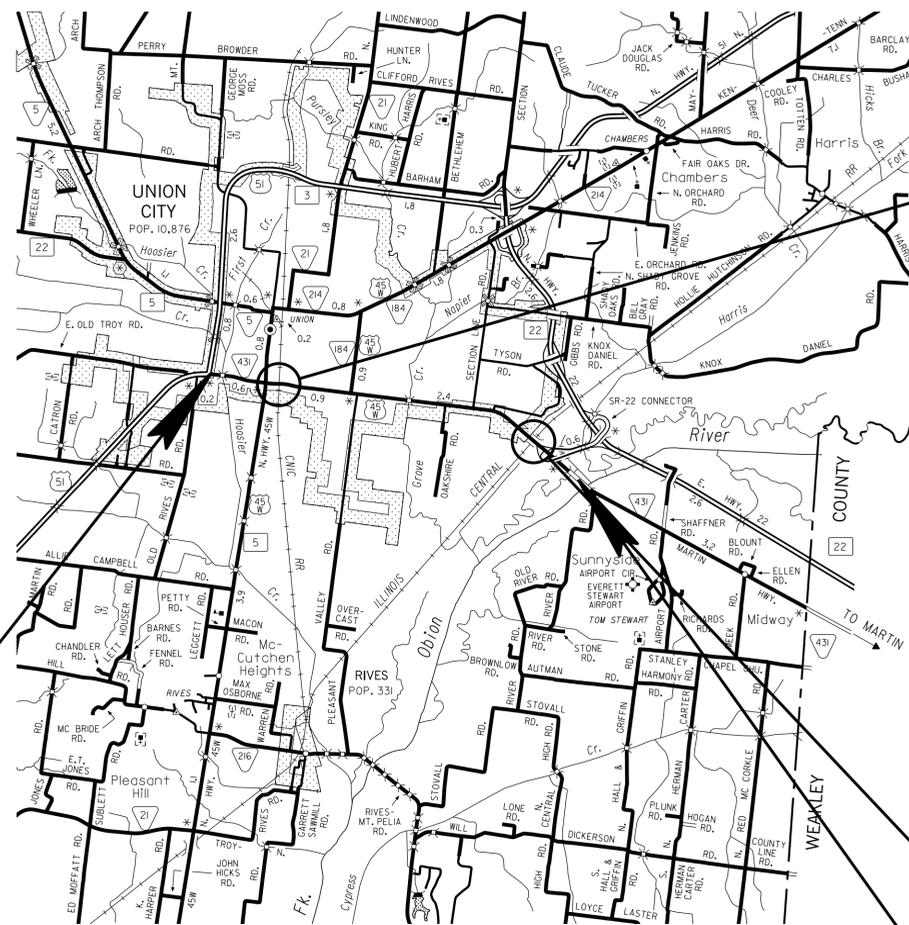


Index of Sheets

SHEET NO.	SHEET NAME
1 ...	TITLE SHEET
2 ...	ESTIMATED ROADWAY QUANTITIES
3 ...	TYPICAL SECTIONS
4-4A ..	GENERAL NOTES AND SPECIAL NOTES
5 ...	TRAFFIC CONTROL
B1 ...	BRIDGE TABULATION AND ESTIMATED QUANTITIES
B2 ...	EPOXY OVERLAY NOTE
B3-B4 .	RAILROAD NOTES AND DETAILS

Standard Roadway Drawings

SHEET NO.	REV.	DESCRIPTION
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RP-H-9	06-04-13	PARALLEL CURB RAMP FOR 20' THRU 60' RADIUS
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-2R		EARTH PAD FOR TYPE 38 TERMINAL (RETROFIT)
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS AND PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-RR-1	11-01-11	TYPICAL PAVEMENT MARKING AT RAILROAD-HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN LOOP LEAD-INS CONDUIT AND PULL BOXES
T-SG-2	07-29-04	
T-SG-3	11-11-04	NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS



END PROJECT L.M. 7.13
(JCT. S.R. 3)

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 MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

C.E. MANAGER 1 TABITHA CAVANESS, REG. 4

DESIGNER ROSE WILLIAMS/WILLIE COLEMAN, REG. 4 CHECKED BY WILLIE COLEMAN, REG. 4

P.E. NO. 98043-4283-04
PIN: 119609.00

PROJECT LENGTH **4.15 MILES**
TOTAL LANE MILES RESURFACED **19.63 MILES**

STATE HIGHWAY NO. 431 F.A.H.S. NO. N.A.

RESURFACING

FROM: L.M. 2.98 (N. FORK OBION RIVER BR.)
TO: L.M. 7.13 (JCT. S.R. 3)

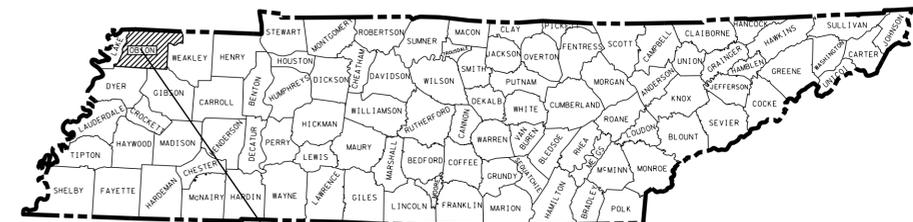
OBION COUNTY

S.R. 431

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

TENN.	YEAR 2014	SHEET NO. 1
FED. AID PROJ. NO.	NH/HSIP-431(13)	
STATE PROJ. NO.	66431-8203-14	

REV. 05-06-2014: UPDATED RAILROAD NOTE.



PROJECT SITE

UTILITY OWNERS	
UTILITY	UTILITY CONTACT
WATER SEWER	UNION CITY PUBLIC WORKS STEPHEN LADD (731) 885-9601 315 N. 5th ST. UNION CITY, TN 38261

RAILROAD NOTES

CROSSING DOT #299493T
CINC RXR @ L.M. 6.39 GRADE CROSSING

THE STATE CONTRACTOR SHALL REPLACE THE ADVANCE WARNING SIGNS, RXR PAVEMENT MARKINGS AND STOP LINES IN THE STATE HIGHWAY AND LOCAL ROADWAY APPROACHES TO THIS GRADE CROSSING.

THE STATE CONTRACTOR SHALL INSTALL EDGE LINES AND CENTER LINES FOR 200 FT. ON EACH SIDE OF THE CROSSING.

SEE SHEETS B3 AND B4

"THE RAILROAD WILL REPLACE THE SURFACE OF THE CROSSING #299493T USING IT OWN FORCES UNDER THIS PROJCTET.

THE STATE CONTRACTOR SHALL CLOSELY COORDINATE HIS WORK WITH THE RAILROAD DURING THIS CROSSING SURFACE REPLACEMENT, SO AS TO PROVIDE TRAFFIC CONTROL FOR THE CROSSING SURFACE REPLACEMENT, AND SO AS TO MAKE SURE THE COLD PLANING AND RESURFACING UP TO AND ADJACENT TO THE NEW CROSSING SURFACE IS DONE PROPERLY, AND AS DIRECTED BY THE RAILROAD".

CROSSING DOT # 297345S
CINC RXR @ L.M. 3.49 OVERHEAD BRIDGE

UNOFFICIAL
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BIDDING



APPROVED: Paul D. Deagan
CHIEF ENGINEER

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

BEGIN PROJECT L.M. 2.98
(N. FORK OBION RIVER BR.)

TRAFFIC DATA	
ADT (2014)	20290

APPROVED: _____
DIVISION ADMINISTRATOR DATE

28-APR-2014 16:16 \\JJD\dwf\04\state-tn-us\04\SHARED\Design\DESIGN\RESURF REC4 PROJ\OBION\SR 431\LM2-98-LMT-13\66431LM2-98 EST_QTYS.dgn

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	66431-8203-14 QUANTITY	NH/HSIP431(13) QUANTITY	66431-4205-04 QUANTITY	TOTAL QUANTITY	
	202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	100	0	0	100
①	203-01.05	EXCAVATION	C.Y.	8.36	0	0	8.36
	203-06	WATER	M.G.	2	0	0	2
②	303-02	MINERAL AGGREGATE, TYPE B BASE, GRADING (C OR D)	TON	248	0	0	248
③	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	46	0	0	46
④	307-01.15	ASC MIX (PG64-22) (BPMLC-HM) GRADING CS	TON	3727	0	0	3727
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	140	0	0	140
⑤	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	426	0	0	426
⑥	411-02.10	ACS MIX (PG70-22) GRADING D	TON	10496	0	0	10496
⑦	411-12.02	SCORING SHOULDERS (NON-CONTINUOUS) (16IN WIDTH)	L.M.	0	1.04	0	1.04
⑧	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	156347	0	0	156347
⑨	604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	S.Y.	0	0	14	14
⑩	604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	S.Y.	0	0	40	40
⑪	617-04.02	TYPE 2 THIN EPOXY OVERLAY (LOW-MOD EPOXY)	S.Y.	0	0	933	933
	701-02.01	CONCRETE HANDICAP RAMP (RETROFIT)	S.F.	0	5244	0	5244
⑫	701-02.03	CONCRETE HANDICAP RAMP	S.F.	0	452	0	452
⑬	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	0	7	0	7
⑭	712-01	TRAFFIC CONTROL	LS	0.5	0	0	0.5
⑮	712-06	SIGNS (CONSTRUCTION)	S.F.	2367	0	0	2367
⑯	712-05.01	WARNING LIGHTS (TYPE A)	EACH	16	0	0	16
⑰	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	96	0	0	96
⑱	712-08.03	ARROW BOARD (TYPE C)	EACH	4	0	0	4
	713-16.09	RAILROAD ADVANCE WARNING SIGN AND SUPPORT	EACH	0	3	0	3
	713-16.20	SIGNS (RR ADVANCE WARNING SIGN W10-4 AND SUPPORT)	EACH	0	1	0	1
	716-01.21	Snwplwble Pvmt Mrks (Bi-Dir)(1 Color)	EACH	0	1196	0	1196
⑲	716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.	0	876	0	876
⑳	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	0	183	0	183
㉑	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	0	900	0	900
㉒	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	0	140	0	140
㉓	716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	0	4	0	4
㉔	716-03.03	PLASTIC WORD PAVEMENT MARKING (STOP AHEAD)	EACH	0	10	0	10
㉕	716-03.06	PLASTIC WORD PAVEMENT MARKING (SIGNAL AHEAD)	EACH	0	12	0	12
㉖	716-04.02	PLASTIC PAVEMENT MARKING (DOUBLE TURNING ARROW)	EACH	0	20	0	20
㉗	716-04.05	PLASTIC PAVEMENT MARKING (STRAIGHT ARROW)	EACH	0	10	0	10
㉘	716-04.08	PLASTIC PAVEMENT MARKING (OPTION LANE ARROW)	EACH	0	5	0	5
㉙	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	45.09	0	0	45.09
㉚	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	0	24.07	0	24.07
㉛	716-12.03	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE)	L.F.	0	850	0	850
	717-01	MOBILIZATION	LS	0.5	0	0	0.5
㉜	730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	50	0	0	50
㉝	730-14.01	SHIELDED DETECTOR CABLE	L.F.	50	0	0	50
㉞	730-14.02	SAW SLOT	L.F.	3683	0	0	3683
㉟	730-14.03	LOOP WIRE	L.F.	10136	0	0	10136

FOOTNOTES

- ① FOR CONCRETE HANDICAP RAMP INSTALLATION.
 - ② INCLUDES 68 TONS FOR BREAKOUT.
 - ③ FOR REPLACEMENT OF QUANTITY REMOVED UNDER ITEM 202-03.01 ONLY.
 - ④ INCLUDES 131 TONS FOR COUNTY ROADS, CITY STREETS, BUSINESS FRONTS, AND PRIVATE DRIVES
194 TONS FOR GORE AREAS, INTERSECTIONS, TURN LANES AND 152 TONS FOR SHOULDERS
 - ⑤ FOR SHOULDERS ONLY.
 - ⑥ INCLUDES 376 TONS FOR COUNTY ROADS, CITY STREETS, BUSINESS FRONTS, AND PRIVATE DRIVES
559 TONS FOR GORE AREAS, INTERSECTIONS, TURN LANES AND 200 TONS FOR SPOT LEVELING.
 - ⑦ SEE SPECIAL PROVISION NO. 407G FOR MATERIAL TRANSFER DEVICE AND SPECIAL PROVISION NO. 411C FOR RIDEABILITY SPECIFICATIONS.
 - ⑧ FOR USE AT L.M. 2.98 TO L.M. 3.50 ONLY.
 - ⑨ INCLUDES 8437 SQ.YD. FOR GORE AREAS, INTERSECTION AND TURN LANES.
 - ⑩ SEE BRIDGE NOTES SHEETS B1 AND B2.
 - ⑪ FOR USE AT INTERSECTION OF S.R. 431 AND S. SUNSWEEP DR.
 - ⑫ FOR UPGRADE OF EXISTING ANCHORS AT ALL STRUCTURE LOCATIONS IN PROJECT LIMITS. THE COST OF REMOVAL OF EXISTING GUARDRAIL AND ANCHORS TO BE INCLUDED IN THIS ITEM.
 - ⑬ QUANTITY INCLUDES
 - 4 ROAD WORK NEXT 4 MI. (G20-1)
 - 4 END ROAD WORK (G20-2)
 - 40 UNEVEN LANES (W8-11)
 - 30 ROAD WORK AHEAD (W20-1)
 - 4 ROAD WORK 1 MILE (W20-1)
 - 4 ROAD WORK 1500 FT. (W20-1)
 - 4 ROAD WORK 1000 FT. (W20-1)
 - 4 ROAD WORK 500 FT. (W20-1)
 - 4 ONE LANE ROAD AHEAD (W20-4)
 - 4 FLAGGER AHEAD (W20-7a)
 - 4 FRESH OIL (W21-2)
 - 28 SHOULDER WORK (W21-5)
 - 4 MOTORCYCLE GROOVE SIGN (TN-64)
- THIS CONSTRUCTION SIGNING IS TO BE AS A MINIMUM. OTHER SIGNS AS DIRECTED BY THE ENGINEER MAY BE REQUIRED DURING DIFFERENT PHASES.
- ⑭ FOR FINAL PAVEMENT MARKING ONLY.
 - ⑮ FOR USE AS TEMPORARY LINE MARKINGS,
INCLUDES 3.75 MILES FOR BREAKOUT, SPOT LEVELING, COUNTY ROADS, TURN LANES AND INTERSECTIONS AND AN EXTRA 20.67 MILES FOR MILLING.
 - ⑯ FOR FINAL PAVEMENT MARKINGS,
INCLUDES 3.40 MILES FOR COUNTY ROADS, TURN LANES AND INTERSECTIONS
 - ⑰ SEE SHEET 5 FOR DETOUR TRAFFIC CONTROL.

⑱ SIGNALIZATION TABULATION

INTERSECTION	LOOP WIRE 730-14.03 (LIN. FT.)	SAW SLOT 730-14.02 (LIN. FT.)	SHIELDED CABLE 730-14.01 (LIN. FT.)	1" CONDUIT (PVC) 730-12.01 (LIN. FT.)
S.R. 431 @ SECTIONLINE RD.	1342	496	50	50
S.R. 431 @ MILES AVE.	1636	598	0	0
S.R. 431 @ EDWARDS ST.	1636	598	0	0
S.R. 431 @ HOME ST.	1636	598	0	0
S.R. 431 @ S.R. 5.	1636	598	0	0
S.R. 431 @ GREEN ACRES ENT.	1636	598	0	0
S.R. 431 @ S.R. 3.	614	197	0	0
TOTALS	10136	3683	50	50

* ANY QUESTIONS PLEASE CONTACT STANLEY DUNN @ 615-350-4571

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	NH/HSIP-431(13)	2

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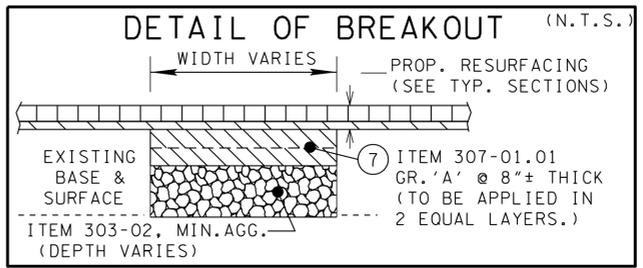
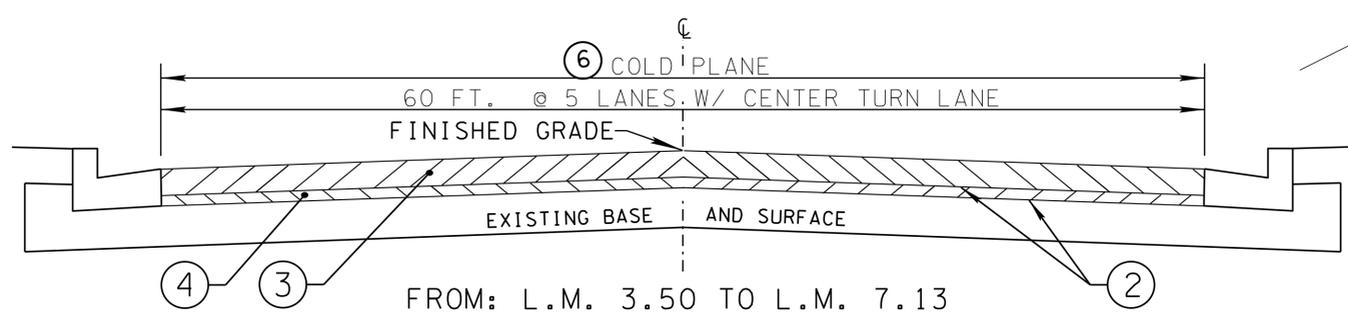
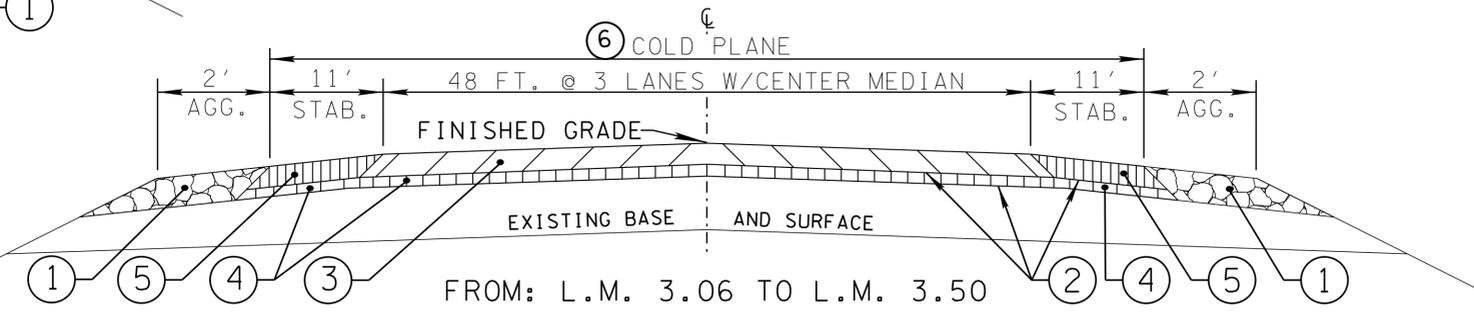
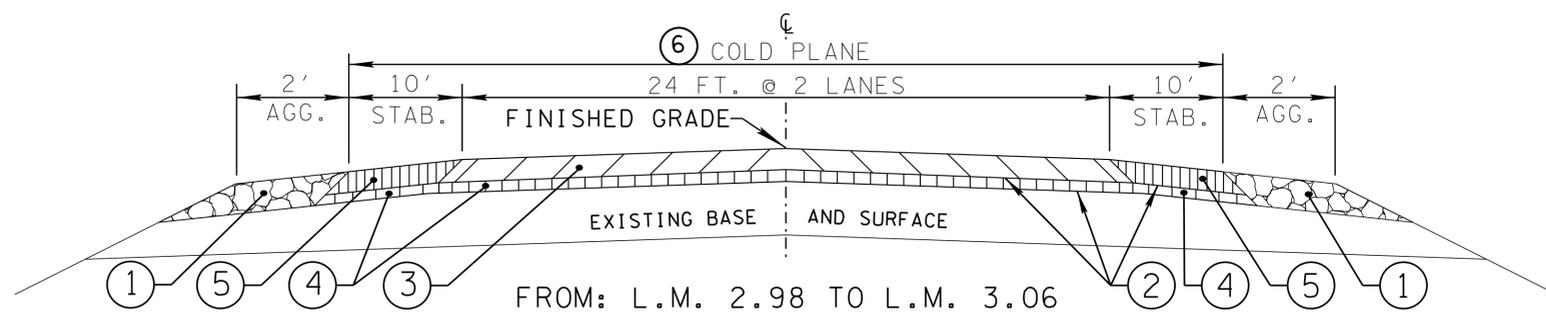


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ESTIMATED
ROADWAY
QUANTITIES**

TYPICAL SECTION

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	NH/HSIP-431 (13)	3
REV. 05-06-2014: UPDATED RAILROAD NOTE.			



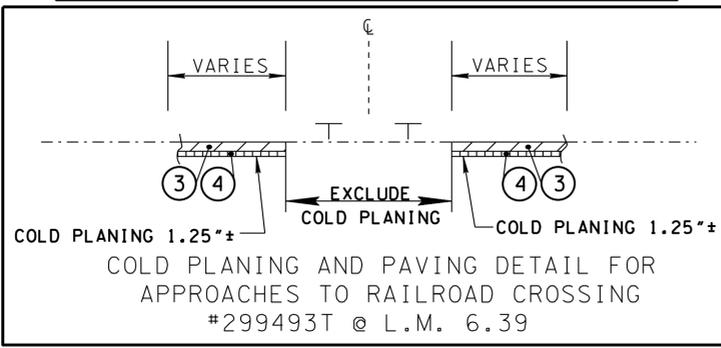
BRIDGE NOTE

THE CONTRACTOR SHALL:
 SEE BRIDGE TABULATION SHEETS B1 AND B2 AT L.M. 3.49 (140')
 "LEAVE AS IS"
 BRIDGES AT L.M. 7.00 (86')
 COLD PLANE 1.25" DEPTH AND PAVE 1.25" DEPTH ACROSS EXISTING STRUCTURES WITH PLANS QUANTITIES @ L.M. 4.96 (65')

VERTICAL CLEARANCES

NOTICE TO CONTRACTOR:
 @ L.M. 3.20

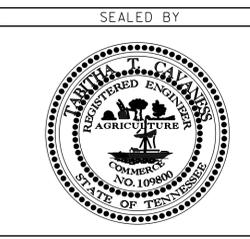
PROPOSED PAVEMENT SCHEDULE	
①	MINERAL AGGREGATE BASE @ 2"± THICK FOR SHOULDERS ITEM 303-02 MINERAL AGGREGATE, TYPE "B" BASE, GRADING "C OR D"
②	TACK COAT (TC) FOR MILLING - COLD PLANE ITEM 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (AT 0.10 GAL./S.Y.)
③	ASPHALTIC CONCRETE SURFACE (ACS) @ 1.25"± THICK (APPROX. 132.50 LBS./S.Y.) ITEM 411-02.10 ACS MIX (PG70-22) GRADING "D"
④	BITUMINOUS COURSE (LEVELING) @ 0.40"± THICK (APPROX. 46.00 LBS./S.Y.) ITEM 307-01.15 ACS MIX (PG64-22) (BPMLC-HM) GRADING CS
⑤	ASPHALTIC CONCRETE SURFACE (ACS) @ 1.25"± THICK (APPROX. 128.75 LBS./S.Y.) ITEM 411-01.07 ACS MIX (PG64-22) GRADING "E" (SHOULDER)
⑥	COLD PLANING @ 1.50"± THICK (APPROX. 157.50 LBS./S.Y.) ITEM 415-01.02 COLD PLANING BITUMINOUS PAVEMENT
⑦	BITUMINOUS BASE COURSE (BLACK BASE) @ 8"± THICK (APPROX. 920.0 LBS./S.Y.) ITEM 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "A" (THIS ITEM IS TO BE USED FOR BREAKOUT ONLY)



CONTRACTOR SHALL COLD PLANE AS CLOSE AS PRACTICAL TO THE FIELD SIDES OF THE GRADE CROSSING TIMBER AND ASPHALT SURFACE PANELS AND RESURFACE LEVEL WITH THE TOP OF THE CROSSING RAILS ON EACH SIDE OF THE CROSSING.

"SEE SPECIAL RR NOTE FOR CROSSING SURFACE REPLACEMENT BY THE RAILROAD, FOR RESURFACING UP TO AND ADJACENT TO THE RR CROSSING BY THE CONTRACTOR, AND FOR THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TRAFFIC CONTROL FOR THE CROSSING SURFACE REPLACEMENT BY THE RAILROAD."

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
 (NOT TO SCALE)

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TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	NH/HSIP-431 (13)	4A

SPECIAL NOTES

SURFACE IS TO BE CROWNED AS DIRECTED BY THE ENGINEER.

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. COST TO BE INCLUDED IN ITEM NO. 712-06.

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

UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PAINTED MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-05.01.

UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PLASTIC MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-12.01.

ITEM 303-02 TO BE PLACED BEFORE PLACING SURFACING MATERIAL.

THE CONTRACTOR WILL BE REQUIRED TO CLEAN AND BLADE GRASS FROM SHOULDERS BEFORE PLACING ITEM 303-02. MATERIAL BLADED FROM SHOULDERS TO BE PICKED UP AND DISPOSED OF AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN ITEM 303-02.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY SIGNS AND MAILBOXES DURING THE OPERATION, ANY SIGNS OR MAILBOXES DAMAGED AS A RESULT OF THE OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROPERLY ADJUST ALL MANHOLES, ALL UTILITY VALVE COVERS AND LIKE STRUCTURES TO THE FINISHED GRADE OF THE PAVEMENT. IF EXTENSION RINGS ARE USED. THEY WILL BE SPOT WELDED A MINIMUM OF FIVE TIMES. COST OF ADJUSTMENT IS TO BE INCLUDED IN ITEM 411-01, ADJUSTMENT IS TO BE MADE PRIOR TO THE LAYING OF ITEM 411-01.

SURFACE WILL BE FEATHERED TO MATCH EXISTING GRADE AT RAILROAD CROSSING AS DIRECTED BY THE ENGINEER.

MATERIAL TRANSFER DEVICE SHALL BE USED FOR "D" MIX.

BUSINESS ENTRANCES AND DRIVEWAYS WILL BE PAVED THE SHOULDER WIDTH AND ONE PAVER WIDTH PLUS UP TO THREE FEET LIP OFF.

ONLY 4 ARROW BOARDS WILL BE PAID FOR DURING THE LIFE OF THIS PROJECT. IF THE CONTRACTOR'S WORK PHASES REQUIRED ADDITIONAL ARROW BOARDS, THEIR COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

THE CONSTRUCTION OFFICE SHOULD CONTACT THE CITY ENGINEER FOR ADVICE ON LOCATING THE ADVANCE DETECTION LOOPS

THE CONTRACTOR SHALL NOT DISTURB EXISTING LOOP DETECTORS WHILE BREAKING OUT AND REMOVING EXISTING PAVEMENTS.

THE CONTRACTOR SHALL TAKE EXTREME CARE WHEN COLD PLANING THE EXISTING ASPHALT OFF BRIDGE DECK SO AS NOT TO DAMAGE THE EXISTING DECK SEALANT AND/OR EXPANSION JOINT MEMBERS (STEEL PLATES, BARS, AND/OR HEADERS). IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY REPAIRS TO ALL DAMAGED MEMBERS TO THE SATISFACTION OF THE PROJECT ENGINEER AT NO ADDITIONAL COST.

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.

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL

- A. DIFFERENCE 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. DIFFERENCE IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES.
 - a. WARNING SIGNS, UNEVEN PAVEMENT (W8-11) AND/OR SHOULDER DROP-OFF (W8-9A), 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.

SPECIAL EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS, BEFORE CLEANING OUT OR REMOVAL/REPLACEMENT OF DITCHES, SIDE DRAINS, AND CROSS DRAINS, TO ENSURE THAT THE DRAINAGE FEATURES/ WATERCOURSES ARE NOT STREAMS OR WETLANDS. IF THE CONTRACTOR/ TDOT INSPECTOR IS UNSURE WHETHER THE DRAINAGE FEATURES ARE STREAMS OR WETLANDS, THE INSPECTOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION TO OBTAIN THE APPROPRIATE PERMITS.

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS BEFORE CONSTRUCTING EARTH PADS FOR THE TYPE 38 TERMINALS TO ENSURE THAT THE ENVIRONMENTAL FEATURES (STREAMS, WETLANDS, OR SPRINGS) ARE NOT IMPACTED DURING CONSTRUCTION. IF THE CONTRACTOR/TDOT INSPECTOR IS UNSURE WHETHER THE ENVIRONMENTAL FEATURES ARE STREAMS, SPRINGS OR WETLANDS, THE INSPECTOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION ECOLOGY OR PERMITS SECTION SO AN ACCURATE DETERMINATION CAN BE ASSESSED. AND DURING CONSTRUCTION OF THE EARTH PADS FOR THE TYPE 38 GUARDRAIL TERMINALS, EXISTING VEGETATION WILL BE REQUIRED TO BE REMOVED FOR THE PROPOSED PAD AND SLOPES. IF DURING THE VEGETATION REMOVAL, ANY TREES GREATER THAN 3 INCHES IN DIAMETER ARE REQUIRED TO BE REMOVED, CONTACT THE TDOT ENVIRONMENTAL DIVISION ECOLOGY SECTION IMMEDIATELY. DUE TO RECENT MODIFICATION OF THE USFWS STANCE REGARDING THE INDIANA BAT NO TREES >3" DBH SHOULD BE CUT WITHOUT CLEARANCE FROM THE TDOT ENVIRONMENTAL DIVISION ECOLOGY SECTION.

DUE TO THE TYPE OF WORK IT IS OUR UNDERSTANDING THAT THE PROJECT WILL NOT DISTURB MORE THAN ONE ACRE. IF THE DISTURBED AREA IS MORE THAN ONE ACRE, PLEASE CONTACT THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION BECAUSE A NPDES PERMIT WILL BE REQUIRED.

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DEPARTMENT OF TRANSPORTATION

**SPECIAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	NH/HSIP-431 (13)	5

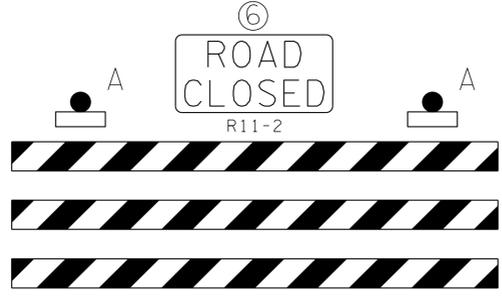
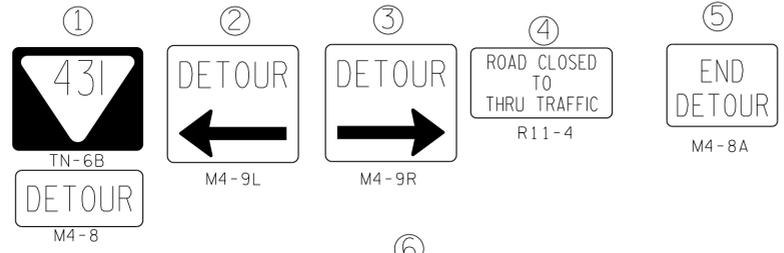
REV. 05-06-2014: ADDED MESSAGE BOARD NOTES AND CHANGED SIGN ROUTE NUMBERS.

TABULATION OF TRAFFIC CONTROL DEVICES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
712-01	TRAFFIC CONTROL	1	L.S.
712-05.01	WARNING LIGHTS (TYPE A)	16	EACH
712-06	SIGNS (CONSTRUCTION)	223	S.F.
712-07.03	TEMPORARY BARRICADE (TYPE III)	96	L.F.

TABULATION OF CONSTRUCTION SIGNS				
TYPE	LEGEND	SIZE	QUANTITY	ITEM NO. 712-06 S.F.
M4-8	DETOUR	24" X 12"	8	16
M4-9L	DETOUR	30" X 24"	3	15
M4-9R	DETOUR	30" X 24"	3	15
R11-2	ROAD CLOSED	48" X 30"	8	80
R11-4	ROAD CLOSED TO THRU TRAFFIC	60" X 30"	2	25
M4-8A	END DETOUR	48" X 48"	2	32
TN-6B	431	30" X 24"	8	40
TOTAL				223

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	TEMPORARY BARRICADE (TYPE III)
	SIGN (CONSTRUCTION)

S.R. 431 IS TO BE CLOSED FOR 48 HOURS.



TYPE III BARRICADE w/ TYPE A WARNING LIGHTS

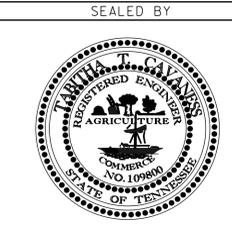
MESSAGE BOARD NOTES:

⑦ MESSAGE BOARDS (2) WILL BE REQUIRED TWO (2) WEEKS IN ADVANCE OF THE ROAD CLOSURE ON BOTH SIDES OF THE RAILROAD CROSSING. ADDITIONAL MESSAGE BOARDS (2) WILL BE REQUIRED IN ADVANCE ON US 51 (S.R. 3) AND ON S.R. 22 CONNECTOR, WHEN THE ROAD IS ACTUALLY CLOSED.

⑧ MESSAGE BOARDS WILL BE PROVIDED FOR THE RAILROAD CLOSURE AND ADVANCE NOTIFICATION ONLY. CONTACT JASON MOODY IN THE REGION IV TRAFFIC OFFICE AT 731-935-0813 THREE (3) WEEKS IN ADVANCE PRIOR TO THE CLOSURE.



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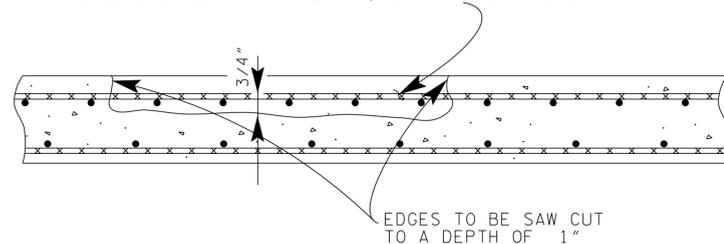
TRAFFIC CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
FED. AID PROJ. NO.	2014	NH/HSIP-431(13)	B1
STATE PROJ. NO.	2014	66431-8203-14	
BRIDGE REPAIR	2014	66431-4205-04	

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	604-10.50 BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB) SY	604-10.30 BRIDGE DECK REPAIR (FULL DEPTH OF SLAB) SY	617-04.02 TYPE 2 THIN OVERLAY (LOW-MOD EPOXY) SY
66-SR431-3.49/ I C RAILROAD BRIDGE ID (66SR220003)		BRIDGE DECK REPAIR EPOXY THIN OVERLAY	40	14	993
TOTAL			40	14	993

CONCRETE FOR DECK REPAIR SHALL BE HIGH EARLY CONCRETE WITH A COMPRESSIVE STRENGTH OF 3,000 p.s.i. AT 18 HOURS



SKETCH SHOWING DECK REPAIR (WIDEN AREA)

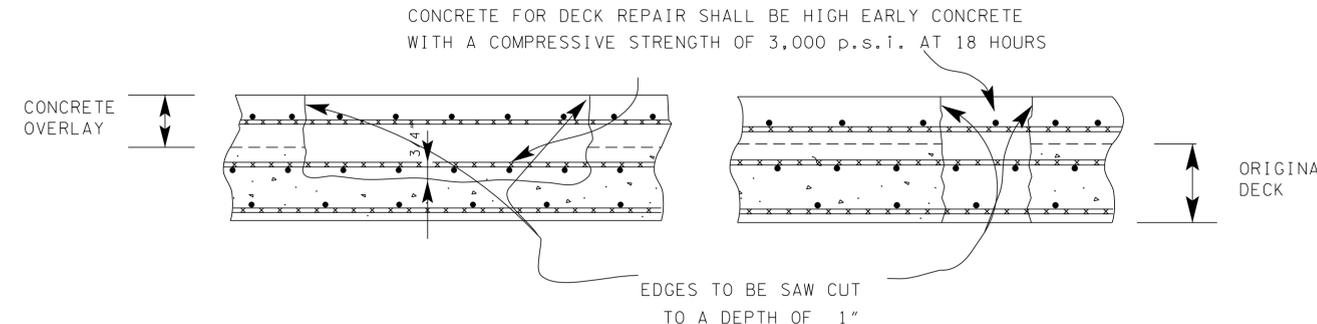
NOTE: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. CLEANING SHALL BE DONE PRIOR TO THE PLACING NEW CONCRETE OR INSTALLING PATCHING MATERIAL. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE BY TDOT CONSTRUCTION OFFICE.

BRIDGE DECK REPAIR MATERIAL

IF OVERNIGHT LANE CLOSURES ARE PROVIDED FOR THIS PROJECT AND THE LANE CLOSURES ARE SUCH THAT TRAFFIC WILL BE KEPT OFF THE BRIDGE DECK WHERE DECK REPAIRS WILL BE MADE, THEN HIGH EARLY STRENGTH CONCRETE SHALL BE USED WITH A COMPRESSIVE STRENGTH OF 3,000 p.s.i. AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT PROPOSED CONCRETE MIX WILL OBTAIN REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIAL AND TEST DIVISION OF TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. THE MIX TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS CLASS "A". EXCEPT THE CEMENT SHALL BE A MINIMUM OF 714 lbs. A HIGH RANGE, WATER REDUCING ADMIXTURE (SUPERPLASTICIZER) SHALL BE USED SUBJECT TO THE APPROVAL OF AND THE CONCRETE SHALL ATTAIN A MINIMUM OF COMPRESSIVE STRENGTH OF 3,000 p.s.i. IN 18 HOURS. TRAFFIC SHALL NOT BE ALLOWED ON REPAIRED AREAS UNTIL THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS.

POWER DRIVEN HAND TOOLS:

POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL AND FULL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS: (1) PARTIAL DEPTH REPAIRS; PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 lb. CLASS SHALL NOT BE USED. ALSO TRAFFIC CONTROL SHALL BE SET UP DURING PARTIAL DEPTH REPAIRS OVER TRAFFIC. (2) FULL DEPTH REPAIRS; PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 90 lb. CLASS SHALL NOT BE USED. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 lb. PNEUMATIC HAMMERS. (3) CHIPPING HAMMERS OF THE 15 lb. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.



SKETCH SHOWING DECK REPAIR FOR OVERLAY

- NOTE: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL IN ORIGINAL DECK. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. CLEANING SHALL BE DONE PRIOR TO PLACING NEW CONCRETE OR INSTALLING PATCHING MATERIAL. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE.
- NOTE: ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB) AND ITEM NO. 604-10.30, BRIDGE DECK REPAIR (FULL DEPTH OF SLAB), SHALL BE BID WITH THE CONTINGENCY THAT THIS MAY BE INCREASED, DECREASED OR ELIMATED AS DIRECTED BY THE ENGINEER.
- NOTE: TRAFFIC CONTROL SHALL BE PROVIDED ON ROADWAY UNDERPASS DURING PARTIAL DEPTH DECK REPAIR OF OVERHEAD BRIDGE.
- NOTE: THE COST OF CONCRETE, CONCRETE REMOVAL, LABOR, CLEANING REBARS AND ANY MISCELLANEOUS MATERIAL REQUIRED SHALL BE PAID FOR UNDER ITEM NO. 604-10.50 BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), S.Y. AND ITEM NO. 604-10.30 BRIDGE DECK REPAIR (FULL DEPTH OF SLAB) S.Y.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE
TABULATION
AND ESTIMATED
QUANTITIES

THIN EPOXY OVERLAY NOTES

TYPE 2 THIN EPOXY OVERLAY SYSTEM - USE 2 LIFTS OF LOW MODULUS EPOXY AND AGGREGATE. TYPE 2 HAS THE OPTION OF USING THE APPLICATION EQUIPMENT DESCRIBE BELOW OR HAND MIXING. THIN OVERLAY SYSTEM SHALL BE FROM THE QUALIFIED PRODUCTS LIST 23, SECTION D3. MINIMUM OVERLAY THICKNESS SHALL BE $\frac{3}{8}$ 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 ENSURE 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:

<u>SIEVE SIZE</u>	<u>% PASSING</u>
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. TRAFFIC SHALL BE ALLOWED TO USE THE BRIDGE DURING THE CURING PERIOD OF THE PATCHES BUT NOT AFTER SHOT BLASTING. MAGNESIUM PHOSPHATE BASED MATERIALS WILL NOT BE ALLOWED.

THE CONCRETE DECK SURFACE SHALL BE CLEANED BY SHOT BLASTING 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.

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 SHOT BLASTED OR WHERE PART OF THE APPLICATION HAS BEEN PLACED.

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

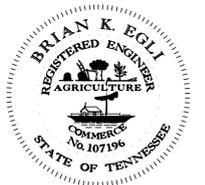
THE MANUFACTURER SHALL HAVE A REPRESENTATIVE ON THE JOB SITE AT ALL TIMES DURING APPLICATION AND CURE TIME. THE REPRESENTATIVE, ALONG WITH CONSULTATION WITH ENGINEER, MAY SUSPEND ANY ITEM OF WORK THAT IS SUSPECT AND DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. WORK SHALL NOT RESUME UNTIL THE 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. 617-04.02, TYPE 2 THIN EPOXY OVERLAY (LOW-MOD EPOXY), SY, AS CALLED FOR ON THE QUANTITY SHEET.

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 $\frac{3}{8}$ INCH THICK AT THREE RANDOM LOCATIONS AGREED UPON BY THE PROJECT ENGINEER AND THE MATERIAL MANUFACTURER REPRESENTATIVE. IF $\frac{3}{8}$ 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 MAY CONSIST OF CORES, HOLES, E.T.C., BUT IN ALL CASES, ANY DESTRUCTIVELY TEST AREAS SHALL BE REPAIRED BY THE CONTRACTOR BEFORE FINAL ACCEPTANCE BY THE PROJECT ENGINEER.

TYPE	YEAR	PROJECT NO.	SHEET NO.
FED. AID PROJ. NO.	2014	NH/HSIP-431(13)	B2
STATE PROJ. NO.	2014	66431-8203-14	
BRIDGE REPAIR	2014	66431-4205-04	

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EPOXY OVERLAY
NOTE

TYPE	YEAR	PROJECT NO.	SHEET NO.
FED. AID PROJ. NO.	2014	NH/HSIP-431(13)	B3
STATE PROJ. NO.	2014	66431-8203-14	
BRIDGE REPAIR	2014	66431-4205-04	

SPECIAL RAILROAD NOTES

1.) THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE RAILROAD'S TRACKS AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY SOUTHER RAILROAD ON THIS PROJECT SO AS TO MAINTAIN CLEARANCE AND NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER.

2.) THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DETAILED AND COMPREHENSIVE SCHEDULE, PLAN AND PROCEDURE FOR REVIEW AND APPROVAL BY SOUTHER RAILROAD FOR THE FOLLOWING TASKS IN THE RAILROAD'S RIGHT-OF-WAY:

- A) BRIDGE DECK REPAIR.
- B) EPOXY TYPE 2 THIN OVERLAY

3.) FOR CONCRETE DECK REPAIR OVER THE RAILROAD, CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO PREVENT DEBRIS FROM FALLING ON TO THE RAILROAD'S RIGHT OF WAY. FOR FULL DEPTH CONCRETE DECK REPAIR IN THE RAILROAD SPAN THIS SHALL BE ACCOMPLISHED BY USE OF BASKETS, NETTING, WRAPPING, SHIELD, OR SIMILARLY EFFECTIVE MEANS THAT WILL NOT INFRINGE ON THE VERTICAL CONSTRUCTION CLEARANCES IN THESE PLANS. BE ADVISED THAT RAILROADS WILL NOT ALLOW TRACK OR TRACKS TO BE OBSTRUCTED WITH AT GRADE CRANE MAT PROTECTION. FOR FULL DEPTH CONCRETE DECK REPAIR IN THE RAILROAD SPAN COMPLETE AND FULL ENCLOSURE OF STRUCTURE DEMOLITION WITHIN ALLOWABLE CLEARANCES WILL BE REQUIRED. COST OF REMOVING AND DISPOSING OF DEBRIS, COMPLETE AND FULL PROTECTION OF THE CONTRACTOR WORK AREA FOR DEMOLITION SHALL BE INCLUDED IN ITEMS BID ON.

4.) NO TEMPORARY FALSEWORK IF APPLICABLE WILL BE ALLOWED THAT INFRINGES ON A TEMPORARY HORIZONTAL CONSTRUCTION CLEARANCE OF 13'-0" FOR TANGENT TRACK OR 14'-0" FOR CURVED TRACK OR A TEMPORARY VERTICAL CONSTRUCTION CLEARANCE OF 22'-0". IT IS ANTICIPATED THAT FULL TIME FLAGGING WILL ONLY BE REQUIRED FOR FULL DEPTH CONCRETE DECK REPAIRS, AND ANY OTHER FLAGGING SERVICES REQUIREMENTS FOR THE BRIDGE DECK SEAL REPAIR CONSTRUCTION WILL BE AT THE DISCRETION OF THE RAILROAD.

5.) SEE RAILROAD AGREEMENT/ STATE CONTRACT SPECIAL PROVISION 105C TO SET UP FLAGGING SERVICES AND SUBMIT FOR INSURANCE REQUIRED FOR WORK ON THE HIGHWAY BRIDGE OVER THE RAILROAD.

RAILROAD CONTACT ADDRESSES:

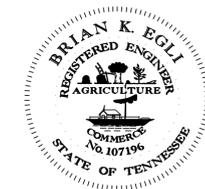
RAILROAD'S PUBLIC WORKS ENGINEER

MR. JOHN DINNING-MANAGER OF PUBLIC WORKS
 CN/ILLINOIS CENTRAL RAILROAD COMPANY
 SOUTHERN REGION OFFICE
 2151 NORTH MILL STREET
 JACKSON, MS 39202
 PHONE: (601) 914-2658
 CELL: (601) 594-2859
 FAX: (601) 914-2649
 E-MAIL: john.dinning@cn.ca

RAILROAD'S TRACK SUPERINTENDENT

MR. BRIAN McCUAN -SENIOR MANAGER OF ENGINEERING
 2921 HORN LAKE ROAD
 MEMPHIS, TN 38109
 PHONE: (601)592-1917
 FAX: (601)592-1753
 E-Mail: Brian.McCuan@cn.ca

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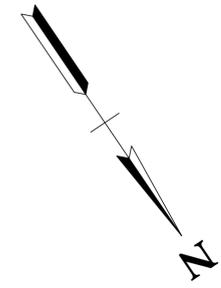
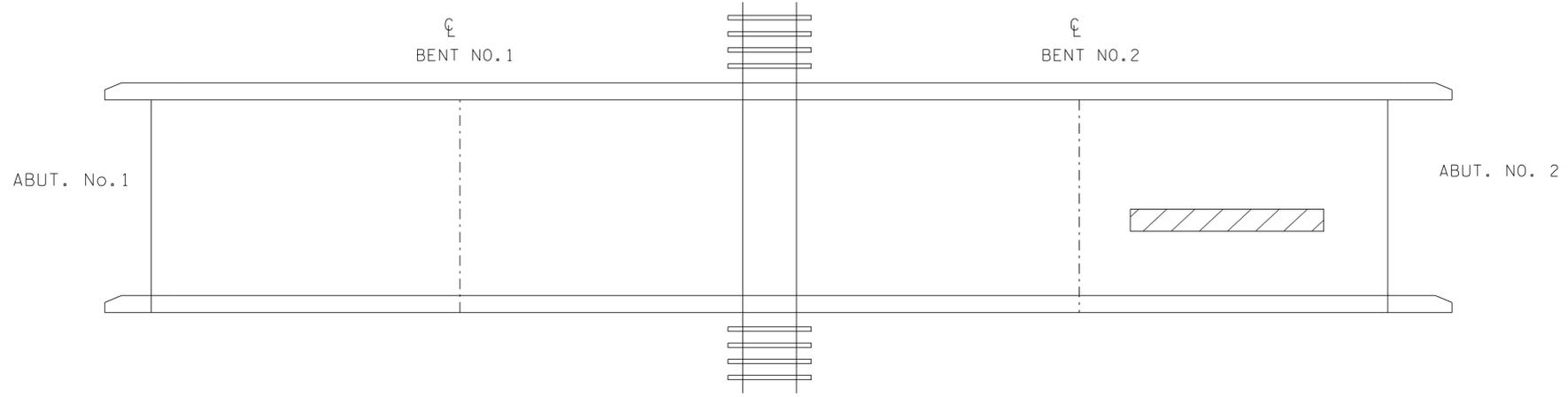


STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

RAIL ROAD
 NOTE

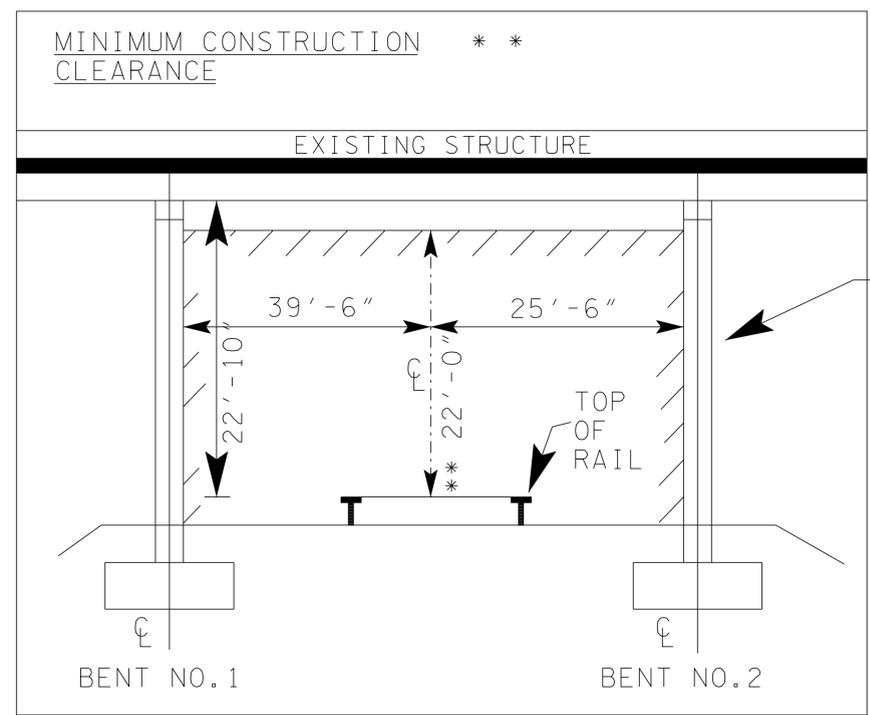
BRIDGE NO. 66-SR431-3.49

TYPE	YEAR	PROJECT NO.	SHEET NO.
FED. AID PROJ. NO.	2014	NH/HSIP-431(13)	B4
STATE PROJ. NO.	2014	66431-8203-14	
BRIDGE REPAIR	2014	66431-4205-04	



 APPROXIMATE LOCATION OF FULL DEPTH

ILLINOIS CENTRAL RAILROAD COMPANY



NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTION MAY BE PLACED WITHIN THESE LIMITS

** THE TEMPORARY MINIMUM VERTICAL CONSTRUCTION CLEARANCE FOR ILLINOIS CENTRAL RAILROAD COMPANY IS 22'-0" THAT MUST BE MAINTAINED AT ALL TIMES.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAILROAD
DETAILS

Index of Sheets

SHEET NO.	SHEET NAME
1 ...	TITLE SHEET
2 ...	ESTIMATED ROADWAY QUANTITIES
3 ...	TYPICAL SECTIONS
4 ...	GENERAL NOTES
4A ...	SPECIAL NOTES AND RAILROAD NOTES

Standard Roadway Drawings

SHEET NO.	REV.	DESCRIPTION
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RP-H-9	06-04-13	PARALLEL CURB RAMP TYPE 3 AND 4
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-2R		EARTH PAD FOR TYPE 38 TERMINAL (RETROFIT)
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS AND PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-RR-1	11-01-11	TYPICAL PAVEMENT MARKING AT RAILROAD-HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN
T-SG-2	07-29-04	LOOP LEAD-INS CONDUIT AND PULL BOXES
T-SG-3	11-11-04	NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

OBION COUNTY

S.R. 5

FROM: L.M. 15.57 (JCT. S.R. 431)
TO: L.M. 16.93 (JCT. S.R. 3)

RESURFACING

STATE HIGHWAY NO. 5 F.A.H.S. NO. N.A.

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	HSIP-5(99)	
STATE PROJ. NO.	66008-4233-04	

REV. 05-06-2014: UPDATED RAILROAD NOTES



PROJECT SITE

END PROJECT L.M. 16.93
(JCT. S.R. 3)

RAILROAD NOTES

CROSSING DOT #351022T
ON S.R. 5/S.R. 21 @ L.M. 16.35 GRADE CROSSING

THE STATE CONTRACTOR SHALL REPLACE THE ADVANCE WARNING SIGNS, RXR PAVEMENT MARKINGS AND STOP LINES IN THE STATE HIGHWAY AND LOCAL ROADWAY APPROACHES TO THIS GRADE CROSSING.

THE STATE CONTRACTOR SHALL INSTALL EDGE LINES AND CENTER LINES FOR 200 FT. ON EACH SIDE OF THE CROSSING.

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UTILITY OWNERS

UTILITY	UTILITY CONTACT
WATER SEWER	UNION CITY PUBLIC WORKS STEPHEN LADD (731) 885-9601 315 N. 5th ST. UNION CITY, TN 38261

APPROVED: *Paul D. Deagan*
CHIEF ENGINEER

DATE: _____

APPROVED: *John Schroer*
JOHN SCHROER, COMMISSIONER



BEGIN PROJECT L.M. 15.57
(JCT. S.R. 431)

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 MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT C.E. MANAGER 1 TABITHA CAVANESS, P.E., REG. 4

DESIGNER ROSE WILLIAMS/WILLIE COLEMAN, REG. 4 CHECKED BY WILLIE COLEMAN, REG. 4

P.E. NO. 98043-4283-04
PIN: 119615.00

SCALE: 0 1 2 3 MILES



PROJECT LENGTH 1.36 MILES
TOTAL LANE MILES RESURFACED 2.72 MILES

TRAFFIC DATA

ADT (2014)	5310
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APPROVED: _____
DIVISION ADMINISTRATOR DATE

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	HSIP-5(99)	2

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	66008-4233-04 QUANTITY	HSIP-5(99) QUANTITY	TOTAL QUANTITY
202-03.01	REMOVAL OF ASPHALT PAVEMENT	S.Y.	1530	0	1530
203-06	WATER	M.G.	8	0	8
① 303-02	MINERAL AGGREGATE, TYPE B BASE, GRADING (C OR D)	TON	1035	0	1035
② 307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	704	0	704
③ 307-01.15	ASC MIX (PG64-22) (BPMLC-HM) GRADING CS	TON	1306	0	1306
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	50	0	50
④⑤ 411-01.10	ACS MIX(PG64-22) GRADING D	TON	3962	0	3962
⑥ 415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	53502	0	53502
701-02.01	CONCRETE HANDICAP RAMP (RETROFIT)	S.F.	0	4788	4788
⑦ 705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	0	4	4
712-01	TRAFFIC CONTROL	LS	0.5	0	0.5
⑧ 712-06	SIGNS (CONSTRUCTION)	S.F.	736	0	736
713-16.09	RAILROAD ADVANCE WARNING SIGN AND SUPPORT	EACH		2	2
716-01.21	Snwplwble Pvmt Mrkrs (Bi-Dir)(1 Color)	EACH	0	156	156
⑨ 716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.	0	875	875
⑨ 716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	0	400	400
⑨ 716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	0	15	15
⑨ 716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	0	3	3
⑨ 716-03.06	PLASTIC WORD PAVEMENT MARKING (SIGNAL AHEAD)	EACH	0	1	1
⑨ 716-04.02	PLASTIC PAVEMENT MARKING(DOUBLE TURNING ARROW)	EACH	0	11	11
⑩ 716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	11.88	0	11.88
⑪ 716-05.08	PAINTED PAVEMENT MARKING (PARKING LINE)	L.F.	0	562	562
⑫ 716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	0	6.44	6.44
717-01	MOBILIZATION	LS	0.5	0	0.5
⑬ 730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	50	0	50
⑬ 730-14.01	SHIELDED DETECTOR CABLE	L.F.	50	0	50
⑬ 730-14.02	SAW SLOT	L.F.	1145	0	1145
⑬ 730-14.03	LOOP WIRE	L.F.	2290	0	2290

FOOTNOTES

- ① FOR BREAKOUT ONLY.
- ② FOR REPLACEMENT OF QUANTITY REMOVED UNDER ITEM 202-03.01 ONLY.
- ③ INCLUDES 76 TONS FOR COUNTY ROADS, CITY STREETS, BUSINESS FRONTS AND 460 TONS FOR GORE AREAS, INTERSECTIONS AND TURN LANES.
- ④ INCLUDES 218 TONS FOR COUNTY ROADS, CITY STREETS, BUSINESS FRONTS, 1324 TONS FOR GORE AREA, INTERSECTIONS, TURN LANES AND 200 TONS FOR SPOT LEVELING.
- ⑤ SEE SPECIAL PROVISION NO. 407G FOR MATERIAL TRANSFER DEVICE.
- ⑥ INCLUDES 19992 SQ.YD. FOR GORE AREAS, INTERSECTIONS, AND TURN LANES.
- ⑦ FOR UPGRADE OF EXISTING ANCHORS AT ALL STRUCTURE LOCATIONS IN PROJECT LIMITS. THE COST OF REMOVAL OF EXISTING GUARDRAIL AND ANCHORS TO BE INCLUDED IN THIS ITEM.
- ⑧ QUANTITY INCLUDES

2	ROAD WORK NEXT 2 MI.	(G20-1)	(48" X 24")
2	END ROAD WORK	(G20-2)	(48" X 24")
4	UNEVEN LANES	(W8-11)	(48" X 48")
24	ROAD WORK AHEAD	(W20-1)	(48" X 48")
2	ROAD WORK 1 MILE	(W20-1)	(48" X 48")
2	ROAD WORK 1500 FT.	(W20-1)	(48" X 48")
2	ROAD WORK 1000 FT.	(W20-1)	(48" X 48")
2	ROAD WORK 500 FT.	(W20-1)	(48" X 48")
2	ONE LANE ROAD AHEAD	(W20-4)	(48" X 48")
2	FLAGGER AHEAD	(W20-7a)	(48" X 48")
2	FRESH OIL	(W21-2)	(48" X 48")
2	MOTORCYCLE GROOVE SIGN	(TN-64)	(48" X 48")

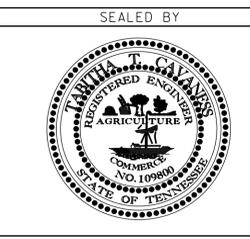
THIS CONSTRUCTION SIGNING IS TO BE AS A MINIMUM. OTHER SIGNS AS DIRECTED BY THE ENGINEER MAY BE REQUIRED DURING DIFFERENT PHASES.

- ⑨ FOR FINAL PAVEMENT MARKING ONLY.
- ⑩ FOR USE AS TEMPORARY LINE MARKINGS, INCLUDES 1 MILE FOR BREAKOUT, SPOT LEVELING, COUNTY ROADS, TURN LANES AND INTERSECTIONS, AND AN EXTRA 5.44 MILES FOR MILLING.
- ⑪ INCLUDES 495 L.F. FOR PARKING LINE X.
- ⑫ FOR FINAL PAVEMENT MARKINGS, INCLUDES 1 MILE FOR COUNTY ROADS, TURN LANES AND INTERSECTIONS,

⑬ SIGNALIZATION TABULATION				
INTERSECTION	LOOP WIRE 730-14.03 (LIN. FT.)	SAW SLOT 730-14.02 (LIN. FT.)	SHIELDED CABLE 730-14.01 (LIN. FT.)	1" CONDUIT (PVC) 730-12.01 (LIN. FT.)
S.R. 5 @ REELFOOT AVE.	916	458	50	50
S.R. 5 @ JACKSON ST.	916	458	0	0
S.R. 5 @ E. CHURCH ST.	0	0	0	0
S.R. 5 @ S.R. 3	458	229	0	0
TOTALS	2290	1145	50	50

* ANY QUESTIONS PLEASE CONTACT STANLEY DUNN @ 615-350-4571

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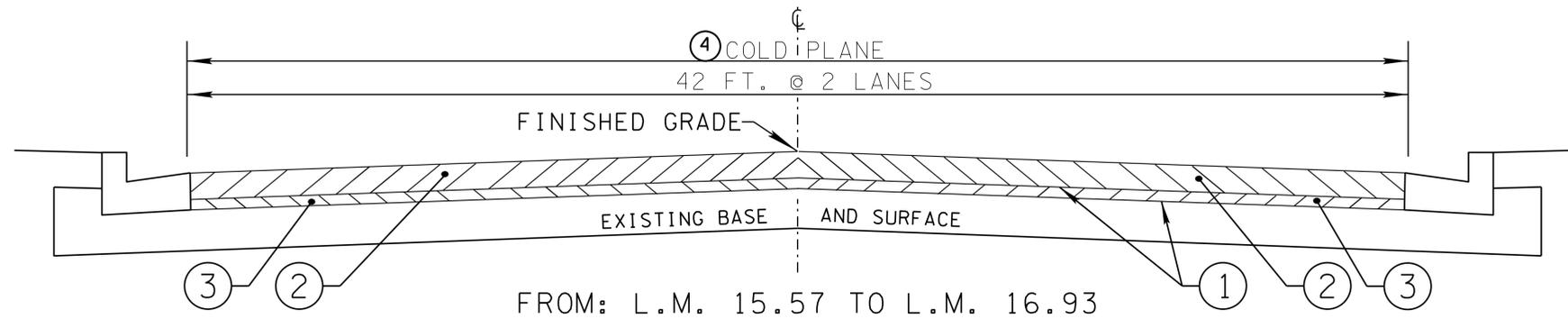
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ESTIMATED
ROADWAY
QUANTITIES**

TYPICAL SECTION

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	HSIP-5(99)	3

REV. 05-06-2014: CHANGED RAILROAD LOG MILES.

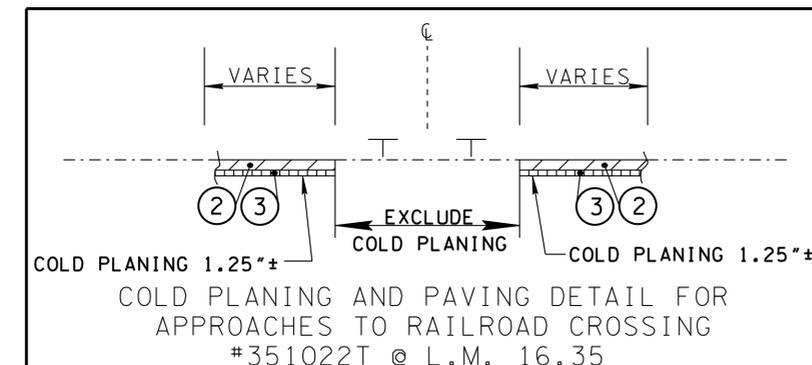
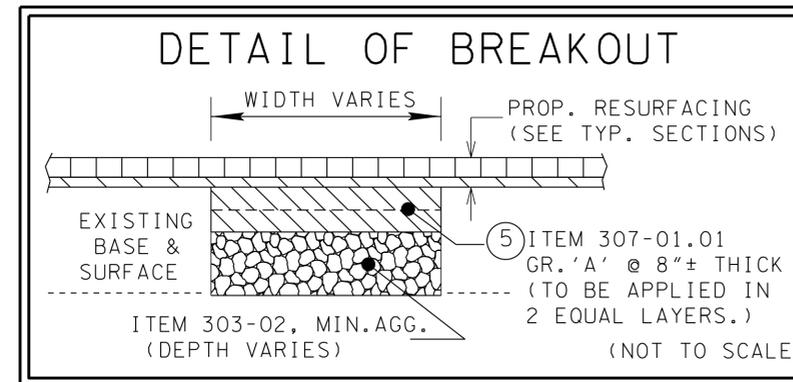


BRIDGE NOTE

THE CONTRACTOR SHALL:
PAVE ACROSS EXISTING STRUCTURES WITH
PLANS QUANTITIES ONLY @ L.M. 16.78 (49')

PROPOSED PAVEMENT SCHEDULE

①	TACK COAT (TC) FOR MILLING - COLD PLANE ITEM 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (AT 0.10 GAL./S.Y.)
②	ASPHALTIC CONCRETE SURFACE (ACS) @ 1.25"± THICK (APPROX. 132.50 LBS./S.Y.) ITEM 411-01.10 ACS MIX (PG64-22) GRADING "D"
③	BITUMINOUS COURSE (LEVELING) @ 0.40"± THICK (APPROX. 46.00 LBS./S.Y.) ITEM 307-01.15 ACS MIX (PG64-22) (BPMLC-HM) GRADING CS
④	COLD PLANING @ 1.50"± THICK (APPROX. 157.50 LBS./S.Y.) ITEM 415-01.02 COLD PLANING BITUMINOUS PAVEMENT
⑤	BITUMINOUS BASE COURSE (BLACK BASE) @ 8"± THICK (APPROX. 920.0 LBS./S.Y.) ITEM 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "A" (THIS ITEM IS TO BE USED FOR BREAKOUT ONLY)



CONTRACTOR SHALL COLD PLANE AS CLOSE AS PRACTICAL TO THE FIELD SIDES OF THE GRADE CROSSING RUBBER AND TIMBER SURFACE PANELS AND RESURFACE LEVEL WITH THE TOP OF THE CROSSING RAILS ON EACH SIDE OF THE CROSSING.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS
(NOT TO SCALE)

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	HSIP-5(99)	4

GENERAL NOTES

GRADING

ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

GUARDRAIL

THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPE UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

UTILITIES

THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S 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.

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.

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.

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.

MISCELLANEOUS

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

PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" SPRAY THERMOPLASTIC (60 mil) 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. 716-13.01, SPRAY THERMO PVMT MRKNG (60 mil) (4IN 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 OPERATIONS IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

PAVING

THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

RESURFACING

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.

SIGNALIZATION

EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

LOOPS SHALL BE INSTALLED IN THE LEVELING COURSE IF LEVELING COURSE IS PROVIDED.

LOOPS REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL NOTES

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.

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.

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.

TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

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 BE PARKED 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.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF.	2014	HSIP-5(99)	4A

SPECIAL NOTES

RAILROAD NOTES

SURFACE IS TO BE CROWNED AS DIRECTED BY THE ENGINEER.

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. COST TO BE INCLUDED IN ITEM NO. 712-06.

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

UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PAINTED MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-05.01.

UNDER THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO APPLY PLASTIC MARKINGS IN THE PAVEMENT AREAS NOT SPECIFICALLY DETAILED IN THE PLANS. PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR ITEM NO. 716-13.01.

ITEM 303-02 TO BE PLACED BEFORE PLACING SURFACING MATERIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY SIGNS AND MAILBOXES DURING THE OPERATION, ANY SIGNS OR MAILBOXES DAMAGED AS A RESULT OF THE OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROPERLY ADJUST ALL MANHOLES, ALL UTILITY VALVE COVERS AND LIKE STRUCTURES TO THE FINISHED GRADE OF THE PAVEMENT. IF EXTENSION RINGS ARE USED, THEY WILL BE SPOT WELDED A MINIMUM OF FIVE TIMES. COST OF ADJUSTMENT IS TO BE INCLUDED IN ITEM 411-01. ADJUSTMENT IS TO BE MADE PRIOR TO THE LAYING OF ITEM 411-01.

SURFACE WILL BE FEATHERED TO MATCH EXISTING GRADE AT RAILROAD CROSSING AS DIRECTED BY THE ENGINEER.

MATERIAL TRANSFER DEVICE SHALL BE USED FOR "D" MIX.

THIS POLICY DOES NOT APPLY TO BUSINESS ENTRANCES AND DRIVEWAYS BEHIND CURB AND GUTTER UNLESS OTHERWISE STATED IN THE PLANS OR DIRECTED BY THE ENGINEER.

THE CONSTRUCTION OFFICE SHOULD CONTACT THE CITY ENGINEER FOR ADVICE ON LOCATING THE ADVANCE DETECTION LOOPS

THE CONTRACTOR SHALL NOT DISTURB EXISTING LOOP DETECTORS WHILE BREAKING OUT AND REMOVING EXISTING PAVEMENTS.

THE BITUMINOUS MATERIAL DESIGNATED TO RESTORE THE COLD PLANING AREA WILL BE PLACED WITHIN 48 HOURS OF THE COMMENCEMENT OF COLD PLANING OPERATIONS. COLD PLANING OPERATIONS WILL BE LIMITED TO AN AREA EQUAL TO THAT WHICH CAN BE COVERED WITH BITUMINOUS MATERIAL WITHIN THE TIME LIMITS SPECIFIED. EVEN IF COLD PLANING OPERATIONS MUST BE SUSPENDED UNTIL PAVING CATCHES UP.

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.

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL

- A. DIFFERENCE 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. DIFFERENCE IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES.
 - a. WARNING SIGNS, UNEVEN PAVEMENT (W8-11) AND/OR SHOULDER DROP-OFF (W8-9A), 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.

SPECIAL EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS, BEFORE CLEANING OUT OR REMOVAL/REPLACEMENT OF DITCHES, SIDE DRAINS, AND CROSS DRAINS, TO ENSURE THAT THE DRAINAGE FEATURES/ WATERCOURSES ARE NOT STREAMS OR WETLANDS. IF THE CONTRACTOR/ TDOT INSPECTOR IS UNSURE WHETHER THE DRAINAGE FEATURES ARE STREAMS OR WETLANDS, THE INSPECTOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION TO OBTAIN THE APPROPRIATE PERMITS.

THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS BEFORE CONSTRUCTING EARTH PADS FOR THE TYPE 38 TERMINALS TO ENSURE THAT THE ENVIRONMENTAL FEATURES (STREAMS, WETLANDS, OR SPRINGS) ARE NOT IMPACTED DURING CONSTRUCTION. IF THE CONTRACTOR/TDOT INSPECTOR IS UNSURE WHETHER THE ENVIRONMENTAL FEATURES ARE STREAMS, SPRINGS OR WETLANDS, THE INSPECTOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION ECOLOGY OR PERMITS SECTION SO AN ACCURATE DETERMINATION CAN BE ASSESSED. AND DURING CONSTRUCTION OF THE EARTH PADS FOR THE TYPE 38 GUARDRAIL TERMINALS, EXISTING VEGETATION WILL BE REQUIRED TO BE REMOVED FOR THE PROPOSED PAD AND SLOPES. IF DURING THE VEGETATION REMOVAL, ANY TREES GREATER THAN 3 INCHES IN DIAMETER ARE REQUIRED TO BE REMOVED, CONTACT THE TDOT ENVIRONMENTAL DIVISION ECOLOGY SECTION IMMEDIATELY. DUE TO RECENT MODIFICATION OF THE USFWS STANCE REGARDING THE INDIANA BAT NO TREES >3" DBH SHOULD BE CUT WITHOUT CLEARANCE FROM THE TDOT ENVIRONMENTAL DIVISION ECOLOGY SECTION.

DUE TO THE TYPE OF WORK IT IS OUR UNDERSTANDING THAT THE PROJECT WILL NOT DISTURB MORE THAT ONE ACRE. IF THE DISTURBED AREA IS MORE THAN ONE ACRE, PLEASE CONTACT THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION BECAUSE A NPDES PERMIT WILL BE REQUIRED.

THE CONTRACTOR SHALL NOT, FOR ANY REASON, STORE CONSTRUCTION EQUIPMENT UPON OR STORE OR DUMP WASTE CONSTRUCTION MATERIALS UPON THE RAILROAD'S RIGHT-OF-WAY.

THE CONTRACTOR IS PROHIBITED FROM INSTALLING ANY CONSTRUCTION SIGNS, MESSAGE BOARDS, ARROW BOARDS, AND/OR OTHER TEMPORARY TRAFFIC CONTROL DEVICES WITHIN THE RAILROAD'S RIGHTS-OF-WAY, AND IN ALL CASES, THESE SIGNS MUST NEVER BE PLACED IN A POSITION SO AS TO OBSTRUCT THE VIEW OF ANY ADVANCE RAILROAD WARNING SIGNS OR ANY OTHER RAILROAD GRADE CROSSING WARNING DEVICES SUCH AS CROSS-BUCK SIGNS, CROSSING SIGNALS, ETC.

THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE ILLINOIS CENTRAL RAILROAD TRACK FACILITIES AND PROPERTIES FROM ANY DAMAGE, THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY ILLINOIS CENTRAL RAILROAD CO. SO AS TO MAINTAIN CLEARANCE AND NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER.

ANY RAILROAD WARNING SIGN INSTALLATION, RESURFACING OPERATIONS AND PAVEMENT MARKINGS INSTALLATION WITHIN 50 FEET OF THE NEAREST ILLINOIS CENTRAL RAILROAD TRACK UTILIZING CONTRACTOR EQUIPMENT OR PERSONNEL WILL REQUIRE FULL TIME RAILROAD FLAGGING SERVICES, TO BE PAID FOR DIRECTLY BY THE CONTRACTOR IN ACCORDANCE WITH SPECIAL PROVISION 105C (R) OF THE STATE CONTRACT.

SEE SPECIAL PROVISION 105C (R) TO SET UP FLAGGING SERVICES AND SUBMIT FOR INSURANCE REQUIRED FOR WORK AT OR NEAR THE GRADE CROSSING.

THE CONTRACTOR SHALL COORDINATE HIS WORK AT THE RAILROAD CROSSING WITH THE FOLLOWING REPRESENTATIVES OF THE RAILROAD.

CN
MR. BRIAN S. MCCUAN
SENIOR MANAGER ENGINEERING
7545 NOBLE ROAD
CHILES, KY 42086
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**SPECIAL NOTES
AND
RAILROAD NOTES**