMOVAL OF A MARKER IN A MANNER WHICH ENSURES A UNIFORM PAVED SURFACE. PATCH WORK SHALL BE INCLUDED WITH COST OF OTHER ITEMS OF CONSTRUCTION.

PAVEMENT

PAVING

- (2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND 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 RESURFACING OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.
- (7) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.
- (8) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.
- (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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	2C
		33S029-F8-004	

SEALED BY



01/04/2024

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL
NOTES

SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	2D
		33S029-F8-004	

TRAFFIC CONTROL

- (1) THE CONTRACTOR SHALL MAKE PROVISIONS TO SAFELY CONTROL TRAFFIC INGRESS AT ALL ROADWAY ENTRANCES WITHIN THE FLAGGED WORK ZONE TO THE SATISFACTION OF THE TDOT PROJECT ENGINEER, ALL COST ASSOCIATED WITH THE CONTROLS WILL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL.
- (2) EXISTING CONSTRUCTION, REGULATORY AND WARNING SIGNS WHICH CONFLICT WITH THE CONSTRUCTION SIGNING SHALL BE REMOVED DURING CONSTRUCTION AND REINSTALLED AS DIRECTED BY THE TDOT PROJECT ENGINEER. ALL COSTS TO BE INCLUDED IN THE PRICE BID FOR ITEM NO. 712-01, TRAFFIC CONTROL, PER LUMP SUM.
- (3) THE CONTRACTOR SHALL GIVE THE TDOTPROJECT ENGINEER A MINIMUM OF SEVEN (7) DAYS NOTICE PRIOR TO STARTING WORK SO THAT SUFFICIENT NOTICE CAN BE PREPARED AND DISTRIBUTED TO THE MEDIA.
- (4) IMMEDIATELY UPON COMPLETION OF EACH CONSTRUCTION PHASE, ALL TRAFFIC CONTROL ITEMS THAT ARE NOT NECESSARY FOR THE SUCCEEDING PHASE SHALL BE REMOVED, COVERED, OR TURNED TO FACE AWAY FROM THE TRAFFIC.
- (5) THE CONTRACTOR SHALL PROVIDE FLAGGER AT EACH SIDEROAD WITHIN THE PAVING OPERATION.
- (6) A MINIMUM OF TWO (2) TYPE "C" ARROW BOARDS WILL BE REQUIRED. IF THE CONTRACTOR SCHEDULES HIS OPERATIONS SUCH THAT MORE THAN TWO (2) ARROW BOARDS ARE REQUIRED. THE COST OF ALL ADDITIONAL ARROW BOARDS WILL BE AT THE CONTRACTOR'S EXPENSE.
- (7) CHANGEABLE MESSAGE SIGNS UNITS (ITEM NO. 713-16.01) WILL BE REQUIRED ON THIS PROJECT. THE SIGNS WILL BE USED FOR ADVANCED WARNING OR AS DIRECTED BY THE ENGINEER.
- (8) MESSAGE BOARDS SHALL BE DISPLAYED A MINMUM OF SEVEN (7) DAYS PRIOR TO STARTING WORK TO INFORM PUBLIC OF UPCOMING CONSTRUCTION PROJECT.
- (9) PRIOR TO DISPAYING MESSAGES ON CHANGEABLE MESSAGE BOARDS, ALL MESSAGES SHALL BE APPROVED BY THE TDOT PROJECT ENGINEER AND REGION 2 TRAFFIC ENGINEER.
- (10) INFORMATION ON CHANGEABLE MESSAGE BOARDS SHALL BE UPDATED TO REFLECT CURRENT CONSTRUCTION CONDITIONS ACTIVITIES AT ALL TIMES.

NIGHT WORK

- (1) ALL COST ASSOCIATED WITH NIGHT WORK ZONE LIGHTING SHALL BE INCLUDED IN ITEM 712-01.
- (2) THE CONTRACTOR SHALL COMPLY WITH SECTION 712.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION REGARDING NIGHT WORK LIGHTING.
- (3) LIGHTS FOR NIGHT WORK TO BE APPROVED BY THE TDOT PROJECT ENGINEER.
- (4) NIGHT WORK SHALL BE DONE BETWEEN THE HOURS OF 7:00 PM AND 6:00 AM. ALL WORK TO BE DONE AT NIGHT SHALL BE DURING THESE HOURS. THIS INCLUDES CONSTRUCTION, MOBILIZATION OF EQUIPMENT AND PLACEMENT AND REMOVAL OF TRAFFIC CONTROL DEVICES.
- (5) ALL CONSTRUCTION SIGNS THAT ARE TO REMAIN IN PLACE DURING CONSTRUCTION MAY BE INSTALLED DURING DAYTIME OURS AS DIRECTED BY THE TDOT PROJECT ENGINEER.
- (6) ALL CONCRETE WORK FOR MANHOLE AND CATCHBASIN ADJUSTMENTS MAY BE INSTALLED DURING DAY TIME AND NON-PEAK HOURS 9:00 AM - 3:00 PM.

LANE CLOSURES

- (1) THE RESTRICTION OF TRAFFIC TO ONE LANE SHALL NOT EXCEED ONE DAY'S PAVING OPERATION.
- (2) THE CONTRACTOR SHALL KEEP ALL TRAFFIC LANES OPEN TO TRAFFIC DURING NON-WORKING HOURS AND/OR NON-WORK DAYS.
- (3) DAYTIME LANE CLOSURES WILL NOT BE ALLOWED UNLESS DIRECTED BY THE TDOT PROJECT ENGINEER.
- (4) THE CONTRACTOR SHALL SCHEDULE PAVING OPERATIONS TO PREVENT INTERRUPTION OF SCHOOL TRAFFIC DURING MORNING START AND AFTERNOON DISMISSAL

- (5) THE CONTRACTOR SHALL NOT BE ALLOWED TO INTERRUPT TRAFFIC FLOW AND SHALL MAINTAIN ALL LANES OF TRAFFIC IN EACH DIRECTION ON THE FOLLOWING DAYS:
 - A. OFFICAL STATE HOLIDAYS.
 - B. FRIDAY AT 6:00 AM UNTIL TUESDAY AT 7:00 PM, IF A STATE HOLIDAY OCCURS OR IS OBSERVED ON MONDAY.
 - C. THURSDAY AT 6:00 AM UNTIL SUNDAY AT 7:00PM, IF A STATE HOLIDAY OCCURS OR IS OBSERVED ON FRIDAY.
 - D. DURING LOCAL FESTIVALS, GAMES OR EVENTS THAT COULD BE IMPEDED BY THE PAVING OPERATIONS WHERE AND AS DIRECTED BY THE TDOT PROJECT ENGINEER.

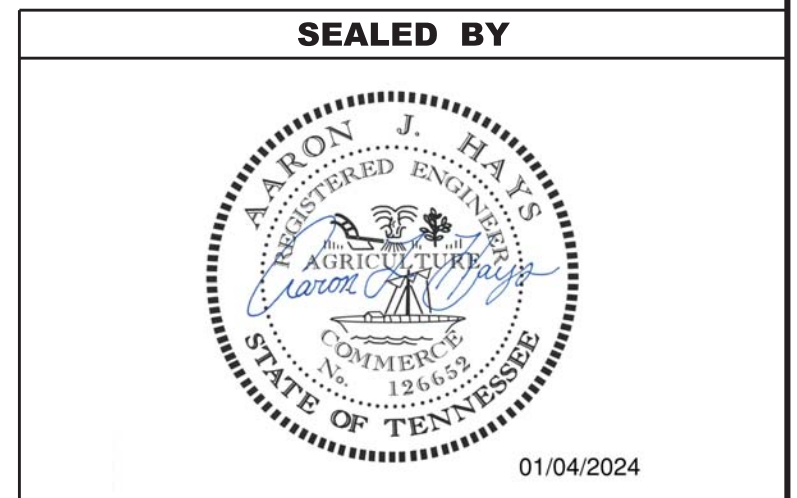
PAVING

- (1) INTELLIGENT COMPACTION SHALL BE USED.
- (2) ALL DRAINS ACROSS BRIDGES NEED TO BE CHECKED AND CLEANED AFTER PAVING IS COMPLETE. COST TO BE INCLUDED IN OTHER ITEMS.
- (3) ANY QUANTITY REMAINING ON ITEMS COMPLETED PRIOR TO THE PAVING OPERATION WILL NOT BE CONVERTED TO ADDITIONAL ASPHALT FOR THE ROADWAY.
- (4) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK.
 - BROOMING & DE-GRASSING SHOULDERS ON SECTIONS WITHOUT CURB AND GUTTER, SHALL INCLUDE CLIPPING OF MATERIAL INTERFERING WITH PROPER DRAINAGE OF ROADWAY AND SHOULDERS AS DIRECTED BY THE TDOT PROJECT ENGINEER.
 - ALL MATERIAL FROM CLIPPING, BROOMING AND DE-GRASSING SHOULDERS SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE TDOT PROJECT ENGINEER.
 - ALL COSTS ASSOCIATED PICKING UP, REMOVAL AND PROPER DISPOSAL SHALL BE PAID FOR UNDER ITEM NO. 208-01.05.
 - REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

COLD PLANING

- (1) THE CONTRACTOR WILL BE REQUIRED TO PAVE THE COLD PLANED PAVEMENT WITHIN A PERIOD OF 96 HOURS.
- (2) PROVIDED THAT THE CONTRACTOR USES A COLD PLANING MACHINE WITH THE MILLING DRUM SPECIFICATIONS OF CLOSELY SPACED FINE TOOTH (5/16 INCHES OR SMALLER) MILLING DRUM,MOVING FORWARD AT MODERATE SPEED (50 TO 65 FPM.) AND THE UNDER SURFACE REMAINS INTACT (HAVING NO LOOSE MATERIAL OR GOUGES,) THEN THE CONTRACTOR MAY PERMISSION FROM THE REGION 2 PROJECT ENGINEER TO MILL ALL SURFACES BEFORE COVERING WITH BITUMINOUS MATERIAL.
- (3) IF MILLED SURFACE BEGINS TO DETERIORATE, PAVING TO COVER UP DETERIORATING MILLED SURFACES SHOULD OCCUR AS DIRECTED BY THE TDOT PROJECT ENGINEER DURING THE NEXT WORKING DAY. IF SEVERE DISTRESS OCCURS, IMMEDIATE RESPONSE WILL BE REQUIRED.
- (4) IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "D" MIX PRIOR TO PLACING PROPOSED OVERLAY.
- (5) AT THE COMPLETION OF COLD PLANING OPERATION, ANY DEPRESSIONS WILL BE CLEANED AND BROUGHT TO PROPER GRADE WITH "D" MIX MATERIAL. THE COST OF THE CLEAN UP WILL BE INCLUDED IN THE UNIT PRICE FOR "D" MIX MATERIAL.
- (6) THE CONTRACTOR SHOULD TAKE EXTREME CARE WHEN COLD PLANING THE EXISTING ASPHALT NEAR EXISTING MANHOLES AS NOT TO DAMAGE MANHOLE OR CONCRETE RING AROUN EXISTING MANHOLE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY REPAIRS ON ALL DAMAGED MEMBERS TO THE SATISFACTION OF THE TDOT PROJECT ENGINEER AT NO ADDITIONAL COST.
- (7) EXISTING CONCRETE POURED AROUND CATCH BASINS AT THE GUTTER SHALL NOT BE DAMAGED. THIS CONCRETE MUST REMAIN IN PLACE WITH ASPHALT TYING TO THE EXISTING CONCRETE. ANY DAMAGE WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT.

- (8) ADJUSTMENT OF EXISTING MANHOLE INCLUDES LOWERING BEFORE MILLING OPERATION BEGINS AND RAISING BACK UP AFTER FINAL PAVING.



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

**SPECIAL
NOTES**

ENVIRONMENTAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2024	NH-29(126)	2E
		33S029-F8-004	

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.

SCOPE OF WORK

- (6) NIGHT WORK, COLD PLANE, RESURFACE, AND PAVEMENT MARKINGS.

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

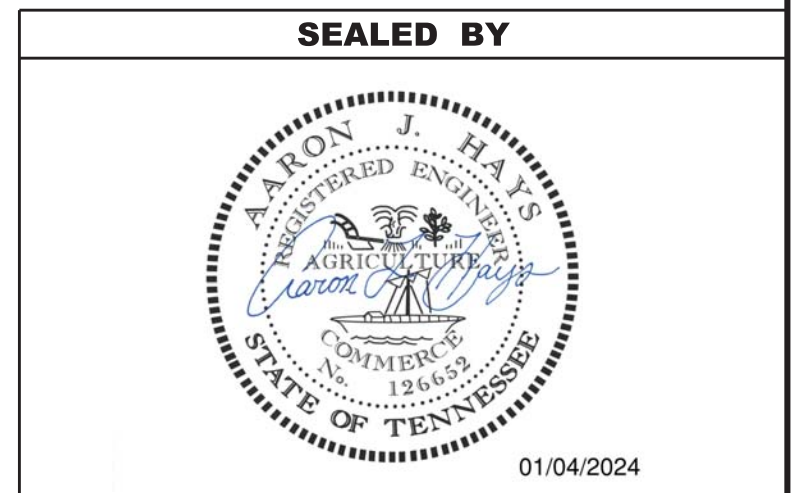
- (6) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE 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.

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.



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2024	NH-29(126)	2F
		33S029-F8-004	

UTILITY ADJUSTMENTS (BY OTHERS)		
TYPE	OWNER	NUMBER
TELEPHONE MANHOLE	BELL SOUTH / AT&T	4
WATER VALVES	UNION FORK UTILITIES	8

PROPOSED GUARDRAIL (RESURFACING)
NO GUARDRAIL IMPROVEMENTS INCLUDED IN THIS PROJECT.

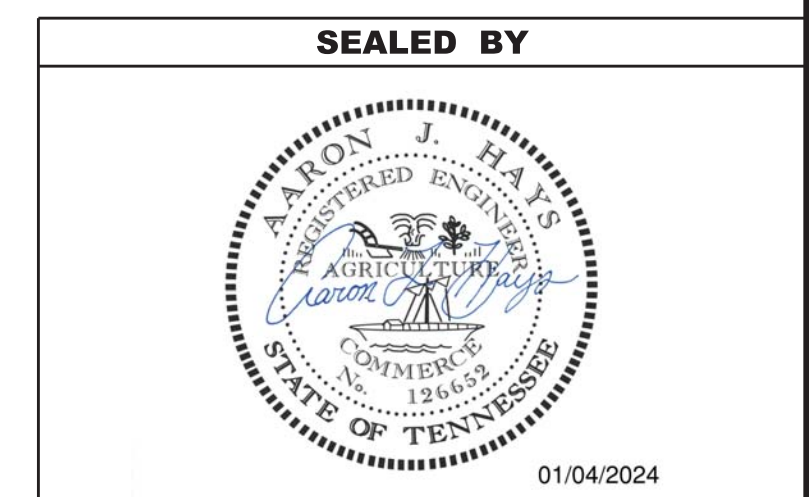
TRAFFIC CONTROL SIGN TABULATION (RESURFACING)						
M.U.T.C.D. SIGN NO.	LEGEND \ DESCRIPTION	SIZE IN INCHES		S.F.	TOTAL NUMBER REQUIRED	ITEM NO. 712-06 S.F.
		L	x W			
G20-1	ROAD WORK NEXT 3 MILES	48"	24"	8	2	16
G20-2	END ROAD WORK	48"	24"	8	13	104
W4-2	LANE ENDS	48"	48"	16	2	32
W8-11	UNEVEN LANES	48"	48"	16	7	112
W8-15	GROOVED PAVEMENT	48"	48"	16	7	112
W8-15(P)	MOTORCYCLE (PLAQUE)	30"	24"	5	7	35
W20-1	ROAD WORK AHEAD	48"	48"	16	11	176
W20-1	ROAD WORK 1 MILE	48"	48"	16	3	48
W20-1	ROAD WORK 1/2 MILE	48"	48"	16	3	48
W20-1	ROAD WORK 1000 FT	48"	48"	16	3	48
W20-5L	LEFT LANE CLOSED AHEAD	48"	48"	16	2	32
W20-5R	RIGHT LANE CLOSED AHEAD	48"	48"	16	2	32
W20-5	LANE CLOSED	48"	48"	16	2	32
W21-2	FRESH OIL	48"	48"	16	2	32
TOTAL					859	

SEE FIGURE 6F-1 OF FIGURES SHOWN IN CURRENT M.U.T.C.D. THIS CONSTRUCTION SIGNING IS TO BE CONSTRUCTED AS A MINIMUM. OTHER SIGNS AS DIRECTED BY THE ENGINEER MAY BE REQUIRED DURING DIFFERENT PHASES.

BRIDGE DECK RECOMMENDATIONS (RESURFACING)				
BRIDGE NUMBER	LOG MILE	CROSSES OVER/UNDER	BRIDGE LENGTH	BRIDGE DECK RECOMMENDATIONS
33SR0290037 33-SR29-26.41 CONCRETE CULVERT	26.410	HODGETOWN BRANCH 2 @ 15.8' x 7'	51.8'	PAVE WITH PLANS MIX / TREATMENT TYPE
33SR0290039 33-SR29-27.28 M-136-121 M-136-124	27.280	ROCK CREEK	203'	SEAL WITH TYPE 1 THIN EPOXY OVERLAY (SEE BRIDGE SHEETS)
33SR0290041 33-SR29-28.26 M-238-135 M-238-138	28.260	SALE CREEK	320'	SEAL WITH TYPE 1 THIN EPOXY OVERLAY (SEE BRIDGE SHEETS)

STORM DRAIN ADJUSTMENTS (RESURFACING)			
CATCH BASINS	COMMENT	MANHOLES	COMMENT
6	NEEDS REPAIR	5	INCLUDES ALL COSTS ASSOCIATED WITH INSTALLATION OF CONCRETE APRON AROUND MANHOLE AS DIRECTED BY THE ENGINEER, AFTER ROADWAY SURFACE IS PLACED .
2	UPGRADE TO BICYCLE SAFE GRATES ONLY		
TOTAL		TOTAL	
8		5	

FLEXIBLE DRUMS & LIGHTS (LANE SHIFT)				
LOCATION	LENGTH(FT)		QUANTITY	
	40' SPACING	80' SPACING	FLEXIBLE DRUMS	TYPE C LIGHTS
ENTER LANE SHIFT LEFT (L)	660		17	
LANE SHIFT RIGHT	500		13	
APPROACH TO WORK SPACE		1000	13	
2 SHOULDER TAPERS (L/3)	440		11	
ARROW BOARDS			10	
MESSAGE BOARDS			10	
TOTAL PER DIRECTION			74	20
TOTAL FOR NORTHBOUND AND SOUTHBOUND LANE SHIFTS			148	40



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

TABULATED
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	3
		33S029-F8-004	

UTILITY

- (1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. (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. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800- 351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
- (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

CABLE:
COMCAST (XFINITY)
 2030 EAST POLYMER DRIVE
 CHATTANOOGA, TN 37421
 CONTACT: TIM GREGORY
 OFFICE PHONE: (706) 252-4185
 Email: tim_gregory@comcast.com

ELECTRIC:
ELECTRIC POWER BOARD OF CHATTANOOGA
 PO BOX 182255
 CHATTANOOGA, TN 37422
 CONTACT: ADAM NORWOOD
 OFFICE PHONE: (423) 483-3305
 Email: norwoodaw@epb.net

ELECTRIC:
TENNESSEE VALLEY AUTHORITY
 1101 MARKET ST MR-4G
 CHATTANOOGA, TN 37402
 CONTACT: STEPHEN WILLIAMS
 OFFICE PHONE: (865) 632-2101
 Email: sewilliams@tva.gov

FIBER:
ELECTRIC POWER BOARD OF CHATTANOOGA
 PO BOX 182255
 CHATTANOOGA, TN 37422
 CONTACT: ADAM NORWOOD
 OFFICE PHONE: (426) 483-3305
 Email: norwoodaw@epb.net

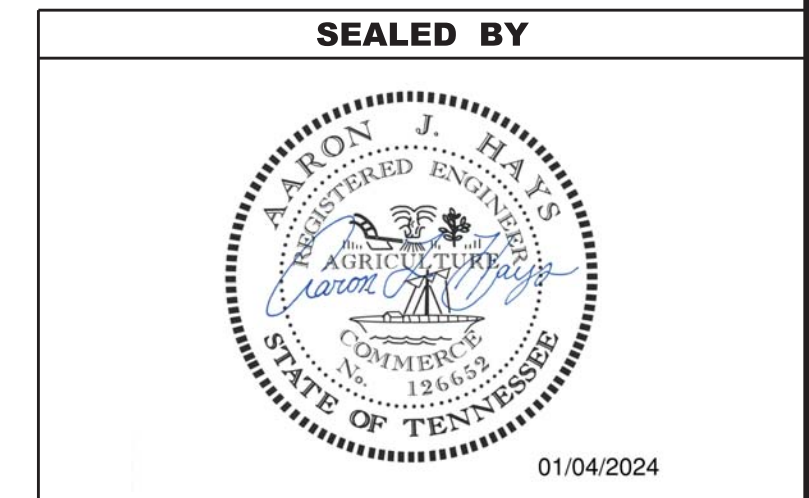
GAS:
MIDDLE TENNESSEE NATURAL GAS
 PO BOX 670
 SMITHVILLE, TN 37166
 CONTACT: MATT STENNETT
 OFFICE PHONE: (931) 754-3515
 Email: mstennett@mtng.com

SEWER:
HAMILTON COUNTY WWTA
 1250 MARKET STREET, SUITE 3050
 CHATTANOOGA, TN 37402-2713
 CONTACT: MICHAEL PATRICK
 OFFICE PHONE: (423) 209-7842
 Email: WWTAEng@HamiltonTN.org; Mpatrick@HamiltonTN.org

TELEPHONE:
BELLSOUTH dba AT&T
 300 E MARTIN LUTHER KING BOULEVARD
 CHATTANOOGA, TN 37403
 CONTACT: JOE PERREL
 OFFICE PHONE: (423) 266-1566
 Email: Jp1389@att.com

WATER:
UNION FORK BAKEWELL UTILITY DISTRICT
 405 RETRO HUGHES ROAD
 BAKEWELL, TN 37304
 CONTACT: DENISE KEYLON
 OFFICE PHONE: (423) 332-9733
 Email: denise@ufbud.com

12/21/2023 8:41:34 AM L:\SURVDESIGN\PROJECTS_ORDIRESURFACING\IGNPIN-SHT-UTILITYNOTES&OWNERS.DGN



**STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION**

UTILITY NOTES
 AND
 UTILITY OWNERS

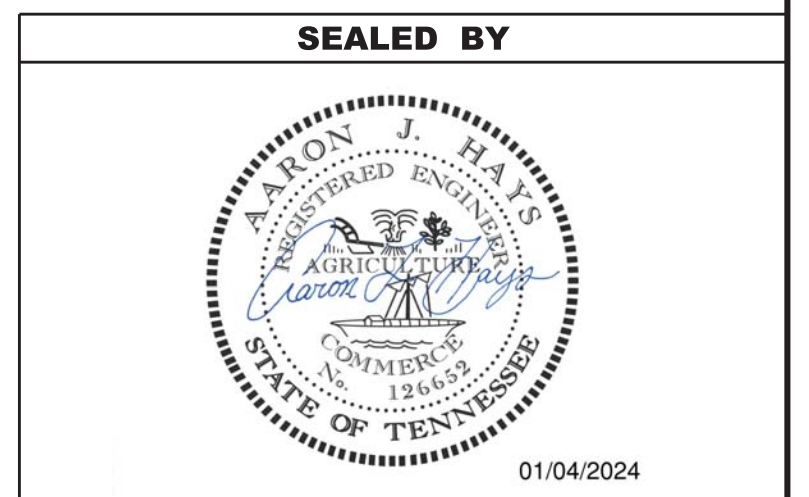
PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2024	NH-29(126)	T1
		33S029-F8-004	

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:

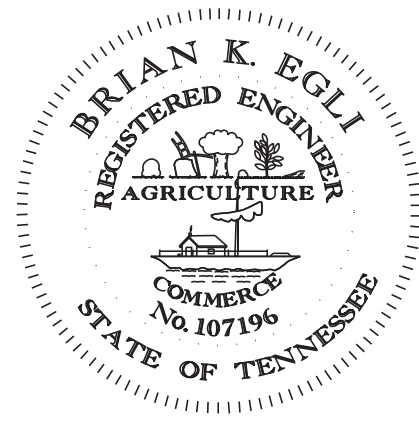
1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 1.75 INCHES:
 - a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN 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.



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

PAVEMENT EDGE
DROP-OFF NOTES
FOR
TRAFFIC CONTROL



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Brian Egli
 2023.12.20 07:40:00 -06'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

TENNESSEE DEPARTMENT OF TRANSPORTATION
 505 DEADERICK STREET, SUITE 1200
 NASHVILLE, TN 37243
 BRIAN K. EGLI, P.E. NO. 107196

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 _____	STRUCTURE-SIGN 1
BRIDGE PLANS _____	B1 THRU B7

YEAR	PROJECT NO.	SHEET NO.
2024	33S029-M3-005	STRUCTURE-SIGN 1

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

SIGNATURE
 SHEET

\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$DGNPEC\$\$\$\$\$
 \$\$\$CO\$\$\$\$\$

PIN 131771.00

PROJECT NO.	YEAR	SHEET NO.
33S029-M3-005	2024	B1

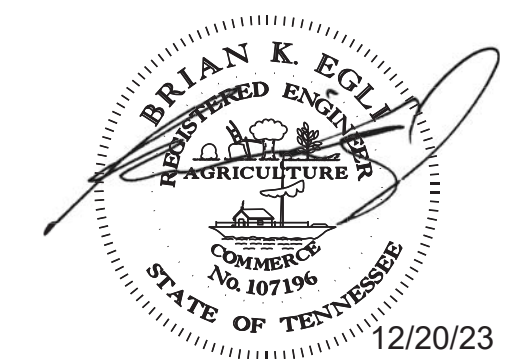
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

<u>INDEX OF DRAWINGS</u>	<u>DWG. NO.</u>	<u>LAST REV. DATE</u>
INDEX OF DRAWINGS -----	B1	
BRIDGE TABULATION AND ESTIMATED QUANTITIES -----	B2	
TYPE I THIN EPOXY OVERLAY NOTES -----	B3	
PLAN VIEW (33SR0290039) -----	B4	
PHASE CONSTRUCTION -----	B5	
PLAN VIEW (33SR0290041) -----	B6	
PHASE CONSTRUCTION -----	B7	

<u>INDEX OF REFERENCE DRAWINGS</u>	<u>DWG. NO.</u>
LAYOUT OF BRIDGE -----	M-136-121
SUPERSTRUCTURE -----	M-136-124
LAYOUT OF BRIDGE -----	M-238-135
SUPERSTRUCTURE -----	M-238-138

 7:27:10 AM

DESIGNED BY _____ DATE _____
 DRAWN BY Z.HAYNES DATE 8/23
 SUPERVISED BY K.MARTINKO DATE 8/23
 CHECKED BY _____ DATE _____



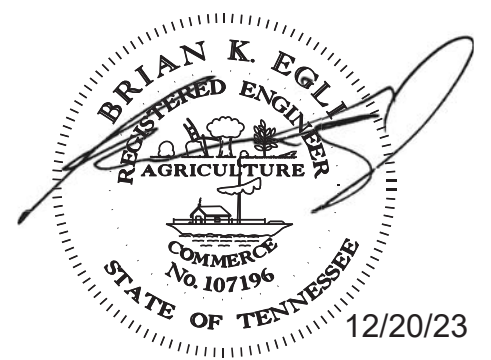
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 INDEX OF DRAWINGS
 33-SR29-27.28
 OVER
 ROCK CREEK
 33-SR29-28.26
 OVER
 SALE CREEK
 BR. NOS. 33SR0290039
 33SR0290041
 HAMILTON COUNTY
 2024

PIN 131771.00

PROJECT NO.	YEAR	SHEET NO.	
33S029-M3-005	2024	B2	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

TABULATION OF BRIDGE RELATED WORK AND ESTIMATED QUANTITIES			
LOCATION OF BRIDGE AND BRIDGE NUMBER	REFERENCE DRAWINGS TO BE PRINTED WITH CONTRACT DRAWINGS	TYPE OF WORK	617-04.01 TYPE I THIN EPOXY OVERLAY (EPOXY-URETHANE) S.Y.
33-SR29-27.28 OVER ROCK CREEK (33SR0290039)	M-136-121 M-136-124	TYPE I THIN EPOXY OVERLAY (EPOXY-URETHANE)	2306
33-SR29-28.26 OVER SALE CREEK (33SR0290041)	M-238-135 M-238-138	TYPE I THIN EPOXY OVERLAY (EPOXY-URETHANE)	2934
TOTAL			5240

7:27:39 AM



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE TABULATION AND
ESTIMATED QUANTITIES
33-SR29-27.28
OVER
ROCK CREEK
33-SR29-28.26
OVER
SALE CREEK
BR. NOS. 33SR0290039
33SR0290041
HAMILTON COUNTY
2024

DESIGNED BY _____ DATE _____
 DRAWN BY Z.HAYNES DATE 8/23
 SUPERVISED BY K. MARTINKO DATE 8/23
 CHECKED BY _____ DATE _____

PIN 131771.00

PROJECT NO.	YEAR	SHEET NO.
33S029-M3-005	2024	B3

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

TYPE 1 THIN EPOXY OVERLAY NOTES :

TYPE 1 THIN EPOXY OVERLAY SYSTEM - USE DECK PRETREATMENT/PRIMER PER MANUFACTURER'S RECOMMENDATION, AND 2 LIFTS OF AN EPOXY-URETHANE COPOLYMER AND AGGREGATE. TYPE 1 OVERLAY SHALL BE APPLIED MECHANICALLY USING METERED EQUIPMENT; HAND MIXING OF MATERIAL IS NOT PERMITTED.

THIN OVERLAY SYSTEM SHALL BE FROM THE QUALIFIED PRODUCTS LIST 23.005 TYPE 1 THIN OVERLAY (EPOXY URETHANE). MINIMUM OVERLAY THICKNESS SHALL BE 3/8 INCH.

APPLICATION EQUIPMENT SHOULD :

- A) BE CAPABLE OF METERING, MIXING AND DISTRIBUTING THE POLYMER AND PRETREATMENT TO MANUFACTURER'S RECOMMENDATION.
- B) USE AN APPLICATION MACHINE THAT FEATURES POSITIVE DISPLACEMENT VOLUMETRIC METERING PUMPS CONTROLLED BY A HYDRAULIC POWER UNIT.
- C) STORE COMPONENTS IN TEMPERATURE CONTROLLED RESERVOIRS CAPABLE OF MAINTAINING 100 DEGREES FAHRENHEIT (PLUS OR MINUS 10 DEGREES) TO INSURE OPTIMAL MIXING.
- D) CHECK MIXING RATIO AT THE PUMP OUTLETS AS WELL AS CYCLE COUNTING CAPABILITIES TO MONITOR OUTPUT ON STANDARD FEATURES.
- E) USE MOTIONLESS IN-LINE MIXING SO AS TO NOT OVERLY SHEAR THE MATERIAL TO ENTRAP AIR IN THE MIX.
- F) MAXIMIZE MATERIAL WORKING TIME BY MIXING IT IMMEDIATELY BEFORE DISPENSING.

AGGREGATE SHALL BE ANGULAR, HAVING LESS THAN 0.2% MOISTURE AND FREE OF DIRT, CLAY, ASPHALT AND OTHER FOREIGN OR ORGANIC MATERIALS. AGGREGATE FOR ALL LAYERS SHALL BE BAUXITE OR FLINT ROCK PRODUCTS FLINT AND MEETS THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING
NO. 6	95-100
NO. 10	10-35
NO. 20	0-3

FULL AND PARTIAL DEPTH DECK REPAIR SHALL CURE A MINIMUM OF 28 DAYS BEFORE THE OVERLAY IS PLACED. THE 28 DAYS MAY BE WAIVED IF THE OVERLAY MANUFACTURER PROVIDES A METHOD OF TESTING THE REPAIRED AREAS AND APPROVES THE PLACEMENT BY LETTER. TRAFFIC SHALL BE ALLOWED TO USE THE BRIDGE DURING THE CURING PERIOD OF THE PATCHES BUT NOT AFTER SHOTBLASTING. MAGNESIUM PHOSPHATE BASED MATERIALS WILL NOT BE ALLOWED.

THE CONCRETE DECK SURFACE SHALL BE CLEANED BY SHOTBLASTING TO REMOVE ANY OIL, DIRT, RUBBER, TRAFFIC STRIPING, OR ANY OTHER POTENTIAL DETRIMENTAL MATERIAL SUCH AS CURING COMPOUND AND LAITANCES, WHICH THE MANUFACTURER AND ENGINEER'S OPINION WOULD PREVENT PROPER BONDING AND CURING OF THE MATERIAL. IN AREAS WHERE SHOTBLASTING EQUIPMENT CAN NOT REACH (I.E., ALONG CURBS AND BRIDGE RAILS) SANDBLASTING IS PERMITTED TO AN EXTENT TO THE ENGINEER'S AND MANUFACTURER'S APPROVAL. IMMEDIATELY BEFORE APPLICATION, ALL PREPARED SURFACES SHALL BE CLEANED WITH COMPRESSED AIR OR VACUUMED TO REMOVE DUST AND DEBRIS. THE CONTRACTOR IS TO PREVENT THE TRACKING OF TACK COAT AND CONSTRUCTION DEBRIS ACROSS THE BRIDGE DECK PRIOR TO APPLICATION OF THE THIN EPOXY OVERLAY. MILLING THE BRIDGE DECK WILL NOT BE AN OPTION FOR TACK COAT OR DEBRIS REMOVAL. REMOVAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

ALL SURFACES THAT ARE TREATED SHALL BE DRY AT THE TIME OF APPLICATION. THE OVERLAY SHALL NOT BE APPLIED WHEN IT HAS RAINED 24 HOURS PRIOR TO, OR RAIN IS FORECAST WITHIN 8 HOURS AFTER, APPLICATION. THE MOISTURE CONTENT IN THE DECK SUBSTRATE SHALL BE TESTED. MOISTURE IS NOT TO EXCEED 4.5 PERCENT WHEN MEASURED BY ELECTRONIC METER. IF THE TEST SHOWS EXCESS MOISTURE, THE DECK SHALL CONTINUE TO DRY BEFORE APPLICATION PROCEEDS.

BLUSHING (A WAXY SURFACE COATING ON THE EPOXY) IS CAUSED BY THE REACTION OF MOISTURE WITH THE HARDENING AGENT. BLUSHING CREATES A SURFACE THAT MAKES FUTURE LAYERS DIFFICULT TO ADHERE. LIFTS THAT SHOW SIGNS OF BLUSHING SHALL BE REMOVED AND REPLACED PRIOR TO APPLICATION OF THE NEXT. THE COST TO REMOVE AND REPLACE THESE AREAS SHALL BE AT THE CONTRACTOR'S EXPENSE.

TRAFFIC, OTHER THAN APPLICATION EQUIPMENT, SHALL NOT BE ALLOWED ON ANY PORTION OF THE DECK THAT HAS BEEN SHOTBLASTED OR WHERE PART OF THE APPLICATION HAS BEEN PLACED.

SEE MANUFACTURER'S RECOMMENDATIONS FOR REQUIRED AMBIENT AND SURFACE TEMPERATURES AND HUMIDITY LIMITS FOR APPLICATION.

THE MANUFACTURER SHALL HAVE A REPRESENTATIVE ON THE JOB SITE AT ALL TIMES DURING APPLICATION AND CURE TIME. THE REPRESENTATIVE, ALONG WITH CONSULTATION WITH ENGINEER, MAY SUSPEND ANY ITEM OF WORK THAT IS SUSPECT AND DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. WORK SHALL NOT RESUME UNTIL THE ENGINEER AND REPRESENTATIVE ARE SATISFIED THAT APPROPRIATE REMEDIAL ACTION HAS BEEN TAKEN BY THE CONTRACTOR.

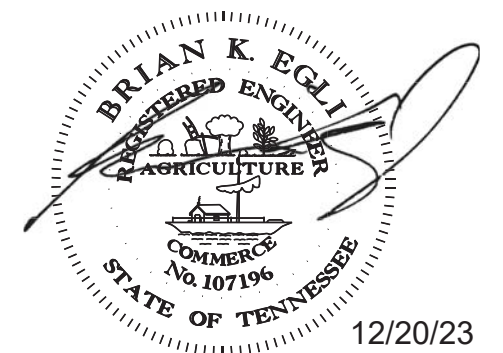
ALL COSTS FOR AGGREGATE, EPOXY FOR MINIMUM OF TWO LIFTS, SURFACE PREPARATION, LABOR AND ANY OTHER MISCELLANEOUS MATERIALS REQUIRED TO PLACE THIN OVERLAY SHALL BE INCLUDED IN ITEM NO. 617-04.01, TYPE 1 THIN EPOXY OVERLAY (EPOXY URETHANE), SY.

THICKNESS VERIFICATION: THE PROJECT ENGINEER SHALL BE NOTIFIED OF THE NUMBER OF GALLONS USED ON THE PROJECT WITH NOTARIZED QUANTITY STATEMENTS FROM THE CONTRACTOR AND THE MANUFACTURER. THE CONTRACTOR SHALL VERIFY TO TDOT THAT THE OVERLAY IS AN AVERAGE OF AT LEAST 3/8 INCH THICK AT THREE RANDOM LOCATIONS AGREED UPON BY THE PROJECT ENGINEER AND THE MATERIAL MANUFACTURER REPRESENTATIVE. IF 3/8 INCH AVERAGE IS NOT ACHIEVED, A RETEST SHALL BE PERFORMED IN ADJOINING AREAS. THIN AREAS SHALL BE RE-COATED AS DESCRIBED ABOVE BY THE CONTRACTOR AND RE-VERIFIED AT NO ADDITIONAL COST TO TDOT. THIS VERIFICATION SHALL CONSIST OF CORES MADE BY THE CONTRACTOR WITH A CORING BIT NOT LESS THAN 1-1/2" DIAMETER. THE TESTED AREAS SHALL BE REPAIRED BY THE CONTRACTOR BEFORE FINAL ACCEPTANCE BY THE PROJECT ENGINEER.

**** SPECIAL NOTE:**
 THE CONTRACTOR IS TO PREVENT THE TRACKING OF TACKCOAT AND CONSTRUCTION DEBRIS ACROSS THE BRIDGE DECK PRIOR TO APPLICATION OF THE THIN EPOXY OVERLAY. MILLING THE BRIDGE DECK WILL NOT BE AN OPTION FOR TACKCOAT OR DEBRIS REMOVAL. REMOVAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

 7:28:03 AM

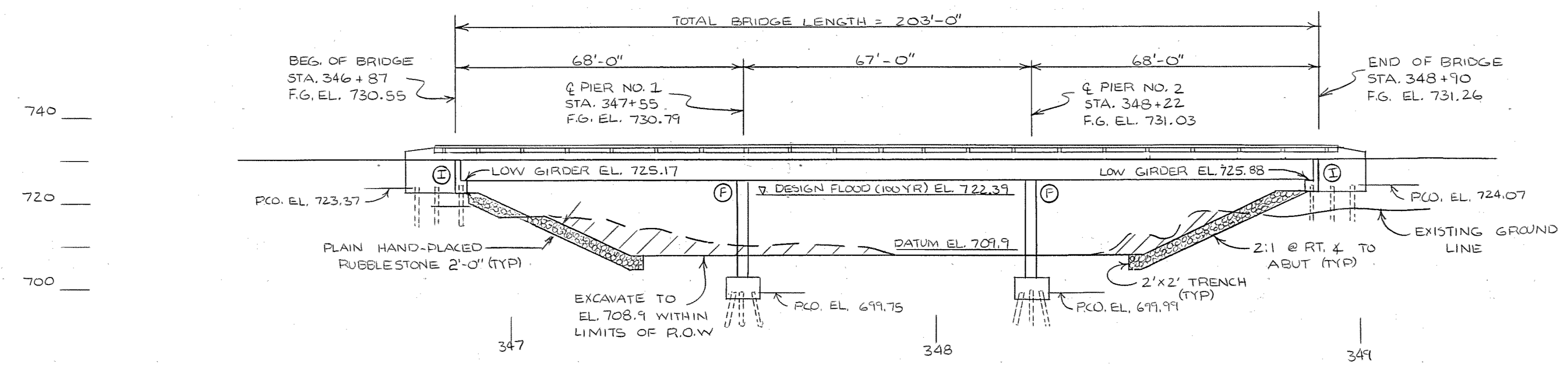
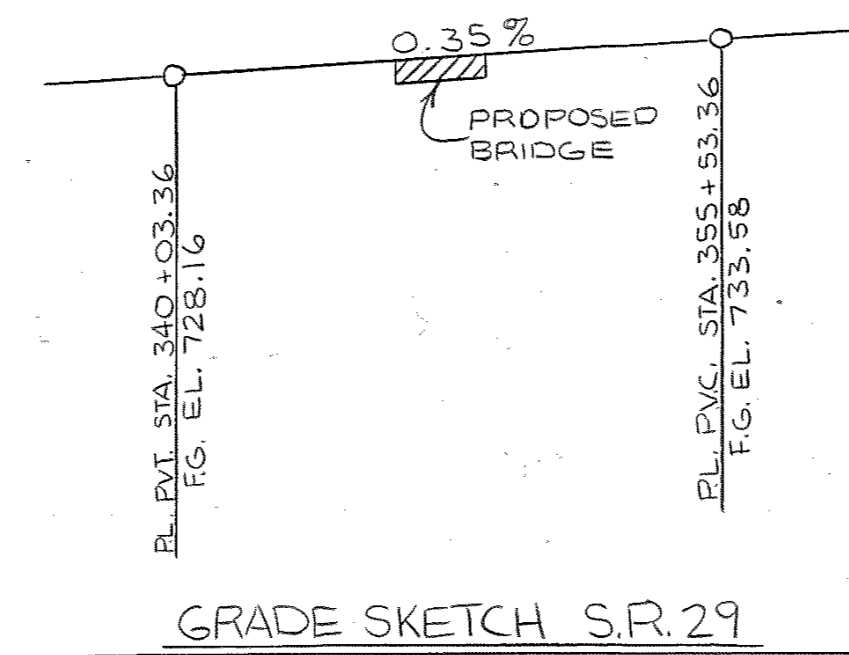
DESIGNED BY Z.HAYNES DATE 8/23
 DRAWN BY K.MARTINKO DATE 8/23
 SUPERVISED BY DATE
 CHECKED BY DATE



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
**TYPE I THIN EPOXY
 OVERLAY NOTES**
**33-SR29-27.28
 OVER
 ROCK CREEK
 33-SR29-28.26
 OVER
 SALE CREEK**
 BR. NOS. 33SR0290039
 33SR0290041
 HAMILTON COUNTY
 2024

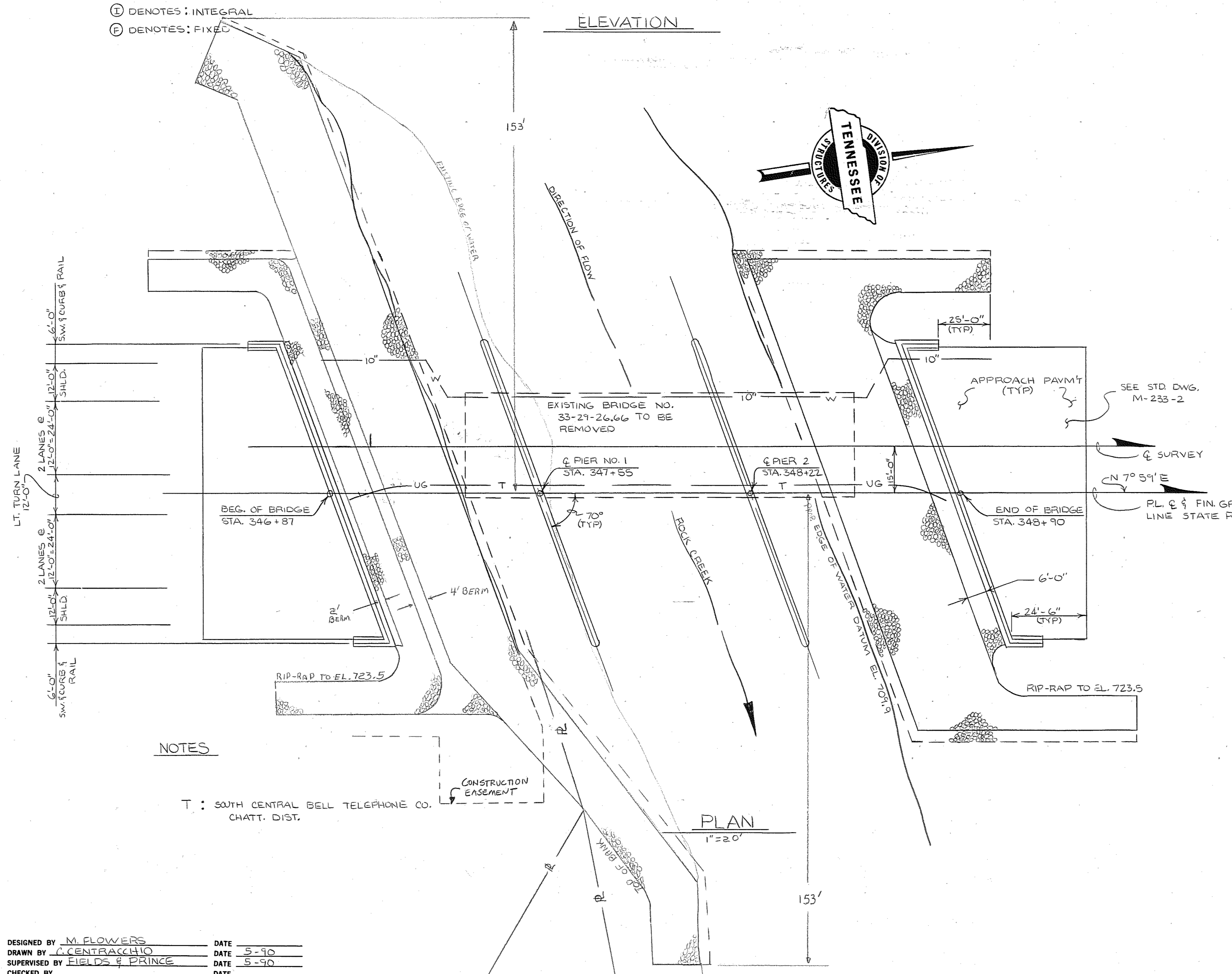
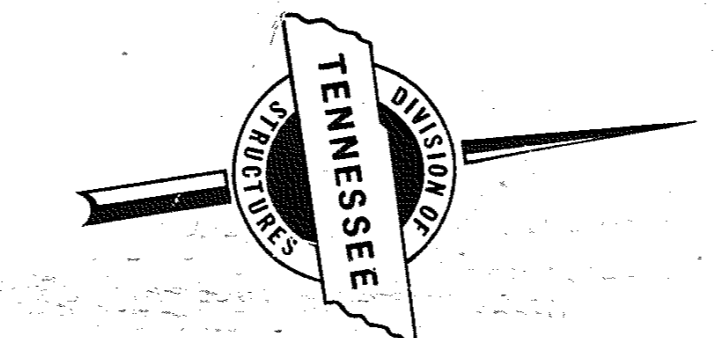
CONST. NO. 33036-3264-04

PROJECT NO.	YEAR	SHEET NO.	
S.P.	1990		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	3-7-91	P.O.D.	CHANGED RIP-RAP THICKNESS AND LATEST REVISION DATES
2	7-3-91	MEF	LATEST REVISION DATE
3	8-7-91	P.O.D.	ADDED CHANNEL TRANSITIONS & RIP-RAP @ ABUT. #1
4	8-27-91	MEF	LATEST REVISION DATES
5	2-10-92	PAM	" " " "



Ⓢ DENOTES: INTEGRAL
Ⓣ DENOTES: FIXED

ELEVATION



NOTES

T : SOUTH CENTRAL BELL TELEPHONE CO. CHATT. DIST.

DESIGNED BY M. FLOWERS DATE
DRAWN BY C. CENTRACCHIO DATE 5-90
SUPERVISED BY FIELDS & PRINCE DATE 5-90
CHECKED BY DATE

HYDRAULIC DATA
DRAINAGE AREA = 37.4 SQ. MI.
DESIGN DISCHARGE (100 YR.) = 12,000 CFS.
WATER AREA PROVIDED BELOW EL. 722.39 = 1775 FT²
DESIGN VELOCITY = 6.76 F.P.S.
BACKWATER = 0.74 FT.
OVERTOPPING EL. = 728.0
500 YR. DISCHARGE = 18,450 CFS.
500 YR. EL. = 724.52

LIST OF STANDARD DWG'S

DWG. NO.	REV. DATE
PORTABLE BARRIER RAIL	K-38-158 7-17-81
BRIDGE RAILING w/ STRUCTURAL TUBING	K-38-162 5-9-88
REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLAB	K-80-14 8-27-76
MISC. ABUTMENT AND DRAINAGE DETAILS	K-85-150 6-25-87
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	M-164-24 12-18-89
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	M-164-25 12-18-89
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS CONST. DETAILS	M-164-25A 12-18-89
* REINFORCED CONC. PAVT AT BRIDGE ENDS	M-233-2
* STD. FILE DETAILS	M-174-150

LIST OF SPECIAL PROVISIONS

PROV. NO.	REV. DATE
APPROVAL OF SHOP DRAWINGS	105A 07-21-87
CONCRETE STRUCTURES	604 5-14-90
STRUCTURAL CONCRETE	604C 8-01-89
PRECAST, PRESTRESSED BRIDGE DECK PANELS	604P 5-8-89
RIDEABILITY OF BRIDGE DECKS AND ROADWAY APPROACHES	604R 5-14-90
PRECAST, PRESTRESSED CONCRETE BRIDGE MEMBERS	615 12-11-89
EPOXY COATED REINFORCING STEEL	907A 03-25-85

* DENOTES STANDARDS TO BE PRINTED WITH PLANS.
ADT 2010 = 17,000
84'-0" ROADWAY w/ K-38-162 BRIDGE RAIL & 5'-0" SIDEWALKS
DESIGN SPEED = 60 MPH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
BRIDGE NO. 3
LAYOUT OF BRIDGE
STATE ROUTE 29 (U.S. 27) OVER
ROCK CREEK
BR. I.D. NO. 33SRO290039
STATION : 347+88.50
HAMILTON COUNTY
1990

CORRECT *Edward P. Wesserman*
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-136-121

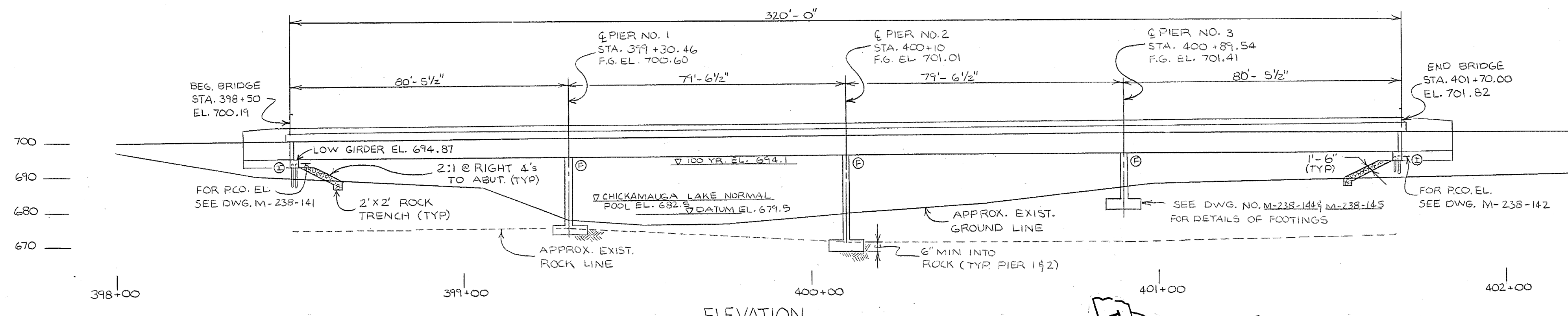
PORTABLE BARRIER RAIL = 253'-0" LF.

CLASS 'A' GRADING 'D' = 26 c.y.

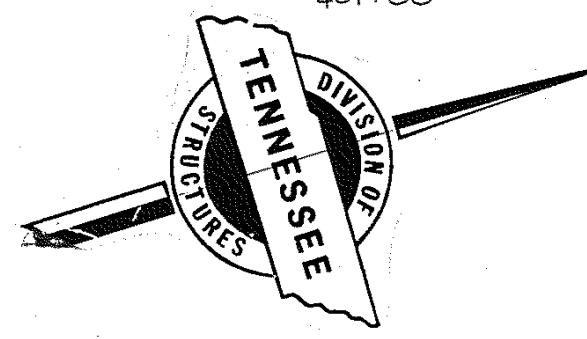
CONST. No. 33036-3263-04

PROJECT NO.	YEAR	SHEET NO.
SP	1990	

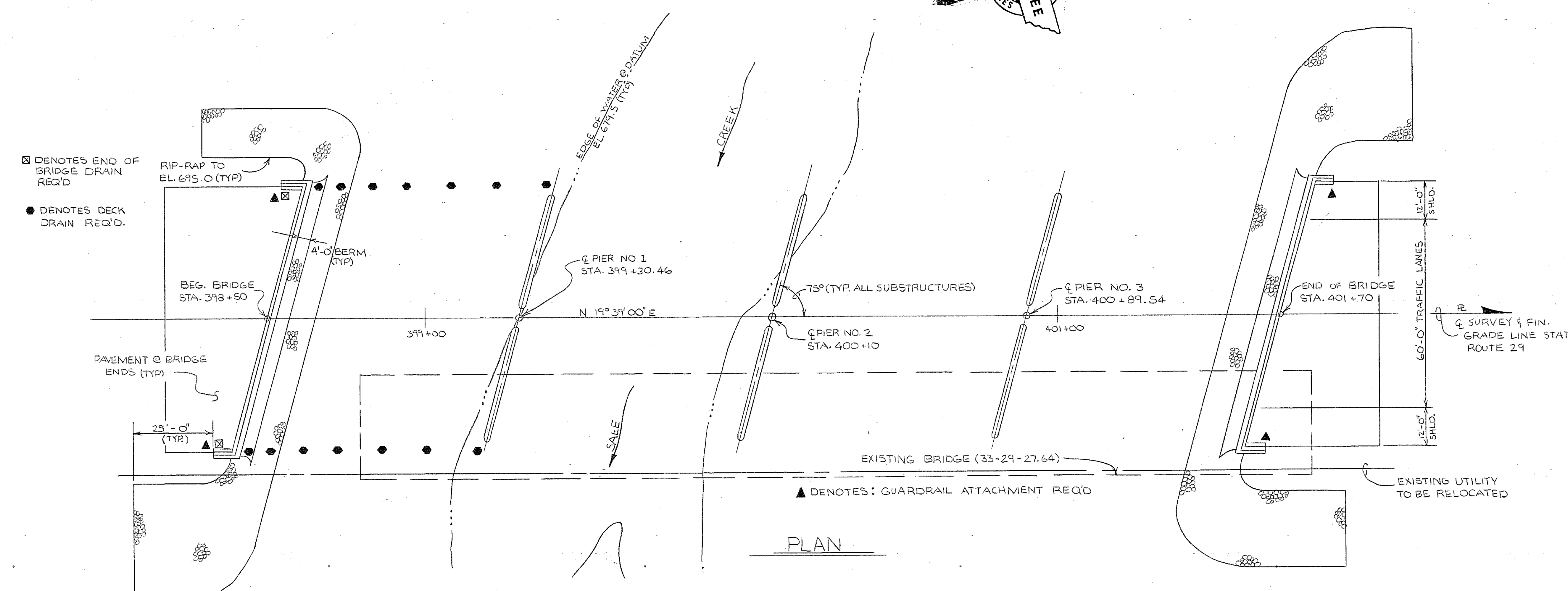
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	9-26-91	RTC	LAST REV. DATES TO LIST OF DWG'S.
2	8-21-92	RTC	LAST REV. DATES TO LIST OF DWG'S.



⊕ DENOTES: INTEGRAL
⊙ DENOTES: FIXED



LIST OF DRAWINGS	DWG. NO.	REV. DATE
LAYOUT OF BRIDGE	M-238-135	8-21-92
GEN. NOTES & EST. QUANT.	M-238-136	8-21-92
FOUNDATION DATA	M-238-137	
SUPERSTRUCTURE	M-238-138	8-21-92
SUPERSTRUCTURE DETAILS	M-238-139	8-21-92
PRESTRESSED T-BEAM DETAILS	M-238-140	
ABUTMENT NO. 1	M-238-141	9-26-91
ABUTMENT NO. 2	M-238-142	9-26-91
PIERS NO. 1 (LEFT & RIGHT)	M-238-143	
PIERS NO. 2 (LEFT)	M-238-144	
PIERS NO. 3 (RIGHT)	M-238-145	
BILL OF STEEL	M-238-146	8-21-92
BILL OF STEEL	M-238-147	
BILL OF STEEL	M-238-148	



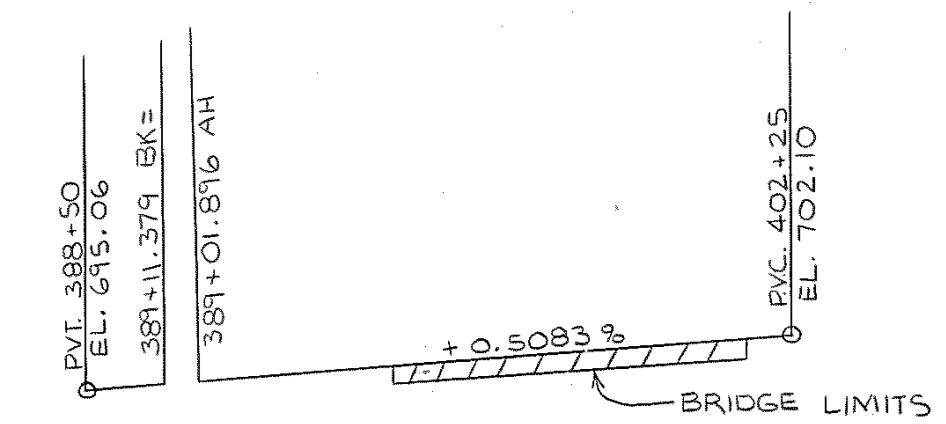
⊠ DENOTES END OF BRIDGE DRAIN REQ'D
● DENOTES DECK DRAIN REQ'D

LIST OF STANDARD DWG'S.	DWG. NO.	REV. DATE
REINF. BAR SUPPORT DETAILS FOR CONCRETE SLAB	K-80-14	8-27-76
MISC. ABUT. & DRAINAGE DETAILS	K-85-150	6-25-87
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	M-164-24	12-18-89
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	M-164-25	12-18-89
STD. PRECAST, PRESTRESSED BRIDGE DECK PANELS CONST. DETAILS	M-164-25A	12-18-89
* STD. PILE DETAILS	M-174-150	
* BRIDGE RAILING CONC. PARAPET	M-233-1	
* REINF. CONCRETE PAVEMENT AT BRIDGE ENDS	M-233-2	
* BRIDGE END DRAIN DETAILS	M-233-3	
* BRIDGE END DRAIN DETAILS	M-233-4	
* BRIDGE END DRAIN DETAILS	M-233-5	
* STD. CONCRETE MEDIAN BARRIER AND PARAPET DRAINS	M-28-1A	2-01-90
PORTABLE BARRIER RAIL	K-33-150	7-17-81

LIST OF SPECIAL PROVISIONS	PROV. NO.	REV. DATE
APPROVAL OF SHOP DRAWINGS	105A	07-21-87
CONCRETE STRUCTURES	604	05-14-90
STRUCTURAL CONCRETE	604C	08-01-89
PRECAST, PRESTRESSED BRIDGE DECK PANELS	604P	5-8-89
RIDEABILITY OF BRIDGE DECKS AND ROADWAY APPROACHES	604R	5-14-90
PRE-CAST, PRESTRESSED CONCRETE BRIDGE MEMBERS	615	12-11-89
MACHINED RIP-RAP	709	05-04-87
EPOXY COATED REINFORCING STEEL	907A	03-23-85
STRUCTURE EXCAVATION	204	2-19-90

* DENOTES: THESE STANDARDS ARE TO BE PRINTED WITH THE PLANS.

DECK DRAIN STATIONS	
NORTH BOUND	SOUTH BOUND
398+44	398+66.5
398+51	398+73.5
398+61	398+83.5
398+72	398+94.5
398+86	399+08.5
399+00	399+22.5
399+16	399+38.5



GRADE SKETCH
(ELEV. BASED ON F.G. LINE S-R. 29)

NOTE: TRAFFIC TO BE MAINTAINED ON EXISTING STRUCTURE UNTIL PHASE I CONSTRUCTION IS COMPLETED. TRAFFIC IS TO BE PLACED ON PHASE I CONSTRUCTION UNTIL STRUCTURE IS COMPLETED. TWO (2) 12'-0" TRAFFIC LANES TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

HYDRAULIC DESIGN DATA

DRAINAGE AREA = 62.9 SQ MILES
DESIGN DISCHARGE (100 YR.) = 17,500 CFS
AREA BELOW EL. 694.1 = 3100 SQ. FT.
100 YR. VELOCITY = 5.7 FT./SEC.
100 YR. BRIDGE BACKWATER = 0.49 FT.
ROADWAY OVER TOPPING EL. 694.6

1990 ADT = 9680
2010 ADT = 17,430

DESIGN SPEED = 60 MPH.
84'-0" ROADWAY W/ M-233-1 RAIL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
LAYOUT OF BRIDGE
STATE ROUTE 29 OVER
SALE CREEK
ID. NO. 33SR0290041
STATION 400+10.00
HAMILTON COUNTY
1990

DESIGNED BY R. CHRISTY DATE 3-90
DRAWN BY C. CENTRACCHIO DATE 3-90
SUPERVISED BY FIELDS & PRINCE DATE 3-90
CHECKED BY DATE

CORRECT *Edward P. Wasserman*
ENGINEER OF STRUCTURES
APPROVED _____
DIRECTOR OF HIGHWAYS

M-238-135

PORTABLE BARRIER RAIL = 370 L.F.

CLASS 'A' GRADING 'D' = 22.0 C.Y.

