

INDEX OF SHEETS
SEE SHEET NO. 1A FOR INDEX

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING

TENN.	YEAR	SHEET NO.
	2009	1
FED. AID PROJ. NO.	ARRA-STP-297(2)	
STATE PROJ. NO.	07026-8208-14	

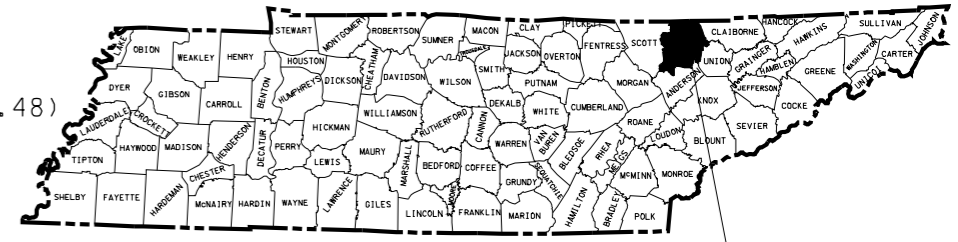
CAMPBELL COUNTY

S.R. 297: FROM: APPROX. 420' WEST OF LICK FORK LN. LT. (L.M. 5.40)
 TO: APPROX. 0.36 MILES EAST OF LITTLE ELK CREEK RD. (L.M. 11.48)

RESURFACING

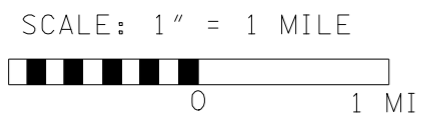
STATE HIGHWAY NO. 297 F.A.H.S. NO.

07026-8208-14
 END ARRA-STP-297(2)
 L.M. 11.48



CAMPBELL CO.
 S.R. 297

NO EQUATIONS
 NO EXCLUSIONS

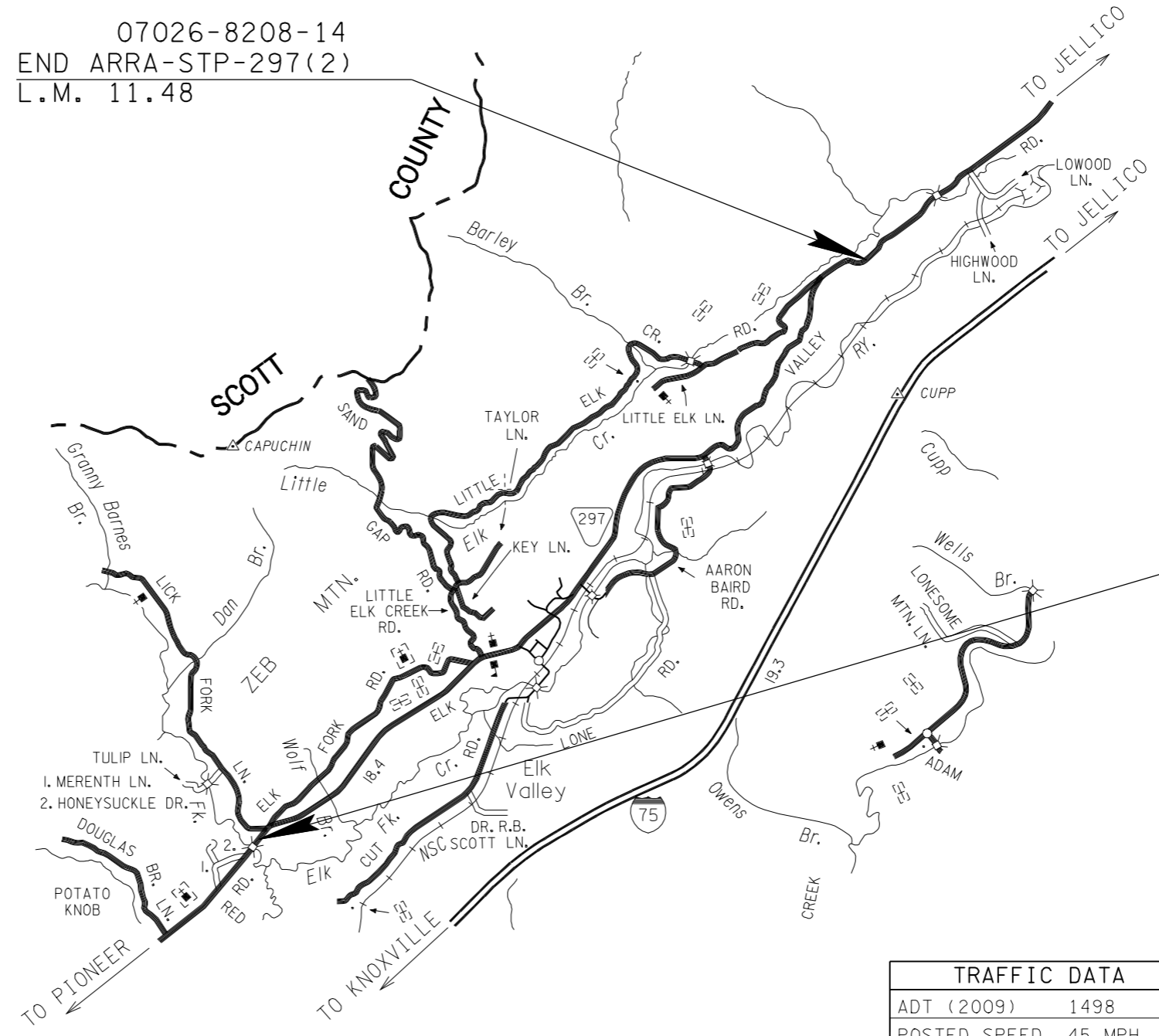


SPECIAL NOTES

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 ROAD SP. SV. 1 ANDREA R. HALL
 DESIGNER MATTIE E. MCDOWELL
 P.E. NO. 98013-4203-04
 PIN 081763.01



07026-8208-14
 BEGIN ARRA-STP-297(2)
 L.M. 5.40

APPROVED: Paul D. Duggan
 CHIEF ENGINEER

DATE: _____
 APPROVED: Sarah F. Kelly
 COMMISSIONER

TRAFFIC DATA	
ADT (2009)	1498
POSTED SPEED	45 MPH

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
 DIVISION ADMINISTRATOR

DATE: _____

PROJECT LENGTH 6.08 MILES

INDEX OF SHEETS

STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2009	ARRA-STP-297(2)	1A

CAMPBELL CO. S.R. 297
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DESCRIPTION	SHEET NO.
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ROADWAY DESIGN STANDARDS

DWG.NO.	CURRENT REV. DATE	STANDARD TITLE
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS

SAFETY APPURTENANCES AND FENCE

DWG.NO.	CURRENT REV. DATE	STANDARD TITLE
S-GR-11	11-26-07	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR-12	05-27-03	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS
S-GR-13	05-27-03	BARRIER RAIL MOUNTING, POST BLOCK-OUTS WITH VERTICAL ADJUSTMENT HOLES
S-GR-13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR-14	09-05-98	W-BEAM BARRIER FASTENING HARDWARE AND BRIDGE APPROACH DELINEATORS
S-GR-15	06-30-05	W-BEAM BARRIER TERMINAL ELEMENT DETAILS
S-GR-38A	06-30-05	DETAILS FOR CONSTRUCTION OF ALTERNATE EARTH PAD FOR TYPE 38 GUARDRAIL END TERMINALS
S-GR-43		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) POST LAYOUT AND ERECTION DETAILS
S-GR-44		TANGENTIAL GUARDRAIL TERMINAL ANCHOR (TYPE 38) (2 TUBE) GUARDRAIL ELEMENT POST AND ASSEMBLY DETAILS

TRAFFIC CONTROL APPURTENANCES

DWG.NO.	CURRENT REV. DATE	STANDARD TITLE
T-M-1	04-15-04	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-4	03-15-07	STANDARD INTERSECTION PAVEMENT MARKINGS
T-RR-1	10-23-06	TYPICAL PAVEMENT MARKING AT RAILROAD-HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN
T-S-16	10-23-06	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A		GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	10-26-96	GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	05-27-01	SIGN DETAILS

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RESURF	2009	ARRA-STP-297(2)	2

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ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
208-01	SHOULDERS AND DITCHES	L.M.	12.2
① 303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	2312
② 307-01.15	ACS MIX (PG64-22)(BPMLC-HM) GRADING CS	TON	1865
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	17
③ 411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	456
④ 411-01.10	ACS MIX (PG64-22) GRADING D	TON	6491
⑤ 705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	16
⑥ 705-04.09	EARTH PAD FOR TYPE 38 GR END TREATMENT	EACH	10
712-01	TRAFFIC CONTROL	L.S.	1
⑦ 712-06	SIGNS (CONSTRUCTION)	S.F.	511
⑭ 713-16.05	RAILROAD CROSSBUCK SIGN AND SUPPORT	EACH	2
⑧ 713-16.20	SIGNS (W1-8)	EACH	6
⑨ 713-16.21	SIGNS (W2-2)	EACH	1
⑩ 713-16.22	SIGNS (W7-1)	EACH	1
⑪ 713-16.23	SIGNS (W1-2)	EACH	1
⑫ 713-16.24	SIGNS (W11-3)	EACH	4
⑮ 713-16.25	SIGNS (W10-3)	EACH	2
⑯ 713-16.26	SIGNS (R8-8)	EACH	2
⑬ 716-01.01	RAISED PAVEMENT MARKERS (TYPE 1)	EACH	1203
716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	70
⑭ 716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	2
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	61
717-01	MOBILIZATION	L.S.	1

FOOTNOTES

- ① INCLUDES 300 TONS FOR PULL-OFFS.
- ② INCLUDES 21 TONS FOR COUNTY ROADS AND 60 TONS FOR WIDE CURVES.
- ③ FOR SPOT LEVELING .(SPOT LEVELING TO BE USED ONLY TO CORRECT DEFICIENCIES ON EXISTING PAVEMENT AND IS NOT TO BE COMBINED WITH OTHER COURSES.)
- ④ INCLUDES 180 TONS FOR PRIVATE DRIVES, 125 TONS FOR BUSINESS ENTRANCES, 70 TONS FOR COUNTY ROADS AND 200 TONS FOR WIDE CURVES.
- ⑤ TO BE USED IN THE FOLLOWING LOCATIONS OR AS DIRECTED BY THE TDOT SUPERVISOR. INCLUDES COST OF REMOVING EXISTING GUARDRAIL AND TERMINALS. REMOVED GUARDRAIL AND TERMINAL TO BECOME PROPERTY OF THE STATE MAINTENANCE FORCES UPON COMPLETION OF THIS PROJECT.

L.M. 9.75 (RT.)	L.M. 10.80 (LT.)
L.M. 9.80 (RT.)	L.M. 10.86 (LT.)
L.M. 9.84 (RT.)	L.M. 11.00 (LT.)
L.M. 10.00 (RT.)	L.M. 11.08 (LT.)
L.M. 10.10 (RT.)	L.M. 11.10 (LT.)
L.M. 10.10 (RT.)	L.M. 11.10 (RT.)
L.M. 10.40 (RT.)	L.M. 11.30 (LT.)
L.M. 10.40 (LT.)	L.M. 11.40 (LT.)

⑥ INCLUDES ALL MATERIALS NECESSARY FOR CONSTRUCTION OF THE PAD AND ANY NECESSARY EPSC MEASURES.

⑦ QUANTITY INCLUDES THE FOLLOWING SIGNS:

<u>13</u> - ROAD WORK	(W20-1)
2 - ONE LANE ROAD	(W20-4)
<u>2</u> - FLAGGER	(W20-7a)
<u>2</u> - ROAD WORK NEXT <u>7</u> MILES	(G20-1)
<u>2</u> - ADVISORY SPEED	(W13-1)
<u>2</u> - END ROAD WORK	(G20-2)
<u>34</u> - SHOULDER DROP-OFF	(W8-9a)

⑧ TO BE USED AT L.M. 9.70, 9.80 AND 10.20 OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑨ TO BE USED AT L.M. 8.00 RT. OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑩ TO BE USED AT L.M. 10.42 RT. OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑪ TO BE USED AT L.M. 9.40 RT. OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑫ TO BE USED AT L.M. 9.00 LT.& RT. AND L.M.11.00 LT.& RT. OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑬ TO BE USED ON CENTERLINE AND EDGELINES.

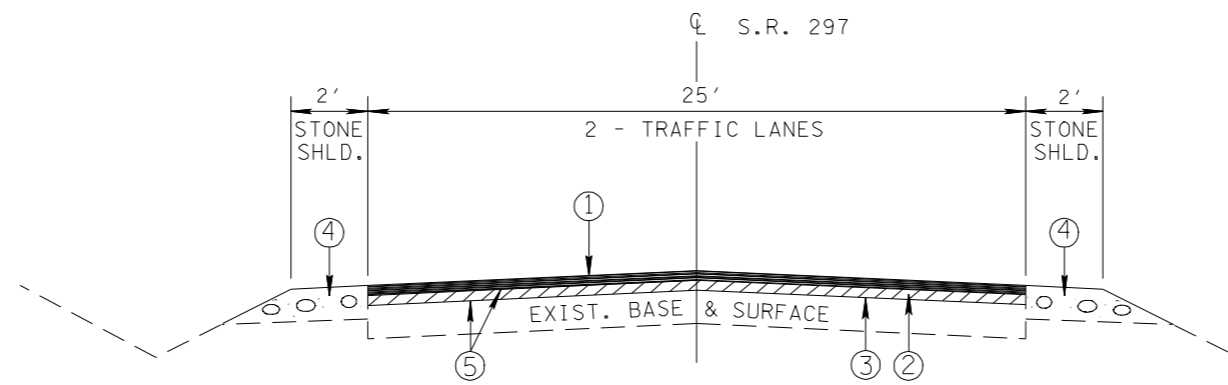
⑭ TO BE USED FOR AT GRADE R/R CROSSING ON WILKINS ROAD (L.M.8.21± RT.). INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD DRAWINGS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑮ TO BE USED AT L.M.8.12± RT. AND L.M.8.30± LT. OR AS DIRECTED BY THE TDOT SUPERVISOR.

⑯ PLACE ONE OF THESE NEAR THE EASTERN END OF THE BRIDGE OVER ELK FORK CREEK ON WILKINS RD. OR AS DIRECTED BY THE TDOT SUPERVISOR.

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TYPICAL CROSS-SECTION OF IMPROVEMENT

LOG MILE 5.40 TO LOG MILE 11.48

PROPOSED PAVEMENT SCHEDULE

① ASPHALTIC CONCRETE SURFACE (HM) 1/4" TH. (APPROX. 132.5 LBS./SQ. YD.) 411-01.10 ACS MIX (PG64-22) GRADING D
② BITUMINOUS PLANT MIX BASE (HM) APPROX. 40 LBS./SQ. YD.) 307-01.15 ACS MIX (PG64-22) (BPMLC-HM) GRADING CS
③ ASPHALTIC CONCRETE SURFACE (HM) (SPOT LEVELING) (APPROX. 75 TON/MILE) 411-01.07 ACS MIX (PG64-22) GRADING E SHOULDER
④ MINERAL AGGREGATE BASE - (SHOULDERS) 2" THICK 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
⑤ TACK COAT @ 0.02 GAL./SQ. YD. 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)

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GENERAL NOTES

UTILITIES

- (1) 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.
- (2) 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

- (1) 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

- (1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS BEFORE DARK HOURS. 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), LIN. MI.
- (2) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 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), LIN. MI.

PAVEMENT RESURFACING

- (1) 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.
- (2) 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 PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.

- (3) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.
- (4) 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.

CONSTRUCTION WORK ZONE AND 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, VERTICAL PANELS, 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.

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(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.

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.

(7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(3) 2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 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 PAVEMENT AND/OR LOW SHOULDER) 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 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) 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 TWO 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.

EROSION PREVENTION AND SEDIMENT CONTROL
LITTER, DEBRIS, WASTE, PETROLEUM

- (1) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S.
- (2) 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 (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. 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.

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

- (1) 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:
 - (2) 1. DIFFERENCES 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.

SPECIAL NOTES

GUARDRAIL

- (1) THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING GUARDRAIL END TREATMENTS UNTIL THE T.D.O.T. SUPERVISOR CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED END TREATMENTS SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR ANY END TREATMENT UNTIL IT IS COMPLETE IN PLACE.
- (2) IF ANY END TREATMENT MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE 'A' LIGHTS AND A ROUNDED END ELEMENT AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING TEMPORARY MEASURES (BARRICADES, DRUMS, LIGHTS AND ROUNDED END ELEMENTS) SHALL BE INCLUDED IN THE COST OF THE GUARDRAIL END TREATMENT.

UTILITIES

- (1) THE LOCATIONS OF UTILITIES 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.
- (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.
- (3) 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.
- (4) UTILITY OWNERS:
 POWER: JELLCO ELECTRIC
 TELEPHONE: AT&T
 GAS: POWELL CLINCH UTILITY DISTRICT
 WATER: JELLCO WATER SYSTEM
 SEWER: CITY OF JELLCO
 CABLE: COMCAST

MISCELLANEOUS

- (1) THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND RESET MAILBOXES AND POSTS WHERE NECESSARY. COST TO BE INCLUDED IN PRICES BID FOR OTHER ITEMS OF CONSTRUCTION.
- (2) ALL GUARDRAILS, GUARDRAIL POSTS, AND SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE REMOVED AND STORED BY THE STATE FORCES.
- (3) ALL SIGNING, PAVEMENT MARKINGS AND TRAFFIC CONTROL TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (4) THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE NORFOLK SOUTHERN RAILROAD TRACK FACILITIES AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS STIPULATED BY NORFOLK SOUTHERN RAILROAD SO AS TO MAINTAIN CLEARANCE AND NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER. THE CONTRACTOR SHALL NOT STORE ANY OF HIS CONSTRUCTION EQUIPMENT ON THE RAILROAD'S RIGHT-OF-WAY. THE CONTRACTOR SHALL NOTIFY AND COORDINATE HIS WORK AT THE RAILROAD CROSSING WITH THE FOLLOWING REPRESENTATIVE OF THE RAILROAD.:

MR. JIM STUMP-DIVISION ENGINEER
 NORFOLK SOUTHERN CORPORATION, CENTRAL DIVISION
 7208 OLD RUTLEDGE PIKE
 KNOXVILLE, TN 37914
 PHONE: (865) 521-1409
 E-MAIL: james.stump@nscorp.com

- (5) THE CONTRACTOR SHALL NOT, FOR ANY REASON, STORE CONSTRUCTION EQUIPMENT UPON NOR STORE OR DUMP WASTE CONSTRUCTION MATERIALS UPON THE RAILROAD'S RIGHTS-OF-WAY.
- (6) THE CONTRACTOR IS PROHIBITED FROM INSTALLING ANY CONSTRUCTION SIGNS, MESSAGE BOARDS, ARROW BOARDS AND/OR OTHER TEMPORARY TRAFFIC CONTROL SIGNS OR 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.
- (7) IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ANY NECESSARY FLAGGING SERVICE AND INSURANCE WITH THE NORFOLK SOUTHERN RAILROAD IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 100SS, SUBSECTION 107.16, WHICH SUPPLEMENTAL SPECIFICATION IS CONTAINED IN THE CONTRACT PROPOSAL BOOKLET. THE CONTRACTOR SHALL NOTIFY THE NORFOLK SOUTHERN RAILROAD A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO BEGINNING ANY WORK NEAR THE GRADE CROSSING.
- (8) DITCHES WILL BE CLEANED BY THE CONTRACTOR. ANY PAVED SHOULDERS WILL BE CLEANED (BROOMED) AND AGGREGATE SHOULDERS CLIPPED AND SHAPED BY THE CONTRACTOR AND PAYMENT MADE UNDER ITEM 208-01. MINERAL AGGREGATE AND ANY ASPHALTIC MATERIALS (FOR SHOULDERS) WILL BE ADDED BY THE CONTRACTOR AND PAYMENT MADE UNDER THEIR RESPECTIVE ITEM NUMBERS. THESE MATERIALS WILL BE PLACED TO EXISTING SHOULDER WIDTH OR AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

PAVEMENT MARKINGS

- (1) THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH AND LOCATE ALL "NO PASSING ZONES" IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS WELL AS TO PROVIDE THE LAYOUT OF ALL PAVEMENT MARKING REQUIRED ON THE PROJECT. THE METHOD OF DETERMINING THE "NO PASSING ZONES" TO BE APPROVED BY THE T.D.O.T. SUPERVISOR WITH ADVICE FROM THE REGIONAL TRAFFIC OFFICE BEFORE PAVING OPERATIONS BEGIN.

PAVEMENT RESURFACING

- (1) SURFACE TO BE CROWNED AS DIRECTED BY THE T.D.O.T. SUPERVISOR.
- (2) THE CONTRACTOR WILL PLACE THE SPOT LEVELING WHERE AND AS DIRECTED BY THE T.D.O.T. SUPERVISOR.
- (3) ALL SURPLUS PATCHING, JOINT MATERIAL AND CRACK SEALANT IS TO BE REMOVED BEFORE PLACING THE FIRST LAYER OF ASPHALT.
- (4) STATE FORCES WILL REMOVE ALL RAISED PAVEMENT MARKERS, IF ANY, BEFORE RESURFACING IS BEGUN.
- (5) SPECIAL PROVISION NO. 411C APPLIES TO THIS PROJECT. AVERAGE HC-IRI NUMBER PER MILE IS 78.0. SEE TABLE BELOW.

EASTBOUND S.R.297			WESTBOUND S.R. 297		
FROM	TO	HC IRI	FROM	TO	HC IRI
0.00	1.00	80	0.00	1.00	94
1.00	2.00	75	1.00	2.00	80
2.00	3.00	70	2.00	3.00	74
3.00	4.00	71	3.00	4.00	66
4.00	5.00	102	4.00	5.00	79
5.00	6.00	76	5.00	6.00	78
6.00	6.08	77	6.00	6.08	70

CONSTRUCTION WORK ZONE AND TRAFFIC CONTROL

- (1) ALL LANES OF TRAFFIC IN BOTH DIRECTIONS SHALL REMAIN OPEN DURING PEAK TRAFFIC HOURS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PEAK TRAFFIC HOURS SHALL BE 6 A.M. THROUGH 9 A.M. AND 3 P.M. THROUGH 6 P.M.

TYPE	YEAR	PROJECT NO.	SHEET NO.
RESURF	2009	ARRA-STP-297(2)	6

CAMPBELL CO. S.R.297
07026-8208-14

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