STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

# PROPOSAL CONTRACT

FOR THE CONSTRUCTION OF

**Contract No. CNQ314**

ANDERSON, BLOUNT, CARTER, CLAIBORNE, COCKE, GREENE, JEFFERSON, KNOX, LOUDON, MONROE, SEVIER, SULLIVAN, AND WASHINGTON
Project No. HSIP-REG1(125), 98018-3267-94 (PIN 118949.00)
The addition of high friction surface treatment and miscellaneous pavement markings on various State Routes.

Project Length - 0.000 miles
Completion Time - On or before 10/31/2017 (See Special Provision 108B)

AT AN ESTIMATED COST OF $ 3,477,477.00

By The Truesdell Corporation

City, St. Tempe, Arizona

Surety _____

**(June 18, 2012)**
**(December 12, 2012)**
**(June 14, 2013)**

# STATE OF TENNESSEE

# DEPARTMENT OF TRANSPORTATION

## INSTRUCTIONS TO BIDDERS

## BIDS TO BE RECEIVED

## October 7, 2016

**Bids for the construction or maintenance of the following projects will be received via the Internet until 10:00 A.M. October 7, 2016, opened publicly in the Construction Division, Suite 700, James K. Polk Office Building, Nashville, Tennessee, 37243-0326 and posted to the Tennessee Department of Transportation Construction Division website http://www.tn.gov/tdot/section/bid-letting at that hour.**

**The proposed construction shall be performed in accordance with the Standard Specifications for Road and Bridge Construction of the Tennessee Department of Transportation, dated January 1, 2015, which are incorporated herein by reference and made a part hereof. In addition, only the Special Provisions contained within the applicable Contract Proposal will be considered binding. Any reference to the Standard Specifications dated prior to January 1, 2015 shall be disregarded. In addition, any reference to any Special Provision not contained within the applicable Contract Proposal shall be disregarded. All questions related to the Contract Proposal, Plans, Specifications or Special Provisions shall be directed to the Headquarters Construction Office (615-741-2414). Information received from other offices of the Tennessee Department of Transportation is strictly advisory.**

## IMPORTANT NOTICE TO BIDDERS:

**Prospective bidders should read the following instructions carefully before submitting their bids. Special attention is called to the regulations of the Tennessee Department of Transportation (Department) that total bids, rather than unit prices, will be posted. Proposals shall be rejected as being irregular if they fail to contain a unit price for each item listed.**

**After a bidder has submitted a bid via Internet Bidding, he can withdraw it using the electronic bidding program up until the time set for the opening of bids.**

**On all projects which are financed in whole or in part by funds received through Federal agencies and other third parties, the awarding of contracts by the Department will be subject to approval by the party or parties through which funds are received. The Department reserves the right to reject any bid proposal which is not acceptable to any such third party set out above, although such bid proposal would otherwise qualify as the lowest and best bid under the Standard Specifications of the Department. It shall be the responsibility of the bidder to determine which projects are so financed in part by third parties, such information being available upon request from the Department.**

**The awarding of the contract or rejection of all proposals will be made within thirty (30) days after the bid opening. Upon award, a detailed letter of instructions will be forwarded along with appropriate documents to the low bidder.**

**The Tennessee Department of Transportation hereby notifies all bidders, that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business**

**enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the basis of age, race, color, religion, national origin, sex or disability in consideration for an award.**

**The Tennessee Department of Transportation is an equal opportunity affirmative action employer, drug-free, with policies of nondiscrimination on the basis of race, sex, religion, color, national or ethnic origin, age, disability, or military service. For more information call: (615) 741-5996.**

## PREQUALIFICATION OF BIDDERS:

**Each prospective bidder and subcontractor will be required to file a document entitled "Prequalification Questionnaire." The foregoing shall be filed on a form provided by the Department. The form must be filled out completely, and the truth and accuracy of the information provided must be certified by a sworn affidavit signed by an officer, partner, owner or other authorized representative of the applicant who has authority to sign contracts or other legal documents on behalf of the applicant. A prospective bidder must be prequalified by and in good standing with the Department prior to being given authorization to bid. A prospective subcontractor must be prequalified by and in good standing with the Department prior to being approved as a subcontractor. Each prospective bidder or subcontractor shall notify the Department if there is any subsequent change in the name, organization or contact information provided.**

**Prospective bidders' "Prequalification Questionnaire" shall be filed with the Department at least fourteen (14) days prior to the date of opening bids on any letting in which the applicant intends to submit a bid to the Department, or at least fourteen (14) days prior to the date on which the applicant requests approval as a subcontractor under a contract awarded by the Department. Bidders intending to submit proposals consistently shall complete and submit the prequalification application annually; however, this document may be changed during such period upon submission of additional favorable reports or upon receipt by the Department of substantiated evidence of unsatisfactory performance. The Department reserves the right to request additional information and documentation to clarify and/or verify any information submitted in an applicant's prequalification application.**

**The prequalification form can be found at the web address**
http://www.tn.gov/assets/entities/tdot/attachments/Prequalification_Questionaire.docx

## PRIME CONTRACTOR LICENSING REQUIRMENTS

**The Department shall require that all prime contractors, except mowing and litter removal contractors, are to be licensed with the State of Tennessee, Department of Commerce and Insurance (TDCI), Board for Licensing Contractors (BLC). The prime contractor must be licensed in the general classification (e.g. Heavy Construction (HC), Highway, Railroad, Airport Construction (HRA), Specialty (S), Municipal and Utility Construction (MU), or Electrical Contracting (CE)) for the type of work in the project which they will perform. Bidders may submit a proposal without having a license and will be considered for award for twenty-one (21) days after proposals are opened. If the Bidder does not have a license with the TDCI, on or before twenty-one (21) days after proposals are opened, the Bidder will be considered non-responsive and their proposal will be rejected.**

## SECRETARY OF STATE REQUIREMENTS

**Title 48 of Tenn. Code Ann. requires all contractors and subcontractors that are domestic or foreign Corporations, Limited Liability Companies, Limited Partnerships, or Limited Liability Partnerships to be in good standing with the Secretary of State. This includes being duly incorporated, authorized to transact business, and/or in compliance with other requirements as**

**detailed by the Secretary of State. Please contact the Secretary of State should you have any questions at (615) 741-2286 or visit http://www.tn.gov/sos/bus_svc/index.htm.**

**The Department will not execute any contracts or approve subcontracts with contractors that are domestic or foreign Corporations, Limited Liability Companies, Limited Partnerships, or Limited Liability Partnerships, who are not in good standing with the Secretary of State (i.e. have a valid Certificate of Existence/Authorization). If a Bidder is not in good standing with the Secretary of State (i.e. have a valid Certificate of Existence/Authorization) on or before twenty-one (21) days after proposals are opened then the Bidder will be considered non-responsive and their bid will be rejected.**

## ISSUANCE OF BIDDING DOCUMENTS

**All sales of bid documents, such as Plans, Bid Authorization, and Standard Specifications, must be paid at the time of purchase.**

**TDOT no longer issues hard copy Proposal Contracts and will only accept Internet bids and bid bonds. The Internet bid and electronic bid bond executed by the Contractor and their Surety will be considered as a complete bid and will be printed at the time of the letting. All requests for authorization to bid via the Internet using Bid Express must be submitted on the Bidding Authorization Form. This form is available at the web address** http://www.tn.gov/assets/entities/tdot/attachments/Bid_Authorization_Form.pdf **. Adobe Reader 8.0 or newer is needed to use this form. This form must be complete before authorization to bid is given. Bidding authorization will be obtainable until 4:00 P.M. the day before the letting. A charge of $25.00 will be made for each authorized Proposal. Any bid submitted via the Internet that is not authorized will not be considered.**

**Addenda to the Proposal and amendments to the electronic bidding file will be posted on the Bid Express website. Addenda will be acknowledged by all bidders through the electronic bidding program. It is the bidder's responsibility to monitor the Bid Express website for Addenda until 4:00 P.M. the day before the letting. The bidder will not be notified by the Department unless Addenda are issued after 4:00 P.M. the day before the letting. Failure to acknowledge receipt of Addendum Letters or to apply any applicable amendments to the electronic bidding file is grounds for rejection.**

**Standard Specifications for Road and Bridge Construction, dated January 1, 2015, and Supplemental Specifications, are available for review and printing at the following site** http://www.tn.gov/tdot/article/transportation-construction-2015-standard-specifications **. The charge for Plans and/or Cross-sections can be found on the Plans Order form on the TDOT Construction website. This charge will be applicable before the letting and for three months after the letting. Plans ordered after the three month period will be furnished at $2.00 per sheet. Individual Plan sheets and individual Standard Drawings will be furnished at $2.00 per sheet. Tabulations of bids will be furnished at $0.50 per sheet. Standard Drawing Books will be furnished at $100.00 per book.**

**A sales tax of 9.25% will be added to the above charges when there is in-state delivery. There will be a minimum charge of $2.00 on any purchase. All documents will be furnished without refund and transmitted at your risk.**

**When two or more contractors wish to bid together in a joint venture, each contractor will be required to make a written request for such a proposal to the Construction Division. This request shall be signed by an authorized signatory of each firm.**

**Requests for joint venture proposals may be made in person or by telephone. However, the proposal for said joint venture will not be issued until the request in writing, as set forth above, is received by the Construction Division.**

## ALTERNATE BID ITEMS

**There will be projects that will have numerous alternates. The Contractor will be required to bid on only one alternate for each construction item. The proper procedure for entering alternate bids is to enter prices for the intended alternate item(s) of construction and leave the undesired alternate item(s) of construction blank.**

## SUBCONTRACTOR BIDDERS LIST

**The apparent low bidder for each project must provide a list of all subcontractors who provided a quote to perform work. The list shall be provided electronically on the TDOT form "Certification Regarding Subcontractor Bid Quotes" (Bidders List). The apparent low bidder shall submit this form before the close of business (4:30 PM, Central Time) five (5) calendar days after the date on which bids are required to be submitted (e.g., if bids are required to be submitted on a Friday, then the completed form is due by 4:30 PM on the following Wednesday). Emergency contracts will not require a bidders list. Failure to complete and submit this form within the time period required may result in the rejection of the bid.**

## BID GUARANTY

**Each bid must be accompanied by an electronic bid bond or a Cashier's or Certified Check made payable to the Department of Transportation or Irrevocable Letter of Credit naming the Department as beneficiary (for Mowing and Litter projects only) in an amount equaling not less than five percent (5%) of the amount bid.**

**If the bidder's bond is offered as guaranty, the bond must be submitted electronically via Internet Bidding, must be made by a surety company qualified and authorized to transact business in the State of Tennessee and must be acceptable to the Department.**

**If a check is offered as guaranty, the check must be in the Department's possession by 10:00 A.M. the day of the bid opening and must be attached to the signed Proposal Guarantee Form, which is available at the web address http://www.tdot.state.tn.us/construction. The check of the successful bidder will be cashable at the discretion of the Commissioner, pending the satisfactory execution and acceptance of the contract and the contract bond.**

**Mowing and Litter Projects Only: If an Irrevocable Letter of Credit is offered as guaranty, the Proposal Guaranty Irrevocable Letter of Credit Form must be signed by an authorized official of an authorized financial institution and in the Department's possession by 10:00 A.M. the day of the bid opening. The form is available at the web address** http://www.tn.gov/tdot/section/tdot-construction-division **.**

**John Schroer**
**Commissioner**

**The following information applies to Federal-Aid construction projects:**

## NOTICE TO ALL BIDDERS

**To report bid rigging activities call:**

**1-800-424-9071**

**The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid**

**rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.**

**The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.**

S T A T E O F T E N N E S S E E

SHEET 1 of 2
PROJECT NO. 98018-3267-94

(REV. )

COUNTIES ANDERSON,BLOUNT,CARTER,CLAIBORNE,COCKE,GREENE,
JEFFERSON,KNOX,LOUDON,MONROE,SEVIER,SULLIVAN,
& WASHINGTON

# T A B L E O F C O N T E N T S


Instruction to Bidders
Supplemental Specifications to The Standard Specifications — Revision Date

- Supplemental Specification to Section 100 ---------- 06/27/16
- Supplemental Specification to Section 200 ---------- 11/16/15
- Supplemental Specification to Section 300 ---------- 06/27/16
- Supplemental Specification to Section 400 ---------- 06/27/16
- Supplemental Specification to Section 500 ---------- 11/16/15
- Supplemental Specification to Section 600 ---------- 06/27/16
- Supplemental Specification to Section 700 ---------- 06/27/16
- Supplemental Specification to Section 900 ---------- 06/27/16

| Special Provision Regarding: | Special Provision No. | Revision Date |
|---|---|---|
| Employing and Contracting with Illegal Immigrants | 102 I | |
| Buy America Requirements | 106 A | |
| Specialty Items | 108 A | |
| Project Completion and Liquidated Damages | 108 B | |
| High Friction Surface Treatments (HFST) | 406 HFST | 08/12/16 |
| Equal Employment Opportunity | 1230 | |
| Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) | 1231 | |
| Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) | 1232 | 10/19/12 |
| Disadvantaged Business Enterprise Participation | 1246 | 11/10/08 |
| Required Contract Provisions (Federal-Aid Construction Contracts) | 1273 | 05/01/12 |
| Tennessee Department of Transportation Minimum Wage Scales For Federal-Aid Construction and State Funded Construction | 1320 | 01/11/16 |

Federal Wage Rates
State Wage Rates
General Notes
Proposal
Proposal Certification
Proposal Guaranty Bond
Proposal Guarantee
Contract
Contract Payment and Performance Bond

# A T T E N T I O N

It shall be the bidders responsibility to confirm that the Contract Proposal contains all the documents indicated on the Table of Contents.

Should any omissions occur, the appropriate documents may be obtained from the Construction Division, upon request.

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 3-30-15) January 1, 2015
(Rev. 11-16-15)
(Rev. 6-27-16)

## Supplemental Specifications - Section 100

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 102.11** (pg. 18), 3-30-15; Add the following to the second paragraph "The Department may retain the Proposal Guaranty, not as a penalty, but as liquidated damages in the event a bidder does not have a license at the time of award."

**Subsection 104.04** (pg. 27), 3-30-15; Add the following as the first full paragraph on page 27: "If a holiday falls on Saturday or Sunday, do not close lanes or restrict traffic from the preceding Friday at 6 am to the following Monday at 6 am."

**Subsection 105.03** (pg. 38), 6-27-16; Add the following to the end of the section: "All products must be listed on the Qualified Products List (QPL) and perform as specified at the time of use regardless of Letting date. Any products removed from the QPL or that do not perform as specified, must be supplied or replaced at the Contractor's expense."

**Subsection 105.06** (pg. 40), 3-30-15; Replace 2nd sentence of 1st paragraph with "The contractor must attend a preconstruction conference arranged by the Engineer."

**Subsection 109.01** (pg. 98-100) 11-16-15; Measurement of Quantities, E. Weight Remove and replace the following:
~~"Check the scales as often as necessary to ensure their continued accuracy. If the scales cannot be checked within the time frame set by Department policy, the Engineer may give tentative approval, based on check truck loads weighed on other scales that are approved by the Department or other state agency.~~ The scales shall be checked by an independent certified scale company. The check shall be performed on a semiannual basis; January through June and July through December. The results shall be maintained onsite and made available for review to Departmental personnel. If deficiencies are reported, all corrections shall be performed, documented, and verified prior to supplying material for TDOT projects."

**Subsection 109.04** - C, 4 (pg. 106), 3-30-15; Replace c. "Idle or standby cost will be not be paid for more than 8 hours in a day or 40 hours in a week" with "Idle or standby cost will not be paid for more than 8 hours in a day or 40 hours in a week".

**S T A T E** **O F** **T E N N E S S E E**

(Rev. 5-18-15)
(Rev. 11-16-15) January 1, 2015

# Supplemental Specifications - Section 200

# of the

# Standard Specifications for Road and Bridge Construction

# January 1, 2015

**Subsection 204.06 – 2** (pg.152-154), 5-18-15**;** Replace Tables 204.06 with the following:
1. General Use Flowable Fill

**Table 204.06-2: Specification Limits for General Use Flowable Fill**

| Property | Specification Limit |
|---|---|
| Load Application (ASTM D6024) | 24 hours maximum in any condition |
| Consistency | 15 inches minimum tested as specified in this 204.06.B.1 |

Page 153

2. Excavatable Flowable Fill (EFF)

**Table 204.06-3: Specification Limits for EFF**

| Property | Specification Limit |
|---|---|
| Air content (ASTM D6023) | Maximum 30% (1) |
| Load Application (ASTM D6024) | 24 hours maximum in any condition |
| Consistency | 15 inches minimum as tested per 204.06.B.1 |
| Compressive strength (ASTM D4832) (2) | 30 psi minimum at 28 days |

(1) When using air entrained mixture design

(2) ASTM D4832 4 x 8 inch cylinder molds may be used. The preferred capping method to be used is wetsuit neoprene restrained in rigid retainers.

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3. Early Strength Flowable Fill (ESFF)

**Table 204.06-4: Specification Limits for ESFF**

| Property | Specification Limit |
|---|---|
| Air content (ASTM D6023) | Maximum 30% (1) |
| Load Application (ASTM D6024) | 6 hours maximum in any condition |
| Consistency | 15 inches minimum as tested per 204.06.B.1 |
| Compressive strength (ASTM D4832) (2) | 30 psi minimum at 24 hours |

(1) When using air entrained mixture design

(2) ASTM D4832 4 x 8 inch cylinder molds may be used. The preferred capping method to be used is wetsuit neoprene restrained in rigid retainers.

**Subsection 204.06** (pages. 153-154) 11-16-15; Delete the following sentence:
"2. Excavatable Flowable Fill -
"3. Early Strength Flowable Fill -

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 11/16/15) January 1, 2015
(Rev. 6/27/16)

## Supplemental Specifications - Section 300

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 307.03** (pg. 246) 11-16-15; Modify the following:
B. Recycled Asphalt Pavement for Bituminous Plant Mix Base, Table 307.03-3

### Table 307.03-3: Mixtures Using RAP

| Mix Type | % RAP (Non-processed)[1] | Maximum % RAP (Processed)[2] | Maximum % RAP Processed & Fractionated [3] | Maximum Particle Size (inches) |
|---|---|---|---|---|
| 307-ACRL | 0 | 00 | - | - |
| 307-AS | 0 | 00 | 15 | - |
| 307-A | 15 | 20 | 35 | 1-1/2 |
| 307-B | 15 | 30 | 35 | 1-1/2 |
| 307-BM | 15 | 30 | 35 | 3/4 |
| 307-BM2 | 15 | 30 | 35 | 3/4 |
| 307-C | 15 | 30 | 35 | 3/8 |
| 307-CW | 15 | 30 | 35 | 1/2 |
| 307-CS | 0 | 15 | 25 | 5/16 |

[1] "Non-processed" refers to RAP that has not been crushed and screened or otherwise sized prior to its use.

[2] "Processed" refers to RAP that has been crushed and screened or otherwise sized such that the maximum recycled material particle size is less than that listed in Table 307.03-3 prior to entering the dryer drum.

[3] "Fractionated" refers to RAP that has been processed over more than one screen, producing sources of various maximum particle sizes (e.g., 3/4 to 1/2 inch, 1/2 inch to #4, etc.). The Contractor may use the larger percentages of fractionated RAP specified only if individual

| |
|---|
| fractions of two different maximum particle size are introduced into the plant as separate material sources for increased control. |
| (4) RAP for 307-AS must be processed in a manner such that the minimum particle size is no smaller than 3/4" prior to solvent extraction. For RAP containing gravel as coarse aggregate, the maximum allowable RAP content shall be 10%. |

2. Recycled Asphalt Shingles (RAS) RAS may be included to a maximum of 3% of the total weight of the mixture.

**Subsection 307.03** (pg. 250) 6-27-16; C. revise the last paragraph of subsection: "~~If test results indicate moisture susceptibility,~~ Mmix an approved antistrip agent with the asphalt cement at the dosage ~~recommended by the respective test and~~ as specified in **921.06.B**."

**Subsection 313.03** (pg. 273) 11-16-15; B. Bituminous Treated Permeable Base, Add the following sentence: "Recycled Asphalt Pavement (RAP) meeting the requirements of 307.03.B may be incorporated into asphalt treated permeable base up to 15% by weight of aggregate. RAP must be processed in a manner such that the minimum particle size is no smaller than ¾" prior to solvent extraction. Treated permeable base mixtures containing RAP shall contain at least 65% virgin asphalt binder. For RAP containing gravel as a coarse aggregate, the maximum allowable RAP content shall be 10%"

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 5-18-15) January 1, 2015
(Rev. 7-13-15)
(Rev.11-16-15)
(Rev. 6-27-16)

## Supplemental Specifications - Section 400

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 402.03** (pg. 282) 5-27-16; revise the following in the 2nd paragraph: "The distributor shall be designed, equipped, maintained, and operated so that bituminous material at even heat may be applied uniformly on variable surface widths at readily determined and controlled rates from 0.052 to 0.5 gallons per square yard, with uniform pressure, and with an allowable variation from any specified rate of plus or minus 0.02 gallons per square yard."

**Subsection 403.02** (pg. 285-286) 11-16-15; Bituminous Materials, add the following:
"Emulsified Asphalt, SS-1, SS-1h, CSS-1, CSS-1h, TST-1P, CQS-1h, CQS-1hp, TTT-1, TTT-2, TTT-3 ……..904.03"

**Table 403.02-1: Tack Coat Application Temperatures**

| Material | Temperature Range |
|---|---|
| SS-1, SS-1h, CSS-1, TST-1P, CQS-1h, CQS-1hp and CSS-1h | 60 to 140 °F |
| TTT-1 | 160 to 180 °F |
| TTT-2 | 120 to 160 °F |
| TTT-3 | 100 to 180 °F |

**Subsection 403.05** (pg. 286) 11-16-15; A. Emulsified Asphalt, Add the following paragraph at the end of the subsection:
"Take a minimum of 3 cores throughout the length of the project for informational tack coat shear testing. Include the underlying layer. Not required for mats less than one inch thick."

**Subsection 403.05** (pg. 287) 11-16-15; ) B. Test Strip, modify the following:
"If placing the bituminous material upon a milled surface, apply the tack material at a rate of between 0.08 and 0.125 gallons of applied emulsion per square yard."

**Subsection 403.05** (pg. 287) 6-27-16; revise the following in the last sentence of the 2nd paragraph: "If placing the bituminous material upon a milled surface, apply the tack material at a rate of between 0.08 and 0.125 gallons ~~of~~ applied emulsion per square yard."

**Subsection 407.02** (pg. 300) 11-16-15; Materials, add the following at the end of the fourth paragraph:
"If anti-stripping additive, other than hydrated lime, meeting **921.06.B.1** is required, use approved in-line blending equipment, as specified in **407.04.A.6**, to add it at the mixing plant or inject it at the asphalt terminal. Provide manufacture's documentation ensuring asphalt binders will continue to meet requirements listed in Subsection **904** after anti-stripping additives are added."

**Subsection 407.06** (pg. 327), 5-18-15; - A. Pavers. Replace the entire first paragraph with the following:
"Bituminous pavers shall be self-contained, power-propelled units provided with an activated screed, equipped to be heated, and capable of spreading and finishing courses of bituminous plant mix material in lane widths applicable to the specified typical section and thickness shown on the Plans. All screed extensions shall be full assembly extensions, including activated and heated screeds. Pavers shall include throw-back blades, reverse augers, or equivalent to place mix beneath the auger gearbox. Auger extensions shall be incorporated in a manner such that the maximum distance from the augers to the end plate shall be 18 inches. Screed extensions may extend beyond the 18-inch maximum from auger extensions only when extending for short-term temporary deviations in pavement width such as driveways. Do not use strike-off boxes, with the exception of sections with continuously varying width."

**Subsection 407.15** (pg. 340) 11-16-15; C. Test Strips. Add the following paragraph after the 7th paragraph:
"Take an additional 3 cores after placement of the surface layer on the tack coat test strip described in subsection **403.05.B**. Include the underlying pavement layer for shear testing. These cores will be for informational testing only. Not required for mats less than one inch thick"

**Subsection 407.15** (pg. 341) 6-27-16; remove the 2nd sentence of the last paragraph as follows: "Take cores on the test strip at ten randomly selected locations as designated by the Engineer. ~~Do not take cores within 2 feet of the longitudinal edges for calibration.~~"

**Subsection 407.20** (pg. 346) 5-18-15; Basis of Payment; B. Acceptance of Mixture; Modify the last paragraph as follows:
"When the total plan quantity of any mix is less than 1000~~500~~ tons, the Department will accept the mix on the basis of visual inspection and Contractor Quality Control certification. The Department may run extraction, gradation analysis, or other tests deemed necessary for acceptance purposes."

**Subsection 407.20** (pg. 348) 11-16-15; Table 407.20 – 2, make the following change:

**Table 407.20-2: Acceptance Schedule of Payment (Asphalt Plant Mix Characteristics)**

| Characteristics | Pay Factor | Average Arithmetic Deviation of the Lot Acceptance Test from the JMF | |
|---|---|---|---|
| | | 1 Test | 2 Tests or more |
| Asphalt Cement Content [1] (Extraction or ignition oven) | 1.00 | 0.00-0.30 | 0.00-0.25 |
| | 0.95 | 0.31-0.35 | 0.26-0.30 |
| | 0.90 | 0.36-0.40 | 0.31-0.35 |
| | 0.80 [2] | over 0.40 | over 0.35 |
| Gradation 3/8 inch sieve and larger | 1.00 | 0.00-6.50 | 0.00-5.70 |
| | 0.95 | 6.51-7.08 | 5.71-6.20 |
| | 0.90 | 7.09-7.66 | 6.21-6.69 |
| | 0.80 [2] | over 7.66 | over 6.69 |
| Gradation No. 4 sieve [3] | 1.00 | 0.00-4.62 | 0.00-4.00 |
| | {0.95 | 4.63-5.20 | 4.01-4.50 |
| | 0.90 | 5.21-5.77 | 4.51-5.00 |
| | 0.80 [2] | over 5.77 | over 5.00 |

**Subsection 407.20** (pg. 350) 11-16-15; B. 5. Acceptance for Mix Density on the Roadway, Replace the entire 2nd paragraph with the following:
"For density testing purposes, the Department will divide the pavement into lots of 1,000 tons. Five density tests will be performed in each lot and the average results compared with the requirements specified in Tables 407.15-1 to 407.15-4. At the beginning of a project or at any time it is deemed advisable, the Department may consider smaller lots to evaluate compaction methods or for other reasons as approved or directed by the Engineer."

**Subsection 411.03** (pg. 363) 11-16-15; 2. Recycled Asphalt Shingles (RAS), change the following: "Recycled Asphalt Shingles (RAS) may be included to a maximum of 35% of the total weight of mixture."

**Subsection 411.03** (pg. 365) 6-27-16; revise the following: "~~If moisture susceptibility is indicated, then~~ Mmix an approved anti-strip agent with the asphalt cement at the dosage ~~recommended by the respective test and~~ as specified in **921.06.B**."

**Subsection 414.02** (pg. 369) 11-16-15; Materials, add the following paragraph:
"Ensure that no deleterious material is introduced into aggregate stockpiled at project site." -

**S T A T E** **O F** **T E N N E S S E E**

(Rev. 5-18-15)
(Rev. 11-16-15) January 1, 2015

## Supplemental Specifications - Section 500

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 501.03** (pg. 395), 5-18-15;, 3. Mix Design Submittal, Replace the first paragraph with the following: **"**Instead of the above mix design submittal, a request to use an existing design may be submitted for approval provided the design has been used on a state funded project within the last six (6) months. The approval of this concrete design submittal will not relieve the Contractor of the responsibility of providing concrete meeting the requirements of these Specifications. A temporary mix design may be issued if the 7-day or 14-day compressive strengths exceed the required 28-day strengths."

**Subsection 501.03** (pg. 399-402) 11-16-15; B. Quality Control and Acceptance of Concrete, adjust the following:
**"**1. Test to determine aggregate gradations (AASHTO T 27 with AASHTO T 11 when required). Conduct a combined belt gradation before work starts and at least daily to verify consistency if using a dynamic, multi-aggregate feed system.

3. Calibrate the weighing systems, aggregate feed flow rate and weigh bridges, water meters, and admixture dispensing systems before starting production.

4. Ensure accurate weighing or flow rate of the aggregates and cement, the proper metering of water and admixtures, and the quality of water.

6. Adjust mix proportions due to actual moisture content of both coarse and fine aggregates, with moisture content determined according to AASHTO T 255. If using a dynamic aggregate weighing system, multi-aggregate proportioning adjustments are to be made by using an in-bin moisture sensor."

7. Conduct slump (AASHTO T119) or slump flow (ASTM C1611) and air tests (AASHTO T152).

Page 401- "Make, cure, and transport all early break cylinders (7-14 day, etc.) according to AASHTO T 23, and deliver to the Regional laboratory or other established satellite laboratories

for testing. Make all early break cylinders (7-14 day, etc.) for self-consolidating concrete according to ASTM C1758, and deliver to the Regional laboratory or other established satellite laboratories for testing."

Page 402 - "Correct batch weights or aggregate feed flow rates to compensate for surface moisture on the aggregate at the time of use. The Contractor…"

**Subsection 501.04** (pg. 402) 11-16-15; replace the following:
**"A. Batching Plant, Multi-Aggregate Feed System, and Equipment,**
1. General. The batching plant shall include bins, weighing hoppers or belt feeds with weigh bridges and load cells, and scales. If using cement in bulk,…

2. Bins and Hoppers- Add the following new paragraph under the existing paragraph

For multi-aggregate feed systems, provide bins as noted with variable size openings and variable speed belts. Each bin must have a calibrated moisture sensor to adjust aggregate feed flow rates. Assure consistent, uninterrupted aggregate flow and consistent belt speeds once aggregate feed system is calibrated.

3. Scales- Add the following new paragraph under the last paragraph in the section.

For multi-aggregate feed systems, provide a dual idler weight bridge with load cells to accurately weigh the actual aggregate flow rate."

**Subsection 501.04** (pg. 404) 11-16-15; B. Mixers, removed the complete 4th paragraph:
"

**Subsection 501.17** (pg. 424) 11-16-15; A. Surface Testing, modify the following:
"3. Ramps where the design speed is greater than 40 miles per hour
(a) Test sections shall terminate 100 feet from a stop or slow speed yield condition
(b) Superelevated sections greater than 40 miles per hour design speed must be ground in accordance with **Table 501.17-1**
4. Ramps where the design speed is 40 miles per hour or less
(a) Test sections shall terminate 100 feet from a stop or slow speed yield condition
(a) Superelevated sections with a design speed of 40 miles per hour or less must be ground in accordance with **Table 501.17-2**

**Subsection 501.17** (pg. 425) 11-16-15; B. Pay Factors and Required Corrective Action, modify the following:
"Payment factors and required corrective actions relative to profile indexes for ramps with design speeds of 40 MPH or less shall conform to Table 501.17-2.

Table 501.17-2: Pay Factors & Corrective Action for Ramps with Design Speeds of 40 mph or less

| Profile Indexes | Pay Factor | Corrective Action |
|---|---|---|

| | | |
|---|---|---|
| <10 inches per mile | 105% | None |
| 10 to < 20 inches per mile | 100% | None |
| 20 to < 23 inches per mile | 98% | Grind to 20 inches per mile |
| 23 plus inches per mile | 95% | Grind to 20 inches per mile |

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 5-18-15) January 1, 2015
(Rev.11-16-15)
(Rev. 6-27-16)

## Supplemental Specifications - Section 600

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 602.19** (pg. 478), 6-27-16; add the following as the 2nd paragraph: "All welders shall be qualified in accordance with the AASHTO/AWS D1.5, Bridge Welding Code, current edition. Welders shall be certified for each weld process and position which they will be using."

**Subsection 602.39** (pg.488), 6-27-16; revise the title as follows: "CONSTRUCTION REQUIREMENTS – ERECTION – REMOVAL"

**Subsection 602.42** (pg.489), 6-27-16; revise as follows: "All contractors and subcontractors directly engaged in the erection or removal of structural steel, precast prestressed or mild steel reinforced concrete bridge beams or girders over active highway traffic lanes, on any route, railroad or any stream deemed navigable to commercial or pleasure water craft, shall submit an erection or removal plan prepared and stamped by a Professional Engineer licensed in the State of Tennessee. Include the following in these~~is~~ plans: the sequences of erection or removal, the generalized location of all pick points, and the plan to adequately stabilize the structure throughout the erection or removal process. Submit this plan to the Engineer at least 30 days before starting erection. At each stopping point in the erection or removal sequence, have a competent contractor's representative inspect the beams to ensure adequate stability.

Do not begin any erection or removal work without the Engineer's approval. The Engineer's approval does not relieve the Contractor of the responsibility for the safety of its method or equipment or from carrying out the work in accordance with the Plans and Specifications."

**Subsection 604.02** (pg. 519), 11-16-15; C. 2nd paragraph, 1st sentence:
"Prior to construction, s~~S~~ubmit for approval shop drawings of the proposed precast ~~box section~~ structure and design calculations for ~~any details which deviate from the standard box culvert drawings.~~ ~~approval before construction.~~"

**Subsection 604.03** (pg. 522 and 523), 5-18-15; 2. Mix Design Submittal; Replace the first sentence of the last paragraph on page 522 with the following:

"Instead of the above mix design submittal, ~~the Contractor may submit for approval~~ an existing design may be submitted for approval~~ed by the Department~~ provided the design has been used on a state funded project within the last six (6) months.~~within the current calendar year.~~"

**Subsection 604.03** (pg. 519-522), 11-16-15; A. Classification and Proportioning and Quality Assurance, modify the following:

**"1a. Design and Production Parameters**. Proportion the concrete based on a pre-determined minimum cement content, and a water-cement ratio that does not exceed the maximum shown in **Table 604.03-1**. Below this limit, adjust the quantity of water to meet the slump requirements. The fine aggregate shall not exceed 44% by volume calculation of the total aggregate, with the exception of slip formed Class A concrete incorporated into parapets and median barriers.

For slip formed parapet and median barriers exclusively, the percentages of fine and coarse aggregate in an approved concrete mix design may be adjusted plus or minus 2%, such that the….

**1b. Self-Consolidating Concrete (SCC) Design and Production Parameters**. Proportion the concrete based on a pre-determined minimum cement content, and a water-cement ratio that does not exceed the maximum shown in **Table 604.03-4**. The fine aggregate shall not exceed 50% by volume calculation of the total aggregate volume. Maximum size of coarse aggregate shall not exceed a No. 67 stone. The Contractor may elect to use SCC as an alternate/option in replacement of Class A concrete.

Document mixture adjustments in the field book and daily concrete report. Ensure that the adjusted mix complies with all of the performance criteria specified in **Table 604.03-4**.

**Table 604.03-4: Composition of Self-Consolidating Concrete**

| Class of Concrete | Min 28-Day Compressive Strength (psi) | Min Cement Content (pound per cubic yard) | Maximum Water/Cement Ratio (pound/pound) | Air Content % (Design + production tolerance) | Slump Flow (inches) |
|---|---|---|---|---|---|
| SCC (2,3,4,5) | 3,000(1) | 564 | 0.45 | 6 + 1 | 25 + 4 |

(1) Or as shown on the Plans or approved shop drawings.

(2) Acceptance range for the T50 test in accordance with ASTM C1611 shall be between 2-7 seconds.

(3) Passing ability in accordance with ASTM C1621 shall be less than 2 inches for acceptance.

(4) Visual Stability Index (VSI) shall not exceed 1.0 as per ASTM C1611 for acceptance.

(5) Static segregation as measured by ASTM C 1610 shall not exceed 20%.

Include chemical admixtures in the self-consolidating concrete mixture as specified in Table **604.03-5** based on the ambient air temperature and expected weather conditions. Approved viscosity modifying admixtures (VMA) may be used as part of the chemical admixtures if they are shown in the approved mixture design.

**Table 604.03-5: Use of Chemical Admixtures**

| Class of Concrete | Temperature less than 85 °F and falling | Temperature 85 °F or greater and rising |
|---|---|---|
| SCC | Type A or F<br>Type S (Viscosity | Type D or G or<br>A and B |

| | | |
|---|---|---|
| | Modifying) | Type S (Viscosity Modifying) |

Dosage rates for any admixtures incorporated into the concrete shall be stated during the mix design submittal process. All admixtures shall be compatible and from the same manufacturer.

2.Mix Design Submittal. Submit the proposed concrete design to the Engineer for approval. Develop the design using saturated surface dry aggregate weights and trial batches meeting the requirements of these Specifications….

As a minimum, include the following information in the proposed concrete design submittal:

1. Source of all aggregates
2. Brand and type of cement
3. Source and class of fly ash (if used)
4. Source and grade of ground granulated blast furnace slag (if used)
5. Specific gravity of cement
6. Specific gravity of the fly ash (if used)
7. Specific gravity of the ground granulated blast furnace slag (if used)
8. Admixtures (if used)
9. Gradations of aggregates
10. Specific gravity of aggregates (saturated surface dry)
11. Air content (if air entrainment is used)
12. Percentage of fine aggregate of the total aggregate (by volume)
13. Slump
14. Weight per cubic yard
15. Yield
16. Temperature of plastic concrete
17. Water/cement ratio (pound/pound)
18. 7-day compressive strength (minimum of three 4-inch x 8-inch cylinders)
19. 14-day compressive strength (minimum of three 4-inch x 8-inch cylinders)
20. 28-day compressive strength (minimum of three 4-inch x 8-inch cylinders)
21. Weight of each material required to produce a cubic yard of concrete

In addition to the above mentioned items, for self-consolidating concrete include as a minimum the following information in the proposed SCC design submittal:

22. Slump flow, VSI, and T50, in accordance with ASTM C1611, shall be required in place of the slump test.
23. Passing ability in accordance with ASTM C1621.
24. Static segregation in accordance with ASTM C1610.
25. 7-day compressive strength (minimum of three 4-inch x 8-inch cylinders), in accordance with ASTM C1758.
26. 14-day compressive strength (minimum of three 4-inch x 8-inch cylinders), in accordance with ASTM C1758.
27. 28-day compressive strength (minimum of three 4-inch x 8-inch cylinders), in accordance with ASTM C1758.

Self-consolidating concrete (Classes SCC and P-SCC) shall be verified prior to placement either at the ready mix facility or prestressed plant. The submitted mix design shall be reviewed by Headquarters Materials and Tests for specification compliance. The concrete producer shall then perform a trial batch

verification of the submitted mix design in the presence of Regional Materials and Tests. The trial batch will ensure that all batch quantities and target admixture dosage rates are acceptable and meet TDOT specification prior to full mix design approval. If using a previously approved SCC design additional verification of the trial batch is not required. All quantities and identified admixture target dosage rates shall meet the tolerances specified in **501.09**.

**Subsection 604.14** (pg. 542), 11-16-15; Consistency of Concrete, modify the following: **"**The slump of the concrete when measured according to AASHTO T 119 shall meet 604.03 - **1A**. The slump flow of self-consolidating concrete when measured according to ASTM C1611 shall meet **604.03 1B**."~~.~~

**Subsection 604.15** (pg. 542-543), 11-16-15; B. Concrete Acceptance Cylinders, modify the following:
"~~Make and cure test specimens according to AASHTO T 23, unless otherwise specified or directed by the Engineer.~~ The Department will test the specimens for compressive strength according to AASHTO T 22. Provide the necessary concrete for making test specimens and adequate curing and storage facilities at no additional cost to the Department.

~~Deliver all acceptance cylinders for testing 28-day strength for conformance with **604.03** to the Central Lab in Nashville, or deliver to the regional lab or other agreed upon pick-up point if arrangements are made in advance with the Regional Materials Engineer.~~ Concrete cylinders submitted for testing beyond 28 days shall comply with the strength requirements specified in Table 604.15-1.

**Table 604.15-1: Strength Requirements**

| Class of Concrete | Compressive Strength (psi) at: | | |
|---|---|---|---|
| | Less than 31 days | 31 to 42 days | 43 days to 56 days |
| A, S, CP, SCC | 3,000 | 3,300 | 3,500 |
| D, L | 4,000 | 4,400 | 4,600 |
| X | Plans Requirement (Req) | Req. + Req. * (10%) | Req. + Req. * (15%) |

If the acceptance cylinders fail to meet the specified strengths, the Contractor may drill core samples from the hardened concrete as verification of concrete strength instead of using the concrete cylinders. The Contractor must provide QC data from companion cylinders that meet or exceed the required strength, and TDOT Materials and Test shall perform a nondestructive test using a Swiss Hammer on the concrete to prove required strength is achieved ~~under the observance of a Materials and Tests Representative~~. If the above mentioned requirements are met, the Contractor may then elect to drill a maximum of three core samples per set of cylinders from the hardened concrete. The Contractor shall obtain the cores in accordance with the Department's Standard Operating Procedure 4-2, and bear all costs of obtaining the cores and repairing the core holes."

**Subsection 604.27** (pg. 560), 11-16-15; Rideability of New or Resurfaced Bridge Decks and Roadway Approaches, A. General, modify the following:
"On all highway sections with a posted~~design~~ speed greater than 40 miles per hour, the following rideability provisions shall apply to new or resurfaced bridge decks and roadway approaches, ~~except that testing with the Rainhart Profilograph or high speed road profiling equipment need not be performed on bridges with approaches posted for a lower speed due to roadway alignment.~~"

**Subsection 606.04.B.1(b)** (pg. 578), 6-27-16; modify the following: "(b) Except as provided in paragraph 2(b) below, develop an energy per blow in foot-pounds ~~of~~ not less than 25030 multiplied by R, where R is the required minimum bearing resistance of the pile in tons."

**Subsection 606.07.A.** (pg. 581), 6-27-16; revise the following: "Construct cast-in-place concrete piles of the design shown on the Plans and that consist of concrete cast in drilled holes or in steel shells or pipes driven to the required bearing. Use Class A concrete meeting **604**, or use Class X concrete, as required by design, meeting **604**. Provide and place suitable casing when required to prevent caving of the hole before concrete is placed.

**Subsection 613.02** (pg. 633), 6-27-16; add the following:
"Brick Paving Units .....912.05"

**Subsection 615.09** (pg. 644), 11-16-15; Proportioning and Mixing of Concrete, modify the following:

**Table 615.09-1: Composition of Prestress Concrete Classes**

| Class of Concrete | Minimum 28-Day Compressive Strength (psi) | Minimum Pounds Cement per Cubic Yard | Maximum Water/Cement Ratio (pound/pound) | Air Content % | Slump or Slump Flow (inches) |
|---|---|---|---|---|---|
| P | 5,000 (1) | 658 | 0.45 | 0-8 (2) | 2 ± 1 (3) |
| P-SCC (4) | 5,000 (1) | 658 | 0.45 | 0-6 (2) | 25 + 4 |

(1) Or as shown on the Plans or approved shop drawings.

(2) Air entraining is optional with the Contractor, unless otherwise shown on the Plans or shop drawings.

(3) Not to exceed 3 inches before the addition of high range admixtures, and not to exceed 10 inches after the addition of high range admixtures. If water-cement ratio is equal to or less than 0.35 then the maximum slump is 10 inches. If the water-cement ratio is 0.36 – 0.45, the maximum slump is 8 inches.

(4) Maximum coarse aggregate size of a No. 67 stone.

Comply with all applicable provisions of **604.03** except as modified herein.

Submit a concrete design to the Department for review and approval. In addition to the proportions, identify in the design submittal the source or brand of all materials and the type of cement to be used. The Contractor may use Type I or Type III cement, unless otherwise specified. Do not use calcium chloride. Use a retardant admixture when the ambient temperature is 75 °F or higher.

The slump of the concrete shall be 2 inches with a tolerance of ±1 inch at the time of placement. When an approved superplasticizer is to be used, the slump of the concrete shall be the same as above before the superplasticizer is added to the mix. After the addition of the superplasticizer, the slump may be increased to a maximum of 8 inches at the time of placement.

The slump flow of self-consolidating concrete shall be determined and within the design and production tolerances stated in **Table 615.09-1**. Include chemical admixtures in the self-consolidating concrete mixture as specified in **Table 604.03-5** based on the ambient air temperature and expected weather conditions. Approved viscosity modifying admixtures (VMA) may be used as part of the chemical admixtures if they are shown in the approved mixture design.

Handle, measure, and batch materials; mix concrete; and comply with the limitations of mixing as specified in **501.09**, **501.10**, and **501.11**, respectively.

Make concrete test specimens for Class P and Class P-SCC, in accordance with AASHTO T 23 and ASTM C1758 respectively, to determine the adequacy of the concrete design and the minimum time at which the stress may be applied to the concrete. Cure the test specimens used to determine the time at which stress may be applied in the same manner and under the same conditions as the bridge members. The initial curing of specimens to determine the design strength of the concrete shall be as specified above with additional curing water, as provided in AASHTO…

**Subsection 615.17** (pg. 652), 5-18-15; Table 615.17-1: Manufacturing Tolerances in Standard Sections, Replace the following:

**Table 615.17-1: Manufacturing Tolerances in Standard Sections**

| Description | Tolerance | |
|---|---|---|
| | **I-Sections** | **Box Sections** |
| Nominal Depth | ± 1/2 inch | ± 1/2 inch |
| Nominal Width | ± 1/2 inch | ± 1/2 inch |
| Nominal Length | Computed Elastic Shortening ±1/2 inch | Computed Elastic Shortening ±1/2 inch |
| Variation in Straightness, inches | 1/4 inch x (Total Length in feet)/10 | 1/4 inch x (Total Length in feet)/10 |
| Variation in Camber, inches | Beams in any 1 span not more than: 1/8 inch x (Total Length in feet )/10 | Beams in any 1 span not more than: 1/8 inch x (Total Length in feet )/10 |
| Location of Voids | --------- | Length ± ~~1~~ 1/2 in<br>Wall Thickness ± 1/2 in |
| Bearing | Full Bearing - Full Width of Beam | Full Bearing on at Least 2/3 of Width of Beam |
| Tendon Placement | ± 1/2 inch | ± 1/2 inch |
| Reinforcing Steel Placement | ± 1/2 inch | ± 1/2 inch |
| Reinforcing Steel Concrete Cover | ± 1/2 inch | ± 1/2 inch |
| Reinforcing Steel Splice Lengths | Minus 1-1/2 inches | Minus 1-1/2 inches |

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 6/27/16) January 1, 2015

## Supplemental Specifications - Section 700

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 713.04.C.6** (pg. 774), 6-27-16; revise as follows:

"6. Concrete. Use either (1) Class A concrete meeting 604.03 or (2) Class X concrete with a f'c as identified in the plans or required by the design. If Class X concrete is required, use a mix meeting the minimum requirements of **604.03** for Class A concrete, but with a cementitious material quantity necessary to produce the specified strength."

**Subsection 713.04.C.8** (pg. 774), 6-27-16; add the following: "8. Setting Anchor Bolts and Stubs. Set anchor bolts and stubs for sign supports to proper locations and elevations with templates, and carefully check them after constructing the sign foundation and before the concrete has set. Anchor rods shall conform to the requirements of section **730.11**"

**Subsection 730.11** (pg. 835), 6-27-16; Revise the title: "Anchor-Rods~~Bolts~~"

**Subsection 730.11** (pg. 835), 6-27-16; Modify as follows: "Furnish, with anchor-base type poles, anchor rods~~bolts~~ meeting the requirements of ASTM F1554, Grade ~~55 or other high strength steel anchor bolts having a minimum yield strength of 55,000 pounds per square inch and~~ as required by design. Fit each anchor bolt with two heavy hex nuts. Hot-dip galvanize all nuts and not less than 10 inches of the threaded ends of anchor bolts according to ASTM A153. The anchor bolts shall be capable of resisting at yield strength stress the bending moment of the shaft at its yield strength stress."

**Subsection 730.32.A.** (pg. 868), 6-27-16; modify the following: "Provide a welded frame handhole, 5 x 8 inches minimum and located with a clear distance above the base of no less than the pole diameter, "D".~~1 foot above the base~~."

**S T A T E** **O F** **T E N N E S S E E**
(Rev. 5-18-15) January 1, 2015
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(Rev. 6-27-16)

## Supplemental Specifications - Section 900

## of the

## Standard Specifications for Road and Bridge Construction

## January 1, 2015

**Subsection 903.01** - Table 903.01-1 (pg. 920) , 5-18-15; Replace Note (1) with the following: "(1)If the fine aggregate is manufactured from crushed stone ~~limestone or dolomite~~ and if material finer than the No. 200 sieve consists of the dust of fracture, essentially free from clay or shale, this limit may be increased to 5%.

**Subsection 903.03** (pg. 922-923) 11-16-15; Coarse Aggregate for Concrete, modify the following:

"Coarse aggregate in Portland cement concrete bridge decks and overlays on interstates and four or more lane highways consisting of Size No. 57 shall meet 903.24.

The coarse aggregates for travel lanes and bridge decks shall be crushed and consist of stone, slag, gravel, quartzite, gneiss, or combination thereof with an ~~combined~~ absorption of plus 4 material not to exceed 54%. Do not use uncrushed gravel, pea gravel, or any other uncrushed particles. Crushed gravel, if used, shall consist of siliceous washed particles after processing, of which at least 70% by count of the material retained on the No. 4 sieve contains a minimum of two fractured faces. One face shall be fractured for the approximate average diameter or thickness of the particle. ~~Crushed stone used as a surface aggregate shall meet 903.24.~~"

**Table 903.03-1: Coarse Aggregate Sizes**

| Application | Coarse Aggregate Size (1) |
|---|---|
| Structural concrete | No. 57 |
| Self-Consolidating concrete | Maximum-No.67 |
| Prestressed concrete | No. 57 or 67 |
| Precast concrete | Any size fraction |
| Concrete curbing placed by machine-extrusion methods | No. 7, 57, 67, or 78 |
| Cement treated permeable base (2) | No. 57 |

(1) Gradation shall conform to **903.22**.
(2) Aggregate shall meet the quality requirements specified below.

**Subsection 903.05** – B. Type B Aggregate (pg. 927), 5-18-15; Replace 3. With the following: **"**Do not use material having a clay content greater than 12%, as determined by hydrometer analysis performed in accordance with AASHTO T 88. ~~The Contractor may use~~ M~~m~~aterial may be used having a clay content

~~not~~ exceeding 12% if a plasticity index-fines product does not exceed 3 when calculated by the following formula:

**Subsection 903.06** (pg. 930) 11-16-15; C. Combined Aggregate Grading, Add the following sentence at the end of the first paragraph:
"For mixtures including recycled asphalt pavement, RAP, and/or recycled asphalt shingles, RAS, stockpiles will not be considered as contributing to the required minimum of three stockpile sizes."

**Subsection 903.11** (pg. 934) 11-16-15; Aggregate for Asphaltic Concrete Surface Coarses (Hot Mix), add the following sentence at the end of the first paragraph:
"For mixtures including recycled asphalt pavement, RAP, and/or recycled asphalt shingles, RAS, stockpiles will not be considered as contributing to the required minimum of three stockpile sizes."

**Subsection 903.11** (pg. 934) 11-16-15; A. Coarse Aggregate (retained on a No. 4 sieve), modify the following:
"Provide aggregate, consisting of crushed stone, crushed slag, crushed gravel, crushed granite, crushed quartzite, crushed gneiss, or natural combinations of these materials.", "3. Combined aggregate shall consist of siliceous particles processed from washed material, of which at least 70% by count of the material retained on the No. 4 sieve shall have a minimum of two fractured faces, one of which must be fractured for the approximate average diameter or thickness of the particle. Do not add pea gravel or uncrushed particles. The absorption of the crushed ~~combined~~ aggregate retained on the No. 4 sieve shall not exceed 5% when tested in accordance with AASHTO T 85."

**Subsection 903.11** (pg. 934), 5-18-15; A. Coarse Aggregate (retained on a No. 4 sieve) Replace with the following:
"2. Material retained on the No. 4 sieve shall contain a maximum of 1~~2~~0% elongated pieces (length greater than five times the average thickness)"

**Subsection 903.11 C.3.** (pg. 938), 6-27-16; "3. Grading OGFC. A minimum of 75% of the aggregate shall meet the requirements specified in 903.24 for Surface Mixtures (Non-Skid Aggregates). The coarse aggregate shall have at least 90% crushed aggregate with two fractured faces and 100% with one fractured face as determined in accordance with ASTM D5821. The coarse aggregate shall have a LA Abrasion value of less than ~~43~~0% and a maximum absorption of 3.0%."

**Subsection 903.12** (pg. 938) 11-16-15; A. Aggregate for Slurry Seal, delete as shown:
"~~A minimum of 50% of~~ the aggregate shall be crushed slag, crushed granite, or crushed stone (crushed stone as specified in 903.24), meeting the requirements of ASTM D692, except the gradation shall be as specified in Table 903.12-1…

~~Use a pug mill to mix blends of more than one aggregate source. Do not blend aggregates with a front end loader. Proportion the aggregate to produce a uniform gradation meeting the requirements specified in Table 903.12-1."~~

**Subsection 903.12** (pg. 939) 11-16-15; B. Aggregate for Micro-Surface: delete as shown:
"~~A minimum of 50% of~~ The aggregate shall be crushed slag…
~~Use a pug mill to mix blends of more than one aggregate source. Do not blend aggregates with a front end loaded. Proportion the aggregate to produce a uniform gradation meeting the requirements specified in Table 903.12-2.~~

**Subsection 903.24** (pg. 946), 5-18-15; Modify the following:

**"**Provide coarse aggregate consisting of crushed gravel, crushed granite, crushed slag, crushed quartzite, ~~or~~ crushed gneiss, or crushed sandstone. ~~meeting the BPN requirements of the table below. The Contractor may use other crushed aggregate provided it has the chemical, physical, and performance characteristics specified in Table 903.24-1.~~ Other crushed aggregate may be used provided it has the chemical, physical, and performance characteristics specified in Table 903.24-1."

**Subsection 904.01** (pg. 948) 11-16-15; Asphalt Cements, add the following between the 4th and 5th paragraphs:

"Polyphosphoric acid may be used as a modified not exceeding 0.5% by weight of asphalt binder and may only be used when the primary modifier is one of the styrene-based products listed above."

**Subsection 904.01** (pg. 948-950) 5-18-15; Modify the following:

"Only obtain asphalt cement for use on Department projects from Certified Asphalt Cement Suppliers that have an approved Quality Control Plan in accordance with the Department's Standard Operating Procedures.

Asphalt cement shall conform to AASHTO M 320 and Department procedures. Direct Tension testing is not required.

Instead of PG 64-22, the Contractor may use asphalt cement graded to PG 67-22. PG 67-22 shall conform to the requirements of AASHTO M 320 when the applicable tests are conducted at 67 °C and -12 °C, and the dynamic shear of the rolling thin film, pressure aged vessel sample is tested at 26.5 °C.

To modify the asphalt cement high-temperature grade properties, properly blend styrene butadiene (SB), styrene butadiene styrene (SBS), or styrene butadiene rubber (SBR) to a PG 64-22 or PG 67-22 base asphalt.

In addition to the above requirements, ~~the PG 70-22, PG 76-22 and 82-22~~ asphalt cements shall meet the requirements specified in Table 904.01-1.

**Table 904.01-1: Requirements for Asphalt Cement**

| Property* | PG 64-22, PG 67-22 | PG 70-22 | PG 76-22 | PG 82-22 |
|---|---|---|---|---|
| ~~Ring & Ball Softening Point, degrees F, minimum~~ | | ~~128~~ | ~~135~~ | ~~150~~ |
| ~~Elastic Recovery by means of Ductilometer, % minimum~~ | | ~~45~~ | ~~65~~ | ~~70~~ |
| Non-recoverable creep compliance at 3.2kPa, Jnr(3.2), $kPa^{-1}$ at 64°C, Max | 4.5 | 1.0 | 0.5 | 0.5 |
| % Difference in Non-Recoverable Creep Compliance, Jnr(diff) at 64°C, %, Max | 75 | 75 | 75 | 75 |

* Tested in accordance with AASHTO T350.

All modified grades shall meet the requirements for Indication of Elastic response as defined in Appendix X1 of AASHTO M332.

~~**A. Test Procedures**~~

~~**1. Elastic Recovery by means of a Ductilometer.** Test in accordance with AASHTO T 301 at 77 °F.~~

~~**2. Screen Test.** Pour a 1,000 gram sample heated to 275 °F through a No. 10 sieve. Ensure no lumps or particles are retained on the sieve.~~

~~**3. Viscometer Test.** In addition to the above, all hot mix asphalt mix plants using modified liquid asphalt products shall have a rotational viscometer, meeting ASTM D4402 requirements, with a thermostatically controlled cell. The mix producer shall run a minimum of one test per week on samples taken from the Contractor's storage tank. Viscosity values shall be in the ranges specified in Table 904.01-2 when tested at 275 °F.~~

~~**Table 904.01-2: Asphalt Cement Viscosity Requirements**~~

| ~~**Property**~~ | ~~**PG 70-22**~~ | ~~**PG 76-22**~~ | ~~**PG 82-22**~~ |
|---|---|---|---|
| ~~Viscosity Range (centipoise)~~ | ~~650-3,000~~ | ~~1,000-3,000~~ | ~~2,000-4,000~~ ~~(1)~~ |

~~(1) Store PG82-22 at proper temperatures to maintain pumpability.~~

~~Materials Certification~~

Furnish a certification to the Engineer on each project stating that the asphalt cement provided meets the Department's specification. Ensure that quality control and compliance testing are completed in accordance with the asphalt supplier's approved quality control plan and Department procedures.

~~Where blending or modification occurs after the material has left the storage tanks, the supplier shall conduct a complete series of tests on a sample taken on the first day's production and biweekly thereafter for each grade being produced. Brookfield viscosity and DSR original tests shall be performed daily at the point of blending or modification. The DSR value G*/sinδ shall be ≥1.0 kPa at the high PG grade temperature (i.e., 158 °F for PG 70-22).~~

In addition, the asphalt cement supplier~~producer~~ shall provide a temperature-viscosity curve for PG 64-22 and PG 67-22 asphalt cements with a recommended mixing temperature range. In order to develop a temperature-viscosity curve, it may be necessary to run the viscosity test at a higher temperature, based on the softening point of the modified asphalt cement.

**Subsection 904.01**(pg. 949), 6-27-16; modify the following table:

Table 904.01-1: Requirements for Asphalt Cement

| **Property** | PG64-22 PG67-22 | PG70-22 | PG76-22 | PG82-22 |
|---|---|---|---|---|
| Non-recoverable creep compliance at 3.2kPa, Jnr(3.2), $kPa^{-1}$ at 64°C, Max | 4.5 | 1.0 | 0.5 | 0.5 |
| % Difference in Non-Recoverable Creep Compliance, Jnr(diff) at 64°C, %, Max | 75 | 75 | 75 | n/a~~75~~ |

**Subsection 904.03** (pg. 951) 11-16-15; Emulsified Asphalts, Add "TTT-3" to 904.03-1 with the following requirements:

| | |
|---|---|
| Saybolt-Furol Viscosity @ 77 °F, | 10-100 |

| | |
|---|---|
| seconds | |
| Particle Charge | Positive |
| Sieve Test, % | 0.1 Max |
| Residue by | Distillation[(1)] |
| Residue, % | 50 Min |
| Demulsibility, % | 65 Min |
| Penetration | 40-90 |

[1]-Distill at 350°F

**Subsection 904.03** (pg.954), 5-18-15; Replace with the following:

**Subsection 904.03, Table 904.03-1(c). Modify** as follows for TTT-1:

**Table 904.03-1(c): Test Requirements for Emulsified Asphalt**

| **Practices** | **AASHTO Test Method** | **CRS-2P** | **RS-2** | **RS-1** | **TTT-1** | **TTT-2** |
|---|---|---|---|---|---|---|
| Saybolt-Furol Viscosity @ 77 °F, seconds | T59 | n/a | n/a | 20-100 | 20-100~~30 mins~~ | 10-100~~n/a~~ |
| Saybolt-Furol Viscosity @ 122 °F, seconds | T59 | 100-400 | 75-400 | n/a | n/a | n/a~~15-100~~ |
| Storage Stability Test, 24- h, % | T59 | 1 Max | 1 Max | 1 Max | 1 Max | 1 Max |
| 5-day Settlement, % | T59 | n/a | n/a | n/a | n/a~~5 Max~~ | n/a |
| Particle Charge | T59 | Positive | n/a | n/a | n/a | Positive |
| Sieve Test, % | T59 | 0.1 Max | 0.1 Max | 0.1 Max | 0.1 Max | 0.1 Max |
| Residue by | T59 | *Evaporation* | Distillation | Distillation | Distillation | Distillation [(1)] |
| Residue, % | T59 | 65 Min | 63 Min | 55 Min | 50~~40~~ Min | 50~~8~~ Min |
| Demulsibility, % | T59 | 40 Min | 60 Min | 60 Min | n/a | n/a |
| Distillate, % | T59 | n/a | n/a | n/a | n/a | n/a |
| Oil Test, % | T59 | n/a | n/a | n/a | n/a | n/a |
| Stone Coating | T59 | n/a | n/a | n/a | n/a | n/a |
| Float Test, seconds | T50 | n/a | n/a | n/a | n/a | n/a |
| Penetration | T49 | 75-175 | 100-200 | 100-200 | 0-20~~5-15~~ | 40-90 |
| Elastic Recovery, % [(2)] | T301 | 50 Min | n/a | n/a | n/a | n/a |
| Ductility @ 77 °F, cm | T51 | 40 Min | 40 Min | 40 Min | n/a~~40 Min~~ | n/a |
| Ductility @ 40 °F, cm | T51 | n/a | n/a | n/a | n/a | n/a |
| R&B Softening Point, °F | T53 | 125 Min | n/a | n/a | 60-75 | n/a |

| Practices | AASHTO Test Method | CRS-2P | RS-2 | RS-1 | TTT-1 | TTT-2 |
|---|---|---|---|---|---|---|
| Original G*/sind @ 82 °C | T315 | n/a | n/a | n/a | 1.0 Min | n/a |

(1) Distill at 350 °F

(2) Straight-sided mold, 20-cm elongation, 5min hold, 25 °C

**Subsection 908.04** (pg. 968), 5-18-15, High Strength Bolts, A. Specifications; Add the following to the first paragraph:

"Unless otherwise shown on the Plans, mechanically galvanize all bolts, nuts and washers in accordance with ASTM B695 Class 50."

**Subsection 912.05** (pg. 1001), 6-27-16; Add the following Section:

"**912.05Brick Paving Units**

Provide brick of the kind and grade specified.

**A. Masonry Brick**

1. Sidewalk: ASTM C902, Class SX, Type 1
2. Crosswalks and Roadway: ASTM C1272, Type R

**B. Concrete Brick and Truncated Dome Concrete Brick**

Provide brick conforming to ASTM C936

**C. Truncated Dome Brick**

Provide brick conforming to ASTM C902, Class SX, Type 1"

**Subsection 915.02** (pg. 1007), 6-27-16; modify the following:

**"SECTION 915 – METALLIC PIPE**

915.01 Ductile Iron or Cast Iron Pipe ..... 1007
915.02 Corrugated Metal Pipe Culverts, Pipe Arches, and Underdrains 1007
915.03 Polymer Pre-coated, Corrugated~~Galvanized~~ Steel Pipe, Culverts, and Underdrains ..... 1008

**915.01 Ductile Iron or Cast Iron Pipe**
Provide ductile iron pipe conforming to ASTM A716 for the specified diameters and strength classes. Unless otherwise specified, either smooth, corrugated, or ribbed pipe may be furnished. For pipe diameters in excess of 48 inches, conform to ANSI Standard for Cast Iron Pit Cast Pipe, or as otherwise specified in the Contract, for the specified diameter and strength class.
Provide cast iron drain pipe conforming to ASTM A74. Unless otherwise specified, provide ductile iron pressure pipe for water lines or sewer construction conforming to the requirements of ASTM A377 for the diameters and working pressures specified.

**915.02 Corrugated Metal Pipe Culverts, Pipe Arches, and Underdrains**

**A. ~~Zinc-Coated~~ Corrugated ~~Iron or~~ Steel Pipe, Pipe Arches, and Underdrains**

Provide ~~zinc-coated (galvanized)~~ corrugated ~~iron or~~ steel pipe, pipe arches, or underdrains, including special sections, such as elbows and flared ends, that conform~~ing~~ to AASHTO M 36, aluminum-coated Type 2 meeting AASHTO M274. ~~Use special sections, such as elbows and flared end sections that conform to AASHTO M 36 and are of~~ Special Sections shall be the same thickness as the pipe, arch, or underdrain to which they are joined. Furnish shop-formed elliptical pipe and shop-strutted pipe only where shown on the Plans.

~~**B. Aluminum Coated Steel Pipe**~~

~~Provide aluminum coated steel pipe conforming to AASHTO M 274.~~

**~~C.~~B. Corrugated Aluminum Pipe, Pipe Arches, and Underdrains**

When using corrugated aluminum pipe, pipe arches, or underdrains, conform to the applicable requirements of AASHTO M 196. Use special sections, such as elbows and flared end sections that conform to the applicable requirements of AASHTO M 196 and that are of the same gauge as the conduit to which they are joined.

**~~D.~~C. Structural Plate Corrugated Steel and Aluminum Structures**

~~Provide galvanized corrugated structural plate for pipe, pipe arches, and arches conforming to AASHTO M 167.~~

~~The Contractor may use mechanically galvanized zinc coating meeting ASTM B695 Class 50 as an alternate for hot dipped galvanizing (AASHTO M 232) as applicable to hardware for fabrication of structural plate pipe, pipe arches, and arches.~~

Corrugated aluminum alloy structural plate for pipe, pipe arches, and arches shall conform to the requirements of AASHTO M 219.

**D~~E~~. Bituminous Coating**

When material supplied for any of the items specified above are to be bituminous-coated, ensure that the metal to be coated is free of grease, dirt, and other contaminants. Bituminous coating and paving shall conform to the requirements of AASHTO M 190. Apply the coating in accordance with the manufacturer's recommended procedures and as directed by the Department."

**915.03 Polymer Pre-coated, Corrugated ~~Galvanized~~ Steel Pipe, Culverts and Underdrains**

Provide polymer pre-coated corrugated~~galvanized~~ steel pipe conforming to AASHTO M 245, Grade 250/250~~10/10~~, unless otherwise specified."

**Subsection 917.02.A.6.** (pg. 1023), 6-27-16; Revise the following: "Use anchor rods~~bolts~~ of high strength steel meeting the requirements of ASTM F 1554, Grade ~~55, and having minimum yield strength of 55,000 psi and a minimum ultimate to be strength of 90,000 psi~~ to be determined by design."

**Subsection 921.01** (pg. 1049), 5-18-15, Water; Replace with the following:

For mixing concrete, use water that is reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable matter, and other substances injurious to the finished product. ~~Test water in accordance with AASHTO T 26. The~~

~~Contractor may use water known to be of potable quality~~ Water provided by a municipal utility may be used without testing.

~~Where the source of water is relatively shallow, enclose the intake so as to exclude silt, mud, grass, and other foreign materia~~

All other water shall have quality results submitted in accordance with the frequency listed in Table 921.01-01. All water quality results shall adhere to Table 921.01-2.

**Table 921.01-1 Testing Frequency for Mixing Water**

| Water Source | Testing Frequency(1) |
|---|---|
| Municipal | NA |
| Non-Municipal | Every 3 months; tested annually after 4 consecutive passing tests |

(1) The frequency may vary at the discretion of the Department.

**Table 921.01-2 Quality Requirements for Mixing Water**

| Maximum Concentration in Mixing Water | Limits | ASTM Test Method (1) |
|---|---|---|
| Chloride Ion Content, ppm | 500 | C114 |
| Alkalies as (NaO2 + 0.658 K2O), ppm | 600 | C114 |
| Sulfates as SO4, ppm | 3000 | C114 |
| Total Solids by mass, ppm | 50000 | C1603 |
| pH | 4.5-8.5 | (2) |
| Resistivity, Minimum, kohm-cm | 0.500 | D1125 |
| Soluble Carbon Dioxide, ppm | 600 | D513 |
| Calcium and Magnesium, ppm | 400 | D511 |
| Iron, ppm | 20 | (2) |
| Phosphate, ppm | 100 | D4327 |

(1) Other methods (EPA or those used by water testing companies) are generally acceptable.
(2) No ASTM method available.

**Subsection 921.06** (pg.1051) 11-16-15; B. Bituminous Additives - 1. Anti-Stripping Additive, modify the following: "Use hydrated lime conforming to AASHTO M 303~~ASTM C977~~ or other heat-stable asphalt anti-stripping additive containing no ingredient harmful to the bituminous material or the workmen and that does not appreciably alter the specified characteristics of the bituminous material when added in the recommended proportions."

**Subsection 921.06** B. Bituminous Additives (pg.1052) 10-10-16; revise the 3rd paragraph as follows: "When using an anti-stripping additive other than hydrated lime, use a dosage rate of 0.3%, unless either gravel is used as a coarse aggregate or test results indicate moisture susceptibility, in which case mix at a dosage rate of 0.5%.~~the percentage of anti-stripping additive used shall range between 0.3% to 0.5% by weight of the asphalt cement."~~

**S T A T E** **OF** **T E N N E S S E E**

January 1, 2015

REV: 2/5/07

## SPECIAL PROVISION

## REGARDING

## EMPLOYING AND CONTRACTING WITH ILLEGAL IMMIGRANTS

The State shall endeavor to do business only with those contractors and subcontractors that are in compliance with the Federal Immigration and Nationality Act. This policy shall apply to all State Contractors including subcontractors. This policy statement is issued to establish implementation guidance to procuring state agencies and contractors reflecting the requirements of Governor's Executive Order #41, An Order Regarding Compliance with Federal and State Laws Related to Employing and Contracting with Illegal Immigrants, and the requirements of Public Acts of 2006, Chapter Number 878 of the State of Tennessee (codified at *Tennessee Code Annotated,* Title 12, Chapter 4, Part 1).

1. The Contractor hereby attests, certifies, warrants, and assures that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract. The Contractor shall reaffirm this attestation, in writing, by submitting to the State a completed and signed copy of the "Attestation form" provided by the Department, semi-annually during the period of this Contract.

2. Prior to the use of any subcontractor in the performance of this Contract, and semi-annually thereafter, during the period of this Contract, the Contractor shall obtain and retain a current, written attestation that the subcontractor shall not knowingly utilize the services of an illegal immigrant to perform work relative to this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant to perform work relative to this Contract.

3. The Contractor shall maintain records for its employees used in the performance of this Contract. Said records shall include a completed federal Department of Homeland Security Form I-9, *Employment Eligibility Verification*, for each employee and shall be subject to review and random inspection at any reasonable time upon reasonable notice by the State.

4. The Contractor understands and agrees that failure to comply with this section will be subject to the sanctions of Public Chapter 878 of 2006 for acts or omissions occurring after its effective date. This law requires the Commissioner of Finance and

Administration to prohibit a contractor from contracting with, or submitting an offer, proposal, or bid to contract with the State of Tennessee to supply goods or services for a period of one year after a contractor is discovered to have knowingly used the services of illegal immigrants during the performance of this contract.

For the Purposes of this policy, “illegal immigrant” shall be defined as a non-citizen who has entered the United State of America without federal government permission or stayed in this country beyond the period allowed by a federal government-issued visa authorizing the non-citizen to enter the country for specific purposes and a particular time period.

Compliance and non-compliance procedures will be as specified in the Tennessee Department of Finance and Administration’s Policy on “Ensuring Compliance with Federal Immigration Laws by State Contractors and Subcontractors”.

**S T A T E** **O F** **T E N N E S S E E**

(Rev. 6-19-95) January 1, 2015
(Rev. 6-1-04)
(Rev. 06-20-2011)

# SPECIAL PROVISION

# REGARDING

# BUY AMERICA REQUIREMENTS

All manufacturing processes for iron and steel products, and coatings applied thereon, used in this project shall occur in the United States except that if the proposal has bid items for furnishing domestic and foreign iron and steel, the bidder will have the option of (1) submitting a bid for furnishing domestic iron and steel, or (2) submitting a bid for furnishing domestic iron and steel and a bid for furnishing foreign iron and steel. If option (2) is chosen the bid will be tabulated on the basis of (a) the total bid price using the bid price for furnishing domestic iron and steel and, (b) the total bid price using the bid price for furnishing foreign iron and steel.

For the total bid based on furnishing foreign iron and steel to be considered for award, the lowest total bid based on furnishing domestic iron and steel must exceed the lowest total bid based on furnishing foreign iron and steel by more than 25 percent. The 25 percent differential applies to the total bid for the entire project, not just the bid prices for the steel or iron products.

Iron and steel products are defined as products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed from iron and steel made in the United States. Iron products are included, however, pig iron and processed, pelletized, and reduced iron ore may be purchased outside the United States.

Manufacturing begins with initial melting and continues through the coating stage. Any process which modifies chemical content, physical size or shape, or the final finish is considered a manufacturing process. Coatings include epoxy, galvanizing, painting or any other surface protection that enhances the value and/or durability of a material.

The contractor shall provide a certification to the Engineer with each shipment of iron and steel products to the project site that the manufacturing processes for the iron and steel products occurred in the United States. No steel shall be placed until the contractor ensures the requirements of this Special Provision are met.

The above requirements do not prevent a minimal use of foreign materials, if the cost of such materials used does not exceed 0.1 percent of the total contract cost or $2,500.00, whichever is greater. If steel

not meeting the requirements of this Special Provision is used, the contractor shall provide a written statement to the Department prior to its use indicating where the steel will be incorporated in the work, the value of the steel, the percentage of the contract amount, and the appropriate invoices shall be submitted as documentation.

The contractor shall be responsible for all cost associated with any steel that is permanently incorporated into the project that does not meet the requirements of this Special Provision without prior written approval from the Department, up to and including removal and replacement.

**S T A T E** **O F** **T E N N E S S E E**

January 1, 2015
Contract No.: CNQ314
County: Region 1

# SPECIAL PROVISION

# REGARDING

# "SPECIALTY ITEMS"

In accordance with the provisions of Subsection 108.01, *Standard Specifications for Road and Bridge Construction,* 2015, all construction items included in the following described work are hereby designated as "Specialty Items":

Items 712 - Traffic Control Items

**S T A T E** **O F** **T E N N E S S E E**

Region 1
Contract Number: CNQ314

## SPECIAL PROVISION

## REGARDING

## PROJECT COMPLETION AND LIQUIDATED DAMAGES

This project shall be completed in its entirety on the date on the cover of the proposal book.

All work including the set-up and removal of traffic control work zones shall only be allowed as scheduled and approved by the Engineer. Work on Interstates, controlled access, and two-lane or multilane highways (with ADT≥25,000) shall only be allowed from 8:00 PM to 6:00 AM Mon-Fri and between 8:00 PM Friday and 6:00 AM Monday as approved by the Engineer. Work on two-lane or multilane highways (with ADT<25,000) will be permitted as defined above as well as during off peak traffic hours between 9:00 AM and 3:00 PM as long as the scheduled work can be completed and the impacted travel lanes can be reopened to traffic.

Temporary striping to permanent standards will be required at the end of each day's work using removable pavement markings.

For each hour, or portion thereof, that any traffic lane remains closed outside of the restricted periods for roadway related work, the sum of $500 per hour per lane shall be Deducted from monies due the Contractor, not as a penalty, but as Liquidated Damages.

No partial payments, including payment for stockpile materials, shall be made before work begins.

**STATE OF TENNESSEE**

January 1, 2015

Rev. 8/22/14
Rev. 1/15/16
Rev. 8/12/16

# SPECIAL PROVISION

# REGARDING

# HIGH FRICTION SURFACE TREATMENTS (HFST)

## SCOPE OF WORK

This work shall consist of the application of High Friction Surface Treatments (HFST) for use on asphalt and concrete pavements in accordance with these specifications. The HFST is comprised of a single layer of a Binder Resin System and surface applied aggregate for asphalt and concrete pavements and a double layer of a Binder Resin System and surface applied aggregate for concrete above grade surfaces.

## MATERIAL

### High Friction Surface Treatments

All HFST systems used shall be from the Departments Qualified Products List, 31: High Friction Surface Treatments.

### Aggregate

**High Friction Aggregate shall consist of Calcined Bauxite Only**

- Aggregate shall be angular, having less than 0.2% moisture and free of dirt, clay, asphalt and foreign or organic materials.
- Aggregate shall meet the requirements listed in Table 1.

**Table 1**— Physical and Chemical Requirements of the Aggregate

| Property | Test Method | Requirement |
|---|---|---|
| Micro Deval Resistance to Degradation | ASTM D7428 | 5% Max |
| Aggregate Grading<br>No. 4 Sieve<br>No. 6 Sieve<br>No. 16 Sieve | AASHTO T27 | Percent Passing<br>100% min<br>95% min<br>5% max |
| Moisture Content | AASHTO T255 | 0.2% max |
| Aluminum Oxide | ASTM C25 | 87% min |

## PACKAGING

**Binder Resin System Packaging:**

- Binder Resin System components shall be packaged in suitable, well-sealed containers clearly labeled as to the type material and the ratio of the components to be mixed by volume.
- Any special instructions regarding mixing shall be included.
- The label shall show Binder Resin System components, brand name, name of manufacturer, lot or batch number, temperature range for storage, expiration date and the quantity contained therein.
- The container shall be labeled with a Material Safety Data Sheet (MSDS) and caution warnings regarding contact of the binder with skin and eyes.

**Aggregate Packaging:**

- All aggregates shall be furnished in appropriate packaging that is clearly labeled and protects the aggregate from any contaminates on the jobsite and exposure to rain or other moisture.
- The label shall show the name of the manufacturer and location of processing.

## MATERIALS CERTIFICATION

The manufacturers of the Binder Resin System and Aggregate shall certify that the materials meet the requirements of this specification. Such certification shall consist of either a copy of the manufacturer's test report or a statement by the manufacturer including a copy of the current test results that the Binder Resin System and Aggregate have been sampled and tested. All certifications must be signed by the manufacturer and include the date of testing. The manufacturer shall maintain and provide upon request complete records of sampling, testing, actions taken to correct problems and quality control inspection results.

## QUALIFICATION OF INSTALLER

- The installer shall submit a minimum of 3 projects with the owner’s contact information on which a cumulative minimum of 5,000 square yards of HFST have been placed within the past three years.
- The installer shall submit a Quality Control (QC) Plan at least 30 days prior to placement.
- The QC Plan shall be project specific detailing installer's key personnel, equipment, materials, proposed methods of installation, materials blending procedures (mixing), and proposed methods of curing, clean up and traffic marking operations.
- Any deviation from the approved QC Plan shall be cause for immediate suspension of operations.

**Key Personnel**

- Provide contact information for key personnel.
- Designate a Project Superintendent who shall have full authority to institute any action necessary for the successful operation of the QC plan.

- Designate a lead technician who shall be present at the job site and be responsible for the required field quality control sampling and testing in conformance with the approved QC plan and contract documents.

**Equipment**

QC plan shall show equipment calibration records for all metering and application monitoring devices. Provide cleaning and maintenance schedules for application equipment.

## CONSTRUCTION PRACTICES

**General**

- Ensure that a Binder Resin System manufacturer's representative is on site to provide technical assistance during the startup operations and as necessary during the surface preparation, material placement and during any necessary remedial work.
- Do not apply high friction surface treatment on open graded friction course.
- Monitor and record general weather conditions (sunny, cloudy, ambient air temperature, surface temperature, relative humidity, ect.).
- Record quantities of materials installed.
- At no time shall the aggregate be exposed to rain or moisture.

## INSTALLATION OF HFST:

**Test Section**

- The installer shall construct a test section of 250 square yards.
- This test section shall be used to demonstrate the Mechanically Automated Application or Mechanically Assisted Application machine has been properly calibrated and will verify application rates and cure time.
- The test section shall be part of the HFST quantity of the project and approved by the project engineer.

## PREPARATION OF SURFACES

**General**

Prepare all pavement surfaces immediately prior to the installation of HFST.

- Pavement surfaces contaminated with oils, greases, or other deleterious materials not removed by the surface preparation shall be washed with a mild detergent solution, rinsed with clean potable water, and dried using a hot compressed air lance.
- Utilities, drainage structures, curbs and any other structure within or adjacent to treatment location shall be protected from the surface preparation and installation of the HFST.
- Pavement markings that exist within the HFST installation shall be removed by methods acceptable to the Engineer.

- Cover or tape the raised pavement markers, within the HFST installation prior to applying binder resin.
- Replace all removed pavement markings in kind after full cure and sweeping of HFST.
- If required by the manufacturer, place a prime coat prior to the installation of the HFST.
- Clean and fill all inadequately sealed joints and cracks greater than 1/4" with a crack sealant approved by the polymeric resin manufacturer.

**Asphalt Roadway Surfaces**

- Receiving surfaces shall be clean, free of all dust, oil, debris and any other material that might interfere with the bond between the Binder Resin System and existing surfaces using vacuum sweep or air wash, with a minimum of 180 cfm of clean and dry compressed air. Clean asphalt surfaces by use of mechanical vacuum sweepers, high pressure air or other methods outlined in the installers QC plan.
- Maintain air lance perpendicular to the surface and the tip of the air lance within 12 inches of the surface.
- Ensure that the pavement surface is clean and completely dry prior to the installation of the HFST to the satisfaction of the manufacturer's representative and the Engineer.
- For applications on new asphalt pavements, ensure the installation of HFST occurs at a minimum of 45 days after placement of underlying and adjacent pavement.

**Concrete Roadway Surfaces, Concrete above Grade Surfaces (Bridges, Ramps, Overpasses, Directional Flyovers, Stacked Interchanges, Viaducts)**

- Clean concrete pavement surfaces by shot blasting and vacuum sweeping. Shot blast all concrete surfaces to remove all curing compounds, loosely bonded mortar, surface carbonation, and deleterious material as directed by the Engineer.
- The contractor will verify that the prepared surface complies with the International Concrete Repair Institute (ICRI) standard for surface roughness CSP 5 to CSP 6. After shot blasting, air wash with a minimum of 180 cfm of clean and dry compressed air, all surfaces to remove all dust, debris, and deleterious material. Maintain air lance perpendicular to the surface and the tip of the air lance within 12 inches of the surface.
- On new concrete surfaces, all curing compounds shall be completely removed prior to installation.
- On new concrete surfaces and full or partial depth concrete repairs, the surface must cure for a minimum of 30 days prior to HFST placement. Magnesium phosphate based patching materials will not be allowed.

## APPLICATION

**General**

- Apply the HFST material on a clean and dry surface, when the ambient and surface temperatures are above 55ºF.

- Do not apply the HFST material if the anticipated weather or pavement surface conditions would prevent the proper application of the surface treatment as determined by the Binder Resin System manufacturer.
- Ensure the HFST components are capable of being mixed at lower than ambient temperatures in the event that the components are stored outdoors.
- Pre-treat with the mixed Binder Resin System specified joints and cracks less than 1/4 inches in width and depth.
- Once the Binder Resin System in the pre-treated areas has gelled, the installation may proceed.
- Use the High Friction Surface Treatment systems in a **single lift application** (Binder Resin System and aggregate) for **Asphalt and Concrete roadway surfaces.**
- The HFST shall be applied to the full width of pavement excluding shoulders.
- Use the High Friction Surface Treatment systems in a **double lift application** (Binder Resin System and aggregate) for **above Grade Concrete Surfaces** (Bridges, Ramps, Overpasses, Directional Flyovers, Stacked Interchanges, Viaducts).
    - Both lifts shall be applied to the full width of the structure.
    - On bridges with continuous concrete barrier rails apply the Binder Resin System to a minimum height of 6 inches above the deck.
    - Apply Binder Resin System to the barrier as each of the overlay applications are performed.
- Walking, standing or any form of contact or contamination with the wet uncured Binder Resin System prior to application of the aggregate without the use of spiked shoes to minimize the disturbance to the binder layer will result in that section of Binder Resin System being removed and replaced at the installer's expense.
- Contractor equipment and traffic is not permitted on the HFST during curing period.

**Application Methods**

Apply the High Friction Surface Treatment, in accordance with manufacturer's recommendations. The application methods allowed are shown below.

**Mechanically Automated Application**

Mechanically apply the HFST by a continuous self-contained application vehicle. The application vehicle shall provide continuous pumping and portioning devices. These devices shall blend the Binder Resin System within a controlled system and must mechanically mix,

meter, monitor and apply the high friction Binder Resin System and aggregate in one continuous pass onto the pavement.

- Ensure the Binder Resin System manufacturer has approved the installers application equipment for spreading their material as stated in the installer's QC Plan.
- Heated pumps may be necessary if required by the Binder Resin System manufacturer to ensure proper installation.
- The system shall mechanically mix, meter, monitor and apply the HFST (Binder Resin System and Aggregate) in one continuous pass.
- Hand application of aggregate is allowed to assist in completely covering the Binder Resin System to achieve a uniform surface.
- Apply the HFST so no seams are visible in the middle of the traffic lanes of the finished work after application of the surface aggregate.
- Operations will proceed in such a manner that will not allow the Binder Resin System material to separate in the mixing lines, cure, dry, or otherwise impair retention bonding of the high friction surfacing aggregate.
- The application machine shall be equipped with flushing systems such that blockages of lines will not occur, and installation operations are not delayed, stopped or otherwise compromised.
- Printouts from the contractor's equipment shall be obtained by the Engineer to compare manual depth checks for mil thickness to ensure equipment is properly calibrated.
- Calibration can also be done by measuring the total gallons used divided by the number of square yards applied.
- Existing porous surfaces may cause the application rate to be adjusted in order to achieve overall desired mil thickness of finished product.
- Ensure that mechanical applications are capable of applying binder uniformly in one pass to obtain the desired mil thickness with varying placement widths and will automatically adjust based on application vehicle speed.
- Ensure that operations proceed in a manner that does not allow the polymer to separate, chill, or set up in a way that would impair the retention of the aggregate

**Mechanically Assisted Application**

- Use a Mechanically Assisted application vehicle that heats, mixes, meters, pumps, blends and applies the Binder Resin System. The Mechanically Assisted application machine shall have positive displacement volumetric metering pumps controlled by a hydraulic power unit. Use motionless, in-line mixing so as to not overly shear the material or entrap air in the mix. Maximize material working time by mixing it immediately before dispensing.
- After manually dispensing, spread the Binder Resin System with a serrated squeegee on to the prepared pavement surface at a uniform application thickness.
- Immediately mechanically apply the aggregate onto the Binder Resin System by means of Blower, Spreader Bucket or suitable device.
- Hand spreading the aggregate is not allowed as a primary method to spread the

aggregate. Hand application of aggregate is allowed to assist in completely covering the Binder Resin System to achieve a uniform surface.

**Binder Application**

- Proportion and mix the Binder Resin System to the correct ratio as determined by the Binder Resin System manufacturer (+/- 2% by weight).
- Ensure that any blushing (waxy surface coating on the epoxy) caused by a reaction of the moisture with the hardening agent does not occur during the application process.
- Remove any areas that show signs of blushing that typically cause adhesion issues to occur.
- When placing in multiple lifts, ensure that the aggregate used is the same calcined bauxite material as the final riding surface. The aggregate material must be properly embedded into the Binder Resin System.
- The Binder Resin System is applied onto a prepared pavement surface with a uniform thickness of 50-60 mils (2.8 to 3.6 square yards per gallon).
- Coverage rate is based upon expected variances in the surface profile of the existing pavement.
- TDOT and the Contractor will measure and monitor placement using a contractor supplied depth gauge. A minimum rate of one per 100 square yards will be placed to ensure proper application thickness.
- Operations should proceed in a manner that will not allow the Binder Resin System to separate, cure, dry, be exposed, or otherwise harden in such a way as to impair retention and bonding of the aggregate.

**Aggregate Application**

- After placing the Binder Resin System; the aggregate is applied at a minimum rate of 12-15 pounds per square yard.
- The placement of this material does not require any compaction. Aggregate shall completely cover the “wet” Binder Resin System to achieve a uniform surface.
- During the placement of the aggregate, by mechanical means, the aggregate will be dropped in a manner to not violently disturb the wet Binder Resin System.
- It is the responsibility of the installers to ensure full embedment of the bauxite aggregate, immediately cover any wet spots of excess polymer with aggregate prior to the gelling of the Binder Resin System to assure proper skid resistance and macro texture depth.
- Remove the excess aggregate by vacuum sweeping before opening to traffic.
- Excess aggregate shall not be reused.
- All applications will require final vacuum sweeping 36 hours after initial installation is completed. Applications on roadways with posted speeds greater than 45 mph will require additional sweeping three to seven days after the initial installation is completed.
- Additional vacuum sweeping may be necessary as deemed by the Engineer.

**Verification Testing**
The verification of the HFST quantities used shall be based on data collected for each day's production.

Verification Testing shown in Table 3 will be performed as determined by the Engineer.

| **Table 3**— Verification Testing | | |
|---|---|---|
| **Property** | **Test Method** | **Requirement** |
| Skid Resistance (FN40R) | AASHTO T242 | 70 min |
| Macro Texture Depth (Sand Patch) | ASTM E965 | 1.0 mm min |

- The Engineer will inspect the roadway and determine adequacy of the work performed before finalization is completed. The Engineer may direct full removal and replacement if the work is not acceptable.
- Any ordered repairs or removal and replacement of material will be at no additional expense to the Department.
- A repair procedure shall be submitted to the Engineer within 30 days of receiving notice that repairs are needed to a particular section. The repair procedure shall be acceptable to the Engineer and shall be done within 60 days of receiving notice of repairs.

**Corrective Action:**
Any unsatisfactory installations shall be remediated by the contractor with corrective actions as dictated by the engineer at the contractor's expense.

## METHOD OF MEASUREMENT

High Friction Surface Treatment (Single Lift) will be measured by the square yard of roadway covered, in place and complete.

High Friction Surface Treatment (Double Lift) will be measured by the square yard of above grade concrete surface covered, in place and complete with two lifts.

**Basis of Payment**
The accepted quantities of High Friction Surface Treatment (Single Lift) and High Friction Surface Treatment (Double Lift) will be paid at the contract unit price under the following pay item numbers:

406-04.03 HIGH FRICTION SURFACE TREATMENT (SINGLE LIFT) per S.Y.
406-04.04 HIGH FRICTION SURFACE TREATMENT (DOUBLE LIFT) per S.Y.

Such payment is full compensation for all Materials, Equipment, Tools, Labor, Removal and Replacement of Pavement Markings, and Incidentals to complete all work included here in.

**S T A T E** **O F** **T E N N E S S E E**

January 1, 2015

# SPECIAL PROVISION

# REGARDING

# EQUAL EMPLOYMENT OPPORTUNITY

Reference:
Federal-Aid Highway Program Manual
Transmittal 147, June 26, 1975
Replaces FHWA Order Interim 7-2(1)

## Specific Equal Employment Opportunity Responsibilities

### GENERAL

a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract Provisions (Form FHWA-1273 or PR-1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

b) The contractor will work with the Tennessee Department of Transportation and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

c) The contractor and all his/her subcontractors holding subcontracts not including material suppliers, exceeding $10,000, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors). The contractor will include these requirements in every subcontract exceeding $10,000 with such modification of language as is necessary to make them binding on the subcontractor.

## Equal Employment Opportunity Policy

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their age, race, color, religion, sex, national origin or disability and to promote the full realization of equal employment opportunity through a positive continuing program:

> It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

## Equal Employment Opportunity Officer

The contractor will designate and make known to the Tennessee Department of Transportation contracting officers an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

## Dissemination of Policy

(a) All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

(1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

(3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

(b) In order to make the contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor will take the following actions:

(1) Notices and posters setting forth the contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2) The contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**Recruitment**

(a) When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

(b) The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

(c) In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended).

(d) The contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

## Personnel Actions

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to age, race, color, religion, sex, national origin or disability. The following procedures shall be followed:

(a) The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

(b) The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

(c) The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

(d) The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

## Training and Promotion

(a) The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

(b) Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event the Special Provision Regarding Training Program Requirements is provided under this contract, this subparagraph will be superseded as indicated therein.

(c) The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

(d) The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

**Unions**

If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

(a) The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

(b) The contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their age, race, color, religion, sex, national origin or disability .

(c) The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the Tennessee Department of Transportation and shall set forth what efforts have been made to obtain such information.

(d) In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to age, race, color, religion, sex, national origin or disability, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees). In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the Tennessee Department of Transportation.

**Subcontracting**

(a) The contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from the Tennessee Department of Transportation.

(b) The contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

**Records and Reports**

(a) The contractor will keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate:

(1) The number of minority and non-minority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women. (Applicable only to contractors who rely in whole or in part on unions as a source for their work force).

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees.

(4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

(b) All such records must be retained for a period of 3 years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the of the Tennessee Department of Transportation and the Federal Highway Administration.

(c) Each contractor and subcontractor shall submit to the Tennessee Department of Transportation an annual report for every July during which work is performed indicating the number of minority, women and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391 and is to be received by the Department not later than the 20th of the month following the reporting period.

(d) The contractor and/or sub-contractor will be required to complete other reports as instructed by the Engineer.

(e) Current estimates may be withheld by the Project Engineer when reports are not received within the above specified time limits.

**S T A T E** **O F** **T E N N E S S E E**

January 1, 2015

# SPECIAL PROVISION

# REGARDING

# STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY

# CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1) As used in these specifications:

   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941

   d. "Minority" includes:

      I. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

      II. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish or Portuguese Culture or origin, regardless of race);

      III. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

      IV. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining indentifiable tribal affiliations through membership and participation or community identification).

2) Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation arid which is set forth in the solicitations from which this contract resulted.

3) If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals (including goals and time tables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a though p of these specifications. The goal set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specification, Executive Order 11246, or the regulations promulgated pursuant thereto.

6) In order for the nonworking training hours of apprentices and the trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

   (a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the

Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

(b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available and maintain a record of the organization's responses.

(c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

(d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources complied under 7b above.

(f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

(i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screenings procedures, and tests to be used in the selection process.

(j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

(k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

(l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriation training, etc., such opportunities.

(m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

(n) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(p) Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women, generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of age, race, color, religion, sex, national origin or disability.

11) The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12) The Contractor shall carry out such sanctions and penalties for violations of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13) The Contractor, in fulfilling its obligations under these specifications, shall implement' specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**S T A T E** **O F** **T E N N E S S E E**

Revised 10-19-2012 January 1, 2015

## SPECIAL PROVISION

## REGARDING

## NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION

## TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work are as follows:

| County | Goals for Female Participation in each Trade |
|---|---|
| All Counties | 6.9 |

| County | Goals for Minority Participation for each Trade |
|---|---|
| Lincoln | 11.2 |
| Hamilton, Marion, Sequatchie | 12.5 |
| Bledsoe, Bradley, Grundy, McMinn, Meigs, Monroe, Polk, Rhea | 8.6 |
| Carter, Hawkins, Sullivan, Unicoi, Washington | 2.6 |
| Greene, Hancock, Johnson | 3.2 |
| Anderson, Blount, Knox, Union | 6.6 |
| Campbell, Claiborne, Cocke, Cumberland, Fentress, Grainger, Hamblen, Jefferson, Loudon, Morgan, Roane, Scott, Sevier | 4.5 |

| County | Goals for Minority Participation for each Trade |
|---|---|
| Montgomery | 18.2 |
| Davidson, Cheatham, Dickson, Robertson, Sumner, Williamson, Wilson, Rutherford | 15.8 |
| Bedford, Cannon, Clay, Coffee, Dekalb, Franklin, Giles, Hickman, Houston, Humphreys, Jackson, Lawrence, Lewis, Macon, Marshall, Maury, Moore, Overton, Perry, Pickett, Putnam, Smith, Stewart, Trousdale, Van Buren, Warren, Wayne, White | 12.0 |
| Shelby, Tipton | 32.3 |
| Benton, Carroll, Chester, Crockett, Decatur, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, McNairy, Madison, Obion, Weakley | 26.5 |

These goals are applicable to all the Contractor's construction work whether or not it is Federal or federally assisted.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in CFR Part 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform through- out the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from Project to Project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Office of Federal Contract Compliance Programs at the following address within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation:

U.S. Department of Labor – Regional Office
Office of Federal Contract Compliance Program
61 Forsyth Street, Room 7B75
Atlanta, GA 30303

The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

**S T A T E** **O F** **T E N N E S S E E**

(Rev. 06-01-03) January 1, 2015
(Rev. 06-23-08)
(Rev. 11-10-08)

## SPECIAL PROVISION

## REGARDING

## DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 23/26 shall have the maximum opportunity to participate in the performance of contracts let by the Department. Consequently, the disadvantaged business enterprise requirements of 49 CFR Part 23/26 apply to this contract.

Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 23/26 shall have the maximum opportunity to participate in the performance of this contract or in the performance of subcontracts to this contract. In this latter regard, the Contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 23/26 to ensure that disadvantaged enterprises, including enterprises owned and controlled by women, have the maximum opportunity to compete for and perform subcontracts. The Contractor shall not discriminate on the basis of age, race, color, religion, national origin, sex or disability in the award of subcontracts.

The Contractor shall submit to the Civil Rights Office Small Business Development Program copies of any agreements with DBE/WBEs upon execution.

The Contractor is advised that failure to carry out the requirements as set forth above shall constitute a breach of contract, and after notification by the Department, may result in termination of the contract or other remedy deemed appropriate by the Department.

# REQUIRED CONTRACT PROVISIONS
# FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

## I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

**IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**1. Minimum wages**

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

**2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**4. Apprentices and trainees**

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages**. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

**VI. SUBLETTING OR ASSIGNING THE CONTRACT**

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

**VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

**VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**S T A T E** **O F** **T E N N E S S E E**

January 1, 2015

(Rev. 01-03-14)
(Rev. 09-08-14)
(Rev. 01-06-15)
(Rev. 01-11-16)

# SPECIAL PROVISION

# REGARDING

# TENNESSEE DEPARTMENT OF TRANSPORTATION

# 2016 MINIMUM WAGE SCALES FOR FEDERAL-AID CONSTRUCTION

# & 2016 MINIMUM WAGE SCALES FOR STATE FUNDED CONSTRUCTION

This Contract contains "Tennessee Department of Transportation 2016 Minimum Wage Scales for State Funded Construction", Tennessee Department of Labor Decision No. T-40189, dated January 1, 2016, and Tennessee Department of Transportation 2016 Minimum Wage Scales for Federal-Aid Highway Construction, U. S. Department of Labor Decision No. TN160002 (dated January 8, 2016).

The Contractor is required to pay the greater of the two (2) rates for each classification

Note: Minimum Wage Scales for Federal-Aid Heavy Construction are on file with the Department, and will be included in all applicable Contract Proposals

## TENNESSEE DEPARTMENT OF TRANSPORTATION

## MINIMUM WAGE SCALES FOR FEDERAL AID HIGHWAY CONSTRUCTION

General Decision Number: TN160002 01/08/2016 TN2

Superseded General Decision Number: TN20150002

State: Tennessee

Construction Type: Highway

Counties: Tennessee Statewide.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---|---|
| 0 | 01/08/2016 |

* SUTN2010-002 03/24/2014

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 21.99 | |
| CARPENTER | $ 16.85 | |
| CEMENT MASON/CONCRETE FINISHER | $ 15.22 | |

ELECTRICIAN.....$ 24.69

IRONWORKER
Reinforcing.....$ 15.91
Structural.....$ 17.97

LABORER
Common/Unskilled.....$ 12.89
Skilled
Air Tool Operator, Asphalt Raker, Chain Saw Operator, Concrete Mixer (less than 1 yd), Concrete Rubber, Edger, Fence Erector, Form Setter (steel), Guard Rail Erector, Mechanic's Tender (tire changer or oiler), Mortar Mixer, Nozzleman or Gun Operator (gunite), Pipelayer, Sign Erector.....$ 14.88

PAINTER (INCLUDES SANDBLASTER)...$ 26.23

POWER EQUIPMENT OPERATOR:
GROUP 1
Backhoe/Hydraulic Excavator (3/4 yd & over), Crane (less than 20 Tons), End Loader (3 yd & over), Motor Patrol (finish),Piledriver, Dragline.....$ 18.62
GROUP 1A
Drill Operator (Caisson)...$ 25.04
Farm Tractor Operator (Power Broom).....$ 13.21
GROUP 2
Backhoe/Hydraulic Excavator (less than 3/4 yd), Bulldozer or Push Dozer, End Loader (less than 3 yd), Motor Patrol (rough), Tractor (crawler/ utility), Truck Driver (Heavy Duty, Off Road) Scraper, Shovel, or Trenching Machine.....$ 16.51
GROUP 3
Asphalt Paver, Concrete

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      Finishing Machine,
      Concrete Paver, Scale,
      Spreader (self-
      propelled), Concrete
      Grinder, Asphalt Milling
      Machine, Boring Machine
      (horizontal)..............$ 17.10
     GROUP 4
      Bobcat, Central Mining
      Plant, Concrete Pump,
      Concrete Saw, Curb
      Machine (automatic or
      manual), Dozer or Loader
      (stockpile), Drill
      (piling), Mulcher or
      Seeder, Rock Drill (truck
      mounted), Roller
      (asphalt), Roller
      (compaction self-
      propelled), Soil
      Stabilization Machine,
      Tractor (boom and hoist),
      Bituminous Distributor
      Machine, pump, Track
      Drill, Striping Machine....$ 16.02
      Heavy Duty Mechanic........$ 20.88
      Light Duty Mechanic........$ 17.04
      Sweeping Machine (Vacuum)
      Operator...................$ 15.54
     GROUP 5
      Crane (over 20 Tons).......$ 19.02

TRUCK DRIVER
     2 axles.....................$ 14.17
     3-4 axles...................$ 14.33
     5 or more axles.............$ 16.93
------------------------------------------------------------------

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

==================================================================


Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).


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```

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an

interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



**S T A T E  O F  T E N N E S S E E**

## TENNESSEE DEPARTMENT OF TRANSPORTATION

## 2016 MINIMUM WAGE SCALES FOR STATE FUNDED CONSTRUCTION

**January 1, 2016** **Tenn. DOL Decision No. T-40189**

| CLASSIFICATION (ENGLISH) | CLASSIFICATION (SPANISH) | Basic Hourly Rates | Craft No. |
|---|---|---|---|
| **Bricklayer** | **Ladrillero** | 14.26 | **01** |
| **Carpenter / Leadsperson** | **Carpintero o Lider** | 17.52 | **02** |
| **Class "A" Operators** | **Operador Clase A** | 19.14 | **03** |
| **Class "B" Operators** | **Operador Clase B** | 17.08 | **04** |
| **Class "C" Operators** | **Operador Clase C** | 17.75 | **05** |
| **Class "D" Operators** | **Operador Clase D** | 16.48 | **06** |
| **Concrete Finisher** | **Terminador de Cemento** | 15.55 | **07** |
| **Drill Operator (Caisson)** | **Operador de Perfordora** | 25.26 | **08** |
| **Electrician** | **Electricista** | 24.08 | **09** |
| **Farm Tractor Operator (Power Broom)** | **Operador de Tractor de Rancho** | 13.50 | **10** |
| **Ironworkers (Reinforcing)** | **Herrero** | 16.29 | **11** |
| **Ironworkers (Structural)** | **Herrero de Estructura** | 16.89 | **12** |
| **Mechanic (Class I) Heavy Duty** | **Mecanico Clase 1** | 20.33 | **13** |
| **Mechanic (Class II) Light Duty** | **Mecanico Clase 2** | 19.53 | **14** |
| **Painter / Sandblaster** | **Pintor o Lajador** | 26.36 | **15** |
| **Powder Person / Blaster** | **Proveedor de Explosivos** | 19.77 | **16** |
| **Skilled Laborer** | **Obrero Diestro** | 15.27 | **17** |
| **Survey Instrument Operator** | **Operador de Agrimensor** | 20.45 | **18** |
| **Sweeping Machine (Vacuum) Operator** | **Operador de Barredora** | 15.56 | **19** |
| **Truck Driver (2 axles)** | **Camionero (2 ejes)** | 15.36 | **20** |
| **Truck Driver (3/4 axles)** | **Camionero (3 o 4 ejes)** | 14.86 | **21** |
| **Truck Driver (5 or more axles)** | **Camionero (5 o más ejes)** | 16.27 | **22** |
| **Laborer /Unskilled , Flagger, Traffic Control, Pickup Driver** | **Obrero no Diestro** | 13.11 | **23** |
| **Worksite Traffic Coordinator** | **Coordinar de Trafico en el Lugar de Trabajo** | 19.05 | **24** |
| **Crane Operator** | **Operador de la Grua** | 20.44 | **25** |

**CLASSIFICATION** **CRAFT NO.**

**SKILLED LABORER:** **17**

**Air Tool Operator, Asphalt Raker, Chain Saw Operator, Concrete Mixer Operator (less than 1 yard), Concrete Rubber/Edger, Fence Erector, Form Setter (Steel Road), Guardrail Erector, Mechanic's Helper (Tire Changer or Oiler), Mortar Mixer, Nozzelman or Gun Operator (Gunite), *Pipelayer, Sign Erector**

**CLASS "A" OPERATORS:** **03**

**Backhoe/Hydraulic Excavator (3/4 yard and over), Crane (less than 20 tons see Crane Operator below), End Loader (3 yards and over), Motor Patrol (Finish), Pile Driver, Dragline**

**CLASS "B" OPERATORS:** **04**

**Backhoe/Hydraulic Excavator (less than 3/4 yard), Bull Dozer or Push Dozer, End Loader (less than 3 yards), Motor Patrol (Rough), Tractor (Crawler/Utility), Scraper, Shovel, Trenching Machine**

**CLASS "C" OPERATORS:** **05**

**Asphalt Paver, Concrete Finishing Machine, Concrete Paver, Scale, Spreader (Self-Propelled), Concrete Grinder, Asphalt Milling Machine, Boring Machine Operator (Horizontal)**

**CLASS "D" OPERATORS:** **06**

**Bobcat, Central Mixing Plant, Concrete Pump, Concrete Saw, Curb Machine (Automatic or Manual), Dozer or Loader (Stockpile), Drill (Piling), Mulcher or Seeder, Rock Drill (Truck Mounted), Roller (Asphalt), Roller (Compaction Self-Propelled), Soil Stabilization Machine, Tractor (Boom & Hoist), Bituminous Distributor Machine, Pump, Track Drill, Striping Machine Operator, Ditch Paving Machine**

**CRANE OPERATOR:** **25**

**Means one who operates boom-type equipment equal to or greater than 20 tons to hoist and move materials, raise and lower heavy weights and perform other related operations; may oil, grease or otherwise service and make necessary adjustments to equipment as needed; and may perform other related duties. (Note: The equipment is used for such work as pouring concrete and setting steel. This work is subject to strict inspection and must conform closely to specifications. The equipment may also be used for other miscellaneous tasks for which crane or stick-type equipment is required which may include hoist operations and pile driving operations.)**

***Skilled Laborer - Pipelayer Classification**

**For any work where prevailing wage rates apply which is located five feet or more outside the actual building if building construction is involved:**

**AND**

**(a) which consists of the building, rebuilding, locating, relocating or repairing any street, highway, bridges, water lines, sewer lines, gas lines, force mains or other related utilities**

**OR**

**(b) which involves the construction or upgrading of industrial parks or sites and is located outside the five foot limitation.**

**The classification of pipelayer shall be applicable and the description of work under this classification shall be as follows:**

**Lays, connects, inspects and tests water lines, force mains, gas lines, sanitary or storm sewers and drains, underground telephone and electric ducts or other utilities manufactured from clay, concrete, steel, plastic, cast iron pipe or other similar materials.**

**May smooth bottom of trench to proper elevation by scooping with a shovel; receives pipe lowered from top of trench; inserts spigot end of pipe into bell end of last laid pipe; adjusts pipe to line and grades, caulks and seals joint with cement or other sealing compound; may connect threaded or flanged joint pipe; may assemble and place corrugated metal or plastic pipe and performs other related duties.**

**Additional Information :**
**Wage Rates : http://www.tennessee.gov/labor-wfd/prevail.html**

**Poster Page : http://www.state.tn.us/labor-wfd/poster.htm**

**Note: Adobe Acrobat Reader is required in order to download & print. If you do not have this software a link is provided at the bottom of the Poster Page for a free download.**

**Tenn.Dept. of Labor & Workforce Development (Labor Standards Division) : (615) 741-2858.**

**APPRENTICESHIP REGULATIONS:**
**Under T.C.A., §12-449, the Prevailing Wage Commission has promulgated Rule 0800-3-2-.04 which provides that: "Apprentices shall mean those persons registered individually under a bona fide apprenticeship program registered with the Bureau of Apprentiship and Training in the United States Department of Labor. The state agency contracting officer shall require the contractor or sub-contractor using the apprentice to submit evidence of his indenture and/or apprenticeship registration when the apprentice's name first appears on a submitting payroll."**

**AUTHORITY: T.C.A., §12-449. Administrative History: Original Rule filed June 4, 1976. Effective: July 14, 1976.**

**STATE OF TENNESSEE**


**FED. AID PROJ. NO. HSIP-REG1(125)**
**STATE PROJ. NO. 98018-3267-94**
**PIN 118949.00**
**ANDERSON, BLOUNT, CARTER, CLAIBORNE, COCKE, GREENE, JEFFERSON, KNOX, LOUDON, MONROE, SEVIER, SULLIVAN, AND WASHINGTON COUNTIES**

# GENERAL NOTES

# REGARDING

# SAFETY IMPROVEMENTS

## Description

The scope of this contract is to add High Friction Surface Treatment and miscellaneous pavement markings along various State Routes in Region I as described herein and shown on the conceptual plans on sheets 15-68 of this document. The work shall include, but is not limited to:

## Anderson County

**FIGURE 1 – STATE ROUTE 9 (L.M. 0.71 TO L.M. 1.06)**

1. Install High Friction Surface Treatment on State Route 9, starting approximately 325 feet north of the 1st Street intersection, extending 680 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 9 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 2 – STATE ROUTE 9 (L.M. 8.39 TO L.M. 8.80)**

1. Install High Friction Surface Treatment on State Route 9, starting approximately 450 feet south of the Pumphouse Lane intersection, extending 1,350 feet north.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip line, and 4″ double solid yellow centerline.

**FIGURE 3 – STATE ROUTE 9 (L.M. 16.59 TO L.M. 17.02)**

1. Install High Friction Surface Treatment on State Route 9, starting approximately 750 feet west of the Lonesome Dove Road intersection, extending 1,450 feet east.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip lines, 4″ single solid white turn-lane line, 4″ single dotted white transition line, 4″ double solid yellow centerline/channelization boundaries, and 12″ thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) thermoplastic left-turn arrow on westbound State Route 9 at the Lonesome Dove Road intersection.

## Blount County

**FIGURE 4 – STATE ROUTE 115 (L.M. 20.14 TO L.M. 20.47)**

1. Install High Friction Surface Treatment on State Route 115, starting approximately 300 feet south of the Rivertrace Boulevard intersection, extending 650 feet north.
2. Restripe existing pavement markings in kind on State Route 115 with spray thermoplastic (60 mil) 4″ single solid white exterior edgelines, 4″ single broken white skip lines, 4″ single solid white lane lines, 4″ single solid yellow interior edgelines, and 12″ thermoplastic yellow diagonal transverse channelization markings.
3. Restripe two (2) thermoplastic Exit Only arrows in the acceleration lane on southbound State Route 115.
4. Restripe two (2) thermoplastic right-turn arrows and one (1) ONLY thermoplastic word pavement marking on northbound State Route 115 at the Rivertrace Boulevard intersection.
5. Restripe one (1) thermoplastic left-turn arrow and one (1) ONLY thermoplastic word pavement marking on southbound State Route 115 at the Rivertrace Boulevard intersection.
6. Restripe one (1) thermoplastic Exit Only arrow in the acceleration lane on northbound State Route 115.

**FIGURE 5 – STATE ROUTE 35 (L.M. 11.75 TO L.M. 12.01)**

1. Install High Friction Surface Treatment on State Route 35, starting approximately 350 feet north of the Alfred McCammon Road intersection, extending 925 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 35 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 6 – STATE ROUTE 115 (L.M. 4.61 TO L.M. 5.09)**

1. Install High Friction Surface Treatment on State Route 115, starting approximately 400 feet south of the Indian Warpath Road intersection, extending 850 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 115 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Carter County

**FIGURE 7 – STATE ROUTE 400 (L.M. 2.27 TO L.M. 2.57)**

1. Install High Friction Surface Treatment on State Route 400, starting approximately fifty (50) feet west of the Garland Branch Road intersection, extending 550 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 400 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 8 – STATE ROUTE 91 (L.M. 2.03 TO L.M. 2.40)**

1. Install High Friction Surface Treatment on State Route 91, starting approximately fifty (50) feet south of the Taylortown Road intersection, extending 850 feet north.
2. Restripe existing pavement markings in kind on State Route 91 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip line, and 4″ double solid yellow centerline.

## Claiborne County

**FIGURE 9 – STATE ROUTE 32 (L.M. 1.96 TO L.M. 2.41)**

1. Install High Friction Surface Treatment on State Route 32, starting approximately twenty (20) feet east of the Lower Caney Valley Road intersection, extending 1,500 feet east.
2. Restripe existing pavement markings in kind on State Route 32 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip lines, 4″ single solid white turn-lane line, 4″ double solid yellow centerline, and 4″ single solid yellow/single broken yellow center turn-lane lines.
3. Restripe two (2) thermoplastic left-turn arrows on northbound State Route 32 at the Lower Caney Valley Road intersection.
4. Restripe one (1) set of thermoplastic double arrow pavement markings in the center turn-lane on State Route 9.

## Cocke County

**FIGURE 10 – STATE ROUTE 32 (L.M. 17.27 TO L.M. 17.57)**

1. Install High Friction Surface Treatment on State Route 32, starting at the Middle Creek Road intersection, extending 750 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 32 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Greene County

**FIGURE 11 – STATE ROUTE 70 (L.M. 24.43 TO L.M. 24.79)**

1. Install High Friction Surface Treatment on State Route 70, starting approximately 110 feet south of the Marvin Road intersection, extending 200 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 70 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single dotted white edgeline, 4″ double solid yellow centerline, and 8″ thermoplastic single dotted yellow centerline.

**FIGURE 12 – STATE ROUTE 172 (L.M. 5.38 TO L.M. 5.73)**

1. Install High Friction Surface Treatment on State Route 172, starting approximately 950 feet south of the Spider Stines Road intersection, extending 820 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 172 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 13 – STATE ROUTE 172 (L.M. 6.85 TO L.M. 7.33)**

1. Install High Friction Surface Treatment on State Route 172, starting approximately 750 feet north of the Babbs Mill Road intersection, extending 1,720 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 172 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 14 – STATE ROUTE 351 (L.M. 18.08 TO L.M. 18.45)**

1. Install High Friction Surface Treatment on State Route 351, starting approximately 200 feet east of the Old Stage Road intersection, extending 530 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 351 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Jefferson County

**FIGURE 15 – STATE ROUTE 66 (L.M. 7.48 TO L.M. 7.77)**

1. Install High Friction Surface Treatment on State Route 66, starting approximately 950 feet south of the S. Chucky Pike intersection, extending 430 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 66 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Knox County

**FIGURE 16 – STATE ROUTE 331 (L.M. 5.93 TO L.M. 6.25)**

1. Install High Friction Surface Treatment on State Route 331, starting approximately 190 feet south of the McKinnon Ridge Lane intersection, extending 700 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 331 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 17 – STATE ROUTE 158 (L.M. 3.81 TO L.M. 3.85)**

1. Install High Friction Surface Treatment on the northbound State Route 158 ramp to Interstate 40 West, starting at the overhead truss sign, extending 950 feet west.
2. Restripe existing pavement markings in kind on the northbound State Route 158 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single broken white skip line, 6″ single dotted white transition line, 6″ single solid yellow edgeline, and 8″ single solid white barrier line.
3. Restripe two (2) thermoplastic Exit Only arrows on the northbound State Route 158 ramp to Interstate 40 West.

**FIGURE 18 – INTERSTATE 40 (L.M. 18.72 TO L.M. 18.74)**

1. Install High Friction Surface Treatment on the eastbound Interstate 40 ramp to 11$^{th}$ Street, starting at the gore area, extending 850 feet east.
2. Restripe existing pavement markings in kind on the eastbound Interstate 40 ramp to 11$^{th}$ Street with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.

**FIGURE 19 – STATE ROUTE 71 (L.M. 4.49 TO L.M. 4.99)**

1. Install High Friction Surface Treatment on State Route 71, starting approximately 300 feet west of the Ellis Road intersection, extending 1,380 feet east.
2. Restripe existing pavement markings in kind on State Route 71 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip lines, 4″ single solid white turn-lane line, 4″ single dotted white transition line, 4″ double solid yellow centerline/channelization boundaries, 8″ thermoplastic single dotted yellow centerline, and 12″ thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) thermoplastic left-turn arrow on eastbound State Route 71 at the Anderson Drive intersection.

**FIGURE 20 – STATE ROUTE 115 (L.M. 5.53 TO L.M. 6.13)**

1. Install High Friction Surface Treatment on State Route 115, starting approximately 250 feet north of the bridge over State Route 158, extending 2,150 feet north.
2. Restripe existing pavement markings in kind on State Route 115 with spray thermoplastic (60 mil) 6″ single solid white exterior edgelines, 6″ single broken white skip lines, 6″ single solid yellow interior edgelines, 6″ single dotted white edgelines/transition lines, and 8″ single solid white lane line/barrier lines.
3. Restripe one (1) thermoplastic Exit Only arrow on southbound State Route 115 in the exit lane to State Route 158.

**FIGURE 21 – STATE ROUTE 115 (L.M. 6.47 TO L.M. 7.10)**

1. Install High Friction Surface Treatment on the northbound State Route 115 ramp to Interstate 40 West, starting at the overhead truss sign, extending 2,320 feet north.
2. Restripe existing pavement markings in kind on the northbound State Route 115 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single broken white skip line, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.
3. Install High Friction Surface Treatment on the eastbound Interstate 40 ramp to State Route 115, starting at the gore area, extending 1,540 feet south.
4. Restripe existing pavement markings in kind on the eastbound Interstate 40 ramp to State Route 115 with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single broken white skip line, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.

**FIGURE 22 – STATE ROUTE 332 (L.M. 8.34 TO L.M. 8.77)**

1. Install High Friction Surface Treatment on State Route 332, starting approximately 350 feet west of the Tooles Bend Road intersection, extending 920 feet east.
2. Restripe existing pavement markings in kind on State Route 332 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ double solid yellow centerline/channelization boundaries, 8″ thermoplastic single dotted yellow centerline, and 12″ thermoplastic yellow diagonal transverse channelization markings.

**FIGURE 23 – STATE ROUTE 162 (L.M. 5.20 TO L.M. 5.38)**

1. Install High Friction Surface Treatment on the eastbound State Route 162 ramp to Interstate 40 West, starting 200 feet west of the Curve (30 MPH) sign, extending 1,000 feet west.
2. Restripe existing pavement markings in kind on the eastbound State Route 162 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier line.

**FIGURE 24 – STATE ROUTE 162 (L.M. 2.27 TO L.M. 2.70)**

1. Install High Friction Surface Treatment on State Route 162, starting approximately 500 feet west of the bridge over Hardin Valley Road, extending 1,110 feet east.
2. Restripe existing pavement markings in kind on State Route 162 with spray thermoplastic (60 mil) 4″ single solid white exterior edgelines, 4″ single broken white skip lines, 4″ single solid yellow interior edgelines, and 4″ single dotted white transition lines.

**FIGURE 25 – STATE ROUTE 162 (L.M. 0.05 TO L.M. 0.43)**

1. Install High Friction Surface Treatment on westbound State Route 162, starting at the overhead truss sign, extending 1,280 feet west.
2. Restripe existing pavement markings in kind on westbound State Route 162 with spray thermoplastic (60 mil) 4″ single solid white exterior edgeline, 4″ single broken white skip line, 4″ single solid yellow interior edgeline, and 8″ single solid white barrier lines.
3. Install High Friction Surface Treatment on eastbound State Route 162, starting approximately 420 feet east of the overhead truss sign, extending 1,480 feet east.
4. Restripe existing pavement markings in kind on State Route 162 with spray thermoplastic (60 mil) 4″ single solid white exterior edgeline, 4″ single broken white skip line, 4″ single solid yellow interior edgeline, 4″ single solid white turn-lane line, and 4″ single dotted white transition line.
5. Restripe one (1) thermoplastic left-turn arrow on eastbound State Route 162 at the George Light Road intersection.

**FIGURE 26 – STATE ROUTE 9 (L.M. 2.52 TO L.M. 3.08)**

1. Install High Friction Surface Treatment on State Route 9, starting approximately 150 feet west of the Old Callahan Drive intersection, extending 2,200 feet west.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4″ single solid white exterior edgelines, 4″ single broken white skip lines, 4″ single solid yellow interior edgelines, 4″ single solid yellow/single broken yellow center turn-lane lines, 4″ double solid yellow centerline/channelization boundaries, and 12″ thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) set of thermoplastic double arrow pavement markings in the center turn-lane on State Route 9.

**FIGURE 27 – STATE ROUTE 71 (L.M. 13.54 TO L.M. 13.99)**

1. Install High Friction Surface Treatment on State Route 71, starting approximately 730 feet north of the East Raccoon Valley Road intersection, extending 1,250 feet south.
2. Restripe existing edgelines and centerline in kind on State Route 71 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 28 – INTERSTATE 275 (L.M. 2.64 TO L.M. 2.71)**

1. Install High Friction Surface Treatment on the northbound Interstate 275 ramp to Interstate 640 East, starting at the Combination Curve/Advisory Speed signs, extending 1,050 feet east.
2. Restripe existing pavement markings in kind on the northbound Interstate 275 ramp to Interstate 640 East with spray thermoplastic (60 mil) 6″ single solid white edgeline and 6″ single solid yellow edgeline.

## Loudon County

**FIGURE 29 – STATE ROUTE 72 (L.M. 12.30 TO L.M. 12.70)**

1. Install High Friction Surface Treatment on State Route 72, starting approximately 175 feet east of the Prospect Church Road intersection, extending 825 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 72 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Monroe County

**FIGURE 30 – STATE ROUTE 322 (L.M. 8.40 TO L.M. 8.74)**

1. Install High Friction Surface Treatment on State Route 322, starting approximately 250 feet west of the Reed Springs Road Intersection, extending 350 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 332 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Sevier County

**FIGURE 31 – STATE ROUTE 35 (L.M. 7.84 TO L.M. 8.41)**

1. Install High Friction Surface Treatment on State Route 35, starting approximately 530 feet east of the Old Zion Hill Road intersection, extending 1,720 feet east.
2. Restripe existing pavement markings in kind on State Route 35 with spray thermoplastic (60 mil) 4″ single solid white edgelines, 4″ single broken white skip lines, and 4″ double solid yellow centerline.

## Sullivan County

**FIGURE 32 – STATE ROUTE 93 (L.M. 8.72 TO L.M. 9.31)**

1. Install High Friction Surface Treatment on the westbound State Route 93 ramp to State Route 36, starting at the Ramp/Advisory Speed sign, extending 780 feet toward southbound State Route 36 and to the Stop sign toward northbound State Route 36.
2. Restripe existing pavement markings in kind on the westbound State Route 93 ramp to State Route 36 with spray thermoplastic (60 mil) 4″ single solid white edgeline, 4″ single solid yellow edgeline, and 8″ single solid white barrier line.
3. Restripe one (1) thermoplastic Wrong Way arrow and fourteen (14) feet of 24″ thermoplastic stop line on the westbound State Route 93 ramp to State Route 36.

**FIGURE 33 – STATE ROUTE 75 (L.M. 4.74 TO L.M. 5.17)**

1. Install High Friction Surface Treatment on State Route 75, starting approximately 1,250 feet south of the Holston Drive intersection, extending 1,100 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 75 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 34 – INTERSTATE 81 (L.M. 20.95 TO L.M. 21.31)**

1. Install High Friction Surface Treatment on the westbound State Route 1 ramp to Interstate 81 South, starting at the gore area, extending 830 feet.
2. Restripe existing pavement markings in kind on the westbound State Route 1 ramp to Interstate 81 South with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.

**FIGURE 34A – INTERSTATE 81 (L.M. 20.95 TO L.M. 21.31):**

1. Install High Friction Surface Treatment on the southbound Interstate 81 ramp to eastbound State Route 1, starting approximately fifty (50) feet north of the Exit/Advisory Speed sign, extending 770 feet.
2. Restripe existing pavement markings in kind on the southbound Interstate 81 ramp to eastbound State Route 1 with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.
3. Restripe one (1) thermoplastic Wrong Way arrow on the southbound Interstate 81 ramp to eastbound State Route 1.

**FIGURE 34B – INTERSTATE 81 (L.M. 20.95 TO L.M. 21.31)**

1. Install High Friction Surface Treatment on the eastbound State Route 1 ramp to Interstate 81 North, starting approximately twenty (20) feet west of the Exit/Advisory Speed sign, extending 1,095 feet.
2. Restripe existing pavement markings in kind on the eastbound State Route 1 ramp to Interstate 81 North with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.

**FIGURE 34C – INTERSTATE 81 (L.M. 20.95 TO L.M. 21.31)**

1. Install High Friction Surface Treatment on the northbound Interstate 81 ramp to westbound State Route 1, starting approximately thirty (30) feet south of the Exit/Advisory Speed sign, extending 565 feet.
2. Restripe existing pavement markings in kind on the northbound Interstate 81 ramp to westbound State Route 1 with spray thermoplastic (60 mil) 6″ single solid white edgeline, 6″ single solid yellow edgeline, and 8″ single solid white barrier lines.
3. Restripe one (1) thermoplastic Wrong Way arrow on the northbound Interstate 81 ramp to westbound State Route 1.

**FIGURE 35 – STATE ROUTE 34 (L.M. 7.83 TO L.M. 8.42)**

1. Install High Friction Surface Treatment on southbound State Route 34, starting approximately 2,150 feet north of the Hendrickson Lane intersection, extending 1,980 feet south.
2. Restripe existing pavement markings in kind on southbound State Route 34 with spray thermoplastic (60 mil) 4″ single solid white exterior edgeline, 4″ single broken white skip lines, 4″ single solid white turn-lane line, and 4″ single solid yellow interior edgeline.
3. Restripe one (1) thermoplastic left-turn arrow on southbound State Route 34 at the Hamilton Hill Road intersection.
4. Install High Friction Surface Treatment on northbound State Route 34, starting approximately 170 feet north of the Hendrickson Lane intersection, extending 1,980 feet north.
5. Restripe existing pavement markings in kind on northbound State Route 34 with spray thermoplastic (60 mil) 4″ single solid white exterior edgeline, 4″ single broken white skip lines, and 4″ single solid yellow interior edgeline.

## Washington County

**FIGURE 36 – STATE ROUTE 81 (L.M. 7.52 TO L.M. 8.17)**

1. Install High Friction Surface Treatment on State Route 81, starting approximately 420 feet north of the Dogwood Village Road intersection, extending 1,800 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 81 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 37 – STATE ROUTE 81 (L.M. 1.86 TO L.M. 2.39)**

1. Install High Friction Surface Treatment on State Route 81, starting approximately 900 feet south of the Bumpas Cove Road intersection, extending 1,550 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 81 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

**FIGURE 38 – STATE ROUTE 107 (L.M. 7.05 TO L.M. 7.52)**

1. Install High Friction Surface Treatment on State Route 107, starting approximately 1,000 feet west of the Jackson Bridge Road intersection, extending 1,200 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 107 with spray thermoplastic (60 mil) 4″ single solid white edgelines and 4″ double solid yellow centerline.

## Materials

Materials used shall conform to the requirements of the January 1, 2015 Standard Specifications for Road and Bridge Construction and any Special Provisions for the items pertaining to this Contract.

All materials that are removed to facilitate installation are to become the property of the Contractor, removed from the State Right-of-Way, and disposed of properly, unless otherwise specified in the plans.

## Basis of Payment

The accepted quantities will be paid for at the contract unit price per item of work. The price shall be full compensation for all work as directed by the TDOT Project Supervisor, including the furnishing of all labor, tools, equipment and incidentals to satisfactorily complete the work.

## Utilities

Utility 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.

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 any necessary special equipment will be included in the price bid for other items of construction.

## Traffic Control

Item 712-01 (Traffic Control) shall be in accordance with Section 712 of the Standard Specifications. All items and labor necessary for the installation and/or replacement of any temporary traffic control measures including, but not limited to construction signing, flexible drums and flashing arrow boards, unless otherwise specified in the plans, shall be included in the price bid for item 712-01, Traffic Control.

The Contractor shall sign and mark the work zone in accordance with the current edition of the Manual on Uniform Traffic Control Devices.

When lane closures are allowed, the TDOT Project Supervisor has the authority to instruct the Contractor to open the lane to traffic at any time he feels this may be required to avoid traffic or other problems. Lane closures shall begin on the approach side of horizontal and vertical curves.

Signs and channelizing devices for lane closures shall be erected immediately before work begins each day and shall be removed at the end of work each day to permit traffic to have unrestricted use of all traffic lanes when work is not in progress.

## Pavement Markings

Pavement Markings shall be as described in the General Notes and in accordance with Section 716 of the Standard Specifications.

Removal of existing pavement markings (including but not limited to lane lines, edge lines, centerlines, channelization striping, stop lines, arrows, words) as required prior to installation of High Friction Surface Treatment will not be paid for directly, but shall be included in the price bid for that pavement marking item.

## NPDES

It is our understanding that the project will disturb no greater than one (1) acre. If the disturbed area is expected to exceed one (1) acre, please contact the TDOT Environmental Division, Permits Section regarding the acquisition of a NPDES permit as required.

The Contractor shall take appropriate steps before all construction and maintenance activities to ensure that environmental features (streams, springs, or wetlands) 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 1 Environmental Tech Group immediately.

## Miscellaneous

Information found in the plan sheets is for guidance only. The written work description found in the General Notes supersedes the information contained in the plan sheets.

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.

## Special Notes

The Contractor shall be required to apply High Friction Surface Treatment in the direction of traffic.

Property access shall be maintained at all times during construction activities.

# ESTIMATED QUANTITIES

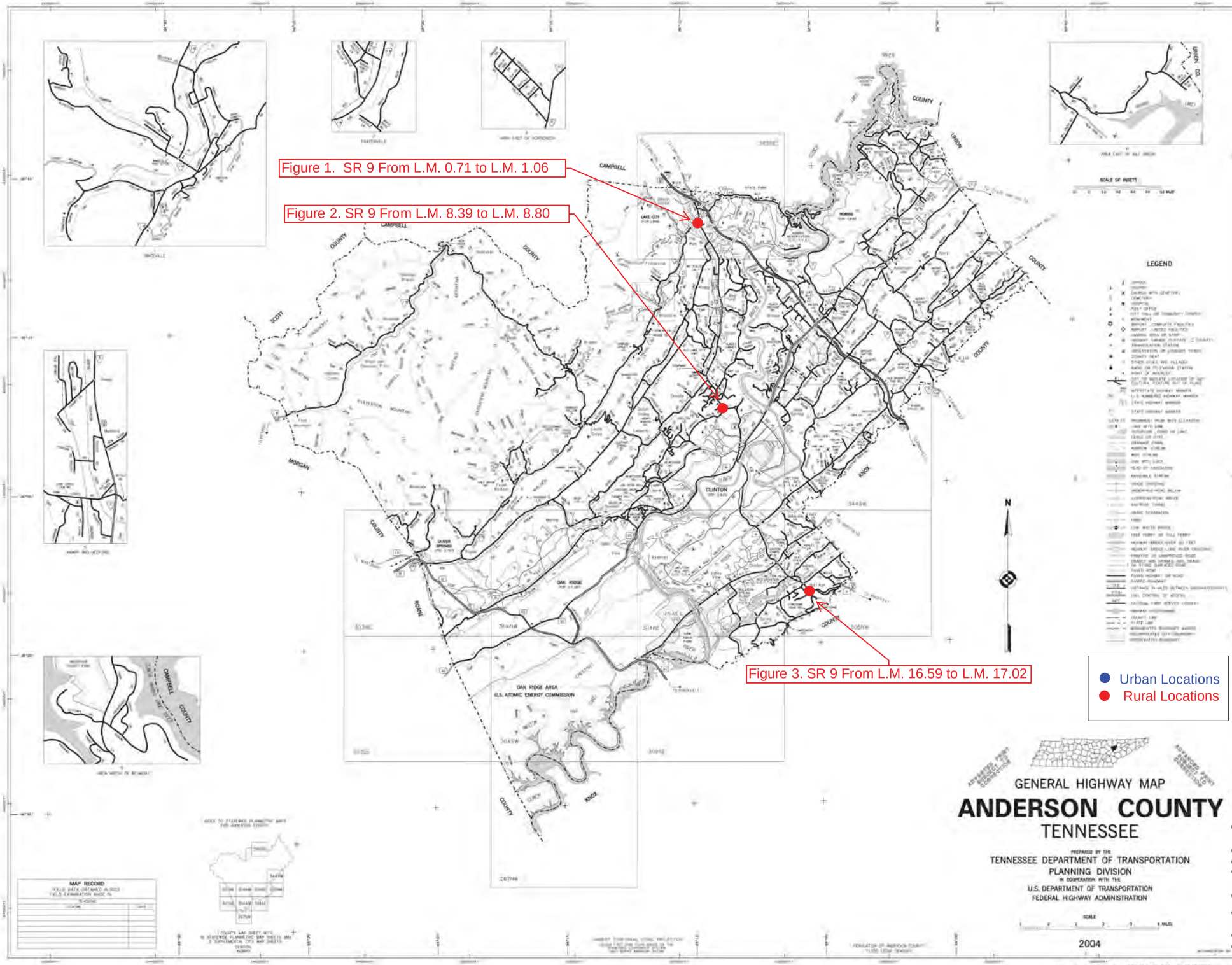
| | ITEM NO. | DESCRIPTION | UNIT | QTY |
|---|---|---|---|---|
| | 406-04.03 | HIGH FRICTION SURFACE TREATMENT (SINGLE LIFT) | S.Y. | 159100 |
| (1) | 406-04.04 | HIGH FRICTION SURFACE TREATMENT (DOUBLE LIFT) | S.Y. | 12775 |
| | 712-01 | TRAFFIC CONTROL | L.S. | 1 |
| (2) | 716-02.04 | PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING) | S.Y. | 95 |
| (2) | 716-02.05 | PLASTIC PAVEMENT MARKING (STOP LINE) | L.F. | 14 |
| (2) | 716-02.06 | PLASTIC PAVEMENT MARKING (TURN LANE ARROW) | EACH | 13 |
| (2) | 716-02.08 | PLASTIC PAVEMENT MARKING (8″ DOTTED LINE) | L.F. | 275 |
| (2) | 716-03.01 | PLASTIC WORD PAVEMENT MARKING (ONLY) | EACH | 2 |
| (2) | 716-04.06 | PLASTIC PAVEMENT MARKING (WRONG WAY ARROW) | EACH | 3 |
| (2) | 716-04.07 | PLASTIC PAVEMENT MARKING (EXIT ONLY ARROW) | EACH | 6 |
| | 716-13.01 | SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE) | L.M. | 27.80 |
| | 716-13.02 | SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE) | L.M. | 6.20 |
| | 716-13.03 | SPRAY THERMO PVMT MRKNG (60 mil) (8IN BARRIER LINE) | L.F. | 4350 |
| | 716-13.04 | SPRAY THERMO PVMT MRKNG (60 mil) (4IN DOTTED LINE) | L.F. | 1175 |
| | 716-13.05 | SPRAY THERMO PVMT MRKNG (60 mil) (6IN DOTTED LINE) | L.F. | 1675 |
| | 717-01 | MOBILIZATION | L.S. | 1 |

**FOOTNOTES:**

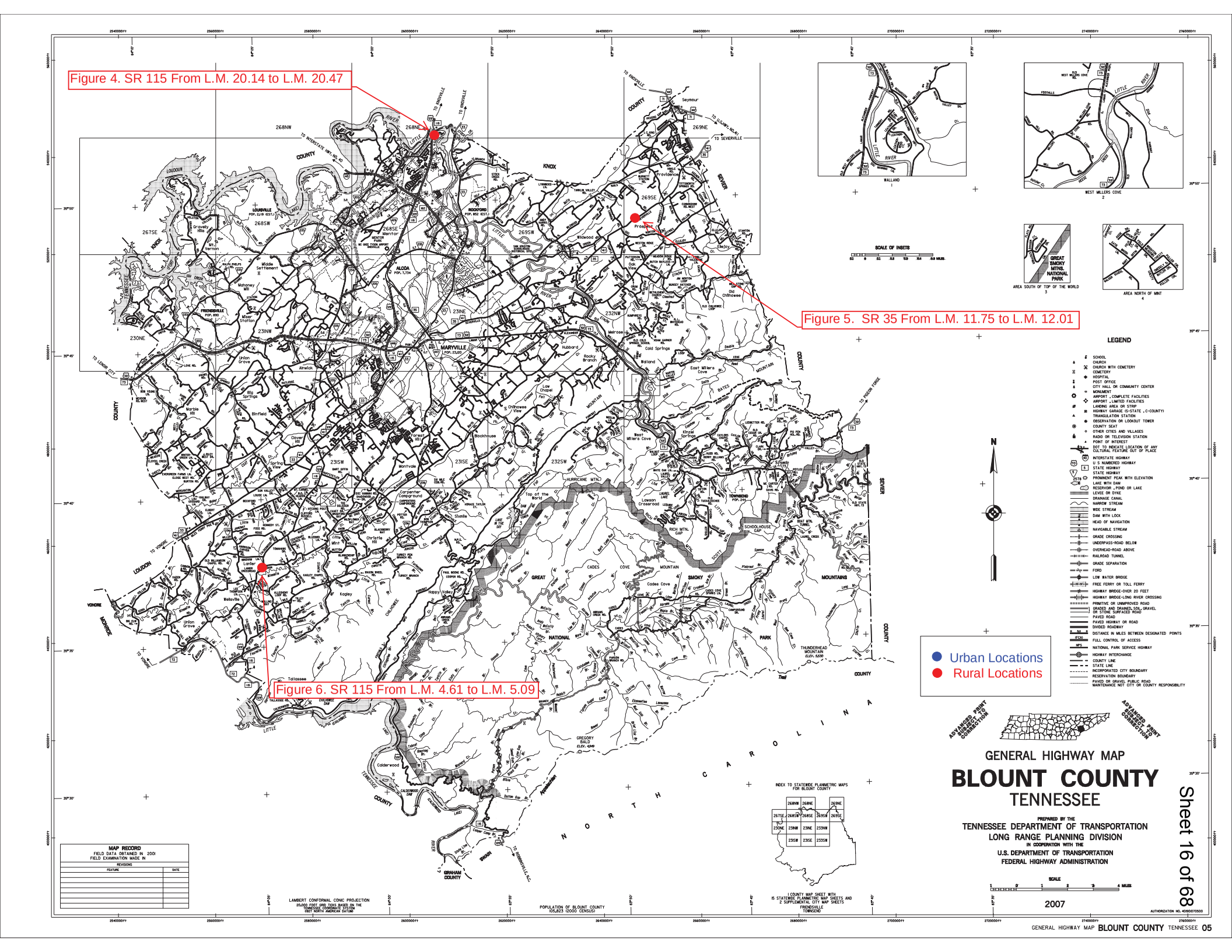
1. Locations illustrated on Figures 17, 20, 21, 24 & 25
2. Contractor may elect to substitute Preformed Plastic for Thermoplastic. Preformed Plastic shall be paid for at the same unit price bid as for Thermoplastic.

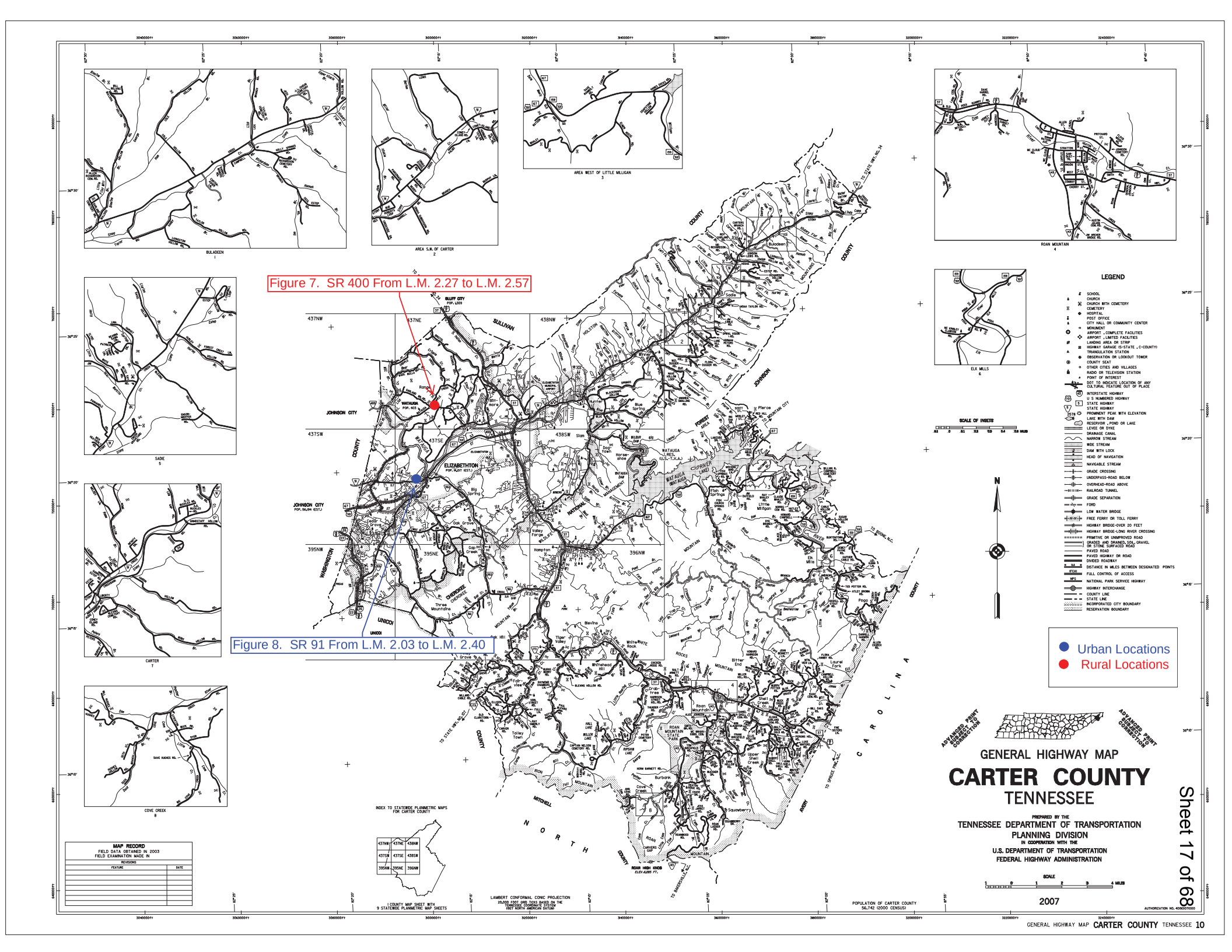
# STANDARD DRAWINGS

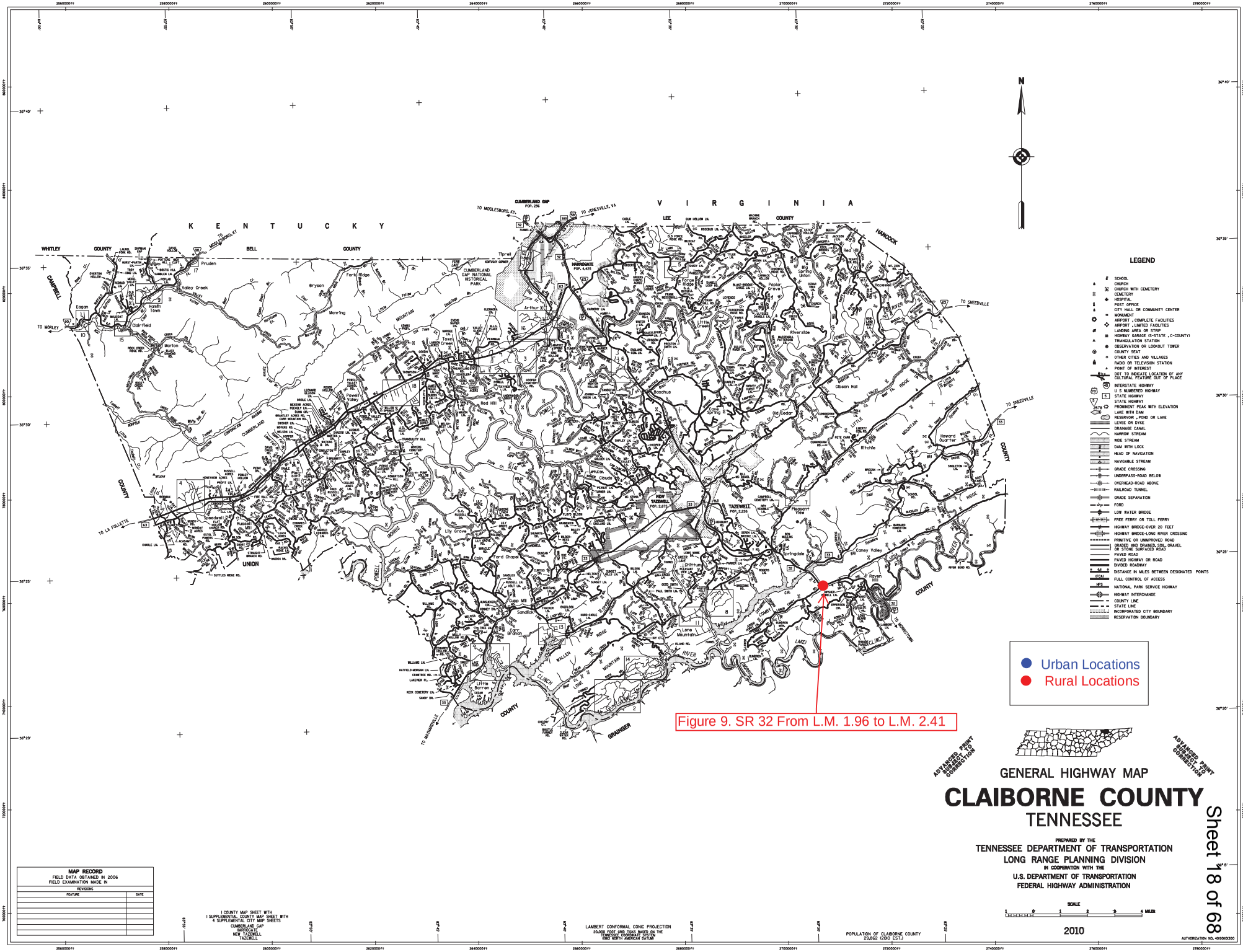
| DRAWING NO. | REV. DATE | SHEET NAME |
|---|---|---|
| RD-A-1 | 12-18-99 | STANDARD ABBREVIATIONS |
| T-M-1 | 07-24-14 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS |
| T-M-2 | 07-24-14 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS |
| T-M-3 | 07-24-14 | MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS PAVED SHOULDERS ON CONVENTIONAL ROADS |
| T-M-4 | 07-24-14 | STANDARD INTERSECTION PAVEMENT MARKINGS |
| T-M-5 | 04-23-13 | MARKING DETAILS FOR EXPRESSWAYS AND FREEWAYS |
| T-M-6 | 06-22-12 | MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES |
| T-M-7 | 01-12-12 | GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES |
| T-M-8 | 01-12-12 | MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS |
| T-M-9 | 11-01-11 | MARKING DETAILS FOR RAMP INTERSECTIONS |
| T-FAB-1 | 05-27-97 | FLASHING YELLOW ARROW BOARD |
| T-WZ-10 | 04-02-12 | ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS |
| T-WZ-11 | 03-13-09 | ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS |
| T-WZ-15 | 04-02-12 | INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS |
| T-WZ-40 | 04-02-12 | RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS |
| T-WZ-41 | 04-02-12 | LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS |

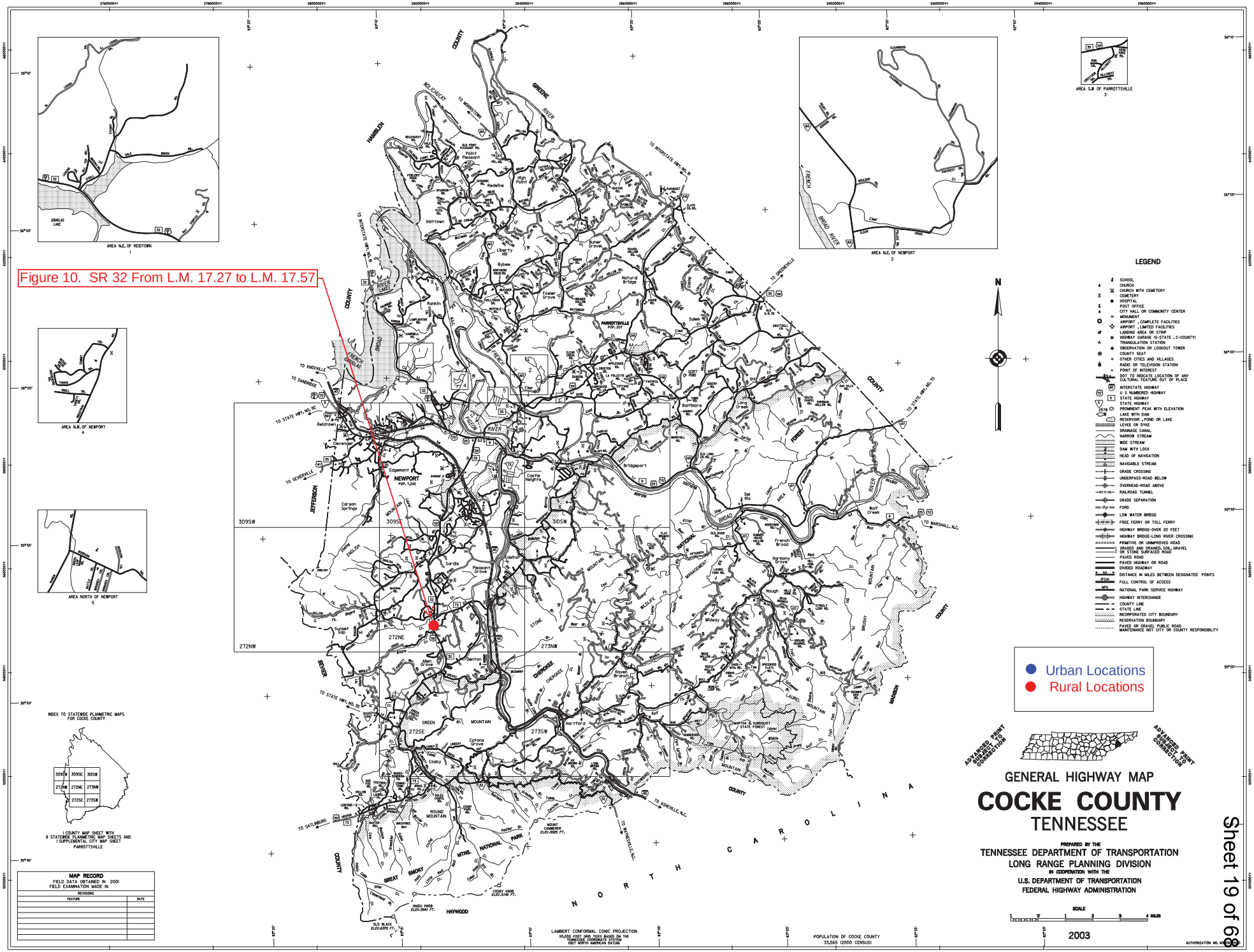


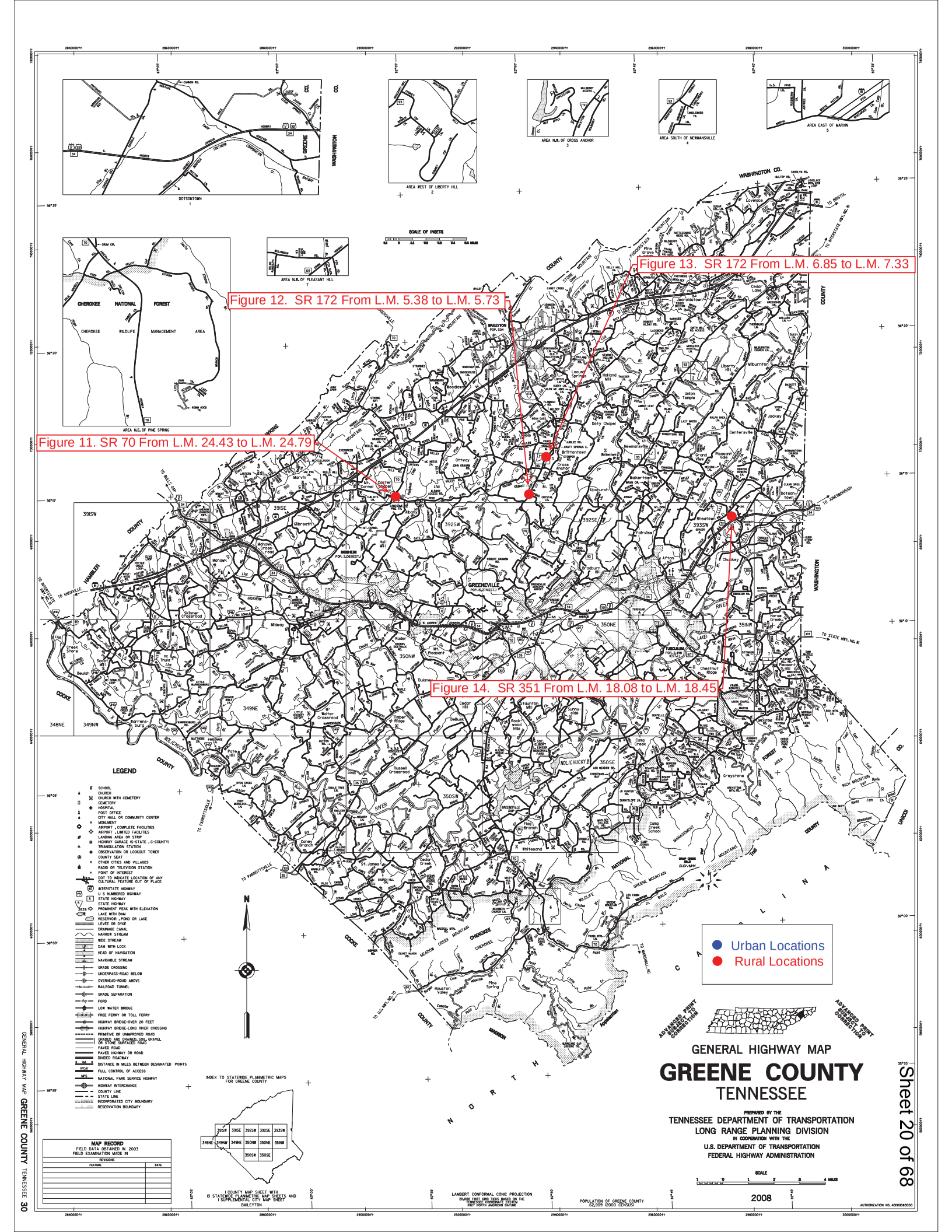

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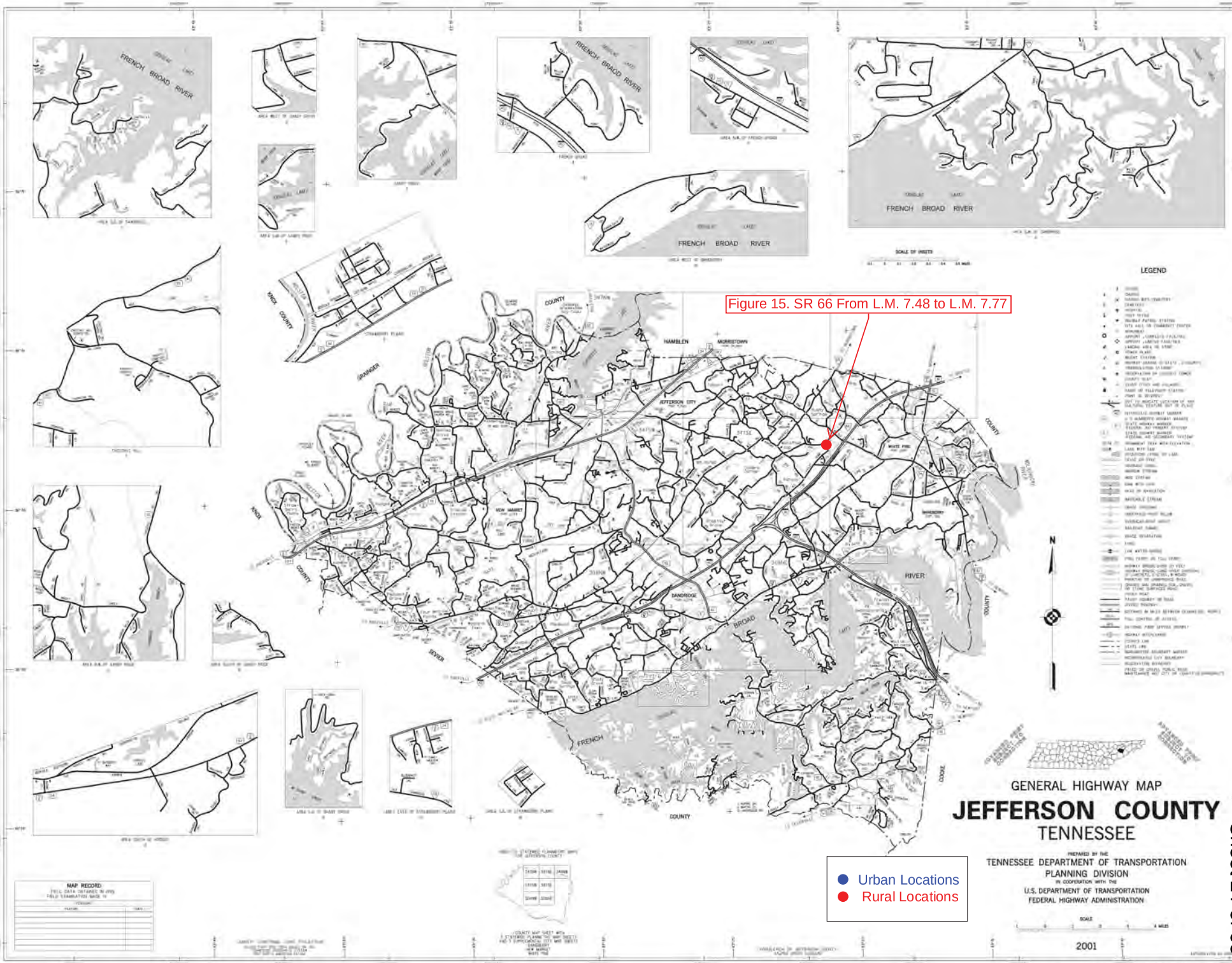

Figure 4. SR 115 From L.M. 20.14 to L.M. 20.47
Figure 5. SR 35 From L.M. 11.75 to L.M. 12.01
Figure 6. SR 115 From L.M. 4.61 to L.M. 5.09
Urban Locations
Rural Locations
LEGEND
GENERAL HIGHWAY MAP
BLOUNT COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
LONG RANGE PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2007
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FIELD DATA OBTAINED IN 2001
FIELD EXAMINATION MADE IN
REVISIONS
FEATURE
DATE
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1 COUNTY MAP SHEET WITH 15 STATEWIDE PLANIMETRIC MAP SHEETS AND 2 SUPPLEMENTAL CITY MAP SHEETS
MARYVILLE
TOWNSEND
ALCOA
LOUDON
KNOX
SEVIER
MONROE
VONORE
TENNESSEE
NORTH CAROLINA
GREAT SMOKY MOUNTAINS NATIONAL PARK
THUNDERHEAD MOUNTAIN ELEV. 6,530
GREGORY BALD ELEV. 4,949
Sheet 16 of 68

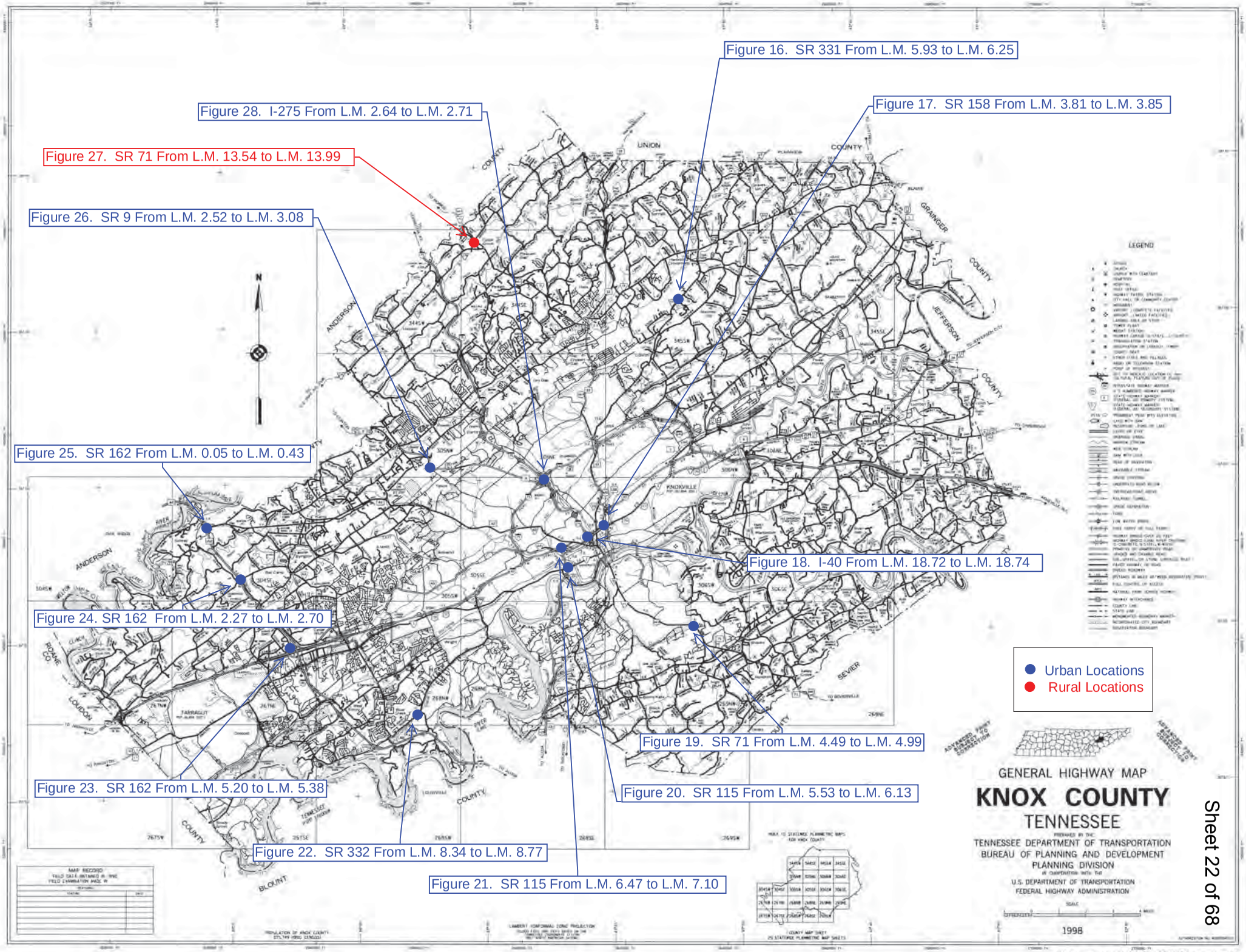

Figure 7. SR 400 From L.M. 2.27 to L.M. 2.57
Figure 8. SR 91 From L.M. 2.03 to L.M. 2.40
BULADEEN
1
AREA S.W. OF CARTER
2
AREA WEST OF LITTLE MILLIGAN
3
ROAN MOUNTAIN
4
SADIE
5
ELK MILLS
6
CARTER
7
COVE CREEK
8
LEGEND
SCALE OF INSETS
N
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
CARTER COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
SCALE
2007
MAP RECORD
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FIELD EXAMINATION MADE IN
REVISIONS
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DATE
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1 COUNTY MAP SHEET WITH 9 STATEWIDE PLANIMETRIC MAP SHEETS
LAMBERT CONFORMAL CONIC PROJECTION
20,000 FOOT GRID TICKS BASED ON THE TENNESSEE COORDINATE SYSTEM
1927 NORTH AMERICAN DATUM
POPULATION OF CARTER COUNTY
56,742 (2000 CENSUS)
AUTHORIZATION No. 409007000
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GENERAL HIGHWAY MAP CARTER COUNTY TENNESSEE 10

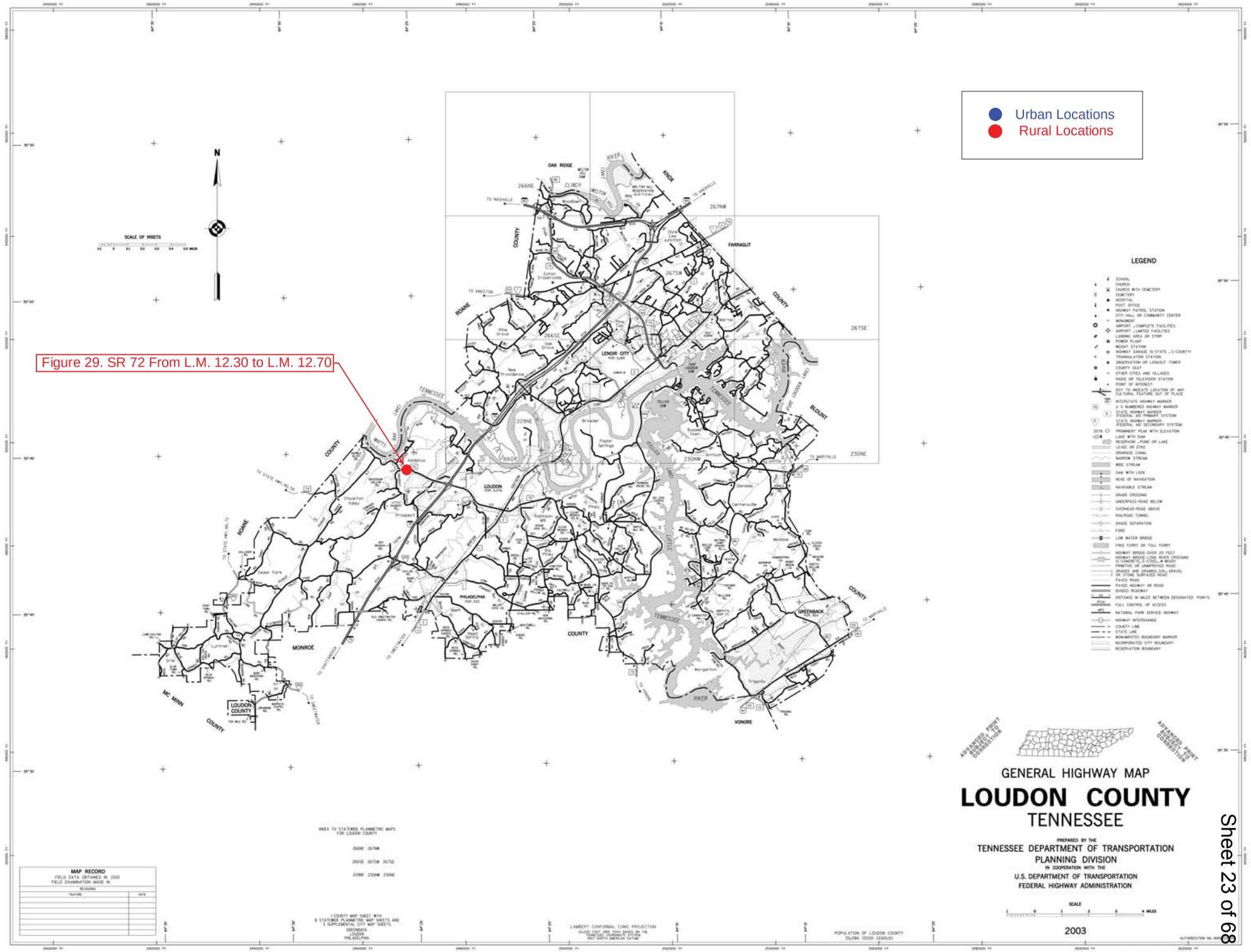

KENTUCKY
VIRGINIA
WHITLEY COUNTY
BELL COUNTY
LEE COUNTY
HANCOCK COUNTY
CAMPBELL COUNTY
UNION COUNTY
GRAINGER COUNTY
CUMBERLAND GAP NATIONAL HISTORICAL PARK
CUMBERLAND GAP POP. 236
HARROGATE POP. 4,425
NEW TAZEWELL POP. 2,815
TAZEWELL POP. 2,226
TO MIDDLESBORO, KY.
TO JONESVILLE, VA
TO SNEEDVILLE
TO LA FOLLETTE
TO MORLEY
TO MARYNARVILLE
TO MORRISTOWN
Figure 9. SR 32 From L.M. 1.96 to L.M. 2.41
N
LEGEND
SCHOOL
CHURCH
CHURCH WITH CEMETERY
CEMETERY
HOSPITAL
POST OFFICE
CITY HALL OR COMMUNITY CENTER
MONUMENT
AIRPORT , COMPLETE FACILITIES
AIRPORT , LIMITED FACILITIES
LANDING AREA OR STRIP
HIGHWAY GARAGE (S-STATE , C-COUNTY)
TRIANGULATION STATION
OBSERVATION OR LOOKOUT TOWER
COUNTY SEAT
OTHER CITIES AND VILLAGES
RADIO OR TELEVISION STATION
POINT OF INTEREST
DOT TO INDICATE LOCATION OF ANY CULTURAL FEATURE OUT OF PLACE
INTERSTATE HIGHWAY
U S NUMBERED HIGHWAY
STATE HIGHWAY
STATE HIGHWAY
PROMINENT PEAK WITH ELEVATION
LAKE WITH DAM
RESERVOIR , POND OR LAKE
LEVEE OR DYKE
DRAINAGE CANAL
NARROW STREAM
WIDE STREAM
DAM WITH LOCK
HEAD OF NAVIGATION
NAVIGABLE STREAM
GRADE CROSSING
UNDERPASS-ROAD BELOW
OVERHEAD-ROAD ABOVE
RAILROAD TUNNEL
GRADE SEPARATION
FORD
LOW WATER BRIDGE
FREE FERRY OR TOLL FERRY
HIGHWAY BRIDGE-OVER 20 FEET
HIGHWAY BRIDGE-LONG RIVER CROSSING
PRIMITIVE OR UNIMPROVED ROAD
GRADED AND DRAINED, SOIL, GRAVEL OR STONE SURFACED ROAD
PAVED ROAD
PAVED HIGHWAY OR ROAD
DIVIDED ROADWAY
DISTANCE IN MILES BETWEEN DESIGNATED POINTS
FULL CONTROL OF ACCESS
NATIONAL PARK SERVICE HIGHWAY
HIGHWAY INTERCHANGE
COUNTY LINE
STATE LINE
INCORPORATED CITY BOUNDARY
RESERVATION BOUNDARY
Urban Locations
Rural Locations
ADVANCED PRINT SUBJECT TO CORRECTION
ADVANCED PRINT SUBJECT TO CORRECTION
GENERAL HIGHWAY MAP
CLAIBORNE COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
LONG RANGE PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
SCALE
1 0 1 2 3 4 MILES
2010
AUTHORIZATION NO. 401906X300
MAP RECORD
FIELD DATA OBTAINED IN 2006
FIELD EXAMINATION MADE IN
REVISIONS
FEATURE
DATE
1 COUNTY MAP SHEET WITH
1 SUPPLEMENTAL COUNTY MAP SHEET WITH
4 SUPPLEMENTAL CITY MAP SHEETS
CUMBERLAND GAP
HARROGATE
NEW TAZEWELL
TAZEWELL
LAMBERT CONFORMAL CONIC PROJECTION
25,000 FOOT GRID TICKS BASED ON THE
TENNESSEE COORDINATE SYSTEM
1983 NORTH AMERICAN DATUM
POPULATION OF CLAIBORNE COUNTY
29,862 (2010 EST.)
Sheet 18 of 68


Figure 10. SR 32 From L.M. 17.27 to L.M. 17.57
AREA N.E. OF REDTOWN 1
AREA N.E. OF NEWPORT 2
AREA S.W. OF PARROTTSVILLE 3
AREA N.W. OF NEWPORT 4
AREA NORTH OF NEWPORT 5
LEGEND
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
COCKE COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
LONG RANGE PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2003
MAP RECORD
FIELD DATA OBTAINED IN 2001
FIELD EXAMINATION MADE IN
REVISIONS
FEATURE
DATE
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1 COUNTY MAP SHEET WITH 8 STATEWIDE PLANIMETRIC MAP SHEETS AND 1 SUPPLEMENTAL CITY MAP SHEET PARROTTSVILLE
LAMBERT CONFORMAL CONIC PROJECTION
POPULATION OF COCKE COUNTY
33,565 (2000 CENSUS)
NORTH CAROLINA
NEWPORT
PARROTTSVILLE
Sheet 19 of 63


Figure 11. SR 70 From L.M. 24.43 to L.M. 24.79
Figure 12. SR 172 From L.M. 5.38 to L.M. 5.73
Figure 13. SR 172 From L.M. 6.85 to L.M. 7.33
Figure 14. SR 351 From L.M. 18.08 to L.M. 18.45
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
GREENE COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
LONG RANGE PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2008
LEGEND
MAP RECORD
FIELD DATA OBTAINED IN 2003
FIELD EXAMINATION MADE IN
REVISIONS
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1 COUNTY MAP SHEET WITH 13 STATEWIDE PLANIMETRIC MAP SHEETS AND 1 SUPPLEMENTAL CITY MAP SHEET
BAILEYTON
LAMBERT CONFORMAL CONIC PROJECTION
1000 FOOT GRID TICS BASED ON THE TENNESSEE COORDINATE SYSTEM
1927 NORTH AMERICAN DATUM
POPULATION OF GREENE COUNTY
62,909 (2000 CENSUS)
AUTHORIZATION NO. 409080083000
GENERAL HIGHWAY MAP GREENE COUNTY TENNESSEE 30
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Figure 15. SR 66 From L.M. 7.48 to L.M. 7.77
LEGEND
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
JEFFERSON COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2001
MAP RECORD
FRENCH BROAD RIVER
HAMBLEN
MORRISTOWN
JEFFERSON CITY
KNOX COUNTY
GRAINGER
SEVIER
COCKE
COUNTY
RIVER
BROAD
FRENCH


Figure 16. SR 331 From L.M. 5.93 to L.M. 6.25
Figure 28. I-275 From L.M. 2.64 to L.M. 2.71
Figure 17. SR 158 From L.M. 3.81 to L.M. 3.85
Figure 27. SR 71 From L.M. 13.54 to L.M. 13.99
Figure 26. SR 9 From L.M. 2.52 to L.M. 3.08
Figure 25. SR 162 From L.M. 0.05 to L.M. 0.43
Figure 18. I-40 From L.M. 18.72 to L.M. 18.74
Figure 24. SR 162 From L.M. 2.27 to L.M. 2.70
Figure 19. SR 71 From L.M. 4.49 to L.M. 4.99
Figure 23. SR 162 From L.M. 5.20 to L.M. 5.38
Figure 20. SR 115 From L.M. 5.53 to L.M. 6.13
Figure 22. SR 332 From L.M. 8.34 to L.M. 8.77
Figure 21. SR 115 From L.M. 6.47 to L.M. 7.10
LEGEND
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
KNOX COUNTY
TENNESSEE
TENNESSEE DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT
PLANNING DIVISION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
1998
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Urban Locations
Rural Locations
Figure 29. SR 72 From L.M. 12.30 to L.M. 12.70
LEGEND
GENERAL HIGHWAY MAP
LOUDON COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2003
MAP RECORD
OAK RIDGE
FARRAGUT
LENOIR CITY
LOUDON
PHILADELPHIA
GREENBACK
VONORE
MONROE
ROANE
BLOUNT
KNOX
TENNESSEE
RIVER
COUNTY

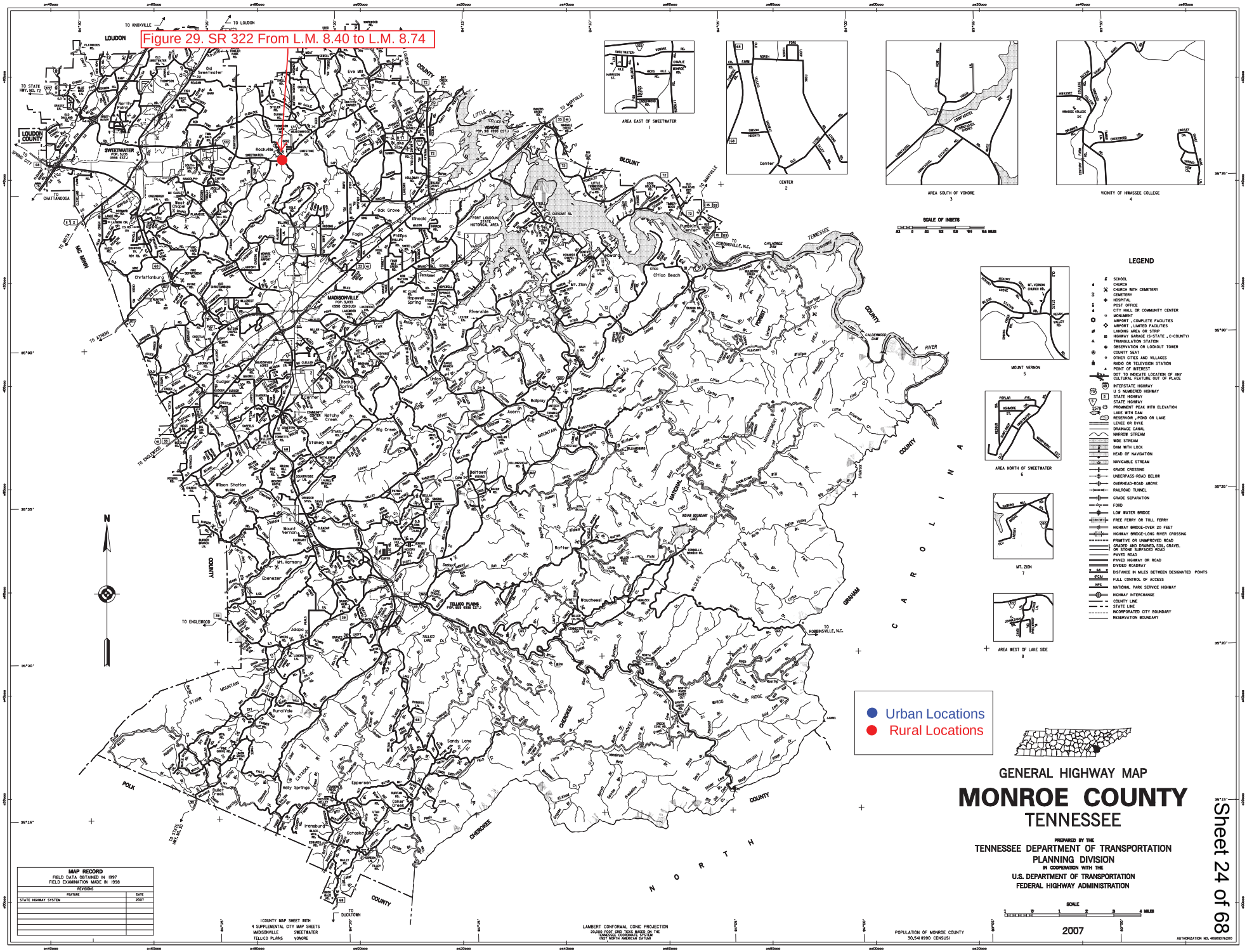
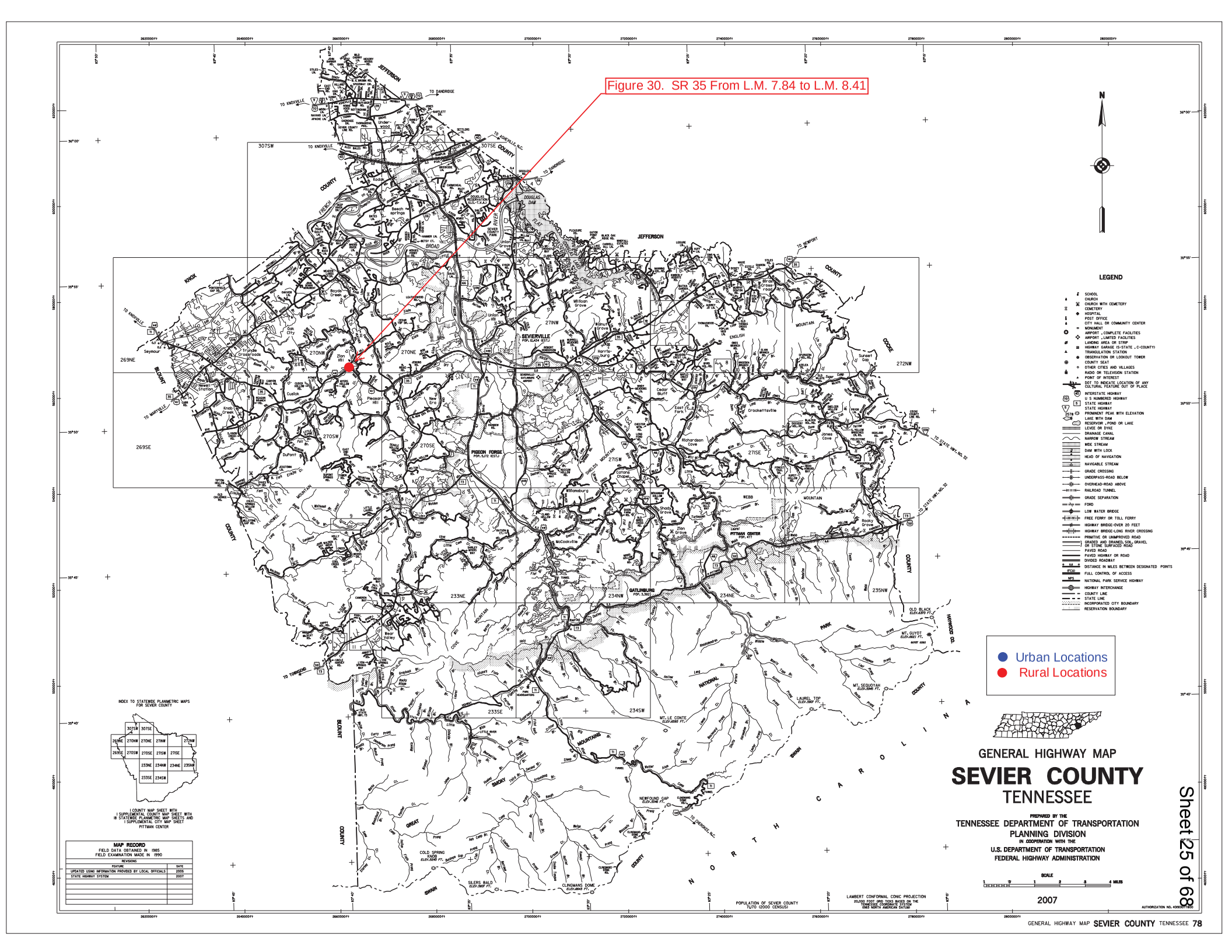
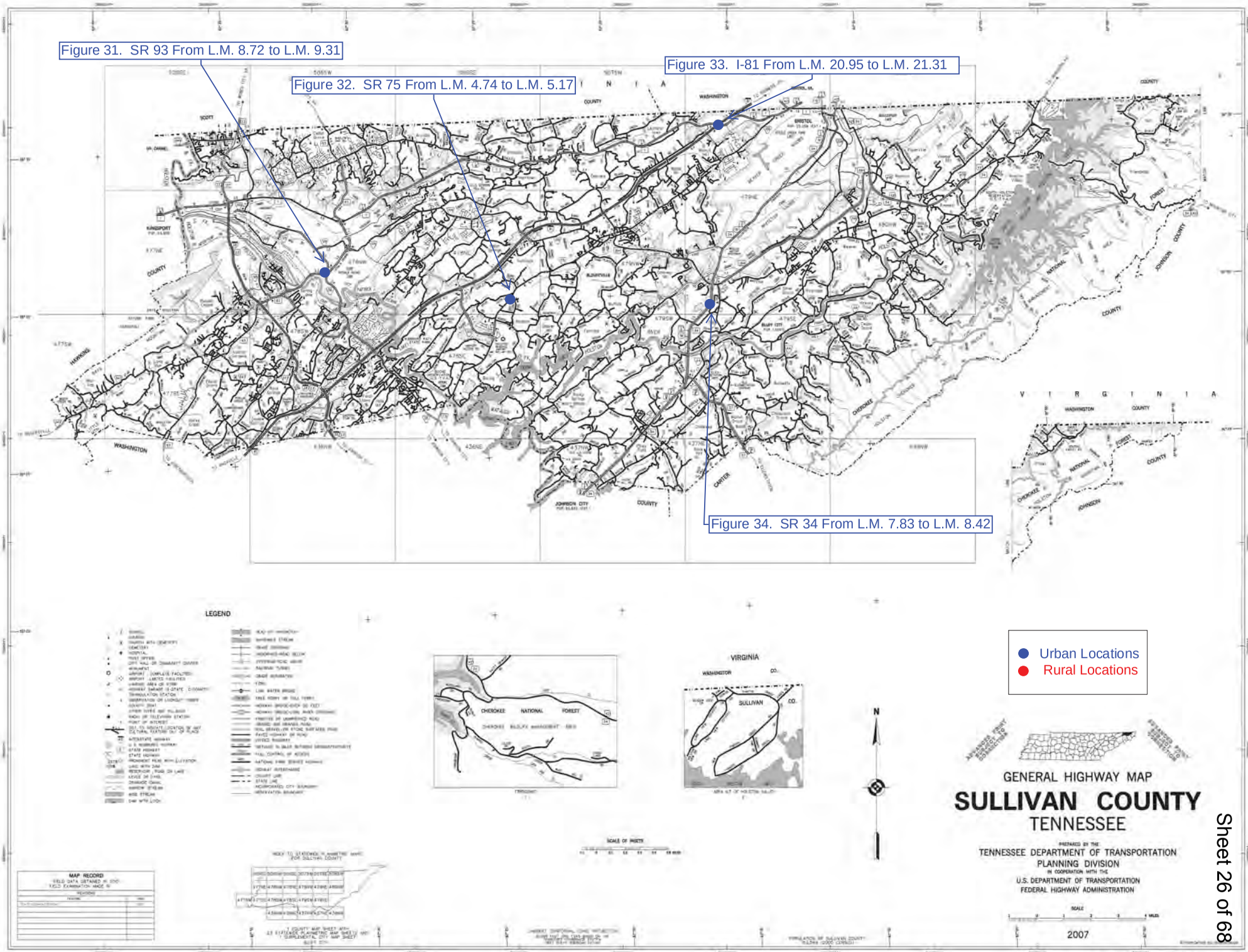
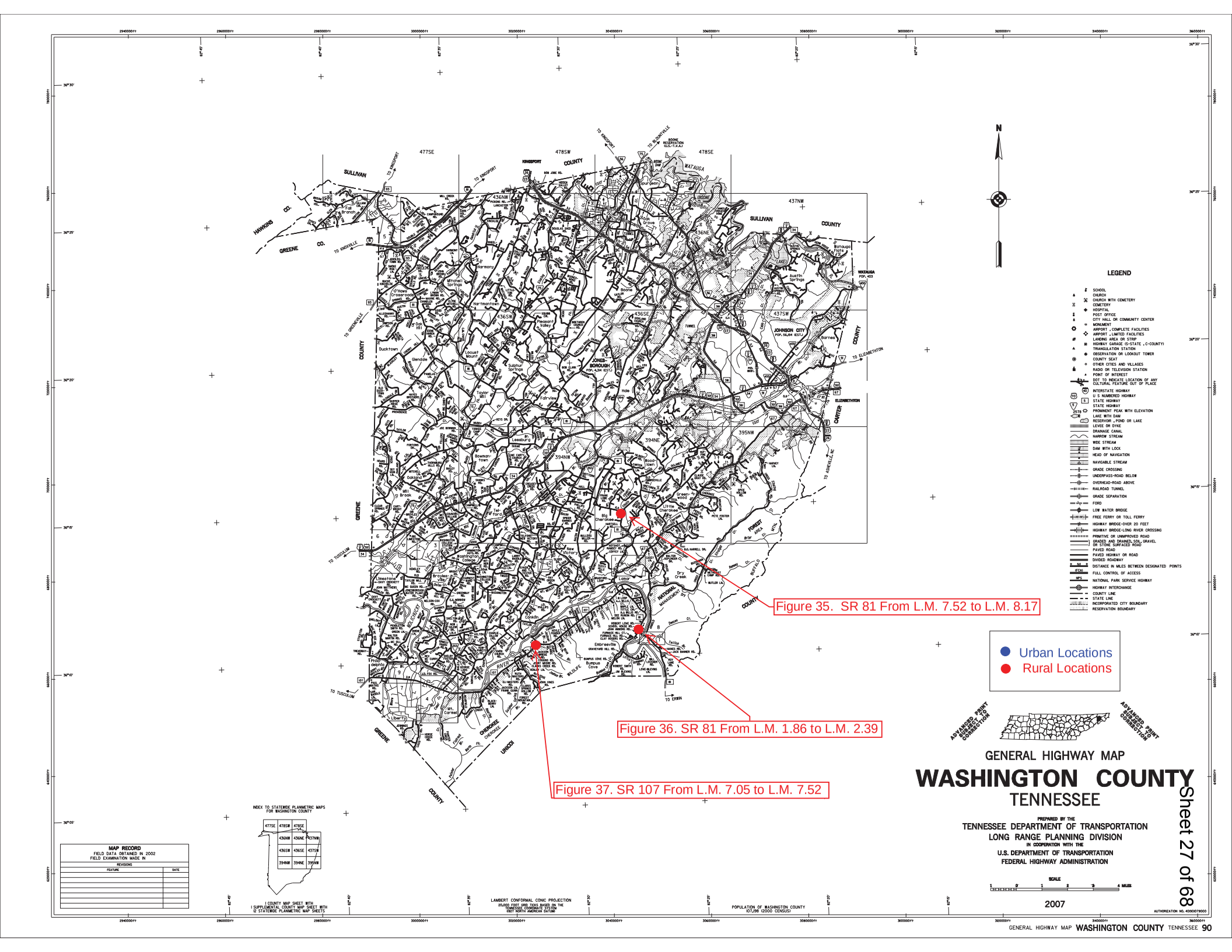

Figure 29. SR 322 From L.M. 8.40 to L.M. 8.74
LOUDON
LOUDON COUNTY
SWEETWATER
POP. 5,000
1998 EST.
MADISONVILLE
POP. 5,000
1990 CENSUS
TELLICO PLAINS
POP. 883 1998 EST.
VONORE
POP. 1,000 1998 EST.
Rockville
Riverside
Oak Grove
Knoxold
Philadelphia
Hopewell Spring
Christianburg
Center
Rock Spring
Antioch
Balloky
Acorn
Big Creek
Stokely Mtn
Wilson Station
Mount Vernon
Mt. Harmony
Ebenezer
Jalapa
Rural Vale
Sandy Lane
Epperson
Holly Springs
Transburg
Catoosa
Rafter
Rausheed
Deltown
Chilhowee Beach
Mt. Zion
Fork
Fogh
Gudger
Hickory Grove
Bullet Creek
Cedar Creek
Indian Boundary Lake
Tellico Lake
TO KNOXVILLE
TO LOUDON
TO MARYVILLE
TO CHATTANOGA
TO ATHENS
TO ENGLEWOOD
TO DUCKTOWN
TO ROBBINSVILLE, N.C.
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AREA EAST OF SWEETWATER
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4
SCALE OF INSETS
MOUNT VERNON
5
AREA NORTH OF SWEETWATER
6
MT. ZION
7
AREA WEST OF LAKE SIDE
8
LEGEND
SCHOOL
CHURCH
CHURCH WITH CEMETERY
CEMETERY
HOSPITAL
POST OFFICE
CITY HALL OR COMMUNITY CENTER
MONUMENT
AIRPORT , COMPLETE FACILITIES
AIRPORT , LIMITED FACILITIES
LANDING AREA OR STRIP
HIGHWAY GARAGE (S-STATE , C-COUNTY)
TRIANGULATION STATION
OBSERVATION OR LOOKOUT TOWER
COUNTY SEAT
OTHER CITIES AND VILLAGES
RADIO OR TELEVISION STATION
POINT OF INTEREST
DOT TO INDICATE LOCATION OF ANY CULTURAL FEATURE OUT OF PLACE
INTERSTATE HIGHWAY
U S NUMBERED HIGHWAY
STATE HIGHWAY
STATE HIGHWAY
PROMINENT PEAK WITH ELEVATION
LAKE WITH DAM
RESERVOIR , POND OR LAKE
LEVEE OR DYKE
DRAINAGE CANAL
NARROW STREAM
WIDE STREAM
DAM WITH LOCK
HEAD OF NAVIGATION
NAVIGABLE STREAM
GRADE CROSSING
UNDERPASS-ROAD BELOW
OVERHEAD-ROAD ABOVE
RAILROAD TUNNEL
GRADE SEPARATION
FORD
LOW WATER BRIDGE
FREE FERRY OR TOLL FERRY
HIGHWAY BRIDGE-OVER 20 FEET
HIGHWAY BRIDGE-LONG RIVER CROSSING
PRIMITIVE OR UNIMPROVED ROAD
GRADED AND DRAINED, SOIL, GRAVEL OR STONE SURFACED ROAD
PAVED ROAD
PAVED HIGHWAY OR ROAD
DIVIDED ROADWAY
DISTANCE IN MILES BETWEEN DESIGNATED POINTS
FULL CONTROL OF ACCESS
NATIONAL PARK SERVICE HIGHWAY
HIGHWAY INTERCHANGE
COUNTY LINE
STATE LINE
INCORPORATED CITY BOUNDARY
RESERVATION BOUNDARY
Urban Locations
Rural Locations
MAP RECORD
FIELD DATA OBTAINED IN 1997
FIELD EXAMINATION MADE IN 1998
REVISIONS
FEATURE
DATE
STATE HIGHWAY SYSTEM
2007
1 COUNTY MAP SHEET WITH
4 SUPPLEMENTAL CITY MAP SHEETS
MADISONVILLE
SWEETWATER
TELLICO PLAINS
VONORE
LAMBERT CONFORMAL CONIC PROJECTION
20,000 FOOT GRID TICKS BASED ON THE
TENNESSEE COORDINATE SYSTEM
1927 NORTH AMERICAN DATUM
POPULATION OF MONROE COUNTY
30,541 (1990 CENSUS)
GENERAL HIGHWAY MAP
MONROE COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
SCALE
2007
AUTHORIZATION NO. 4090076200
Sheet 24 of 68

Figure 30. SR 35 From L.M. 7.84 to L.M. 8.41




Figure 31. SR 93 From L.M. 8.72 to L.M. 9.31
Figure 32. SR 75 From L.M. 4.74 to L.M. 5.17
Figure 33. I-81 From L.M. 20.95 to L.M. 21.31
Figure 34. SR 34 From L.M. 7.83 to L.M. 8.42
LEGEND
Urban Locations
Rural Locations
VIRGINIA
CHEROKEE NATIONAL FOREST
SULLIVAN CO.
GENERAL HIGHWAY MAP
SULLIVAN COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2007
MAP RECORD


Figure 35. SR 81 From L.M. 7.52 to L.M. 8.17
Figure 36. SR 81 From L.M. 1.86 to L.M. 2.39
Figure 37. SR 107 From L.M. 7.05 to L.M. 7.52
LEGEND
Urban Locations
Rural Locations
GENERAL HIGHWAY MAP
WASHINGTON COUNTY
TENNESSEE
PREPARED BY THE
TENNESSEE DEPARTMENT OF TRANSPORTATION
LONG RANGE PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
2007
MAP RECORD
FIELD DATA OBTAINED IN 2002
FIELD EXAMINATION MADE IN
REVISIONS
FEATURE
DATE
INDEX TO STATEWIDE PLANIMETRIC MAPS FOR WASHINGTON COUNTY
1 COUNTY MAP SHEET WITH
1 SUPPLEMENTAL COUNTY MAP SHEET WITH
12 STATEWIDE PLANIMETRIC MAP SHEETS
LAMBERT CONFORMAL CONIC PROJECTION
20,000 FOOT GRID TICKS BASED ON THE
TENNESSEE COORDINATE SYSTEM
1927 NORTH AMERICAN DATUM
POPULATION OF WASHINGTON COUNTY
107,198 (2000 CENSUS)
AUTHORIZATION NO. 409907F3000
Sheet 27 of 68
GENERAL HIGHWAY MAP WASHINGTON COUNTY TENNESSEE 90

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | ANDERSON | 1 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 9, starting approximately 325 feet north of the 1st Street intersection, extending 680 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 9 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 9
L.M. 0.71 TO L.M. 1.06
ANDERSON COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 1
STATE ROUTE 9
L.M. 0.71 to L.M. 1.06

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 01Anderson SR 9 0.71to 1.06.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | ANDERSON | 2 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




### GUIDANCE

1. Install High Friction Surface Treatment on State Route 9, starting approximately 450 feet south of the Pumphouse Lane intersection, extending 1,350 feet north.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip line, and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 9
L.M. 8.39 TO L.M. 8.80
ANDERSON COUNTY

Sheet 29 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 2
STATE ROUTE 9
L.M. 8.39 to L.M. 8.80

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 02 Anderson SR 9 8.39 to 8.80.dgn

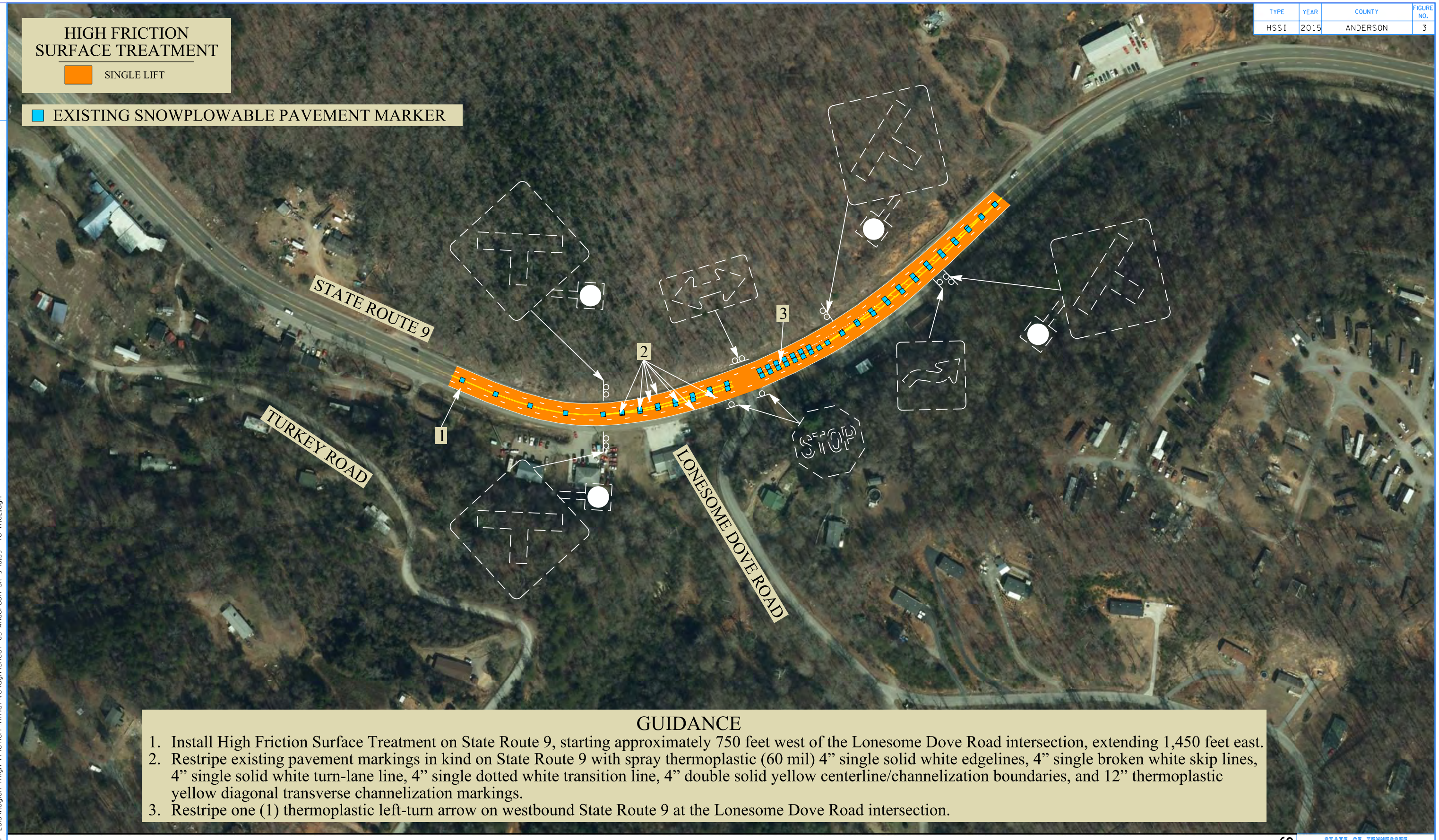
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | ANDERSON | 3 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 9, starting approximately 750 feet west of the Lonesome Dove Road intersection, extending 1,450 feet east.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip lines, 4” single solid white turn-lane line, 4” single dotted white transition line, 4” double solid yellow centerline/channelization boundaries, and 12” thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) thermoplastic left-turn arrow on westbound State Route 9 at the Lonesome Dove Road intersection.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 9
L.M. 16.59 TO L.M. 17.02
ANDERSON COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 3
STATE ROUTE 9
L.M. 16.59 to L.M. 17.02

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 03 Anderson SR 9 16.59 to 17.02.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | BLOUNT | 4 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 115, starting approximately 300 feet south of the Rivertrace Boulevard intersection, extending 650 feet north.
2. Restripe existing pavement markings in kind on State Route 115 with spray thermoplastic (60 mil) 4” single solid white exterior edgelines, 4” single broken white skip lines, 4” single solid white lane lines, 4” single solid yellow interior edgelines, and 12” thermoplastic yellow diagonal transverse channelization markings.
3. Restripe two (2) thermoplastic Exit Only arrows in the acceleration lane on southbound State Route 115.
4. Restripe two (2) thermoplastic right-turn arrows and one (1) ONLY thermoplastic word pavement marking on northbound State Route 115 at the Rivertrace Boulevard intersection.
5. Restripe one (1) thermoplastic left-turn arrow and one (1) ONLY thermoplastic word pavement marking on southbound State Route 115 at the Rivertrace Boulevard intersection.
6. Restripe one (1) thermoplastic Exit Only arrow in the acceleration lane on northbound State Route 115.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 115
L.M. 20.14 TO L.M. 20.47
BLOUNT COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 4
STATE ROUTE 115
L.M. 20.14 to L.M. 20.47

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 04 Blount SR 115 20.14 to 20.47.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | BLOUNT | 5 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER

STATE ROUTE 35

ALFRED MCCAMMON ROAD

DOC NORTON ROAD

KEYLEE LANE

1

2

STOP

## GUIDANCE

1. Install High Friction Surface Treatment on State Route 35, starting approximately 350 feet north of the Alfred McCammon Road intersection, extending 925 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 35 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 35
L.M. 11.75 TO L.M. 12.01
BLOUNT COUNTY

Sheet 32 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 5
STATE ROUTE 35
L.M. 11.75 to L.M. 12.01

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 05 Blount SR 35 11.75 to 12.01.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | BLOUNT | 6 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 115, starting approximately 400 feet south of the Indian Warpath Road intersection, extending 850 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 115 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 115
L.M. 4.61 TO L.M. 5.09
BLOUNT COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 6
STATE ROUTE 115
L.M. 4.61 to L.M. 5.09

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 06 Blount SR 115 4.6i to 5.09.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | CARTER | 7 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 400, starting approximately fifty (50) feet west of the Garland Branch Road intersection, extending 550 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 400 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 400
L.M. 2.27 TO L.M. 2.57
CARTER COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 7
STATE ROUTE 400
L.M. 2.27 to L.M. 2.57

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 07 Carter SR 400 2.27 to 2.57.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | CARTER | 8 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




### GUIDANCE

1. Install High Friction Surface Treatment on State Route 91, starting approximately fifty (50) feet south of the Taylortown Road intersection, extending 850 feet north.
2. Restripe existing pavement markings in kind on State Route 91 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip line, and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 91
L.M. 2.03 TO L.M. 2.40
CARTER COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 8
STATE ROUTE 91
L.M. 2.03 to L.M. 2.40

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 08 Carter SR 912.03 to 2.40.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | CLAIBORNE | 9 |

EXISTING SNOWPLOWABLE PAVEMENT MARKER

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 32, starting approximately twenty (20) feet east of the Lower Caney Valley Road intersection, extending 1,500 feet east.
2. Restripe existing pavement markings in kind on State Route 32 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip lines, 4” single solid white turn-lane line, 4” double solid yellow centerline, and 4” single solid yellow/single broken yellow center turn-lane lines.
3. Restripe two (2) thermoplastic left-turn arrows on northbound State Route 32 at the Lower Caney Valley Road intersection.
4. Restripe one (1) set of thermoplastic double arrow pavement markings in the center turn-lane on State Route 9.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 32
L.M. 1.96 TO L.M. 2.41
CLAIBORNE COUNTY

Sheet 36 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 9
STATE ROUTE 32
L.M. 1.96 to L.M. 2.41

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H:\1409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 09 Claiborne SR 32 1.96 to 2.41.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | COCKE | 10 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 32, starting at the Middle Creek Road intersection, extending 750 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 32 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 32
L.M. 17.27 TO L.M. 17.57
COCKE COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 10
STATE ROUTE 32
L.M. 17.27 to L.M. 17.57

7/28/2016 5:52:00 PM
H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 10 Cocke SR 32 17.27 to 17.57.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | GREENE | 11 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER

MARVIN ROAD

STOP

STATE ROUTE 70

STATE ROUTE 70

15 M.P.H.

1

2

### GUIDANCE

1. Install High Friction Surface Treatment on State Route 70, starting approximately 110 feet south of the Marvin Road intersection, extending 200 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 70 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single dotted white edgeline, 4” double solid yellow centerline, and 8” thermoplastic single dotted yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 70
L.M. 24.43 TO L.M. 24.79
GREENE COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 11
STATE ROUTE 70
L.M. 24.43 to L.M. 24.79

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 11Greene SR 70 24.43 to 24.79.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | GREENE | 12 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 172, starting approximately 950 feet south of the Spider Stines Road intersection, extending 820 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 172 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 172
L.M. 5.38 TO L.M. 5.73
GREENE COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION
INVESTMENTS DIVISION

FIGURE 12
STATE ROUTE 172
L.M. 5.38 to
L.M. 5.73



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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 12 Greene SR 172 5.38 to 5.73.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | GREENE | 13 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 172, starting approximately 750 feet north of the Babbs Mill Road intersection, extending 1,720 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 172 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 172
L.M. 6.85 TO L.M. 7.33
GREENE COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 13
STATE ROUTE 172
L.M. 6.85 to
L.M. 7.33

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H:\140902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 13 Greene SR 172 6.85 to 7.33.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | GREENE | 14 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER

OLD STAGE ROAD

STATE ROUTE 34/US 321

STATE ROUTE 351

1

2

25 MPH

25 MPH

25 MPH

## GUIDANCE

1. Install High Friction Surface Treatment on State Route 351, starting approximately 200 feet east of the Old Stage Road intersection, extending 530 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 351 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 351
L.M. 18.08 TO L.M. 18.45
GREENE COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 14
STATE ROUTE 351
L.M. 18.08 to L.M. 18.45

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H:\1409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 14 Greene SR 351@18.08 to 18.45.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | JEFFERSON | 15 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 66, starting approximately 950 feet south of the S. Chucky Pike intersection, extending 430 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 66 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 66
L.M. 7.48 TO L.M. 7.77
JEFFERSON COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 15
STATE ROUTE 66
L.M. 7.48 to L.M. 7.77

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 16 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




GUIDANCE

1. Install High Friction Surface Treatment on State Route 331, starting approximately 190 feet south of the McKinnon Ridge Lane intersection, extending 700 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 331 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 331
L.M. 5.93 TO L.M. 6.25
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 16
STATE ROUTE 331
L.M. 5.93 to
L.M. 6.25

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 16 Knox SR 331 5.93 to 6.25.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 17 |

## HIGH FRICTION SURFACE TREATMENT

- SINGLE LIFT
- DOUBLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on the northbound State Route 158 ramp to Interstate 40 West, starting at the overhead truss sign, extending 950 feet west.
2. Restripe existing pavement markings in kind on the northbound State Route 158 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single broken white skip line, 6” single dotted white transition line, 6” single solid yellow edgeline, and 8” single solid white barrier line.
3. Restripe two (2) thermoplastic Exit Only arrows on the northbound State Route 158 ramp to Interstate 40 West.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 158
L.M. 3.81 TO L.M. 3.85
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 17
STATE ROUTE 158
L.M. 3.81 to
L.M. 3.85

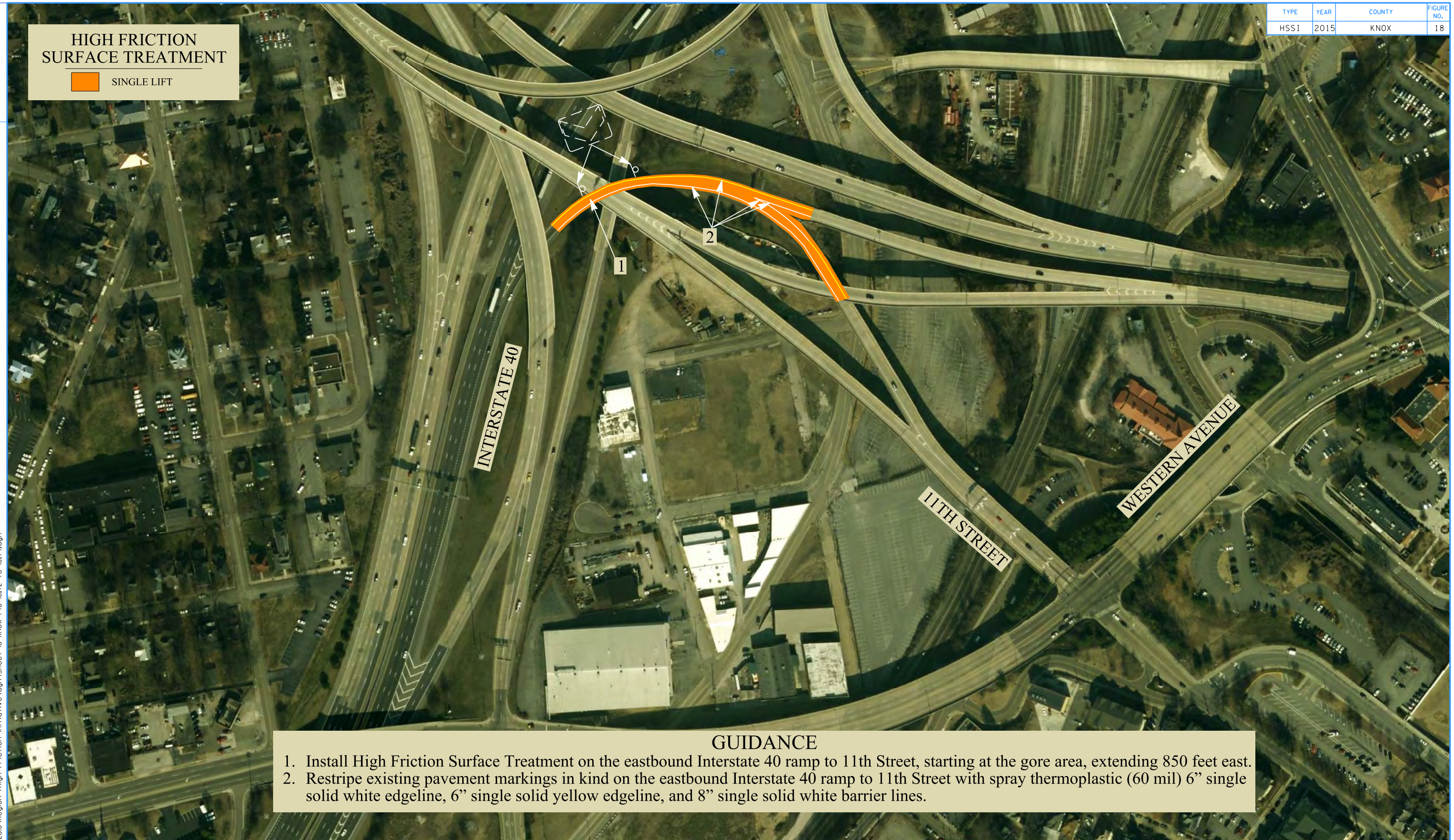
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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 17 Knox SR 158 3.81 to 3.85.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 18 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the eastbound Interstate 40 ramp to 11th Street, starting at the gore area, extending 850 feet east.
2. Restripe existing pavement markings in kind on the eastbound Interstate 40 ramp to 11th Street with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier lines.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 40
L.M. 18.72 TO L.M. 18.74
KNOX COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION
INVESTMENTS DIVISION

FIGURE 18
INTERSTATE 40
L.M. 18.72 to
L.M. 18.74



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H:\1409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 18 Knox 140 18.72 to 18.74.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 19 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 71, starting approximately 300 feet west of the Ellis Road intersection, extending 1,380 feet east.
2. Restripe existing pavement markings in kind on State Route 71 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip lines, 4” single solid white turn-lane line, 4” single dotted white transition line, 4” double solid yellow centerline/channelization boundaries, 8” thermoplastic single dotted yellow centerline, and 12” thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) thermoplastic left-turn arrow on eastbound State Route 71 at the Anderson Drive intersection.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 71
L.M. 4.49 TO L.M. 4.99
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION
INVESTMENTS DIVISION

FIGURE 19
STATE ROUTE 71
L.M. 4.49 to
L.M. 4.99

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 19 Knox SR 714.49 to 4.99.dgn

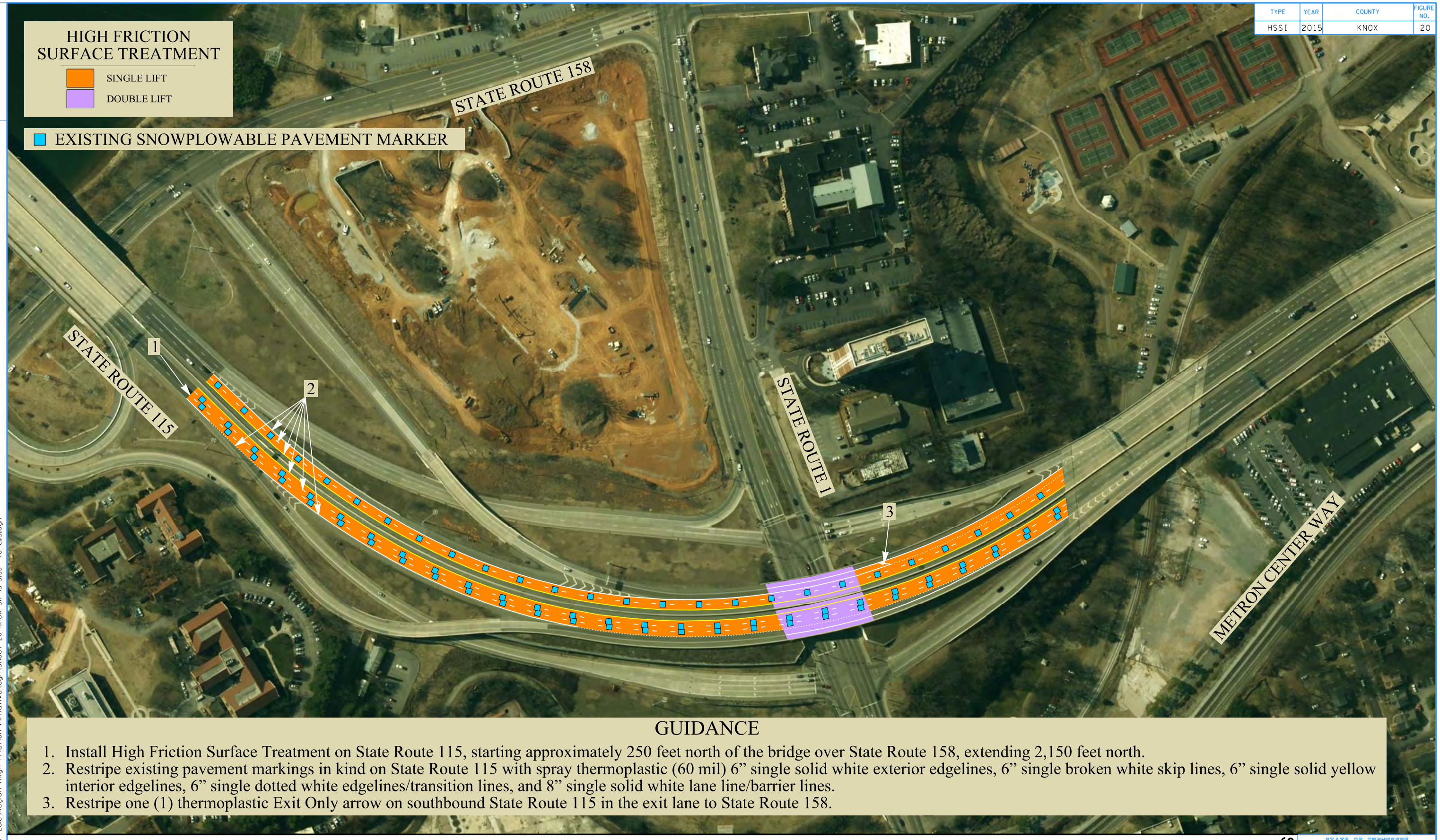
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 20 |

## HIGH FRICTION SURFACE TREATMENT

- SINGLE LIFT
- DOUBLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 115, starting approximately 250 feet north of the bridge over State Route 158, extending 2,150 feet north.
2. Restripe existing pavement markings in kind on State Route 115 with spray thermoplastic (60 mil) 6” single solid white exterior edgelines, 6” single broken white skip lines, 6” single solid yellow interior edgelines, 6” single dotted white edgelines/transition lines, and 8” single solid white lane line/barrier lines.
3. Restripe one (1) thermoplastic Exit Only arrow on southbound State Route 115 in the exit lane to State Route 158.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 115
L.M. 5.53 TO L.M. 6.13
KNOX COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 20
STATE ROUTE 115
L.M. 5.53 to L.M. 6.13



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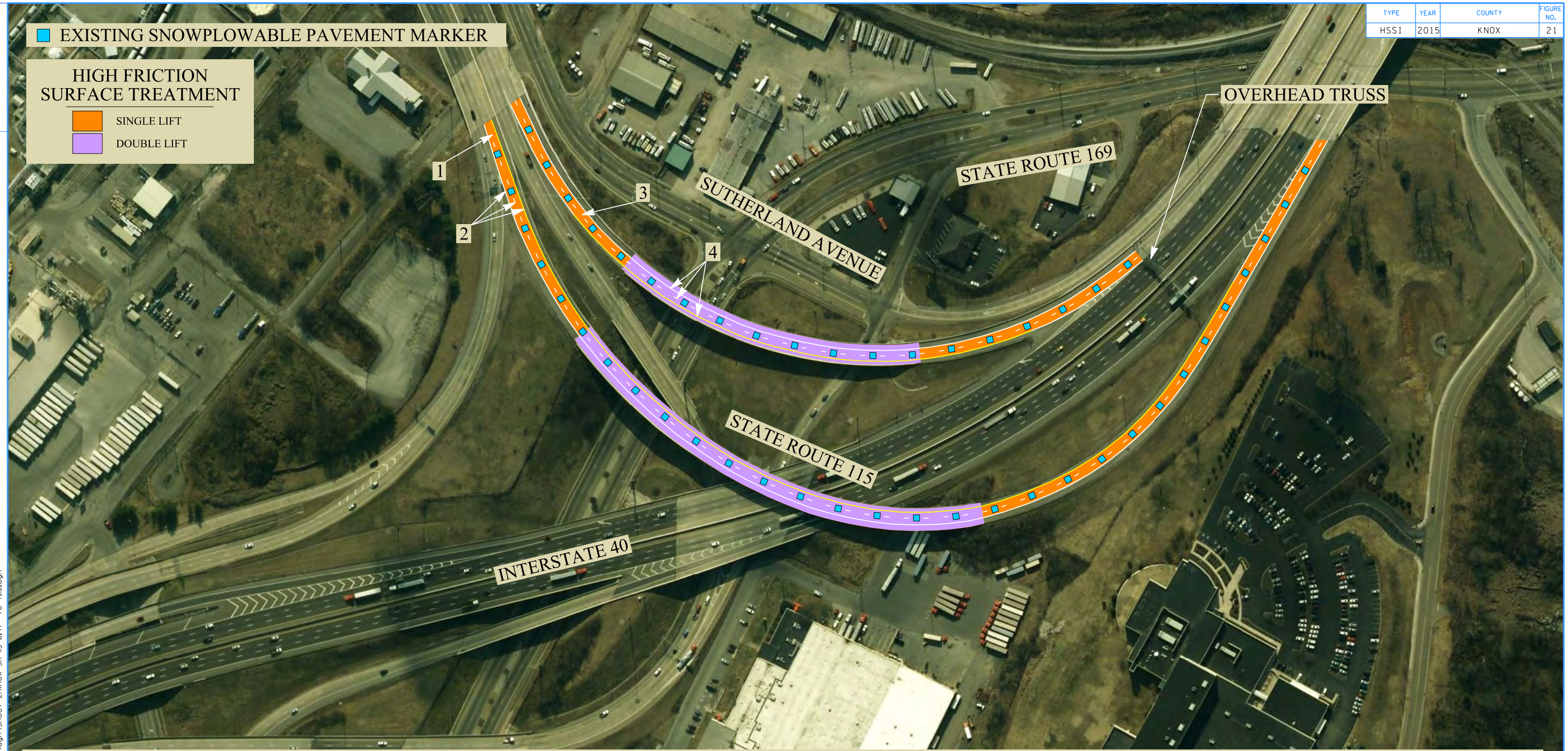
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 21 |

EXISTING SNOWPLOWABLE PAVEMENT MARKER

HIGH FRICTION SURFACE TREATMENT

- SINGLE LIFT
- DOUBLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the northbound State Route 115 ramp to Interstate 40 West, starting at the overhead truss sign, extending 2,320 feet north.
2. Restripe existing pavement markings in kind on the northbound State Route 115 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single broken white skip line, 6” single solid yellow edgeline, and 8” single solid white barrier lines.
3. Install High Friction Surface Treatment on the eastbound Interstate 40 ramp to State Route 115, starting at the gore area, extending 1,540 feet south.
4. Restripe existing pavement markings in kind on the eastbound Interstate 40 ramp to State Route 115 with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single broken white skip line, 6” single solid yellow edgeline, and 8” single solid white barrier lines.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 115
L.M. 6.47 TO L.M. 7.10
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 21
STATE ROUTE 115
L.M. 6.47 to L.M. 7.10

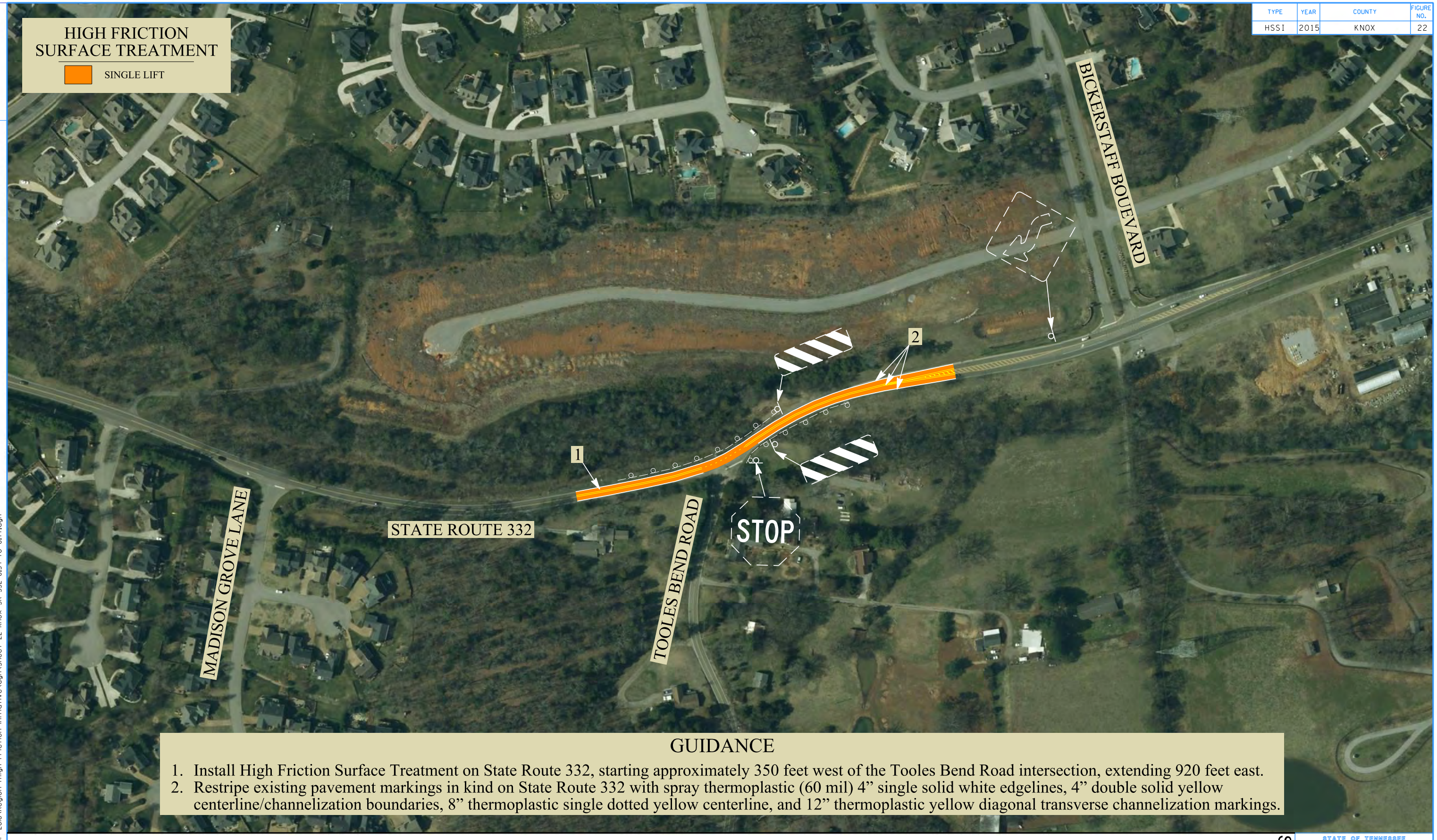
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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 22 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 332, starting approximately 350 feet west of the Tooles Bend Road intersection, extending 920 feet east.
2. Restripe existing pavement markings in kind on State Route 332 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” double solid yellow centerline/channelization boundaries, 8” thermoplastic single dotted yellow centerline, and 12” thermoplastic yellow diagonal transverse channelization markings.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 332
L.M. 8.34 TO L.M. 8.77
KNOX COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 22
STATE ROUTE 332
L.M. 8.34 to
L.M. 8.77



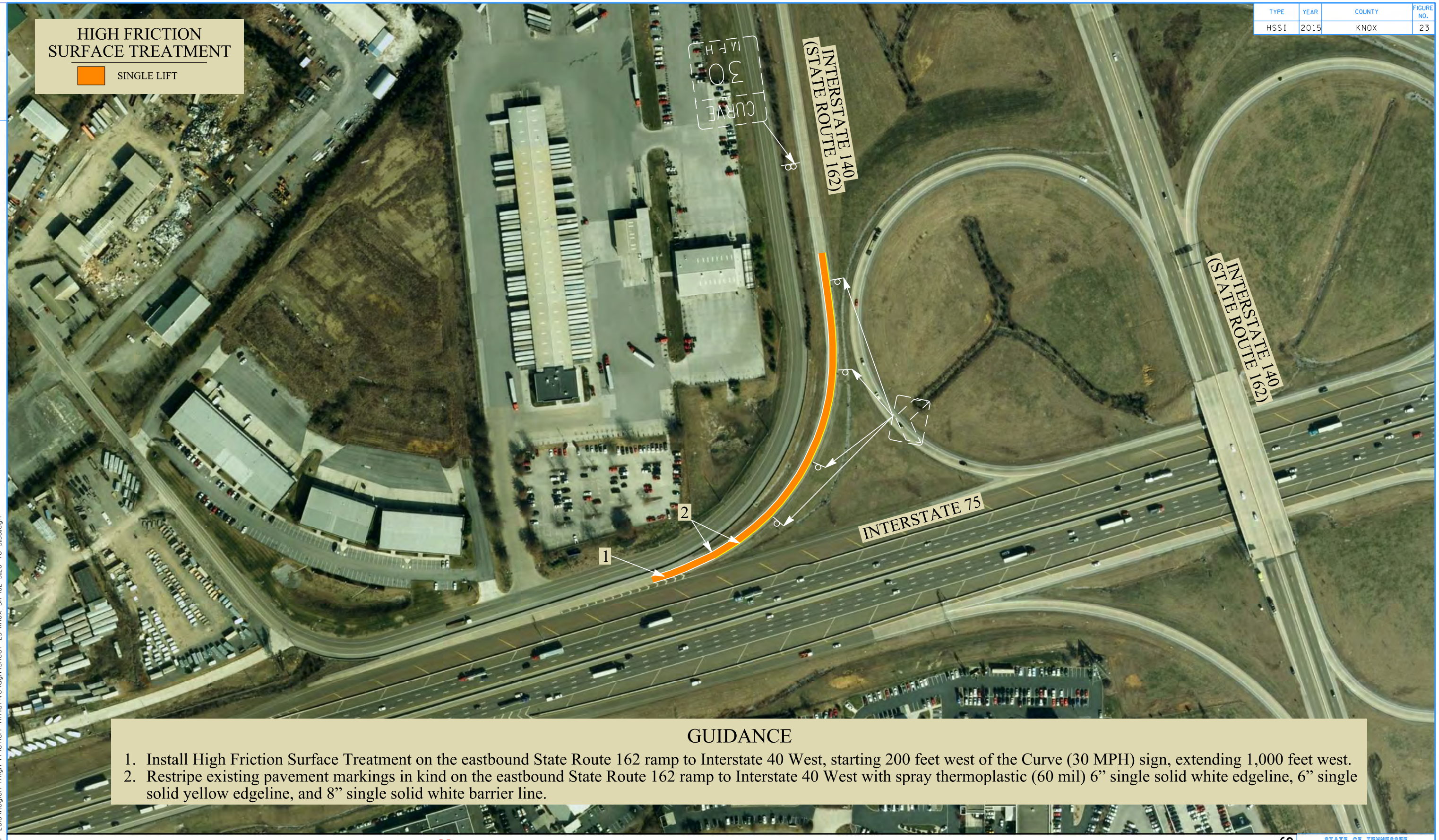
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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 23 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the eastbound State Route 162 ramp to Interstate 40 West, starting 200 feet west of the Curve (30 MPH) sign, extending 1,000 feet west.
2. Restripe existing pavement markings in kind on the eastbound State Route 162 ramp to Interstate 40 West with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier line.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 162
L.M. 5.20 TO L.M. 5.38
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 23
STATE ROUTE 162
L.M. 5.20 to L.M. 5.38

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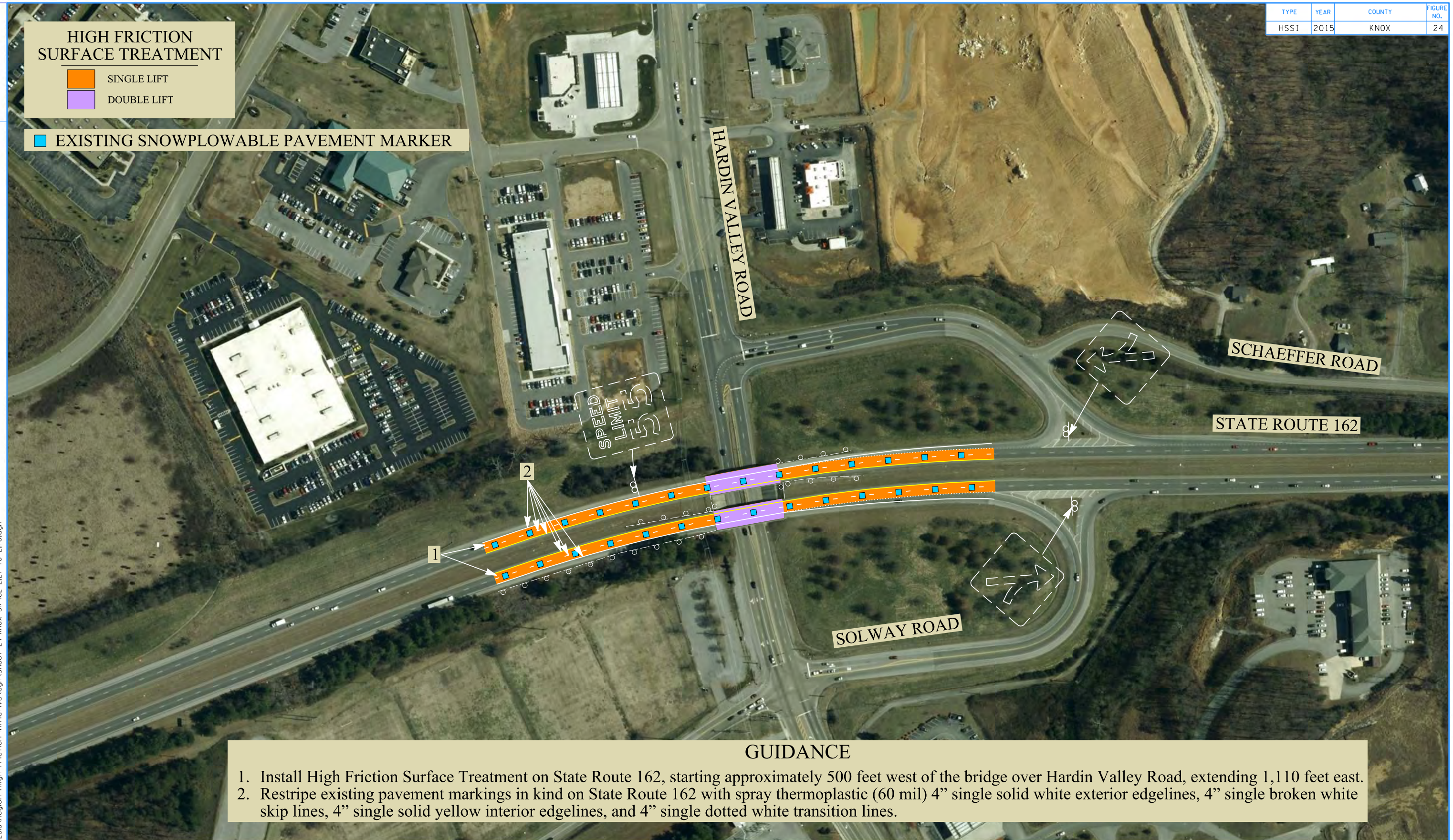
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 24 |

## HIGH FRICTION SURFACE TREATMENT

- SINGLE LIFT
- DOUBLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 162, starting approximately 500 feet west of the bridge over Hardin Valley Road, extending 1,110 feet east.
2. Restripe existing pavement markings in kind on State Route 162 with spray thermoplastic (60 mil) 4” single solid white exterior edgelines, 4” single broken white skip lines, 4” single solid yellow interior edgelines, and 4” single dotted white transition lines.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 162
L.M. 2.27 TO L.M. 2.70
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 24
STATE ROUTE 162
L.M. 2.27 to L.M. 2.70

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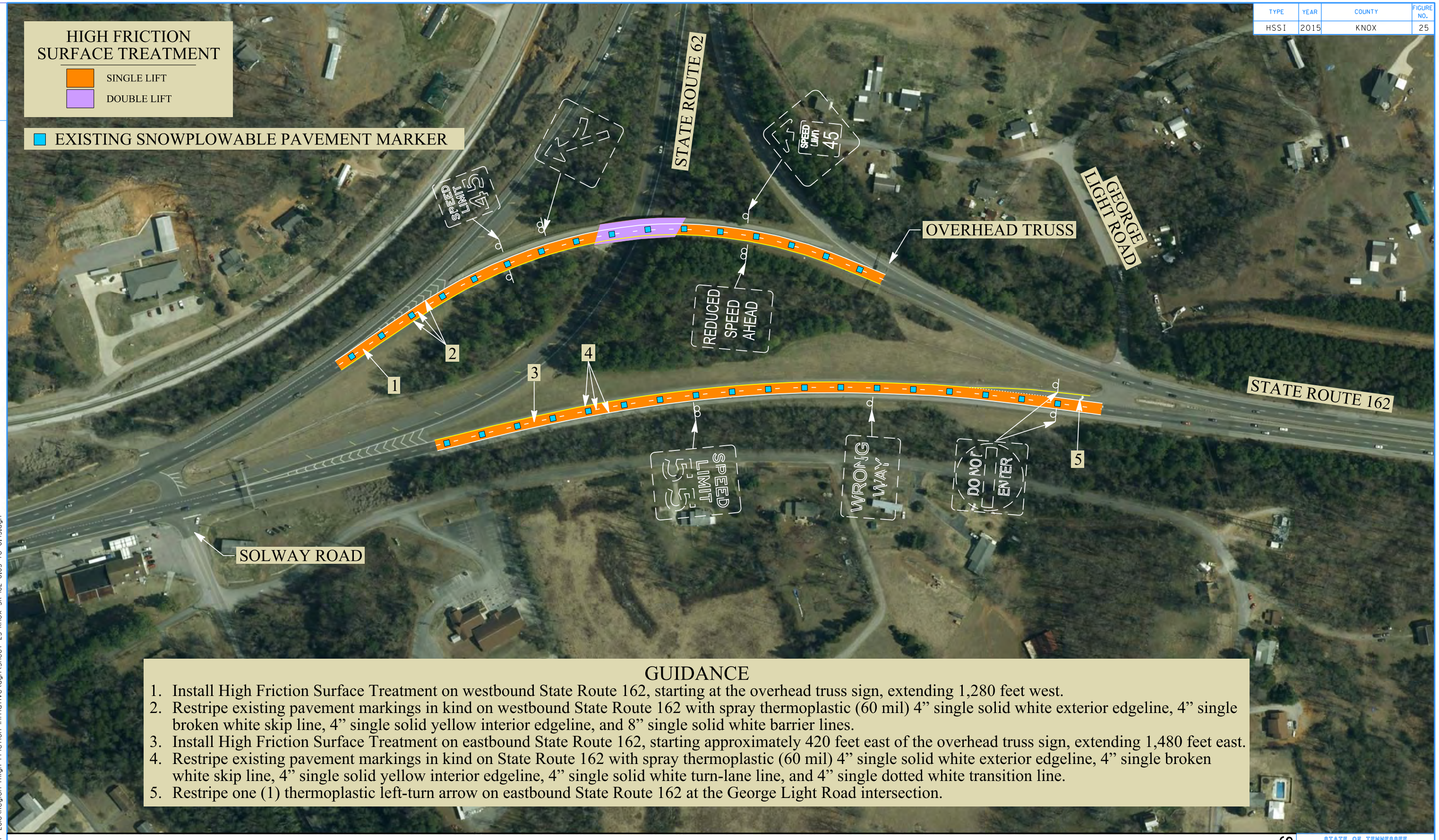
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 25 |

## HIGH FRICTION SURFACE TREATMENT

- SINGLE LIFT
- DOUBLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on westbound State Route 162, starting at the overhead truss sign, extending 1,280 feet west.
2. Restripe existing pavement markings in kind on westbound State Route 162 with spray thermoplastic (60 mil) 4” single solid white exterior edgeline, 4” single broken white skip line, 4” single solid yellow interior edgeline, and 8” single solid white barrier lines.
3. Install High Friction Surface Treatment on eastbound State Route 162, starting approximately 420 feet east of the overhead truss sign, extending 1,480 feet east.
4. Restripe existing pavement markings in kind on State Route 162 with spray thermoplastic (60 mil) 4” single solid white exterior edgeline, 4” single broken white skip line, 4” single solid yellow interior edgeline, 4” single solid white turn-lane line, and 4” single dotted white transition line.
5. Restripe one (1) thermoplastic left-turn arrow on eastbound State Route 162 at the George Light Road intersection.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 162
L.M. 0.05 TO L.M. 0.43
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 25
STATE ROUTE 162
L.M. 0.05 to L.M. 0.43

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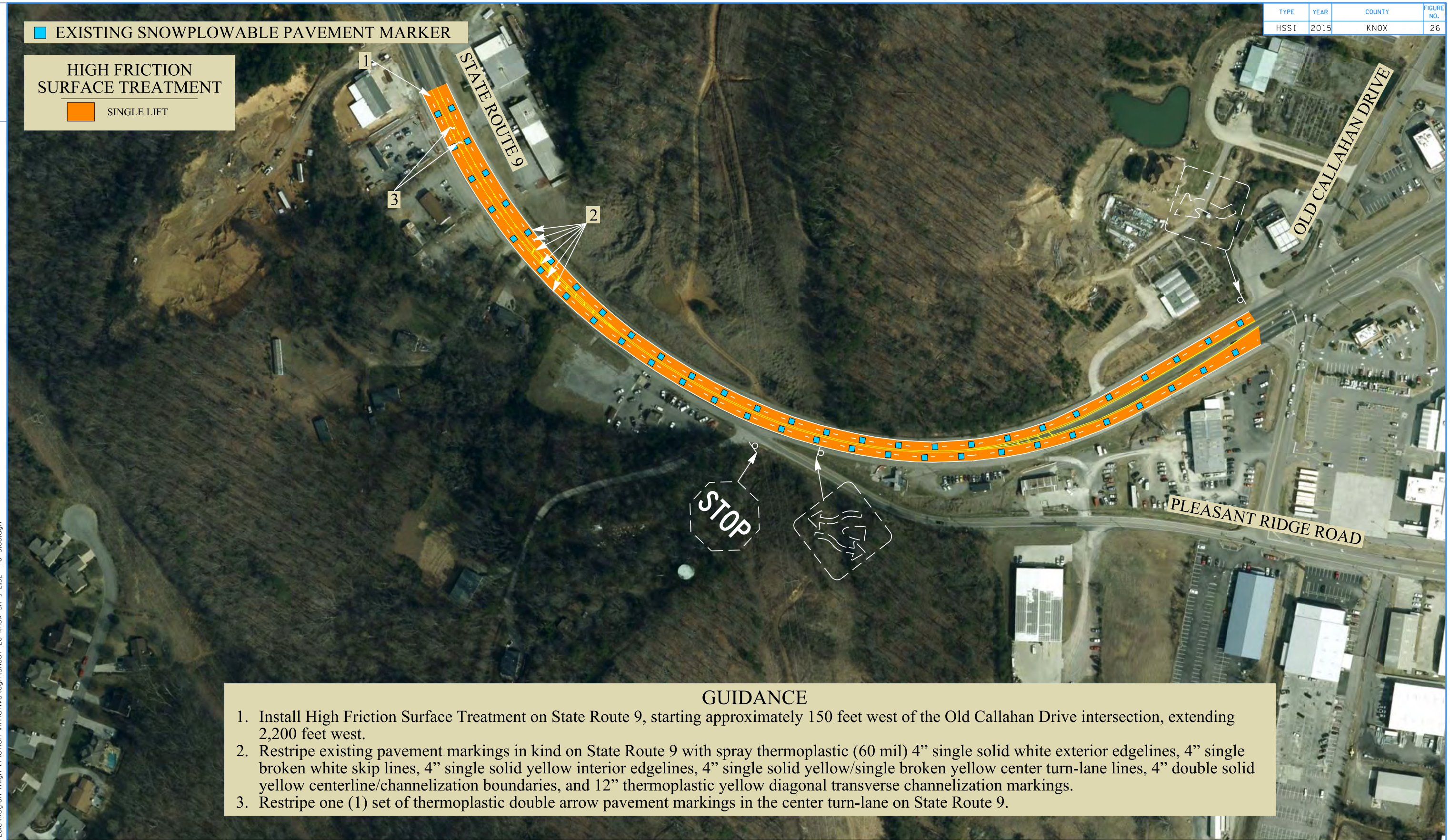
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 26 |

EXISTING SNOWPLOWABLE PAVEMENT MARKER

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 9, starting approximately 150 feet west of the Old Callahan Drive intersection, extending 2,200 feet west.
2. Restripe existing pavement markings in kind on State Route 9 with spray thermoplastic (60 mil) 4” single solid white exterior edgelines, 4” single broken white skip lines, 4” single solid yellow interior edgelines, 4” single solid yellow/single broken yellow center turn-lane lines, 4” double solid yellow centerline/channelization boundaries, and 12” thermoplastic yellow diagonal transverse channelization markings.
3. Restripe one (1) set of thermoplastic double arrow pavement markings in the center turn-lane on State Route 9.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 9
L.M. 2.52 TO L.M. 3.08
KNOX COUNTY

Sheet 53 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 26
STATE ROUTE 9
L.M. 2.52 to L.M. 3.08

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H:\409902\NPC Review\October 2016\Region 1\High Friction Initiative\dgn\Sheet 26 Knox SR 9 2.52 to 3.08.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 27 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 71, starting approximately 730 feet north of the East Raccoon Valley Road intersection, extending 1,250 feet south.
2. Restripe existing edgelines and centerline in kind on State Route 71 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 71
L.M. 13.54 TO L.M. 13.99
KNOX COUNTY



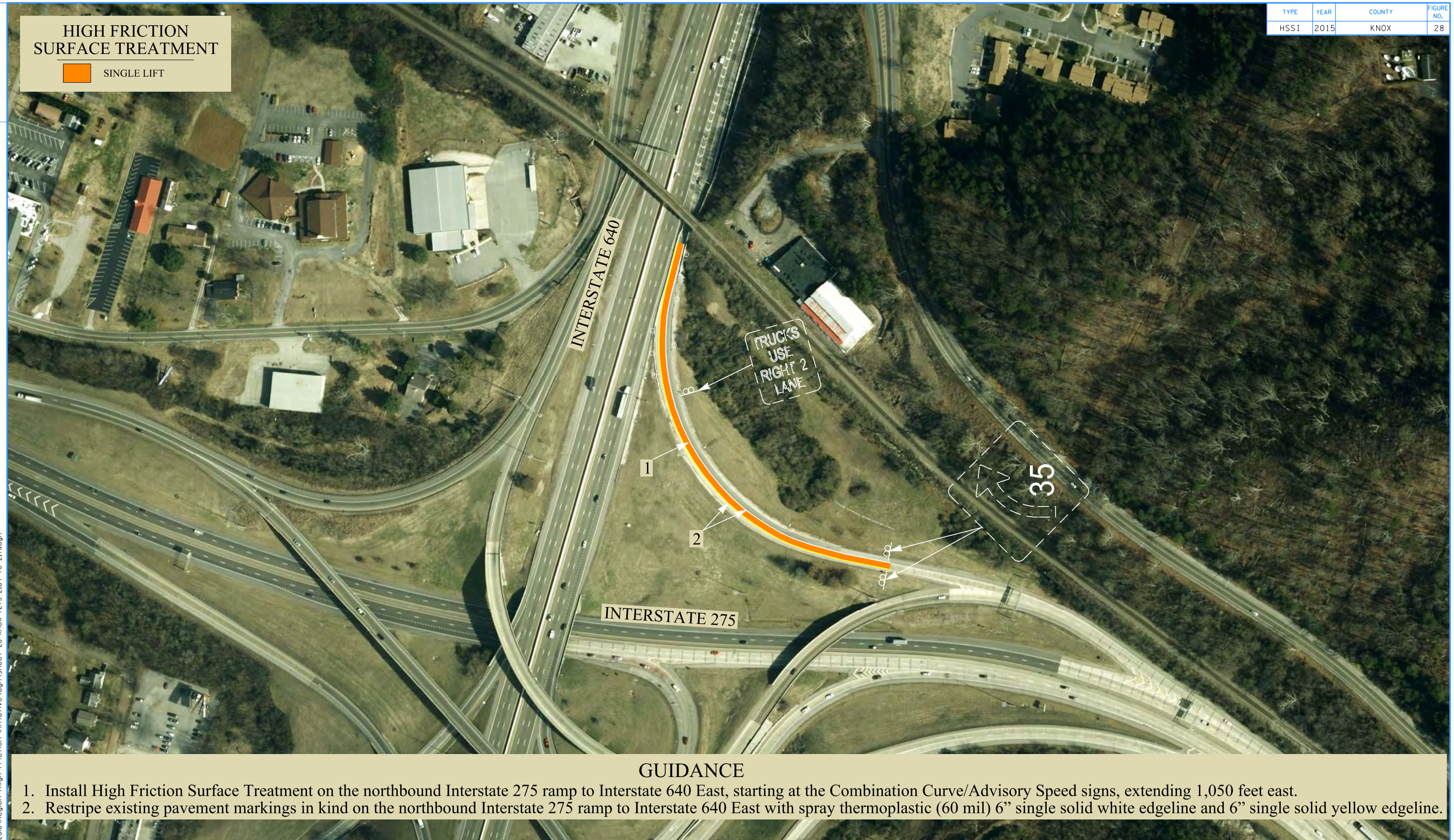
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 27
STATE ROUTE 71
L.M. 13.54 to L.M. 13.99

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 27 Knox SR 71l3.54 to l3.99.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | KNOX | 28 |




## GUIDANCE

1. Install High Friction Surface Treatment on the northbound Interstate 275 ramp to Interstate 640 East, starting at the Combination Curve/Advisory Speed signs, extending 1,050 feet east.
2. Restripe existing pavement markings in kind on the northbound Interstate 275 ramp to Interstate 640 East with spray thermoplastic (60 mil) 6” single solid white edgeline and 6” single solid yellow edgeline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 275
L.M. 2.64 TO L.M. 2.71
KNOX COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 28
INTERSTATE 275
L.M. 2.64 to
L.M. 2.71

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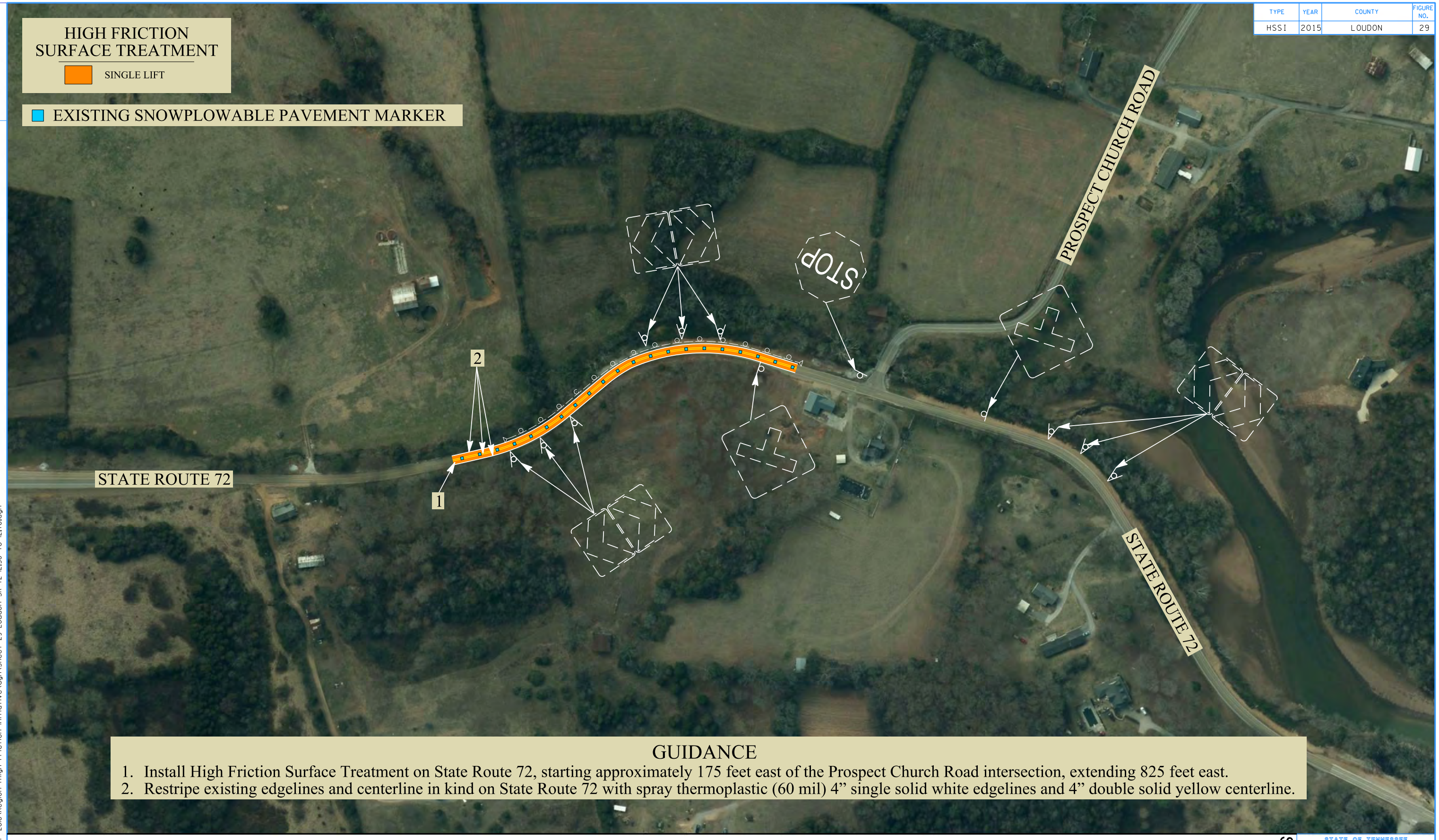
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | LOUDON | 29 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 72, starting approximately 175 feet east of the Prospect Church Road intersection, extending 825 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 72 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 72
L.M. 12.30 TO L.M. 12.70
LOUDON COUNTY

Sheet 56 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 29
STATE ROUTE 72
L.M. 12.30 to L.M. 12.70

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | MONROE | 30 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

## GUIDANCE

1. Install High Friction Surface Treatment on State Route 322, starting approximately 250 feet west of the Reed Springs Road Intersection, extending 350 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 332 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.




0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 322
L.M. 8.40 TO L.M. 8.74
MONROE COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 30
STATE ROUTE 322
L.M. 8.40 to L.M. 8.74

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H:\409902\NPC Review\October 2016\Region 1High Friction Initiative\dgn\Sheet 30 Monroe SR 322 8.40 to 8.74.dgn

TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SEVIER | 31 |

HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 35, starting approximately 530 feet east of the Old Zion Hill Road intersection, extending 1,720 feet east.
2. Restripe existing pavement markings in kind on State Route 35 with spray thermoplastic (60 mil) 4” single solid white edgelines, 4” single broken white skip lines, and 4” double solid yellow centerline.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 35
L.M. 7.84 TO L.M. 8.41
SEVIER COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 31
STATE ROUTE 35
L.M. 7.84 to L.M. 8.41

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 32 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the westbound State Route 93 ramp to State Route 36, starting at the Ramp/Advisory Speed sign, extending 780 feet toward southbound State Route 36 and to the Stop sign toward northbound State Route 36.
2. Restripe existing pavement markings in kind on the westbound State Route 93 ramp to State Route 36 with spray thermoplastic (60 mil) 4” single solid white edgeline, 4” single solid yellow edgeline, and 8” single solid white barrier line.
3. Restripe one (1) thermoplastic Wrong Way arrow and fourteen (14) feet of 24” thermoplastic stop line on the westbound State Route 93 ramp to State Route 36.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 93
L.M. 8.72 TO L.M. 9.31
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 32
STATE ROUTE 93
L.M. 8.72 to
L.M. 9.31

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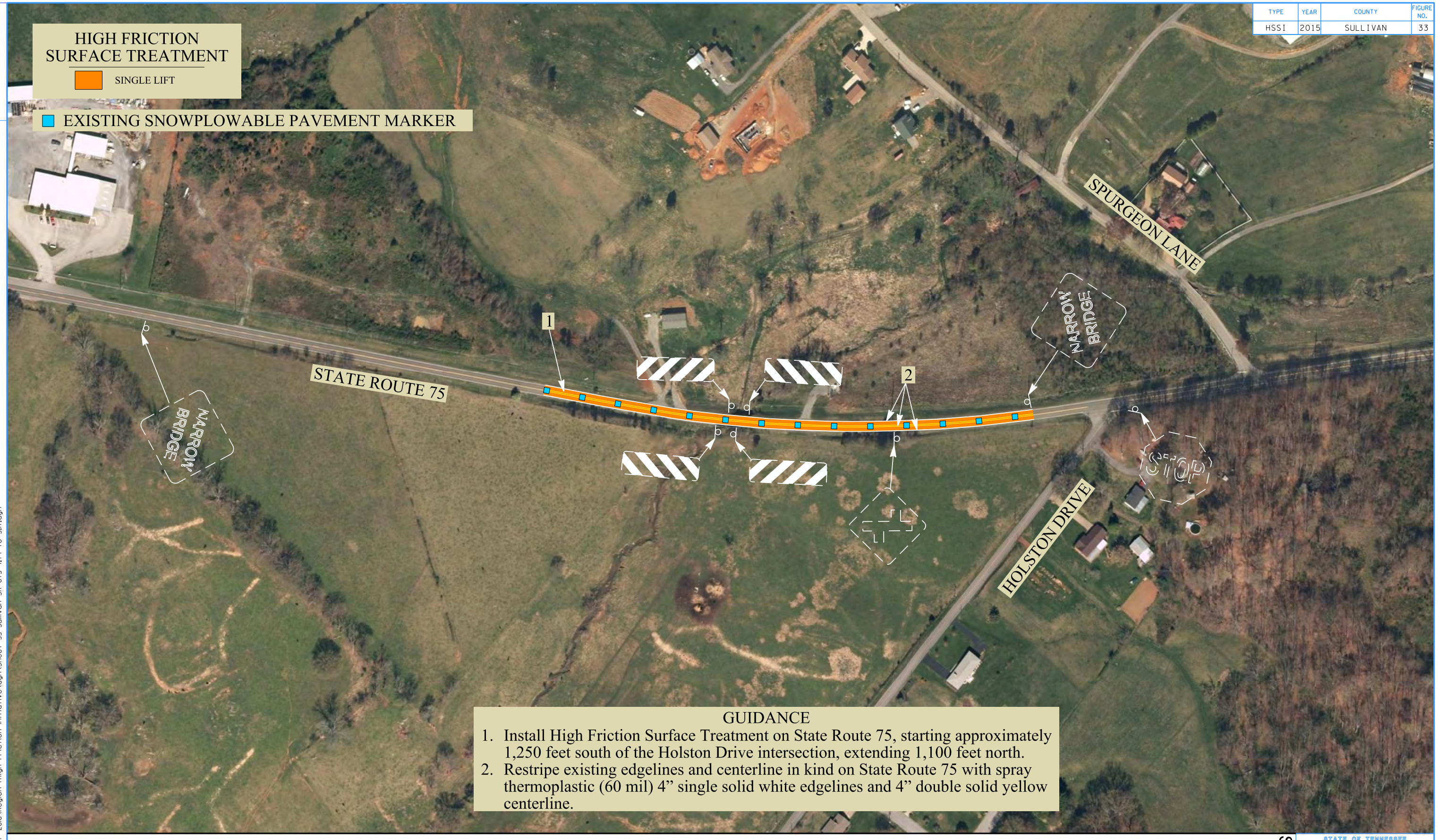
TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 33 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




### GUIDANCE

1. Install High Friction Surface Treatment on State Route 75, starting approximately 1,250 feet south of the Holston Drive intersection, extending 1,100 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 75 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 75
L.M. 4.74 TO L.M. 5.17
SULLIVAN COUNTY

Sheet 60 of 68

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 33
STATE ROUTE 75
L.M. 4.74 to L.M. 5.17

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 34 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the westbound State Route 1 ramp to Interstate 81 South, starting at the gore area, extending 830 feet.
2. Restripe existing pavement markings in kind on the westbound State Route 1 ramp to Interstate 81 South with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier lines.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 81
L.M. 20.95 TO L.M. 21.31
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 34
INTERSTATE 81
L.M. 20.95 to
L.M. 21.31

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 34A |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the southbound Interstate 81 ramp to eastbound State Route 1, starting approximately fifty (50) feet north of the Exit/Advisory Speed sign, extending 770 feet.
2. Restripe existing pavement markings in kind on the southbound Interstate 81 ramp to eastbound State Route 1 with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier lines.
3. Restripe one (1) thermoplastic Wrong Way arrow on the southbound Interstate 81 ramp to eastbound State Route 1.

0’ 200’ 400’ 600’

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 81
L.M. 20.95 TO L.M. 21.31
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 34A
INTERSTATE 81
L.M. 20.95 to
L.M. 21.31

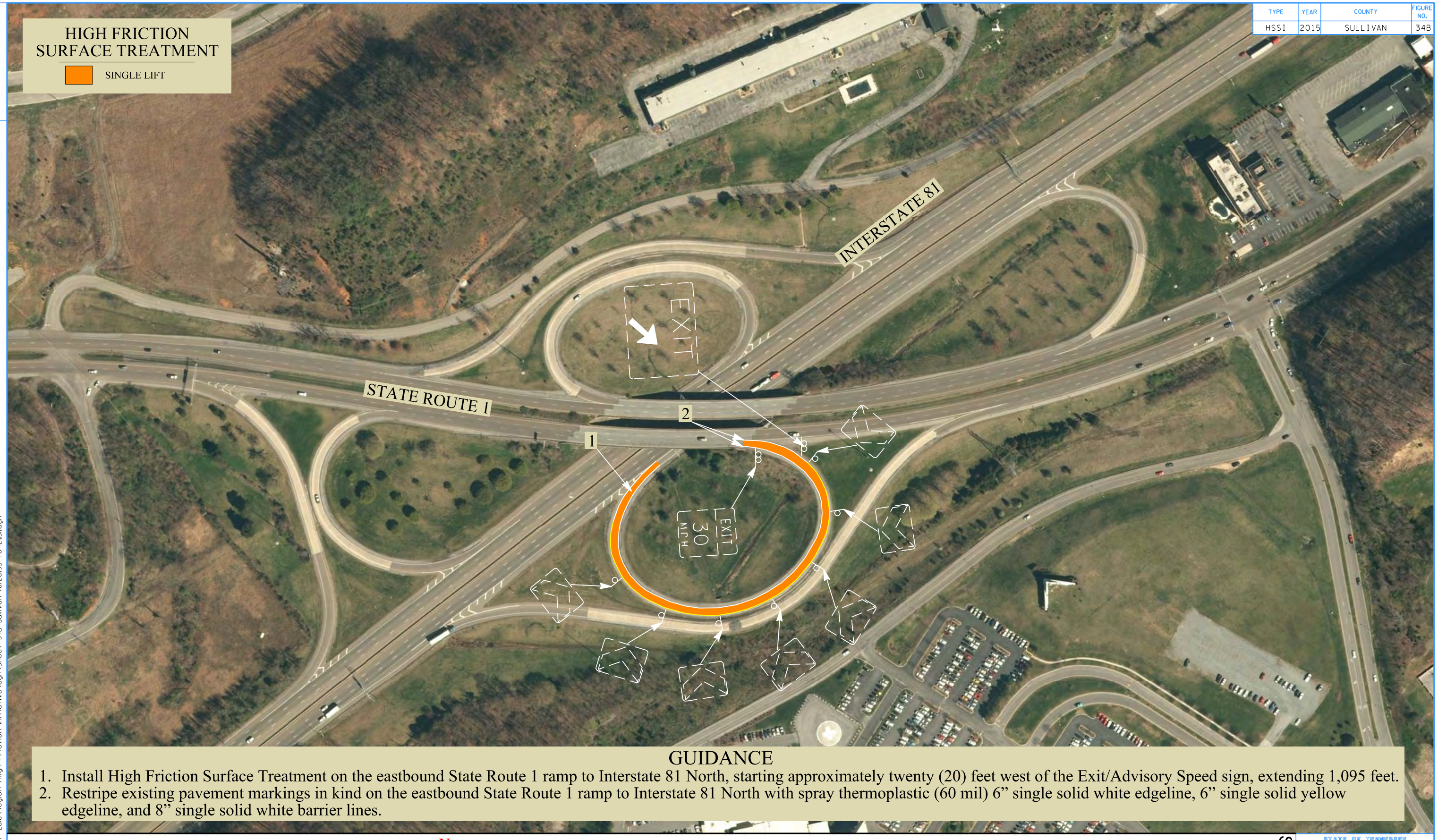
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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 34B |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the eastbound State Route 1 ramp to Interstate 81 North, starting approximately twenty (20) feet west of the Exit/Advisory Speed sign, extending 1,095 feet.
2. Restripe existing pavement markings in kind on the eastbound State Route 1 ramp to Interstate 81 North with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier lines.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 81
L.M. 20.95 TO L.M. 21.31
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 34B
INTERSTATE 81
L.M. 20.95 to
L.M. 21.31

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 34C |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on the northbound Interstate 81 ramp to westbound State Route 1, starting approximately thirty (30) feet south of the Exit/Advisory Speed sign, extending 565 feet.
2. Restripe existing pavement markings in kind on the northbound Interstate 81 ramp to westbound State Route 1 with spray thermoplastic (60 mil) 6” single solid white edgeline, 6” single solid yellow edgeline, and 8” single solid white barrier lines.
3. Restripe one (1) thermoplastic Wrong Way arrow on the northbound Interstate 81 ramp to westbound State Route 1.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

INTERSTATE 81
L.M. 20.95 TO L.M. 21.31
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 34C
INTERSTATE 81
L.M. 20.95 to L.M. 21.31

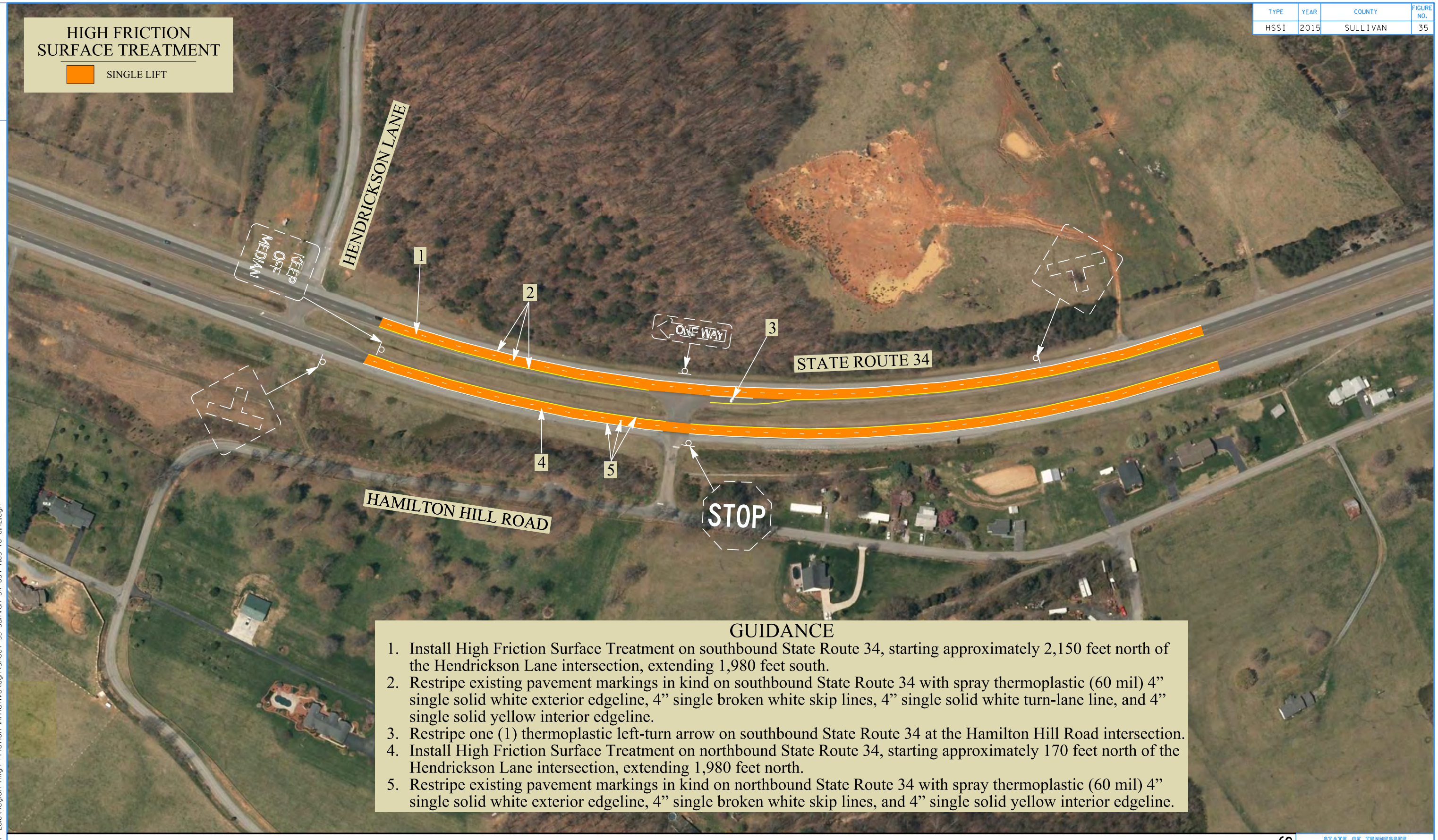
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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | SULLIVAN | 35 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on southbound State Route 34, starting approximately 2,150 feet north of the Hendrickson Lane intersection, extending 1,980 feet south.
2. Restripe existing pavement markings in kind on southbound State Route 34 with spray thermoplastic (60 mil) 4" single solid white exterior edgeline, 4" single broken white skip lines, 4" single solid white turn-lane line, and 4" single solid yellow interior edgeline.
3. Restripe one (1) thermoplastic left-turn arrow on southbound State Route 34 at the Hamilton Hill Road intersection.
4. Install High Friction Surface Treatment on northbound State Route 34, starting approximately 170 feet north of the Hendrickson Lane intersection, extending 1,980 feet north.
5. Restripe existing pavement markings in kind on northbound State Route 34 with spray thermoplastic (60 mil) 4" single solid white exterior edgeline, 4" single broken white skip lines, and 4" single solid yellow interior edgeline.

0' 200' 400' 600'

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 34
L.M. 7.83 TO L.M. 8.42
SULLIVAN COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 35
STATE ROUTE 34
L.M. 7.83 to
L.M. 8.42

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | WASHINGTON | 36 |

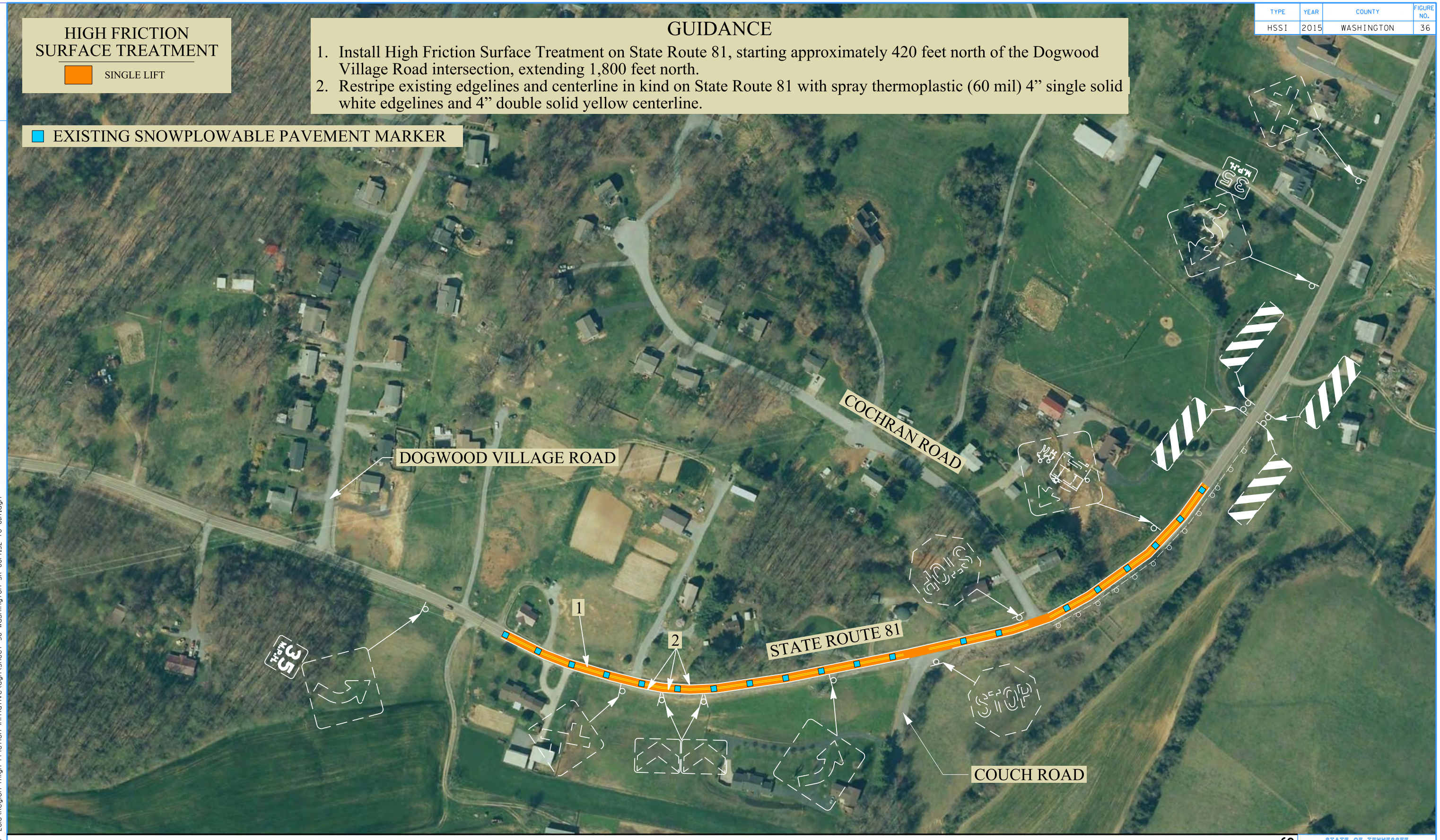
## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

## GUIDANCE

1. Install High Friction Surface Treatment on State Route 81, starting approximately 420 feet north of the Dogwood Village Road intersection, extending 1,800 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 81 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

EXISTING SNOWPLOWABLE PAVEMENT MARKER




0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 81
L.M. 7.52 TO L.M. 8.17
WASHINGTON COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 36
STATE ROUTE 81
L.M. 7.52 to L.M. 8.17

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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | WASHINGTON | 37 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT

EXISTING SNOWPLOWABLE PAVEMENT MARKER




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 81, starting approximately 900 feet south of the Bumpas Cove Road intersection, extending 1,550 feet north.
2. Restripe existing edgelines and centerline in kind on State Route 81 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 81
L.M. 1.86 TO L.M. 2.39
WASHINGTON COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION
INVESTMENTS DIVISION

FIGURE 37
STATE ROUTE 81
L.M. 1.86 to
L.M. 2.39



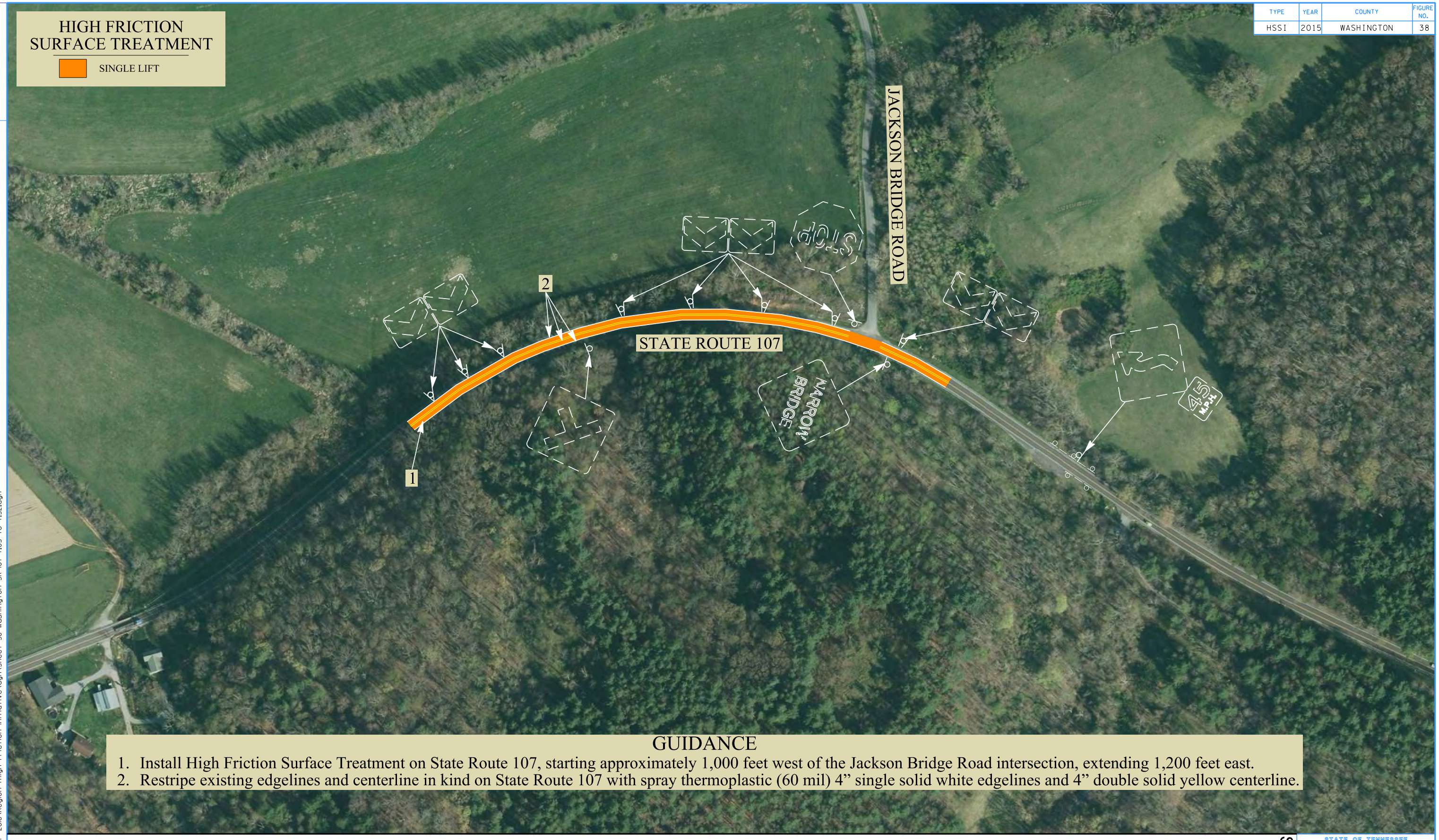
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TENNESSEE D.O.T.
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION
FILE NO.

| TYPE | YEAR | COUNTY | FIGURE NO. |
|---|---|---|---|
| HSSI | 2015 | WASHINGTON | 38 |

## HIGH FRICTION SURFACE TREATMENT

SINGLE LIFT




## GUIDANCE

1. Install High Friction Surface Treatment on State Route 107, starting approximately 1,000 feet west of the Jackson Bridge Road intersection, extending 1,200 feet east.
2. Restripe existing edgelines and centerline in kind on State Route 107 with spray thermoplastic (60 mil) 4” single solid white edgelines and 4” double solid yellow centerline.

0′ 200′ 400′ 600′

N

# HIGH-FRICTION SURFACE SAFETY INITIATIVE

STATE ROUTE 107
L.M. 7.05 TO L.M. 7.52
WASHINGTON COUNTY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

FIGURE 38
STATE ROUTE 107
L.M. 7.05 to
L.M. 7.52

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# Vendor 1 of 9: The Truesdell Corporation (0070049451)
# Call Order 004 (Proposal: CNQ314)

## Bid Information

**Proposal County:** CLAIBORNE
**Vendor Address:** 1310 W. 23rd Street
Tempe , AZ , 85282
**Signature Check:** Nancy_Mackowiak_0070049451
**Time Bid Received:** October 06, 2016 04:43 PM
**Amendment Count:** 0

**Bid Checksum:** 3C3BCFE5
**Bid Total:** $3,477,477.00
**Items Total:** $3,477,477.00
**Time Total:** $0.00

**Bidding Errors:**
None.

Contract ID: CNQ314 Project(s): HSIP-REG1(125)
Letting Date: 10-07-16 Call Order: 004

Bidder: 0070049451

Electronic Bid Bond Submitted and Verified?: Yes

By submitting a verified Electronic Bid Bond, the bidder accepts the terms of the State of Tennessee Department of Transportation Proposal Bond contained in the Proposal Contract.

| | |
|---|---|
| Bid Bond ID: | STN16346750 |
| Surety Registry Company: | Surety2000 |
| Bond Form: | TN DOT Bid Bond in Accordance with Proposal Contrac |
| Contract Number: | CNQ314 |
| Principal: | The Truesdell Corporation |
| Surety: | Fidelity and Deposit Company of Maryland |
| Bond Percentage: | 5 |
| Maximum Bond Amount: | |
| Executed by: | Jessika Gulliver |
| Execution Date: | 9/27/2016 4 |

Contract ID: CNQ314 Project(s): HSIP-REG1(125)
Letting Date: 10-07-16 Call Order: 004

Bidder: 0070049451

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars | Unit Price Cts | Bid Amount Dollars | Bid Amount Ct |
|---|---|---|---|---|---|---|
| Section 0001 ROADWAY | | | | | | |
| Alt Group | | | | | | |
| 0010 | 406-04.03 HIGH FRICTION SURFACE TREATMENT (SINGLE LIFT) | 159,100.000 S.Y. | 17.0000 | | 2,704,700.00 | |
| 0020 | 406-04.04 HIGH FRICTION SURFACE TREATMENT (DOUBLE LIFT) | 12,775.000 S.Y. | 31.0000 | | 396,025.00 | |
| 0030 | 712-01 TRAFFIC CONTROL | LUMP | LUMP | | 110,000.00 | |
| 0040 | 716-02.04 PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING) | 95.000 S.Y. | 26.0000 | | 2,470.00 | |
| 0050 | 716-02.05 PLASTIC PAVEMENT MARKING (STOP LINE) | 14.000 L.F. | 16.0000 | | 224.00 | |
| 0060 | 716-02.06 PLASTIC PAVEMENT MARKING (TURN LANE ARROW) | 13.000 EACH | 260.0000 | | 3,380.00 | |
| 0070 | 716-02.08 PLASTIC PAVEMENT MARKING (8" DOTTED LINE) | 275.000 L.F. | 4.0000 | | 1,100.00 | |
| 0080 | 716-03.01 PLASTIC WORD PAVEMENT MARKING (ONLY) | 2.000 EACH | 220.0000 | | 440.00 | |

Contract ID: CNQ314 Project(s): HSIP-REG1(125)
Letting Date: 10-07-16 Call Order: 004

Bidder: 0070049451

| Line No. | Item Description | Approx. Quantity and Units | Unit Price Dollars | Unit Price Cts | Bid Amount Dollars | Bid Amount Ct |
|---|---|---|---|---|---|---|
| 0090 | 716-04.06 PLASTIC PAVEMENT MARKING (WRONG WAY ARROW) | 3.000 EACH | 330.0000 | | 990.00 | |
| 0100 | 716-04.07 PLASTIC PAVEMENT MARKING (EXIT ONLY ARROW) | 6.000 EACH | 310.0000 | | 1,860.00 | |
| 0110 | 716-13.01 SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE) | 27.800 L.M. | 3,750.0000 | | 104,250.00 | |
| 0120 | 716-13.02 SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE) | 6.200 L.M. | 4,250.0000 | | 26,350.00 | |
| 0130 | 716-13.03 SPRAY THERMO PVMT MRKNG (60 mil) (8IN BARRIER LINE) | 4,350.000 L.F. | 2.1000 | | 9,135.00 | |
| 0140 | 716-13.04 SPRAY THERMO PVMT MRKNG (60 mil) (4IN DOTTED LINE) | 1,175.000 L.F. | 2.1000 | | 2,467.50 | |
| 0150 | 716-13.05 SPRAY THERMO PVMT MRKNG (60 mil) (6IN DOTTED LINE) | 1,675.000 L.F. | 3.1000 | | 5,192.50 | |
| 0160 | 717-01 MOBILIZATION | LUMP | LUMP | | 108,893.00 | |
| | Section 0001 Total | | | | 3,477,477.00 | |
| | Bid Total | | | | 3,477,477.00 | |

Contract ID: CNQ314 Project(s): HSIP-REG1(125)
Letting Date: 10-07-16 Call Order: 004

Bidder: 0070049451

1)ADDENDUM LETTER ACKNOWLEDGEMENT: All Addendum Letters will be posted on the Bid Express website. It is the bidder's responsibility to monitor the Bid Express website until 4:00 P.M. the day before the letting. The bidder WILL NOT be notified by the Department unless Addenda are issued after 4:00 P.M. the day before the letting. By signing this bid with a digital signature, the bidder acknowledges that any and all Addenda have been considered in this bid.

2)INTERNET BIDDING CERTIFICATION: By signing this bid with a digital signature, which is considered a valid binding signature, the bidder certifies to the below under penalty of perjury:

A)The Proposal to the Tennessee Department of Transportation, Nashville, Tennessee contained in the Contract Proposal

B)The Proposal Certification contained in the Contract Proposal

3)CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION: Where the prospective primary/lower tier participant is unable to certify to any of the statements in the Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary/Lower Tier Covered Transactions contained in the Proposal Contract, such prospective participant shall explain below:

CAD PLAN FILES DISCLAIMER AND LIMITATION OF LIABILITY AGREEMENT

By signing this bid with a digital signature, which is considered a valid and binding signature, the bidder accepts the terms and conditions below regarding the use of the CAD plan files posted on the TDOT Construction Division website:

The Tennessee Department of Transportation (TDOT) is committed to providing electronic access to files. TDOT does not possess a staff that is available to provide technical support to outside parties who receive CAD files. It is important, therefore, that all potential users of these files read the following disclaimer and accept its terms as prerequisite to the use of the files.

1.TDOT makes no warranty of any kind, express or implied, with respect to the file(s)subject to this agreement, and specifically makes no warranty that said file(s) shall be fit for any particular purpose. Furthermore, any description of said file(s) shall not be deemed to create an express warranty that such file(s) shall conform to said description.

2.Receiver assumes all risk and liability for any losses, damages, claims or expenses resulting from the use or possession of any file(s) furnished by TDOT pursuant to this agreement.

3.Receiver agrees to indemnify, defend and hold harmless TDOT, its officers, agents, and employees from and against any and all claims, suits, losses, damages and costs, including reasonable attorney's fees, arising from or by reason of receiver's use or possession with respect to any of the file(s) furnished by TDOT pursuant to this agreement, and such indemnification shall survive acceptance of said file(s) by receiver.

4.All design files are MicroStation drawing files (*.dgn). Receiver agrees that TDOT cannot provide the file(s) in other file formats and agrees to accept the files(s) in the format provided. Receiver agrees that TDOT cannot be held responsible for problems arising from files which have been converted for use in non-native applications (e.g. MicroStation design files to Autocad).

5.Since revisions or additions to the design file(s) may occur at any time, the receiver agrees to indemnify, defend and hold harmless TDOT, its officers, agents, and employees from and against any and all claims, suits, losses, damages or costs, including reasonable attorney's fees, arising from the use of outdated design files, and such indemnification shall survive acceptance of said file(s) by receiver.

6.The design file(s) are copyrighted by the Tennessee Department of Transportation and may not be resold.

7.These terms and conditions constitute the complete and final agreement of the parties hereto.

**PROPOSAL**

**TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION**

**NASHVILLE, TENNESSEE**

By submitting this Proposal, the undersigned bidder represents that it has carefully examined the site of the work described herein, has become familiar with local conditions and the character and extent of the work; has carefully examined the Plans, the *Standard Specifications for Road and Bridge Construction* (January 1, 2015) adopted by the State of Tennessee, Department of Transportation, with subsequent revisions which are acknowledged to be a part of this Proposal, the Special Provisions, the Proposal Form, the Form of Contract, and the Form of Contract Payment and Performance Bond (or the Form of Contract Performance Irrevocable Letter of Credit, for mowing contracts); and thoroughly understands their stipulations, requirements, and provisions.

The undersigned bidder has determined the quality and quantity of materials required; has investigated the location and determined the sources of supply of the materials required; has investigated labor conditions; and, has arranged for the continuous prosecution of the work herein described.

By submitting this Proposal, the undersigned bidder agrees to provide all necessary equipment, tools, labor, incidentals, and other means of construction, to do all the work, and furnish all the materials of the specified requirements which are necessary to complete the work in accordance with the Plans, and the Specifications, and agrees to accept as payment in full therefor the unit prices for the various items described in the Specifications that are set forth in this Proposal. The bidder understands that the quantities of work specified are approximate only and are subject to increase or decrease and that any such increase or decrease will not affect the unit prices set forth in this Proposal. Compensation for "extra work" which may be required by the Department in connection with the construction and completion of the work but which was not reflected in the Plans and Specifications at the time of bidding, will be made in the following manner: work for which there is a unit price set forth in this Proposal will be compensated at that unit price; work for which there is no unit price set forth in this Proposal will be compensated in accordance with the applicable Standard Specifications.

By submitting this Proposal, the parties hereto, in the performance of this Contract, shall not act as employees, partners, joint ventures, or associates of one another. It is expressly acknowledged by the parties hereto that such parties are independent contracting entities and that nothing in this Contract shall be construed to create an employer/employee relationship or to allow either to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual services. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever.

By submitting this Proposal, the undersigned bidder, if awarded the contract, agrees that it will be responsible for compliance with the Patient Protection and Affordable Care Act ("PPACA") with respect to itself and its employees, including any obligation to report health insurance coverage, provide health insurance coverage, or pay any financial assessment, tax, or penalty for not providing health insurance. The Contractor shall indemnify the State and hold it harmless for any costs to the State arising from Contractor's failure to fulfill its PPACA responsibilities for itself or its employees.

By submitting this Proposal, the undersigned bidder, if awarded the contract, shall be registered with the Department of Revenue for the collection of Tennessee sales and use tax or provide confirmation from the Department of Revenue that the bidder is not required to register for the Tennessee sales and use tax. This registration requirement is a material requirement of this Contract.

By submitting this Proposal, the undersigned bidder hereby agrees to be bound by the award of the Contract and, if awarded the Contract on this Proposal, to execute the required Contract and the required Contract Payment and Performance Bond (or Contract Payment and Performance Irrevocable Letter of Credit, for mowing contracts only) within ten days after receipt of notice of the award. The undersigned bidder submits herewith the required Proposal guaranty (or Proposal Irrevocable Letter of Credit, for mowing contracts only) in an amount of not less than five per cent of the total amount of the Proposal offered and agrees and consents that the Proposal guaranty (or Proposal Irrevocable Letter of Credit) shall immediately be at the disposal of the Department, not as a penalty, but as an agreed liquidated damage if the required Contract and Contract Payment and Performance Bond (or Irrevocable Letter of Credit ) are not executed within ten days from receipt of the notice of award.

THIS PROPOSAL SUBMITTED BY:

_____
Bidder (1)

By: _____

_____
Printed Name and Title

_____
Address

_____
City/State/Zip

Bidder (1) being a _____composed of officers, partners, or owners as follows:
(Type of business entity)

_____ _____
Name/Title Name/Title

_____ _____
Name/Title Name/Title

_____ _____
Name/Title Name/Title

- - - -

## PROPOSAL CERTIFICATION

The undersigned, being first duly sworn, certifies on behalf of the bidder that it has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal or Contract. This is an official document that is required or authorized by law to be made under oath and is presented in an official proceeding. A person who makes a false statement in this certification is subject to the penalties of perjury.

The undersigned further certifies that said bidder is not under the control of any person, firm, partnership, or corporation, which has or exercises any control of any other person, firm, partnership, or corporation, which is submitting a bid on this Contract.

_____ Sworn to and subscribed before me
Bidder (1)

this _____ day of _____, _____.

By: _____

_____ _____
Printed Name and Title Notary Public

My commission expires_____.

(Seal)

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

_____ Sworn to and subscribed before me
Bidder (2)

this _____ day of _____, _____.

By: _____

_____ _____
Printed Name and Title Notary Public

My commission expires_____.

(Seal)

***NOTE: The signature and information for Bidder (2) is to be provided when there is a joint venture.**

**STATE OF TENNESSEE**

**DEPARTMENT OF TRANSPORTATION**

**PROPOSAL GUARANTY BOND**

**CONTRACT NO. _____**

Principal: _____
Print Name of Principal

Surety: _____
Print Name of Surety

**KNOW ALL MEN BY THESE PRESENTS**, that we, the Principal and Surety above named, are held and firmly bound unto the Department of Transportation in the full and just sum of five (5) percent of the total amount bid by the Principal for the project stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

**NOW, THEREFORE**, the condition of this obligation is: the Principal shall not withdraw its bid within sixty (60) days after the opening of the bids, or within such other time period as may be provided in the Proposal, and if the Department of Transportation shall award a Contract to the Principal, the Principal shall, within ten (10) days after written notice of the award is received by him, fully execute a Contract on the basis of the terms, conditions and unit prices set forth in his Proposal or bid and provide bonds (or Irrevocable Letter of Credit, for mowing contracts) with good and sufficient surety, as required for the faithful performance of the Contract and for the protection of all persons supplying labor, material, and equipment for the prosecution of the work. In the event the Principal withdraws its bid after bids are opened, or after award of the Contract has been made fails to execute such the Contract and/or such additional documents as may be required and to provide the required bonds (or Irrevocable Letter of Credit, for mowing contracts) within the time period specified above, then the amount of the Proposal Bond shall be immediately paid to the Department of Transportation, not as a penalty, but as agreed upon liquidated damages.

**IN WITNESS WHEREOF**, the Principal has caused these presents to be signed by a duly authorized official and the Surety has caused these presents to be duly signed and sealed by an authorized agent or attorney-in-fact.

| | |
|---|---|
| _____ | _____ |
| Principal (1) | Surety (1) |
| By: _____ | By: _____ |
| | General Agent or Attorney-in-Fact |
| _____ | _____ |
| Print Name and Title | Date |
| _____ | (Seal) |
| Date | |

- - - -

**STATE OF TENNESSEE**

**DEPARTMENT OF TRANSPORTATION**

**PROPOSAL GUARANTEE**

**CONTRACT NO. _____**

Bidder: _____
Print Name of Bidder

**KNOW ALL MEN BY THESE PRESENTS**, that the above-named Bidder has tendered the attached cashier's or certified check in an amount equal to five (5) percent of the total amount it bid for the project stated above, payable to the State of Tennessee, Department of Transportation, to be held pending the fulfillment of the following obligation conditions.

**NOW, THEREFORE**, the condition of this obligation is: the Bidder shall not withdraw its bid within sixty (60) days after the opening of the bids, or within such other time period as may be provided in the Proposal, and if the Department of Transportation shall award a Contract to the Bidder, the Bidder shall, within ten (10) days after it receives written notice of the award, fully execute a Contract on the basis of the terms, conditions and unit prices set forth in its Proposal or bid and provide bonds with good and sufficient surety (or Contract Performance Irrevocable Letter of Credit, for mowing contracts), as required for the faithful performance of the Contract and for the protection of all persons supplying labor, material, and equipment for the prosecution of the work. In the event the Bidder withdraws its bid after bids are opened, or after award of the Contract has been made fails to execute such the Contract and/or such additional documents as may be required and to provide the required bonds (or Irrevocable Letter of Credit) within the time period specified above, then the Department of Transportation shall cash the attached check and retain the funds, not as a penalty, but as agreed upon liquidated damages.

**IN WITNESS WHEREOF**, the Bidder has caused these presents to be signed by a duly authorized official.

| | |
|---|---|
| _____ | _____ |
| Bidder (1) | Bidder (2)* |
| By:_____ | By:_____ |
| _____ | _____ |
| Print Name and Title | Print Name and Title |
| _____ | _____ |
| Date | Date |

***NOTE: The signature and information for Bidder(2) is to be provided when there is a joint venture.**

**TENNESSEE DEPARTMENT OF TRANSPORTATION**

**CONTRACT NO. CNQ314**

This agreement is made and executed in three (3) originals, between the State of Tennessee, Department of Transportation, hereinafter referred to as the "Department" and

**The Truesdell Corporation**

hereinafter referred to as the "Contractor."

**WITNESSETH**

The Department did advertise for, receive and accept a bid from the Contractor for work on the above identified contract.

In consideration of the agreements herein contained, to be performed by the parties hereto and of the payments hereafter agreed to be made, it is mutually agreed by both parties that:

1. The contract between the parties consists of the following "Contract Documents" all of which constitute one instrument:
   (a) the Instructions to Bidders
   (b) the Proposal
   (c) all conditions and terms of this Contract form
   (d) the Contract Payment & Performance Bond and (or Irrevocable Letter of Credit, for mowing contracts)
   (e) the *Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction*, January 1, 2015 Edition (hereinafter referred to as the "2015 Standard Specifications")
   (f) Supplemental Specifications
   (g) Revisions and Additions
   (h) Special Provisions
   (i) Addenda
   (j) The Tennessee Department of Transportation Standard Drawings
   (k) The Contract Plans
   (l) The Work Order
   (m) Construction Changes
   (n) Supplemental Agreements

   All of the provisions contained in the listed Contract Documents are incorporated herein by reference with the same force and effect as though set out in full.

2. The Contract Documents are intended to be complementary and to describe and provide for a complete work. Requirements in one of these are as binding as if occurring in all of them. In case of discrepancy, Supplemental Specifications will govern over the 2015 Standard Specifications; the Contract Plans will govern over both Supplemental and Standard Specifications, and Special Provisions will govern over both Plans and Specifications. In interpreting Plans, calculated dimensions will govern over scaled dimensions. Contract Plans, typical cross sections and approved working drawings will govern over Standard Drawings.

3. The Contractor agrees to furnish all materials, equipment, machinery, tools and labor and to perform the work required to complete the project in a thorough and workmanlike manner, to the satisfaction of the appropriate official of the Department.

4. The Department agrees to pay to the Contractor such unit prices for the work actually done as are set out in the accompanying proposal, in the manner provided for in the 2015 Standard Specifications, Supplemental Specifications and applicable Special Provisions.

5. The Contractor shall, at all times, observe and comply with all applicable federal, state and local laws, ordinances and regulations and shall indemnify and hold harmless the State of Tennessee and all of its officers, agents and servants against any claim of liability or assessment of fines or penalties arising from or based upon the Contractor's and/or its employees' violations of any such law ordinance or regulation. The Contractor shall maintain documentation for all charges against the State under this Contract. The books, records and documents of the Contractor insofar as they relate to the work performed or money received under this contract shall be maintained for a period of three (3) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice by the State, the Comptroller of the Treasury, or their duly appointed representatives.

6. The Contractor shall be responsible for any and all injury or damage to persons or to property arising from the prosecution of the work and due to any act, omission, neglect or misconduct in its manner or method of prosecuting the work or due to its non-execution of the work or due to defective work or materials. The Contractor shall provide proof of adequate and appropriate general liability insurance providing liability coverage in an amount not less than $1 million dollars per occurrence and $300,000 per claimant, naming the State of Tennessee as an additional insured.

7. The Contractor shall indemnify and hold harmless the State, the Department and all of its officers, agents and employees from all suits, actions or claims of any character arising from the Contractor's acts or omissions in the prosecution of the work, use of unacceptable materials in constructing the work, infringement of patent, trade mark or copyright, or claims for Workers' Compensation. If any such suit, action or claim is filed, the Department may retain from the monies due to the Contractor under this Contract a sum deemed sufficient by the Department to protect the Department from loss therefrom. Upon resolution of the suit, action or claim, any remaining retained funds will be released.

8. Upon execution of this Contract, the Contractor shall be prepared to begin the work to be performed under the Contract, but will not proceed until it has received official "Notice to Proceed". This official notice will stipulate the date upon which it is expected that the Contractor will begin his work, and from which date the working days tabulated against its time limit will begin. All other requirements in regard to the beginning of construction set forth in the Proposal and Special Provisions will date from the official notice.

**IN WITNESS WHEREOF**, the parties hereto have caused this Contract to be signed and executed by their respective authorized agents or officials.

| **The Truesdell Corporation** | |
|---|---|
| Contractor 1 | Contractor 2* |
| By: _____ | By: _____ |
| _____ | _____ |
| Printed Name and Title | Printed Name and Title |
| _____ | _____ |
| Date | Date |

**STATE OF TENNESSEE**

**DEPARTMENT OF TRANSPORTATION**

This Contract is accepted this _____ day of _____, _____,

and is effective on the _____ day of _____, _____.

_____
Commissioner

Approved:

_____
Department Attorney

***NOTE: The signature and information for Contractor 2 is to be provided when there is a joint venture.**

**CONTRACT PAYMENT AND PERFORMANCE BOND**

**CONTRACT NO. CNQ314**

Be it known that **The Truesdell Corporation** ,

as Principal, and_____,
as Surety(ies), all authorized to do business in the State of Tennessee, hereby bind themselves to the State of Tennessee, Department of Transportation, and other potential claimants, for all obligations incurred by the Principal under its contract with the State of Tennessee, Department of Transportation, for the construction of the above identified contract; in the full contract amount of **Three Million, Four Hundred Seventy-Seven Thousand, Four Hundred Seventy-Seven and 00/100** ($ **3,477,477.00** ).

The obligations of the Principal and Surety(ies) under these payment and performance bonds shall continue in full force and effect until all materials, equipment and labor have been provided AND all requirements contained in the contract, plans and specifications have been completed in a timely, thorough and workmanlike manner. The parties agree that these bonds are statutory in nature and are governed by the provisions contained in Title 12, chapter 4 and Title 54, chapter 5 of the Tennessee Code Annotated relating to bonds required of contractors and that those provisions constitute a part of this bond.

By this instrument, the Principal and Surety(ies) specifically bind themselves, their heirs, successors, and assigns, *in solido*, under the following bonds:

**Payment Bond**. To the Tennessee Department of Transportation and all "Claimants," as contemplated by T.C.A. Title 54, chapter 5, in the full contract amount of **Three Million, Four Hundred Seventy-Seven Thousand, Four Hundred Seventy-Seven and 00/100** ($ **3,477,477.00** ), in order to secure the payment in full of all timely claims under the project.

**Performance Bond.** To the Tennessee Department of Transportation in the full contract amount of **Three Million, Four Hundred Seventy-Seven Thousand, Four Hundred Seventy-Seven and 00/100** ($ **3,477,477.00** ), in order to secure the full and faithful performance and timely completion of the project according to its plans and specifications, inclusive of overpayments to the contractor and liquidated damages as assessed.

Upon receipt of notice that the Principal is in default under the contract, the Surety(ies) shall undertake to complete performance, without regard to cost. If the Surety(ies) fail or refuse to complete performance of the contract, the Department may then proceed with the work in any lawful manner that it may elect until it is finally completed. When the work is thus finally completed, the total cost of the same will be computed. All costs and charges incurred by the Department in completing the Work will be deducted from any monies due or which may become due to the Principal. If the total costs of completion exceeds the sum

which would have been payable under the Contract, then the Principal and the Surety(ies), *in solido*, shall be liable for and shall pay to the Department the amount of such excess.

***In witness whereof we have signed this instrument as dated.***

**Principal/Contractor 1 The Truesdell Corporation**

By: _____ Date _____

_____
Printed Name and Title

**(For Joint Venture)**
**Principal/Contractor 2** _____

By: _____ Date _____

_____
Printed Name and Title

**Surety 1**_____

By: _____
Attorney-in-Fact

_____
Printed Name

_____
Agency Name

_____
Street Address

_____
City/State/Zip

(Seal)

**Surety 2**_____

By: _____
Attorney-in-Fact

_____
Printed Name

_____
Agency Name

_____
Street Address

_____
City/State/Zip

(Seal)

Subsequent correspondence/communication from TDOT with respect to monthly progress reports and/or the contract bonds should be directed to:

| **For Surety 1:** | **For Surety 2:** |
|---|---|
| _____ | _____ |
| Name | Name |
| _____ | _____ |
| Address | Address |
| _____ | _____ |
| City | City |
| _____ | _____ |
| State/Zip | State/Zip |
| _____ | _____ |
| Phone Number | Phone Number |
| _____ | _____ |
| Fax Number | Fax Number |